

INNOVATIONS
MASTER CATALOG

TOOLING SYSTEMS
2013



www.kennametal.com

 **KENNAMETAL®**

GENERAL ENGINEERING


TRANSPORTATION



AEROSPACE & DEFENSE

EARTHWORKS

ENERGY



Since its inception in 1938, Kennametal has understood precisely how to improve manufacturing performance and profitability — by introducing unparalleled products and services to reduce operating costs and lead times.

These 1500+ pages bring you the latest tooling systems products and superior services — all specifically engineered to enhance overall productivity, even in the most challenging metalworking applications. Rely on Kennametal to significantly boost manufacturing competitiveness. To learn more, contact your Kennametal Representative or Authorized Kennametal Distributor.

Visit us at www.kennametal.com.

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Less Environmental Impact

To learn more about our sustainable solutions for your industry, please contact your Kennametal Representative or Authorized Kennametal Distributor, or visit www.kennametal.com.

Environment

Kennametal's intimate understanding of the energy marketplace — including customer processes and applications — allows us to proactively address production and sustainability concerns with solutions tailored to your needs. We deliver superior value because we listen closely to you, our customer, and innovate based on your feedback. Our goal is to help you be more competitive — both at home and on a global scale.



Best Practices in Productivity

As your trusted partner for optimized production, Kennametal offers customers a unique commitment to research and development excellence, continually delivering highly innovative ways to enhance productivity. Certification to ISO 9001, QS 9000 TES, and VDA 6.4 provides the highest possible quality standards.

Best Performance, Less Environmental Impact

With technology, we can do both. Kennametal helps customers focus on the root causes of unsustainable behavior in highly complex manufacturing systems, while at the same time improving cost structure, quality, and performance. In addition to offering the latest in metalcutting tools and technology, our Advanced Engineering team will analyze your existing production processes and help identify new methods to improve your overall performance.

Kennametal Innovations Master Cutting Tools 2013 Catalog

The comprehensive, 2,000+ page Kennametal Innovations Master 2013 Catalog includes all our standard milling, holemaking, and turning products. By compiling our full metalworking portfolio together, and including new application guidelines, tool selectors, and technical information, Kennametal addresses key industry segments and the services that support that vision.

We Had the Environment in Mind

By combining the contents of four catalogs into one, we were able to identify overlaps and make the most of the pages we printed. In doing so, we reduced our overall page count by 25%.





2,000+ pages of Kennametal's best tooling — all in one book!
See complete Rotating and Stationary tooling in our new **Master 2013 catalog!**
Download the INCH or METRIC version from www.kennametal.com, or request a printed copy!

Tooling Systems

Product Highlights

KM4X™ • The New Choice for Heavy-Duty Milling

KM4X is the latest version of the KM™ spindle interface targeted at heavy-duty machining operations and is a top choice for machining large, structural, tough-to-machine materials, like titanium, for the aerospace industry. The portfolio consists of rotating adapters and static tooling to support the tough and heavy machining markets. Additional products include spindle component packages as well as static clamping units to support turning and mill-turn opportunities.



To learn more, [scan here](#).

For instructions on how to scan, please see page xxxiii.



KM™ Quick Change

KM Quick Change Tooling is a central component in achieving dramatic improvement in machine and cutting tool use. It's the choice of manufacturers requiring maximum machine output. The necessary tasks of changing, setting up, and gaging tools create an excess of machine downtime. For small batch manufacturing operations requiring these frequent setups, KM Quick Change Tooling is the most efficient method for reducing lost time and improving the overall quality of the machining process by generating greater productivity and increasing profits.



HSK Shank Tools

ERICKSON™ HSK Face Contact short taper tooling is manufactured from premium materials and to the latest DIN/ISO specification standards. Form A versions are generally used in machining centers and milling machines with automatic tool changers.



BTKV and CVKV

Manufactured from premium materials and to the latest JIS B 6339 specification standard with an AT3 7/24 Taper per ISO-1974, the BTKV and CVKV series offers controlled, increased flange thickness to the rear of the flange, rigid connection, and higher torque and productivity. Tools are prebalanced to a high specification that will perform effectively up to 20,000 RPM. For any applications higher than 20,000 RPM, Kennametal recommends that the complete toolholder assembly (toolholder, retention knobs, collets, hardware, and cutting tools) be balanced as one identity.

HPMC Milling Chucks

The HPMC System is ideal for holding round shank cutting tools and extensions on various applications because it offers greater versatility. This makes it an excellent choice for end mills, reamers, indexable cutters, drills, straight shank extensions, and boring systems. The HPMC System, with its powerful gripping torque, provides the maximum performance for tough roughing and high metal removal applications, as well as delivering first-rate accuracy for finishing applications — all with the same chuck.



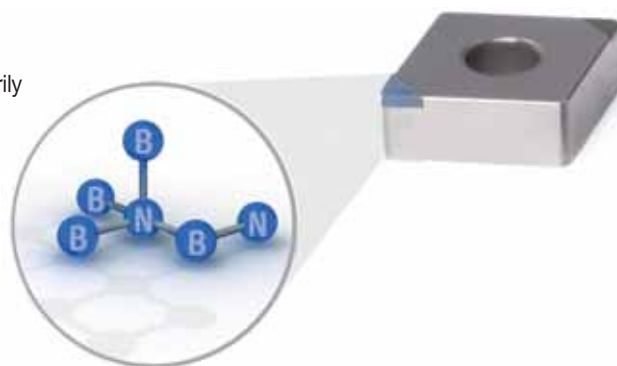
Turning

Product Highlights

Superhard Materials • PCBN and PCD

Abrasion resistance and toughness are the two most important properties in assessing the efficiency of cutting tool materials. Abrasion resistance is primarily a function of hardness, and, in this respect, diamond (PCD) and cubic boron nitride (CBN) are superior to all other known materials.

For more information, see pages B132–B197 of the Innovations Master Catalog Cutting Tools 2013.



beyond™ **BLAST**™

Beyond BLAST™

An entirely different approach to machining high-temperature alloys. We determined that the most effective way to deliver coolant would be to channel it through the insert — ensuring that it hits exactly where it does the most good. That means, more efficient coolant delivery at a fraction of the cost of high-pressure coolant systems. By precisely controlling coolant application, Beyond BLAST enables you to lower your energy consumption, saving you even more money and reducing your impact on the environment.

For more information, see pages F2–F11 of the Innovations Master Catalog Cutting Tools 2013.



Beyond™ PVD Grades

Advanced PVD coatings using Beyond technology are well suited to resist the high temperatures associated with machining tough alloys. By offering increased tool life (by 30–40%), the general engineering, transportation, aerospace, energy, and earthworks markets can experience benefits in their profitability. They can also realize benefits by utilizing the strength of the new PVD coating in combination with the broad product offering to perform turning, grooving, and cut-off operations in a wide array of materials and applications while maintaining consistent chip control and minimizing insert edge wear.

For more information, see pages B2–B115 of the Innovations Master Catalog Cutting Tools 2013.



beyond



Grooving and Cut-Off : -CL and -GUP Geometries

The A2™ CL geometry maximizes your cut-off productivity. The A2-CL geometry offers tighter chipbreaker capabilities when machining low-carbon steel, excellent chip evacuation in low-feed applications, and improved stability and rigidity. The A4-GUP geometry, available in molded and precision-ground styles, provides a positive rake angle, enhanced chip control, and lower cutting forces. The -GUP geometry offers up to 180% longer tool life and higher productivity in steel, stainless steel, and high-temperature alloy materials.

For more information, see pages A2-CL: D13 and A4-GUP: D70 and D73–D74 of the Innovations Master Catalog Cutting Tools 2013.

Kennametal Select

Kennametal Select products make it simple to get the most out of your inserts — and your money. Every insert is gold, which exposes wear as the tool continues to be used. This makes it easy to detect when an insert is ready to be changed — maximizing the product's value and protecting the workpiece. Also, because Kennametal Select inserts can be used in most applications, a single insert can take on any number of tasks, thus reducing your inventory. Kennametal Select products are also reliable enough to cut steel, stainless steel, cast iron, and high-temperature alloys, enabling quick changes in workpiece materials without the need to swap inserts, saving time and money.

For more information, see pages F106–F130 of the Innovations Master Catalog Cutting Tools 2013.



KENNAMETAL
SELECT

Holemaking

Product Highlights



Hole Finishing with Kennametal

Only Kennametal is capable of offering you the best, customized solution for your application. Kennametal owns the entire process chain, from raw material, insert pressing, tool body design, brazing, sintering, grinding, coating, and so on, up to reconditioning. Kennametal is the only source in the metalworking industry from where you can get all types of hole finishing tooling, from reaming and fine boring to motion tooling, directly from one hand. Therefore, Kennametal can offer you the best-fitting solution for your machining challenge, giving you the choice of tooling without any limitations in regard to portfolio or capability.

For more information, see pages K1–K205 of the Innovations Master Catalog Cutting Tools 2013, Metric version. See pages K1–K212 of the Innovations Master Catalog Cutting Tools 2013, Inch version.

Drill Fix™ DFS™

Drill Fix DFS combines the economical squared-outboard insert with the superior centering capabilities of the trigon inboard insert. The DFS indexable drills offer increased metal removal rates combined with high surface quality and hole straightness.

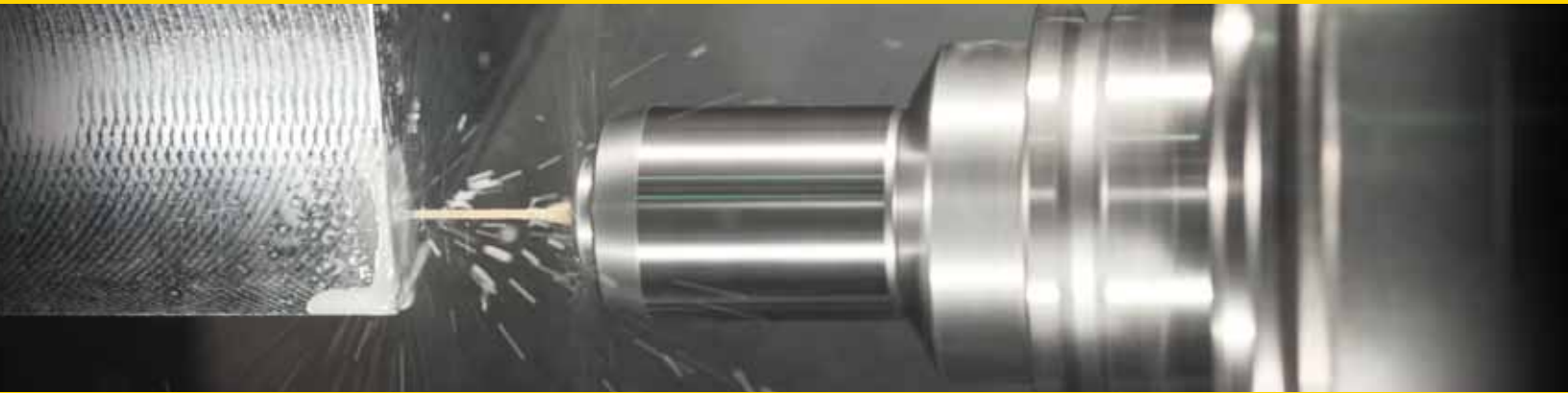
For more information, see pages J14–J22 of the Innovations Master Catalog Cutting Tools 2013, Metric version. See pages J19–J35 of the Innovations Master Catalog Cutting Tools 2013, Inch version.



GDrill™ • Kennametal's First Microdrill

The all new GDrill addresses drilling operations in a diameter range of .0394–.5" (1–12,7mm) in a broad variety of materials and applications, such as fuel systems or medical components. Due to its very unique design, the GDrill expands the advantages of modular drills into the small diameter range: high-end grades, wear-indicator coating, and new, proprietary geometries enable full utilization of the drill's tool life capacity.

For more information, see pages G5–G14 of the Innovations Master Catalog Cutting Tools 2013, Metric version. See pages G5–G15 of the Innovations Master Catalog Cutting Tools 2013, Inch version.



HP Beyond™ Drills for Steel and Stainless Steel

HP Beyond Series Solid Carbide Drills are designed specifically for stainless steel and steel applications, offering high performance and long tool life in regular steel, titanium, and iron materials. By combining unique Kennametal technologies, such as the HP point, flute geometry, and a new Beyond grade technology into one tool, the B2_HP Beyond is the ultimate high-volume production tool.

For more information, see pages G21–G37 of the Innovations Master Catalog Cutting Tools 2013, Metric version. See pages G25–G43 of the Innovations Master Catalog Cutting Tools 2013, Inch version.

KSEM PLUS™ Modular Drill System

The KSEM PLUS drill concept is simple but effective. It combines the benefits of the KSEM™ modular drill (high feeds and length-to-diameter [L/D] ratios) with the benefits of an indexable drill (high speeds and low consumable costs).

For more information, see pages H36–H47 of the Innovations Master Catalog Cutting Tools 2013, Metric version. See pages H46–H59 of the Innovations Master Catalog Cutting Tools 2013, Inch version.



Beyond™ High-Performance Solid Carbide Taps

Solid carbide taps offer higher productivity and outstanding performance in a wider range of materials than formerly possible. Get more production from a single tool and superior accuracy of product thread that surpasses the competition. Kennametal High-Performance Solid Carbide Taps are available in various specifications with enhanced precision and design, which translates into longer tool life, excellent performance, and exceptional wear resistance.

For more information, see pages L2–L29 of the Innovations Master Catalog Cutting Tools 2013, Metric version. See pages L2–L33 of the Innovations Master Catalog Cutting Tools 2013, Inch version.

Solid End Milling

Product Highlights



HARVI™ High-Performance End Mills for Roughing and Finishing with One Tool

HARVI takes high-performance roughing, semi-finishing, slotting, and profiling to the next level. The line is designed to provide maximum metal removal rates by achieving supreme surface conditions. A wide range of diameters and corner radii are available from stock.

For more information, see pages M10–M25 of the Innovations Master Catalog Cutting Tools 2013, Metric version. See pages M8–M30 of the Innovations Master Catalog Cutting Tools 2013, Inch version.

KenFeed™ End Mills for High-Feed Milling

A unique tool with new, 6-flute style for high productivity, the KenFeed end mill is specifically engineered to machine hardened steel up to 67 HRC at extreme speeds and feeds. Necked shanks provide extended reach in deep cavities and high feed rates up to .0230" per tooth on a 3/4" tool. Machine hardened materials at 2–3x the metal removal rate of competitive end mills. Wide range of cutting diameters, down to 6mm for small- and medium-pocket work. Innovative new geometry maximizes metal removal rates and lowers manufacturing costs.

For more information, see pages M26–M30 of the Innovations Master Catalog Cutting Tools 2013, Metric version. See pages M31–M34 of the Innovations Master Catalog Cutting Tools 2013, Inch version.



KCN05™ Diamond Coated Carbide Routers

Kennametal has the correct milling solutions engineered for machining difficult CFRP (Carbon-Fiber Reinforced Polymer) and non-ferrous components. KCN05 solid carbide router products provide excellent tool life and produce smooth finishes with improved edge quality. The unique geometries are free cutting, reduce heat generation, and provide high-quality machined surfaces.

For more information, see pages M65–M71 of the Innovations Master Catalog Cutting Tools 2013, Metric version. See pages M62–M68 of the Innovations Master Catalog Cutting Tools 2013, Inch version.



GOMill™ • The Economical Milling Cutter Line

The GOMill line is specifically engineered to work on short length-of-cut applications in multiple workpiece materials, like soft and hard steels up to 48 HRC, stainless steels, high-temperature alloys, and cast iron. With the very short overall length and soft cutting geometries, the line is made to conform to the growing market of mill-turn machines. The 3-flute sharp and 4-flute chamfer versions support roughing, semi-finishing, and finishing applications; the 3-flute ball nose tool supports roughing and semi-finishing applications; and the 2-flute ball nose version supports finishing applications. All three geometries work in slotting as well as side milling applications up to 1 x D depth of cut.

For more information, see pages M117, M122, M126, and M130 of the Innovations Master Catalog Cutting Tools 2013, Metric version. See pages M85, M87, M92, and M95 of the Innovations Master Catalog Cutting Tools 2013, Inch version.



MaxiMet™ Carbide End Mills for High Metal Removal Rates and Superior Surface Finishes

Designed to significantly reduce machining time in aluminum! The innovative geometry designs include a wiper facet for superior surface finish on aluminum parts. MaxiMet takes roughing and finishing cuts with one tool. Slotting is effective up to full 1 x D axial depth. Side milling is effective up to 0.5 x D radial and 1.5 x D axial depth. The 3-flute series uses unequal flute spacing for chatter-free performance. Effective in a full range of machine speeds. Multiple corner radii and extended neck configurations are available as standard.

For more information, see pages M52–M53 of the Innovations Master Catalog Cutting Tools 2013, Metric version. See pages M42–M47 of the Innovations Master Catalog Cutting Tools 2013, Inch version.

Indexable Milling

Product Highlights

Dodeka™ Series • Leader in Advanced Face Milling Applications

Dodeka Mini and Dodeka MAX™ are the most comprehensive face milling boosters on the market today. Twelve true cutting edges per insert mean low cost per edge and high productivity. With Beyond™ premium milling grades, you will see higher Metal Removal Rates (MRR), lower cutting forces due to real soft cutting action, and better tool life in light to heavy machining.

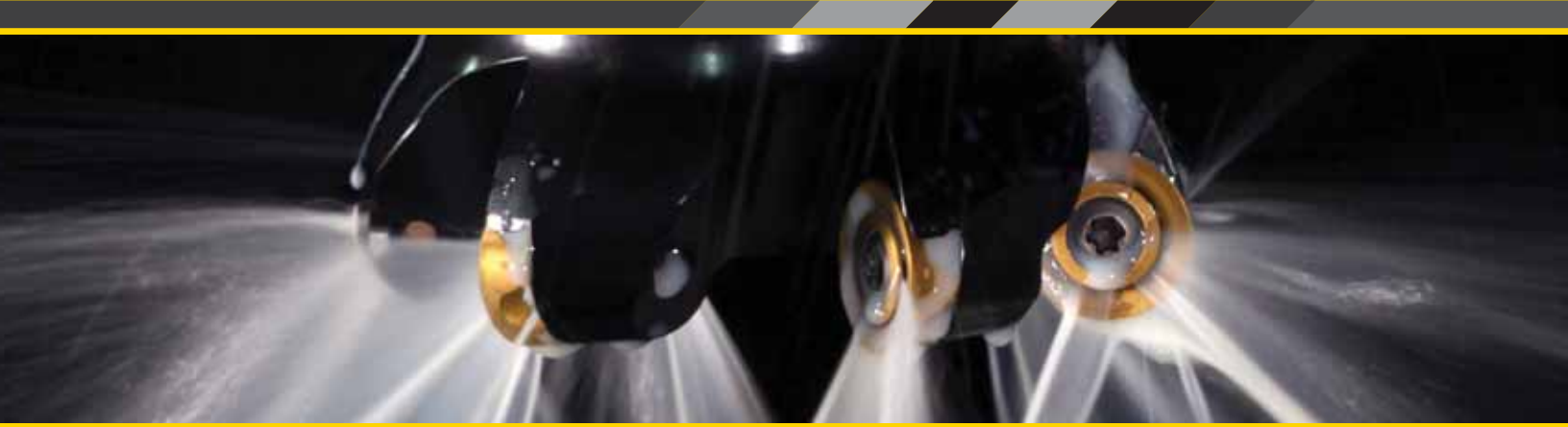
For more information, see pages O2–O29 of the Innovations Master Catalog Cutting Tools 2013, Metric version. See pages O2–O26 of the Innovations Master Catalog Cutting Tools 2013, Inch version.



MEGA Series • Superior Heavy-Duty Milling

With four true cutting edges per heavy-duty MEGA insert, you know you are getting the low cost per edge and high productivity you need and have come to expect from Kennametal. The soft cutting edge design enables 30% lower cutting forces, and the carbide shim provides protection to the cutter body. Choose MEGA inserts for all of your steel and cast iron indexable milling needs.

For more information, see pages O30–O47 of the Innovations Master Catalog Cutting Tools 2013, Metric version. See pages O28–O43 of the Innovations Master Catalog Cutting Tools 2013, Inch version.



Beyond BLAST™ • More Than Just the Right Tool — The Ultimate Solution

The Beyond BLAST KSSM™ 45° and KSRM™ platforms utilize Precision Coolant Technology (PCT) to aggressively apply coolant directly to the cutting area. Not only does this reduce heat at the cutting edge, but it also assists with reducing tool and chip friction, increasing chip evacuation, and relieving shear stress.

For more information, see pages O48–O53 of the Innovations Master Catalog Cutting Tools 2013, Metric version.
See pages O44–O48 of the Innovations Master Catalog Cutting Tools 2013, Inch version.



Rodeka™ • The New Round Insert Generation

Kennametal introduces a new and revolutionary double-sided round milling insert capable to run in multiple types of milling operations and workpiece materials, providing the latest double-sided insert technology to boost your productivity with the most efficient cost per edge.

For more information, see pages R12–R19 of the Innovations Master Catalog Cutting Tools 2013.

Mill 1™ • High-Performance Shoulder Milling Platform

The multifunctional Mill 1 platform works with all tool materials in shoulder, ramp, slot, plunge, and helical milling with one insert style to improve productivity and reduce inventory and machining costs. The super positive cutting rake, soft cutting action, and low cutting forces enable higher feed rates and spindle protection. Innovative insert and cutter body designs offer improved ramping capabilities.

For more information, see pages P2–P62 of the Innovations Master Catalog Cutting Tools 2013, Metric version.
See pages P2–P64 of the Innovations Master Catalog Cutting Tools 2013, Inch version.





Engineered Solutions

Coordinated global resources with world-class manufacturing process development and implementation capabilities.

Whether it's a single tailored tool required to address a specific part feature or the development of a comprehensive manufacturing process for use on existing or newly acquired production equipment, Kennametal's team can manage the development, personnel training, and successful implementation of the complete solution.

Global implies just that. Globally coordinated manufacturing process development, implementation, and optimization support at machine tool builders, end user engineering or corporate offices, and end user production facilities, regardless of their respective geographies. Well-organized, highly linked staff reside in the Americas, Europe, and Asia/Pacific regions. Globally standardized design and manufacturing systems enable highly coordinated project management and implementation results.

Key alliances with machine tool builders and other leading manufacturing technology enablers ensure a complete solution, optimizing the entire process — not just portions of it. This results in the most effective and efficient manufacturing process possible, leading to low implementation time and cost and rapid return on investment.

For more information, please contact us at 1.866.646.7113.





Energy

Energy Engineered Solutions

Kennametal is more than a supplier of tooling solutions. With a thorough understanding of the energy segment's process and application challenges, we proactively address production concerns to deliver productivity to customers seeking peak performance in demanding environments. Kennametal's success is based on our capabilities — our ability to work with you on customized solutions to optimize your results and our willingness to engage with a broad spectrum of materials, metalworking solutions, application and custom component manufacturing, and supply expertise. Our drive for success, enabled through our advanced materials sciences, application knowledge, and commitment to a sustainable environment, results in a broad portfolio of innovative, custom, wear-resistant solutions.



Please also see the new
Kennametal Energy catalog
(B-11-02786).



Engineered Solutions

Automotive

Automotive Engineered Solutions

Traditionally, Kennametal has been a strong player in the transportation field, pioneering innovative solutions with automotive, shipbuilding, and railroad customers. We deliver global services and products that exceed our customers' expectations and continually push the boundaries of science. In today's competitive world, no one can support our customers better, and in turn, deliver the continued service and quality that has become Kennametal's trademark.

Kennametal's global reach has helped our customers standardize processes and products to improve both cost and quality. We offer an intimate understanding of the economics of the automotive value chain and unparalleled customized solutions tailored to your needs. We can deliver superior value by listening closely and innovating based on what our customers say. Our goal is to help you be more competitive, at home and on a global scale.



If it rolls, floats, or flies,



Aerospace

Aerospace Engineered Solutions

From lightweight composite materials to exotic alloys, Kennametal is committed to reducing risks and costs in the manufacture of aerospace and defense programs. We partner with customers to implement standard and customized solutions with minimum cost per part and high repeatability in mind. Kennametal has unique capabilities and resources to cover the total manufacturing equation from roughing to automated deburring and finishing. Kennametal's best-in-class technologies and services deliver up to 30% cost reduction and 60% cycle time reduction.



Aerospace component surfaces are one of the key battlegrounds in environmentally friendly manufacturing. Surface treatments not only improve appearance of the part but also enhance wear resistance, provide corrosion protection, and improve friction control. These subtle manufacturing enhancements provide big dividends in the form of fuel efficiency, reliability, performance, and longer part life.



Kennametal has a solution that delivers innovation and productivity.

KENNAMETAL REPAIR SERVICES

Milling cutters

Boring bars — standard,
tunable, and de-vibe

Indexable drills

Line boring bars

Feed-out heads

Motion tools

Standard indexable tooling

ModBORE™ boring heads

Romicron™ boring heads

Eccentric toolholders

Electronic tightening fixtures

Floating toolholders

Hydraulic chucks

KM™ clamping units
(manual and spring packs)

Repair Services

Tools are valuable. Protect them and get the most from your investment.

You can be assured that when your advanced tooling products need to be serviced, the Kennametal Service and Repair Department has the highly trained, experienced staff to provide expert assistance. For about half the cost of a new tool purchase, you can have your existing, damaged tools serviced and repaired to like-new condition.





Getting Started, and Getting Finished, Is Easy.

Follow these 4 simple steps and be on your way to restored tools and great savings.

- 1 Visit www.kennametal.com to find the tool you're looking to have repaired.
- 2 Download and complete the form. Mail the completed form and the tooling to the Kennametal Service and Repair Department.
- 3 Kennametal will quickly respond to your request with a cost estimate and timetable for the completion of the repair.
- 4 Within 60 days of receiving the estimate, notify Kennametal whether you'd like the tooling repaired, returned, or scrapped.

**Please note that the tap adapters are not cost effective to repair.*

KM-LOC™ and KM-LOC II™
clamping units

KSEM™ bodies

Live/driven tooling

Bearing milling chucks

Right-angle heads

SEFAS™ combination tools

Tapping holders
(excluding tap adapters*)

Integral tapping tools
(excluding tap adapters*)

Presettlers

Tuned tooling units

ToolBOSS —
Tool Management System





Service and Support

Kennametal Extrude Hone™

Precision Surface Management

- Fuel efficiency through fine flow tuning — Diesel Fuel System (DFS) and Gasoline Direct Injection (GDI).
- Emission reduction due to better spray shaping.
- Noise, friction, and wear reduction for automatic gearbox components.
- Air flow path enhancement to improve jet or helicopter turbine performance.
- Energy savings with centrifugal impeller pump increased efficiency.
- Surface stress relief on high-pressured thin wall component for extreme safety.

Core Technologies Offer

- **Electrochemical Machining (ECM):** Generator, fixture, and cathodes
RADIUSING, SHAPING, POLISHING, SURFACE STRESS RELIEF.
- **Abrasive Flow Machining (AFM):** Media and fixture design
RADIUSING, POLISHING, SURFACE STRESS RELIEF.
- **Thermal Energy Method (TEM):** Controlled combustion
MINIMISING RISK OF HIDDEN BURRS AND CONTAMINATION.





Proven Solutions

Easy Access to Service and Support

- Engineering and Feasibility departments.
- Capital equipment solutions.
- Contract Shop activities (ramp up and production).
- Spare parts availability program.
- Metalcutting tooling combined with Precision Surface Management.
- Benefits of worldwide Kennametal logistics.
- Lean expertise to conduct global projects with customers.
- Cost per part solutions/Clic model for equipment.
- Parameters, cathodes, fixtures designs.
- Media design to part.
- Global Full Circle Program increases productivity resulting in less downtime of your equipment.





Service and Support

Kennametal Extrude Hone™

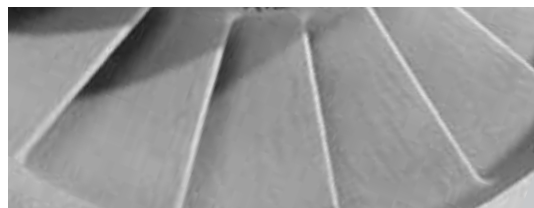
Proven Solutions: Save Energy, Save Money

- Improving closed pump impellers inner flow passage roughness to increase up to 11% peak efficiency and lower energy consumption.
- A coal-powered plant equipped with six boiler feed pumps can reduce parasitic loss, representing at least \$500,000 annual savings (driving the pumps) by 1% of the power generated.
- This process and savings can also be applied to natural gas centrifugal closed pump impellers.

Precision Surface Management Matters

Kennametal Extrude Hone Abrasive Flow Machining (AFM) surface and flow enhancement solutions provide the energy segment with significant savings in pump efficiency improvements.

- The AFM process is the method of choice for material removal at the area of greatest restriction and surface improvement of passages not accessible by other methods.
- AFM has documented efficiency proven solutions in the automotive and aerospace industries.
- Two-way flow AFM process is a natural fit for closed impellers and diffusers.
- Inner flow passages of the impellers and diffusers benefit from AFM's selective material removal as well as surface finish improvement — both contributing to improved pump efficiency.



Before



After



Proven Solutions

Delivering Results throughout the Value Chain

Working with You

We have a strong focus on customer solutions, which helps develop an accurate understanding of industry needs. This is achieved through collaborative work with key players throughout the value chain:

Original Equipment Manufacturer (OEM)

Our business expertise is providing OEMs with key components, such as pumps, that deliver greater efficiency.

Foundry

Kennametal Extrude Hone™ specialists can bring added value early in the manufacturing chain, so you can deliver more than just a key component and exceed expectations every time.

End User

Currently in the best position to measure efficiency improvements, end users understand the direct impact of savings — anywhere along the value chain. They help us measure performance of the processed component against non-processed, providing a better understanding of efficiency improvement related to the Kennametal Extrude Hone AFM operation. The AFM Center of Excellence, in Irwin, PA, can perform feasibility testing with customer-specific parts to provide the optimal media needed for each process.

Media Is the Edge

The Kennametal Extrude Hone lab provides the energy industry with specific, engineered medias that deliver the highest performance for closed impeller polishing. We also have specific media with dedicated characteristics to enhance productivity and quality when polishing a closed impeller.



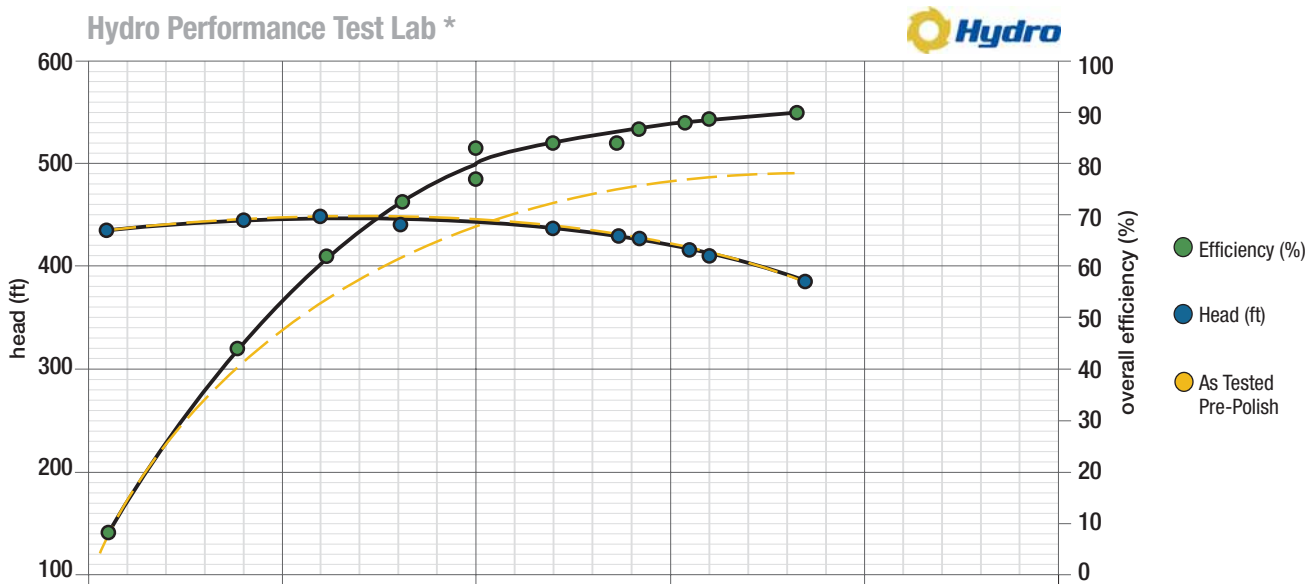


Service and Support

Kennametal Extrude Hone™

Abrasive Flow Machining for Pump Market Validation Testing

Formed in 1969 by a small group of pump engineers in Chicago, Hydro Aire is now the largest independent pump rebuilder with service centers throughout the world. A complete 5000 hp, 42,000 GPM pump test stand, designed in compliance with Hydraulic Institute standard and API 610, is located in Chicago. This is the ONLY independent non-OEM facility with this capability able to generate pump efficiency curves using LabView software.



* Testing by Hydro Aire in Chicago



Proven Solutions

The Energy Story

Proving the Pump Efficiency Improvement from the AFM Process

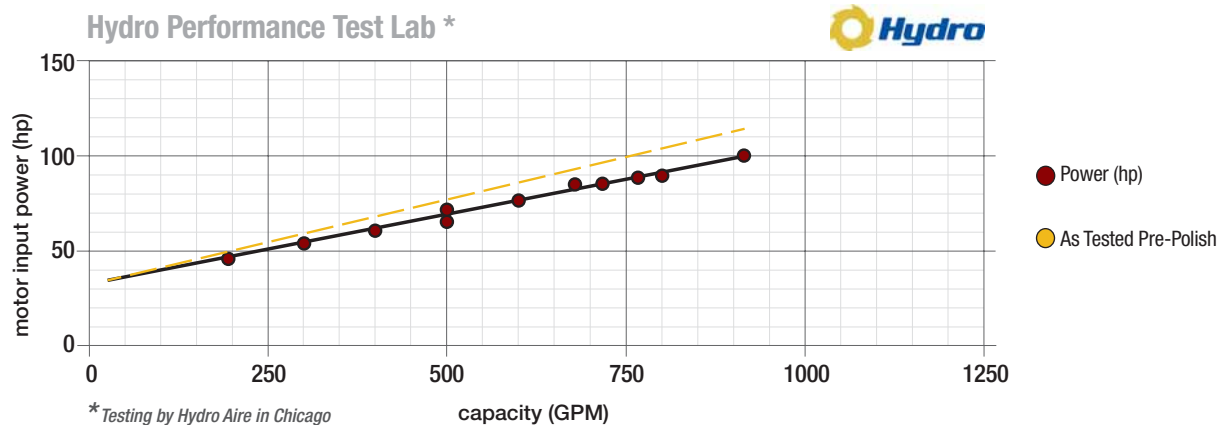
We have selected a 100 hp 1,200 GPM, single impeller overhung process pump as an example to validate the potential efficiency improvement able to be achieved with the AFM process.

- 1) New PACO™ pump purchased, which is about 79% efficient according to the manufacturer's data.
- 2) Pump tested and performance curve generated to confirm initial efficiency pre-AFM. Manufacturer data confirmed by our "before AFM" testing.
- 3) Pump was disassembled and impeller removed to AFM process. Pump was then reassembled.
- 4) Re-tested pump and generated performance curve.

Results: **Peak efficiency gain of +11%**, bringing the pump to 90% total efficiency! Gains were realized over the full usable range of the pump with **significant power savings** at given pressure and flow rate.

Test Component

Pump Type:	ITT Goulds 12BF
Pump Size:	3 x 4-10
Serial No.:	G1162372
Stages:	1
SG:	1.00
NPSHr:	n/a
Speed:	3600 RPM



Service and Support

Kennametal ToolBOSS™

Kennametal ToolBOSS™

Secure, High-Capacity Solutions

ToolBOSS™ quickly and consistently delivers quantifiable savings in hundreds of metalworking companies worldwide. Much more than a vending unit, the Kennametal ToolBOSS system is a secure, electronically locked tool storage cabinet that can establish 24-hour tool control for high-value items. It issues tools, returns tools, sends to re-work, supports EDI ordering, and provides for multi-vendor security.

Efficiency

Multiple drawers can be selected in one transaction, minimizing the time required to manage large stock volumes.

Future-Port

USB interface, as well as a DCS expansion port, for use with RFID and other ancillary equipment.

High-Speed Access

Rapid search and selection of an item is enhanced with LED identification system, guiding users to the correct drawer.

Traceability

Software provides a complete audit trail, tracking component usage details.

Expandability

Expandable up to 10 units per system, providing up to 1,121 secure locations.



To learn more about ToolBOSS, contact your local Authorized Distributor or visit www.kennametal.com

Reconditioning Services

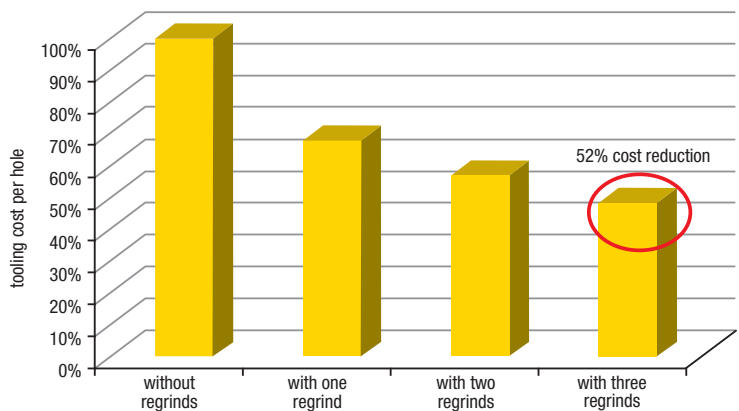
Reconditioning Services

Our Reconditioning Services help optimize the total value of your metalcutting tools throughout their entire life cycle by giving the “like-new” performance characteristics — with rapid turnaround time — so the tools you need are always on-hand and perform just like new.



Reduce Tooling Cost by More than 50%

Example: 4" (10,5mm) HP-Drill B225A10500 KC7315 Material: Alloy steel 30 RC



Using Kennametal's Reconditioning Services provides considerable savings throughout the life of your cutting tools and can reduce your overall tooling costs more than 50%.

For more information or to find the nearest reconditioning location, contact your local Authorized Distributor or visit www.kennametal.com

Service and Support



Carbide Recycling

Help Preserve and Protect Our Planet!

It's easy for your company to be environmentally conscious with the Kennametal Carbide Recycling Program.

By sending us your used carbide tools, you help preserve and protect the environment and ensure that these products are recycled responsibly. Kennametal accepts any coated or non-coated carbide items, including inserts, drills, reamers, and taps.

By using the Kennametal Carbide Recycling Program, you will receive:

- A partner who cares about a sustainable environment.
- Easy-to-use web portal to value your used carbide.
- Access to our popular Green Box™ options for carbide collection.
- Systematic and efficient disposal of carbide materials.
- Improved profitability.

Program is not currently available in all geographical areas. For more information, please visit www.kennametal.com/carbiderecycling



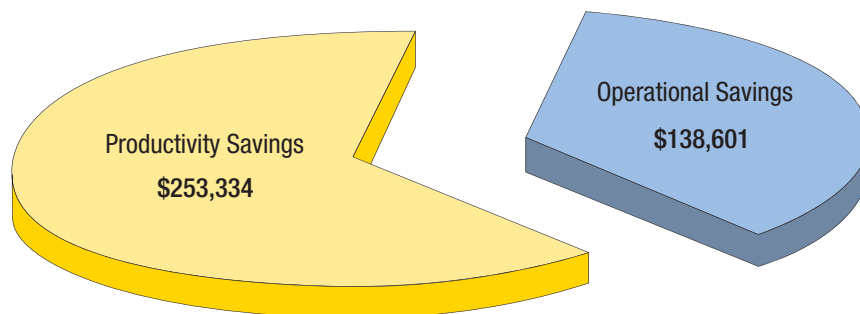
Service and Support

Cost per Part Services Program (CPP)

Build a Long-Term Relationship with the Leader in Metalworking Solutions that Provides:

- Monthly cost savings documented and captured in standardized KPI reports.
- Availability of Kennametal's latest technology to increase productivity and lower cost of operations.
- Onsite technical support available on a constant basis.
- Billing based on the output of your plant that eliminates inventory risk.

YTD Cost Savings Tracker Site GOAL — \$300,000



Cost per Part Services Programs Are Designed to Take Advantage of Our Wear Solutions Expertise by Outsourcing Your Metalworking Requirements that:

- Improve productivity.
- Reduce risk.
- Manage inventory.
- Lower operational costs.

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Service and Support

Customer Application Support (CAS)

Customer Application Support

Get Fast and Reliable Answers to Your Toughest Metalcutting Problems

Our Customer Application Support (CAS) Team is the metalworking industry's leading help desk resource for tooling application solutions and problem resolution.

Easy Access to Proven Metalworking Expertise!

Kennametal Customer Application Engineers assist customers and engineering groups throughout the world with expert tool selection and application recommendations for the entire range of Kennametal tooling.

Service Level Excellence

- Fast telephone response.
- Quick technical solutions.
- Efficient case management.

Services

- Operating parameters.
- Process optimization.
- Hardware support.
- Tooling selection.
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Best-in-Class Support Tools and Technology

- Materials database.
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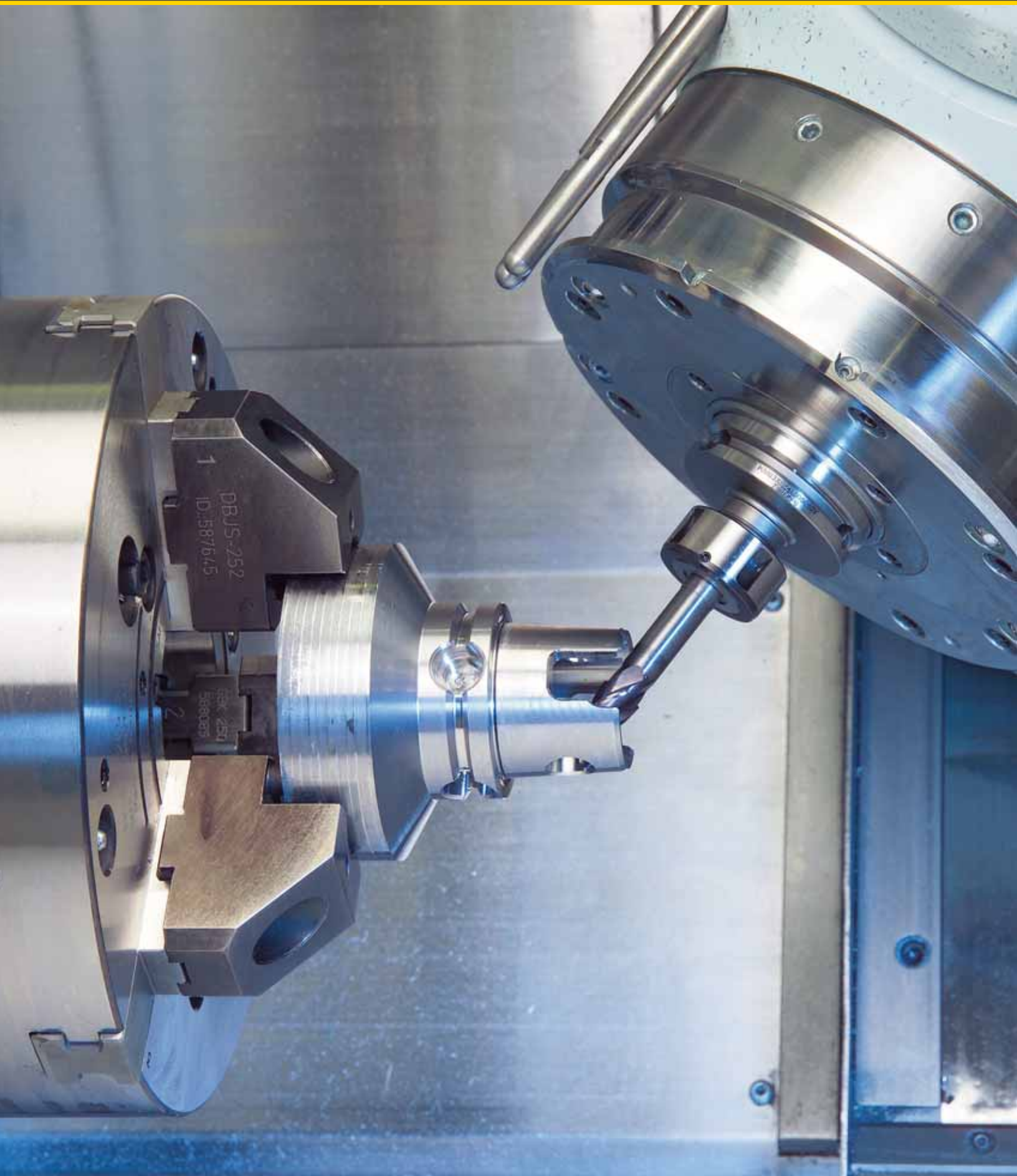
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KM™ Quick Change

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To learn more, scan here.

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KM™ Quick Change

KM™ Quick Change Tooling is a central component in achieving dramatic improvement in machine and cutting tool use. It's the choice of manufacturers requiring maximum machine output.

The necessary tasks of changing, setting up, and gaging tools create an excess of machine downtime. For small batch manufacturing operations requiring these frequent setups, KM™ Quick Change Tooling is the most efficient method for reducing lost time and improving the overall quality of the machining process by generating greater productivity and increasing profits.

Aside from Quick Change Clamping units, KM™ has other economical means to improving machine utility. For example, Shrink Fit technology and Hydraulic Chucks are other methods offered for Quick Change Tooling.

There's no better way to begin maximizing production than switching to KM™ Quick Change Tooling. Whether you're looking to purchase a new machine or to gain greater output from your current equipment, Kennametal offers a variety of methods to upgrade your tooling system. The cost of these improvements will be justified by time saved, production increased, and profits.

The KM™ portfolio has three distinctive sub-families, KM Micro™ and KM™ Mini, KM-TS™ (ISO), and KM4X™:

KM Micro and KM Mini: This unique quick-change system is specially designed to support and mount on Swiss-style turning centers, gang machines, and smaller lathes.

KM-TS: The ISO 26622 quick-change tooling system delivers the greatest value to customers by maximizing down time and gaining optimum productivity with rigidity, accuracy, and enabling pre-gaging off line. This tooling system supports both lathe and machining centers.

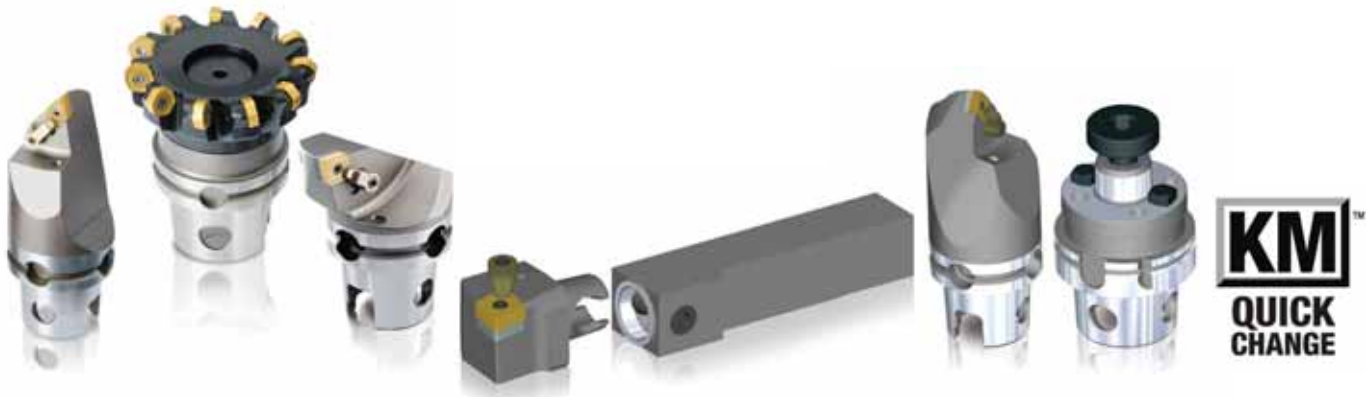
KM4X: The next generation of KM offers higher clamping forces and interference levels that lead to a robust connection and extremely high stiffness and bending load capacity resulting in unmatched performance from both lathe and machining centers.



Uniquely Designed

A uniquely designed clamping mechanism is the driving force of KM™ Quick Change Tooling technology, which is designed around a single shank tapered at a shallow angle.

Using a simple mechanism involving lock rods and a ball track, a high clamping force is generated from a minimal amount of input force. This design is universal, and enables faster tool changes, reducing downtime.





Extremely Rigid

The most heavy-duty, rigid modular quick-change tooling available on the market today. The strength of the metal-to-metal locking device is extremely rigid, reducing vibration between components.



Reliability

Not only is KM™ Quick Change Tooling faster and more economical, it's also more reliable. The rigid coupling design enables a high degree of accuracy and repeatability. Low activation forces and decreased vibration provide longer life for clamping units and protect the mechanism in the event of a crash. Clamp strength enables operators to run machines at high maximum speeds without loss of force after continuous use.



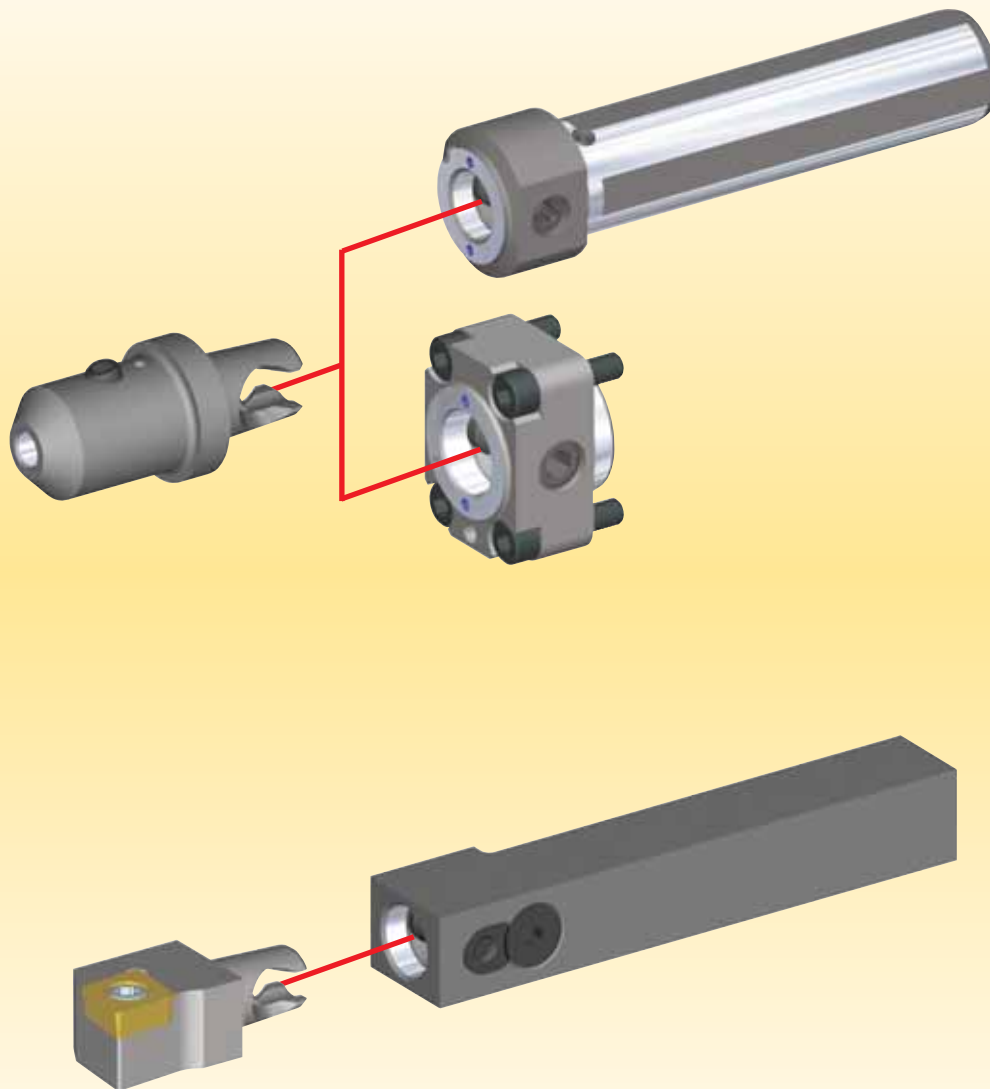
Versatility

The KM™ System is a true modular system. It has been designed for all metalcutting operations and provides a standard platform for use throughout your shop. The KM™ clamping mechanism is designed to be used on all types of manufacturing equipment. Available in manual, VDI, KM-LOC II™, automatic, and rotating spindles.



KM Micro™ — Quick-Change Tooling System

Kennametal has developed yet another revolutionary quick-change tooling system. The KM Micro tooling system is a further development of the internationally renowned KM™ system, but is a smaller, more compact version. It is an outstanding quick-change tooling system utilizing face and taper contact design.



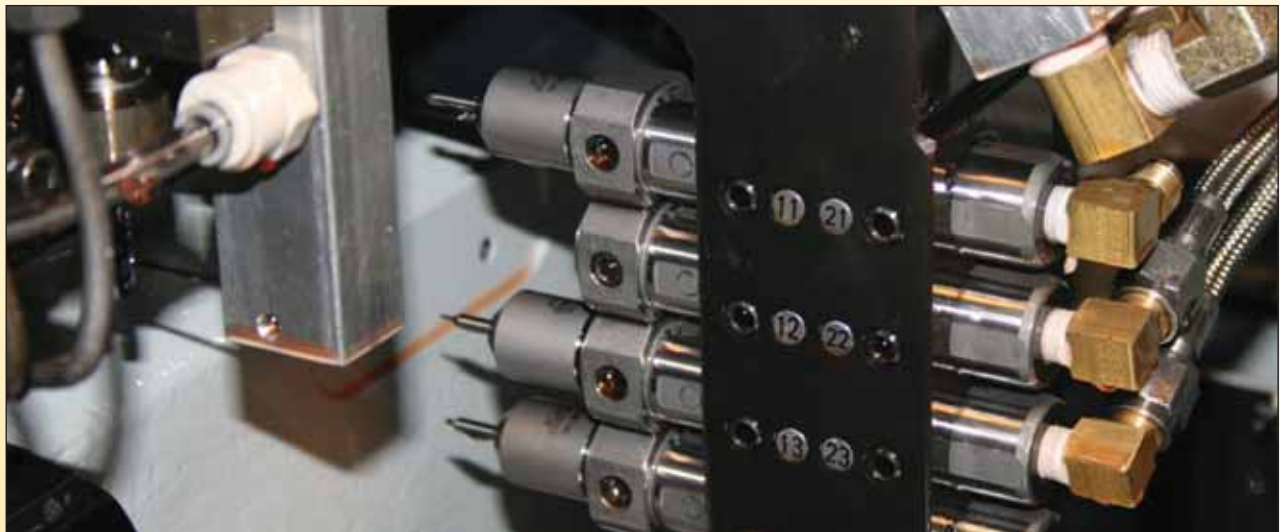
What is KM Micro™ and KM Mini™?

The KM Micro and KM Mini system have been specially designed for use with automatic lathes, as well as smaller universal lathes. The quick-change cutting heads reduce indexing and setup times on machines by up to 66%.

The unique flange attachment system enables an additional one to three tool spaces to be used on a single tool block. This considerably increases the tool capacity of the machine.

A further advantage is the high level of stability of the block, as rigidity is greatly improved during deep tool turning operations by removing the tool slots.

- Reduce indexing and setup times by 66%.
- Quick and easy installation.
- The new KM Micro and KM Mini square shank adapters can be installed quickly and easily in existing tool block adapters.
- Existing clamp-type toolholders are replaced by KM Micro and KM Mini adapters with the same dimensions, and the machine is then ready for use.
- Kennametal provides a comprehensive range of KM Micro and KM Mini solutions to meet any requirement.

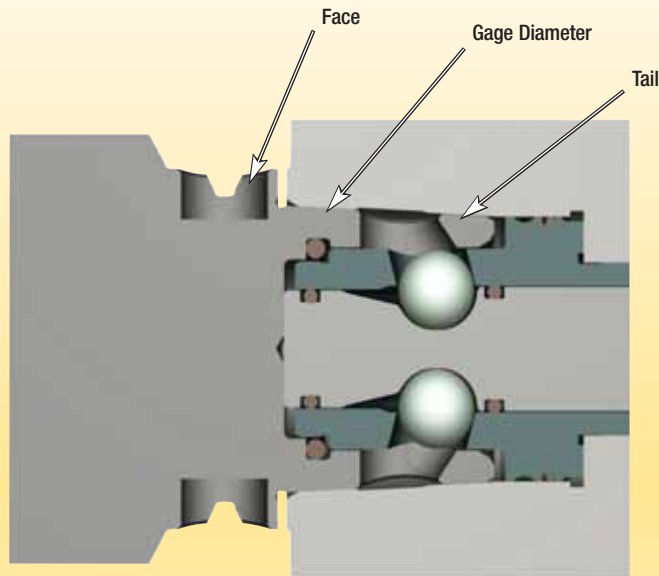


KM Mechanism

The KM Quick Change clamp is a self-locking system with a mechanical amplification of 3:1 to 7:1. This system is effective because it locks by having three contact areas, and the mechanism is sealed with Viton® O-rings to prevent component contamination.

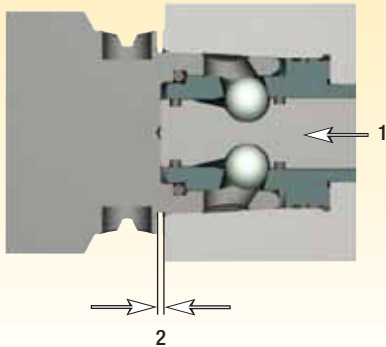
When in the locked position, there is increased interference between contact surfaces, resulting in superior rigidity. Because the face and taper contact within the unit is simultaneous, this provides accurate radial and axial repeatability. Elastic deformation provides greater static and dynamic stiffness.

Three effective contact areas:



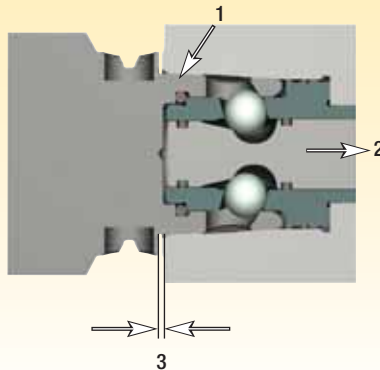
Load/Release Position

- 1. Bump-off force
- 2. Bump-off



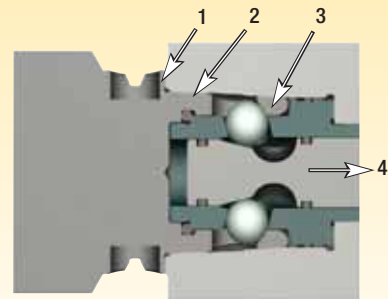
First Contact Position

- 1. Point of first contact
- 2. Clamping force
- 3. Stand-off



Locked Position

- 1. Face contact
- 2. Interference at gage line
- 3. Tail contact
- 4. Clamping force



KM Today

All KM Quick Change tooling is made from H13 high-strength steel and comes in a silver satin finish. After the parts are heat treated, qualified pads are machined into the part, which increases the repeatability of the clamping mechanism. KM is an ISO standard (26622).

The addition of the ATC configuration and data carrier capability provides machine tool builders with one standard KM design. Integrating these components also enables customers to use data carriers to record tool offsets and tool life information on the tool.

KM-TS Standardized System

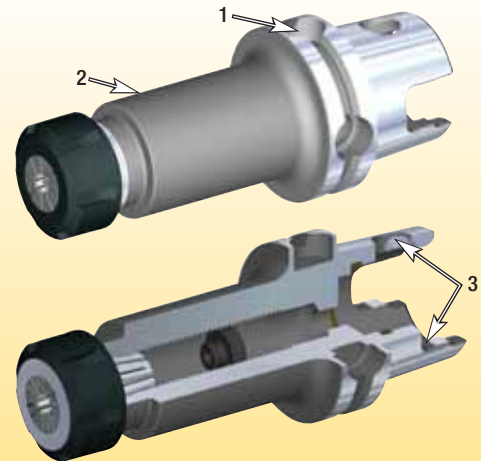
1. Addition of ATC configuration and data carrier capability:

- a. Provides machine tool builders with one standard KM design.
- b. Enables customers to use data carriers to record tool offsets and tool life information on the tool.

2. H13 high-strength steel, silver satin finish.

3. Qualification after heat-treat process:

- a. Heat-treated, qualified pads are machined into the part, increasing the repeatability.
- b. Qualification of the ball tracks after heat treat.

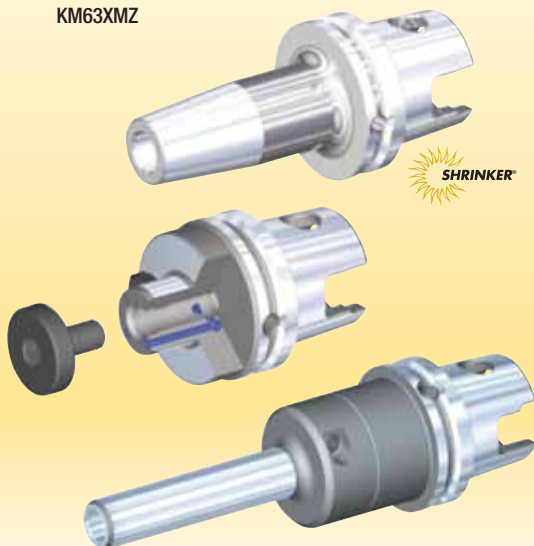


KM Specific Systems

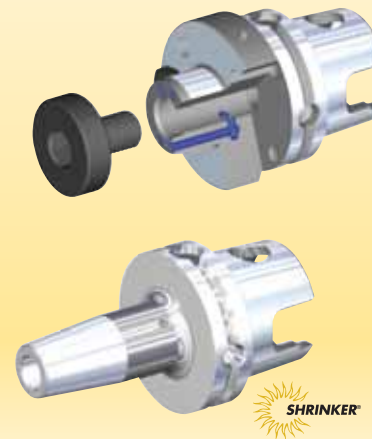
KM63XMZ™ — Designed and used exclusively on Mazak® INTEGREX® Mark IV Series, i-Series, and J-Series machines.

KM80ATC™ — Designed for and used on Giddings & Lewis™ VTLs.

KM63XMZ

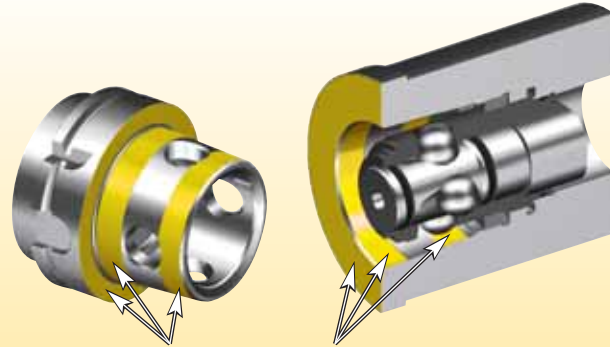


KM80ATC



KM4X — The Next Generation Spindle Connection System

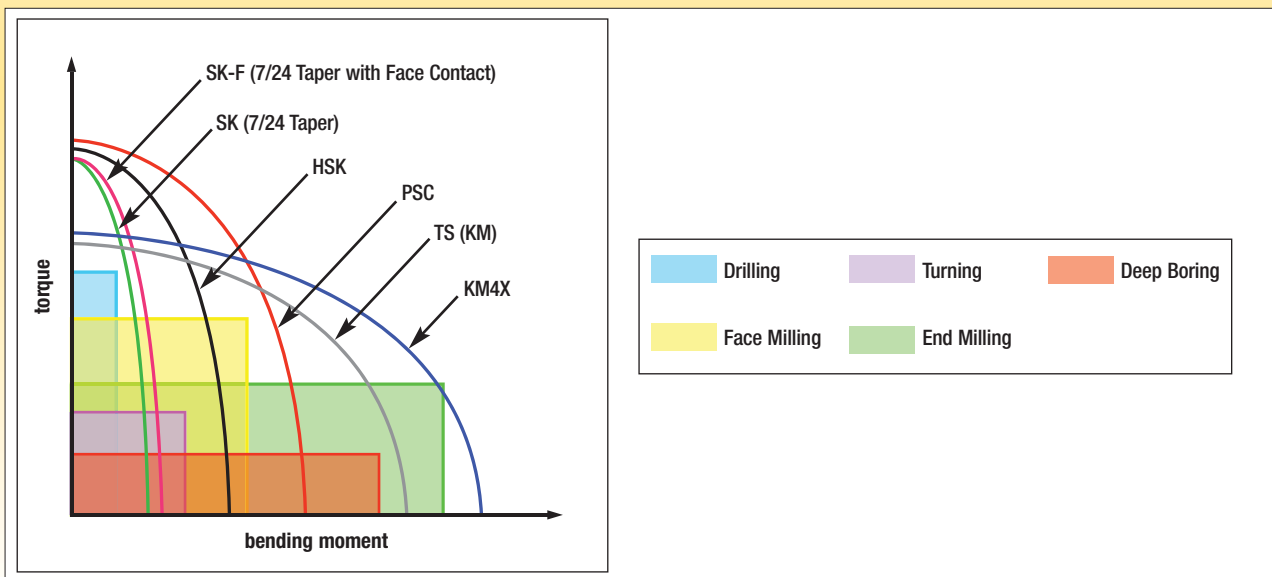
- Heavy-duty, rigid configuration with evenly distributed clamping force.
- Simple design enables front-loaded spindle configuration.
- Balanced-by-design for high spindle speed capacity.
- Capable of performing in a wide range of operations from low speed, high torque to high speed, low torque.



KM4X three-surface contact for improved stability and accuracy. Optimized clamping force distribution and interference fit provides higher stiffness.

The graph below represents the load capacity of HSK, PSC, and KM4X. The shaded areas represent the typical requirements for heavy duty in various machining processes. KM4X is the only system that can deliver the torque and bending required to achieve high-performance machining.

Some systems may be able to transmit considerable amount of torque, but the cutting forces also generate bending moments that will exceed the interface's limits before torque limits are exceeded.



Choosing What's Right

When machining tough materials like titanium, cutting speeds are relatively low due to thermal effects on cutting tools. In response, machine tool builders have improved stiffness and damping on spindles and machine structures over the years. Spindles have been designed with abundant torque at low rotational speeds. Nevertheless, the spindle connection remains the weak link in the system.

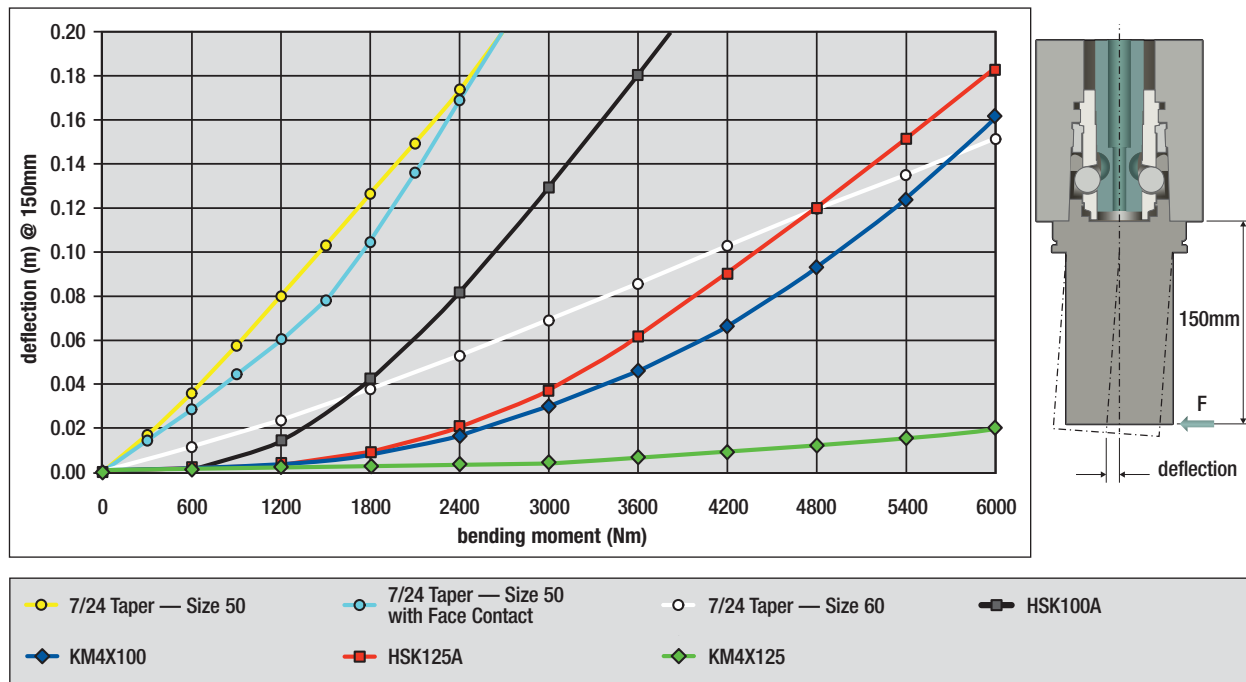
The spindle connection must provide torque and bending capacity compatible with the machine tool specifications and the requirements for higher productivity. It becomes obvious that in end-milling applications where the projection lengths are typically greater, the limiting factor is bending capacity of the spindle interface.

With more materials that are tougher to machine and require considerably higher cutting forces from the machine tool, choosing wisely on the spindle interface to maximize cutting edge performance is the key to success.

The KM spindle connections greatly outperform the conventional 7/24 steep taper and its face taper contact derivative. HSK and PSC systems with their greater stiffness advantages help minimize undesirable vibrations, gaining the best possible productivity from the machine tool. The KM4X is the best large, heavy-duty spindle connection, where optimal rigidity is necessary. It has superb balance between bending and torsion capabilities from the machine tool.

As an example, an indexable helical cutter with 250mm projection from spindle face and 80mm in diameter generates 4620 Nm of bending moment and less than 900 Nm of torque.

Chart shows a comparison of Steep Taper with and without face contact, HSK, and KM4X.



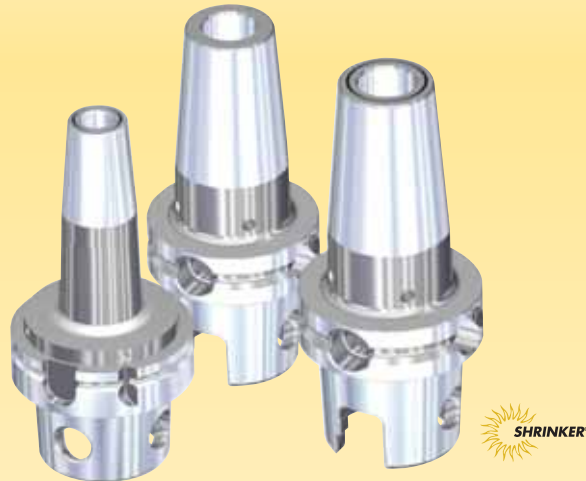
Milling and Holemaking

Shrink Fit Technology

How it works...

Heat shrinking is not new technology in the tooling industry, but only recently has it been applied to quick-change toolholding systems. Shrink fitting works by having toolholders with an internal bore that is slightly smaller than the connecting end of a cutting shank.

When the toolholder is heated, the bore expands and the shank is able to slip inside the bore. As the toolholder cools, it shrinks, clamping the two pieces together. This creates evenly distributed pressure with minimal vibration between the toolholder and shank that resembles a monoblock tool.



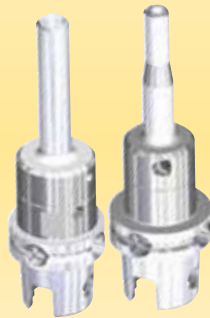
Advantages of Shrink Fit Tooling:

- Evenly distributed pressure 360° along the length of the cutting tool.
- Slim and short toolholder designs can be achieved due to the lack of moveable parts.
- Absolute symmetry of the grip provides the best possible balance for high-speed operations.
- Stronger clamping force than collet or hydraulic chucks.
- Can be repeated thousands of times.
- Capable of greater speeds and feeds.
- Adapts to various shank types.
- Increased productivity.

Hydraulic Chucks

Kennametal Hydraulic Chucks provide optimum performance when clamping full-cylindrical straight shanks such as solid carbide drills and end mills. Turning a piston pressurizes hydraulic fluid, which expands a thin-walled membrane along the length of the clamping bore.

This creates a secure grip that reduces vibration and eliminates micro-cracking on cutting tools. All chucks are capable of utilizing reducer sleeves to maximize their versatility. Hydraulic chucks require virtually no maintenance, aside from routinely cleaning the bore and removing any grease.



Slim Line

Slim-shaped hydraulic chucks for universal use with maximum precision.



Standard/HP Line

Prebalanced chucks with an external screw for radial adjustments. This eliminates the need for removing cutting tools to make fine adjustments.

Collet Chucks



TG Collet Series

A single angle collet that grips 1:3 tightening torque versus grip torque without a stop screw.

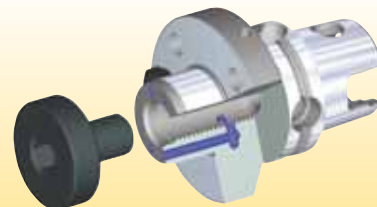


ER Collet Series

An international standard-style collet that can be used in machining applications such as milling, reaming, tapping, and grinding.

Shell Mill Adapters

All units come standard with a new coolant to the cutting edge capability. This improves tool life and chip control. Shell mill adapters are available in extended lengths and a range of small mounting diameters.



Selection Guide for KM Clamping Systems

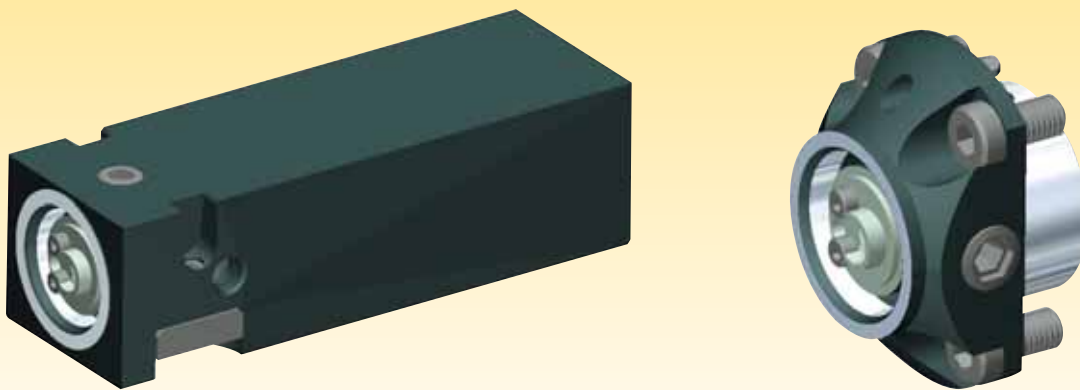
There are several things to consider before choosing the correct KM clamping mechanism. Manufacturers should take an account of how much time is spent setting up a machine or changing the tool. Customers should know if they are comfortable with using a torque wrench regularly, as well.

Other issues may arise when considering the machine tool mounting configurations needed to maximize production and cut downtime. KM clamping has options for manufacturers to upgrade their existing machinery and customize it to fit their needs.

KM Manual Clamping Units

KM Manual Quick Change Tooling is the most economical way to reduce costly downtime caused by setup and tool change. With approximately three turns of a readily accessible activation screw, a specified amount of torque is generated, locking the device. KM Manual Clamping Units accept internal and external cutting tools, as well as left- and right-handed tools.

The units also enable tools to be inverted if necessary. Variants of machine tool mounting configurations for KM Manual Quick Change Tooling include flange mounts, square, round, and VDI shanks.



KM-LOC II™ Clamping Units

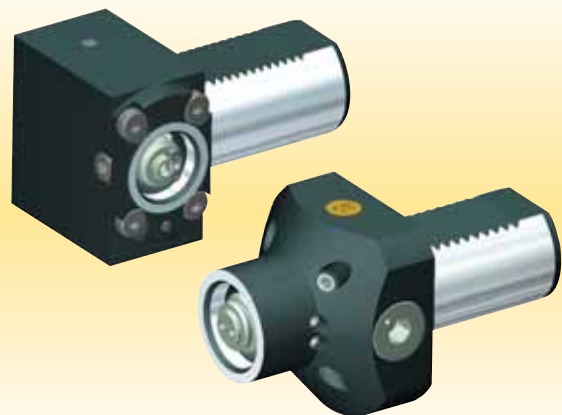
KM-LOC II Quick Change units have an increased mechanical advantage of up to 7:1. Due to the compact styling of these units, users are able to mount the clamping unit directly into the machine turret. KM-LOC II units require less activation torque when clamping tools, which reduces the overall stress on the component's clamping mechanism.

The KM-LOC II Quick Change system is available in various square shank sizes that have a 40–50% greater wedge surface area than comparable units. The cartridge style of these units enables the user to manufacture their own machine-specific blocks. A flange style is available as well.



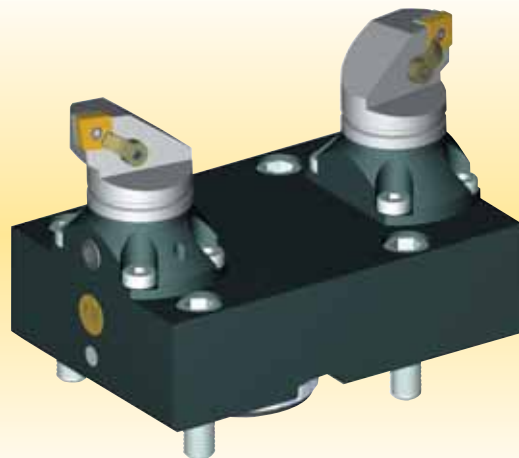
VDI to KM Clamping Units

KM Quick Change lets users upgrade VDI tooling without the need to modify their machines. This is because the KM clamping units act as a direct replacement for standard VDI tooling. VDI-style units are available to be used with KM Manual, KM-LOC, and KM-LOC II clamping units.



Builder-Specific Blocks

There are a variety of builder-specific blocks offered that provide customers a way to easily modify and upgrade their current tooling system to the KM Quick Change. These blocks are supported by Mori Seiki®, Mazak®, Hardinge™, Daewoo™, Nakamura-Tome™, Okuma®, HAAS, and other machine builders.



The KM Mechanical Advantage

A comparatively increased mechanical advantage is one of the central reasons why the KM Quick Change Tooling system is superior to other tooling methods. The high mechanical advantage is achieved through the system's rigid interference fit that is generated by additional forces in the clamping mechanism. A clamping device with greater than ordinary mechanical advantage offers many benefits in regard to tool life, downtime, and overall machine cost.

In the following sections, you'll find expanded information about the KM Quick Change Tooling system's mechanical advantage and how enhanced levels of these forces make Kennametal tooling superior to other quick-change systems.

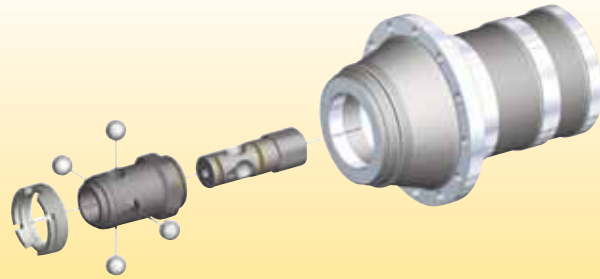
Front-Loading Spindle Design

The KM Advantage

KM spindle designs are front loading; this enables easy access to the KM spindle if repairs are necessary.

The Competitor Disadvantage

Most other spindle systems are not a front-load design, and when repairs are necessary, the entire spindle must be removed. This causes the machine to be down for an extended period of time.



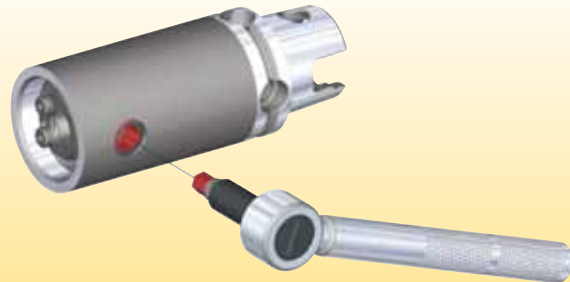
Side-Activated Tools

The KM Advantage

All KM extensions and reducers are side activated. This enables you to change tools without disassembling the entire setup.

The Competitor Disadvantage

Competing modular systems do not offer side activation. For these systems, you must completely disassemble tooling in order to change cutting units.



Mechanical Advantage in Clamping Force

The KM Advantage

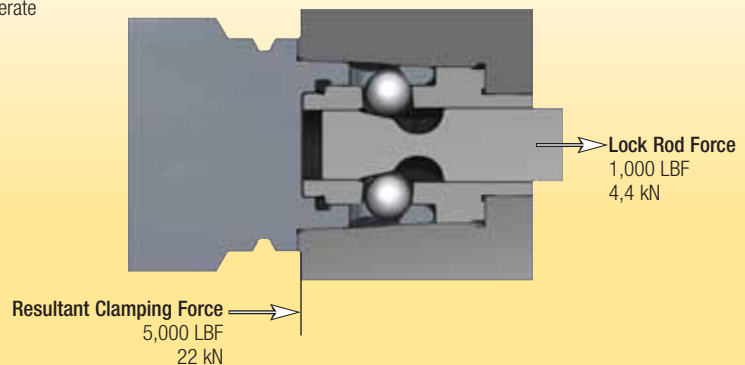
The KM design is an interference fit that enables the KM system to generate 4:1 and upwards of 7:1 mechanical advantage in clamping force.

The Competitor Disadvantage

CV, BT, HSK, and PSC mechanisms require a high degree of pull-back force to generate clamping force. The design generates a high amount of pent-up force within the spindle. When a crash occurs, the forces are released and could possibly damage the entire spindle mechanism.

Mechanical Advantage Provides:

- Lower tool release forces.
- Smaller clamping mechanism envelope.



Machine Utilization Strategy (MUS)

Tool change and setup/gaging can significantly decrease production time. Kennametal recommends the implementation of a Machine Utilization Strategy (MUS). This system incorporates the products, technologies, and procedures that generate the maximum utility from capital equipment.

Listed below are the products and services Kennametal recommends to provide the most time and cost savings, which are principle to the MUS.



This manufacturing strategy hastens every aspect of the production process from the machine to the tool room. It will improve tool maintenance, increase machining time and productivity, and decrease non-conforming percentages.

To learn more, **scan here.**
For instructions on how to scan,
please see page xxxiii.



1. KM Quick Change Tooling

Reduces downtime and increases productivity by cutting the time spent on tool change and setup.

2. Advanced Cutting Tool Materials

Increase production through the utilization of the most advanced cutting tools that enable machines to run longer and faster between tool changes.

3. Tool Kitting

Provides all the tooling (fixturing included) required to complete a production run or shift operation.

4. Pregaged Tooling

Eliminates measuring cuts from the setup process, reduces the risk of human error at the machine control, and provides a quick and efficient method for changing worn tools.

5. Advanced Tool Management Systems

Specifically designed to facilitate the effective management of cutting tools but are equally capable of controlling other types of inventory and consumable goods.

ISO 26622

The power of Kennametal

Kennametal is a world leader in the development, manufacture, application, and supply of metalcutting tools and services — and the undisputed top global maker of mining and highway-construction tooling. No matter what your industry, Kennametal will significantly boost your manufacturing competitiveness.

Our products are proven to significantly increase machining productivity and competitiveness, as well as generate cost-savings of up to 30% annually. Our unique Productivity Worksheet can calculate just how much time and money Kennametal KM™ Quick Change products can save. Enter your data to see how Kennametal can maximize your competitiveness!



Benefits of the Productivity Worksheet:

- See documented savings of 10–30% in machining costs.
- Uses your unique data to compare current productivity to potential savings.
- Relative and flexible to your specific machines and operation rates.
- Highlights how lost time can cost your business.
- Tracks weaknesses in machining setup that can reduce production time.
- Proves the Machine Utilization Strategy (MUS) is the ultimate way to optimize performance.

The way to increase productivity is simple — complete the Productivity Worksheet and see how much Kennametal could be saving you. If you're impressed by the increase in manufacturing productivity that the calculations show, contact us. Our application experts are accessible when you need them and will work with you to solve production problems. Switching to Kennametal will bring about the manufacturing capability and profits your business needs to strengthen customer loyalty and thrive in an increasingly competitive marketplace.



KM Tooling Increase Your Productivity

Issued by: _____

Machine Manufacturer: _____ Date: _____

Hourly Cost for Machine: _____ Model and Year: _____

Step 1 • Enter number of setups on machine per shift:

Step 2 • Enter number of shifts per day:

Step 3 • Enter number of insert changes per shift:


Step 4 • Enter set-up time for conventional tooling (minutes):

 - **KM Quick Change Tooling***

=

time savings (minutes)

Step 5 • Enter insert change time (minutes):

 -

=

Step 6 • Enter trial cut time (minutes):

 -

=

Step 7 • Multiply the number of shifts per day (see Step 2) by number of days per year the machine will be used.

 shifts per day

 x **days per year**

=

 shifts per year
Step 8 • Multiply the number of insert changes per shift (see Step 3) by the number of shifts per year (see Step 7).

 insert changes per shift

 x **shifts per year**

=

 insert changes per year
Step 9 • Multiply the number of insert changes per year (see Step 8) by the % of required trial cuts.

 insert changes per year

 x **% required trial cuts**

=

 trial cuts per year
Annual Time Savings with KM Quick Change Tooling Package
Step 10 • Enter shifts per year from Step 7.

 number

 x **time savings (minutes)**

=

 total (minutes)
Step 11 • Enter insert changes per year from Step 8.

 x

=

Step 12 • Enter trial cuts per year from Step 9.

 x

=

18,000
18,000 minutes divided by 60 minutes = 300 hours

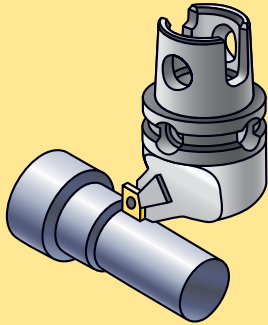
total hours saved		hourly machine cost		annual \$\$ saved**
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*Data provided by your Authorized Kennametal Representative. **Annual savings per machine. Multiply by number of machines to see total overall annual savings.

KM Quick Change Toolholder Options

KM Micro™ KM12 • KM1612 KM16 • KM2016	KM™ Mini KM20 • KM2520 KM25 • KM3225	KM32TS • KM40TS KM50TS • KM63TS KM80TS	KM63XMZ	KM80ATC	KM4X100

External Turning



M-Clamping

	KM12	
	KM16	Pages: A84–A85
	KM20	Pages: A134–A142
	KM25	Pages: A134–A142
	KM32TS	Pages: A221–A226
	KM40TS	Pages: A278–A288
	KM50TS	Pages: A358–A368
	KM63TS	Pages: A447–A458
	KM80TS	Pages: A521–A527
	KM63XMZ	Pages: A558–A561
	KM80ATC	Pages: A597–A600
	KM4X100	

P-Clamping

	KM12	
	KM16	
	KM20	Pages: A143–A144
	KM25	
	KM32TS	Pages: A227–A229
	KM40TS	Pages: A288–A295
	KM50TS	Pages: A370–A376
	KM63TS	Pages: A458–A466
	KM80TS	Pages: A528–A530
	KM63XMZ	Pages: A561–A562
	KM80ATC	Page: A600
	KM4X100	

Kenclamp™

	KM12		
	KM16		
	KM20		
	KM25		
	KM32TS		
	KM40TS		Pages: A265–A277
	KM50TS		Pages: A345–A357
	KM63TS		Pages: A435–A446
	KM80TS		Pages: A519–A520
	KM63XMZ		
	KM80ATC		Pages: A593–A596
	KM4X100		

C-Clamping

	KM12		
	KM16		
	KM20		
	KM25		
	KM32TS		Page: A232
	KM40TS		
	KM50TS		Pages: A378–A382
	KM63TS		Pages: A469–A472
	KM80TS		
	KM63XMZ		
	KM80ATC		
	KM4X100		

S-Clamping

	KM12	Pages: A78–A83
	KM16	Pages: A78–A83, A94–A97
	KM20	Pages: A145–A147, A151–A153
	KM25	Pages: A145–A152
	KM32TS	Pages: A230–A231
	KM40TS	Pages: A297–A302
	KM50TS	Pages: A376–A377
	KM63TS	Pages: A466–A468
	KM80TS	
	KM63XMZ	Page: A562
	KM80ATC	
	KM4X100	

Top Notch™ Profiling

	KM12		
	KM16		
	KM20		
	KM25		
	KM32TS		Pages: A232–A235
	KM40TS		Pages: A303–A306
	KM50TS		Pages: A383–A384
	KM63TS		Pages: A473–A476
	KM80TS		
	KM63XMZ		
	KM80ATC		
	KM4X100		

Top Notch™ Turning (TNT)

	KM12		
	KM16		
	KM20		
	KM25		
	KM32TS		
	KM40TS		
	KM50TS		
	KM63TS		
	KM80TS		
	KM63XMZ		
	KM80ATC		
	KM4X100		

STA, ETA, and 45° TA Square Shank Adapters

	KM12		
	KM16		
	KM20		
	KM25		
	KM32TS		
	KM40TS		
	KM50TS		
	KM63TS		
	KM80TS		Pages: A432–A433
	KM63XMZ		Pages: A517–A518
	KM80ATC		Pages: A554–A557
	KM4X100		Pages: A591–A592

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KM Micro™ KM12 • KM1612 KM16 • KM2016	KM™ Mini KM20 • KM2520 KM25 • KM3225	KM32TS • KM40TS KM50TS • KM63TS KM80TS	KM63XMZ	KM80ATC	KM4X100	KM Quick Change Toolholder Options

Internal Turning

M-Clamping

	KM1612	
	KM2016	
	KM2520	Pages: A168, A171–A174
	KM3225	Pages: A166–A174
	KM32TS	Pages: A240–A241
	KM40TS	Pages: A314–A316
	KM50TS	Pages: A392–A396
	KM63TS	Pages: A481–A487
	KM80TS	
	KM63XMZ	
	KM80ATC	
	KM4X100	

P-Clamping

	KM1612	
	KM2016	
	KM2520	Pages: A175–A176
	KM3225	Pages: A175–A176
	KM32TS	Pages: A242–A243
	KM40TS	Pages: A317–A319
	KM50TS	Pages: A397–A398
	KM63TS	Pages: A488–A491
	KM80TS	
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	KM80ATC	
	KM4X100	

S-Clamping

	KM1612	Pages: A103–A111
	KM2016	Pages: A100–A101, A109, A111
	KM2520	
	KM3225	
	KM32TS	Pages: A244–A246
	KM40TS	
	KM50TS	
	KM63TS	Pages: A491–A492
	KM80TS	
	KM63XMZ	
	KM80ATC	
	KM4X100	

Tunable System KM™

	KM1612	
	KM2016	
	KM2520	
	KM3225	
	KM32TS	
	KM40TS	
	KM50TS	
	KM63TS	
	KM80TS	Page: A494
	KM63XMZ	Page: A568
	KM80ATC	
	KM4X100	

Top Notch™ Profiling

	KM1612	
	KM2016	
	KM2520	
	KM3225	
	KM32TS	
	KM40TS	
	KM50TS	Pages: A403–A404
	KM63TS	
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	KM4X100	

External Cut-Off

A2™

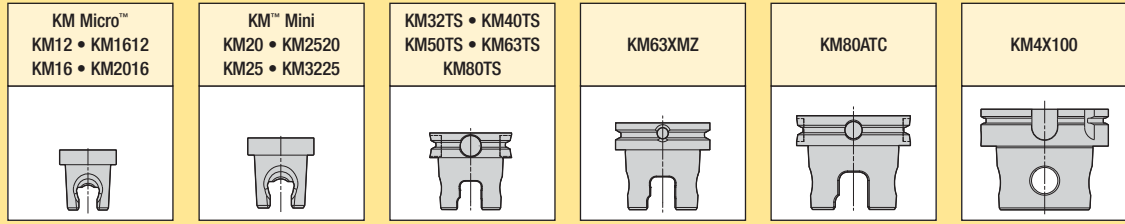
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	KM16	Page: A87
	KM20	
	KM25	
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	KM50TS	
	KM63TS	Page: A312
	KM80TS	Page: A391
	KM63XMZ	Pages: A481–A482
	KM80ATC	
	KM4X100	

A3™/A4™

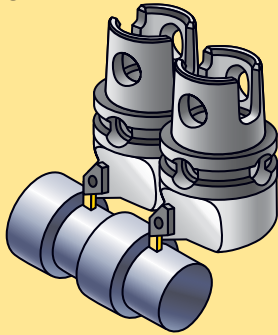
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	KM20	Pages: A156–A160
	KM25	Pages: A156–A159
	KM32TS	
	KM40TS	
	KM50TS	Page: A311
	KM63TS	Pages: A389–A390
	KM80TS	Pages: A479–A480
	KM63XMZ	Pages: A532–A535
	KM80ATC	Page: A563
	KM4X100	Pages: A602–A603

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KM Quick Change Toolholder Options



External Grooving



Top Notch™ Grooving

	KM12	Page: A89
	KM16	Pages: A88–A89, A97
	KM20	Pages: A153–A154
	KM25	Pages: A153–A154
	KM32TS	Pages: A235–A236
	KM40TS	Pages: A307–A308
	KM50TS	Pages: A385–A386
	KM63TS	Page: A477
	KM80TS	Page: A531
	KM63XMZ	
	KM80ATC	Page: A601
	KM4X100	

On-Edge Grooving

	KM12	Page: A90
	KM16	Page: A90
	KM20	
	KM25	
	KM32TS	
	KM40TS	
	KM50TS	
	KM63TS	
	KM80TS	
	KM63XMZ	
	KM80ATC	
KM4X100		

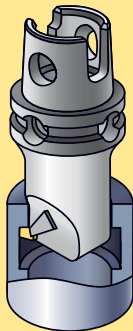
A3™/A4™

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	KM16	Pages: A86, A88
	KM20	Pages: A156–A160
	KM25	Pages: A156–A159
	KM32TS	
	KM40TS	Page: A311
	KM50TS	Pages: A389–A390
	KM63TS	Pages: A479–A480
	KM80TS	Pages: A532–A535
	KM63XMZ	Page: A563
	KM80ATC	Pages: A602–A603
	KM4X100	

Kenna Precision™

	KM12	Pages: A89–A90
	KM16	Pages: A89–A90
	KM20	
	KM25	
	KM32TS	
	KM40TS	
	KM50TS	
	KM63TS	
	KM80TS	
	KM63XMZ	
	KM80ATC	
KM4X100		

Internal Grooving



Top Notch™ Grooving

	KM1612	
	KM2016	Page: A102
	KM2520	Page: A177
	KM3225	Page: A177
	KM32TS	Page: A247
	KM40TS	Pages: A320–A322
	KM50TS	Pages: A406–A407
	KM63TS	Page: A477
	KM80TS	Page: A492
	KM63XMZ	
	KM80ATC	
	KM4X100	

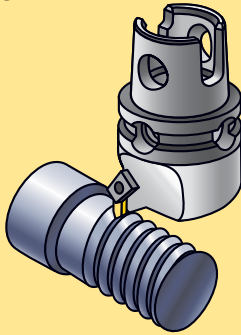
A3™/A4™

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	KM2016		
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	KM3225		Pages: A180–A182
	KM32TS		
	KM40TS		
	KM50TS		
	KM63TS		
	KM80TS		
	KM63XMZ		
	KM80ATC		
KM4X100			

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KM Micro™ KM12 • KM1612 KM16 • KM2016	KM™ Mini KM20 • KM2520 KM25 • KM3225	KM32TS • KM40TS KM50TS • KM63TS KM80TS	KM63XMZ	KM80ATC	KM4X100	KM Quick Change Toolholder Options

External Threading



Top Notch™ Threading

	KM12	Page: A89
	KM16	Pages: A88–A89, A97
	KM20	Pages: A153–A154
	KM25	Pages: A153–A154
	KM32TS	Pages: A235–A236
	KM40TS	Pages: A307–A308
	KM50TS	Pages: A385–A386
	KM63TS	Page: A477
	KM80TS	Page: A531
	KM63XMZ	
	KM80ATC	Page: A601
	KM4X100	

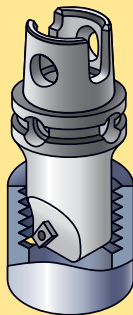
LT Threading

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	KM16	Pages: A91, A97
	KM20	Page: A155
	KM25	Page: A155
	KM32TS	Pages: A237–A238
	KM40TS	Pages: A309–A310
	KM50TS	Pages: A386–A388
	KM63TS	Page: A478
	KM80TS	
	KM4X100	

On-Edge Threading

	KM12	Page: A90
	KM16	Page: A90
	KM20	
	KM25	
	KM32TS	
	KM40TS	
	KM50TS	
	KM63TS	
	KM80TS	
	KM63XMZ	
	KM80ATC	
KM4X100		

Internal Threading



Top Notch™ Threading

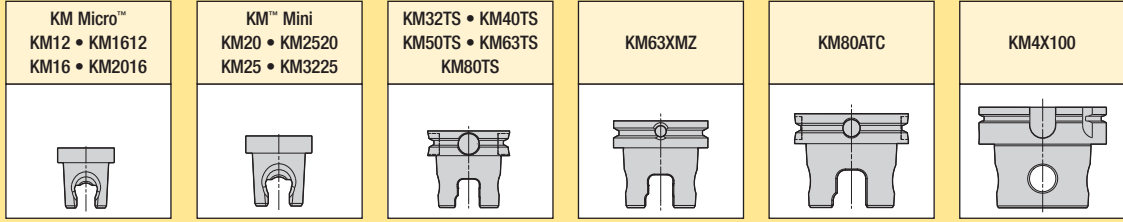
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	KM2520	Page: A177
	KM3225	Page: A177
	KM32TS	Page: A247
	KM40TS	Pages: A320–A322
	KM50TS	Pages: A406–A407
	KM63TS	Page: A492
	KM80TS	
	KM63XMZ	
	KM80ATC	
	KM4X100	

LT Threading

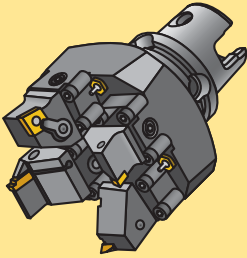
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	KM2016	
	KM2520	Page: A178
	KM3225	Page: A178
	KM32TS	Page: A248
	KM40TS	Page: A323
	KM50TS	Page: A408
	KM63TS	
	KM80TS	
	KM63XMZ	
KM80ATC		

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KM Quick Change Toolholder Options



External Multi-Tasking



4X STA – KM™

	KM12	
	KM16	
	KM20	
	KM25	
	KM32TS	
	KM40TS	
	KM50TS	
	KM63TS	
	KM80TS	
	KM63XMZ	
	KM80ATC	
	KM4X100	

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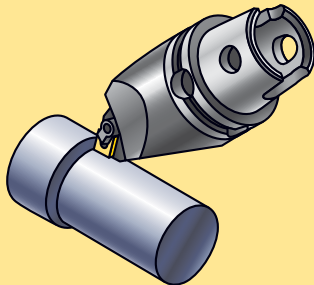
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2X/4X STA – Square Shanks

	KM12	
	KM16	
	KM20	
	KM25	
	KM32TS	
	KM40TS	
	KM50TS	
	KM63TS	
	KM80TS	
	KM63XMZ	
	KM80ATC	
	KM4X100	

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External Centerline



M-Clamping

	KM12	
	KM16	
	KM20	
	KM25	
	KM32TS	
	KM40TS	
	KM50TS	
	KM63TS	
	KM80TS	
	KM63XMZ	
	KM80ATC	
	KM4X100	

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Pages: A559–A561

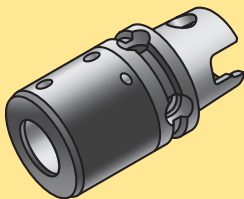
KM™ Reducers

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	KM16	
	KM20	
	KM25	
	KM32TS	
	KM40TS	
	KM50TS	
	KM63TS	
	KM80TS	
	KM63XMZ	
	KM80ATC	
	KM4X100	

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Turning Adapters



Boring Bar Adapters

	KM1612	
	KM2016	
	KM2520	
	KM3225	
	KM32TS	
	KM40TS	
	KM50TS	
	KM63TS	
	KM80TS	
	KM63XMZ	
	KM80ATC	
	KM4X100	

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Boring Bar Sleeves

	KM1612	
	KM2016	
	KM2520	
	KM3225	
	KM32TS	
	KM40TS	
	KM50TS	
	KM63TS	
	KM80TS	
	KM63XMZ	
	KM80ATC	
	KM4X100	

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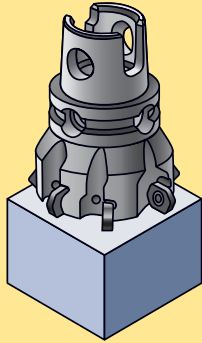
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KM Micro™ KM12 • KM1612 KM16 • KM2016	KM™ Mini KM20 • KM2520 KM25 • KM3225	KM32TS • KM40TS KM50TS • KM63TS KM80TS	KM63XMZ	KM80ATC	KM4X100	KM Quick Change Toolholder Options

Milling



Shrink Fit

	KM1612	
	KM2016	
	KM2520	
	KM3225	
	KM32TS	
	KM40TS	
	KM50TS	
	KM63TS	
	KM80TS	
	KM63XMZ	
	KM80ATC	
	KM4X100	

TG Collet Chucks

	KM1612	
	KM2016	
	KM2520	
	KM3225	
	KM32TS	
	KM40TS	
	KM50TS	
	KM63TS	
	KM80TS	
	KM63XMZ	
	KM80ATC	

Slim Line Hydraulic

	KM1612	
	KM2016	
	KM2520	
	KM3225	
	KM32TS	
	KM40TS	
	KM50TS	
	KM63TS	
	KM80TS	
	KM63XMZ	
	KM80ATC	

Hydraulic Chucks

	KM1612	
	KM2016	
	KM2520	
	KM3225	
	KM32TS	
	KM40TS	
	KM50TS	
	KM63TS	
	KM80TS	
	KM63XMZ	
	KM80ATC	

ER Collet Chucks

	KM1612	Page: A112
	KM2016	
	KM2520	
	KM3225	
	KM32TS	
	KM40TS	
	KM50TS	
	KM63TS	
	KM80TS	
	KM63XMZ	
	KM80ATC	

DA Collet Chucks

	KM1612	
	KM2016	
	KM2520	
	KM3225	
	KM32TS	
	KM40TS	
	KM50TS	
	KM63TS	
	KM80TS	
	KM63XMZ	
	KM80ATC	

Whistle Notch™ Adapters

	KM1612	
	KM2016	
	KM2520	
	KM3225	
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	KM40TS	
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	KM80TS	
	KM63XMZ	
	KM80ATC	

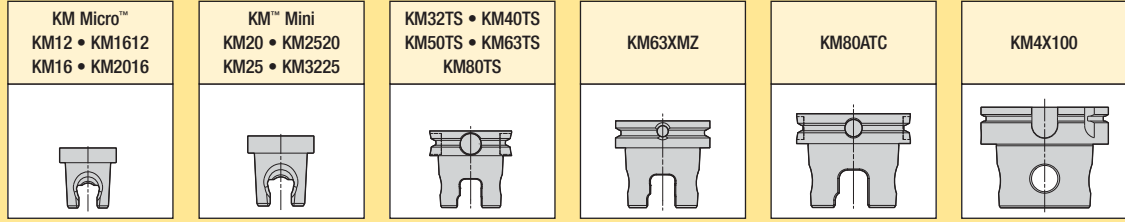
End Mill Adapters

	KM1612	
	KM2016	
	KM2520	
	KM3225	
	KM32TS	
	KM40TS	
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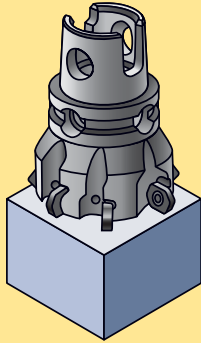
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(continued)

KM Quick Change Toolholder Options



Milling (continued)



Tunable Shell Mill Adapters

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	KM32TS	
	KM40TS	
	KM50TS	
	KM63TS	
	KM80TS	
	KM63XMZ	
	KM80ATC	
	KM4X100	

Shell Mill Adapters

	KM1612	
	KM2016	
	KM2520	
	KM3225	
	KM32TS	
	KM40TS	
	KM50TS	
	KM63TS	
	KM80TS	
	KM63XMZ	
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	Pages: A420–A421	
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	Page: A616	
	Pages: A632–A633	

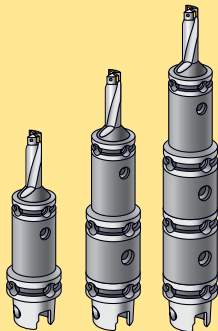
Combi-Shell Mill Adapters

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	KM2520	
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	KM80TS	
	KM63XMZ	
	KM80ATC	
	KM4X100	
	Page: A421	
	Page: A509	
	Page: A548	
	Page: A587	

Screw-On Adapters

	KM1612	
	KM2016	
	KM2520	
	KM3225	
	KM32TS	
	KM40TS	
	KM50TS	
	KM63TS	
	KM80TS	
	KM63XMZ	
	KM80ATC	
	KM4X100	
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Modular Extensions and Reducers



KM™ Modular

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	KM2016	
	KM2520	
	KM3225	
	KM32TS	
	KM40TS	
	KM50TS	
	KM63TS	
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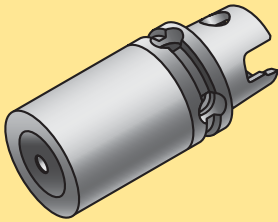
PSC to KM Modular

	PSC63	Page: A619
	PSC80	Page: A619

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KM Micro™ KM12 • KM1612 KM16 • KM2016	KM™ Mini KM20 • KM2520 KM25 • KM3225	KM32TS • KM40TS KM50TS • KM63TS KM80TS	KM63XMZ	KM80ATC	KM4X100	KM Quick Change Toolholder Options

Auxiliary



Blanks

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	KM1612	Page: A115
	KM16	Page: A115
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	KM20	Page: A186
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Plugs

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	KM63TS	Page: A514
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	KM63XMZ	Page: A587
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Timing Heads

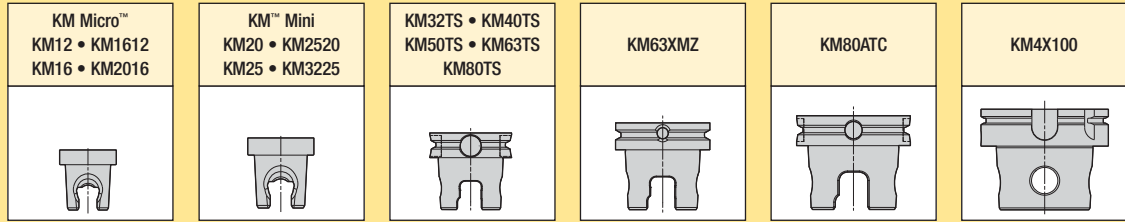
	KM12	Page: A116
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	KM3225	
	KM32TS	
	KM40TS	
	KM50TS	
	KM63TS	
	KM80TS	
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	KM80ATC	
KM4X100		

Tumble Block

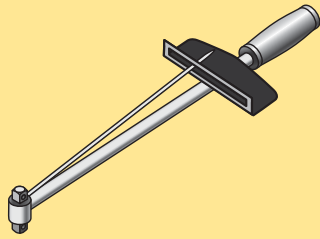
	KM12	Page: A117
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	KM32TS	
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	KM50TS	
	KM63TS	
	KM80TS	
	KM63XMZ	
	KM80ATC	
KM4X100		

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KM Quick Change Toolholder Options



Accessories



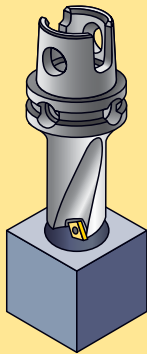
Torque Wrenches

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Drilling



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	KM40TS		
	KM50TS		
	KM63TS		Pages: A496–A499
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TG Collet Chucks

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ER Collet Chucks

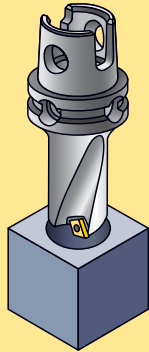
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	KM3225	Page: A183
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	KM63TS	Pages: A504–A505
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	KM80ATC	Page: A611
	KM4X100	Page: A627

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KM Micro™ KM12 • KM1612 KM16 • KM2016	KM™ Mini KM20 • KM2520 KM25 • KM3225	KM32TS • KM40TS KM50TS • KM63TS KM80TS	KM63XMZ	KM80ATC	KM4X100	KM Quick Change Toolholder Options

Drilling (continued)



DA Collet Chucks

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	KM63XMZ		Pages: A582–A583
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Romicron™

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	KM2520		
	KM3225		
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	KM63TS		
	KM80TS		
	KM63XMZ		
	KM80ATC		
	KM4X100		

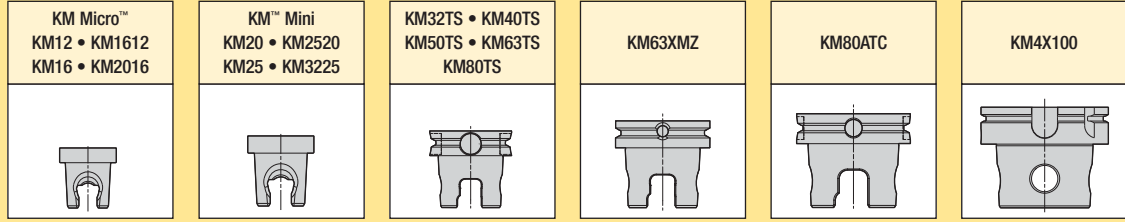
Drill Fix™ Adapters

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	KM3225		
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	KM80TS		
	KM63XMZ		
KM80ATC			
KM4X100			

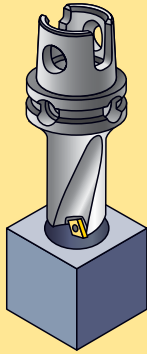
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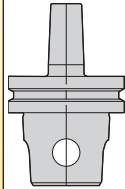


KM Quick Change Toolholder Options



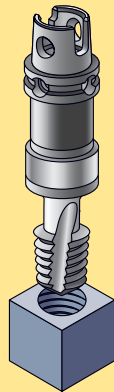
Drilling (continued)



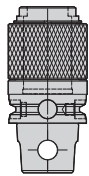


Jacobs/DIN

	KM1612	
	KM2016	
	KM2520	
	KM3225	
	KM32TS	
	KM40TS	
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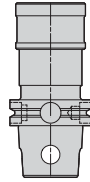


Tapping



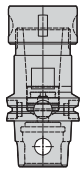

Solid Tapping

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	KM2520	
	KM3225	
	KM32TS	
	KM40TS	
	KM50TS	
	KM63TS	
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	KM63XMZ	
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	KM80ATC	
	KM4X100	

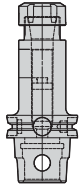

RC Rapid Change

	KM1612	
	KM2016	
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	KM3225	
	KM32TS	
	KM40TS	
	KM50TS	
	KM63TS	
	KM80TS	
	KM63XMZ	
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	KM80ATC	
	KM4X100	

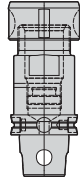


TG Collet Chucks

	KM1612	
	KM2016	
	KM2520	
	KM3225	
	KM32TS	
	KM40TS	
	KM50TS	
	KM63TS	
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ER Collet Chucks

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	KM80TS	Pages: A542–A544
	KM63XMZ	Pages: A580–A581
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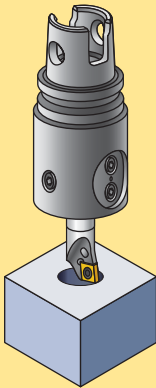
DA Collet Chucks

	KM1612	
	KM2016	
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	KM3225	
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	KM50TS	
	KM63TS	
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	KM4X100	

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KM Micro™ KM12 • KM1612 KM16 • KM2016	KM™ Mini KM20 • KM2520 KM25 • KM3225	KM32TS • KM40TS KM50TS • KM63TS KM80TS	KM63XMZ	KM80ATC	KM4X100	KM Quick Change Toolholder Options

Boring



ModBORE™

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	KM32TS Pages: A260–A261 KM40TS Pages: A339–A341 KM50TS Pages: A424–A426 KM63TS Pages: A512–A513 KM80TS	
	KM63XMZ KM80ATC KM4X100	

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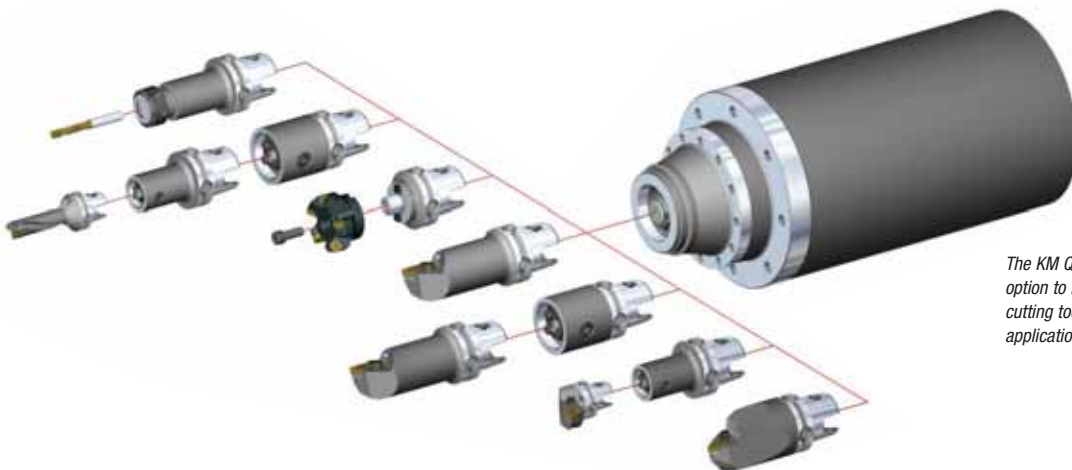
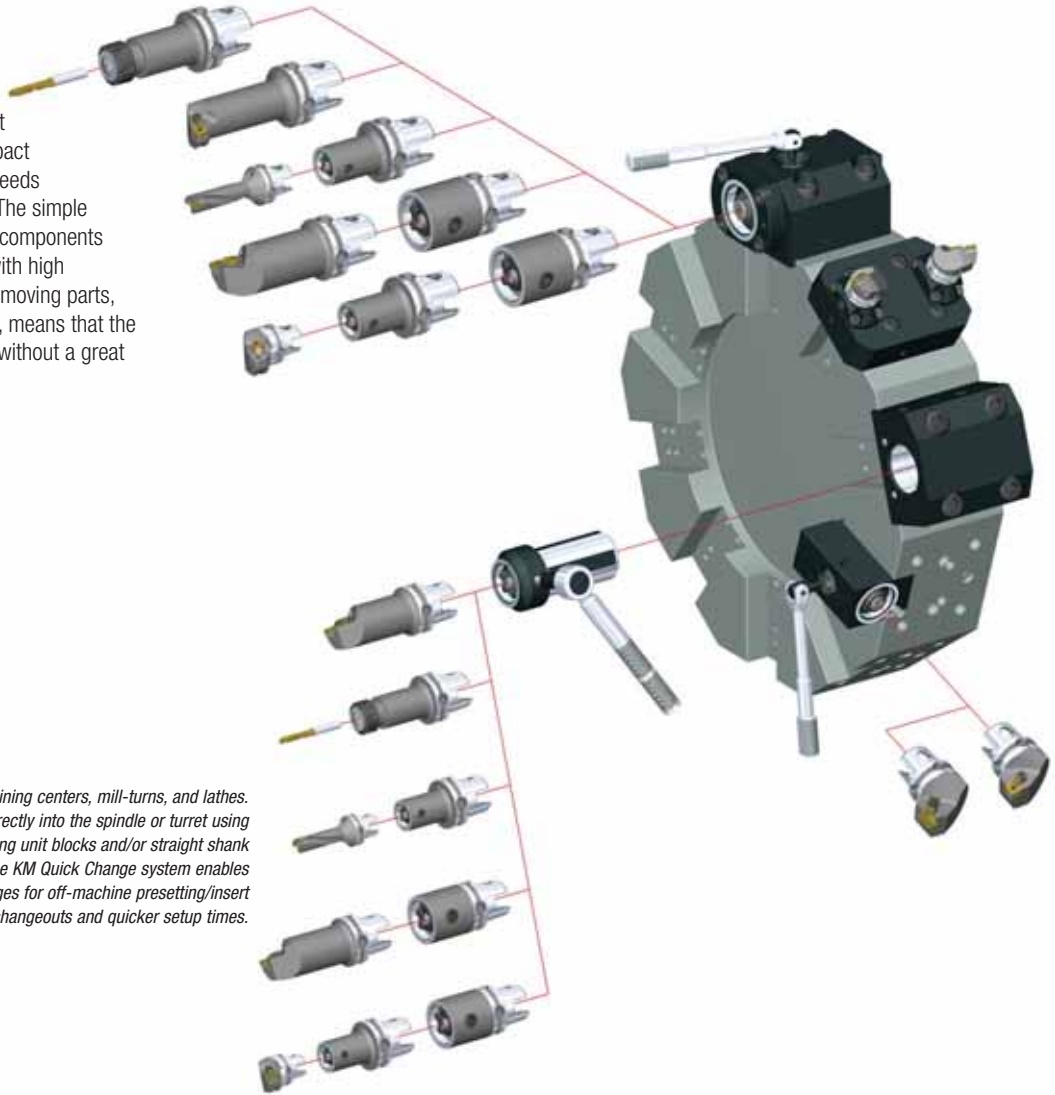
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Conversion and Clamping System

Clamping Units

KM™ offers a variety of different clamping designs to suit manufacturing needs. Each unit design comes in a portfolio of compact options to further diversify tooling needs across a multitude of applications. The simple design of the units utilizes minimal components to create a strong clamping force with high mechanical advantage. Having few moving parts, and requiring a low activation force, means that the KM Quick Change Clamps operate without a great deal of maintenance or error.

One system for machining centers, mill-turns, and lathes. Can be integrated directly into the spindle or turret using standardized clamping unit blocks and/or straight shank conversions to KM. The KM Quick Change system enables speedy tool changes for off-machine presetting/insert changeouts and quicker setup times.



The KM Quick Change modular system offers the option to build a combination of many possible cutting tool lengths for best rigidity for the application, optimizing costs and inventory.

Manual and Automatic Clamping Units



KM Manual Square Shank Replacements



KM Manual Round Shanks



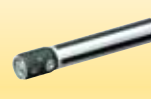
KM Manual Flange Mounts



Rapid/Rapid Plus



KM-LOC II™ Square Shanks



KM-LOC II Round Shanks



KM-LOC II VDI Axial



KM Automatic Static

KM Manual Clamping Units

- Simple, compact design for use in many applications.
- Single- or four-pin clamping designs.
- Torque values used to clamp/unclamp tooling — 2-1/2 turns to activate.
- Available options: square shank, straight shank, flange mount, VDI, extensions/reducers, and machine tool blocks.

KM Rapid/Rapid Plus

- Simple and very compact design.
- Cam activation lock/unlock.
- Preferred for stationary applications.
- Low activation force required.
- Available style: Flange mount, VDI shank and mounting cartridge

KM-LOC™ Clamping Units

- First generation of turn-to-turn clamping units.
- Low activation torque required.
- Stop-to-stop activation.
- Cam-driven spring pack.
- KM-LOC clamping units are available in a limited portfolio to meet the needs of previous installations.

KM-LOC II Clamping Units

- Newest design in positive stop clamping units.
- Compact design with fewer components.
- Virtually maintenance free.
- Increased clamping force.
- Available options: flange cartridge, boring cartridge, straight shank, and VDI.
- 100 bar (1,500 psi) coolant capability.

Automatic Spring Packs

NACA, RACA Units

- Based on VDI turret concept.
- Common release point.
- Flexible turret.
- Right-angle mechanism.

KM80 XGL Design

- Compact and rigid.
- More than 14,000 lbs of clamping force.

Rotating Spindle Cartridge

- Easily incorporated into machine tool applications.
- Over 5:1 mechanical clamping force.
- Front-loading design for easy access maintenance that reduces downtime.
- No gripping fingers or retention knobs to reduce long-term performance.

Toolholding Systems



45° Centerline



Multi-station



Single-Square Shank Adapters



Cutting Units



Boring Bar Adapters



Shrink Fit Toolholders



Slim Line Hydraulic Chucks



Single-Angle Collet Chucks



Drills



KM Reducers

Clamping Units

KM offers a variety of different clamping designs to suit manufacturing needs. Each unit design comes in a portfolio of compact options to further diversify tooling needs across a multitude of applications.

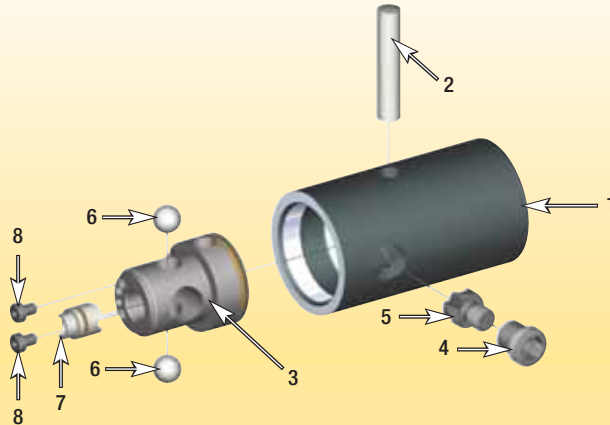
The simple design of the units utilizes minimal components to create a strong clamping force with high mechanical advantage. Having few moving parts and requiring a low activation force, means that the KM Quick Change clamps operate without a great deal of maintenance or error.

Manual Clamping Units

- Simple, compact design for use in many applications.
- Single- or four-pin clamping mechanisms.
- Torque values used to clamp/unclamp tooling — 2-1/2 turns to activate.
- Available options: square shank, straight shank, flange mount, VDI, extensions/reducers, and machine tool blocks.

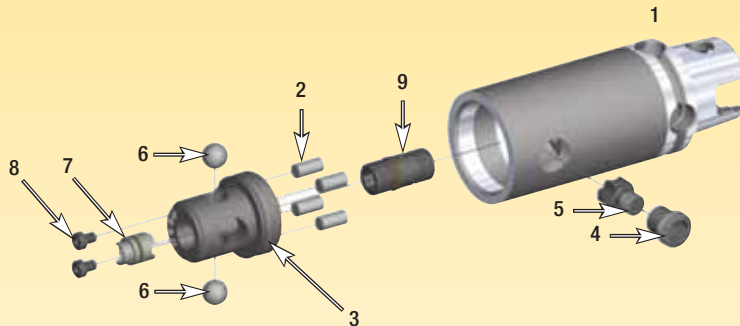
Single-Pin Design

1. Steel Body
2. Canister Pin
3. Canister
4. Torque Screw
5. Lockrod
6. Locking Balls
7. Bump-Off Pin
8. Bump-Off Pin Screws



Four-Pin Design

1. Steel Body
2. Canister Pin (4x)
3. Canister
4. Torque Screw
5. Lockrod
6. Locking Balls
7. Bump-Off Pin
8. Bump-Off Pin Screws
9. Canister Screw

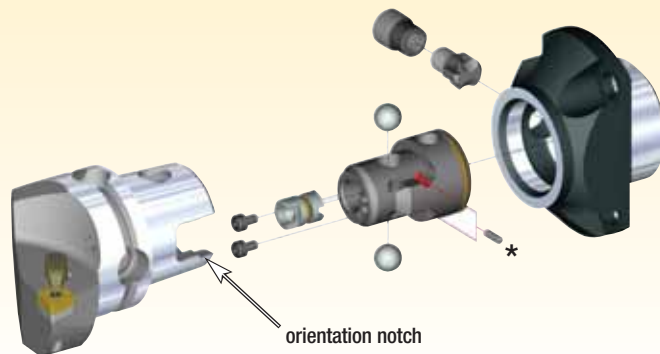


Error-Proofing Capability for KM Manual Clamping Units

KM Manual units must be disassembled in order to be error proofed. After disassembling the unit, you will find two holes within the canister. To error-proof the unit, insert a metric slotted pin* into one of the holes within the canister. Reassemble, and the clamping unit is now error-proofed.

*Metric Slotted Pins:

- KM40TS — 3mm x 6mm long.
- KM50TS — 4mm x 8mm long.
- KM63TS — 5mm x 10mm long.
- KM80TS — 5mm x 10mm long.
- KM63XMZ — 5mm x 10mm long.
- KM80ATC — 5mm x 10mm long.

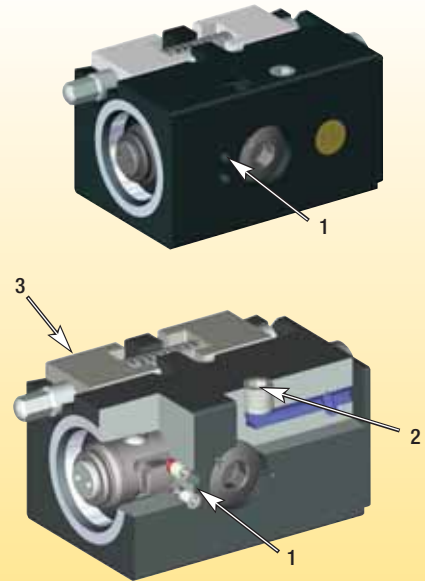


KM-LOC II™ Clamping Units

- Newest design in turn-to-turn clamping.
- Compact design with fewer components.
- Single- and two-piece designs.
- Virtually maintenance free.
- Increased clamping force.
- Available options: flange cartridge, boring cartridge, straight shank, and VDI.
- 100 bar (1,500 psi) coolant.

1. Error Proofing
2. Coolant Port
3. Locking Wedges

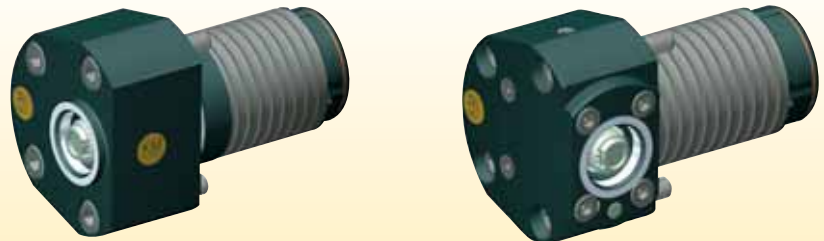
KM-LOC II clamping units offer an increased mechanical advantage of up to 7:1. They require less activation torque, which creates less stress on the clamp's components. The readily adaptable design of the KM-LOC II clamping unit enables the device's user to manufacture the tool block as they choose.



Automatic Spring Packs

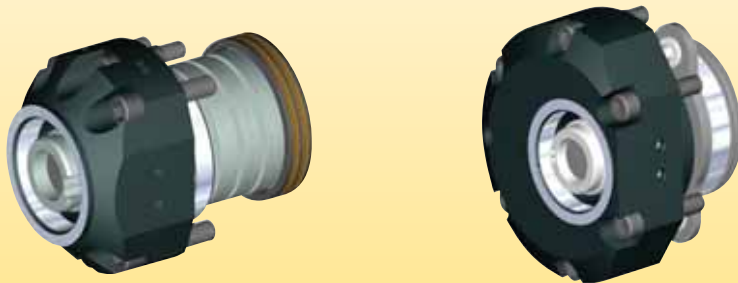
NACA, RACA Units

- Based on VDI turret concept.
- Common release point.
- Flexible turret.
- Axial and right-angle mechanism.
- Clamping force provided by disk spring package.



KM80 XGL Static

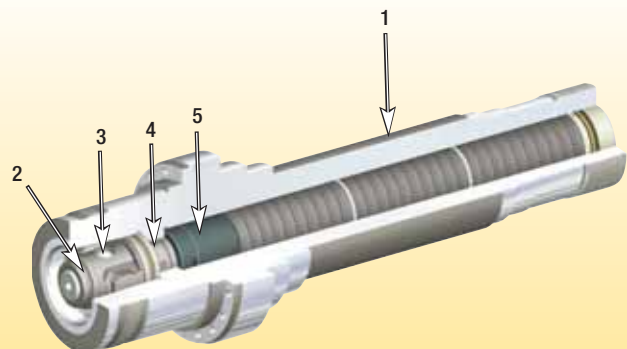
- Compact and rigid.
- More than 14,000 lbs of clamping force.
- Clamping force provided by disk spring package.



Rotating Spindle

- Easily incorporated into machine tool applications.
- Over 5:1 mechanical clamping force.
- Front-loading design for easy access maintenance that reduces downtime.
- No gripping fingers or retention knobs to reduce long-term performance.

1. KM Spindle Cartridge
2. Canister
3. Clamping Balls
4. Lockrod
5. Canister Nut


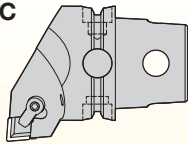
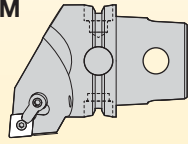
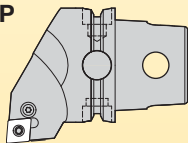
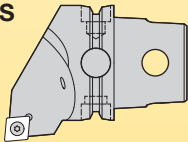


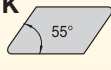



























How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



KM63TSPCLNR1204

KM	63	TS	P	C	L	N
KM Quick Change	System Size	Feature	Insert Holding Method	Insert Shape	Toolholder Style	Insert Clearance Angle
	<p>40 = 40mm 50 = 50mm 63 = 63mm 80 = 80mm 100 = 100mm</p> 	<p>TS XMZ ATC 4X</p>	<p>C  C-Clamping Top clamping by clamping finger for inserts without hole</p> <p>M  M-Clamping Top and hole clamping for inserts with hole</p> <p>P  P-Clamping Insert clamping by toggle lever for insert with hole</p> <p>S  S-Clamping Center clamping by screw for inserts with hole</p>	<p>C  80°</p> <p>D  55°</p> <p>K  55°</p> <p>R </p> <p>S  90°</p> <p>T  60°</p> <p>V  35°</p> <p>W  80°</p>	<p>D  45°</p> <p>E  30°</p> <p>F  0°</p> <p>G  0°</p> <p>H  50°</p> <p>J  3°</p> <p>K  15°</p> <p>L  5°</p> <p>N  63°</p> <p>P  27° 30'</p>	<p>B  5°</p> <p>C  7°</p> <p>N  0°</p> <p>P  11°</p> <p>Q  17° 30'</p> <p>R  15°</p> <p>S  45°</p> <p>U  3°</p> <p>V  17° 30'</p> <p>X  120°</p>

By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



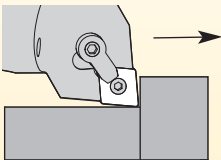
KM63TSPCLNR1204

R

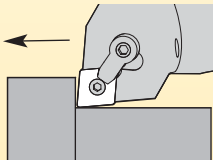
Hand of Tool

R = Right hand
L = Left hand
N = Neutral

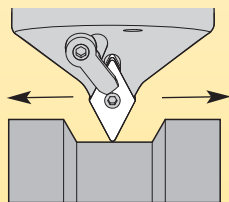
R



L



N



12

Insert Size
Cutting Edge
Length L10

Additional Information

MX =
Ceramic
inserts

04

Insert
Thickness

03 = .125"
T3 = .156"
04 = .188"
06 = .250"
07 = .312"

Gage
Length

30 = 30mm
45 = 45mm
120 = 120mm

Special
Features

Y = Mazak®
INTEGREX®
M = Metric

Metric

IC	C	D	K	R	S	T	V	W
3,97		04		03	03	06		
4,76	04	05		04	04	08	08	S3
5,56	05	06	03	05	05	09	09	03
6,00				06				
6,35	06	07	04	06	06	11	11	04
7,94	08	09	05	07	07	13	13	05
8,00				08			11	
9,52	09	11	06	09	09	16	16	06
9,52								
10,00				10				
11,11	11	13	07	11	11	19	19	07
12,00				12				
12,70	12	15	08	12	12	22	22	08
14,29	14	17	09	14	14	24	24	09
15,88	16	19	10	15	15	27	27	10
16,00				16				
17,46	17	21	11	17	17	30	30	11
19,05	19	23	13	19	19	33	33	13
20,00				20				
22,22	22	27	15	22	22	38	38	15
25,00				25				
25,40	25	31	17	25	25	44	44	17
31,75	32	38	21	31	31	54	54	21
32,00				32				

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



KM63TSS32GMCLNR1204

KM

KM Quick Change

63

System Size

- 40 = 40mm
- 50 = 50mm
- 63 = 63mm
- 80 = 80mm
- 100 = 100mm



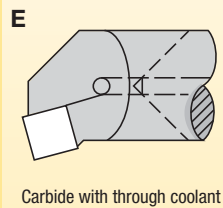
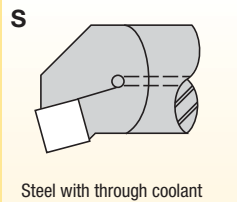
TS

Feature

- TS
- XMZ
- ATC
- 4X

S

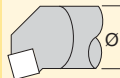
Bar Type



32

Bar Diameter

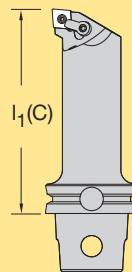
- 10 = 10mm
- 12 = 12mm
- 16 = 16mm
- 20 = 20mm
- 25 = 25mm
- 32 = 32mm
- 40 = 40mm
- 50 = 50mm



G

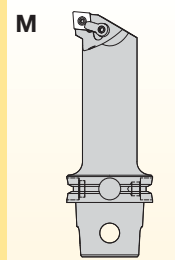
Bar Gage Length

C	50
D	60
E	70
F	80
G	90
H	100
J	110
K	125
L	140
M	150
N	160
P	170
Q	180
R	200
S	250
T	300
U	350
V	400
W	450
Y	500
X	Special

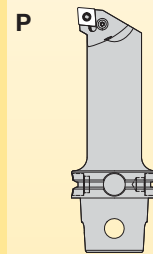


M

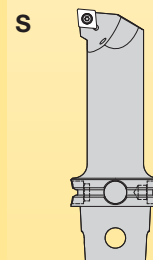
Insert Holding Method



M-Clamping
Top and hole clamping for inserts with hole



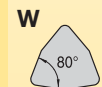
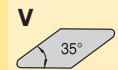
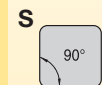
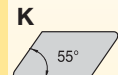
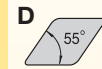
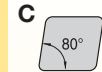
P-Clamping
Insert clamping by toggle lever for insert with hole



S-Clamping
Center clamping by screw for inserts with hole

C

Insert Shape



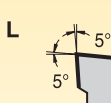
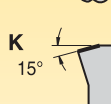
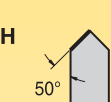
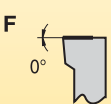
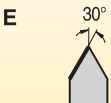
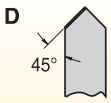
By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



KM63TSS32GMCLNR1204

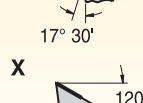
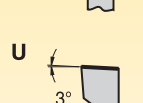
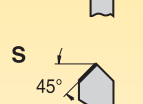
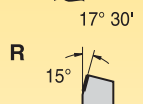
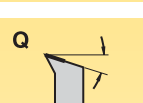
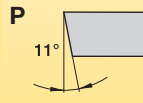
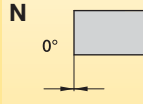
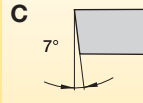
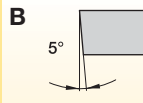
L

Toolholder Style or Lead Angle



N

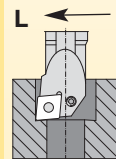
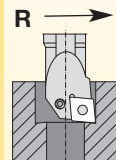
Insert Clearance Angle



R

Hand of Tool

R = Right hand
L = Left hand



12

Insert Size Cutting Edge Length L10

04

Insert Thickness

- 03 = .125"
- T3 = .156"
- 04 = .188"
- 06 = .250"
- 07 = .312"

Special Features

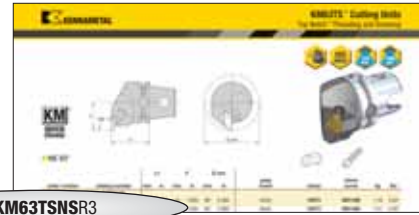
- Y = Mazak® INTEGREX®
- M = Metric

Metric

IC	C	D	K	R	S	T	V	W
3,97		04		03	03	06		
4,76	04	05		04	04	08	08	S3
5,56	05	06	03	05	05	09	09	03
6,00				06				
6,35	06	07	04	06	06	11	11	04
7,94	08	09	05	07	07	13	13	05
8,00				08			11	
9,52	09	11	06	09	09	16	16	06
9,52								
10,00				10				
11,11	11	13	07	11	11	19	19	07
12,00				12				
12,70	12	15	08	12	12	22	22	08
14,29	14	17	09	14	14	24	24	09
15,88	16	19	10	15	15	27	27	10
16,00				16				
17,46	17	21	11	17	17	30	30	11
19,05	19	23	13	19	19	33	33	13
20,00				20				
22,22	22	27	15	22	22	38	38	15
25,00				25				
25,40	25	31	17	25	25	44	44	17
31,75	32	38	21	31	31	54	54	21
32,00				32				

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



KM63TSNSR3

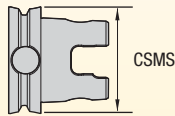
KM

KM
Quick
Change

63

System
Size

- 40 = 40mm
- 50 = 50mm
- 63 = 63mm
- 80 = 80mm
- 100 = 100mm



TS

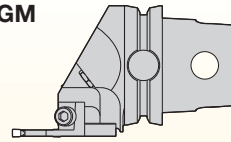
Feature

- TS
- XMZ
- ATC
- 4X

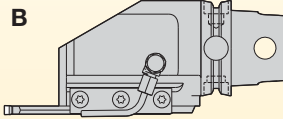
N

Insert
Holding Method

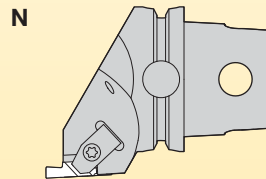
KGM



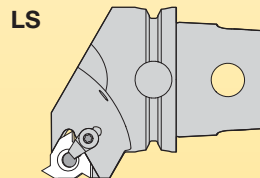
A3™/A4™
Modular grooving



A2™
Deep grooving and cut-off



Top Notch™
Grooving and threading

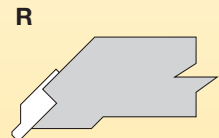
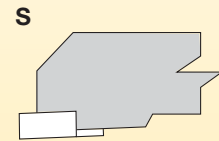
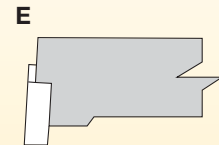


LT Threading

S

Insert
Location

- E = End mount
- S = Side mount
- R = Angle mount



By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



KM63TSNSR3

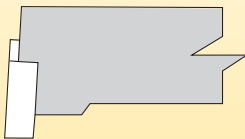
R

Hand of Tool

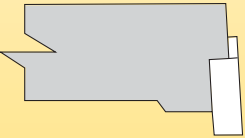
R = Right hand
L = Left hand

End mount

R

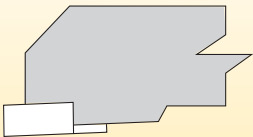


L

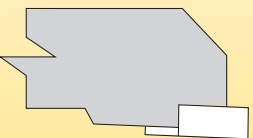


Side mount

R



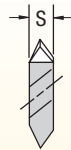
L



3

Insert Size

Top Notch™

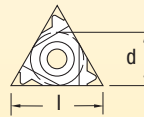


N = Insert size

2	3,18
3	4,95
4	6,48
5	9,65
6	11,13

LT Threading

I = Cutting edge length



I	d (IC)
16	9,52
22	12,70
27	15,88

A2, A3, and A4

seat size	
	1
	1B
	2
	2B
	3
	4
	5

KGM

cartridge size	
	50
	65

Additional Information

E = External only
N = Internal only

Special Features

Y = Mazak®
INTEGREX®
M = Metric

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



KM63TSS32LNER3

KM

KM
Quick
Change

63

System
Size

- 40 = 40mm
- 50 = 50mm
- 63 = 63mm
- 80 = 80mm
- 100 = 100mm



TS

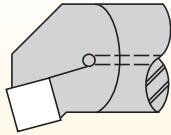
Feature

- TS
- XMZ
- ATC
- 4X

S

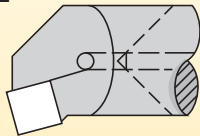
Bar
Type

S



Steel with through coolant

E

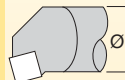


Carbide with through coolant

32

Bar
Diameter

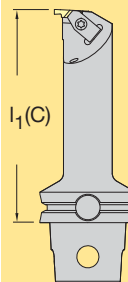
- 10 = 10mm
- 12 = 12mm
- 16 = 16mm
- 20 = 20mm
- 25 = 25mm
- 32 = 32mm
- 40 = 40mm
- 50 = 50mm



L

Bar Gage
Length

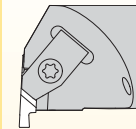
C	50
D	60
E	70
F	80
G	90
H	100
J	110
K	125
L	140
M	150
N	160
P	170
Q	180
R	200
S	250
T	300
U	350
V	400
W	450
Y	500
X	Special



N

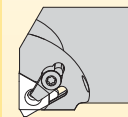
Insert
Holding
Method

N



Top Notch™
Grooving and
threading

LS

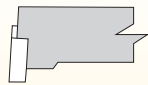


LT Threading

E

Insert
Location

E



E = End mount

By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



KM63TSS32LNER3

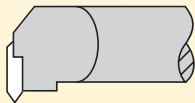
R

Hand of Tool

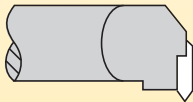
R = Right hand
L = Left hand

End mount

R



L

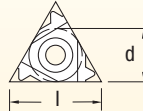
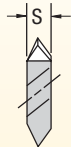


3

Insert Size

N = Insert size

I = Cutting edge length



N	S	I	d (IC)
2	3,18	11	6,35
3	4,95	16	9,52
4	6,48	22	12,70
5	9,65	27	15,88
6	11,13	—	—

Additional Information

E = External
N = Internal

Special Features


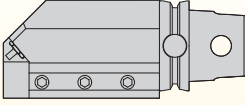
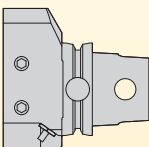
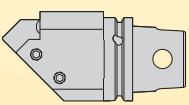
Y = Mazak®
INTEGREX®
M = Metric

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



KM63TSSTAL

KM	63	TS		STA	L	
KM Quick Change	System Size	Feature	Variance	Toolholder Style	Hand of Tool	Special Features
	<p>40 = 40mm 50 = 50mm 63 = 63mm 80 = 80mm 100 = 100mm</p> 	<p>TS XMZ ATC 4X</p>	<p>2X 4X 45</p>	<p>STA</p>  <p>Side mount</p> <p>ETA</p>  <p>End mount</p> <p>TA</p>  <p>45° Mount</p>	<p>L = Left hand R = Right hand</p>	<p>Y = Mazak® INTEGREX®</p>

By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



KM63TSTG100100M

KM KM Quick Change	63 System Size	TS Feature	TG Toolholder Style	100 Toolholder Style Size	100 Tool Gage Length	M Metric	Special Features
	40 = 40mm 50 = 50mm 63 = 63mm 80 = 80mm 100 = 100mm	TS XMZ ATC 4X		Varies according to toolholder style	100 = 100mm		Y = Mazak® INTEGREX®

- | | |
|--|--|
| BN = Blank | JT = Jacobs taper adapter |
| CS = Combi shell mill adapter | MT = Morse taper adapter |
| DA = Double-angle collet chuck | P = Spindle plug |
| DAT = Drill adapter | RDC = Drill chuck |
| DFX = Indexable drill | S = KM extensions-reducers |
| DFT = Indexable drill | SMC = Shell mill adapter with coolant |
| EM = Weldon® end mill adapter | SSF = Adapter for straight shanks with flat (drills) |
| ER = DIN 6499 single-angle collet chuck | ST = Solid tap adapter |
| ES = KM offset extensions | SWN = Whistle Notch™ 2° — short — not to DIN standard |
| GB = Gage bar | TC = Tension-compression tap adapter |
| HC = Hydraulic chuck — Standard Line | TG = Tremendous Grip single-angle collet chuck |
| HCSL = Hydraulic chuck — Slim Line | TT = Shrink Fit thermo toolholder |
| HCSLT = Hydraulic chuck — Slim Line — Trend | WD = Whistle Notch with drill |
| HPHC = Hydraulic chuck — high performance | WN = Whistle Notch (2° metric; 5° inch) |
| HPMC = Milling chuck — high performance | WN/EM = Whistle Notch — Weldon chuck |

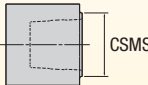
How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



KM12NCMSS



KM	12	N	C	M	SS
Kennametal Modular	System Size	Version	Clamping Unit	Control	Type
KM Micro™ and KM™ Mini Quick Change Tooling Systems	12 = 12mm 16 = 16mm 20 = 20mm 25 = 25mm 	N = Neutral L = Left hand R = Right hand E = Offset		M = Manual A = Automatic	E = Carbide round shank S = Round shank SEF = Extended flange mount SF = Flange mount SS = Round shank with shoulders

Looking for a product that's not shown in this catalog?
Check the Kennametal website!



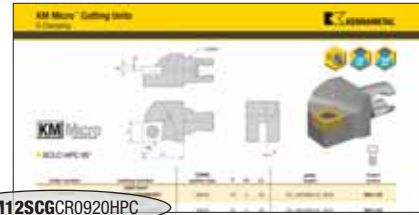
Tooling Systems

Online product catalog available 24/7

Visit <http://www.kennametal.com/toolingsystems/> to browse our electronic catalog any time you're looking for Kennametal's best tooling solutions. It's fast, free, and always available. The online e-catalog is updated weekly with products and solutions for milling, turning, holemaking, and tooling systems applications.

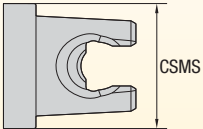
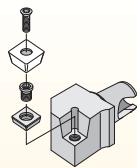
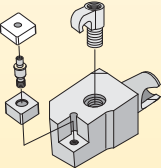
How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



KM12SCGCR0920HPC



KM	12	S	C	G																		
Kennametal Modular	System Size	Clamping System	Insert Shape	Cutting Unit Shape																		
KM Micro™ and KM™ Mini Quick Change Tooling Systems	<p>12 = 12mm 16 = 16mm 20 = 20mm 25 = 25mm</p> 	<p>S</p>  <p>S-Clamping Clamped from above with a screw for indexable inserts with hole</p> <p>M</p>  <p>M-Clamping Clamped from above and through hole with using a pin for indexable inserts with hole</p>	<p>C 80°</p> <p>D 55°</p> <p>K 55°</p> <p>S 90°</p> <p>W 80°</p> <p>V 35°</p>	<table border="0"> <tr> <td>A 90°</td> <td>M 50°</td> </tr> <tr> <td>D 45°</td> <td>N 63°</td> </tr> <tr> <td>E 60°</td> <td>P 107,5°</td> </tr> <tr> <td>F 90°</td> <td>Q 107,5°</td> </tr> <tr> <td>G 90°</td> <td>R 75°</td> </tr> <tr> <td>H 107,5°</td> <td>S 45°</td> </tr> <tr> <td>J 93°</td> <td>U 93°</td> </tr> <tr> <td>K 75°</td> <td>V 72,5°</td> </tr> <tr> <td>L 95°</td> <td>X Special Version</td> </tr> </table>	A 90°	M 50°	D 45°	N 63°	E 60°	P 107,5°	F 90°	Q 107,5°	G 90°	R 75°	H 107,5°	S 45°	J 93°	U 93°	K 75°	V 72,5°	L 95°	X Special Version
A 90°	M 50°																					
D 45°	N 63°																					
E 60°	P 107,5°																					
F 90°	Q 107,5°																					
G 90°	R 75°																					
H 107,5°	S 45°																					
J 93°	U 93°																					
K 75°	V 72,5°																					
L 95°	X Special Version																					

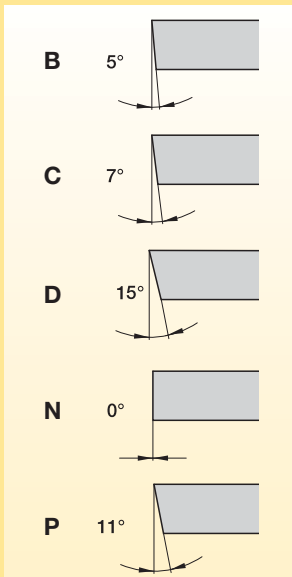
By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



KM12SCGCR0920HPC

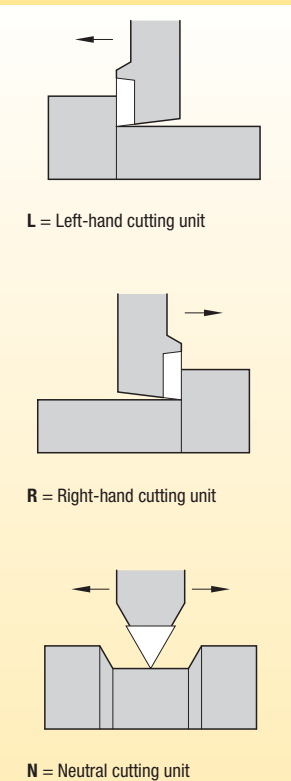
C

Clearance Angle



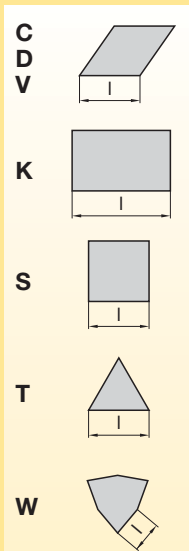
R

Direction



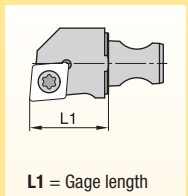
09

Insert Size



20

Gage Length



HPC

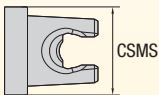
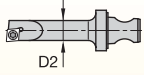
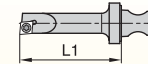
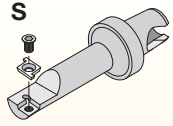
Coolant

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



KM1612S0424SCLDR04S

KM QUICK-CHANGE TOOLING	KM QUICK-CHANGE TOOLING					
<p>KM</p> <p>Kennametal Modular</p>	<p>1612</p> <p>System Size</p>	<p>S</p> <p>Boring Bar Features</p>	<p>04</p> <p>Shank Diameter</p>	<p>24</p> <p>Gage Length</p>	<p>S</p> <p>Clamping System</p>	
<p>KM Micro™ and KM™ Mini Quick Change Tooling Systems</p>	<p>1612 = Ø 16mm 2016 = Ø 20mm 2520 = Ø 25mm 3225 = Ø 32mm</p> 	<p>S = Tool steel E = Carbide</p>	 <p>The code is shank diameter D2. Ignore digits after the decimal point.</p> <p>If the shank diameter D2 code is a single digit, it is preceded by a 0 (zero). (e.g., for Ø 8mm = code 08).</p>	 <p>The code is gage length L1. Ignore digits after the decimal point.</p>	 <p>S-Clamping Clamped from above with a screw for indexable inserts</p>	

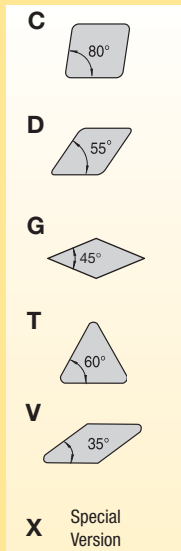
By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



KM1612S0424SCLDR04S

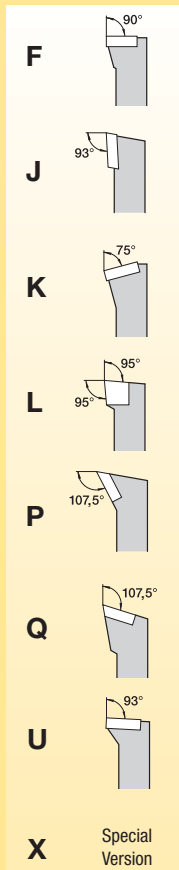
C

Insert Shape



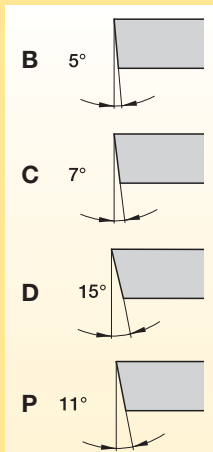
L

Cutting Unit Shape



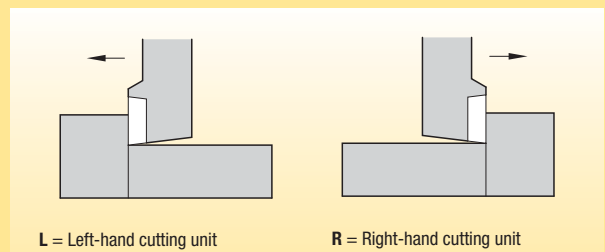
D

Clearance Angle



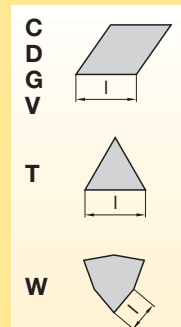
R

Direction



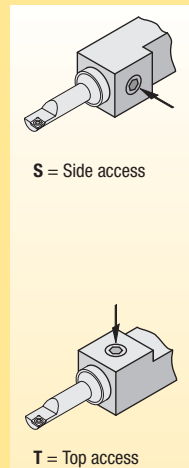
04

Insert Size



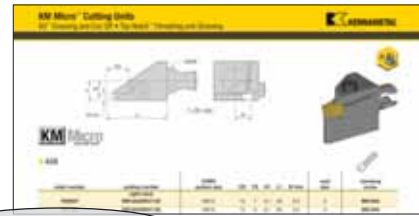
S

Clamping Access



How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



KM12A3SR31130



KM

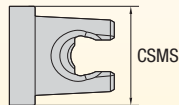
Kennametal
Modular

KM Micro™
and KM™ Mini
Quick Change
Tooling Systems

12

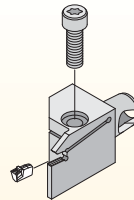
System Size

- 12 = 12mm
- 16 = 16mm
- 20 = 20mm
- 25 = 25mm

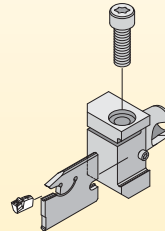


A3

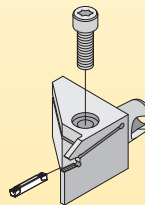
Clamping Systems



A3 = Deep grooving



A2 = Cut-off



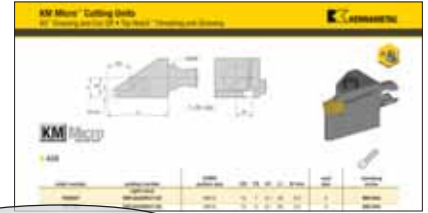
A4 = Grooving

S

Holder Version

- S = Side mount
- E = End mount

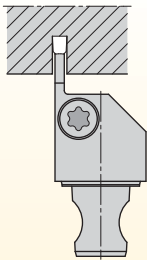
By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



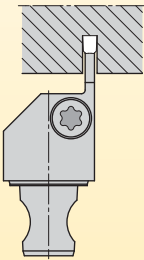
KM12A3SR31130

R

Direction



R = Right hand



L = Left hand

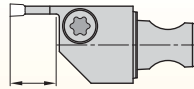
3

Insert Seat Size

insert seat size
1
1B
2
2B
3
4
5

11

Cutting Depth



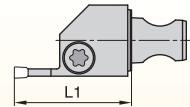
07 = 7mm

11 = 11mm

16 = 16mm

30

Gage Length



L1 = Gage length

KM Micro and KM Mini Quick-Change Tooling Systems



Kennametal has developed yet another revolutionary quick-change tooling system. The KM Micro and KM Mini tooling systems are further developments of the internationally renowned KM™ system but are smaller, more compact versions.

Reduces Indexing and Setup Times by 66%

The KM Micro and KM Mini systems have been specially designed for use with automatic lathes, as well as smaller universal lathes. The quick-change cutter heads reduce indexing and setup times on machines by up to 66%.

The unique flange attachment system enables an additional one to three tool spaces to be used on a single tool block. This considerably increases the tool capacity of the machine. A further advantage is the high level of stability of the block, as rigidity is greatly improved during deep tool turning operations by removing the tool slots.

Quick and Easy Installation

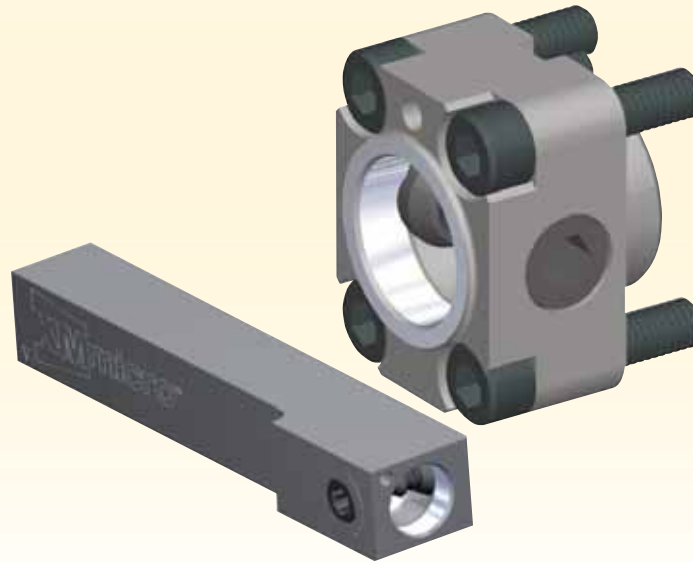
The new KM Micro and KM Mini square shank adapters can be installed quickly and easily in existing tool block adapters. Existing clamp-type toolholders are replaced by KM Micro and KM Mini adapters with the same dimensions, and the machine is then ready for use.

Kennametal provides you with a comprehensive range of KM Micro and KM Mini solutions to meet your requirements.



What are KM Micro and KM Mini?

They are a revolutionary quick-change tooling systems utilizing face and taper contact designs. The KM Micro and KM Mini tooling systems are designed for, but not limited to, the Swiss-style machine tool industry.



KM Micro and KM Mini

Step 1: Typical Swiss tool block.

Difficult to change the insert.

1



Step 2: Change the cutting unit, not the insert!

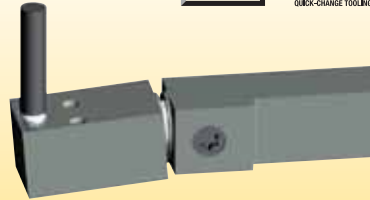
Actual tool change.

2



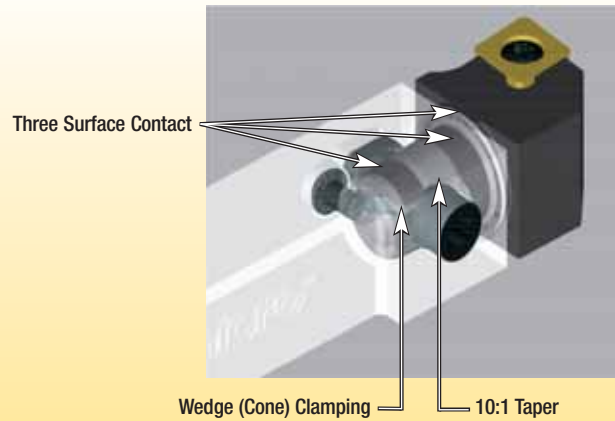
Selection Guide for KM™ Clamping Systems

Face and Taper Contact Systems Stiffness Depends on Interference Level and Clamping Force.

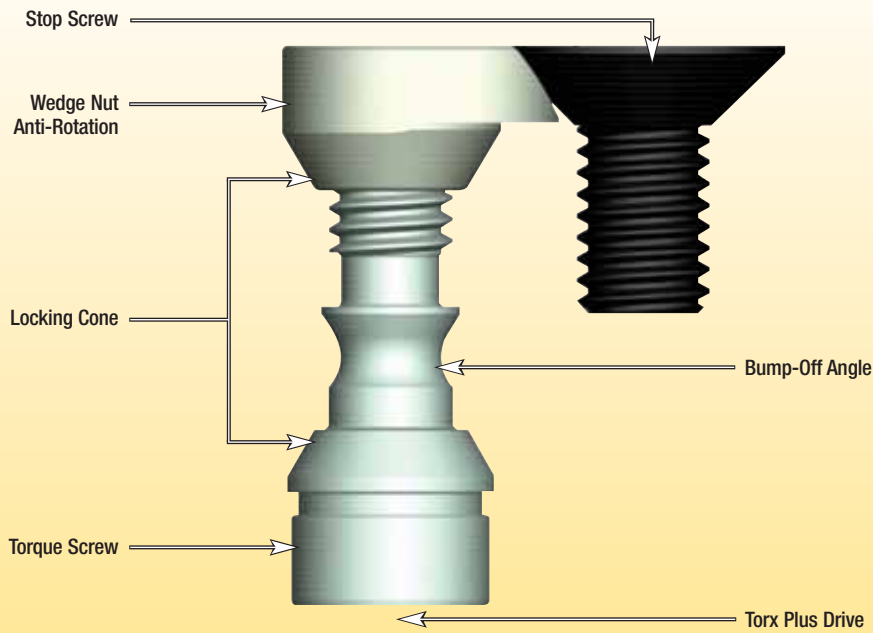


Taper Features

- Three Surface Contact — Provides bands at face, gage, and tail.
- 10:1 Taper Angle — Same as standard KM system. Interference level optimized to provide maximum rigidity.
- Features are generally the same as the standard KM system but with wedge (cone) locking rather than balls.



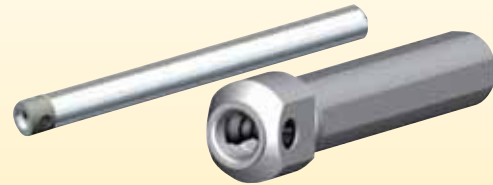
Mechanism Features



What is KM1612™/KM2016™/KM2520™/KM3225™ for I.D. Machining?

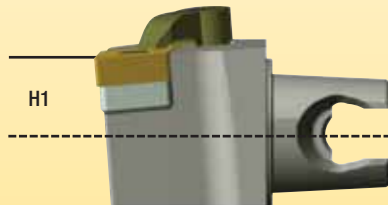
The KM1612/KM2016/KM2520/KM3225 is the I.D. end-working tooling product line to complement the KM12™/KM16™/KM20™/KM25™ O.D. turning tooling product line.

- Products are through-coolant capable.
- External tapers are the same as KM12/KM16/KM20/KM25.

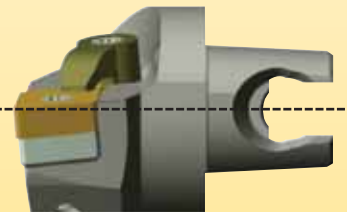


Round Shank Clamping Units

The major difference is center height location of the insert:





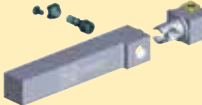


KM12/KM16/KM20/KM25
Square shank cutting units.
Insert is above centerline.



KM1612/KM2016/KM2520/KM3225
Centerline cutting units.
Insert is on centerline.

KM Micro and KM Mini • Features, Functions, and Advantages



features	functions	advantages
KM Micro and KM Mini are a compact quick-change tooling system.	<ul style="list-style-type: none"> The complete cutting unit (including indexable insert) can be easily changed. 	<ul style="list-style-type: none"> Indexable inserts can be changed outside the machine: <ul style="list-style-type: none"> Reduces the time required for changing indexable inserts by up to 60%. Reduces the machine setup time by up to 80%.
Face and taper surface contact between the cutting unit and clamping units.	<ul style="list-style-type: none"> Precise and repeatable cutting edge position is in both directions of cut. 	<ul style="list-style-type: none"> Test cuts are minimized or no longer required. Premeasured tools can be installed in the machine: <ul style="list-style-type: none"> Once the deviation/correction value has been specified, the tools are ready for use.
Mating taper clamping surfaces.	<ul style="list-style-type: none"> Maximum possible surface contact between the clamping mechanism and the cutting unit. Precise radial positioning. The KM design induces positive expansion of the taper, resulting in secure clamping. 	<ul style="list-style-type: none"> Large contact surface increases interface life. High radial and center height repeatability. 
Simple, but highly effective, clamping mechanism.	<ul style="list-style-type: none"> Secure and release via a screw using a torque wrench: <ul style="list-style-type: none"> 6,75–8 Nm for KM12™; 3 turns 9,5–11 Nm for KM16™; 3 turns 19–22 Nm for KM20™ 34–40 Nm for KM25™ 	<ul style="list-style-type: none"> Cutting units can be easily changed. High clamping forces through low clamping torques.
Square shank adapters for standard tool blocks.	<ul style="list-style-type: none"> Clamping unit sizes in accordance with industrial standards. Fits standard tool adapters. Designed for: <ul style="list-style-type: none"> Fixed and sliding headstock machines. Small universal lathes. 	<p>This system does not require special tool adapters or adapter blocks for installation or replacement operations on your machine.</p>  <p>Square-shank adapter</p>
Universal flange clamping units are a versatile alternative to square shank adapters.	<ul style="list-style-type: none"> Flange attachment systems can also be retrofitted to existing machines. As a result, additional tool spaces can become available. 	<ul style="list-style-type: none"> Increased tool capacity (up to 3 additional tools per tool block). Increased rigidity and stability as clamp-type toolholder slots are not required.  <p>Flange attachment system</p>
Flange attachment units in a wide range of configurations with or without coolant facility.	<p>Kennametal offers various flange attachment units that can be used for a wide range of turret and tool block configurations and combinations of modern machines.</p>	<ul style="list-style-type: none"> The tool block/flange combination can be optimized to meet the requirements of a machine or a specific workpiece range. Very close fitting flange attachment system. Optimization of tool length. 



KM MicroTM Quick Change Tooling System

A smaller, more compact version of the internationally renowned KMTM system.

- Quick-change cutter heads reduce indexing and setup times by 66%.
- Specially designed for use with automatic and smaller universal lathes.
- Unique flange attachment system increases machine tool capacity.
- KM Micro square-shank adapters can be installed quickly and easily in existing tool block adapters.

Experience the advantages at your Authorized Kennametal Distributor or at www.kennametal.com.

www.kennametal.com



KM Micro™ • Quick-Change Tooling System



Primary Application

- Quick-change cutter heads reduce indexing and setup times by 66%.
- Specially designed for use with automatic and smaller universal lathes.
- Unique flange attachment system increases machine tool capacity.
- KM Micro square-shank adapters can be installed quickly and easily in existing tool block adapters.

Features and Benefits

Features

- KM Micro is a compact quick-change tooling system.
- Face and taper surface contact between the cutting unit and clamping units.
- Mating taper clamping surfaces.
- Square-shank adapters for standard tool blocks.

Functions

- The complete cutting unit (including indexable insert) can be easily changed.
- Precise and repeatable cutting edge position is in both directions of cut.
- Maximum possible surface contact between the clamping mechanism and the cutting unit.
- Precise radial positioning.
- The KM design induces positive expansion of the taper, resulting in secure clamping.
- Clamping unit sizes in accordance with industrial standards.
- Fits standard tool adapters.
- Designed for:
 - Fixed and sliding headstock machines.
 - Small universal lathes.



Advantages

- Indexable inserts can be changed outside the machine:
 - Reduces the time required for changing indexable inserts by up to 60%.
 - Reduces the machine setup time by up to 80%.
- Test cuts are minimized or no longer required.
- Premeasured tools can be installed in the machine:
 - Once the deviation/correction value has been specified, the tools are ready for use.

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



KM12NCM1212100



KM

Kennametal
Modular

KM Micro™ Quick Change
tooling system

12

System
Size

12 = Ø 12 x 12mm
16 = Ø 16 x 16mm

N

Version

N = Neutral
L = Left-hand version
R = Right-hand version

C

Clamping
Unit

M

Control

M = Manual
A = Automatic

By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



KM12NCM1212100

Type

Square shank

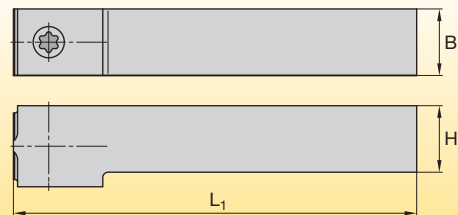
12

Shank Height

H = Shank height
B = Shank width
L₁ = Shank length

12

Shank Width



100

Shank Length

SS

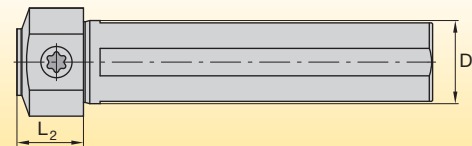
Type

SS = Square shank with shoulders

19

Shank Diameter

D = Shank diameter
L₂ = Shoulder length



14

Shoulder Length

SF

Type

SF = Flange mount
SEF = Extended flange mount

27

Flange Width

B₂ = Flange width



How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



KM12NCM1212100HPC



KM

Kennametal
Modular

KM Micro™ Quick Change
tooling system

12

System
Size

12 = Ø 12 x 12mm
16 = Ø 16 x 16mm

N

Version

N = Neutral
L = Left-hand version
R = Right-hand version

C

Clamping
Unit

M

Control

M = Manual
A = Automatic

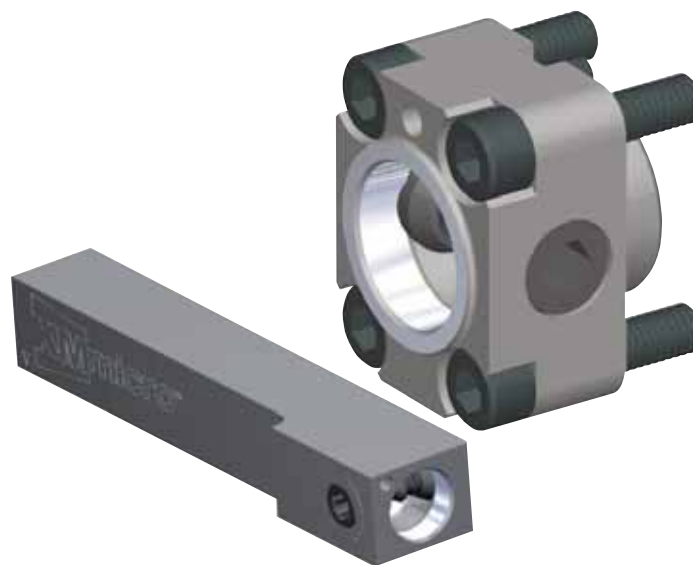


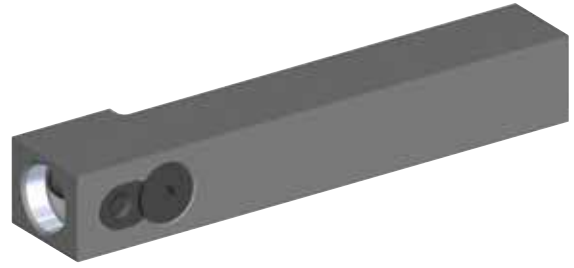
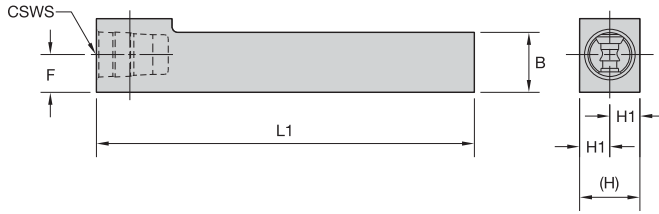
By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



KM12NCM1212100HPC

	12	12	100	HPC
Type	Shank Height	Shank Width	Shank Length	Coolant
Square shank	<p>H = Shank height B = Shank width L₁ = Shank length</p>			





KM Micro Clamping Units

■ NCM • Metric

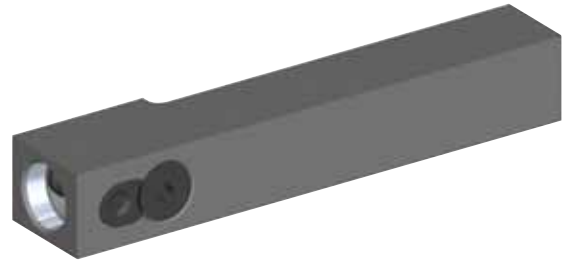
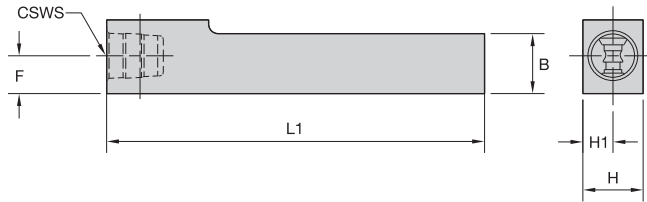


order number	catalog number	CSWS system size	B	H	H1	F	L1	spare parts package	wrench size actuation screw	Nm
1922492	KM12NCM1212100	KM12	12,00	11,95	6,00	8,00	100,00	KM12NAPKG	25 IP	7-8
2238505	KM16NCM1616100	KM16	16,00	16,00	8,00	10,00	100,00	KM16NAPKG	27 IP	10-11

■ NCM • Inch



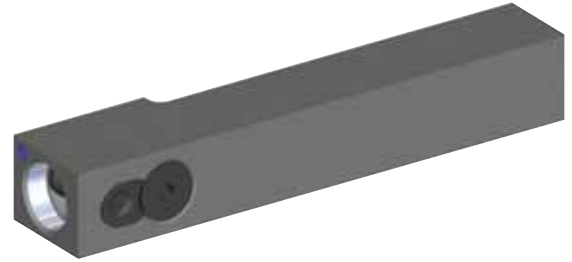
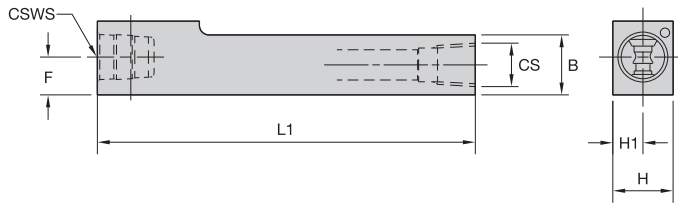
order number	catalog number	CSWS system size	B	H	H1	F	L1	spare parts package	wrench size actuation screw	ft. lbs.
2238506	KM16NCM10400	KM16	.600	.600	.310	.390	4.000	KM16NAPKG	27 IP	7-8



■ R/LCM • Inch



order number	catalog number	CSWS system size	B	H	H1	F	L1	spare parts package	wrench size actuation screw	ft. lbs.
1920380	right hand KM12RCM08400	KM12	.495	.500	.264	.315	4.000	KM12NAPKG	25 IP	5-6
1925740	left hand KM12LCM08400	KM12	.495	.500	.264	.310	4.000	KM12NAPKG	25 IP	5-6



KM Micro Clamping Units



■ R/LCM-HPC • Metric

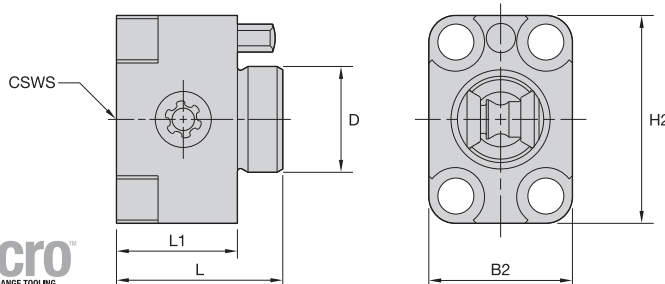


order number	catalog number	CSWS system size	B	H	H1	F	L1	CS	spare parts package	wrench size actuation screw	Nm
3397255	right hand KM16RCM1616100HPC	KM16	16,00	16,00	8,0	10,00	100,00	1/8NPT	KM16NAPKG	27 IP	10-11
3397256	left hand KM16LCM1616100HPC	KM16	16,00	16,00	8,0	10,00	100,00	1/8NPT	KM16NAPKG	27 IP	10-11

■ R/LCM-HPC • Inch



order number	catalog number	CSWS system size	B	H	H1	F	L1	CS	spare parts package	wrench size actuation screw	ft. lbs.
3134823	right hand KM16RCM10400HPC	KM16	.620	.620	.310	.394	4.000	1/8NPT	KM16NAPKG	27 IP	7-8
3134824	left hand KM16LCM10400HPC	KM16	.620	.620	.310	.394	4.000	1/8NPT	KM16NAPKG	27 IP	7-8

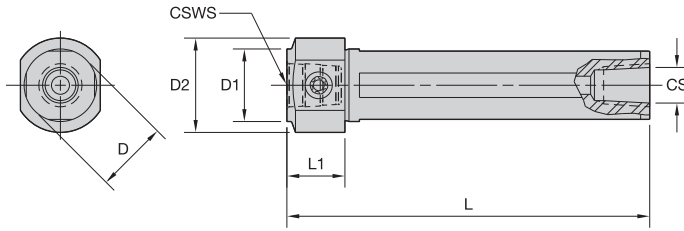


■ NCM-SF



order number	catalog number	CSWS system size	B2	D	H2	L	L1	spare parts package	wrench size actuation screw	Nm	ft. lbs.
1925741	KM12NCMSF1522	KM12	15,75	10	21,5	18	14	KM12NRPKG	25 IP	7-8	5-6
1898043	KM16NCMSF1928	KM16	19,00	14	27,5	22	16	KM16NRPKG	27 IP	10-11	7-8

NOTE: For mounting controls, see page M70.



■ NCM-SS • Metric

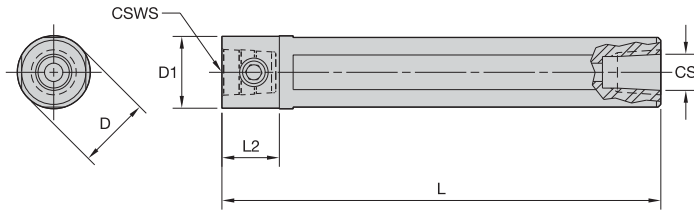


order number	catalog number	CSWS system size	CS	D	D1	D2	L	L1	spare parts package	wrench size actuation screw	Nm
2439977	KM1612NCMSS1614	KM1612	1/8-27 NPT	16	16	22	100	14	KM12NRPKG	25 IP	7-8
1925739	KM1612NCMSS1914	KM1612	1/8-27 NPT	19	16	25	100	14	KM12NRPKG	25 IP	7-8
2439981	KM1612NCMSS2014	KM1612	1/8-27 NPT	20	16	26	100	14	KM12NRPKG	25 IP	7-8
2439978	KM1612NCMSS2514	KM1612	1/4-18 NPT	25	16	31	100	14	KM12NRPKG	25 IP	7-8
2439979	KM2016NCMSS1616	KM2016	1/8-27 NPT	16	20	25	100	16	KM16NRPKG	27 IP	10-11
1898050	KM2016NCMSS2016	KM2016	1/8-27 NPT	20	20	26	100	16	KM16NRPKG	27 IP	10-11
1898051	KM2016NCMSS2216	KM2016	1/4-18 NPT	22	20	28	100	16	KM16NRPKG	27 IP	10-11
2439980	KM2016NCMSS2516	KM2016	1/4-18 NPT	25	20	31	100	16	KM16NRPKG	27 IP	10-11

■ NCM-SS • Inch



order number	catalog number	CSWS system size	CS	D		D1		D2		L		L1		spare parts package	wrench size actuation screw	ft. lbs.
				mm	in	mm	in	mm	in	mm	in	mm	in			
2439982	KM1612NCMSS08055	KM1612	—	12,7	.500	16	.630	20	.787	100	3.937	14	.551	KM12NRPKG	25 IP	5-6
1939520	KM1612NCMSS10055	KM1612	1/8-27 NPT	15,9	.625	16	.630	22	.866	100	3.937	14	.551	KM12NRPKG	25 IP	5-6
1925738	KM1612NCMSS12055	KM1612	1/8-27 NPT	19,1	.750	16	.630	25	.984	100	3.937	14	.551	KM12NRPKG	25 IP	5-6
2440003	KM2016NCMSS08063	KM2016	—	12,7	.500	20	.787	23	.906	100	3.937	16	.630	KM16NRPKG	27 IP	7-8
2440004	KM2016NCMSS10063	KM2016	1/8-27 NPT	15,9	.625	20	.787	25	.984	100	3.937	16	.630	KM16NRPKG	27 IP	7-8
1898048	KM2016NCMSS12063	KM2016	1/8-27 NPT	19,1	.750	20	.787	25	.984	100	3.937	16	.630	KM16NRPKG	27 IP	7-8
1898049	KM2016NCMSS16063	KM2016	1/4-18 NPT	25,4	1.000	20	.787	32	1.260	100	3.937	16	.630	KM16NRPKG	27 IP	7-8



■ NCM-S • Metric

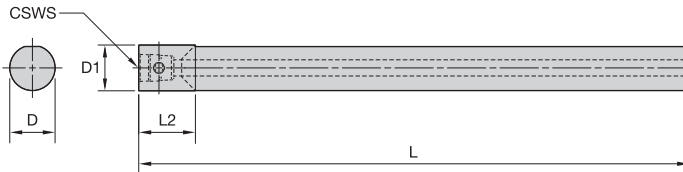


order number	catalog number	CSWS system size	CS	D	D1	L	L2	spare parts package	wrench size actuation screw	Nm
3016744	KM2016NCMS20	KM2016	1/8 - 27 NPT	20	20	230	20	KM16NRPKG	27 IP	10-11

■ NCM-S • Inch



order number	catalog number	CSWS system size	CS	D	D1	L	L2	spare parts package	wrench size actuation screw	ft. lbs.
3016743	KM2016NCMS12	KM2016	1/8 - 27 NPT	.75	.79	9.213	.787	KM16NRPKG	27 IP	7-8



■ NCM-E • Carbide • Metric

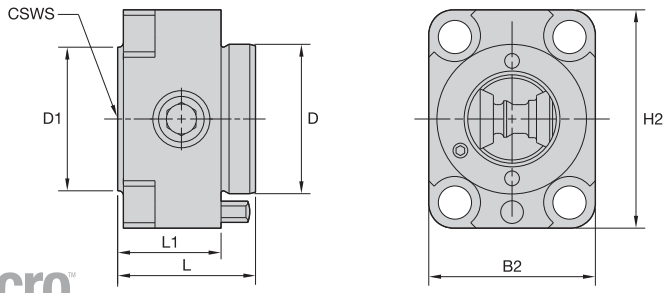


order number	catalog number	CSWS system size	D	D1	L	L2	spare parts package	wrench size actuation screw	Nm
3016721	KM2016NCME12	KM2016	19	20	243,56	25,00	KM16NRPKG	27 IP	10-11

■ NCM-E • Carbide • Inch



order number	catalog number	CSWS system size	D	D1	L	L2	spare parts package	wrench size actuation screw	ft. lbs.
3016721	KM2016NCME12	KM2016	.75	.79	9.589	.984	KM16NRPKG	27 IP	7-8



■ NCMSF



order number	catalog number	CSWS system size	B2	D	D1	H2	L1	L	spare parts package	wrench size actuation screw	Nm	ft. lbs.
3735627	KM1612NCMSF2127	KM1612	21	17	16	27	14	18	KM12NRPKG	25 IP	7-8	5-6
3735628	KM2016NCMSF2533	KM2016	25	20	20	33	16	22	KM16NRPKG	27 IP	10-11	7-8

NOTE: For mounting controls, see page M71.



KM4X™

The Next Generation Spindle Interface for Heavy-Duty Machining!

KM4X is designed to take on your most aggressive machining jobs. This next generation KM™ spindle interface should be your first choice for heavy-duty machining applications. It's especially suited for large structural components, like titanium aerospace components.

We engineered these rotating and static tool adaptors to handle 3x more bending capacity than similar competitive models.

What does this mean for you?

- Enables full use of machine and cutting tools for the highest productivity.
- Higher metal removal rates.
- Can retrofit to existing machines to boost throughput without buying new equipment.
- Ideal for aerospace and transportation industry machining jobs.

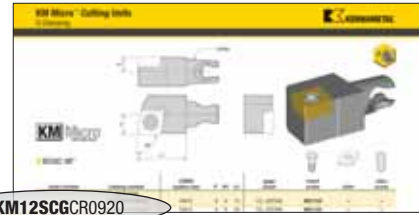
Experience the advantages at your Authorized Kennametal Distributor or at www.kennametal.com.

www.kennametal.com



How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



KM12SCGCR0920



KM

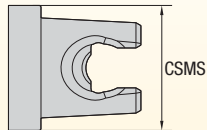
Kennametal
Modular

KM Micro™ Quick Change
tooling system

12

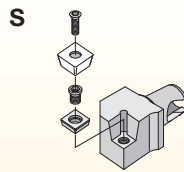
System
Size

12 = Ø 12 x 12mm
16 = Ø 16 x 16mm

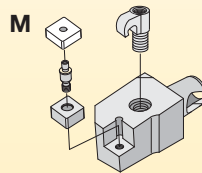


S

Clamping
System



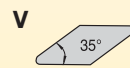
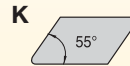
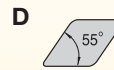
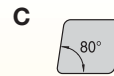
S-Clamping
Clamped from above with
a screw for indexable
inserts with hole



M-Clamping
Clamped from above and
through hole with using
a pin for indexable
inserts with hole

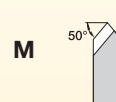
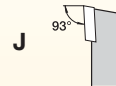
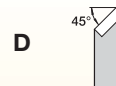
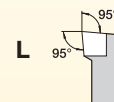
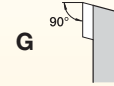
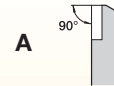
C

Insert
Shape

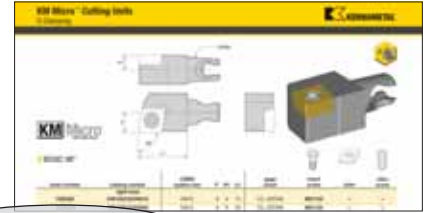


G

Cutting Unit
Shape



By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



KM12SCGCR0920

C	R	09	20
<p>Clearance Angle</p>	<p>Direction</p>	<p>Insert Size</p>	<p>Gage Length</p>
			<p>L1 = Gage length</p>

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



KM12A3SR31130



KM

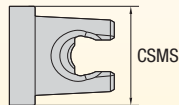
Kennametal
Modular

KM Micro™
and KM™ Mini
Quick Change
tooling systems

12

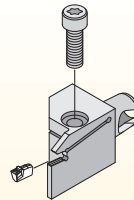
System Size

- 12 = 12mm
- 16 = 16mm
- 20 = 20mm
- 25 = 25mm

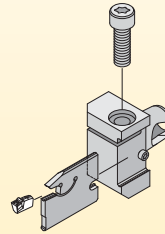


A3

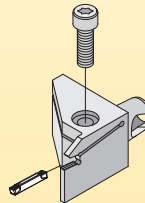
Clamping Systems



A3 = Deep grooving



A2 = Cut-off



A4 = Grooving

S

Holder Version

- S = Side mount
- E = End mount

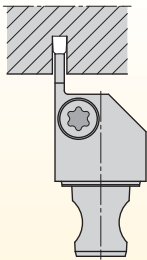
By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



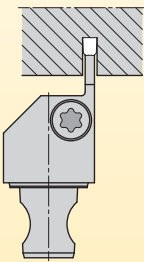
KM12A3SR31130

R

Direction



R = Right hand



L = Left hand

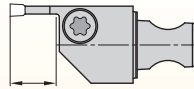
3

Insert Seat Size

insert seat size
1
1B
2
2B
3
4
5

11

Cutting Depth



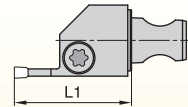
07 = 7mm

11 = 11mm

16 = 16mm

30

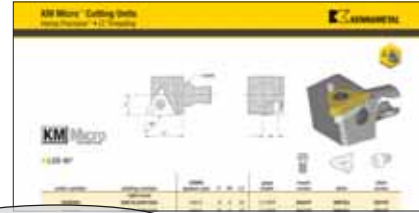
Gage Length



L1 = Gage length

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



KM12LSSR1620



KM

Kennametal
Modular

KM Micro™ Quick Change
tooling system

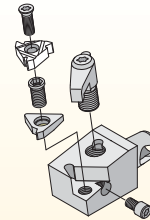
12

System
Size

12 = Ø 12 x 12mm
16 = Ø 16 x 16mm

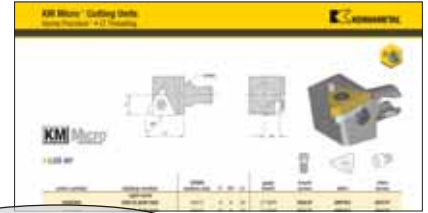
LS

Clamping
Systems



LT Threading = Clamped from above with
a screw

By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



KM12LSSR1620

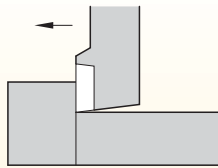
S

Application

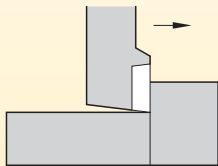
E = End mount
S = Side mount

R

Direction



L = Left-hand cutting unit

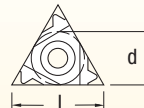


R = Right-hand cutting unit

16

Insert Size

l = Cutting edge length



l	d (IC)
11	6,35
16	9,52
22	12,70
27	15,88

20

Gage Length

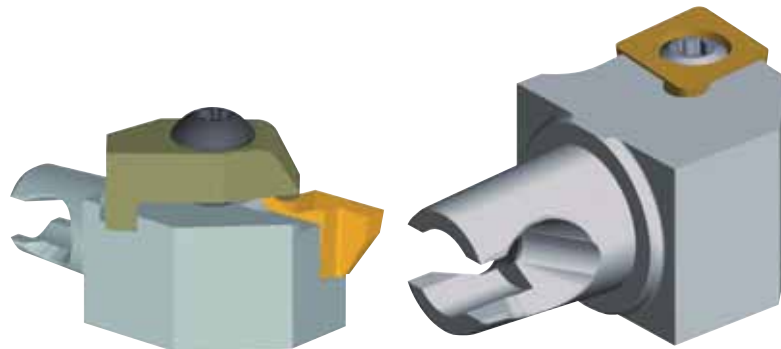
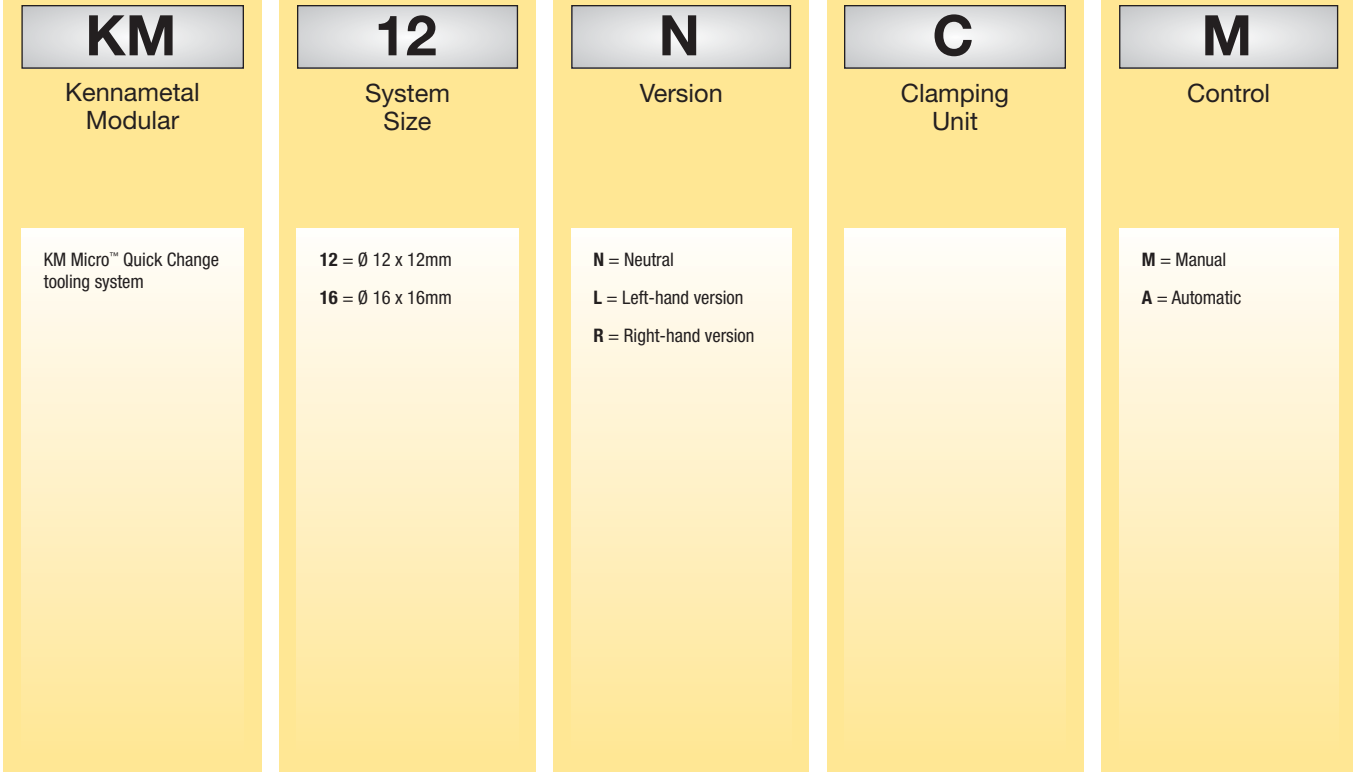
L₁ = Gage length

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



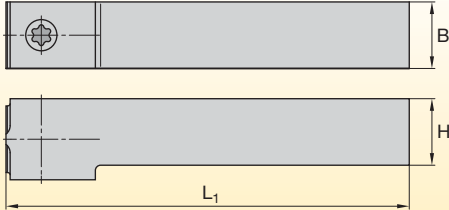
KM12NCM1212100HPC

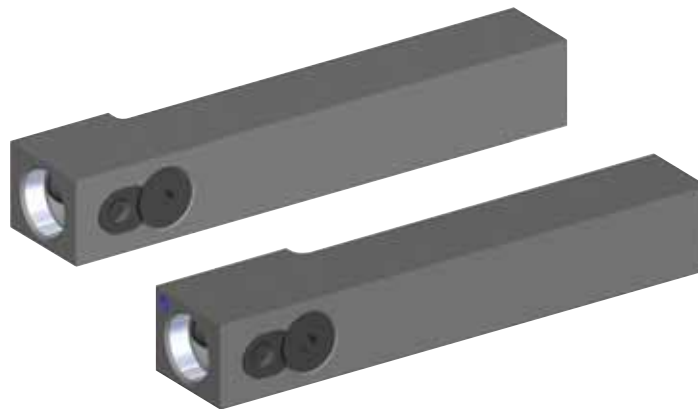


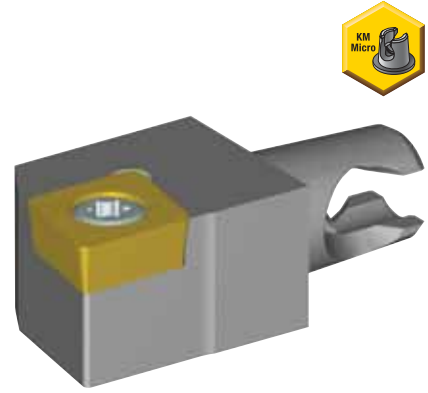
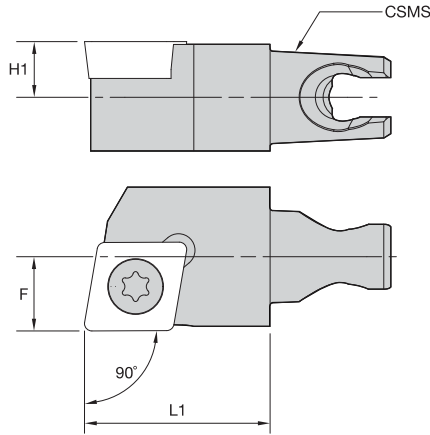
By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



KM12NCM1212100HPC

	12	12	100	HPC
Type	Shank Height	Shank Width	Shank Length	Coolant
Square shank	<p>H = Shank height B = Shank width L₁ = Shank length</p> 			

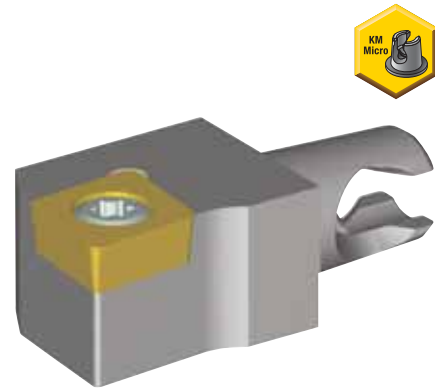
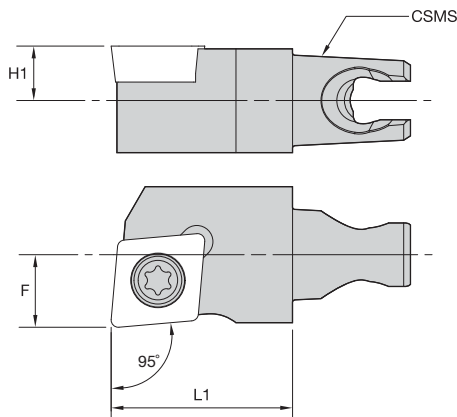




■ SCGC 90°



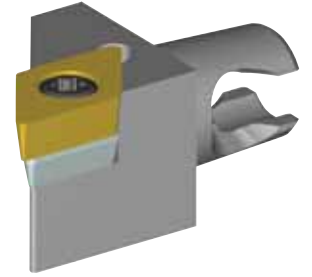
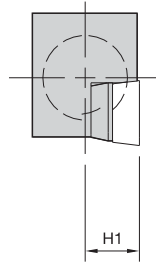
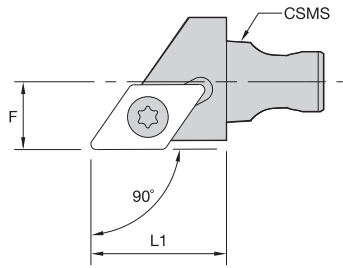
order number	catalog number	CSMS system size	F	H1	L1	gage insert	insert screw	shim	shim screw
right hand									
1920382	KM12SCGCR0915	KM12	8	6	15	CC..09T308	MS1155	—	—
2226229	KM12SCGCR0920	KM12	8	6	20	CC..09T308	MS1155	—	—
1831207	KM16SCGCR0920	KM16	10	8	20	CC..09T308	MS1156	SKCP343	SRS3
left hand									
1925742	KM12SCGCL0915	KM12	8	6	15	CC..09T308	MS1155	—	—
2226230	KM12SCGCL0920	KM12	8	6	20	CC..09T308	MS1155	—	—
1846447	KM16SCGCL0920	KM16	10	8	20	CC..09T308	MS1156	SKCP343	SRS3



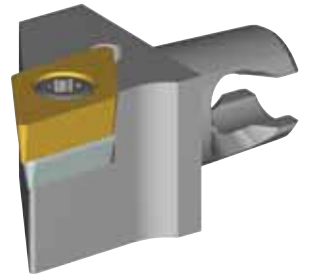
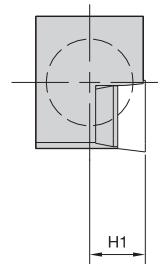
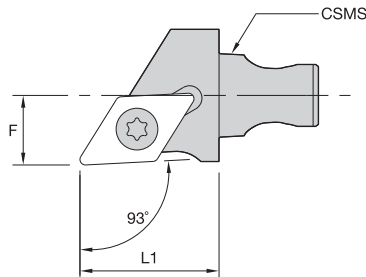
■ SCLC 95°



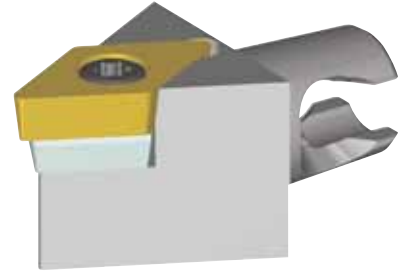
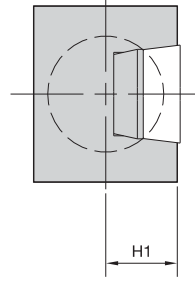
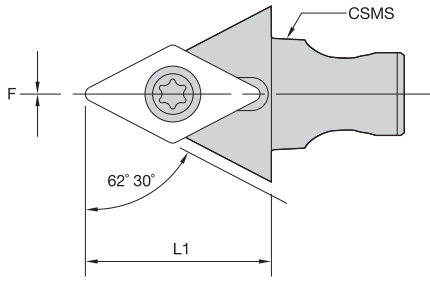
order number	catalog number	CSMS system size	F	H1	L1	gage insert	insert screw	shim	shim screw
right hand									
1920413	KM12SCLCR0915	KM12	8	6	15	CC..09T308	MS1155	—	—
2226231	KM12SCLCR0920	KM12	8	6	20	CC..09T308	MS1155	—	—
1831206	KM16SCLCR0920	KM16	10	8	20	CC..09T308	MS1156	SKCP343	SRS3
left hand									
1925805	KM12SCLCL0915	KM12	8	6	15	CC..09T308	MS1155	—	—
2226232	KM12SCLCL0920	KM12	8	6	20	CC..09T308	MS1155	—	—
1851750	KM16SCLCL0920	KM16	10	8	20	CC..09T308	MS1156	SKCP343	SRS3


■ SDAC 90°


order number	catalog number	CSMS system size	F	H1	L1	gage insert	insert screw	shim	shim screw
	right hand								
1920414	KM12SDACR1120	KM12	8	6	20	DC..11T308	MS1155	—	—
1831208	KM16SDACR1120	KM16	10	8	20	DC..11T308	MS1156	SKDP343	SRS3
	left hand								
1925809	KM12SDACL1120	KM12	8	6	20	DC..11T308	MS1155	—	—
1851752	KM16SDACL1120	KM16	10	8	20	DC..11T308	MS1156	SKDP343	SRS3


■ SDJC 93°

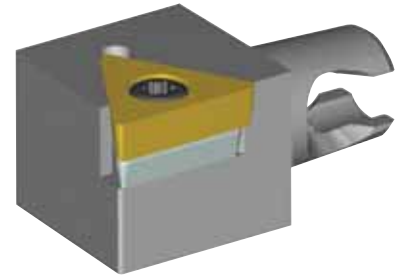
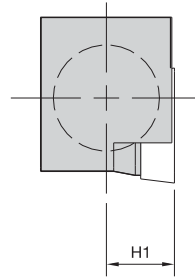
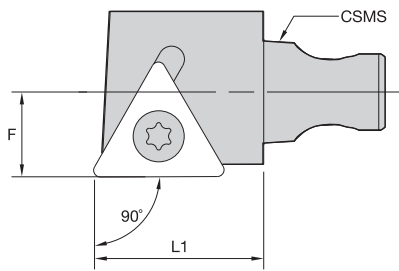

order number	catalog number	CSMS system size	F	H1	L1	gage insert	insert screw	shim	shim screw
	right hand								
1925810	KM12SDJCR1120	KM12	8	6	20	DC..11T308	MS1155	—	—
1831209	KM16SDJCR1120	KM16	10	8	20	DC..11T308	MS1156	SKDP343	SRS3
	left hand								
1925811	KM12SDJCL1120	KM12	8	6	20	DC..11T308	MS1155	—	—
1851763	KM16SDJCL1120	KM16	10	8	20	DC..11T308	MS1156	SKDP343	SRS3



■ SDPC 62° 30'



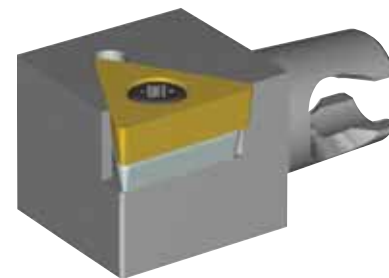
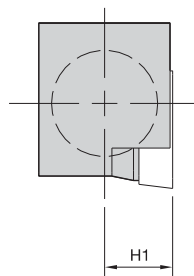
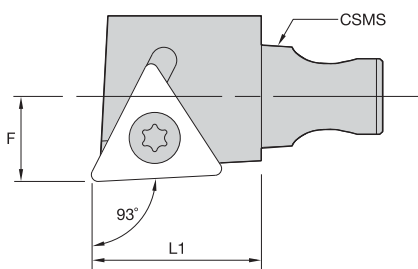
order number	catalog number	CSMS system size	F	H1	L1	gage insert	insert screw	shim	shim screw
2226253	KM12SDPCN1120	KM12	0	6	20	DC..11T308	MS1155	—	—
2226254	KM16SDPCN1120	KM16	0	8	20	DC..11T308	MS1156	SKDP343	SRS3



■ STGC 90°



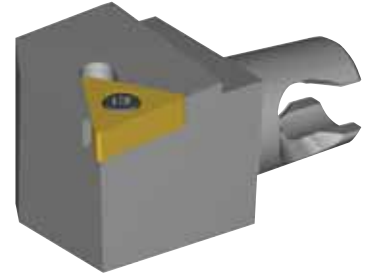
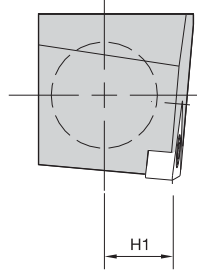
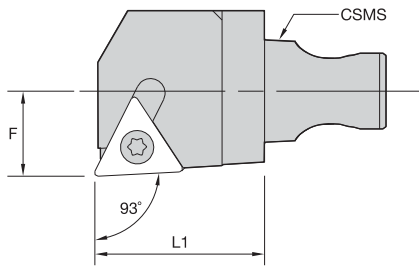
order number	catalog number	CSMS system size	F	H1	L1	gage insert	insert screw	shim	shim screw
	right hand								
2226255	KM12STGCR1120	KM12	8	6	20	TC..110204	MS1153	—	—
1831211	KM16STGCR1120	KM16	10	8	20	TC..110204	MS1153	—	—
1831212	KM16STGCR1620	KM16	10	8	20	TC..16T308	MS1156	SKTP343	SRS3
	left hand								
1925814	KM12STGCL1115	KM12	8	6	15	TC..110204	MS1153	—	—
2226256	KM12STGCL1120	KM12	8	6	20	TC..110204	MS1153	—	—
1851764	KM16STGCL1120	KM16	10	8	20	TC..110204	MS1153	—	—
1851765	KM16STGCL1620	KM16	10	8	20	TC..16T308	MS1156	SKTP343	SRS3



■ STJC 93°



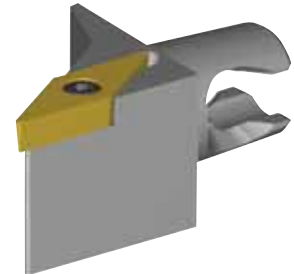
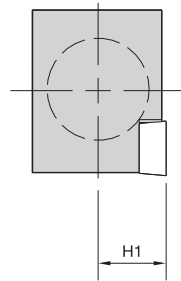
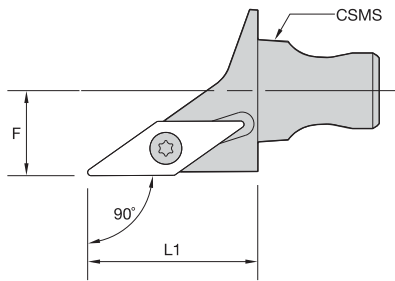
order number	catalog number	CSMS system size	gage			insert screw	shim	shim screw
			F	H1	L1			
	right hand							
1925817	KM12STJCR1115	KM12	8	6	15	TC..110204	MS1153	—
2226257	KM12STJCR1120	KM12	8	6	20	TC..110204	MS1153	—
1831213	KM16STJCR1120	KM16	10	8	20	TC..110204	MS1153	—
1831214	left hand							
2226258	KM12STJCL1120	KM12	8	6	20	TC..110204	MS1153	—
1851766	KM16STJCL1120	KM16	10	8	20	TC..110204	MS1153	—
1851767	KM16STJCL1620	KM16	10	8	20	TC..16T308	MS1156	SKTP343 SRS3



■ STJN 93°



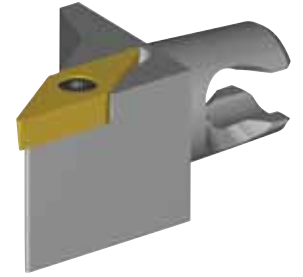
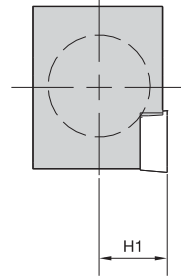
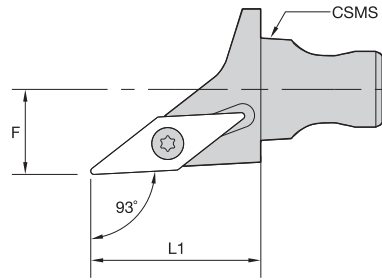
order number	catalog number	CSMS system size	F	H1	L1	gage insert	insert screw
1884833	right hand KM16STJNR11	KM16	10	8	20	T221N	S1990
1898054	left hand KM16STJNL11	KM16	10	8	20	T221N	S1990



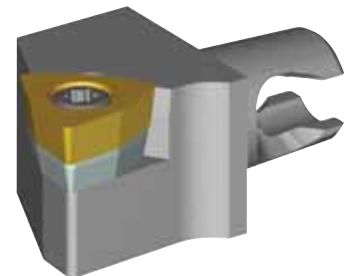
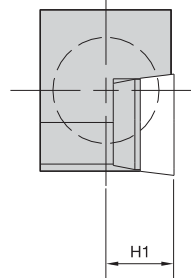
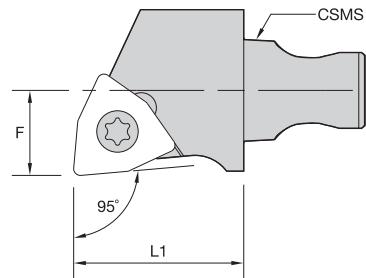
■ SVGB 90°



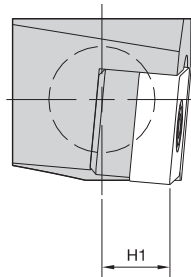
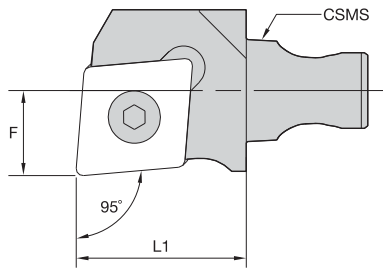
order number	catalog number	CSMS system size	F	H1	L1	gage insert	insert screw
1925821	right hand KM12SVGBR1120	KM12	8	6	20	VB..110304	MS1153
2226259	KM16SVGBR1120	KM16	10	8	20	VB..110304	MS1153
1831215	KM16SVGBR1630	KM16	10	8	30	VB..160408	MS1155
1925822	left hand KM12SVGBL1120	KM12	8	6	20	VB..110304	MS1153
2226260	KM16SVGBL1120	KM16	10	8	20	VB..110304	MS1153
1851768	KM16SVGBL1630	KM16	10	8	30	VB..160408	MS1155


SVJB 93°


order number	catalog number	CSMS system size	F	H1	L1	gage insert	insert screw
right hand							
1920381	KM12SVJBR1120	KM12	8	6	20	VB..110304	MS1153
1884683	KM16SVJBR1120	KM16	10	8	20	VB..110304	MS1153
1831216	KM16SVJBR1630	KM16	10	8	30	VB..160408	MS1155
left hand							
1925823	KM12SVJBL1120	KM12	8	6	20	VB..110304	MS1153
1898056	KM16SVJBL1120	KM16	10	8	20	VB..110304	MS1153
1851770	KM16SVJBL1630	KM16	10	8	30	VB..160408	MS1155


SWLC 95°

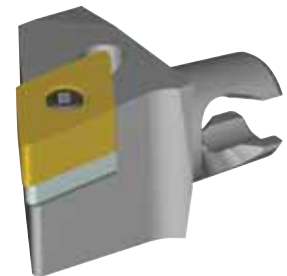
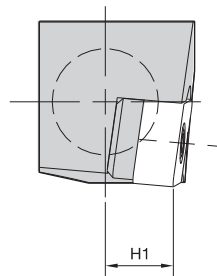
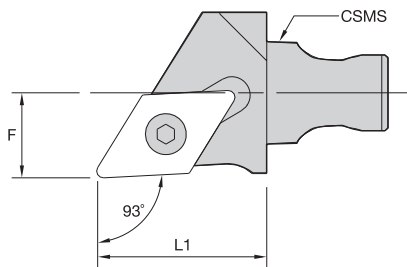

order number	catalog number	CSMS system size	F	H1	L1	gage insert	insert screw	shim	shim screw
right hand									
1925824	KM12SWLCR0615	KM12	8	6	15	WC..06T308	MS1155	—	—
2226261	KM12SWLCR0620	KM12	8	6	20	WC..06T308	MS1155	—	—
1851771	KM16SWLCR0620	KM16	10	8	20	WC..06T308	MS1156	SKWP343	SRS3
left hand									
1925825	KM12SWLCL0615	KM12	8	6	15	WC..06T308	MS1155	—	—
2226262	KM12SWLCL0620	KM12	8	6	20	WC..06T308	MS1155	—	—
1851772	KM16SWLCL0620	KM16	10	8	20	WC..06T308	MS1156	SKWP343	SRS3



■ MCLN 95°



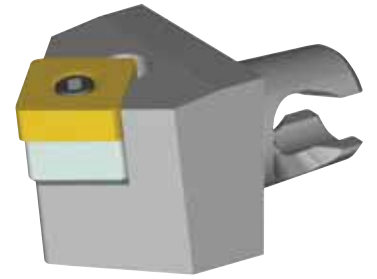
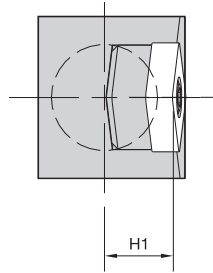
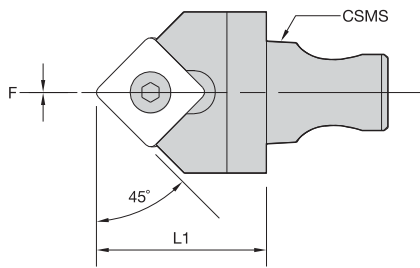
order number	catalog number	CSMS system size	F	H1	L1	gage insert	shim	lock pin
	right hand							
2226263	KM16MCLNR0920	KM16	10	8	20	CN..090308	ICSN332	KLM34L
2226265	KM16MCLNR1220	KM16	10	8	20	CN..090308	ICSN432	KLM46
	left hand							
2226264	KM16MCLNL0920	KM16	10	8	20	CN..090308	ICSN332	KLM34L
2226266	KM16MCLNL1220	KM16	10	8	20	CN..090308	ICSN432	KLM46



■ MDJN 93°



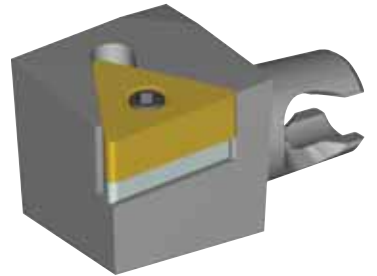
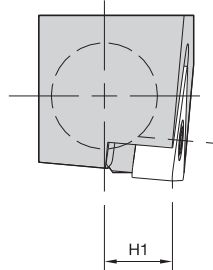
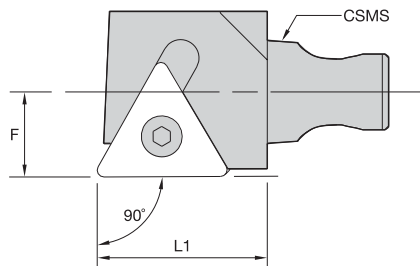
order number	catalog number	CSMS system size	F	H1	L1	gage insert	shim	lock pin
	right hand							
2226267	KM16MDJNR1120	KM16	10	8	20	DN..110408	IDSN322	KLM34L
	left hand							
2226268	KM16MDJNL1120	KM16	10	8	20	DN..110408	IDSN322	KLM34L



■ MSDN 45°



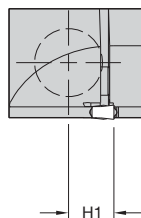
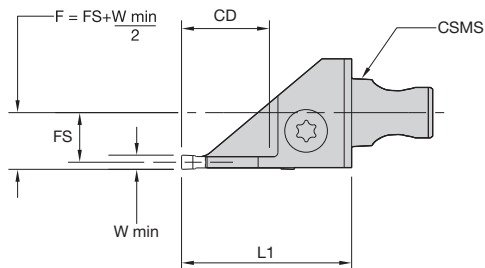
order number	catalog number	CSMS system size	F	H1	L1	gage insert	shim	lock pin
2226269	KM16MSDNN0920	KM16	0	8	20	SN..090308	ISSN332	KLM34L



■ MTGN 90°



order number	catalog number	CSMS system size	F	H1	L1	gage insert	shim	lock pin
2226270	KM16MTGNR1620	KM16	10	8	20	TN..160408	ITSN322	KLM34L
2226271	KM16MTGNL1620	KM16	10	8	20	TN..160408	ITSN322	KLM34L



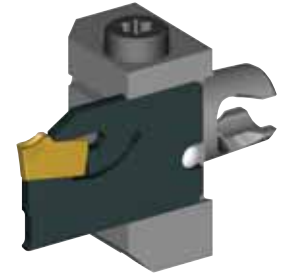
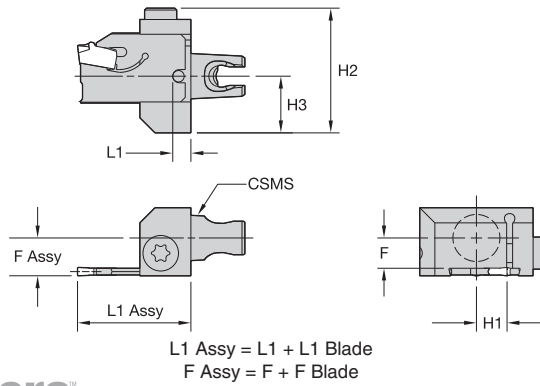
KM Micro Cutting Units

■ A4S



order number	catalog number	CSMS system size	CD	H1	FS	L1	W min	seat size	clamping screw	clamping screw
right hand										
3377362	KM12A4SCR011330	KM12	13,5	6	7,25	30	1,5	1	MS1156	—
3377360	KM12A4SCR021630	KM12	16,0	6	7,00	30	2,0	2	—	MS1944
2226288	KM12A4SCR031630	KM12	16,0	6	6,50	30	3,0	4	—	MS1944
3377284	KM16A4SCR011330	KM16	13,5	8	9,25	30	1,5	1	MS1156	—
3377202	KM16A4SCR021630	KM16	16,0	8	9,00	30	2,0	2	—	MS1160
2226282	KM16A4SCR031630	KM16	16,0	8	8,44	30	3,0	4	—	MS1944
3377200	KM16A4SCR2B1630	KM16	16,0	8	8,75	30	2,5	2B	—	MS1160
left hand										
3377361	KM12A4SCL011330	KM12	13,5	6	7,25	30	1,5	1	MS1156	—
3377359	KM12A4SCL021630	KM12	16,0	6	7,00	30	2,0	2	—	MS1944
2226289	KM12A4SCL031630	KM12	16,0	6	6,50	30	3,0	4	—	MS1944
3377283	KM16A4SCL011330	KM16	13,5	8	9,25	30	1,5	1	MS1156	—
3377201	KM16A4SCL021630	KM16	16,0	8	9,00	30	2,0	2	—	MS1160
2226283	KM16A4SCL031630	KM16	16,0	8	8,44	30	3,0	4	—	MS1944
3377199	KM16A4SCL2B1630	KM16	16,0	8	8,75	30	2,5	2B	—	MS1160

NOTE: W min supplied for reference only. See the Kennametal Innovations Master Catalog Cutting Tools 2013 for actual insert width.
Always match seat size of insert to seat size of holder.
Seat size 2B cutting units only accept 2B inserts. Seat size 2 cutting units accept size 2 or 2B inserts.

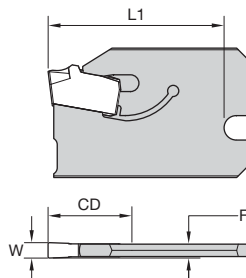


■ BS



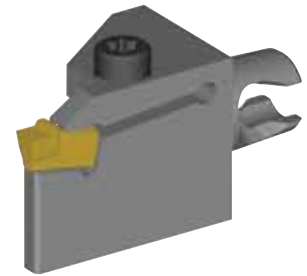
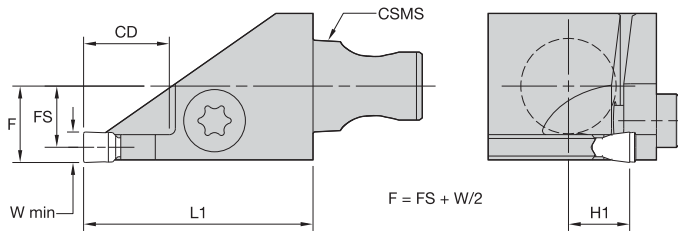
order number	catalog number	CSMS system size	F	H1	H2	H3	L1	clamping screw
1925842	right hand KM12BSR	KM12	5,936	6,1	31,3	15,3	4,8	MS1898PKG
1831217	KM16BSR left hand	KM16	8,012	8,1	33,0	15,0	4,8	MS1898PKG
1925843	KM12BSL	KM12	5,936	6,1	31,3	15,3	4,8	MS1898PKG
1851793	KM16BSL	KM16	8,012	8,1	33,0	15,0	4,8	MS1898PKG

NOTE: For A2 blades, see page A162.



■ A2BHSN

order number	catalog number	seat size	CD	W	F	L1
1984998	A2BHSN19X0116	1	16,0	1,6	1,7	25,2
1851800	A2BHSN19X0211	2	11,0	2,2	2,0	20,2
1851799	A2BHSN19X0216	2	16,0	2,2	2,0	25,2

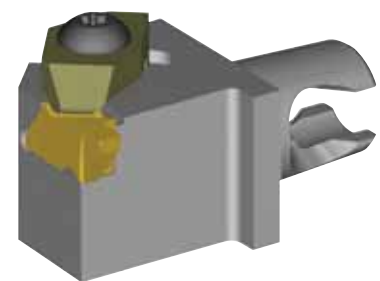
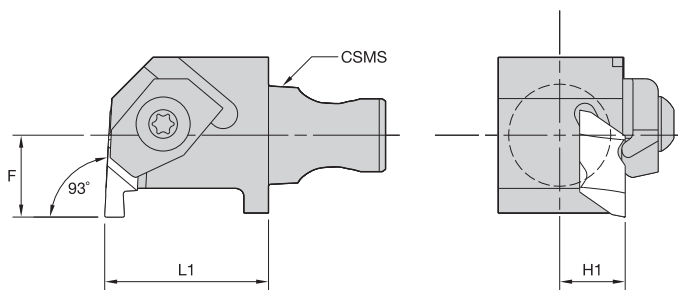


■ A3S



order number	catalog number	CSMS system size	CD	FS	H1	L1	W min	seat size	clamping screw
right hand									
1925837	KM12A3SR31130	KM12	12	7	6,1	30	3,0	3	MS1944
1917367	KM16A3SR31130	KM16	12	9	8,1	30	3,0	3	MS1944
1831218	KM16A3SR41130	KM16	12	8	8,0	30	4,0	4	MS1944
left hand									
1925861	KM12A3SL31130	KM12	12	7	6,1	30	3,0	3	MS1944
1925856	KM16A3SL31130	KM16	12	9	8,1	30	3,0	3	MS1944
1851798	KM16A3SL41130	KM16	12	8	8,0	30	4,0	4	MS1944

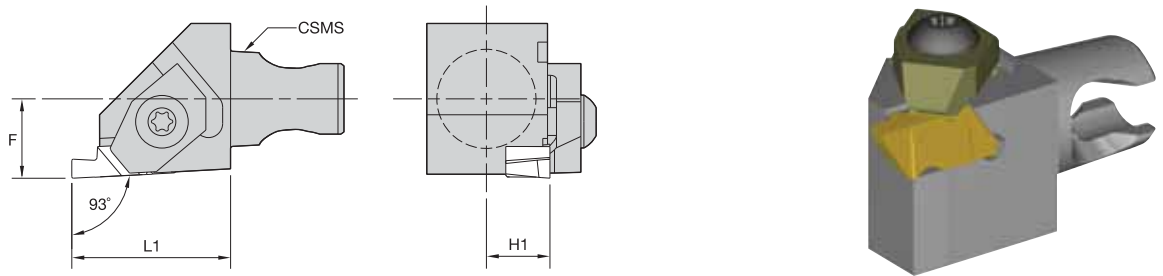
NOTE: W min supplied for reference only. See the Kennametal Innovations Master Catalog Cutting Tools 2013 for actual insert width. Always match seat size of insert to seat size of holder.



■ NE 93°



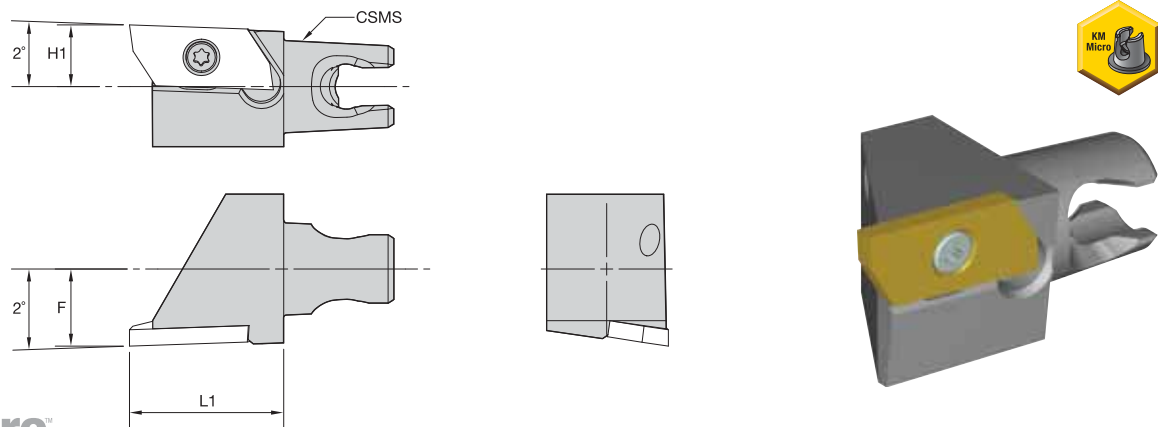
order number	catalog number	CSMS system size	F	H1	L1	gage insert	clamp	clamping screw
1884834	KM16NER220	KM16	10	8	20	NG2L	CM147	MS1200
1898053	KM16NEL220	KM16	10	8	20	NG2R	CM146	MS1200



■ NS 93°



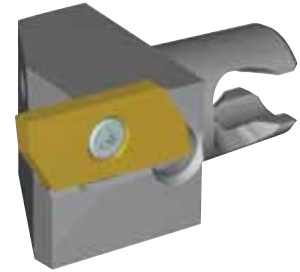
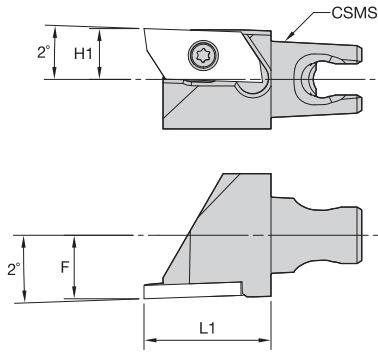
order number	catalog number	CSMS system size	F	H1	L1	gage insert	clamp	clamping screw
right hand								
1920416	KM12NSR220	KM12	8	6	20	NG2R	CM146	MS1200
1831203	KM16NSR220	KM16	10	8	20	NG2R	CM146	MS1200
1831204	KM16NSR330	KM16	10	8	30	NG3R	CM168	MS1220
left hand								
1925830	KM12NSL220	KM12	8	6	20	NG2L	CM147	MS1200
1846446	KM16NSL220	KM16	10	8	20	NG2L	CM147	MS1200
1851748	KM16NSL330	KM16	10	8	30	NG3L	CM169	MS1220



■ WSJ 2°



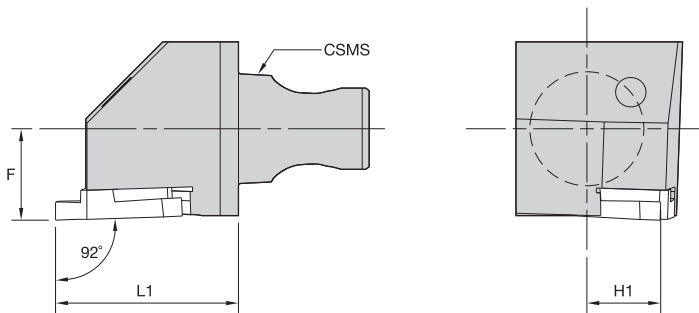
order number	catalog number	CSMS system size	F	H1	L1	gage insert	clamping screw
right hand							
3851787	KM12WSJ15ER20	KM12	8	6	20	KPJ15ER...	MS1969PKG
3522575	KM16WSJ15ER20	KM16	10	8	20	KPJ15ER...	MS1969PKG
left hand							
3851786	KM12WSJ15EL20	KM12	8	6	20	KPJ15EL...	MS1969PKG
3522574	KM16WSJ15EL20	KM16	10	8	20	KPJ15EL...	MS1969PKG



■ WSK 2°



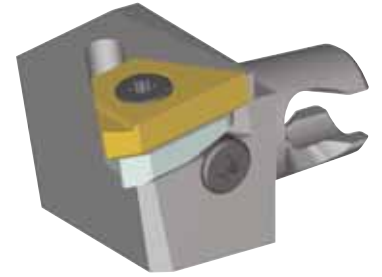
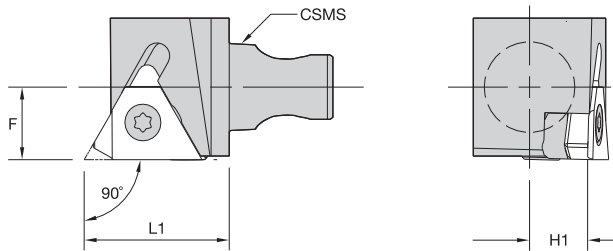
order number	catalog number	CSMS system size	F	H1	L1	gage insert	clamping screw
	right hand						
3851789	KM12WSK15ER20	KM12	8	6	20	KPK15ER...	MS1969PKG
3522577	KM16WSK15ER20	KM16	10	8	20	KPK15ER...	MS1969PKG
	left hand						
3851788	KM12WSK15EL20	KM12	8	6	20	KPK15EL...	MS1969PKG
3522576	KM16WSK15EL20	KM16	10	8	20	KPK15EL...	MS1969PKG



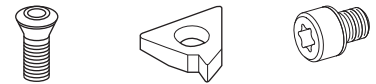
■ STG 92°



order number	catalog number	CSMS system size	F	H1	L1	gage insert	insert screw
	right hand						
1925831	KM12STGR1620	KM12	8	6	20	T20G1603R200/T20G32R079	CSTB4SDPKG
1892495	KM16STGR1620	KM16	10	8	20	T20G1603R200/T20G32R079	CSTB4SDPKG
	left hand						
1925832	KM12STGL1620	KM12	8	6	20	T20G1603L200/T20G32L079	CSTB4SDPKG
1898055	KM16STGL1620	KM16	10	8	20	T20G1603L200/T20G32L079	CSTB4SDPKG



■ LSS 90°



order number	catalog number	CSMS system size			gage insert	insert screw	shim	shim screw	
		F	H1	L1					
	right hand								
2226280	KM12LSSR1620	KM12	8	6	20	LT16ER	SSA3T	SMYE3	SSY3T
2226290	KM16LSSR1620	KM16	10	8	20	LT16ER	SSA3T	SMYE3	SSY3T
	left hand								
2226281	KM12LSSL1620	KM12	8	6	20	LT16EL	SSA3T	SMYI3	SSY3T
2226291	KM16LSSL1620	KM16	10	8	20	LT16EL	SSA3T	SMYI3	SSY3T

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



KM1612S0424SCLDR04S



KM

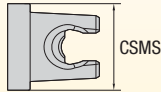
Kennametal
Modular

KM Micro™
Quick Change
tooling system

1612

System
Size

1612 = Ø 16mm
2016 = Ø 20mm



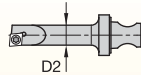
S

Boring Bar
Features

S = Tool steel

04

Shank
Diameter

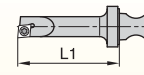


The code is shank diameter D2. Ignore digits after the decimal point.

If the shank diameter D2 code is a single digit, it is preceded by a 0 (zero). (e.g., for Ø 8mm = code 08).

24

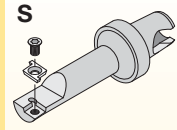
Gage
Length



The code is gage length L1. Ignore digits after the decimal point.

S

Clamping
System







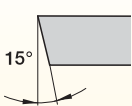
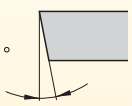
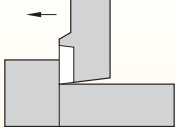
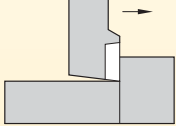
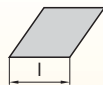

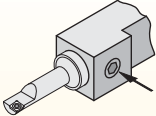
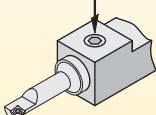


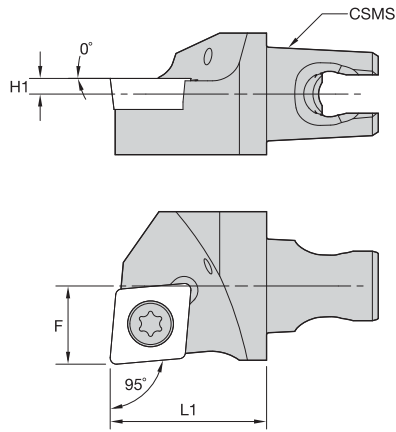
S-Clamping
Clamped from above
with a screw for
indexable inserts

By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



KM1612S0424SCLDR04S

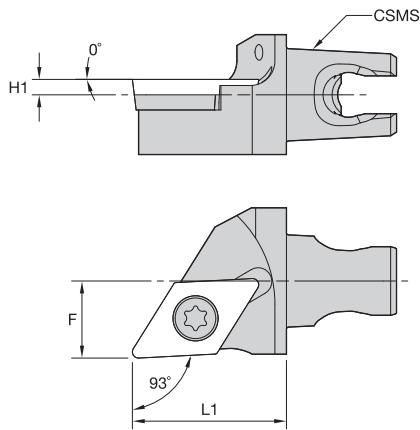
C	L	D	R	04	S
Insert Shape	Cutting Unit Shape	Clearance Angle	Direction	Insert Size	Clamping Access
<p>C </p> <p>G </p> <p>T </p>	<p>F </p> <p>J </p> <p>L </p> <p>X Special Version</p>	<p>D </p> <p>P </p>	<p></p> <p>L = Left-hand cutting unit</p> <p></p> <p>R = Right-hand cutting unit</p>	<p>C </p> <p>G </p> <p>T </p>	<p></p> <p>S = Side access</p> <p></p> <p>T = Top access</p>



■ SCLC-HPC 95°



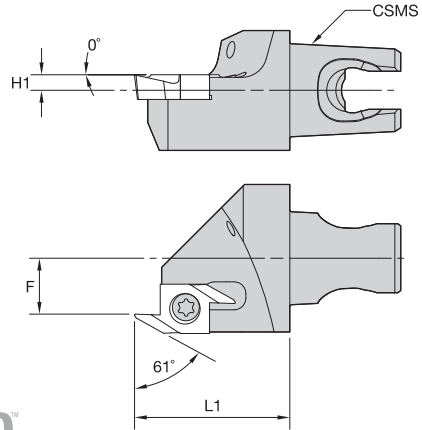
order number	catalog number	CSMS system size	F	H1	L1	gage insert	insert screw
3180670	right hand KM16SCLCR0920HPC	KM16	10	2	20	CC..09T308/CC..3252	MS1155
3180671	left hand KM16SCLCL0920HPC	KM16	10	2	20	CC..09T308/CC..3252	MS1155



■ SDJC-HPC 93°



order number	catalog number	CSMS system size	F	H1	L1	gage insert	insert screw
3176692	right hand KM16SDJCR1120HPC	KM16	10	2	20	DC..11T308/DC..3252	MS1155
3180663	left hand KM16SDJCL1120HPC	KM16	10	2	20	DC..11T308/DC..3252	MS1155



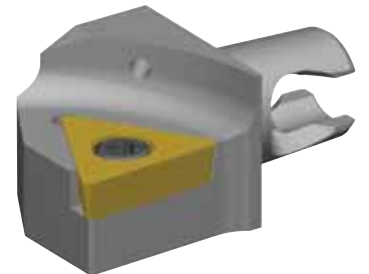
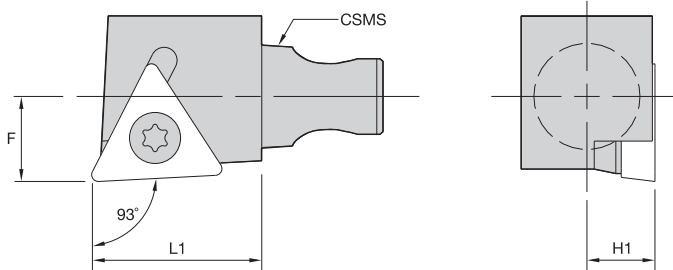
KM Micro Cutting Units



■ SSP-HPC 61°



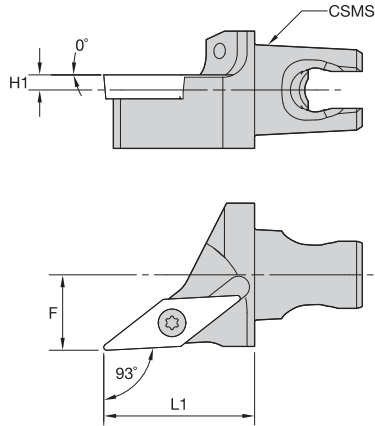
order number	catalog number	CSMS system size	F	H1	L1	gage insert	insert screw
3180664	right hand KM16SSPR0620HPC	KM16	7	2	20	S10P0603R010/S10P22R004	CSTB25PKG
3180665	left hand KM16SSPL0620HPC	KM16	7	2	20	S10P0603L010/S10P22L004	CSTB25PKG



■ STJC-HPC 93°



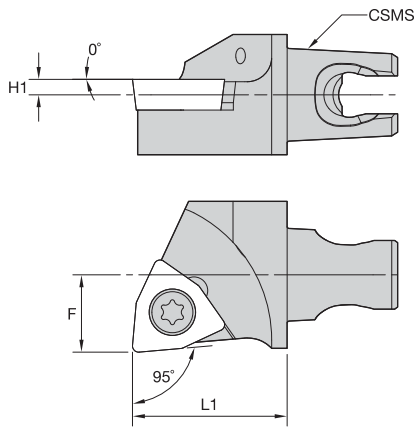
order number	catalog number	CSMS system size	F	H1	L1	gage insert	insert screw
3180666	right hand KM16STJCR1620HPC	KM16	10	2	20	TC..16T308/TC..3252	MS1155
3180667	left hand KM16STJCL1620HPC	KM16	10	2	20	TC..16T308/TC..3252	MS1155



■ SVJB-HPC 93°



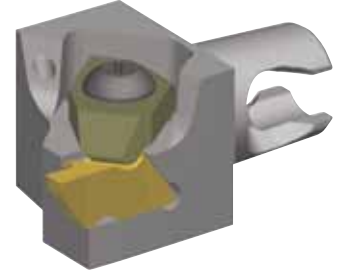
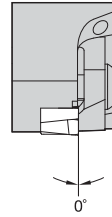
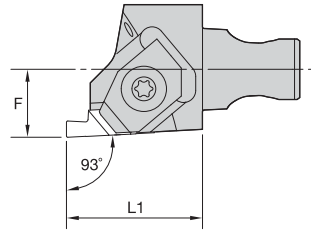
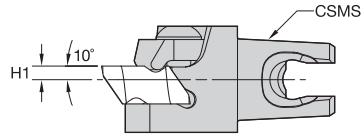
order number	catalog number	CSMS system size	F	H1	L1	gage insert	insert screw
3180672	KM16SVJBR1120HPC	KM16	10	2	20	VB..110304/VB..221	MS1153
3180673	KM16SVJBL1120HPC	KM16	10	2	20	VB..110304/VB..221	MS1153



■ SWLC-HPC 95°



order number	catalog number	CSMS system size	F	H1	L1	gage insert	insert screw
3180668	KM16SWLCR0620HPC	KM16	10	2	20	WC..06T308/WC..3252	MS1155
3180669	KM16SWLCL0620HPC	KM16	10	2	20	WC..06T308/WC..3252	MS1155



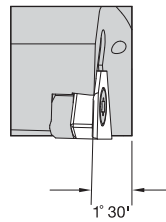
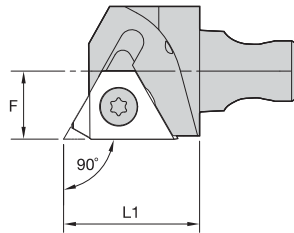
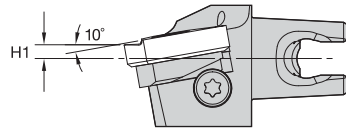
KM Micro Cutting Units



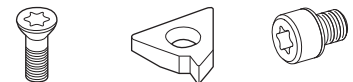
■ NS-HPC



order number	catalog number	CSMS system size	F	H1	L1	gage insert	clamp	clamping screw
3180674	right hand KM16NSR220HPC	KM16	10	2	20	NG2R	CM146	MS1200
3180675	left hand KM16NSL220HPC	KM16	10	2	20	NG2L	CM147	MS1200



■ LSS-HPC



order number	catalog number	CSMS system size	F	H1	L1	gage insert	insert screw	shim	shim screw
3180676	right hand KM16LSSR1620HPC	KM16	10	2	20	LT16ER	SSA3T	SMYE3	SSY3T
3180677	left hand KM16LSSL1620HPC	KM16	10	2	20	LT16EL	SSA3T	SMYI3	SSY3T

How Do Catalog Numbers Work?

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KM1612S0424SCLDR04S



KM

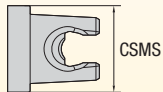
Kennametal
Modular

KM Micro™
Quick Change
tooling system

1612

System
Size

1612 = Ø 16mm
2016 = Ø 20mm



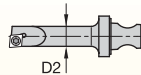
S

Boring Bar
Features

S = Tool steel

04

Shank
Diameter

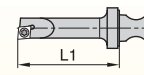


The code is shank diameter D2. Ignore digits after the decimal point.

If the shank diameter D2 code is a single digit, it is preceded by a 0 (zero). (e.g., for Ø 8mm = code 08).

24

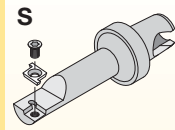
Gage
Length



The code is gage length L1. Ignore digits after the decimal point.

S

Clamping
System



S-Clamping
Clamped from above
with a screw for
indexable inserts

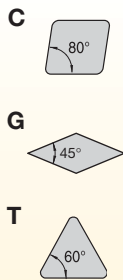
By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



KM1612S0424SCLDR04S

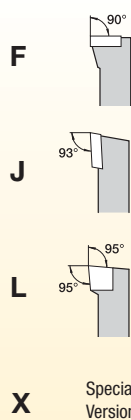
C

Insert Shape



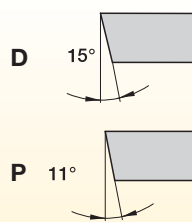
L

Cutting Unit Shape



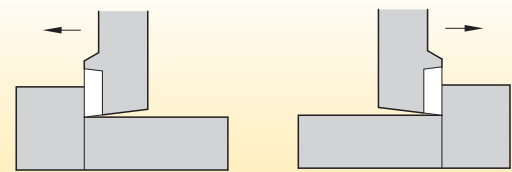
D

Clearance Angle



R

Direction

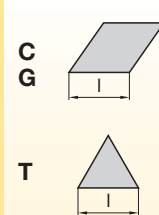


L = Left-hand cutting unit

R = Right-hand cutting unit

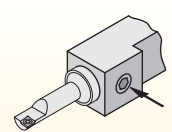
04

Insert Size

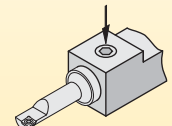


S

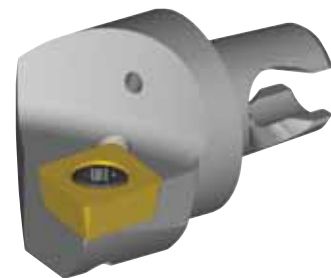
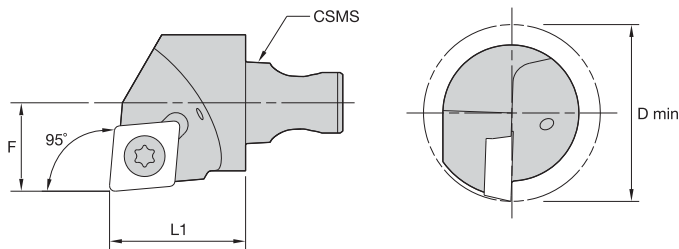
Clamping Access



S = Side access



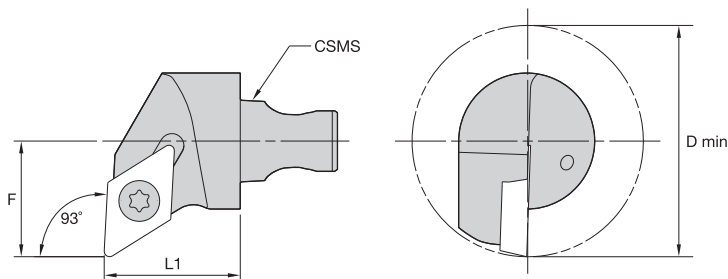
T = Top access



■ SCLP 95°



order number	catalog number	CSMS system size	D min	F	L1	gage insert	insert screw
3016745	right hand KM2016SCLPR0920	KM2016	25	13	20	CP..09T308/CP..3252	MS1155
3016746	left hand KM2016SCLPL0920	KM2016	25	13	20	CP..09T308/CP..3252	MS1155



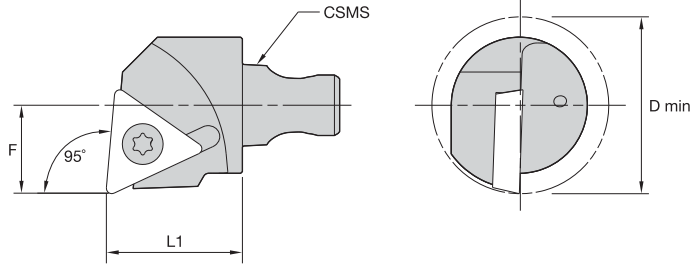
■ SDUP 93°



order number	catalog number	CSMS system size	D min	F	L1	gage insert	insert screw
3016747	right hand KM2016SDUPR1120	KM2016	32	17	20	DP..11T308/DP..3252	MS1155
3016748	left hand KM2016SDUPL1120	KM2016	32	17	20	DP..11T308/DP..3252	MS1155



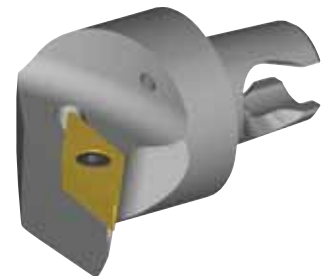
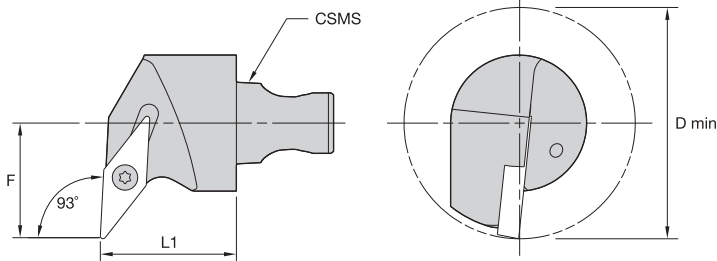
KM Micro Cutting Units



■ STLP 95°



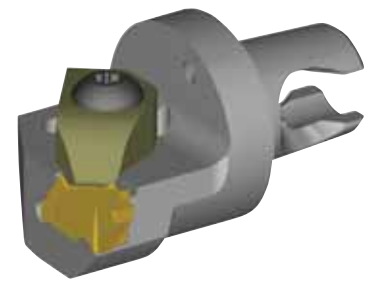
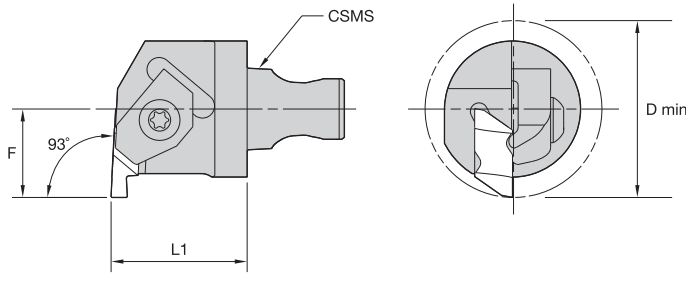
order number	catalog number	CSMS system size	D min	F	L1	gage insert	insert screw
3016753	right hand KM2016STLPR1620	KM2016	25	13	20	TP..16T308/TP..3252	MS1155
3016754	left hand KM2016STLPL1620	KM2016	25	13	20	TP..16T308/TP..3252	MS1155



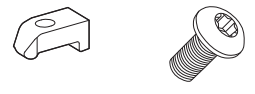
■ SVUB 93°



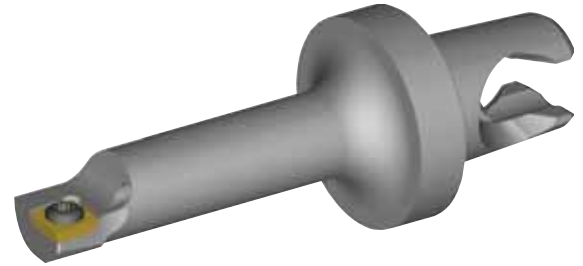
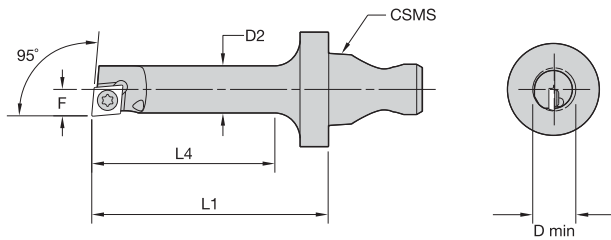
order number	catalog number	CSMS system size	D min	F	L1	gage insert	insert screw
3016749	right hand KM2016SVUBR1120	KM2016	32	17	20	VB..110304/VB..221	MS1153
3016750	left hand KM2016SVUBL1120	KM2016	32	17	20	VB..110304/VB..221	MS1153



■ NE



order number	catalog number	CSMS				gage insert	clamp	socket-head cap screw
		system size	D min	F	L1			
3016751	right hand	KM2016	25	13	20	NG2L	CM183	MS1200
	KM2016NER220							
3016752	left hand	KM2016	25	13	20	NG2R	CM182	MS1200
	KM2016NEL220							



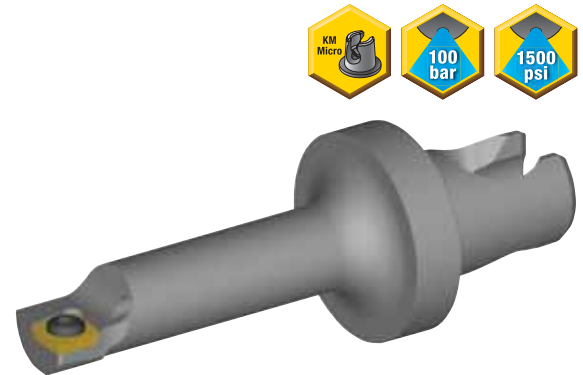
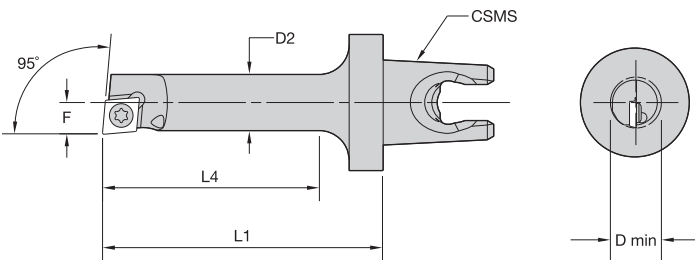
KM Micro Internal Cutting Units



■ SCLD-S 95°



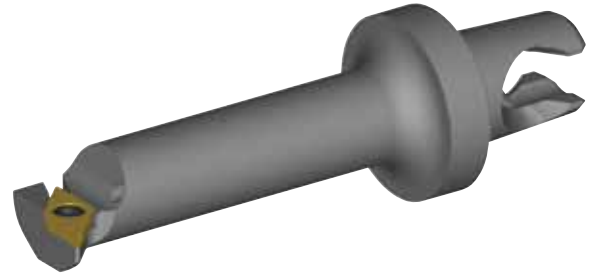
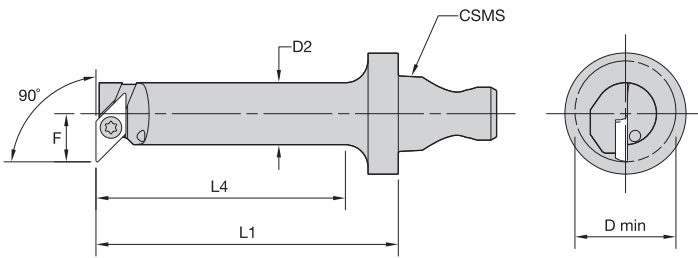
order number	catalog number	CSMS system size	D min	D2	F	L1	L4	gage insert	insert screw
right hand									
2253213	KM1612S0424SCLDRS4S	KM1612	4,77	4,22	2,42	24	17	CD..S4T002/CD..120605	CC09
2253215	KM1612S0528SCLDRS4S	KM1612	5,78	5,16	2,95	28	21	CD..S4T002/CD..120605	CC11
2253217	KM1612S0633SCLDRS4S	KM1612	7,09	6,20	3,73	33	25	CD..S4T002/CD..120605	CC11
left hand									
2253214	KM1612S0424SCLDLS4S	KM1612	4,77	4,22	2,40	24	17	CD..S4T002/CD..120605	CC09
2253216	KM1612S0528SCLDLS4S	KM1612	5,78	5,16	2,95	28	21	CD..S4T002/CD..120605	CC11
2253218	KM1612S0633SCLDLS4S	KM1612	7,09	6,20	3,73	33	25	CD..S4T002/CD..120605	CC11



■ SCLD-T 95°



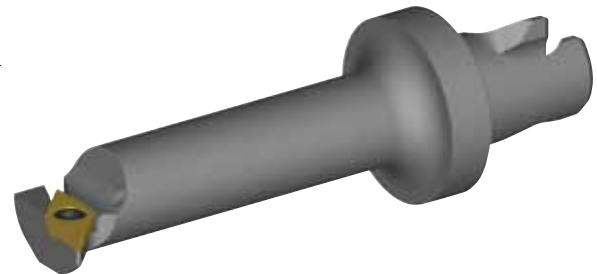
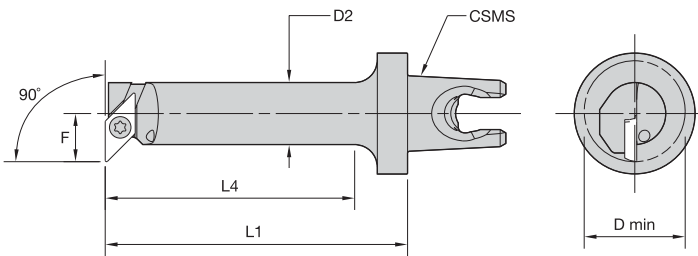
order number	catalog number	CSMS system size	D min	D2	F	L1	L4	gage insert	insert screw
right hand									
2253219	KM1612S0424SCLDRS4T	KM1612	4,77	4,22	2,40	24	17	CD..S4T002/CD..120605	CC09
2253221	KM1612S0528SCLDRS4T	KM1612	5,78	5,16	2,95	28	21	CD..S4T002/CD..120605	CC11
2253223	KM1612S0633SCLDRS4T	KM1612	7,09	6,20	3,73	33	25	CD..S4T002/CD..120605	CC11
left hand									
2253220	KM1612S0424SCLDLS4T	KM1612	4,77	4,22	2,40	24	17	CD..S4T002/CD..120605	CC09
2253222	KM1612S0528SCLDLS4T	KM1612	5,78	5,16	2,95	28	21	CD..S4T002/CD..120605	CC11
2253224	KM1612S0633SCLDLS4T	KM1612	7,09	6,20	3,73	33	25	CD..S4T002/CD..120605	CC11



■ SGFP-S 90°



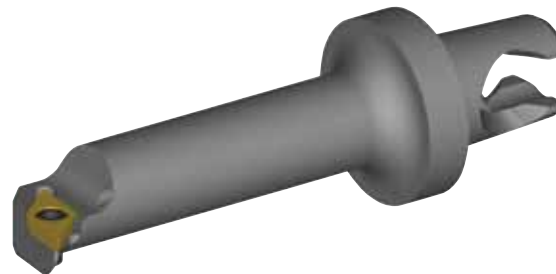
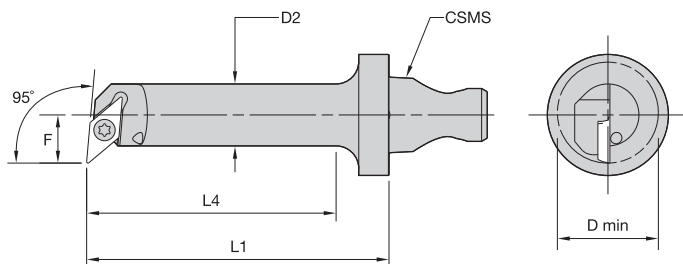
order number	catalog number	CSMS system size	D min	D2	F	L1	L4	gage insert	insert screw
	right hand								
2253225	KM1612S0633SGFPR05S	KM1612	9,14	6,6	5,58	33	26,4	GP..050102/GP.505	CT15
2253227	KM1612S0840SGFPR05S	KM1612	10,72	8,2	6,37	40	33,0	GP..050102/GP.505	CT15
	left hand								
2253226	KM1612S0633SGFPL05S	KM1612	9,14	6,6	5,58	33	26,4	GP..050102/GP..12105	CT15
2253228	KM1612S0840SGFPL05S	KM1612	10,72	8,2	6,37	40	33,0	GP..050102/GP..12105	CT15



■ SGFP-T 90°



order number	catalog number	CSMS system size	D min	D2	F	L1	L4	gage insert	insert screw
	right hand								
2253229	KM1612S0633SGFPR05T	KM1612	9,14	6,6	5,58	33	26,4	GP..050102/GP.505	CT15
2253231	KM1612S0840SGFPR05T	KM1612	10,72	8,2	6,37	40	33,0	GP..050102/GP.505	CT15
	left hand								
2253230	KM1612S0633SGFPL05T	KM1612	9,14	6,6	5,58	33	26,4	GP..050102/GP.505	CT15
2253232	KM1612S0840SGFPL05T	KM1612	10,72	8,2	6,37	40	33,0	GP..050102/GP.505	CT15



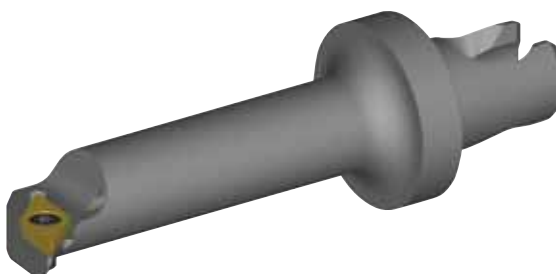
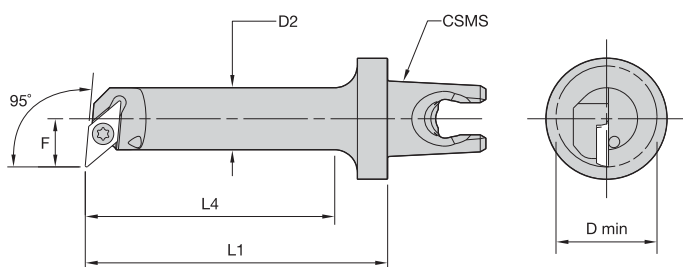
KM Micro Internal Cutting Units



■ SGLP-S 95°



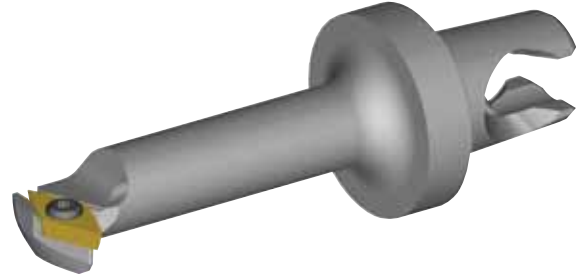
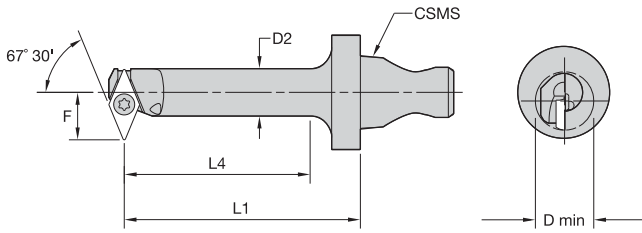
order number	catalog number	CSMS system size	D min	D2	F	L1	L4	gage insert	insert screw
right hand									
2253233	KM1612S0633SGLPR05S	KM1612	9,14	6,60	5,58	33	26	GP..050102/GP..12105	CT15
2253235	KM1612S0840SGLPR05S	KM1612	10,72	8,20	6,37	40	33	GP..050102/GP..12105	CT15
left hand									
2253234	KM1612S0633SGLPL05S	KM1612	9,14	6,60	5,58	33	26	GP..050102/GP..12105	CT15
2253236	KM1612S0840SGLPL05S	KM1612	10,72	8,20	6,37	40	33	GP..050102/GP..12105	CT15



■ SGLP-T 95°



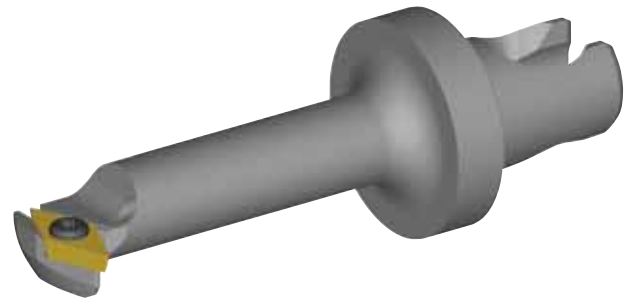
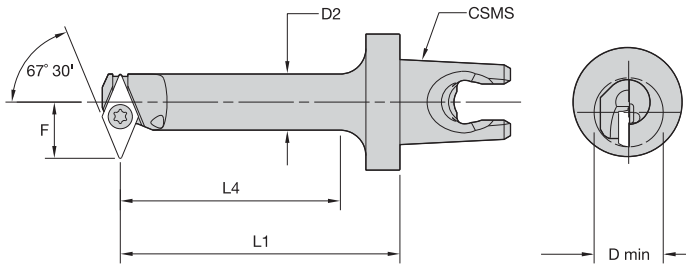
order number	catalog number	CSMS system size	D min	D2	F	L1	L4	gage insert	insert screw
right hand									
2253237	KM1612S0633SGLPR05T	KM1612	9,14	6,60	5,58	33	26	GP..050102/GP..12105	CT15
2253239	KM1612S0840SGLPR05T	KM1612	10,72	8,20	6,37	40	33	GP..050102/GP..12105	CT15
left hand									
2253238	KM1612S0633SGLPL05T	KM1612	9,14	6,60	5,58	33	26	GP..050102/GP..12105	CT15
2253240	KM1612S0840SGLPL05T	KM1612	10,72	8,20	6,37	40	33	GP..050102/GP..12105	CT15



■ SGXP-S 67° 30'



order number	catalog number	CSMS system size	D min	D2	F	L1	L4	gage insert	insert screw
	right hand								
2253288	KM1612S0633SGXPR05S	KM1612	10,16	6,6	6,61	33	26	GP..050102/GP..12105	CT15
	left hand								
2253289	KM1612S0633SGXPL05S	KM1612	10,16	6,6	6,61	33	26	GP..050102/GP..12105	CT15



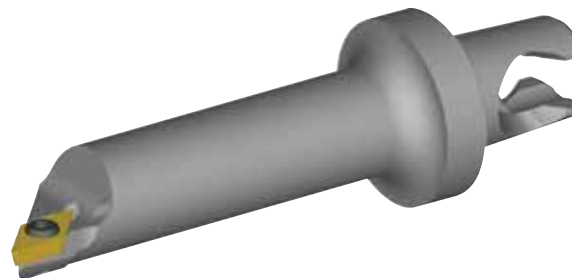
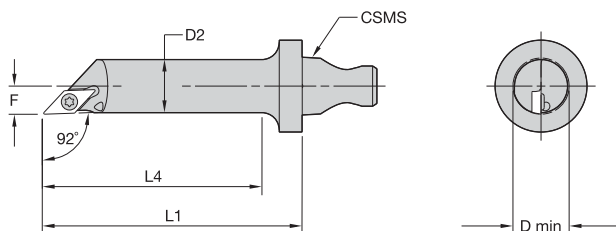
■ SGXP-T 67° 30'



order number	catalog number	CSMS system size	D min	D2	F	L1	L4	gage insert	insert screw
	right hand								
2253241	KM1612S0633SGXPR05T	KM1612	10,16	6,6	6,61	33	26	GP..050102/GP..505	CT15
	left hand								
2253242	KM1612S0633SGXPL05T	KM1612	10,16	6,6	6,61	33	26	GP..050102/GP..12105	CT15



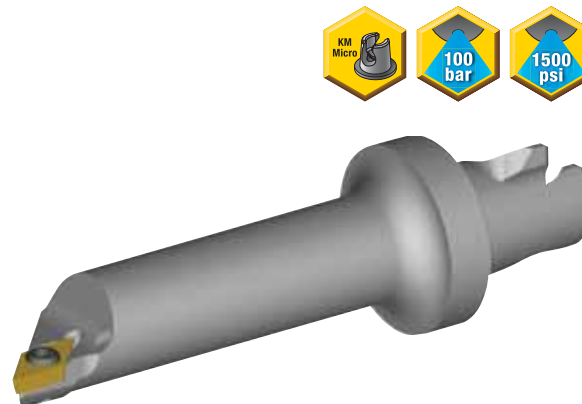
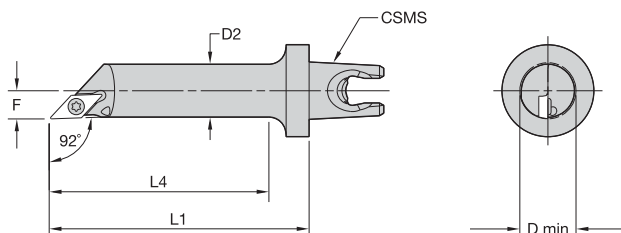
KM Micro Internal Cutting Units



■ SGJP-S 92°



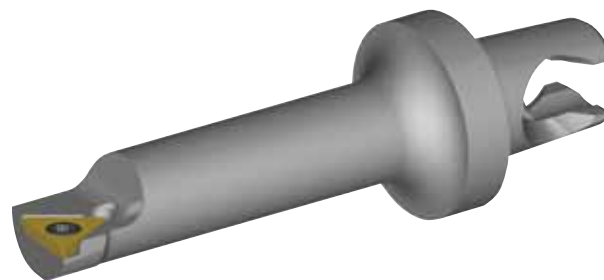
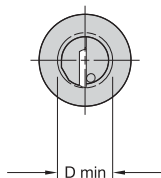
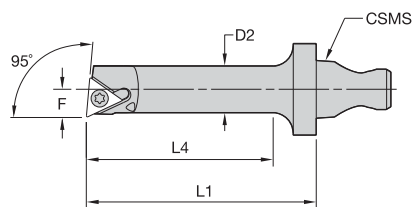
order number	catalog number	CSMS system size	D min	D2	F	L1	L4	gage insert	insert screw
right hand									
2253243	KM1612S0840SGJPR05S	KM1612	8,68	8,20	4,34	40	33	GP..050102/GP..12105	CT11
2253247	KM1612S0945SGJPR05S	KM1612	9,75	9,25	4,89	45	38	GP..050102/GP..12105	CT11
left hand									
2253244	KM1612S0840SGJPL05S	KM1612	8,68	8,20	4,34	40	33	GP..050102/GP..12105	CT11
2253248	KM1612S0945SGJPL05S	KM1612	9,75	9,25	4,89	45	38	GP..050102/GP..12105	CT11



■ SGJP-T 92°



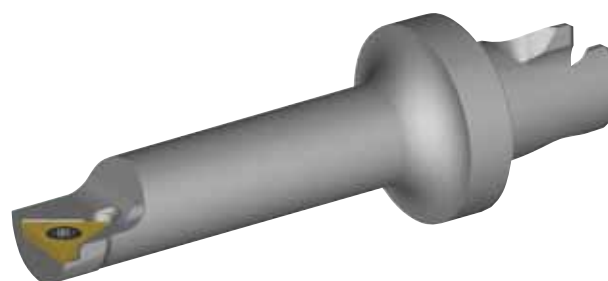
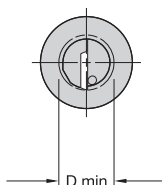
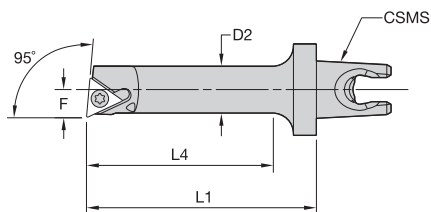
order number	catalog number	CSMS system size	D min	D2	F	L1	L4	gage insert	insert screw
right hand									
2253249	KM1612S0840SGJPR05T	KM1612	8,68	8,20	4,34	40	33	GP..050102/GP..12105	CT11
2253251	KM1612S0945SGJPR05T	KM1612	9,75	9,25	4,89	45	38	GP..050102/GP..12105	CT11
left hand									
2253250	KM1612S0840SGJPL05T	KM1612	8,68	8,20	4,34	40	33	GP..050102/GP..12105	CT11
2253252	KM1612S0945SGJPL05T	KM1612	9,75	9,25	4,89	45	38	GP..050102/GP..12105	CT11



■ **STLD-S 95°**



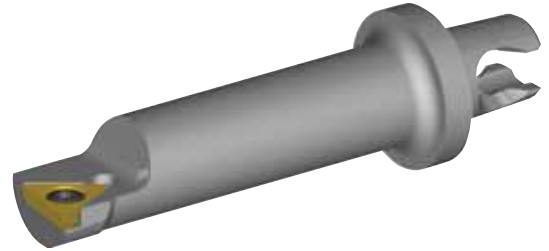
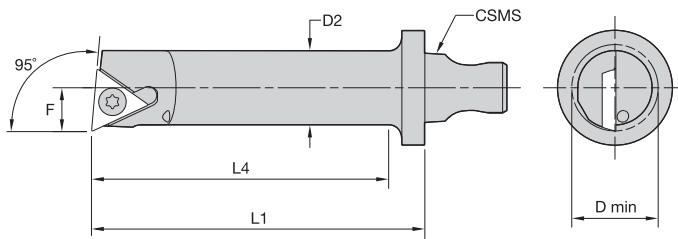
order number	catalog number	CSMS system size	D min	D2	F	L1	L4	gage insert	insert screw
	right hand								
2253253	KM1612S0633STLDR07S	KM1612	7,06	6,2	3,71	33	26	TD..07S1202/TD..130805	FC11
2253255	KM1612S0840STLDR07S	KM1612	9,14	8,2	4,80	40	33	TD..07S1202/TD..130805	FC11
	left hand								
2253254	KM1612S0633STLDL07S	KM1612	7,06	6,2	3,71	33	26	TD..07S1202/TD..130805	FC11
2253256	KM1612S0840STLDL07S	KM1612	9,14	8,2	4,80	40	33	TD..07S1202/TD..130805	FC11



■ **STLD-T 95°**



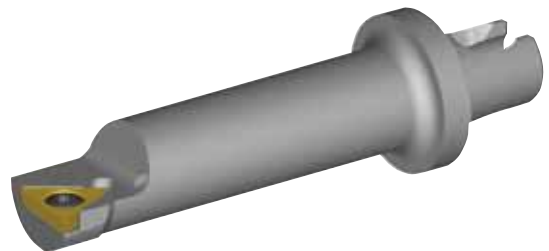
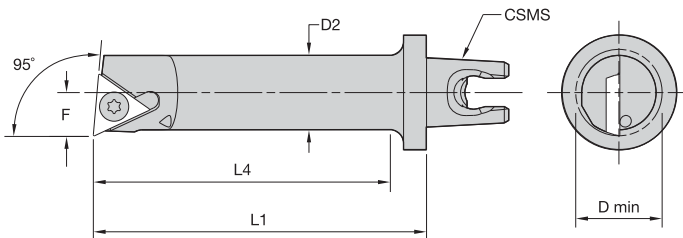
order number	catalog number	CSMS system size	D min	D2	F	L1	L4	gage insert	insert screw
	right hand								
2253257	KM1612S0633STLDR07T	KM1612	7,06	6,2	3,71	33	26	TD..07T1202/TD..12807505	FC11
2253259	KM1612S0840STLDR07T	KM1612	9,14	8,2	4,80	40	33	TD..07T1202/TD..12807505	FC11
	left hand								
2253258	KM1612S0633STLDL07T	KM1612	7,06	6,2	3,71	33	26	TD..07T1202/TD..12807505	FC11
2253260	KM1612S0840STLDL07T	KM1612	9,14	8,2	4,80	40	33	TD..07T1202/TD..12807505	FC11



■ STLP-S 95°



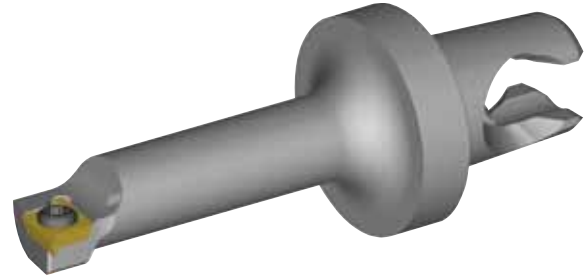
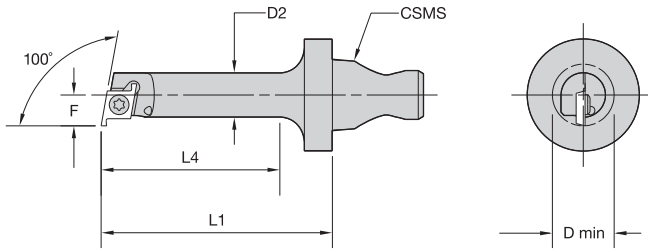
order number	catalog number	CSMS system size	D min	D2	F	L1	L4	gage insert	insert screw
right hand									
2253261	KM1612S1046STLPR11S	KM1612	11,15	10,21	5,79	46	41	TP.110202/TP..21505	QC21
2253263	KM2016S1046STLPR11S	KM2016	11,15	10,21	5,79	46	41	TP.110202/TP..21505	QC21
2253265	KM2016S1358STLPR11S	KM2016	14,25	12,95	7,52	58	52	TP.110202/TP..21505	QC21
left hand									
2253262	KM1612S1046STLPL11S	KM1612	11,15	10,21	5,79	46	41	TP.110202/TP..21505	QC21
2253264	KM2016S1046STLPL11S	KM2016	11,15	10,21	5,79	46	41	TP.110202/TP..21505	QC21
2253266	KM2016S1358STLPL11S	KM2016	14,25	12,95	7,52	58	52	TP.110202/TP..21505	QC21



■ STLP-T 95°



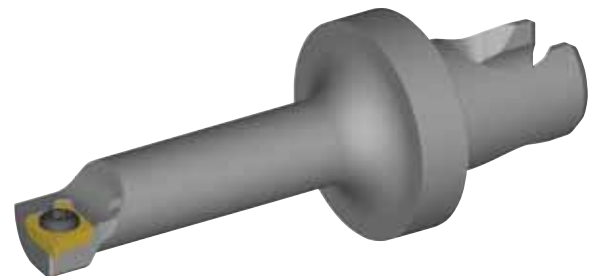
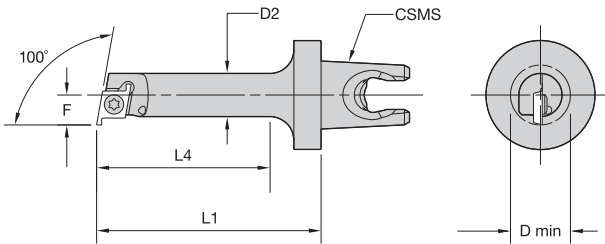
order number	catalog number	CSMS system size	D min	D2	F	L1	L4	gage insert	insert screw
right hand									
2250067	KM1612S1046STLPR11T	KM1612	11,15	10,21	5,79	46	41	TP.110202/TP..21505	QC21
2250069	KM2016S1046STLPR11T	KM2016	11,15	10,21	5,79	46	41	TP.110202/TP..21505	QC21
2250071	KM2016S1358STLPR11T	KM2016	14,25	12,95	7,52	58	52	TP.110202/TP..21505	QC21
left hand									
2250068	KM1612S1046STLPL11T	KM1612	11,15	10,21	5,79	46	41	TP.110202/TP..21505	QC21
2250070	KM2016S1046STLPL11T	KM2016	11,15	10,21	5,79	46	41	TP.110202/TP..21505	QC21
2250072	KM2016S1358STLPL11T	KM2016	14,25	12,95	7,53	58	52	TP.110202/TP..21505	QC21



■ SCXD-S 100°



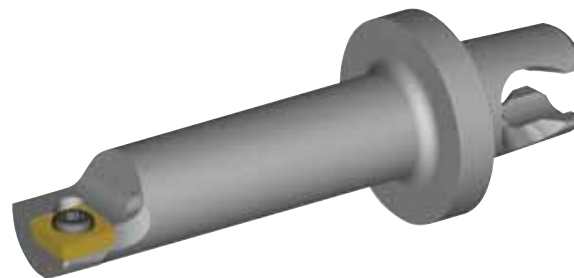
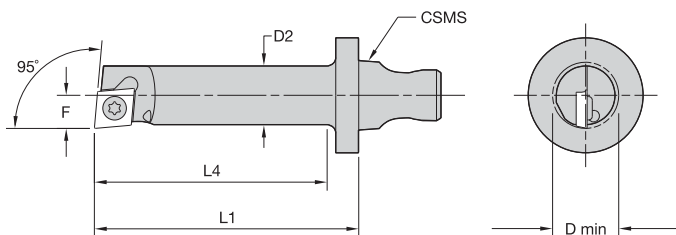
order number	catalog number	CSMS system size	D min	D2	F	L1	L4	gage insert	insert screw
	right hand								
2250073	KM1612S0529SCXDRS	KM1612	6,93	5,56	3,91	29	22	CD.50302R	CC11
2250074	KM1612S0633SCXDRS	KM1612	7,82	6,35	4,40	33	26	CD.50302R	CC11



■ SCXD-T 100°



order number	catalog number	CSMS system size	D min	D2	F	L1	L4	gage insert	insert screw
	right hand								
2250037	KM1612S0529SCXDRT	KM1612	6,93	5,56	3,91	29	22	CD..40762/CD.120302	CC11
2250038	KM1612S0633SCXDRT	KM1612	7,82	6,35	4,40	33	26	CD..40762/CD.120302	CC11



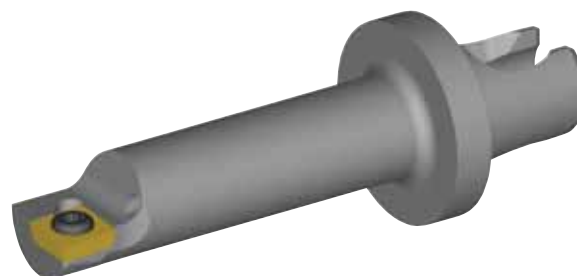
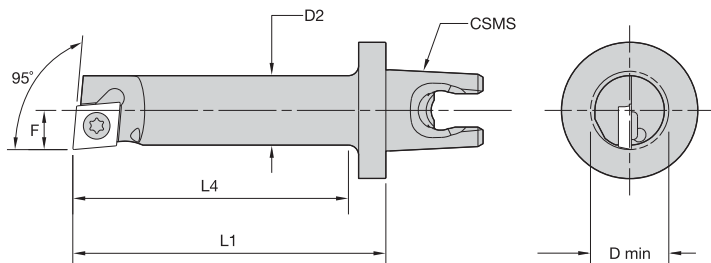
KM Micro Internal Cutting Units



■ SCXP-S 95°



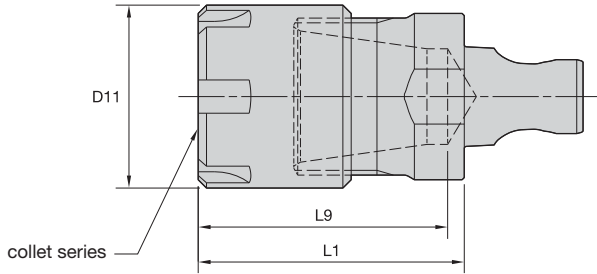
order number	catalog number	CSMS system size	D min	D2	F	L1	L4	gage insert	insert screw
right hand									
2250039	KM1612S1046SCXPRS	KM1612	11,10	10,21	5,75	46	41	CP..06T102/CP..21205	QC15
2250041	KM2016S1046SCXPRS	KM2016	11,10	10,21	5,75	46	41	CP..06T102/CP..21205	QC15
left hand									
2250040	KM1612S1046SCXPLS	KM1612	11,10	10,21	5,75	46	41	CP..06T102/CP..21205	QC15
2250042	KM2016S1046SCXPLS	KM2016	11,10	10,21	5,75	46	41	CP..06T102/CP..21205	QC15



■ SCXP-T 95°



order number	catalog number	CSMS system size	D min	D2	F	L1	L4	gage insert	insert screw
right hand									
2250063	KM1612S1046SCXPRT	KM1612	11,10	10,21	5,75	46	41	CP..06T102/CP..21205	QC15
2250065	KM2016S1046SCXPRT	KM2016	11,10	10,21	5,75	46	41	CP..06T102/CP..21205	QC15
left hand									
2250064	KM1612S1046SCXPLT	KM1612	11,10	10,21	5,75	46	41	CP..06T102/CP..21205	QC15
2250066	KM2016S1046SCXPLT	KM2016	11,10	10,21	5,75	46	41	CP..06T102/CP..21205	QC15



ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER8	0,5	5,0	.02	.20
ER11	0,5	7,0	.02	.28
ER16	0,5	10,0	.02	.41
ER20	0,5	13,0	.02	.50

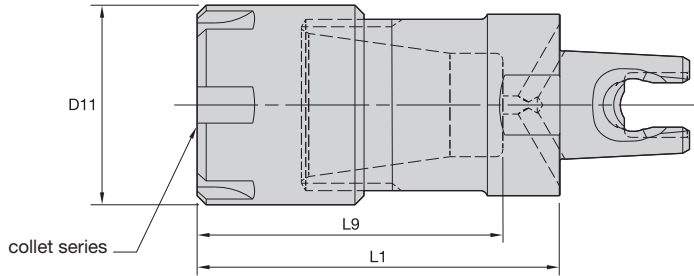
■ ER



order number	catalog number	CSMS system size	collet series	D11	L1	locknut	wrench	counterbore collet torque (Nm)	straight collet torque (Nm)
2607067	KM1612ER08017	KM1612	ER8	12	17	LER08M	ER08WEM	4.8	4.0
1925844	KM1612ER11020	KM1612	ER11	16	20	LER11M	ER11WEM	12.0	16.0
1925845	KM1612ER16032	KM1612	ER16	22	32	LER16M	ER16WEM	24.0	24.0
2607068	KM2016ER08017	KM2016	ER8	12	17	LER08M	ER08WEM	4.8	4.0
1898057	KM2016ER11020	KM2016	ER11	16	20	LER11M	ER11WEM	12.0	16.0
1898058	KM2016ER16032	KM2016	ER16	22	32	LER16M	ER16WEM	24.0	24.0
1925857	KM2016ER20035	KM2016	ER20	28	35	LER20M	ER20WEM	28.0	28.0

(continued)

(ER continued)



KM Micro Shank Tools

■ ER-C



order number	catalog number	CSMS system size	collet series	D11	L1	locknut	wrench	counterbore collet torque (Nm)	straight collet torque (Nm)
3741453	KM2016ER08025C	KM2016	ER08	12	25	LER08M	ER08WEM	4.8	4.0
3741454	KM2016ER11030C	KM2016	ER11	16	30	LER11M	ER11WEM	12.0	16.0
3741455	KM2016ER16040C	KM2016	ER16	22	40	LER16M	ER16WEM	24.0	24.0
3741456	KM2016ER20045C	KM2016	ER20	28	45	LER20M	ER20WEM	28.0	28.0

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
Collet chuck technical section, see page M98.
Supplied with locknut.

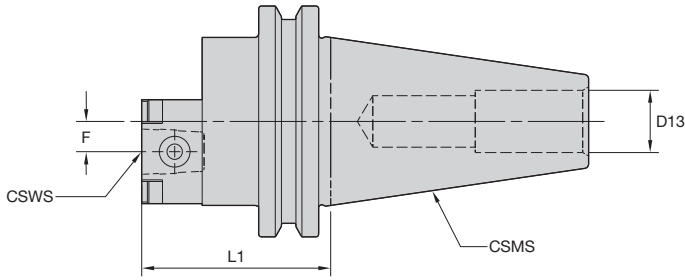
Locknut wrench must be ordered separately.

Interchangeable coolant-style locknuts and coolant disks are available and must be ordered separately; see page L19.

ER standard straight-bore collets, see page J50.

ER tap collets, see pages J58-J59.

ER TCT tension-only tap collets, see page J60.

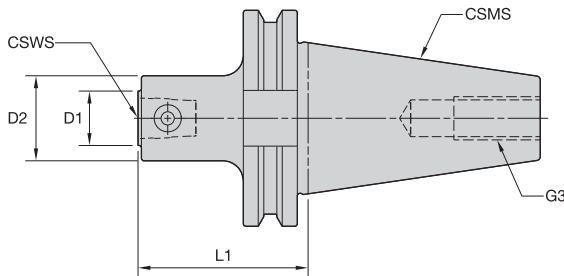


■ ECTRA • Offset



order number	catalog number	CSWS system size	CSMS system size	F	L1	D13	spare parts package	socket-head cap screw
2213872	CV40KM12ECTRA	KM12	CV40	6	40	16,47	KM12NRPKG	125.316
2213903	CV40KM16ECTRA	KM16	CV40	8	50	16,47	KM16NRPKG	MS319
2430343	CV50KM12ECTRA	KM12	CV50	6	40	—	KM12NRPKG	125.316
2430344	CV50KM16ECTRA	KM16	CV50	8	50	—	KM16NRPKG	MS319

NOTE: The CV40 and CV50 are only intended to be used in a presetter fixture.



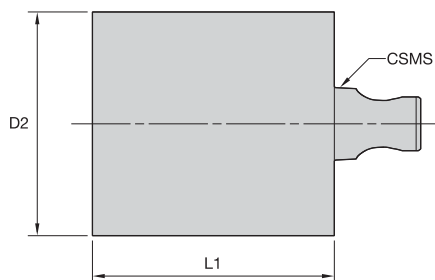
■ TRA • On Center



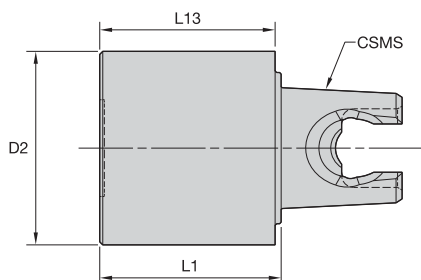
order number	catalog number	CSWS system size	CSMS system size	D1	D2	G3	L1	spare parts package
1925846	CV40KM12TRA	KM12	CV40	12	22	1/4-13 UNC	40	KM12NRPKG
1887781	CV40KM16TRA	KM16	CV40	16	25	1/4-13 UNC	50	KM16NRPKG

NOTE: The CV40 is only intended to be used in a presetter fixture.

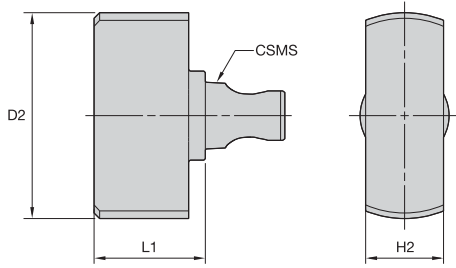
- Machinable front 38–42 HRC.


■ BN • Blank

order number	catalog number	CSMS system size	D2	L1	kg	lbs
1925849	KM12BN3133	KM12	31	33	0,19	.43
3836822	KM1612BN1650	KM1612	16	50	0,08	.18
3836820	KM1612BN2430	KM1612	24	30	0,11	.23
1851739	KM16BN3740	KM16	37	40	0,34	.74
3836821	KM2016BN2060	KM2016	20	60	0,15	.34
3836819	KM2016BN3035	KM2016	31	35	0,20	.44


■ GB • Gage Bar

order number	catalog number	CSMS system size	D2	L1	L13	kg	lbs
2417677	KM12GB1620	KM12	16	20	19	0,04	.08
2417676	KM16GB2020	KM16	20	20	20	0,06	.13



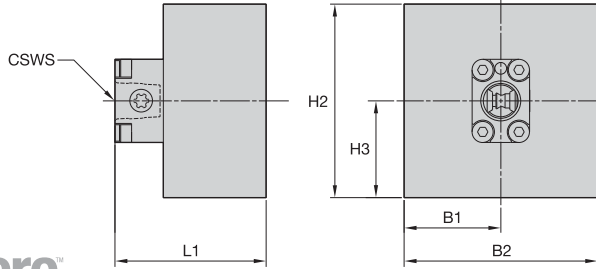
KM Micro Shank Tools

■ TIM • Timing Head

order number	catalog number	CSMS system size	D2	L1	H2
1925847	KM12TIM0915	KM12	31	15	9
1886774	KM16TIM1420	KM16	37	20	14



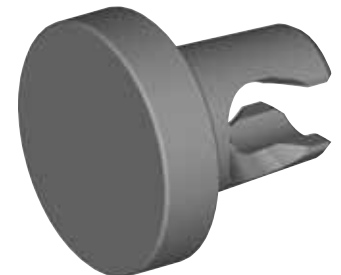
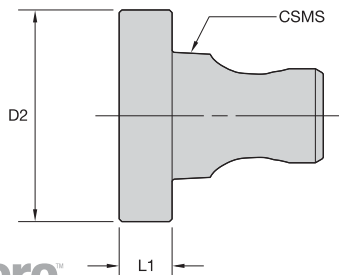
KM Micro Shank Tools



■ TB • Tumble Block



order number	catalog number	CSWS system size	B1	B2	H2	H3	L1	spare parts package	kg	lbs
2430347	KM12TB	KM12	32	64	64	32	50	KM12NRPKG	1,18	2.60
2430348	KM16TB	KM16	32	64	64	32	50	KM16NRPKG	1,13	2.49



■ P • Plug

order number	catalog number	CSWS system size	D2	L1
1925848	KM12P	KM12	12	5
3397220	KM1612P	KM1612	16	5
1851741	KM16P	KM16	16	5
3397219	KM2016P	KM2016	20	5

KM™ Mini • Quick Change Tooling System



Primary Application

The KM Mini coupling offers a very rigid joint with a high degree of repeatability while maintaining a very compact envelope. This permits a high degree of versatility without sacrificing cutting performance.

Features and Benefits

Features

- KM Mini is a compact quick-change tooling system.
- Face and taper surface contact between the cutting unit and clamping units.
- Mating taper clamping surfaces.
- Square shank adapters for standard tool blocks.

Functions

- The mechanism design consists of two components: the torque screw and the wedge nut.
- Precise and repeatable cutting edge position is in both directions of cut
- Maximum possible surface contact between the clamping mechanism and the cutting unit.
- Designed around a short 10:1 tapered shank.
- The taper is self-centering to promote easy tool loading and unloading.



Advantages

- Reduce downtime, increase productivity.
- Replaces conventional square-shank tooling.
- No machine modifications required.
- KM™ Mini is ideal for machines up to 30 hp (22 kW).

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



KM20NCM2020100



KM

Kennametal
Modular

KM™ Mini Quick Change
tooling system

20

System
Size

20 = 20 x 20mm
26 = 25 x 25mm

N

Version

N = Neutral
L = Left-hand version
R = Right-hand version

C

Clamping
Unit

M

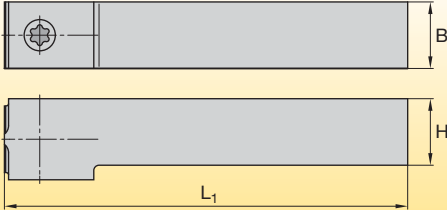
Control

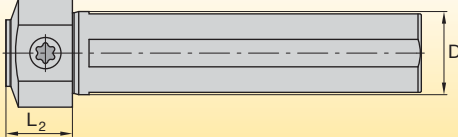
M = Manual
A = Automatic

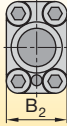
By referencing this easy-to-use guide, you can identify the correct product to meet your needs.

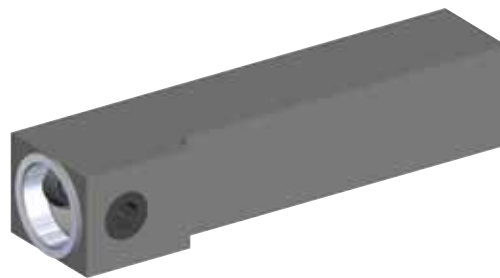
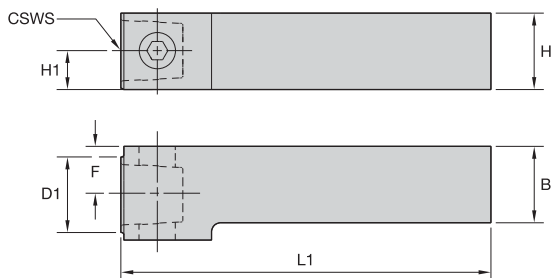


KM20NCM2020100

	20	20	100
Type	Shank Height	Shank Width	Shank Length
Square Shank	<p>H = Shank height B = Shank width L₁ = Shank length</p> 		

SS	20	25
Type	Shank Diameter	Shoulder Length
SS = Square shank with shoulders	<p>D = Shank diameter L₂ = Shoulder length</p> 	

SF	27
Type	Flange Width
<p>SF = Range mount SEF = Extended flange mount</p>	<p>B₂ = Flange width</p> 



KM Mini Clamping Units

■ R/L CM • Metric

order number	catalog number	CSWS system size	D1 mm	L1 mm	F mm	B mm	H mm	H1 mm					
	right hand												
3482938	KM20RCM2020100	KM20	20	100	3.937	13	.492	20	.787	20	.787	10	.413
	left hand												
3482939	KM20LCM2020100	KM20	20	100	3.937	13	.492	20	.787	20	.787	10	.413

■ R/L CM • Inch

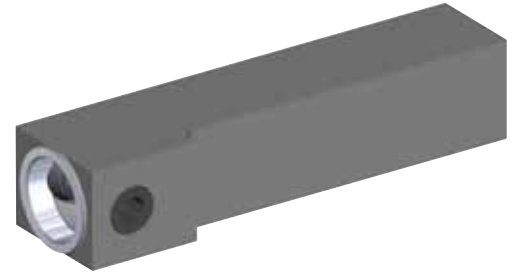
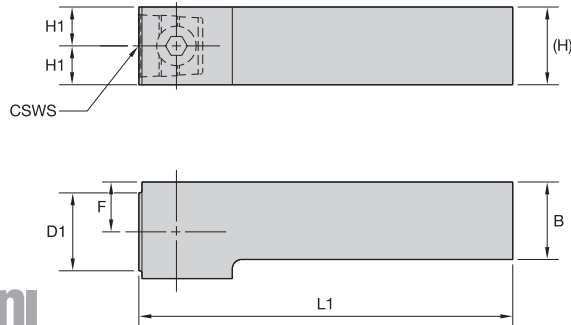
order number	catalog number	CSWS system size	D1 mm	L1 mm	F mm	B mm	H mm	H1 mm					
	right hand												
2385942	KM25RCM16382	KM25	25	97	3.819	16	.630	25	1.000	25	1.000	13	.508
	left hand												
2386034	KM25RCM16482	KM25	25	122	4.819	16	.630	25	1.000	25	1.000	13	.508
	right hand												
2386033	KM25LCM16382	KM25	25	97	3.819	16	.630	25	1.000	25	1.000	13	.508
2265206	KM25LCM16482	KM25	25	122	4.819	16	.630	25	1.000	25	1.000	13	.508

■ Spare Parts



catalog number	spare parts package	wrench size actuation screw	Nm	ft. lbs.
right hand				
KM20RCM2020100	KM20NAPKG	5mm	19-22	14-16
KM25RCM16382	KM25NAPKG	6mm	34-40	25-30
KM25RCM16482	KM25NAPKG	6 mm	34-40	25-30
left hand				
KM20LCM2020100	KM20NAPKG	5mm	19-22	14-16
KM25LCM16382	KM25NAPKG	6mm	34-40	25-30
KM25LCM16482	KM25NAPKG	6mm	34-40	25-30

NOTE: For torque wrench, see page L52–L53.


■ NCM • Metric

order number	catalog number	CSWS system size	D1		L1	F		H		H1		B	
			mm	mm	in	mm	in	mm	in	mm	in	mm	in
2277879	KM25NCM2525120	KM25	25	120	4.724	16	.630	25	.984	13	.492	25	.984

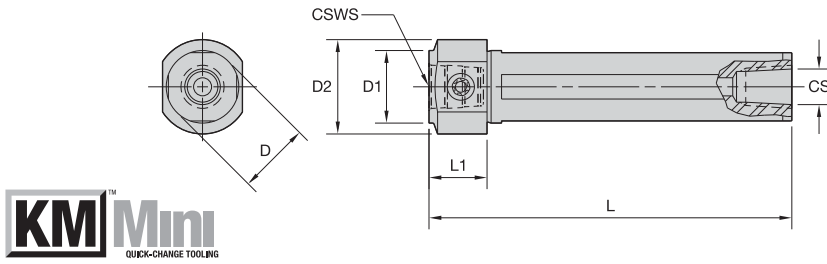
■ NCM • Inch

order number	catalog number	CSWS system size	D1		L1	F		H		H1		B	
			mm	mm	in	mm	in	mm	in	mm	in	mm	in
3482940	KM20NCM12352	KM20	20	89	3.516	13	.493	19	.750	10	.375	19	.750

■ Spare Parts


catalog number	spare parts package	wrench size actuation screw		Nm	ft. lbs.
		mm	in		
KM20NCM12352	KM20NAPKG	5mm		19-22	14-16
KM25NCM2525120	KM25NAPKG	6mm		34-40	25-30

NOTE: For torque wrench, see page L52–L53.



■ **NCM-SS • Round Shank • Metric**

order number	catalog number	CSWS system size	D1 mm	D mm	D in	D2 mm	D2 in	L mm	L in	L1 mm	L1 in	CS
3483039	KM2520NCMSS2025	KM2520	25	20	.787	28	1.102	90	3.543	25	.984	1/8-27 NPT
2594730	KM3225NCMSS2525	KM3225	32	25	.984	36	1.417	90	3.543	25	.984	1/4-18 NPT
2656549	KM3225NCMSS3225	KM3225	32	32	1.260	44	1.732	90	3.543	25	.984	1/4-18 NPT
2656550	KM3225NCMSS4025	KM3225	32	40	1.575	50	1.969	90	3.543	25	.984	1/4-18 NPT

■ **Spare Parts**



catalog number	spare parts package	wrench size actuation screw	Nm	ft. lbs.
KM2520NCMSS2025	KM2520NRPKG	5mm	19-22	14-16
KM3225NCMSS2525	KM3225NRPKG	6mm	34-40	25-30
KM3225NCMSS3225	KM3225NRPKG	6mm	34-40	25-30
KM3225NCMSS4025	KM3225NRPKG	6mm	34-40	25-30

■ **NCM-SS • Round Shank • Inch**

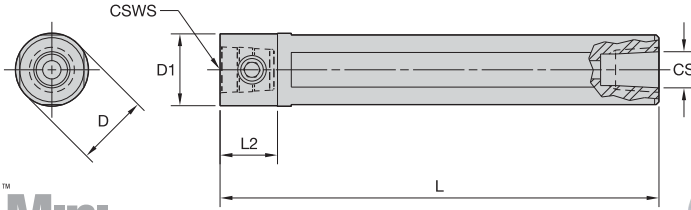
order number	catalog number	CSWS system size	D1 mm	D mm	D in	D2 mm	D2 in	L mm	L in	L1 mm	L1 in	CS
3483040	KM2520NCMSS12098	KM2520	25	19	.750	28	1.102	90	3.543	25	.984	1/4-18 NPT
2594729	KM3225NCMSS16098	KM3225	32	25	1.000	36	1.417	90	3.543	25	.984	1/4-18 NPT
2656547	KM3225NCMSS20098	KM3225	32	32	1.250	44	1.732	90	3.543	25	.984	1/4-18 NPT
2656548	KM3225NCMSS24098	KM3225	32	38	1.500	50	1.969	90	3.543	25	.984	1/4-18 NPT

■ **Spare Parts**



catalog number	spare parts package	wrench size actuation screw	Nm	ft. lbs.
KM2520NCMSS12098	KM2520NRPKG	5mm	19-22	14-16
KM3225NCMSS16098	KM3225NRPKG	6mm	34-40	25-30
KM3225NCMSS20098	KM3225NRPKG	6mm	34-40	25-30
KM3225NCMSS24098	KM3225NRPKG	6mm	34-40	25-30

NOTE: For torque wrench, see page L52–L53.


■ NCM-S • Round Shank • Metric

order number	catalog number	CSWS system size	D1 mm	D mm	D in	L mm	L in	L2 mm	L2 in	CS
3483037	KM2520NCMS25	KM2520	25	25	.984	150	5.906	20	.787	1/4-18 NPT
2541837	KM3225NCMS32	KM3225	32	32	1.260	220	8.661	25	.984	1/4-18 NPT

■ Spare Parts


catalog number	spare parts package	wrench size	actuation screw	Nm
KM2520NCMS25	KM2520NRPKG	5mm		19-22
KM3225NCMS32	KM3225NRPKG	6mm		34-40

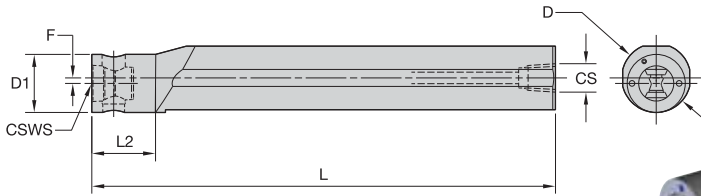
■ NCM-S • Round Shank • Inch

order number	catalog number	CSWS system size	D1 mm	D mm	D in	L mm	L in	L2 mm	L2 in	CS
3483038	KM2520NCMS16	KM2520	25	25	1.000	153	6.016	20	.787	1/4-18 NPT
2541835	KM3225NCMS20	KM3225	32	32	1.250	171	6.750	25	.984	1/4-18 NPT

■ Spare Parts


catalog number	spare parts package	wrench size	actuation screw	ft. lbs.
KM2520NCMS16	KM2520NRPKG	5mm		14-16
KM3225NCMS20	KM3225NRPKG	6mm		25-30

NOTE: For torque wrench, see page L52–L53.



■ ECM-S • Round Shank, Offset • Metric

order number	catalog number	CSWS system size	D1 mm	D mm	D in	L mm	L in	L2 mm	L2 in	F mm	F in	CS
2541836	KM3225ECMS40	KM3225	32	40	1.575	270	10.630	35	1.378	4	.157	1/4-18 NPT

■ Spare Parts



catalog number	spare parts package	wrench size actuation screw	Nm
KM3225ECMS40	KM3225NRPKG	6mm	34-40

■ ECM-S • Round Shank, Offset • Inch

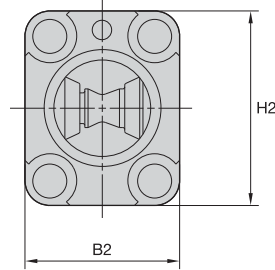
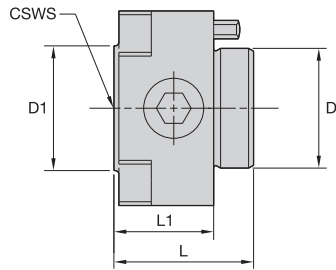
order number	catalog number	CSWS system size	D1 mm	D mm	D in	L mm	L in	L2 mm	L2 in	F mm	F in	CS
2541730	KM3225ECMS24	KM3225	32	38	1.500	254	10.000	35	1.378	3	.120	1/4-18 NPT

■ Spare Parts



catalog number	spare parts package	wrench size actuation screw	ft. lbs.
KM3225ECMS24	KM3225NRPKG	6mm	25-30

NOTE: For torque wrench, see page L52–L53.


■ NCM-SF • Flange Mount

order number	catalog number	CSWS system size	D1		D		L		L1		B2		H2	
			mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
3482941	KM20NCMSF2434	KM20	20	.787	18	.709	24	.945	18	.709	24	.945	33	1.299
2386035	KM25NCMSF3140	KM25	25	.984	24	.945	28	1.102	20	.787	31	1.221	39	1.535

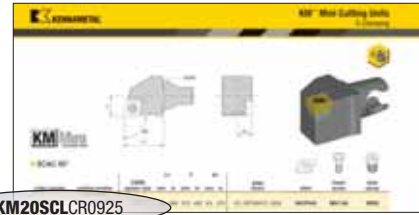
■ Spare Parts


catalog number	spare parts package	wrench size actuation screw	Nm	ft. lbs.
KM20NCMSF2434	KM2520NRPKG	5mm	19-22	14-16
KM25NCMSF3140	KM25NRPKG	6mm	34-40	25-30

NOTE: For torque wrench, see page L52–L53.
 For mounting controls, see page M70.

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



KM20SCLCR0925



KM

Kennametal
Modular

KM™ Mini Quick Change tooling system

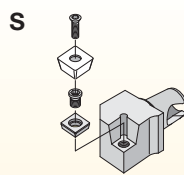
20

System
Size

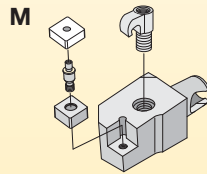
20 = Ø 20 x 20mm
25 = Ø 25 x 25mm

S

Clamping
System



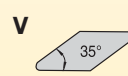
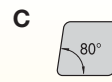
S-Clamping
Clamped from above with a screw for indexable inserts with hole



M-Clamping
Clamped from above and through hole using a pin for indexable inserts with hole

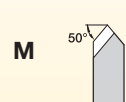
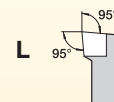
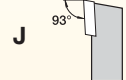
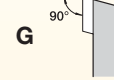
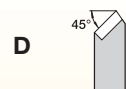
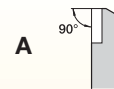
C

Insert
Shape

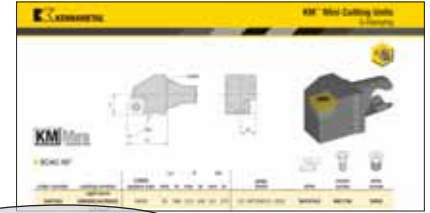


L

Cutting Unit
Shape



By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



KM20SCLCR0925

C	R	09	25
<p>Clearance Angle</p>	<p>Direction</p>	<p>Insert Size</p>	<p>Gage Length</p>
			<p>L1 = Gage length</p>

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



KM20A3SR31635



KM

Kennametal
Modular

KM™ Mini Quick Change
tooling system

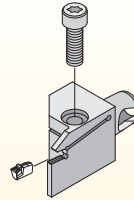
20

System
Size

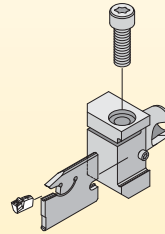
12 = Ø 12 x 12mm
16 = Ø 16 x 16mm

A3

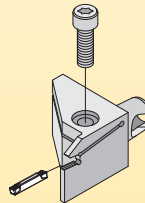
Clamping
Systems



A3 = Deep grooving



A2 = Cut-off



A4 = Grooving

S

Holder
Version

S = Side mount
E = End mount

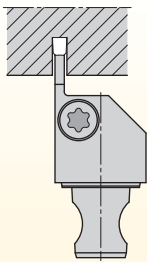
By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



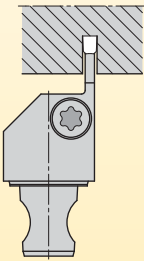
KM20A3SR31635

R

Direction



R = Right hand



L = Left hand

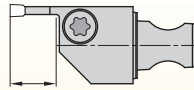
3

Insert
Seat Size

insert seat size
1
1B
2
2B
3
4
5

16

Cutting
Depth



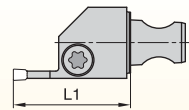
07 = 7mm

11 = 11mm

16 = 16mm

35

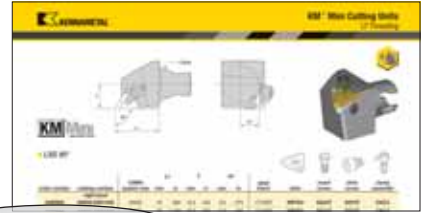
Gage
Length



L1 = Gage length

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



KM20LSSR1625



KM

Kennametal
Modular

KM™ Mini Quick Change
tooling system

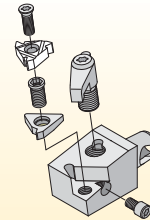
20

System
Size

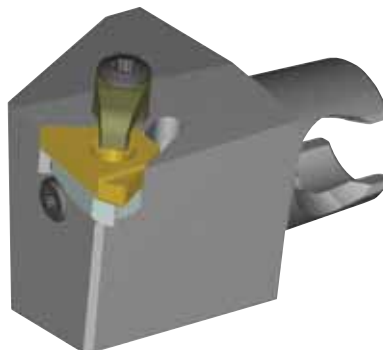
20 = Ø 20 x 20mm
25 = Ø 25 x 25mm

LS

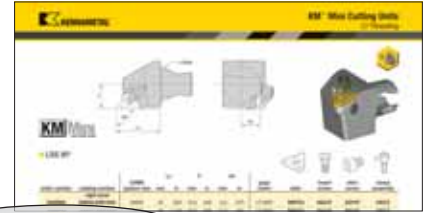
Clamping
Systems



LT Threading = Clamped from above with a screw



By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



KM20LSSR1625

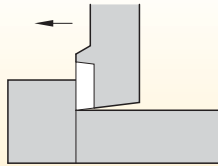
S

Location

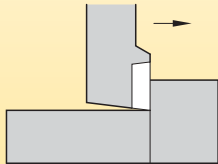
E = End mount
 S = Side mount

R

Direction



L = Left-hand cutting unit



R = Right-hand cutting unit

16

Insert Size

I = Cutting edge length

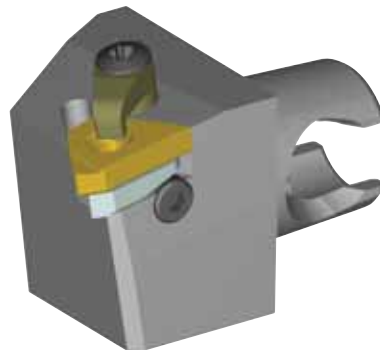


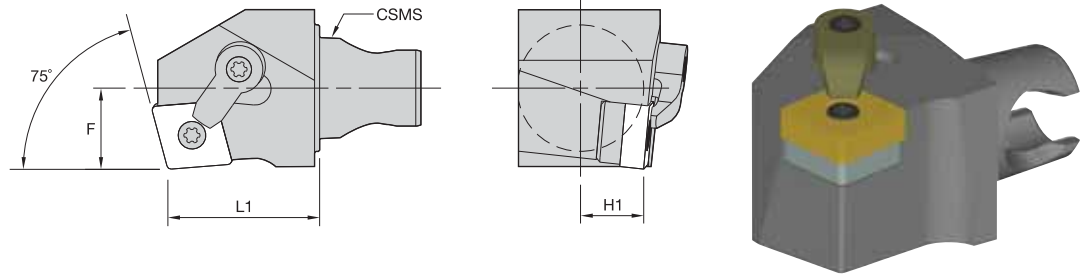
I	d (IC)
11	6,35
16	9,52
22	12,70
27	15,88

25

Gage Length

L₁ = Gage length

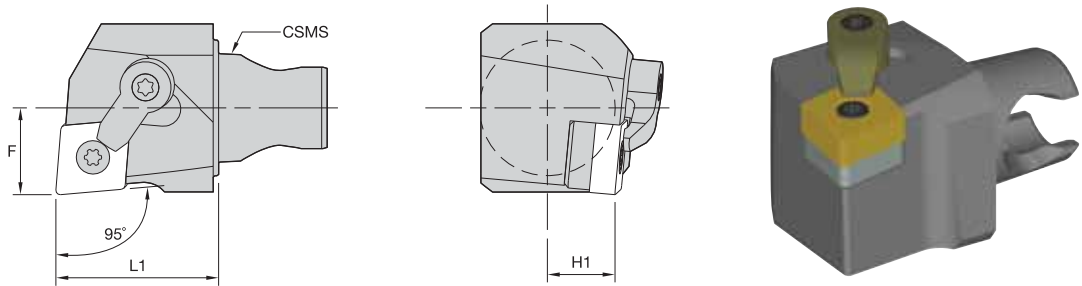




■ **MCKN 75°**



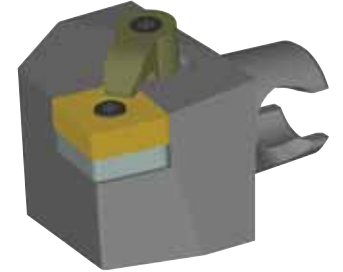
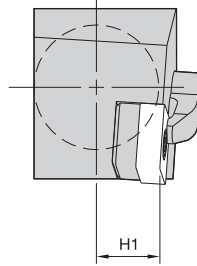
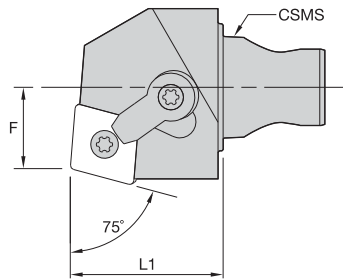
order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	lock pin	clamp	clamp screw
			mm	in	mm	in	mm	in					
right hand													
3487534	KM20MCKNR1225	KM20	25	.984	12,5	.492	9,5	.375	CN..120408/CN..432	ICSN432	KLM46	CKM20LP	STCM11
2398793	KM25MCKNR1230	KM25	30	1.181	16,0	.630	12,5	.492	CN..120408/CN..432	ICSN433	KLM4615IP	CKM20LP	STCM1115IP
left hand													
3487533	KM20MCKNL1225	KM20	25	.984	12,5	.492	9,5	.375	CN..120408/CN..432	ICSN432	KLM46	CKM20LP	STCM11
2398794	KM25MCKNL1230	KM25	30	1.181	16,0	.630	12,5	.492	CN..120408/CN..432	ICSN433	KLM4615IP	CKM20LP	STCM1115IP



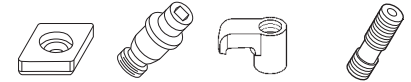
■ **MCLN 95°**



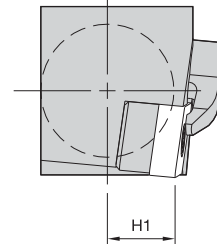
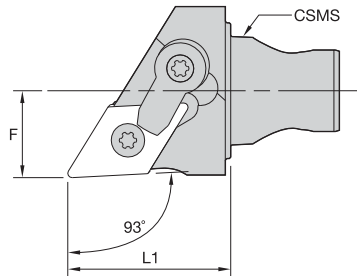
order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	lock pin	clamp	clamp screw
			mm	in	mm	in	mm	in					
right hand													
3487520	KM20MCLNR0925	KM20	25	.984	12,5	.492	9,5	.375	CN..090308/CN..322	ICSN332	KLM34L	CKM7LP	STCM9
3487522	KM20MCLNR1225	KM20	25	.984	12,5	.492	9,5	.375	CN..120408/CN..432	ICSN432	KLM46	CKM20LP	STCM11
2265207	KM25MCLNR1230	KM25	30	1.181	16,0	.630	12,5	.492	CN..120408/CN..432	ICSN433	KLM4615IP	CKM20LP	STCM1115IP
left hand													
3487519	KM20MCLNL0925	KM20	25	.984	12,5	.492	9,5	.375	CN..090308/CN..322	ICSN332	KLM34L	CKM7LP	STCM9
3487521	KM20MCLNL1225	KM20	25	.984	12,5	.492	9,5	.375	CN..120408/CN..432	ICSN432	KLM46	CKM20LP	STCM11
2398795	KM25MCLNL1230	KM25	30	1.181	16,0	.630	12,5	.492	CN..120408/CN..432	ICSN433	KLM4615IP	CKM20LP	STCM1115IP



■ MCRN 75°



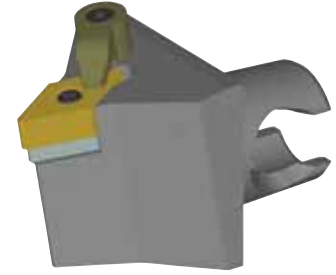
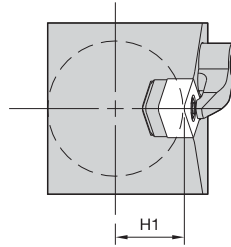
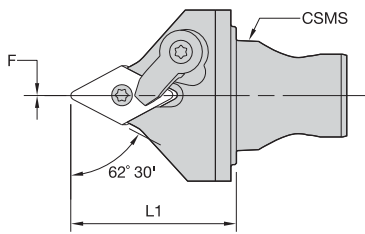
order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	lock pin	clamp	clamp screw
			mm	in	mm	in	mm	in					
right hand													
2398796	KM25MCRNR1230	KM25	30	1.181	16	.630	12,5	.492	CN..120408/CN..432	ICSN433	KLM4615IP	CKM20LP	STCM1115IP
left hand													
2398797	KM25MCRNL1230	KM25	30	1.181	16	.630	12,5	.492	CN..120408/CN..432	ICSN433	KLM4615IP	CKM20LP	STCM1115IP



■ MDJN 93°



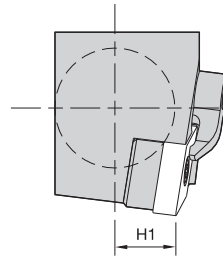
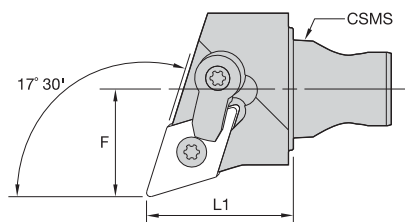
order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	lock pin	clamp	clamp screw
			mm	in	mm	in	mm	in					
right hand													
3487536	KM20MDJNR1125	KM20	25	.984	12,5	.492	9,5	.375	DN..110408/DN..332	IDSN322	KLM34L	CKM7LP	STCM9
3487538	KM20MDJNR150425	KM20	25	.984	12,5	.492	9,5	.375	DN..150408/DN..432	IDSN442	KLM46L	CKM7LP	STCM9
3487540	KM20MDJNR150625	KM20	25	.984	12,5	.492	9,5	.375	DN..150608/DN..442	IDSN432	KLM46L	CKM7LP	STCM9
3176217	KM25MDJNR1130	KM25	30	1.181	16,0	.630	12,5	.492	DN..110408/DN..332	IDSN322	KLM34LT9PKG	CKM7LP	STCM9T9
2398798	KM25MDJNR150430	KM25	30	1.181	16,0	.630	12,5	.492	DN..150408/DN..432	IDSN442	KLM46L15IP	CKM20LP	STCM1115IP
3397312	KM25MDJNR150630	KM25	30	1.181	16,0	.630	12,5	.492	DN..150608/DN..442	IDSN432	KLM46L	CKM23LP	STCM11
left hand													
3487535	KM20MDJNL1125	KM20	25	.984	12,5	.492	9,5	.375	DN..110408/DN..332	IDSN322	KLM34L	CKM7LP	STCM9
3487537	KM20MDJNL150425	KM20	25	.984	12,5	.492	9,5	.375	DN..150408/DN..432	IDSN442	KLM46L	CKM7LP	STCM9
3487539	KM20MDJNL150625	KM20	25	.984	12,5	.492	9,5	.375	DN..150608/DN..442	IDSN432	KLM46L	CKM7LP	STCM9
3176218	KM25MDJNL1130	KM25	30	1.181	16,0	.630	12,5	.492	DN..110408/DN..332	IDSN322	KLM34LT9PKG	CKM7LP	STCM9T9
2398799	KM25MDJNL150430	KM25	30	1.181	16,0	.630	12,5	.492	DN..150408/DN..432	IDSN442	KLM46L15IP	CKM20LP	STCM1115IP
3397311	KM25MDJNL150630	KM25	30	1.181	16,0	.630	12,5	.492	DN..150608/DN..442	IDSN432	KLM46L	CKM23LP	STCM11



■ MDPN 62° 30'



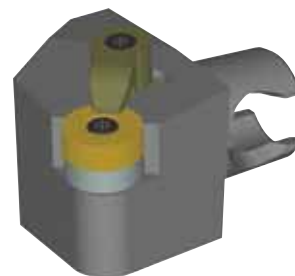
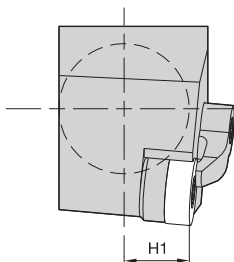
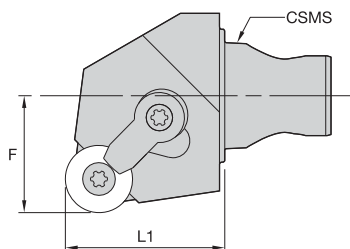
order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	lock pin	clamp	clamp screw
			mm	in	mm	in	mm	in					
2398800	KM25MDPNN1130	KM25	30	1.181	0,0	.000	12,5	.492	DN..110408/DN..332	IDSN322	KLM34LT9PKG	CKM7LP	STCM9T9



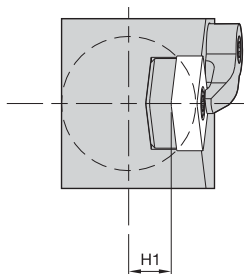
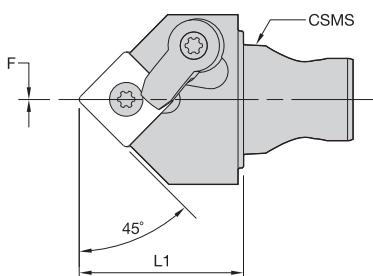
■ MDQN 107° 30'



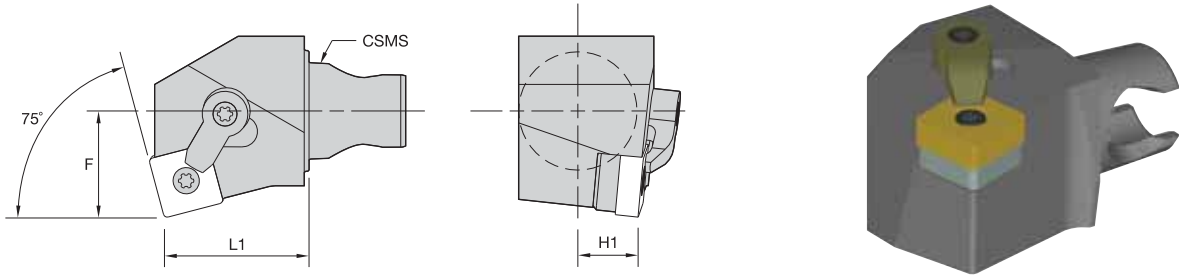
order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	lock pin	clamp	clamp screw
			mm	in	mm	in	mm	in					
2398801	right hand	KM25	30	1.181	22	.866	12,5	.492	DN..150408/DN..432	IDSN442	KLM46L15IP	CKM20LP	STCM1115IP
	left hand												
2398802	KM25MDQNL150430	KM25	30	1.181	22	.866	12,5	.492	DN..150408/DN..432	IDSN442	KLM46L15IP	CKM20LP	STCM1115IP


MRGN 0°


order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	lock pin	clamp	clamp screw
			mm	in	mm	in	mm	in					
right hand													
2629139	KM25MRGNR0930	KM25	30	1.181	16	.630	12,5	.492	RN..090300/RN..32	IRSN33	KLM34LT9PKG	CKM7LP	STCM9T9
2398803	KM25MRGNR1230	KM25	30	1.181	22	.866	12,5	.492	RN..120400/RN..43	IRSN43	KLM4615IP	CKM20LP	STCM1115IP
left hand													
2629140	KM25MRGNL0930	KM25	30	1.181	16	.630	12,5	.492	RN..090300/RN..32	IRSN33	KLM34LT9PKG	CKM7LP	STCM9T9
2398804	KM25MRGNL1230	KM25	30	1.181	22	.866	12,5	.492	RN..120400/RN..43	IRSN43	KLM4615IP	CKM20LP	STCM1115IP


MSDN 45°

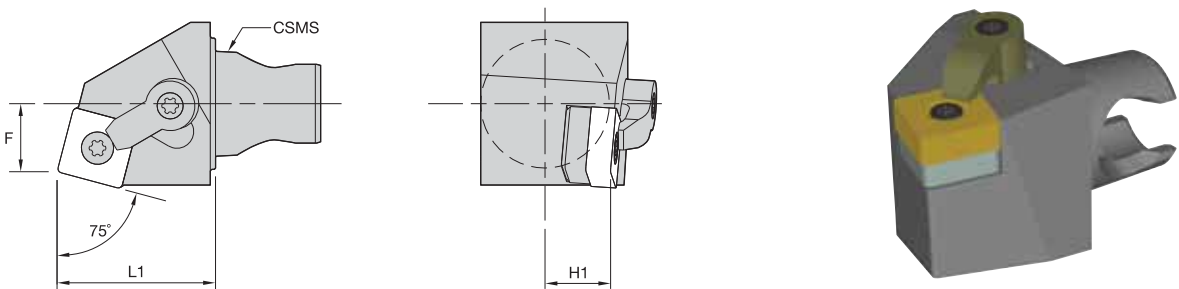

order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	lock pin	clamp	clamp screw
			mm	in	mm	in	mm	in					
2398805	KM25MSDNN1230	KM25	30	1.181	0	.000	12,5	.492	SN..120408/SN..432	ISSN433	KLM4615IP	CKM20LP	STCM1115IP



■ MSKN 75°



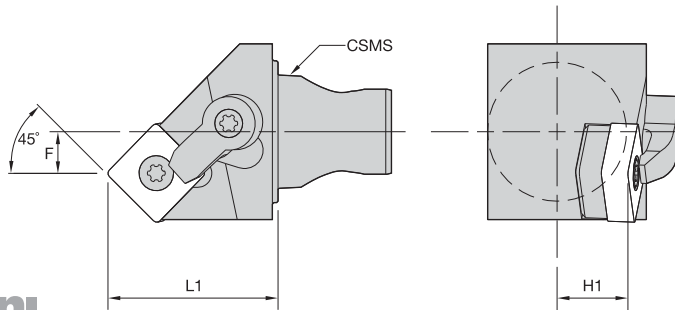
order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	lock pin	clamp	clamp screw
			mm	in	mm	in	mm	in					
	right hand												
2398806	KM25MSKNR1230	KM25	30	1.181	22	.866	12,5	.492	SN..120408/SN..432	ISSN433	KLM4615IP	CKM20LP	STCM1115IP
	left hand												
2398807	KM25MSKNL1230	KM25	30	1.181	22	.866	12,5	.492	SN..120408/SN..432	ISSN433	KLM4615IP	CKM20LP	STCM1115IP



■ MSRN 75°



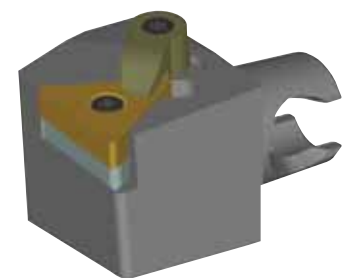
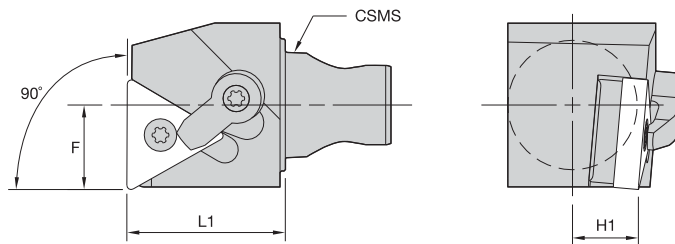
order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	lock pin	clamp	clamp screw
			mm	in	mm	in	mm	in					
	right hand												
2398808	KM25MSRNR1230	KM25	30	1.181	13	.512	12,5	.492	SN..120408/SN..432	ISSN433	KLM4615IP	CKM20LP	STCM1115IP
	left hand												
2398809	KM25MSRNL1230	KM25	30	1.181	13	.512	12,5	.492	SN..120408/SN..432	ISSN433	KLM4615IP	CKM20LP	STCM1115IP



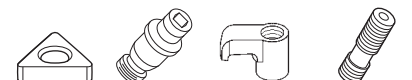
■ MSSN 45°



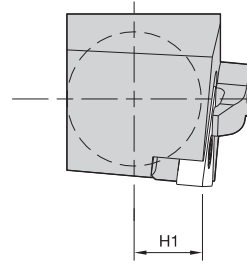
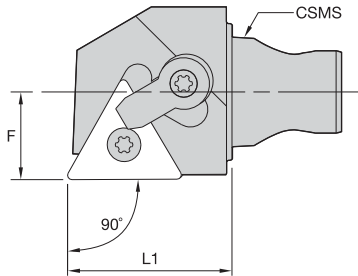
order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	lock pin	clamp	clamp screw
			mm	in	mm	in	mm	in					
	right hand												
2398810	KM25MSSNR1230	KM25	30,0	1.181	7,35	.289	12,5	.492	SN..120408/SN..432	ISSN433	KLM4615IP	CKM20LP	STCM1115IP
	left hand												
2398811	KM25MSSNL1230	KM25	30,0	1.181	7,35	.289	12,5	.492	SN..120408/SN..432	ISSN433	KLM4615IP	CKM20LP	STCM1115IP



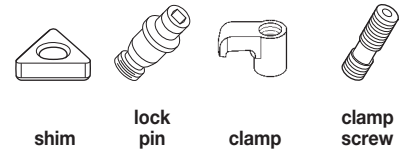
■ MTFN 90°



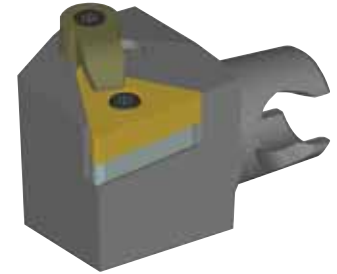
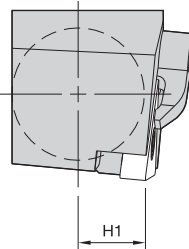
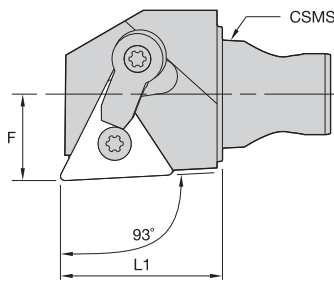
order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	lock pin	clamp	clamp screw
			mm	in	mm	in	mm	in					
	right hand												
2655560	KM25MTFNR1630	KM25	30	1.181	16	.630	12,5	.492	TN..160408/TN..332	ITSN323	KLM34L9IP	CKM20LP	STCM119IP
2398812	KM25MTFNR2230	KM25	30	1.181	16	.630	12,5	.492	TN..220408/TN..432	ITSN433	KLM4615IP	CKM20LP	STCM1115IP
	left hand												
2655561	KM25MTFNL1630	KM25	30	1.181	16	.630	12,5	.492	TN..160408/TN..332	ITSN323	KLM34L9IP	CKM20LP	STCM119IP
2398813	KM25MTFNL2230	KM25	30	1.181	16	.630	12,5	.492	TN..220408/TN..432	ITSN433	KLM4615IP	CKM20LP	STCM1115IP



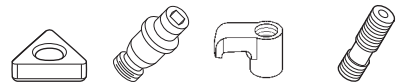
■ **MTGN 90°**



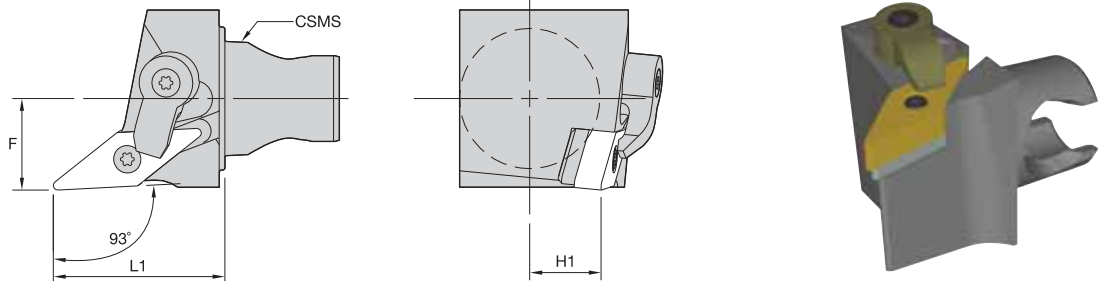
order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	lock pin	clamp	clamp screw
			mm	in	mm	in	mm	in					
right hand													
3487542	KM20MTGNR1625	KM20	25	.984	12,5	.492	9,5	.375	TN..160408/TN..332	ITSN322	KLM34L	CKM7LP	STCM9
2655562	KM25MTGNR1630	KM25	30	1.181	16,0	.630	12,5	.492	TN..160408/TN..332	ITSN323	KLM34L9IP	CKM20LP	STCM119IP
2398814	KM25MTGNR2230	KM25	30	1.181	16,0	.630	12,5	.492	TN..220408/TN..432	ITSN433	KLM4615IP	CKM20LP	STCM1115IP
left hand													
3487541	KM20MTGNL1625	KM20	25	.984	12,5	.492	9,5	.375	TN..160408/TN..332	ITSN322	KLM34L	CKM7LP	STCM9
2655593	KM25MTGNL1630	KM25	30	1.181	16,0	.630	12,5	.492	TN..160408/TN..332	ITSN323	KLM34L9IP	CKM20LP	STCM119IP
2398815	KM25MTGNL2230	KM25	30	1.181	16,0	.630	12,5	.492	TN..220408/TN..432	ITSN433	KLM4615IP	CKM20LP	STCM1115IP



■ **MTJN 93°**

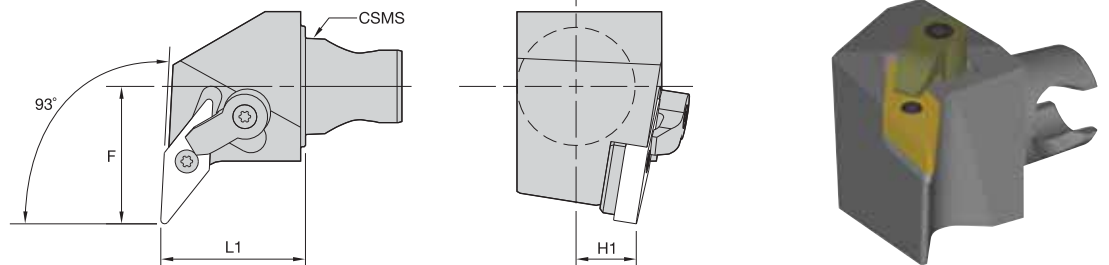
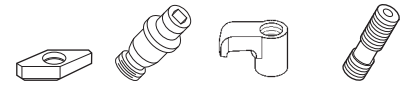


order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	lock pin	clamp	clamp screw
			mm	in	mm	in	mm	in					
right hand													
2655594	KM25MTJNR1630	KM25	30	1.181	16	.630	12,5	.492	TN..160408/TN..332	ITSN323	KLM34L9IP	CKM20LP	STCM119IP
2398816	KM25MTJNR2230	KM25	30	1.181	16	.630	12,5	.492	TN..220408/TN..432	ITSN433	KLM4615IP	CKM20LP	STCM1115IP
left hand													
2655595	KM25MTJNL1630	KM25	30	1.181	16	.630	12,5	.492	TN..160408/TN..332	ITSN323	KLM34L9IP	CKM20LP	STCM119IP
2398817	KM25MTJNL2230	KM25	30	1.181	16	.630	12,5	.492	TN..220408/TN..432	ITSN433	KLM4615IP	CKM20LP	STCM1115IP



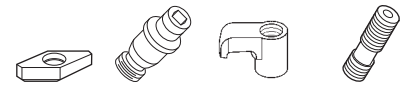
■ MVJN 93°

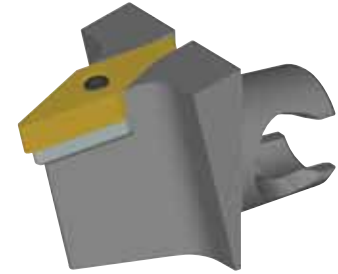
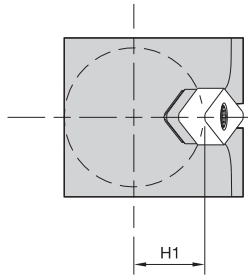
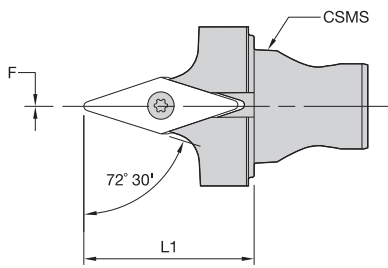
order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	lock pin	clamp	clamp screw
			mm	in	mm	in	mm	in					
right hand													
3487548	KM20MVJNR1630	KM20	30	1.181	12,5	.492	9,5	.375	VN..160408/VN..332	IVSN322	KLM34L	CKM7LP	STCM9
2398818	KM25MVJNR1630	KM25	30	1.181	16,0	.630	12,5	.492	VN..160408/VN..332	IVSN322	KLM34L9IP	CKM20LP	STCM119IP
left hand													
3487547	KM20MVJNL1630	KM20	30	1.181	12,5	.492	9,5	.375	VN..160408/VN..332	IVSN322	KLM34L	CKM7LP	STCM9
2398819	KM25MVJNL1630	KM25	30	1.181	16,0	.630	12,5	.492	VN..160408/VN..332	IVSN322	KLM34L9IP	CKM20LP	STCM119IP



■ MVUN 93°

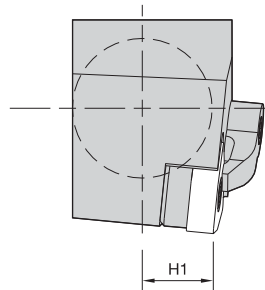
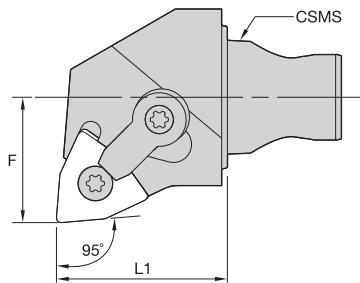
order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	lock pin	clamp	clamp screw
			mm	in	mm	in	mm	in					
right hand													
2398820	KM25MVUNR1630	KM25	30	1.181	28,5	1.122	12,5	.492	VN..160408/VN..332	IVSN322	KLM34L9IP	CKM20LP	STCM119IP
left hand													
2398821	KM25MVUNL1630	KM25	30	1.181	28,5	1.122	12,5	.492	VN..160408/VN..332	IVSN322	KLM34L9IP	CKM20LP	STCM119IP





■ MVVN 72° 30'

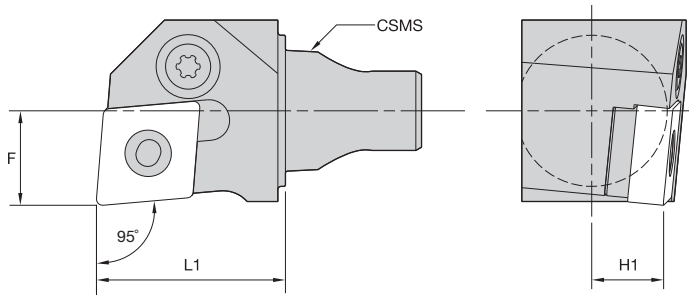
order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	lock pin
			mm	in	mm	in	mm	in			
2398822	KM25MVVN1630	KM25	30	1.181	0	.000	12,5	.492	VN..160408/VN..332	IVSN322	KLM34L9IP



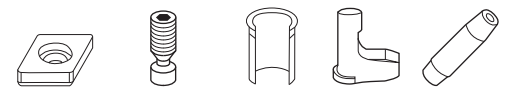
■ MWLN 95°

order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	lock pin	clamp	clamp screw
			mm	in	mm	in	mm	in					
right hand													
3487544	KM20MWLNR0625	KM20	25	.984	12,5	.492	9,5	.375	WN..060408/WN..332	IWSN322	KLM34L	CKM7LP	STCM9
3487550	KM20MWLNR0825	KM20	25	.984	12,5	.492	9,5	.375	WN..080408/WN..432	IWSN433	KLM46	CKM7LP	STCM9
2398823	KM25MWLNR0830	KM25	30	1.181	22,0	.866	12,5	.492	WN..080408/WN..432	IWSN433	KLM4615IP	CKM20LP	STCM1115IP
left hand													
3487543	KM20MWLNL0625	KM20	25	.984	12,5	.492	9,5	.375	WN..060408/WN..332	IWSN322	KLM34L	CKM7LP	STCM9
3487549	KM20MWLNL0825	KM20	25	.984	12,5	.492	9,5	.375	WN..080408/WN..432	IWSN433	KLM46	CKM7LP	STCM9
2398824	KM25MWLNL0830	KM25	30	1.181	22,0	.866	12,5	.492	WN..080408/WN..432	IWSN433	KLM4615IP	CKM20LP	STCM1115IP

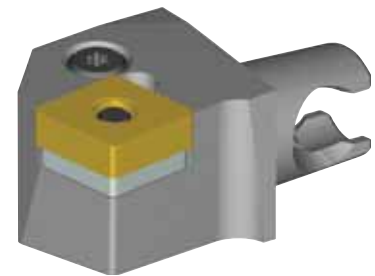
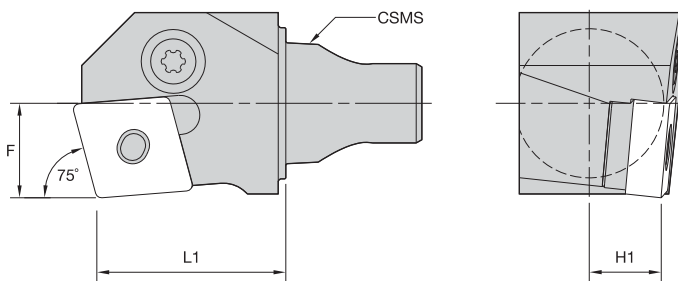




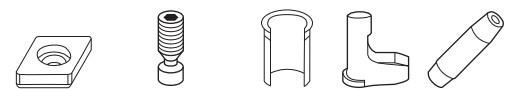
■ PCLN 95°



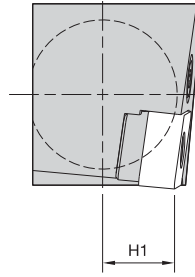
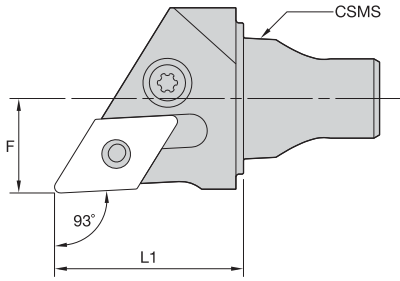
order number	catalog number	L1		F		H1		gage insert	shim	lever screw	shim pin	toggle lever	punch
		mm	in	mm	in	mm	in						
	right hand												
3397169	KM20PCLNR1225	25,00	.984	12,5	.492	9,5	.375	CN..120408/CN..432	512.112	514.123	513.023	511.023	515.018
	left hand												
3397168	KM20PCLNL1225	25,00	.984	12,5	.492	9,5	.375	CN..120408/CN..432	512.112	514.123	513.023	511.023	515.018



■ PCKN 75°

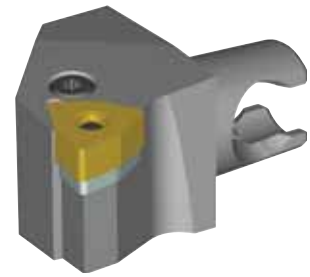
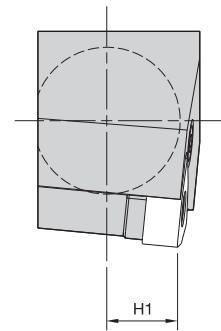
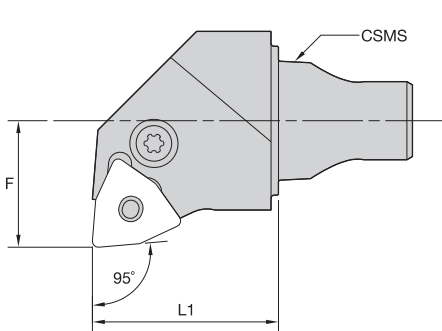
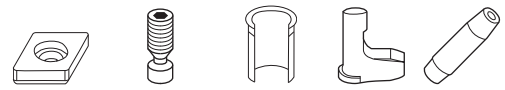


order number	catalog number	L1		F		H1		gage insert	shim	lever screw	shim pin	toggle lever	punch
		mm	in	mm	in	mm	in						
	right hand												
3397171	KM20PCKNR1225	25	.984	12,5	.492	9,5	.375	CN..120408/CN..432	512.112	514.123	513.023	511.023	515.018
	left hand												
3397170	KM20PCKNL1225	25	.984	12,5	.492	9,5	.375	CN..120408/CN..432	512.112	514.123	513.023	511.023	515.018



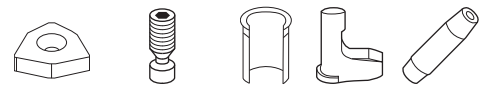
■ PDJN 93°

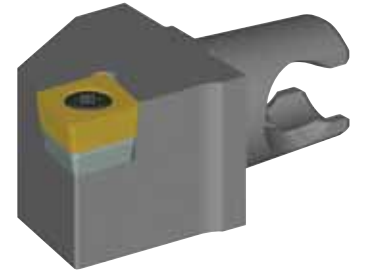
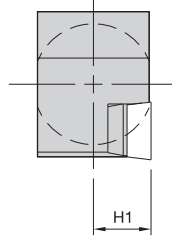
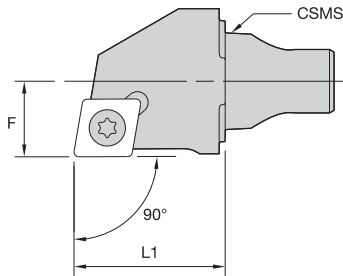
order number	catalog number	L1		F		H1		gage insert	shim	lever screw	shim pin	toggle lever	punch
		mm	in	mm	in	mm	in						
3397213	right hand KM20PDJNR1125	25	.984	12,5	.492	9,5	.375	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018
3397172	left hand KM20PDJNL1125	25	.984	12,5	.492	9,5	.375	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018



■ PVLN 95°

order number	catalog number	L1		F		H1		gage insert	shim	lever screw	shim pin	toggle lever	punch
		mm	in	mm	in	mm	in						
3397215	right hand KM20PVLNR0625	25	.984	17,0	.669	9,5	.375	WN..060408/WN..332	512.134	514.118	513.018	511.018	515.018
3397214	left hand KM20PVLNL0625	25	.984	17,0	.669	9,5	.375	WN..060408/WN..332	512.134	514.118	513.018	511.018	515.018

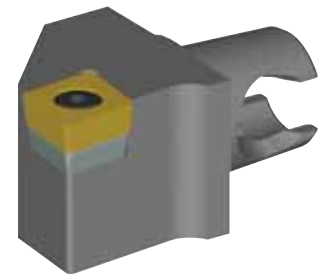
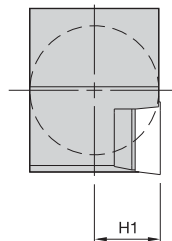
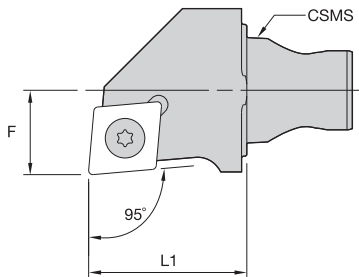




■ SCAC 90°



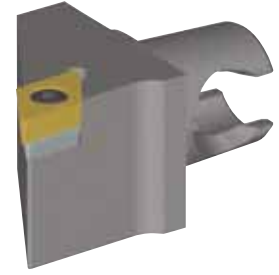
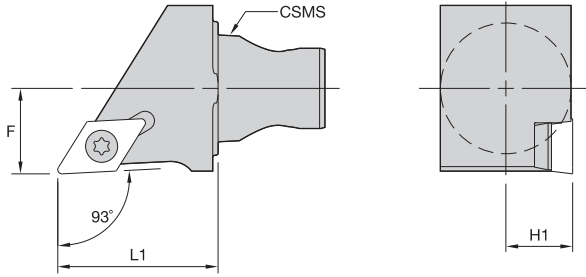
order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	insert screw	shim screw
			mm	in	mm	in	mm	in				
	right hand											
3487553	KM20SCACR0925	KM20	25	.984	12,5	.492	9,5	.375	CC..09T308/CC..3252	SKCP343	MS1156	SRS3
	left hand											
3487512	KM20SCACL0925	KM20	25	.984	12,5	.492	9,5	.375	CC..09T308/CC..3252	SKCP343	MS1156	SRS3



■ SCLC 95°



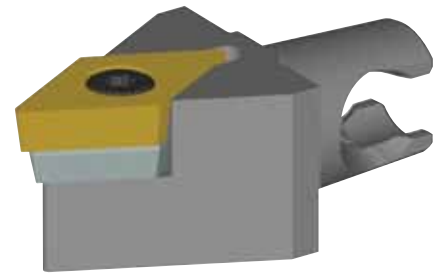
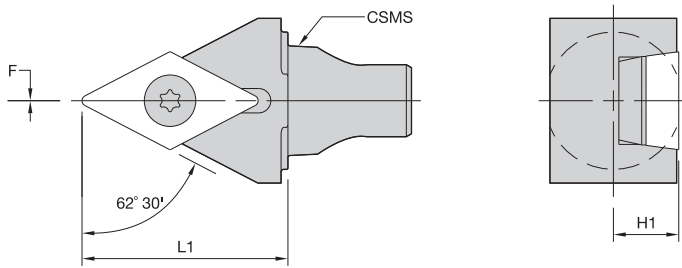
order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	insert screw	shim screw
			mm	in	mm	in	mm	in				
	right hand											
3487555	KM20SCLCR0925	KM20	25	.984	12,5	.492	9,5	.375	CC..09T308/CC..3252	SKCP343	MS1156	SRS3
3487557	KM20SCLCR1225	KM20	25	.984	12,5	.492	9,5	.375	CC..120408/CC..432	SKCP453	MS1158	SRS4
2399472	KM25SCLCR0930	KM25	30	1.181	16,0	.630	12,5	.492	CC..09T308/CC..3252	SKCP343	MS1156	SRS3
2399474	KM25SCLCR1230	KM25	30	1.181	16,0	.630	12,5	.492	CC..120408/CC..432	SKCP453	MS1158	SRS4
	left hand											
3487554	KM20SCLCL0925	KM20	25	.984	12,5	.492	9,5	.375	CC..09T308/CC..3252	SKCP343	MS1156	SRS3
3487556	KM20SCLCL1225	KM20	25	.984	12,5	.492	9,5	.375	CC..120408/CC..432	SKCP453	MS1158	SRS4
2399473	KM25SCLCL0930	KM25	30	1.181	16,0	.630	12,5	.492	CC..09T308/CC..3252	SKCP343	MS1156	SRS3
2399475	KM25SCLCL1230	KM25	30	1.181	16,0	.630	12,5	.492	CC..120408/CC..432	SKCP453	MS1158	SRS4



■ SDJC 93°



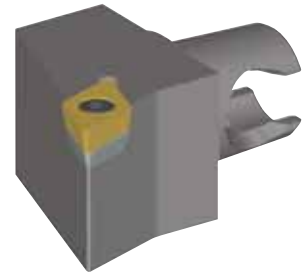
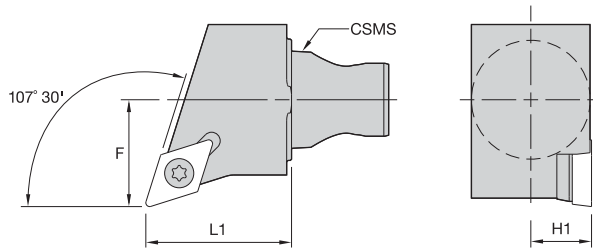
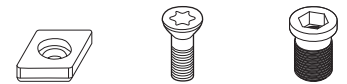
order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	insert screw	shim screw
			mm	in	mm	in	mm	in				
right hand												
3487495	KM20SDJCR1125	KM20	25	.984	12,5	.492	9,5	.375	DC..11T308/DC..3252	SKDP343	MS1156	SRS3
3487497	KM20SDJCR1525	KM20	25	.984	12,5	.492	9,5	.375	DC..150408/DC..432	.SKDP453	MS1158	SRS4
2399476	KM25SDJCR1130	KM25	30	1.181	16,0	.630	12,5	.492	DC..11T308/DC..3252	SKDP343	MS1156	SRS3
left hand												
3487494	KM20SDJCL1125	KM20	25	.984	12,5	.492	9,5	.375	DC..11T308/DC..3252	SKDP343	MS1156	SRS3
3487496	KM20SDJCL1525	KM20	25	.984	12,5	.492	9,5	.375	DC..150408/DC..432	SKDP453	MS1158	SRS4
2399477	KM25SDJCL1130	KM25	30	1.181	16,0	.630	12,5	.492	DC..11T308/DC..3252	SKDP343	MS1156	SRS3



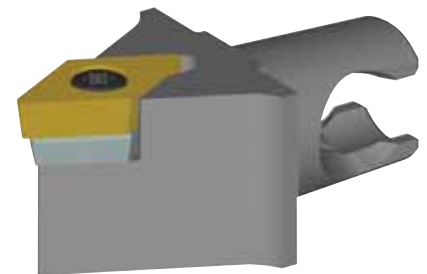
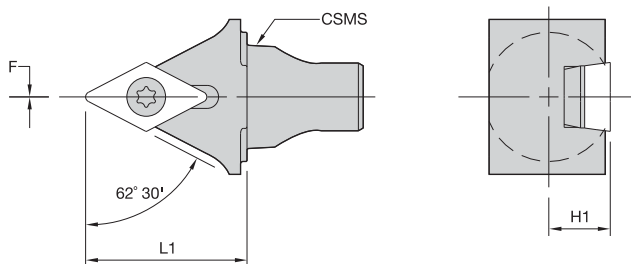
■ SDPC 62° 30'



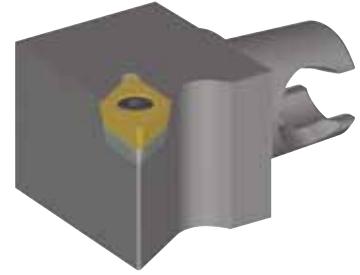
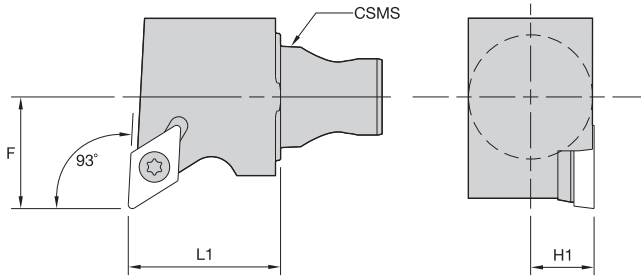
order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	insert screw	shim screw
			mm	in	mm	in	mm	in				
3487508	KM20SDPCN1530	KM20	30	1.181	0	.000	9,5	.375	DC..150408/DC..432	SKDP453	MS1158	SRS4
2399478	KM25SDPCN1130	KM25	30	1.181	0	.000	12,5	.492	DC..11T308/DC..3252	SKDP343	MS1156	SRS3


KM Mini Cutting Units

■ SDQC 107° 30'


order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	insert screw	shim screw
			mm	in	mm	in	mm	in				
right hand												
3487499	KM20SDQCR1125	KM20	25	.984	17	.669	9,5	.375	DC..11T308/DC..3252	SKDP343	MS1156	SRS3
3487501	KM20SDQCR1525	KM20	25	.984	17	.669	9,5	.375	DC..150408/DC..432	SKDP453	MS1158	SRS4
2399479	KM25SDQCR1130	KM25	30	1.181	22	.866	12,5	.492	DC..11T308/DC..3252	SKDP343	MS1156	SRS3
left hand												
3487498	KM20SDQCL1125	KM20	25	.984	17	.669	9,5	.375	DC..11T308/DC..3252	SKDP343	MS1156	SRS3
3487500	KM20SDQCL1525	KM20	25	.984	17	.669	9,5	.375	DC..150408/DC..432	SKDP453	MS1158	SRS4
2399480	KM25SDQCL1130	KM25	30	1.181	22	.866	12,5	.492	DC..11T308/DC..3252	SKDP343	MS1156	SRS3


■ SDNC 62° 30'

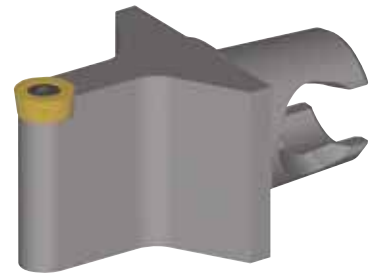
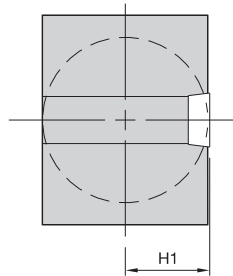
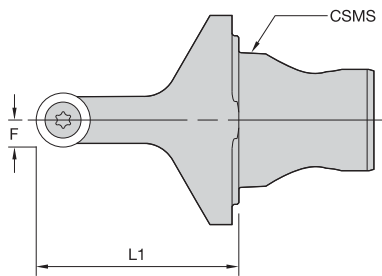

order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	insert screw	shim screw
			mm	in	mm	in	mm	in				
3487506	KM20SDNCN1125	KM20	25	.984	0	.000	9,5	.375	DC..11T308/DC..3252	SKDP343	MS1156	SRS3
3487507	KM20SDNCN1530	KM20	30	1.181	0	.000	9,5	.375	DC..150408/DC..432	SKDP453	MS1158	SRS4



■ SDUC 93°



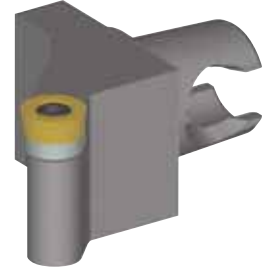
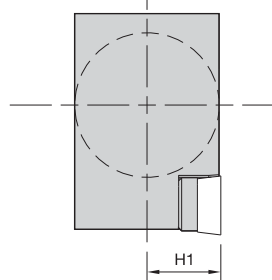
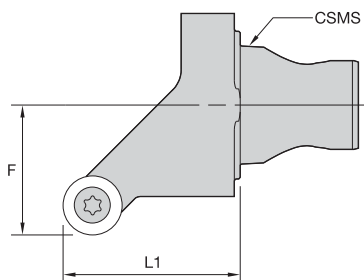
order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	insert screw	shim screw
			mm	in	mm	in	mm	in				
	right hand											
2399481	KM25SDUCR1130	KM25	30	1.181	22	.866	12,5	.492	DC..11T308/DC..3252	SKDP343	MS1156	SRS3
	left hand											
2399482	KM25SDUCL1130	KM25	30	1.181	22	.866	12,5	.492	DC..11T308/DC..3252	SKDP343	MS1156	SRS3



■ SRDC 0°



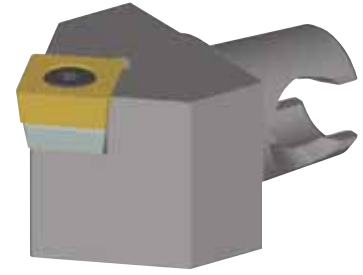
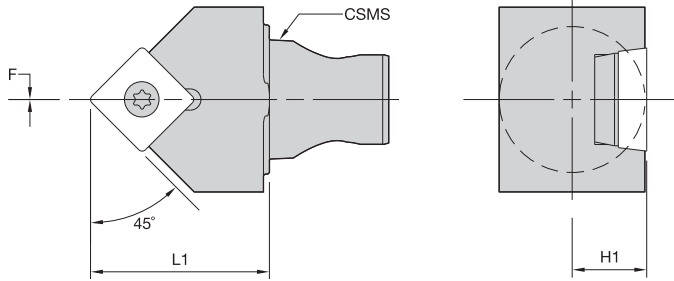
order number	catalog number	CSMS system size	L1		F		H1		gage insert	insert screw
			mm	in	mm	in	mm	in		
2399483	KM25SRDCN0830	KM25	30	1.181	4	.158	12,5	.492	RC..0803M0	MS1154



■ SRGC 90°



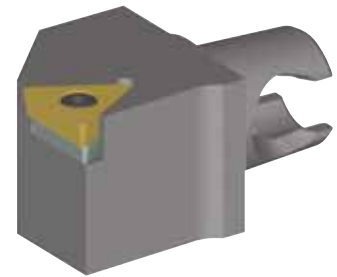
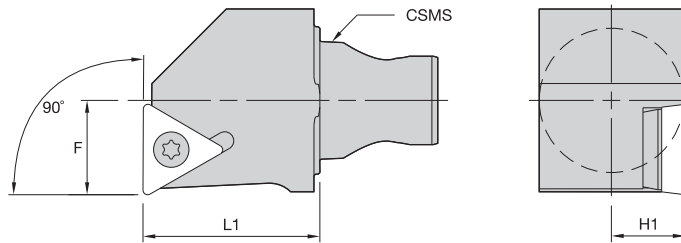
order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	insert screw	shim screw
			mm	in	mm	in	mm	in				
2399484	right hand	KM25	30	1.181	22	.866	12,5	.492	RC..10T3M0	SKRN100300	MS1156	SRS3
	left hand											
2399485	KM25SRGCL1030	KM25	30	1.181	22	.866	12,5	.492	RC..10T3M0	SKRN100300	MS1156	SRS3



■ **SSDC 45°**



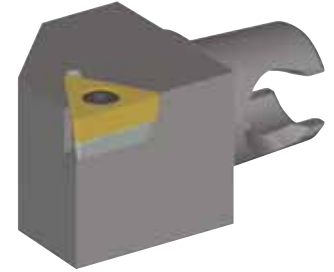
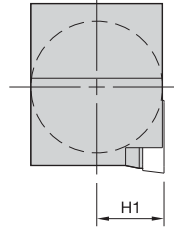
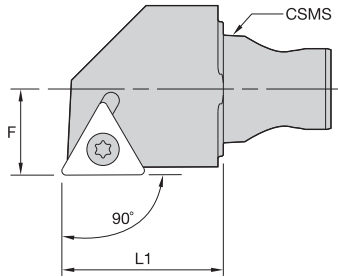
order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	insert screw	shim screw
			mm	in	mm	in	mm	in				
2399486	KM25SSDCN1230	KM25	30	1.181	0	.000	12,5	.492	SC..120408/SC..432	SKSP453	MS1158	SRS4






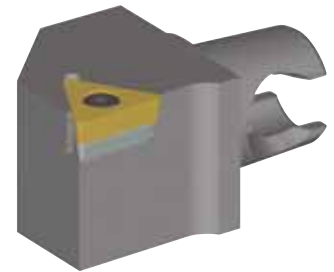
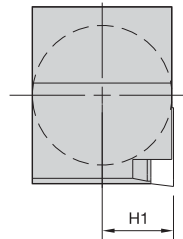
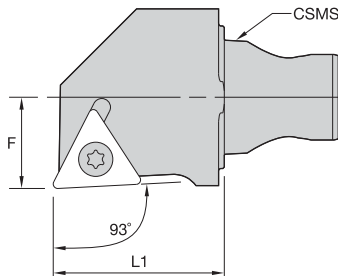
■ **STFC 90°**






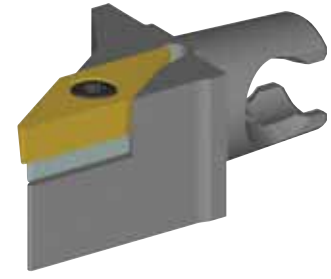
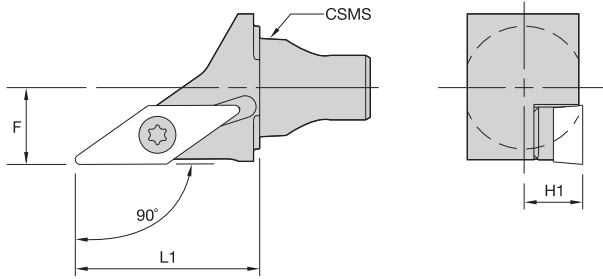
order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	insert screw	shim screw
			mm	in	mm	in	mm	in				
2399487	KM25STFCR1630	KM25	30	1.181	16	.630	12,5	.492	TC..16T308/TC..3252	SKTP343	MS1156	SRS3
2399488	KM25STFCL1630	KM25	30	1.181	16	.630	12,5	.492	TC..16T308/TC..3252	SKTP343	MS1156	SRS3


■ STGC 90°

order number	catalog number	CSMS system size	L1		F		H1		gage insert	 shim	 insert screw	 shim screw
			mm	in	mm	in	mm	in				
right hand												
3487559	KM20STGCR1625	KM20	25	.984	12,5	.492	9,5	.375	TC..16T308/TC..3252	SKTP343	MS1156	SRS3
2399489	KM25STGCR1630	KM25	30	1.181	16,0	.630	12,5	.492	TC..16T308/TC..3252	SKTP343	MS1156	SRS3
left hand												
3487558	KM20STGCL1625	KM20	25	.984	12,5	.492	9,5	.375	TC..16T308/TC..3252	SKTP343	MS1156	SRS3
2399490	KM25STGCL1630	KM25	30	1.181	16,0	.630	12,5	.492	TC..16T308/TC..3252	SKTP343	MS1156	SRS3


■ STJC 93°

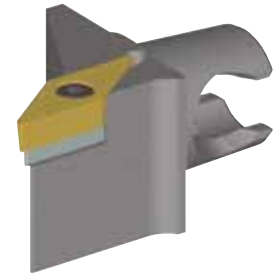
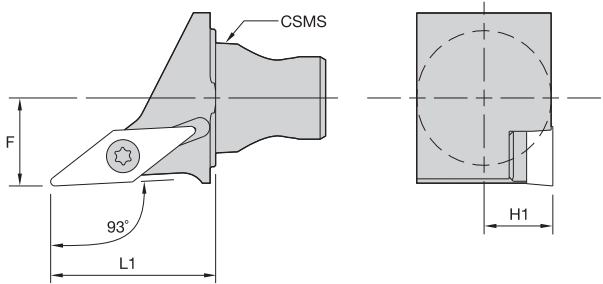
order number	catalog number	CSMS system size	L1		F		H1		gage insert	 shim	 insert screw	 shim screw
			mm	in	mm	in	mm	in				
right hand												
3487561	KM20STJCR1625	KM20	25	.984	12,5	.492	9,5	.375	TC..16T308/TC..3252	SKTP343	MS1156	SRS3
2399491	KM25STJCR1630	KM25	30	1.181	16,0	.630	12,5	.492	TC..16T308/TC..3252	SKTP343	MS1156	SRS3
left hand												
3487560	KM20STJCL1625	KM20	25	.984	12,5	.492	9,5	.375	TC..16T308/TC..3252	SKTP343	MS1156	SRS3
2399492	KM25STJCL1630	KM25	30	1.181	16,0	.630	12,5	.492	TC..16T308/TC..3252	SKTP343	MS1156	SRS3



■ SVAB 90°



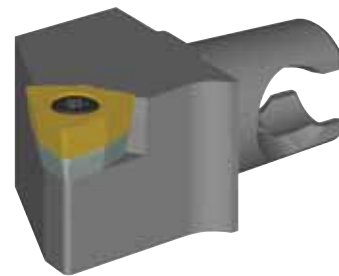
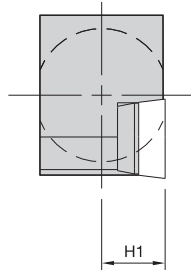
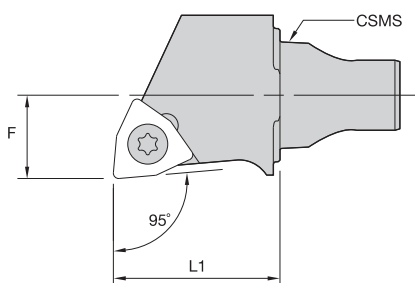
order number	catalog number	CSMS system size	L1 mm	L1 in	F mm	F in	H1 mm	H1 in	gage insert	shim	insert screw	shim screw
	right hand											
3487563	KM20SVABR1630	KM20	30	1.181	12,5	.492	9,5	.375	VB..160408/VB..332	SKVN343	MS1156	SRS3
	left hand											
3487562	KM20SVABL1630	KM20	30	1.181	12,5	.492	9,5	.375	VB..160408/VB..332	SKVN343	MS1156	SRS3



■ SVJB 93°



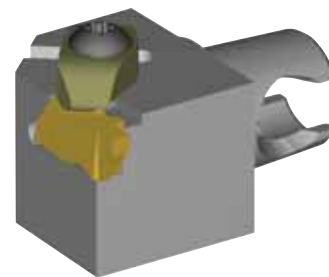
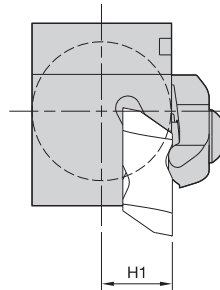
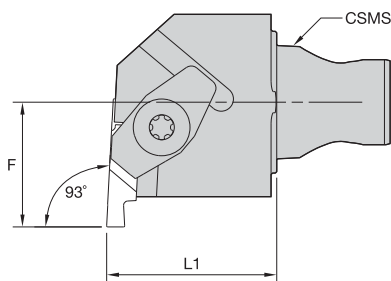
order number	catalog number	CSMS system size	L1 mm	L1 in	F mm	F in	H1 mm	H1 in	gage insert	shim	insert screw	shim screw
	right hand											
3487565	KM20SVJBR1125	KM20	25	.984	12,5	.492	9,5	.375	VB..110304/VB..221	—	MS1153	—
3487567	KM20SVJBR1630	KM20	30	1.181	12,5	.492	9,5	.375	VB..160408/VB..332	SKVN343	MS1156	SRS3
3397261	KM25SVJBL1130	KM25	30	1.181	16,0	.630	12,5	.492	VB..110304/VB..221	—	MS1153	—
3397262	KM25SVJBR1130	KM25	30	1.181	16,0	.630	12,5	.492	VB..110304/VB..221	—	MS1153	—
3365589	KM25SVJBR1630	KM25	30	1.181	16,0	.630	12,5	.492	VB..160408/VB..332	SKVN343	MS1156	SRS3
	left hand											
3487564	KM20SVJBL1125	KM20	25	.984	12,5	.492	9,5	.375	VB..110304/VB..221	—	MS1153	—
3487566	KM20SVJBL1630	KM20	30	1.181	12,5	.492	9,5	.375	VB..160408/VB..332	SKVN343	MS1156	SRS3
3365590	KM25SVJBL1630	KM25	30	1.181	16,0	.630	12,5	.492	VB..160408/VB..332	SKVN343	MS1156	SRS3



■ SWLC 95°



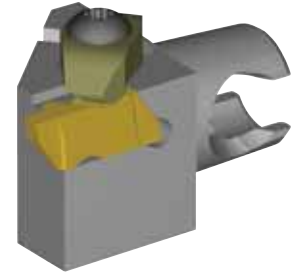
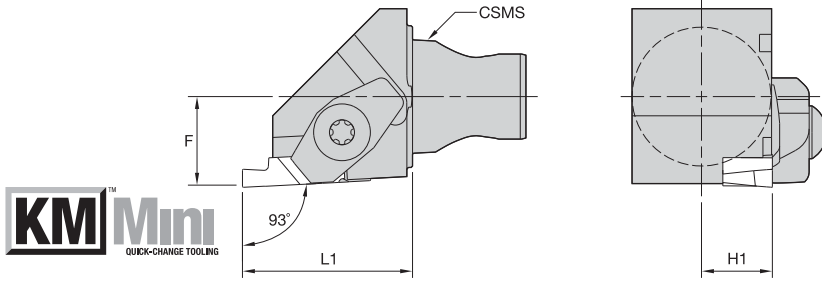
order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	insert screw	shim screw
			mm	in	mm	in	mm	in				
	right hand											
3487569	KM20SWLCR0625	KM20	25	.984	12,5	.492	9,5	.375	WC..06T308/WC..3252	SKWP343	MS1156	SRS3
	left hand											
3487568	KM20SWLCL0625	KM20	25	.984	12,5	.492	9,5	.375	WC..06T308/WC..3252	SKWP343	MS1156	SRS3



■ NE 93° • End Mount



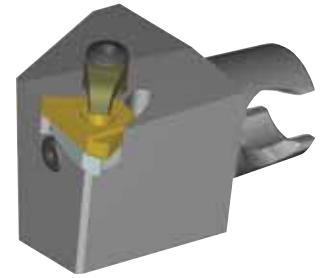
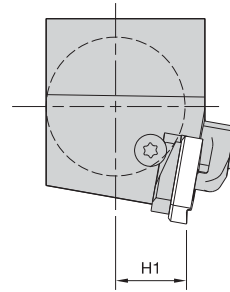
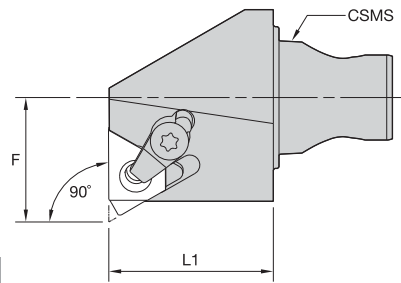
order number	catalog number	CSMS system size	L1		F		H1		gage insert	clamp	clamp screw
			mm	in	mm	in	mm	in			
	right hand										
3483036	KM20NER225	KM20	25	.984	17	.669	9,5	.375	NG2L	CM75	MS1200
3483034	KM20NER325	KM20	25	.984	17	.669	9,5	.375	NG3L	CM73LP	MS524
2399462	KM25NER230	KM25	30	1.181	22	.866	12,5	.492	NG2L	CM75	MS1200
2399494	KM25NER330	KM25	30	1.181	22	.866	12,5	.492	NG3L	CM73LP	MS2111
2399496	KM25NER430	KM25	30	1.181	24	.945	12,5	.492	NG4L	CM73LP	MS2111
	left hand										
3483035	KM20NEL225	KM20	25	.984	17	.669	9,5	.375	NG2R	CM74	MS1200
3483033	KM20NEL325	KM20	25	.984	17	.669	9,5	.375	NG3R	CM72LP	MS524
2399493	KM25NEL230	KM25	30	1.181	22	.866	12,5	.492	NG2R	CM74	MS1200
2399495	KM25NEL330	KM25	30	1.181	22	.866	12,5	.492	NG3R	CM72LP	MS2111
2399497	KM25NEL430	KM25	30	1.181	24	.945	12,5	.492	NG4R	CM72LP	MS2111



■ NS 93° • Side Mount

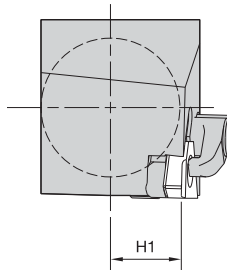
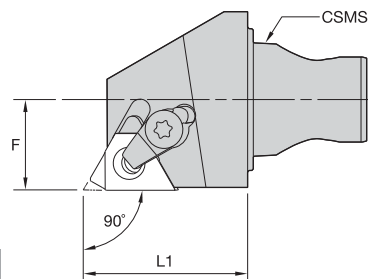
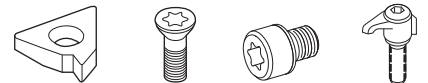


order number	catalog number	CSMS system size	L1		F		H1		gage insert	clamp	clamp screw
			mm	in	mm	in	mm	in			
right hand											
3483030	KM20NSR230	KM20	30	1.181	12,5	.492	9,5	.375	NG2R	CM74	MS1200
3483028	KM20NSR330	KM20	30	1.181	12,5	.492	9,5	.375	NG3R	CM72LP	MS524
2399498	KM25NSR230	KM25	30	1.181	16,0	.630	12,5	.492	NG2R	CM74	MS1200
2399500	KM25NSR330	KM25	30	1.181	16,0	.630	12,5	.492	NG3R	CM72LP	MS2111
2399502	KM25NSR430	KM25	30	1.181	16,0	.630	12,5	.492	NG4R	CM212LP	MS2111
left hand											
3483029	KM20NSL230	KM20	30	1.181	12,5	.492	9,5	.375	NG2L	CM75	MS1200
3483027	KM20NSL330	KM20	30	1.181	12,5	.492	9,5	.375	NG3L	CM73LP	MS524
2399499	KM25NSL230	KM25	30	1.181	16,0	.630	12,5	.492	NG2L	CM75	MS1200
2399501	KM25NSL330	KM25	30	1.181	16,0	.630	12,5	.492	NG3L	CM73LP	MS2111
2399503	KM25NSL430	KM25	30	1.181	16,0	.630	12,5	.492	NG4L	CM213LP	MS2111


■ LSE 90°

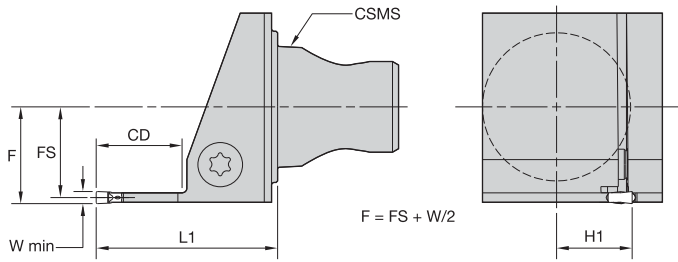

order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	insert screw	shim screw	clamp assembly
			mm	in	mm	in	mm	in					
right hand													
3482966	KM20LSER1625	KM20	25	.984	17	.669	9,5	.375	LT16EL	SMYI3	SSA3T	SSY3T	CKC3
2399506	KM25LSER1630	KM25	30	1.181	22	.866	12,5	.492	LT16EL	SMYI3	SSA3T	SSY3T	CKC3
left hand													
3482965	KM20LSEL1625	KM20	25	.984	17	.669	9,5	.375	LT16ER	SMYE3	SSA3T	SSY3T	CKC3
2399507	KM25LSEL1630	KM25	30	1.181	22	.866	12,5	.492	LT16ER	SMYE3	SSA3T	SSY3T	CKC3

NOTE: Cutting units are supplied with insert screw and clamp assembly. However, tools are designed to use either the insert screw or the clamp assembly, not both.


■ LSS 90°


order number	catalog number	CSMS system size	L1		F		H1		gage insert	shim	insert screw	shim screw	clamp assembly
			mm	in	mm	in	mm	in					
right hand													
3482968	KM20LSSR1625	KM20	25	.984	12,5	.492	9,5	.375	LT16ER	SMYE3	SSA3T	SSY3T	CKC3
2399504	KM25LSSR1630	KM25	30	1.181	16,0	.630	12,5	.492	LT16ER	SMYE3	SSA3T	SSY3T	CKC3
3176219	KM25LSSR2230	KM25	30	1.181	16,0	.630	12,5	.492	LT22ER	SMYE4	SSA4T	SSY4T	CKC4
left hand													
3482967	KM20LSSL1625	KM20	25	.984	12,5	.492	9,5	.375	LT16EL	SMYI3	SSA3T	SSY3T	CKC3
2399505	KM25LSSL1630	KM25	30	1.181	16,0	.630	12,5	.492	LT16EL	SMYI3	SSA3T	SSY3T	CKC3
3176220	KM25LSSL2230	KM25	30	1.181	16,0	.630	12,5	.492	LT22EL	SMYI4	SSA4T	SSY4T	CKC4

NOTE: Cutting units are supplied with insert screw and clamp assembly. However, tools are designed to use either the insert screw or the clamp assembly, not both.





■ A4SM • Side Mount

order number	catalog number	CSMS system size	seat size	L1		FS		W min		H1		CD	
				mm	in	mm	in	mm	in	mm	in	mm	in
right hand													
3482929	KM20A4SMR011330	KM20	1.5	30	1.181	11,8	.463	1,5	.059	9,5	.375	13,5	.53
3482931	KM20A4SMR021430	KM20	2	30	1.181	11,5	.453	2,0	.079	9,5	.375	14,0	.55
3482935	KM20A4SMR031430	KM20	3	30	1.181	11,0	.433	3,0	.118	9,5	.375	14,0	.55
3482937	KM20A4SMR041430	KM20	4	30	1.181	10,5	.413	4,0	.157	9,5	.375	14,0	.55
3482933	KM20A4SMR2B1430	KM20	2B	30	1.181	11,3	.443	2,5	.098	9,5	.375	14,0	.55
3377363	KM25A4SMR011330	KM25	1	30	1.181	15,3	.600	1,5	.059	12,5	.492	13,5	.53
3377291	KM25A4SMR021430	KM25	2	30	1.181	15,0	.591	2,0	.079	12,5	.492	14,0	.55
2399464	KM25A4SMR031430	KM25	3	30	1.181	14,5	.571	3,0	.118	12,5	.492	14,0	.55
2399466	KM25A4SMR041430	KM25	4	30	1.181	14,0	.551	4,0	.157	12,5	.492	14,0	.55
2399468	KM25A4SMR051935	KM25	5	35	1.378	13,5	.531	5,0	.197	12,5	.492	19,0	.75
3377289	KM25A4SMR2B1430	KM25	2B	30	1.181	14,8	.581	2,5	.098	12,5	.492	14,0	.55
left hand													
3482928	KM20A4SML011330	KM20	1.5	30	1.181	11,8	.463	1,5	.059	9,5	.375	13,5	.53
3482930	KM20A4SML021430	KM20	2	30	1.181	11,5	.453	2,0	.079	9,5	.375	14,0	.55
3482934	KM20A4SML031430	KM20	3	30	1.181	11,0	.433	3,0	.118	9,5	.375	14,0	.55
3482936	KM20A4SML041430	KM20	4	30	1.181	10,5	.413	4,0	.157	9,5	.375	14,0	.55
3482932	KM20A4SML2B1430	KM20	2B	30	1.181	11,3	.443	2,5	.098	9,5	.375	14,0	.55
3377292	KM25A4SML011330	KM25	1	30	1.181	15,3	.600	1,5	.059	12,5	.492	13,5	.53
3377290	KM25A4SML021430	KM25	2	30	1.181	15,0	.591	2,0	.079	12,5	.492	14,0	.55
2399465	KM25A4SML031430	KM25	3	30	1.181	14,5	.571	3,0	.118	12,5	.492	14,0	.55
2399467	KM25A4SML041430	KM25	4	30	1.181	14,0	.551	4,0	.157	12,5	.492	14,0	.55
2399469	KM25A4SML051935	KM25	5	35	1.378	13,5	.531	5,0	.197	12,5	.492	19,0	.75
3377288	KM25A4SML2B1430	KM25	2B	30	1.181	14,8	.581	2,5	.098	12,5	.492	14,0	.55

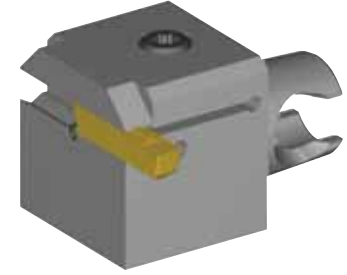
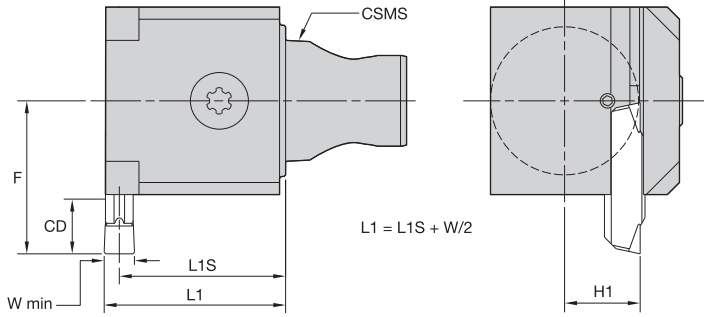
(continued)

(A4SM • Side Mount continued)

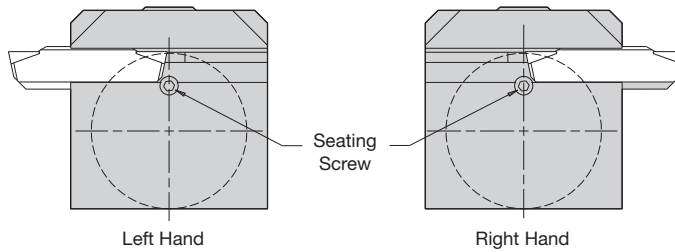
■ Spare Parts

catalog number	 clamp screw	 clamp screw
right hand		
KM20A4SMR011330	MS1156	—
KM20A4SMR021430	MS1160	—
KM20A4SMR031430	MS1160	—
KM20A4SMR041430	MS1160	—
KM20A4SMR2B1430	MS1160	—
KM25A4SMR011330	MS1156	—
KM25A4SMR021430	MS1160	—
KM25A4SMR031430	—	MS2091
KM25A4SMR041430	—	MS2091
KM25A4SMR051935	—	MS2091
KM25A4SMR2B1430	MS1160	—
left hand		
KM20A4SML011330	MS1156	—
KM20A4SML021430	MS1160	—
KM20A4SML031430	MS1160	—
KM20A4SML041430	MS1160	—
KM20A4SML2B1430	MS1160	—
KM25A4SML011330	MS1156	—
KM25A4SML021430	MS1160	—
KM25A4SML031430	—	MS2091
KM25A4SML041430	—	MS2091
KM25A4SML051935	—	MS2091
KM25A4SML2B1430	MS1160	—

NOTE: W min supplied for reference only. See the Kennametal Innovations Master Catalog Cutting Tools 2013 for actual insert width.
 Always match seat size of insert to seat size of holder.
 Seat size 2B cutting units only accepts 2B inserts.
 Seat size 2 cutting units accepts 2 or 2B inserts.



A4EN Insert Mounting



A4EN-style cutting units can be used for either left- or right-hand applications.



■ A4EN • End Mount

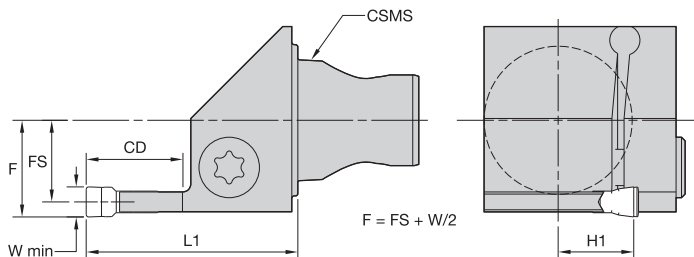
order number	catalog number	CSMS system size	seat size	L1S		F		W min		H1		CD	
				mm	in	mm	in	mm	in	mm	in		
2399470	KM25A4ENN040730	KM25	4	28	1.102	23	.906	4,0	.157	12,5	.492	7	.276
2399471	KM25A4ENN050930	KM25	5	28	1.083	25	.996	5,0	.197	12,5	.492	9	.354

■ Spare Parts



catalog number	clamp screw
KM25A4ENN040730	MS2091
KM25A4ENN050930	MS2091

NOTE: A4EN-style cutting units are designed without steel support for face grooving capacity. Cutting feed recommendations should be reduced by 25–30%.
W min supplied for reference only. See the Kennametal Innovations Master Catalog Cutting Tools 2013 for actual insert width. Always match seat size of insert to seat size of holder.

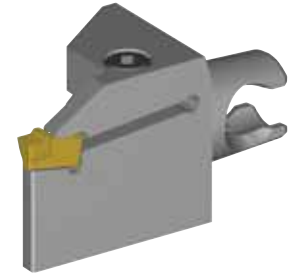
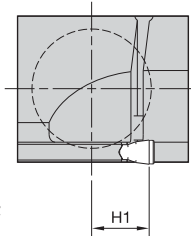
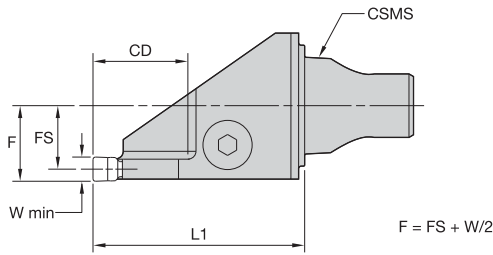

■ A3SS • Deep Groove

order number	catalog number	CSMS system size	seat size	L1		FS		W min		H1		CD	
				mm	in	mm	in	mm	in	mm	in	mm	in
right hand													
2399513	KM25A3SSR031635	KM25	3	35,0	1.378	15	.571	3	.12	12,5	.492	16	.63
2399515	KM25A3SSR041635	KM25	4	34,9	1.374	14	.551	4	.16	12,5	.492	16	.63
2399517	KM25A3SSR042645	KM25	4	45,0	1.772	14	.551	4	.16	12,5	.492	26	1.02
2399519	KM25A3SSR051635	KM25	5	35,0	1.378	14	.531	5	.20	12,5	.492	16	.63
2399521	KM25A3SSR052645	KM25	5	45,0	1.772	14	.531	5	.20	12,5	.492	26	1.02
left hand													
2399514	KM25A3SSL031635	KM25	3	35,0	1.378	15	.571	3	.12	12,5	.492	16	.63
2399516	KM25A3SSL041635	KM25	4	34,9	1.374	14	.551	4	.16	12,5	.492	16	.63
2399518	KM25A3SSL042645	KM25	4	45,0	1.772	14	.551	4	.16	12,5	.492	26	1.02
2399520	KM25A3SSL051635	KM25	5	35,0	1.378	14	.531	5	.20	12,5	.492	16	.63
2399522	KM25A3SSL052645	KM25	5	45,0	1.772	14	.531	5	.20	12,5	.492	26	1.02

■ Spare Parts


catalog number	clamp screw
right hand	
KM25A3SSR031635	MS1944
KM25A3SSR041635	MS1595
KM25A3SSR042645	MS1595
KM25A3SSR051635	MS1595
KM25A3SSR052645	MS1595
left hand	
KM25A3SSL031635	MS1944
KM25A3SSL041635	MS1595
KM25A3SSL042645	MS1595
KM25A3SSL051635	MS1595
KM25A3SSL052645	MS1595

NOTE: W min supplied for reference only. See the Kennametal Innovations Master Catalog Cutting Tools 2013 for actual insert width. Always match seat size of insert to seat size of holder.



■ A3SC • Cut-Off

order number	catalog number	CSMS system size	seat size	L1		FS		W min		H1		CD	
				mm	in	mm	in	mm	in	mm	in		
	right hand												
3482925	KM20A3SCR031635	KM20	3	35	1.378	11,00	.433	3,0	.118	9,5	.375	16	.63
3482927	KM20A3SCR041635	KM20	4	35	1.378	10,50	.413	4,0	.157	9,5	.375	16	.63
	left hand												
3482924	KM20A3SCL031635	KM20	3	35	1.378	11,00	.433	3,0	.118	9,5	.375	16	.63
3482926	KM20A3SCL041635	KM20	4	35	1.378	10,50	.413	4,0	.157	9,5	.375	16	.63

■ Spare Parts

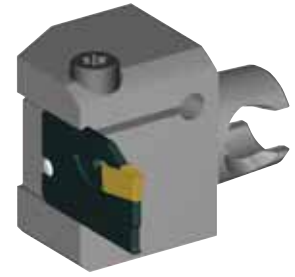
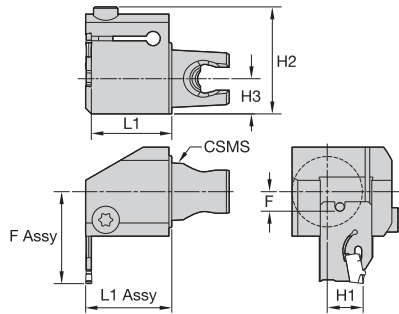


catalog number	clamp screw
right hand	
KM20A3SCR031635	MS1322
KM20A3SCR041635	MS1322
left hand	
KM20A3SCL031635	MS1322
KM20A3SCL041635	MS1322

NOTE: W min supplied for reference only. See the Kennametal Innovations Master Catalog Cutting Tools 2013 for actual insert width.
Always match seat size of insert to seat size of holder.



KM Mini Cutting Units



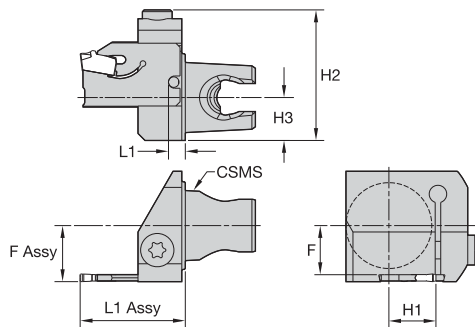
L1 Assy = L1 + F Blade
F Assy = F + L1 Blade

■ BE • End Mount



order number	catalog number	CSMS system size	L1		F		H1		H2		H3		clamp screw	cartridge 1
			mm	in	mm	in	mm	in	mm	in	mm	in		
2426882	right hand KM25BER	KM25	28	1.103	6,8	.268	12,5	.492	37,3	1.466	12,3	.482	MS1898PKG	A2BHSN19X...
	left hand KM25BEL													

NOTE: For blades, see page A162.



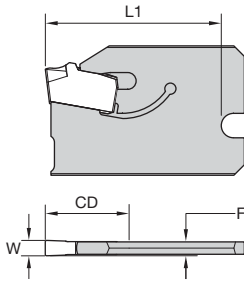
L1 Assy = L1 + L1 Blade
F Assy = F + F Blade

■ BS • Side Mount



order number	catalog number	CSMS system size	L1		F		H1		H2		H3		clamp screw	cartridge 1
			mm	in	mm	in	mm	in	mm	in	mm	in		
2426880	right hand KM25BSR	KM25	4,8	.189	14	.552	12,5	.492	37,3	1.466	12,3	.482	MS1898PKG	A2BHSN19X...
	left hand KM25BSL													

NOTE: For blades, see page A162.



■ A2BHSN

order number	catalog number	seat size	CD	W	F	L1
1984998	A2BHSN19X0116	1	16,0	1,6	1,7	25,2
1851800	A2BHSN19X0211	2	11,0	2,2	2,0	20,2
1851799	A2BHSN19X0216	2	16,0	2,2	2,0	25,2



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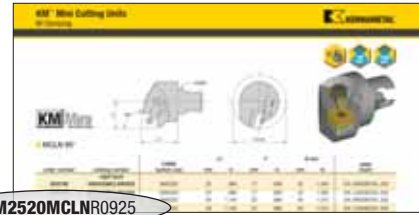
Experience the advantages at your Authorized Kennametal Distributor or at www.kennametal.com.

www.kennametal.com



How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



KM2520MCLNR0925



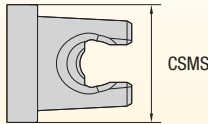
KM

Kennametal
Modular

2520

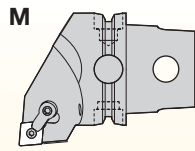
System
Size

2520 = 25mm
3225 = 32mm



M

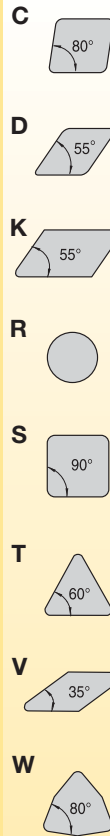
Insert Holding
Method



M-Clamping
Top and/or hole clamping
for inserts with hole

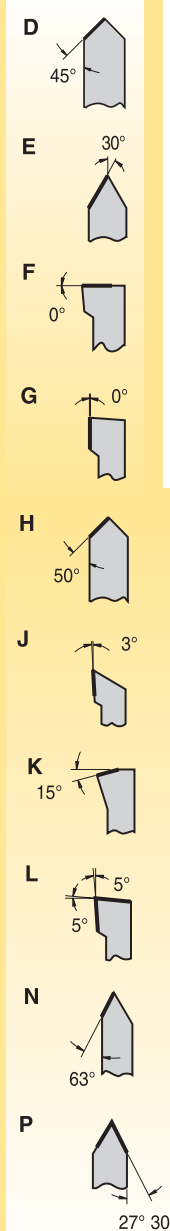
C

Insert
Shape



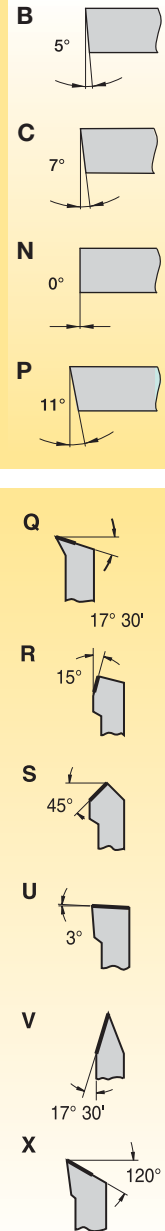
L

Toolholder
Style

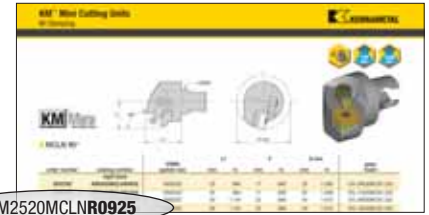


N

Insert
Clearance
Angle



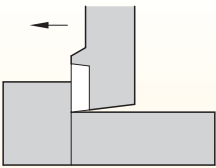
By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



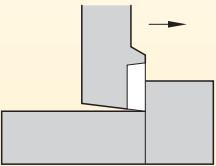
KM2520MCLNR0925

R

Hand of Tool



L = Left-hand cutting unit



R = Right-hand cutting unit

09

Insert Size
Cutting Edge
Length L10

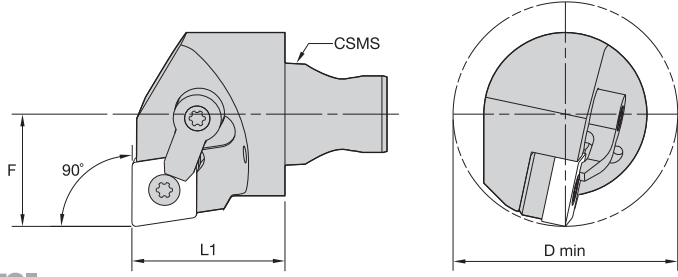
Metric

IC	C	D	K	R	S	T	V	W
3,97		04		03	03	06		
4,76	04	05		04	04	08	08	S3
5,56	05	06	03	05	05	09	09	03
6,00				06				
6,35	06	07	04	06	06	11	11	04
7,94	08	09	05	07	07	13	13	05
8,00				08			11	
9,52	09	11	06	09	09	16	16	06
9,52								
10,00				10				
11,11	11	13	07	11	11	19	19	07
12,00				12				
12,70	12	15	08	12	12	22	22	08
14,29	14	17	09	14	14	24	24	09
15,88	16	19	10	15	15	27	27	10
16,00				16				
17,46	17	21	11	17	17	30	30	11
19,05	19	23	13	19	19	33	33	13
20,00				20				
22,22	22	27	15	22	22	38	38	15
25,00				25				
25,40	25	31	17	25	25	44	44	17
31,75	32	38	21	31	31	54	54	21
32,00				32				

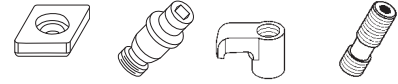
25

Gage
Length

- 25 = 25mm
- 30 = 30mm
- 45 = 45mm
- 120 = 120mm



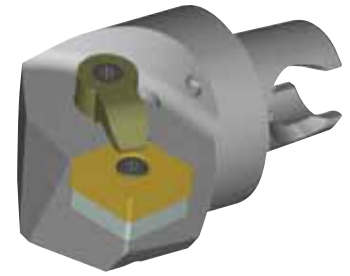
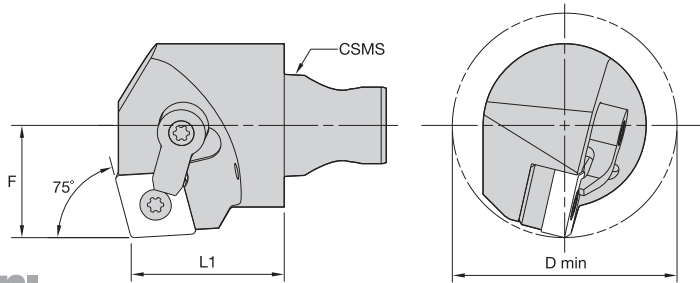
■ MCFN 90°



order number	catalog number	CSMS system size	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw
			mm	in	mm	in	mm	in					
right hand													
2527431	KM3225MCFNR1230	KM3225	30	1.181	22	.866	40	1.575	CN..120408/CN..432	ICSN432	KLM4615IP	CKM20LP	STCM1115IP
left hand													
2527432	KM3225MCFNL1230	KM3225	30	1.181	22	.866	40	1.575	CN..120408/CN..432	ICSN432	KLM4615IP	CKM20LP	STCM1115IP



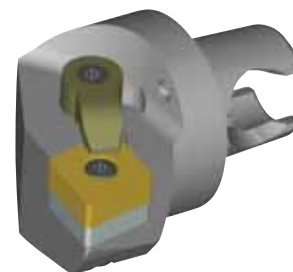
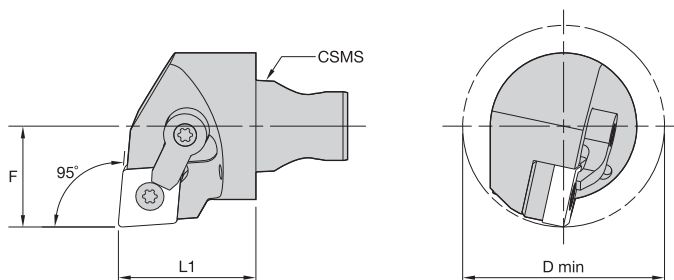
KM Mini Cutting Units


MCKN 75°

order number	catalog number	CSMS system size	L1		F		D min		gage insert
			mm	in	mm	in	mm	in	
	right hand								
2527433	KM3225MCKNR1230	KM3225	30	1.181	22	.866	40	1.57	CN..120408/CN..432
	left hand								
2527434	KM3225MCKNL1230	KM3225	30	1.181	22	.866	40	1.57	CN..120408/CN..432

Spare Parts

catalog number				
	shim	lock pin	clamp	clamp screw
right hand KM3225MCKNR1230	ICSN432	KLM4615IP	CKM20LP	STCM1115IP
left hand KM3225MCKNL1230	ICSN432	KLM4615IP	CKM20LP	STCM1115IP



■ **MCLN 95°**

order number	catalog number	CSMS system size	L1		F		D min		gage insert
			mm	in	mm	in	mm	in	
right hand									
3503780	KM2520MCLNR0925	KM2520	25	.984	17	.669	32	1.260	CN..090308/CN..332
3503782	KM2520MCLNR1225	KM2520	25	.984	17	.669	32	1.260	CN..120408/CN..432
2527435	KM3225MCLNR0930	KM3225	30	1.181	22	.866	40	1.575	CN..090308/CN..322
2527437	KM3225MCLNR1230	KM3225	30	1.181	22	.866	40	1.575	CN..120408/CN..432
left hand									
3503779	KM2520MCLNL0925	KM2520	25	.984	17	.669	32	1.260	CN..090308/CN..332
3503781	KM2520MCLNL1225	KM2520	25	.984	17	.669	32	1.260	CN..120408/CN..432
2527436	KM3225MCLNL0930	KM3225	30	1.181	22	.866	40	1.575	CN..090308/CN..322
2527438	KM3225MCLNL1230	KM3225	30	1.181	22	.866	40	1.575	CN..120408/CN..432

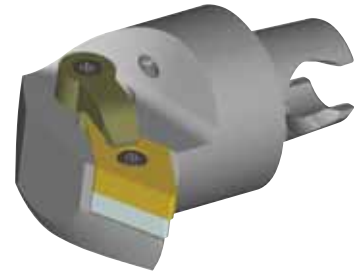
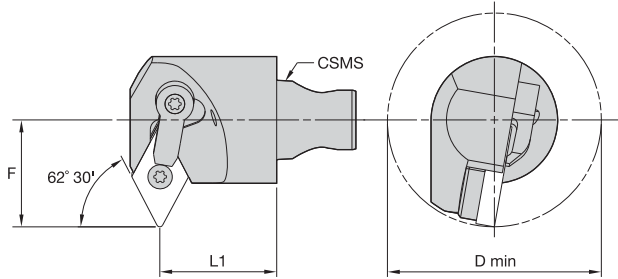
■ **Spare Parts**



catalog number	shim	lock pin	clamp	clamp screw
right hand				
KM2520MCLNR0925	—	KLM33	CKM7LP	STCM38
KM2520MCLNR1225	—	KLM43	CKM20LP	STCM35
KM3225MCLNR0930	ICSN332	KLM34LT9PKG	CKM7LP	STCM9T9
KM3225MCLNR1230	ICSN432	KLM4615IP	CKM20LP	STCM1115IP
left hand				
KM2520MCLNL0925	—	KLM33	CKM7LP	STCM38
KM2520MCLNL1225	—	KLM43	CKM20LP	STCM35
KM3225MCLNL0930	ICSN332	KLM34LT9PKG	CKM7LP	STCM9T9
KM3225MCLNL1230	ICSN432	KLM4615IP	CKM20LP	STCM1115IP



KM Mini Cutting Units



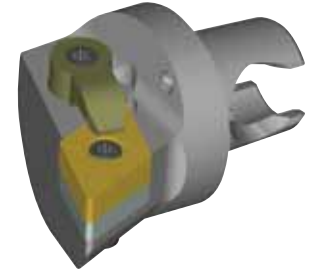
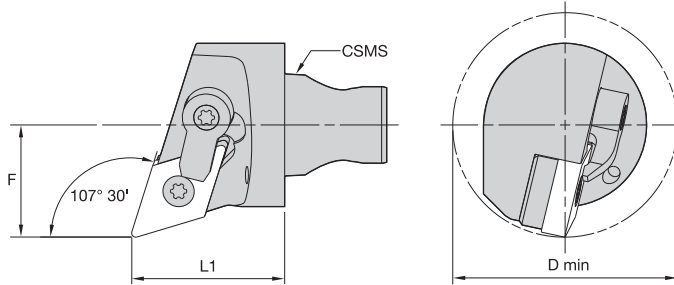
■ MDPN 62° 30'

order number	catalog number	CSMS system size	L1		F		D min		gage insert
			mm	in	mm	in	mm	in	

■ Spare Parts



catalog number	shim	lock pin	clamp	clamp screw



■ MDQN 107° 30'

order number	catalog number	CSMS system size	L1		F		D min		gage insert
			mm	in	mm	in	mm	in	

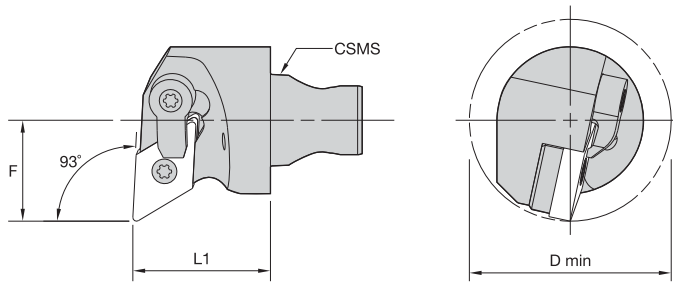
■ Spare Parts



catalog number	shim	lock pin	clamp	clamp screw



KM Mini Cutting Units



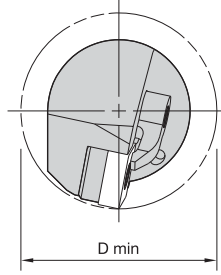
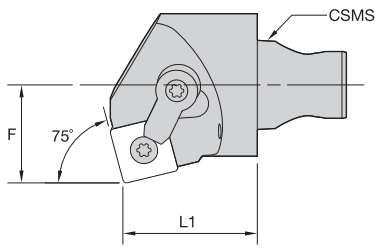
■ MDUN 93°

order number	catalog number	CSMS system size	L1		F		D min		gage insert
			mm	in	mm	in	mm	in	
right hand									
3503814	KM2520MDUNR1125	KM2520	25	.984	17	.669	32	1.26	DN..110408/DN..332
3503816	KM2520MDUNR1525	KM2520	25	.984	17	.669	32	1.26	DN..150408/DN..432
2527449	KM3225MDUNR1130	KM3225	30	1.181	22	.866	40	1.57	DN..110408/DN..332
2527447	KM3225MDUNR150430	KM3225	30	1.181	22	.866	40	1.57	DN..150408/DN..432
left hand									
3503813	KM2520MDUNL1125	KM2520	25	.984	17	.669	32	1.26	DN..110408/DN..332
3503815	KM2520MDUNL1525	KM2520	25	.984	17	.669	32	1.26	DN..150408/DN..432
2527450	KM3225MDUNL1130	KM3225	30	1.181	22	.866	40	1.57	DN..110408/DN..332
2527448	KM3225MDUNL150430	KM3225	30	1.181	22	.866	40	1.57	DN..150408/DN..432

■ Spare Parts







catalog number	shim	lock pin	clamp	clamp screw
right hand				
KM2520MDUNR1125	—	KLM33L	CKM7LP	STCM38
KM2520MDUNR1525	—	KLM43	—	—
KM3225MDUNR1130	IDSN322	KLM34LT9PKG	CKM7LP	STCM9T9
KM3225MDUNR150430	IDSN432	KLM4615IP	CKM20LP	STCM1115IP
left hand				
KM2520MDUNL1125	—	KLM33L	CKM7LP	STCM38
KM2520MDUNL1525	—	KLM43	—	—
KM3225MDUNL1130	IDSN322	KLM34LT9PKG	CKM7LP	STCM9T9
KM3225MDUNL150430	IDSN432	KLM4615IP	CKM20LP	STCM1115IP



■ MSKN 75°

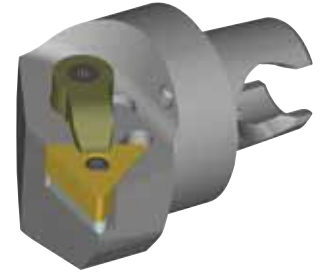
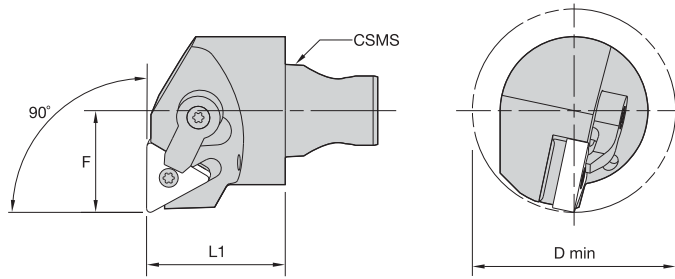
order number	catalog number	CSMS system size	L1		F		D min		gage insert
			mm	in	mm	in	mm	in	
	right hand								
3503818	KM2520MSKNR1225	KM2520	25	.984	17	.669	32	1.26	SN..120408/SN..432
2527451	KM3225MSKNR1230	KM3225	30	1.181	22	.866	40	1.57	SN..120408/SN..432
	left hand								
3503817	KM2520MSKNL1225	KM2520	25	.984	17	.669	32	1.26	SN..120408/SN..432
2527452	KM3225MSKNL1230	KM3225	30	1.181	22	.866	40	1.57	SN..120408/SN..432

■ Spare Parts

catalog number	 shim	 lock pin	 clamp	 clamp screw
	right hand			
KM2520MSKNR1225	—	KLM43	CKM20LP	STCM11
KM3225MSKNR1230	ISSN432	KLM4615IP	CKM20LP	STCM1115IP
	left hand			
KM2520MSKNL1225	—	KLM43	CKM20LP	STCM11
KM3225MSKNL1230	ISSN432	KLM4615IP	CKM20LP	STCM1115IP



KM Mini Cutting Units



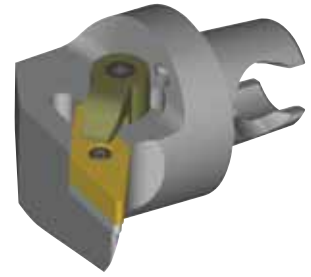
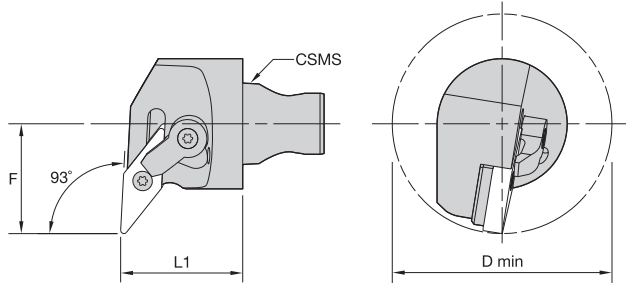
■ MTFN 90°

order number	catalog number	CSMS system size	L1		F		D min		gage insert
			mm	in	mm	in	mm	in	
right hand									
3503820	KM2520MTFNR1625	KM2520	25	.984	17	.669	32	1.26	TN..160408/TN..332
2527453	KM3225MTFNR1630	KM3225	30	1.181	22	.866	40	1.57	TN..160408/TN..332
2527455	KM3225MTFNR2230	KM3225	30	1.181	22	.866	40	1.57	TN..220408/TN..432
left hand									
3503819	KM2520MTFNL1625	KM2520	25	.984	17	.669	32	1.26	TN..160408/TN..332
2527454	KM3225MTFNL1630	KM3225	30	1.181	22	.866	40	1.57	TN..160408/TN..332
2527456	KM3225MTFNL2230	KM3225	30	1.181	22	.866	40	1.57	TN..220408/TN..432

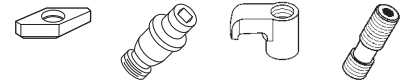
■ Spare Parts



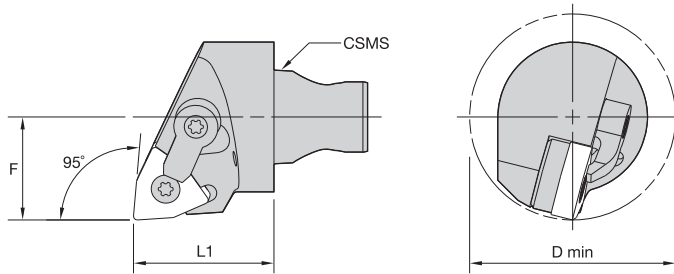
catalog number	shim	lock pin	clamp	clamp screw
right hand				
KM2520MTFNR1625	—	KLM33L	CKM7LP	STCM38
KM3225MTFNR1630	ITSN323	KLM34L9IP	CKM20LP	STCM119IP
KM3225MTFNR2230	ITSN433	KLM4615IP	CKM20LP	STCM1115IP
left hand				
KM2520MTFNL1625	—	KLM33L	CKM7LP	STCM38
KM3225MTFNL1630	ITSN323	KLM34L9IP	CKM20LP	STCM119IP
KM3225MTFNL2230	ITSN433	KLM4615IP	CKM20LP	STCM1115IP



■ MVUN 93°



order number	catalog number	CSMS system size	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw
			mm	in	mm	in	mm	in					
right hand													
3503822	KM2520MVUNR1625	KM2520	25	.984	22	.866	40	1.57	VN..160408/VN..332	—	KLM33L	CKM7LP	STCM38
2527457	KM3225MVUNR1630	KM3225	30	1.181	27	1.063	50	1.97	VN..160408/VN..332	IVSN322	KLM34L9IP	CKM20LP	STCM119IP
left hand													
3503821	KM2520MVUNL1625	KM2520	25	.984	22	.866	40	1.57	VN..160408/VN..332	—	KLM33L	CKM7LP	STCM38
2527458	KM3225MVUNL1630	KM3225	30	1.181	27	1.063	50	1.97	VN..160408/VN..332	IVSN322	KLM34L9IP	CKM20LP	STCM119IP



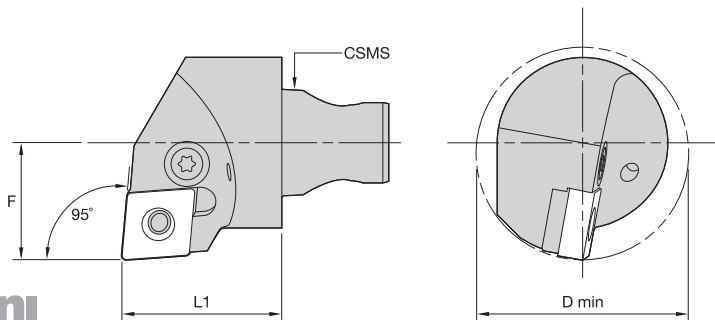
■ MWLN 95°



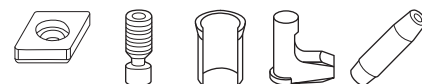
order number	catalog number	CSMS system size	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw
			mm	in	mm	in	mm	in					
right hand													
3503824	KM2520MWLNR0625	KM2520	25	.984	17	.669	32	1.26	WN..060408/WN.332	—	KLM33	CKM7LP	STCM38
3503826	KM2520MWLNR0825	KM2520	25	.984	17	.669	32	1.26	WN..080408/WN..432	—	KLM43	CKM7LP	STCM38
2527459	KM3225MWLNR0830	KM3225	30	1.181	22	.866	40	1.57	WN..080408/WN..432	IWSN433	KLM4615IP	CKM20LP	STCM1115IP
left hand													
3503823	KM2520MWLNL0625	KM2520	25	.984	17	.669	32	1.26	WN..060408/WN.332	—	KLM33	CKM7LP	STCM38
3503825	KM2520MWLNL0825	KM2520	25	.984	17	.669	32	1.26	WN..080408/WN..432	—	KLM43	CKM7LP	STCM38
2527460	KM3225MWLNL0830	KM3225	30	1.181	22	.866	40	1.57	WN..080408/WN..432	IWSN433	KLM4615IP	CKM20LP	STCM1115IP



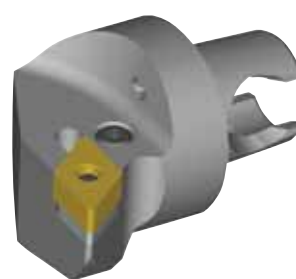
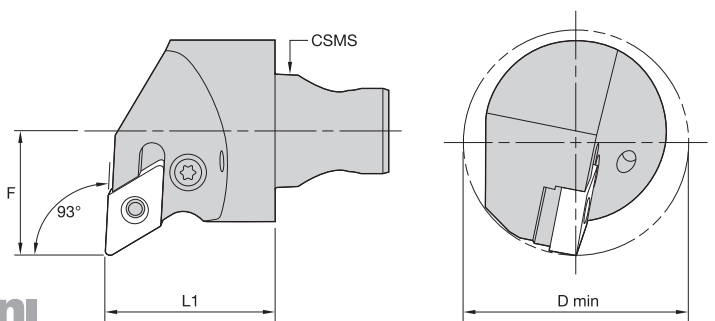
KM Mini Cutting Units



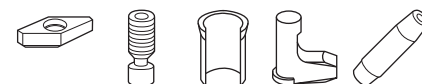
■ PCLN 95°



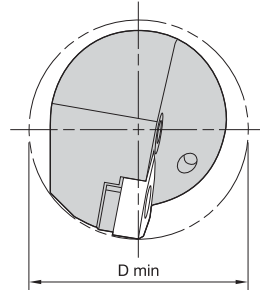
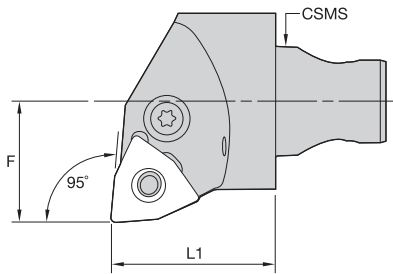
order number	catalog number	CSMS system size	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch
			mm	in	mm	in	mm	in						
right hand														
3482970	KM2520PCLNR1225	KM2520	25	.984	17	.669	32	1.26	CN..120408/CN..432	—	514.122	—	511.022	—
2527461	KM3225PCLNR1230	KM3225	30	1.181	22	.866	40	1.57	CN..120408/CN..432	512.112	514.123	513.023	511.023	515.018
left hand														
3482969	KM2520PCLNL1225	KM2520	25	.984	17	.669	32	1.26	CN..120408/CN..432	—	514.122	—	511.022	—
2527462	KM3225PCLNL1230	KM3225	30	1.181	22	.866	40	1.57	CN..120408/CN..432	512.112	514.123	513.023	511.023	515.018



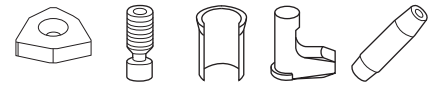
■ PDUN 93°



order number	catalog number	CSMS system size	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch
			mm	in	mm	in	mm	in						
right hand														
3482972	KM2520PDUNR1125	KM2520	25	.984	17	.669	32	1.26	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018
2527463	KM3225PDUNR1130	KM3225	30	1.181	22	.866	40	1.57	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018
left hand														
3482971	KM2520PDUNL1125	KM2520	25	.984	17	.669	32	1.26	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018
2527464	KM3225PDUNL1130	KM3225	30	1.181	22	.866	40	1.57	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018



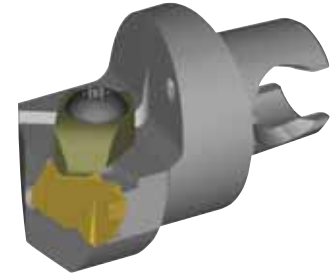
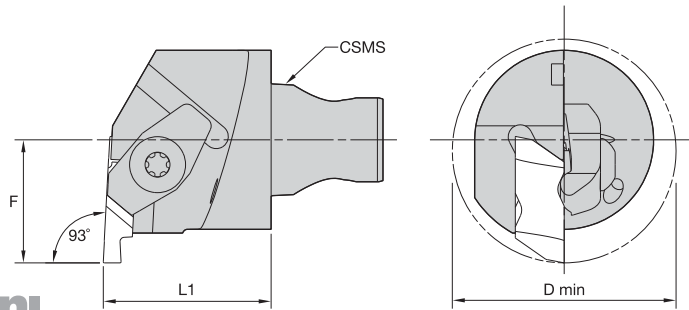
■ PWLN 95°



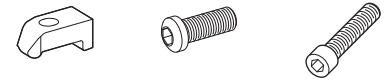
order number	catalog number	CSMS system size	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch
			mm	in	mm	in	mm	in						
right hand														
3483024	KM2520PWLNR0625	KM2520	25	.984	17	.669	32	1.26	WN..060408/WN..332	—	514.112	—	511.030	—
left hand														
2527465	KM3225PWLNR0830	KM3225	30	1.181	22	.866	40	1.57	WN..080408/WN..432	512.135	514.123	513.023	511.023	515.018
right hand														
3483023	KM2520PWLNL0625	KM2520	25	.984	17	.669	32	1.26	WN..060408/WN..332	—	514.112	—	511.030	—
left hand														
2527466	KM3225PWLNL0830	KM3225	30	1.181	22	.866	40	1.57	WN..080408/WN..432	512.135	514.123	513.023	511.023	515.018



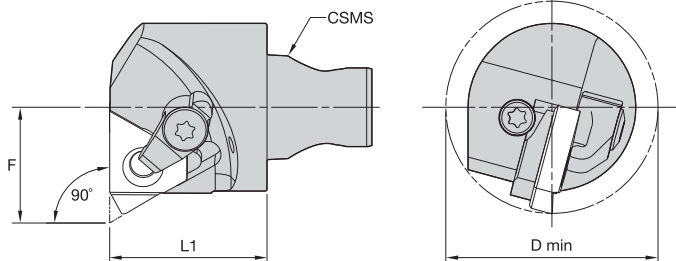
KM Mini Cutting Units



■ NE 93° • End Mount



order number	catalog number	CSMS system size	L1		F		D min		gage insert	clamp	clamp screw	clamp screw
			mm	in	mm	in	mm	in				
right hand												
3546332	KM2520NER230	KM2520	30	1.181	17	.669	32	1.26	NG2L	CM75	—	MS1488
3546644	KM2520NER330	KM2520	30	1.181	17	.669	34	1.34	NG3L	CM73LP	—	MS1489
2527467	KM3225NER230	KM3225	30	1.181	22	.866	40	1.57	NG2L	CM75	—	MS1488
2387557	KM3225NER330	KM3225	30	1.181	22	.866	40	1.57	NG3L	CM73LP	MS2111	—
2527470	KM3225NER430	KM3225	30	1.181	27	1.063	50	1.97	NG4L	CM73LP	MS2111	—
left hand												
3546331	KM2520NEL230	KM2520	30	1.181	17	.669	32	1.26	NG2R	CM74	—	MS1488
3546643	KM2520NEL330	KM2520	30	1.181	17	.669	34	1.34	NG3R	CM72LP	—	MS1489
2527468	KM3225NEL230	KM3225	30	1.181	22	.866	40	1.57	NG2R	CM74	—	MS1488
2527469	KM3225NEL330	KM3225	30	1.181	22	.866	40	1.57	NG3R	CM72LP	MS2111	—
2527471	KM3225NEL430	KM3225	30	1.181	27	1.063	50	1.97	NG4R	CM72LP	MS2111	—



■ LSE • 90°



order number	catalog number	CSMS system size	L1		F		D min		gage insert	shim	insert screw	shim screw	clamp assembly
			mm	in	mm	in	mm	in					
right hand													
3505968	KM2520LSER1625	KM2520	25	.984	17	.669	32	1.26	LT16NR	SMY13	SSA3T	SSY3T	CKC3
3505970	KM2520LSER2225	KM2520	25	.984	17	.669	32	1.26	LT22NR	SMY14	SSA4T	SSY4T	CKC4
2527474	KM3225LSER1630	KM3225	30	1.181	22	.866	40	1.57	LT16NR	SMY13	SSA3T	SSY3T	CKC3
2527472	KM3225LSER2230	KM3225	30	1.181	22	.866	40	1.57	LT22NR	SMY14	SSA4T	SSY4T	CKC4
left hand													
3505967	KM2520LSEL1625	KM2520	25	.984	17	.669	32	1.26	LT16NL	SMYE3	SSA3T	SSY3T	CKC3
3505969	KM2520LSEL2225	KM2520	25	.984	17	.669	32	1.26	LT22NL	SMYE4	SSA4T	SSY4T	CKC4
2527475	KM3225LSEL1630	KM3225	30	1.181	22	.866	40	1.57	LT16NL	SMYE3	SSA3T	SSY3T	CKC3
2527473	KM3225LSEL2230	KM3225	30	1.181	22	.866	40	1.57	LT22NL	SMYE4	SSA4T	SSY4T	CKC4

NOTE: Cutting units are supplied with insert screw and clamp assembly. However, tools are designed to use either the insert screw or the clamp assembly, not both.



More than just the right tool • the ultimate solution.

That's **Beyond BLAST™** 
That's **Different Thinking.**

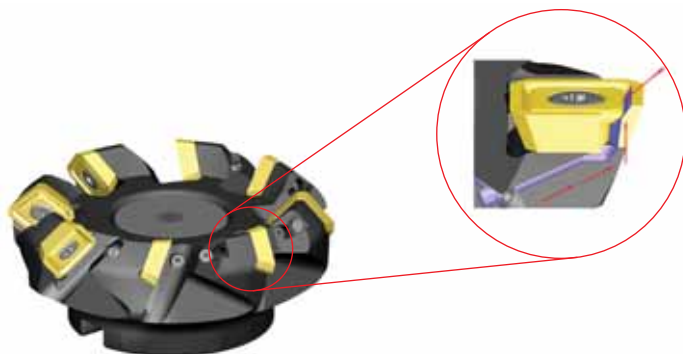
At Kennametal, innovation follows vision. Our revolutionary products and services are inspired by asking “what if?” The solutions that follow — like our Beyond BLAST through-coolant inserts — deliver remarkable results in the world’s most demanding machining environments.

A cutting-edge insert that delivers coolant precisely at the cutting edge. Now that’s Different Thinking. That’s Kennametal.

To learn more about your productivity gains using Beyond BLAST technology, visit www.kennametal.com.

Milling

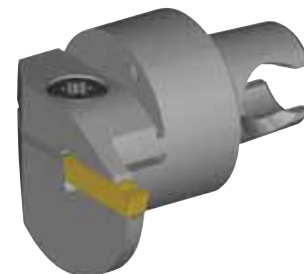
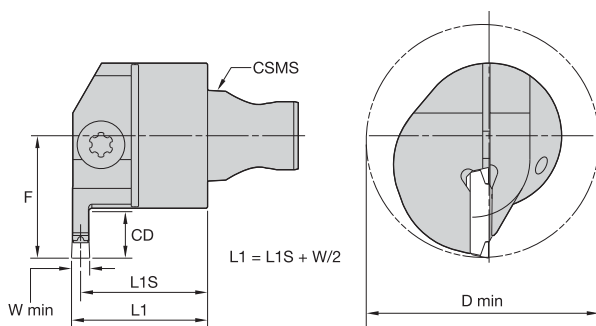
- Beyond BLAST technology uses low-pressure conditions to offer many of the high-pressure performance benefits.
- Delivers superior performance on titanium, using either high- or low-pressure coolant systems.
- Effective thermal management results in reduced cutting temperatures, improved lubricity, superior chip control, and longer tool life.
- Beyond BLAST for milling increases tool life by up to 300% compared with conventional coolant delivery systems.



beyond™ BLAST™

To learn more, **scan here.**
For instructions on how to scan,
please see page xxxiii.







■ A4EM • End Mount

order number	catalog number	CSMS system size	seat size	L1S		F		D min		W min		CD	
				mm	in	mm	in	mm	in	mm	in		
right hand													
3503887	KM2520A4EMR0108M25	KM2520	1	24	.955	22	.866	40	1.57	1,50	.059	8	.32
3503885	KM2520A4EMR0208M25	KM2520	2	24	.945	22	.866	40	1.57	2,00	.079	8	.32
3503871	KM2520A4EMR0308M25	KM2520	3	24	.925	22	.866	40	1.57	3,00	.118	8	.32
3503869	KM2520A4EMR0408M25	KM2520	4	23	.906	22	.866	40	1.57	4,00	.157	8	.32
3503883	KM2520A4EMR2B08M25	KM2520	2B	24	.935	22	.866	40	1.57	2,50	.098	8	.32
2527482	KM3225A4EMR0310M30	KM3225	3	29	1.122	27	1.063	50	1.97	3,00	.118	10	.40
2527484	KM3225A4EMR0410M30	KM3225	4	28	1.102	27	1.063	50	1.97	4,00	.157	10	.40
2527488	KM3225A4EMR0510M30	KM3225	5	28	1.083	27	1.063	50	1.97	5,00	.197	10	.40
left hand													
3503886	KM2520A4EML0108M25	KM2520	1	24	.955	22	.866	40	1.57	1,50	.059	8	.32
3503884	KM2520A4EML0208M25	KM2520	2	24	.945	22	.866	40	1.57	2,00	.079	8	.32
3503870	KM2520A4EML0308M25	KM2520	3	24	.925	22	.866	40	1.57	3,00	.118	8	.32
3503868	KM2520A4EML0408M25	KM2520	4	23	.906	22	.866	40	1.57	4,00	.157	8	.32
3503872	KM2520A4EML2B08M25	KM2520	2B	24	.935	22	.866	40	1.57	2,50	.098	8	.32
2527483	KM3225A4EML0310M30	KM3225	3	29	1.122	27	1.063	50	1.97	3,00	.118	10	.40
2527485	KM3225A4EML0410M30	KM3225	4	28	1.102	27	1.063	50	1.97	4,00	.157	10	.40
2527489	KM3225A4EML0510M30	KM3225	5	28	1.083	27	1.063	50	1.97	5,00	.197	10	.40

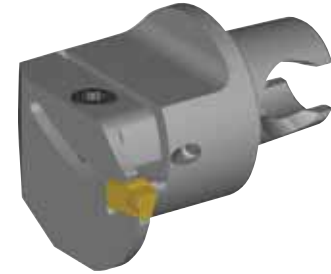
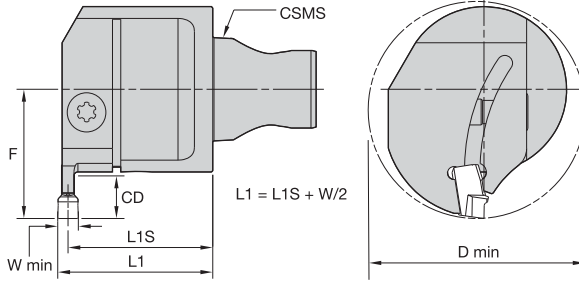
(continued)

(A4EM • End Mount continued)

■ Spare Parts

catalog number	 clamp screw	 clamp screw
right hand		
KM2520A4EMR0108M25	MS1156	—
KM2520A4EMR0208M25	—	MS1160
KM2520A4EMR0308M25	—	MS1161
KM2520A4EMR0408M25	—	MS1161
KM2520A4EMR2B08M25	—	MS1160
KM3225A4EMR0310M30	MS2069	—
KM3225A4EMR0410M30	MS2069	—
KM3225A4EMR0510M30	MS2069	—
left hand		
KM2520A4EML0108M25	MS1156	—
KM2520A4EML0208M25	—	MS1160
KM2520A4EML0308M25	—	MS1161
KM2520A4EML0408M25	—	MS1161
KM2520A4EML2B08M25	—	MS1160
KM3225A4EML0310M30	MS2069	—
KM3225A4EML0410M30	MS2069	—
KM3225A4EML0510M30	MS2069	—

NOTE: W min supplied for reference only. See the Kennametal Innovations Master Catalog Cutting Tools 2013 for actual insert width.
 Always match seat size of insert to seat size of holder.
 Seat size 2B cutting units only accepts 2B inserts. Seat size 2 cutting units accepts 2 or 2B inserts.



■ A3ES • End Mount

order number	catalog number	CSMS system size	seat size	L1S		F		D min		W min		CD	
				mm	in	mm	in	mm	in	mm	in	mm	in
right hand													
3503893	KM2520A3ESR0308M25	KM2520	3	24	.925	22	.866	40,0	1.575	3,0	.118	8	.32
3503891	KM2520A3ESR0408M25	KM2520	4	23	.906	22	.866	40,0	1.575	4,0	.157	8	.32
3503889	KM2520A3ESR0510M25	KM2520	5	23	.886	24	.945	40,0	1.575	5,0	.197	10	.39
2527476	KM3225A3ESR0305M30	KM3225	3	29	1.122	22	.866	40,0	1.575	3,0	.118	5	.21
2527478	KM3225A3ESR0408M30	KM3225	4	28	1.102	25	.984	42,0	1.654	4,0	.157	8	.32
2527480	KM3225A3ESR0510M30	KM3225	5	28	1.083	27	1.063	45,0	1.772	5,0	.197	10	.40
left hand													
3503892	KM2520A3ESL0308M25	KM2520	3	24	.925	22	.866	40,0	1.575	3,0	.118	8	.32
3503890	KM2520A3ESL0408M25	KM2520	4	23	.906	22	.866	40,0	1.575	4,0	.157	8	.32
3503888	KM2520A3ESL0510M25	KM2520	5	23	.886	24	.945	40,0	1.575	5,0	.197	10	.39
2527477	KM3225A3ESL0305M30	KM3225	3	29	1.122	22	.866	40,0	1.575	3,0	.118	5	.21
2527479	KM3225A3ESL0408M30	KM3225	4	28	1.102	25	.984	42,0	1.654	4,0	.157	8	.32
2527481	KM3225A3ESL0510M30	KM3225	5	28	1.083	27	1.063	45,0	1.772	5,0	.197	10	.40

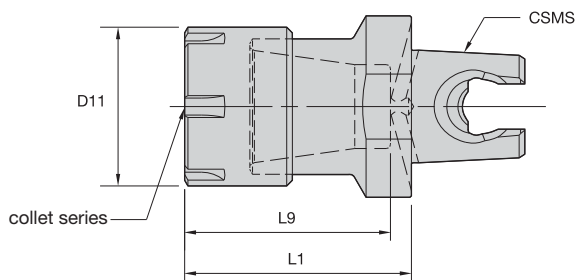
■ Spare Parts



catalog number	clamp screw
right hand	
KM2520A3ESR0308M25	MS2064
KM2520A3ESR0408M25	MS2064
KM2520A3ESR0510M25	MS1162
left hand	
KM3225A3ESR0305M30	MS2064
KM3225A3ESR0408M30	MS2064
KM3225A3ESR0510M30	MS2062
left hand	
KM2520A3ESL0308M25	MS2064
KM2520A3ESL0408M25	MS2064
KM2520A3ESL0510M25	MS1162
KM3225A3ESL0305M30	MS2064
KM3225A3ESL0408M30	MS2064
KM3225A3ESL0510M30	MS2062

NOTE: W min supplied for reference only. See the Kennametal Innovations Master Catalog Cutting Tools 2013 for actual insert width. Always match seat size of insert to seat size of holder.

- Grip (2:1 advantage).



KM Mini Shank Tools



ER Collet Series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER16	0,5	10,0	.02	.41
ER20	0,5	13	.02	.50
ER25	1,0	16,0	.04	.63

ER

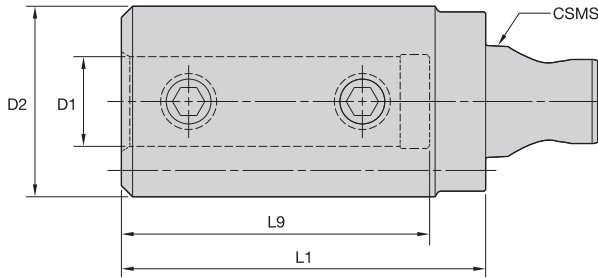
order number	catalog number	CST collet series	CSMS system size	D11		L1		L9		counterbore collet torque (Nm)	straight collet torque (Nm)
				mm	in	mm	in	mm	in		
2527514	KM3225ER1635	ER16	KM3225	22	.866	35	1.378	33,2	1.307	24,0	56,0
2527516	KM3225ER2040	ER20	KM3225	28	1.102	40	1.575	36,3	1.429	28,0	80,0
2527515	KM3225ER2545	ER25	KM3225	42	1.654	45	1.772	38,8	1.528	104,0	104,0

Spare Parts



catalog number	locknut	locknut wrench	locknut wrench	Nm	ft. lbs.
KM3225ER1635	LER16M	ER16WEM	—	24	17
KM3225ER2040	LER20M	ER20WEM	—	28	20
KM3225ER2545	LNER25M	—	ER25WM	104	77

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut.
 Locknut wrench must be ordered separately.
 Interchangeable coolant-style locknuts and coolant disks are available and must be ordered separately; see pages L16–L17.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.



■ BA • Boring Bar Adapter • Metric

order number	catalog number	CSMS system size	D1	D2	L1	L9	clamp screw	clamp screw	wrench size clamp screw	Nm
2527505	KM3225BA0645M	KM3225	6	32	45	36	MS734	—	2,5mm	4
3507964	KM2520BA0645M	KM2520	6	25	45	36	—	MS1272	2,5mm	4
3507963	KM2520BA0845M	KM2520	8	25	45	36	—	MS1272	2,5mm	4
2527506	KM3225BA0845M	KM3225	8	32	45	36	MS734	—	2,5mm	4
3505972	KM2520BA1055M	KM2520	10	30	55	48	—	MS-1879	4mm	15
2527507	KM3225BA1055M	KM3225	10	32	55	48	MS1205	MS-1879	4mm	15
2527508	KM3225BA1260M	KM3225	12	32	60	52	MS1205	MS-1879	4mm	15
3505971	KM2520BA1260M	KM2520	12	32	60	52	—	MS-1879	4mm	15
2527509	KM3225BA1665M	KM3225	16	34	65	55	MS1205	—	5mm	25
2527510	KM3225BA2070M	KM3225	20	37	70	58	MS1205	—	5mm	25

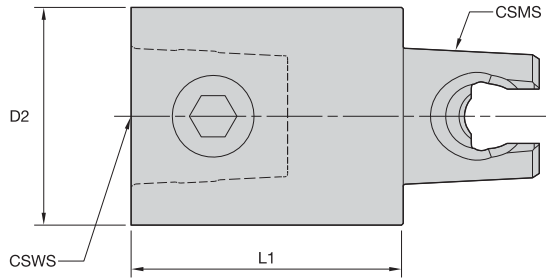
■ BA • Boring Bar Adapter • Inch

order number	catalog number	CSMS system size	D1	D2	L1	L9	clamp screw	wrench size clamp screw	ft. lbs.
3507967	KM2520BA04217	KM2520	1/4	.98	1.378	1.06	—	3/32	2
3507966	KM2520BA06217	KM2520	3/8	1.10	2.165	1.89	S841PKG	1/8	5
3507965	KM2520BA08236	KM2520	1/2	1.26	2.362	2.05	S850	5/32	11
2527490	KM3225BA06217	KM3225	3/8	1.26	2.165	1.89	MS1205	1/8	5
2527491	KM3225BA08236	KM3225	1/2	1.26	2.362	2.05	S850	5/32	11
2527492	KM3225BA10256	KM3225	5/8	1.34	2.559	2.13	S861	3/16	15
2527503	KM3225BA12276	KM3225	3/4	1.46	2.756	2.28	S861	3/16	15

NOTE: Do not overtighten clamp screw; use torque recommendations above.
Supplied with clamp screw.
Clamp screw wrench not included.

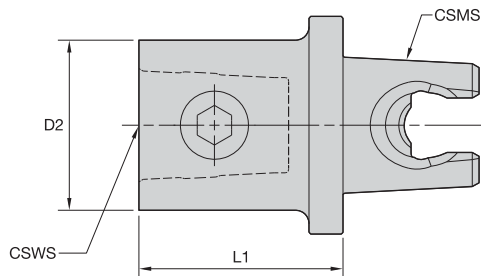


KM Mini Shank Tools


S • KM Extension

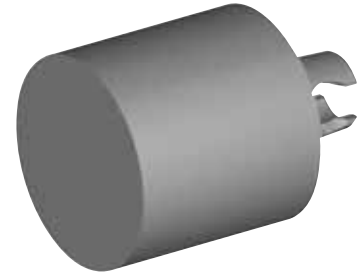
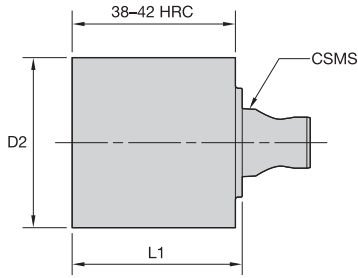

order number	catalog number	CSMS system size	CSWS system size	D2		L1		wrench size			spare parts package
				mm	in	mm	in	actuation screw	Nm	ft. lbs.	
3483042	KM2520S2525	KM2520	KM2520	25	.98	25	.984	5mm	19-22	14-16	KM2520NRPKG
3483043	KM2520S2550	KM2520	KM2520	25	.98	50	1.969	5mm	19-22	14-16	KM2520NRPKG
2541964	KM3225S3240	KM3225	KM3225	32	1.26	40	1.575	6mm	34-40	25-30	KM3225NRPKG
2541965	KM3225S3260	KM3225	KM3225	32	1.26	60	2.362	6mm	34-40	25-30	KM3225NRPKG

NOTE: For torque wrench, see pages L52–L53.


S • KM Reducer

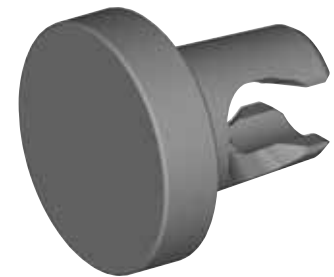
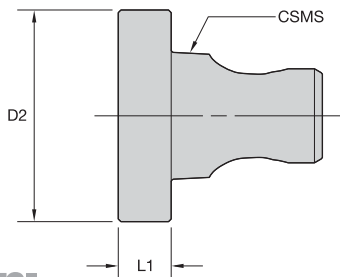

order number	catalog number	CSMS system size	CSWS system size	D2		L1		wrench size			spare parts package
				mm	in	mm	in	actuation screw	Nm	ft. lbs.	
3483044	KM2520S201630	KM2520	KM2016	20	.79	30	1.181	27 IP	10-11	7-8	KM16NRPKG
3397325	KM3225S161230	KM3225	KM1612	16	.63	30	1.181	25 IP	7-8	5-6	KM12NRPKG
3397324	KM3225S201630	KM3225	KM2016	20	.79	30	1.181	27 IP	10-11	7-8	KM16NRPKG
3397323	KM3225S252030	KM3225	KM2520	25	.98	30	1.181	5mm	19-22	14-16	KM2520NRPKG

NOTE: For torque wrench, see pages L52–L53.



■ **BN • Blank**

order number	catalog number	CSMS system size	D2		L1		hardness range
			mm	in	mm	in	
3518531	KM20BN4040	KM20	40	1.575	40	1.575	38 - 42 RW C
3503896	KM2520BN5050	KM2520	50	1.969	50	1.969	38 - 42 RW C
2427296	KM25BN5050	KM25	50	1.969	50	1.969	38 - 42 RW C
2656551	KM3225BN5050	KM3225	50	1.969	50	1.969	38 - 42 RW C

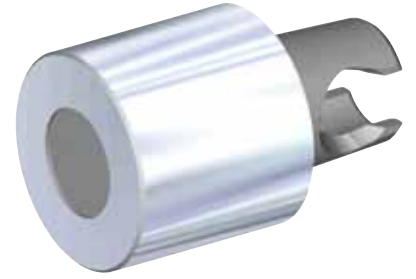
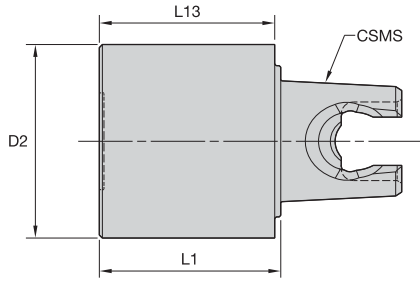


■ **P • Plug**

order number	catalog number	CSMS system size	D2		L1	
			mm	in	mm	in
3662590	KM20P	KM20	20	.787	5	.197
3662591	KM2520P	KM2520	25	.984	5	.197
2427295	KM25P	KM25	25	.984	5	.197
2906995	KM3225P	KM3225	32	1.260	5	.197

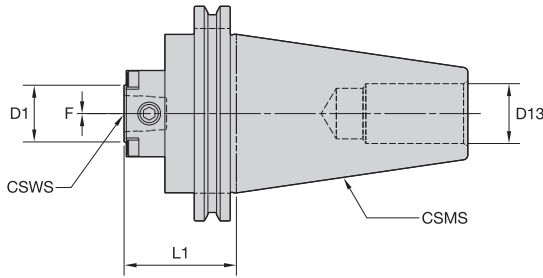


KM Mini Shank Tools



■ GB • Gage Bar

order number	catalog number	CSMS system size	D2		L1		L13	
			mm	in	mm	in	mm	in
3518635	KM20GB2525	KM20	25	.984	25	.984	25	.984
2427297	KM25GB3230	KM25	32	1.260	30	1.181	29	1.142

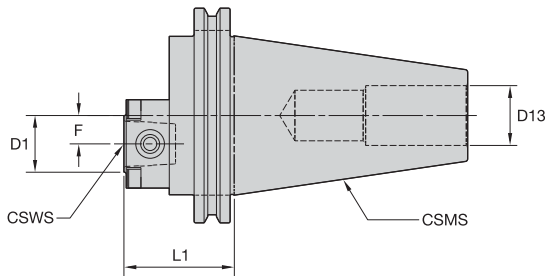


■ **TRA • Centered**



order number	catalog number	CSMS system size	CSWS system size	D1		D13		L1		F		KM spare parts package	wrench size		
				mm	in	mm	in	mm	in	mm	in		actuation screw	Nm	ft. lbs.
3449331	CV50KM3225TRA	CV50	KM3225	32	1.260	26	1.039	50	1.969	0,0	.000	KM3225NRPKG	6mm	34-40	25-30
3503898	DV40KM2520TRA	DV40	KM2520	25	.984	18	.693	50	1.969	0,0	.000	KM2520NRPKG	5mm	19-22	14-16
3449332	DV40KM3225TRA	DV40	KM3225	32	1.260	18	.693	50	1.969	0,0	.000	KM3225NRPKG	6mm	34-40	25-30

NOTE: These are only intended to be used in a presetter fixture.

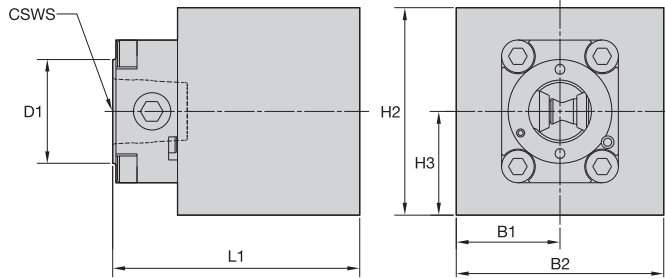


■ **ECTRA • Offset**



order number	catalog number	CSMS system size	CSWS system size	D1		D13		L1		F		KM spare parts package	wrench size		
				mm	in	mm	in	mm	in	mm	in		actuation screw	Nm	ft. lbs.
3518634	CV50KM20ECTRA	CV50	KM20	20	.787	26	1.014	50	1.969	9,5	.375	KM2520NRPKG	5mm	19-22	14-16
2427294	CV50KM25ECTRA	CV50	KM25	25	.984	26	1.039	50	1.969	12,5	.492	KM25NRPKG	6mm	34-40	25-30
3518633	DV40KM20ECTRA	DV40	KM20	20	.787	19	.728	50	1.969	9,5	.375	KM2520NRPKG	5mm	19-22	14-16

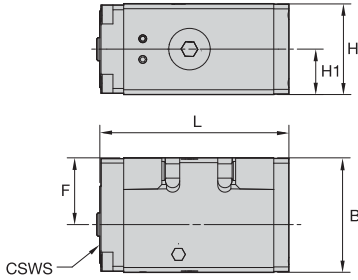
NOTE: These are only intended to be used in a presetter fixture.



■ TB • Tumble Block



order number	catalog number	CSWS system size	D1		L1		H2		H3		B2		B1		spare parts package	wrench size actuation screw		
			mm	in	mm	in	mm	in	mm	in	mm	in	mm	in		mm	Nm	ft. lbs.
3503897	KM2520TB	KM2520	25	.984	76,20	3.000	64	2.520	32	1.260	64	2.520	32,00	1.260	KM2520NRPKG	5mm	19-22	14-16
3449353	KM3225TB	KM3225	32	1.260	76,20	3.000	64	2.520	32	1.260	64	2.520	32,00	1.260	KM3225NRPKG	6mm	34-40	25-30



■ CLS • Square Shank • Metric

order number	catalog number	CSWS system size	B	F	H	H1	L	wrench size actuation screw
1024718	right hand KM32CLSR2050K	KM32	48	28	40,0	20,0	90,0	6mm
1024719	left hand KM32CLSL2050K	KM32	48	28	40,0	20,0	90,0	6mm

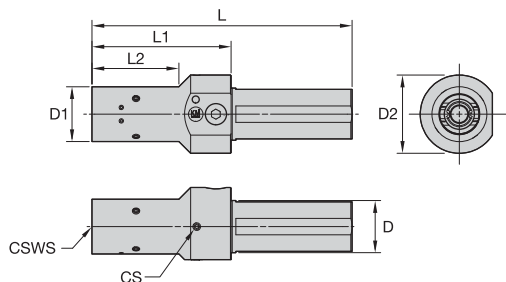
■ CLS • Square Shank • Inch

order number	catalog number	CSWS system size	B	F	H	H1	L	wrench size actuation screw
1024682	right hand KM32CLSR1250B	KM32	1.890	1.102	1.500	.75	3.122	6mm
1024714	KM32CLSR1250C	KM32	1.890	1.102	1.500	.75	3.622	6mm
1024716	KM32CLSR1650C	KM32	1.890	1.102	2.000	1.00	3.622	6mm

■ Wedge Tightening Torque

catalog number	KM size	torque range (Nm)	torque range (ft. lbs.)	wedge hex size
KM32CLSR/L...	32	14-18	10-14	4mm

NOTE: For technical information, see page M1.
For actuation wrench, see page L53.

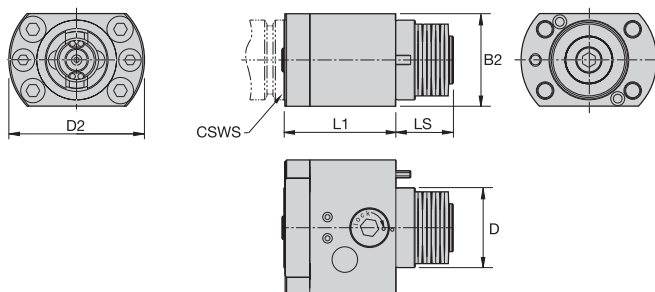

■ CLN-SS • Round Shank • Metric

order number	catalog number	CSWS system size	D	D1	D2	L1	L	L2	CS	wrench size actuation screw
1279247	KM32CLNSS3255	KM32	32	32	45	55	125	18	RP1/8	6mm
1145081	KM40CLNSS5070	KM40	50	40	63	70	155	20	RP1/8	8mm
1145073	KM50CLNSS5080	KM50	50	50	63	80	190	25	RP1/8	10mm
1145087	KM63CLNSS6090	KM63	60	63	90	90	229	30	RP1/8	10mm

■ CLN-SS • Round Shank • Inch

order number	catalog number	CSWS system size	D	D1	D2	L1	L	L2	CS	wrench size actuation screw
1330758	KM32CLNSS20217	KM32	1.25	1.260	1.77	2.165	4.92	.69	1/8-27 NPSC	6mm
1330759	KM32CLNSS24217	KM32	1.50	1.260	2.01	2.165	4.92	.69	1/8-27 NPSC	6mm
1145079	KM40CLNSS32274	KM40	2.00	1.575	2.48	2.737	6.10	.79	1/8-27 NPSC	8mm
1145072	KM50CLNSS40316	KM50	2.50	1.969	3.15	3.156	7.47	.98	1/8-27 NPSC	10mm
1145088	KM63CLNSS60160	KM63	2.36	2.480	3.54	6.299	11.78	3.94	1/8-27 NPSC	10mm
1145084	KM63CLNSS40630	KM63	2.50	2.480	3.54	6.299	11.78	3.94	1/8-27 NPSC	10mm
1145086	KM63CLNSS48630	KM63	3.00	2.480	3.54	6.299	11.78	3.94	1/8-27 NPSC	10mm

NOTE: For technical information, see page M1.
 For actuation wrench, see page L53.


■ CLNS-EF • Flange Mount, Side Access • Metric

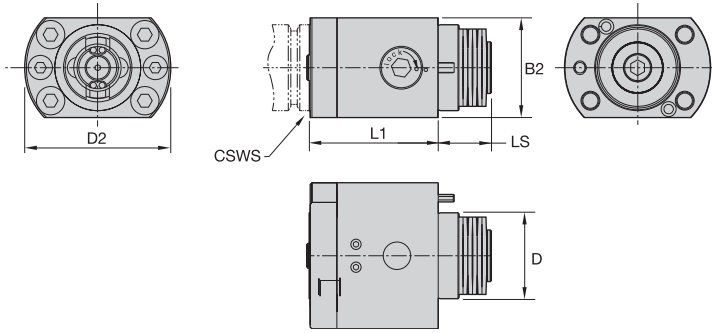
order number	catalog number	CSWS system size	D	D2	B2	L1	LS	wrench size actuation screw	mounting screw
1330780	KM32CLNSEF	KM32	32	60	40	50	28,3	6mm	MS1936
1024679	KM40CLNSEF	KM40	40	70	48	55	41,4	8mm	DWG MS1365
1024646	KM50CLNSEF	KM50	50	85	58	70	46,6	10mm	DWG MS1585


■ CLNS-EF • Flange Mount, Side Access • Inch

order number	catalog number	CSWS system size	D	D2	B2	L1	LS	wrench size actuation screw	mounting screw
1330780	KM32CLNSEF	KM32	1.260	2.36	1.58	1.969	1.11	6mm	MS1936
1024679	KM40CLNSEF	KM40	1.575	2.76	1.89	2.165	1.63	8mm	DWG MS1365
1024646	KM50CLNSEF	KM50	1.969	3.35	2.28	2.756	1.83	10mm	DWG MS1585



NOTE: For technical information, see page M1.
 For mounting dimensions, see page M56.
 For actuation wrench, see page L53.



■ **CLNT-EF • Flange Mount, Top Access • Metric**

order number	catalog number	CSWS system size	D	D2	B2	L1	LS	wrench size actuation screw	mounting screw
1330781	KM32CLNTEF	KM32	32	60	40	55	23,3	6mm	MS1936
1024681	KM40CLNTEF	KM40	40	70	48	60	36,4	8mm	DWG MS1365
1024680	KM50CLNTEF	KM50	50	85	58	75	41,6	10mm	DWG MS1585

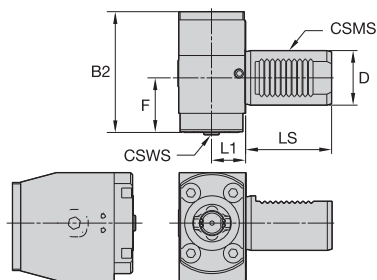


■ **CLNT-EF • Flange Mount, Top Access • Inch**

order number	catalog number	CSWS system size	D	D2	B2	L1	LS	wrench size actuation screw	mounting screw
1330781	KM32CLNTEF	KM32	1.260	2.36	1.57	2.165	.92	6mm	MS1936
1024681	KM40CLNTEF	KM40	1.575	2.76	1.89	2.362	1.43	8mm	DWG MS1365
1024680	KM50CLNTEF	KM50	1.969	3.35	2.28	2.953	1.64	10mm	DWG MS1585



NOTE: For technical information, see page M1.
For mounting dimensions, see page M56.
For actuation wrench, see page L53.

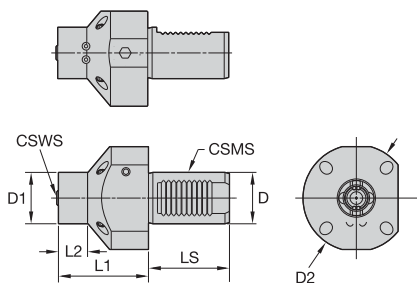

■ CLRR/L • VDI Right Angle • Metric

order number	catalog number	CSWS system size	CSMS system size	D	F	B2	L1	LS	wrench size actuation screw
right hand									
1324688	KM32CLRRVDI3035	KM32	VDI30	30	35	80,0	23	55	6mm
1145076	KM40CLRRVDI4040	KM40	VDI40	40	40	88,5	25	63	8mm
1145069	KM50CLRRVDI5050	KM50	VDI50	50	50	113,0	30	78	10mm
1145089	KM63CLRRVDI6060	KM63	VDI60	60	60	122,5	37	94	10mm
left hand									
1330776	KM32CLRLVDI3035	KM32	VDI30	30	35	80,0	23	55	6mm
1145077	KM40CLRLVDI4040	KM40	VDI40	40	40	88,5	25	63	8mm
1145070	KM50CLRLVDI5050	KM50	VDI50	50	50	113,0	30	78	10mm
1145091	KM63CLRLVDI6060	KM63	VDI60	60	60	122,5	37	94	10mm

■ CLRR/L • VDI Right Angle • Inch

order number	catalog number	CSWS system size	CSMS system size	D	F	B2	L1	LS	wrench size actuation screw
right hand									
1324688	KM32CLRRVDI3035	KM32	VDI30	1.181	1.378	3.15	.906	2.17	6mm
1145076	KM40CLRRVDI4040	KM40	VDI40	1.575	1.575	3.48	.984	2.48	8mm
1145069	KM50CLRRVDI5050	KM50	VDI50	1.969	1.969	4.45	1.181	3.07	10mm
1145089	KM63CLRRVDI6060	KM63	VDI60	2.362	2.362	4.82	1.457	3.70	10mm
left hand									
1330776	KM32CLRLVDI3035	KM32	VDI30	1.181	1.378	3.15	.906	2.17	6mm
1145077	KM40CLRLVDI4040	KM40	VDI40	1.575	1.575	3.48	.984	2.48	8mm
1145070	KM50CLRLVDI5050	KM50	VDI50	1.969	1.969	4.45	1.181	3.07	10mm
1145091	KM63CLRLVDI6060	KM63	VDI60	2.362	2.362	4.82	1.457	3.70	10mm

NOTE: For technical information, see page M1.
 For actuation wrench, see page L53.



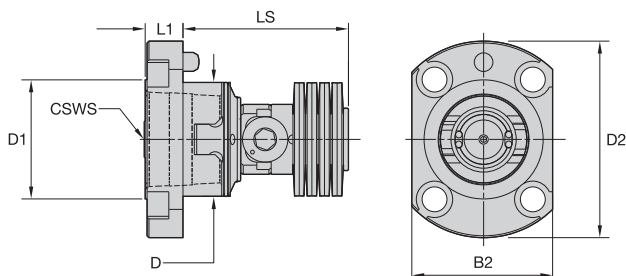
■ CLAN/V • VDI • Metric

order number	catalog number	CSWS system size	CSMS system size	D1	D	D2	L1	L2	LS	wrench size actuation screw
right hand										
1228680	KM32CLANVDI3060	KM32	VDI30	32	30	68	60	20	55	6mm
1145074	KM40CLANVDI4070	KM40	VDI40	40	40	83	70	23	63	8mm
1145067	KM50CLANVDI5080	KM50	VDI50	50	50	98	80	25	78	10mm
1145093	KM63CLANVDI60160	KM63	VDI60	63	60	123	160	100	94	10mm
1145092	KM63CLANVDI6090	KM63	VDI60	63	60	123	90	30	94	10mm
left hand										
1145075	KM40CLAVVDI4070	KM40	VDI40	40	40	83	70	23	63	8mm
1145068	KM50CLAVVDI5080	KM50	VDI50	50	50	98	80	25	78	10mm
1145095	KM63CLAVVDI60160	KM63	VDI60	63	60	123	160	100	94	10mm
1145094	KM63CLAVVDI6090	KM63	VDI60	63	60	123	90	30	94	10mm

■ CLAN/V • VDI • Inch

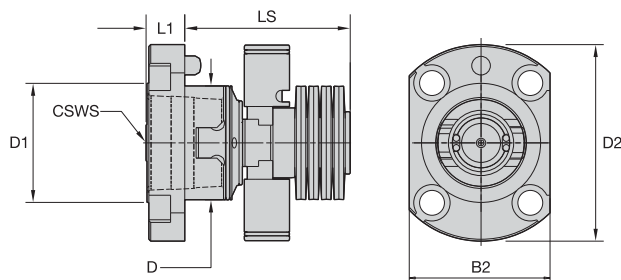
order number	catalog number	CSWS system size	CSMS system size	D1	D	D2	L1	L2	LS	wrench size actuation screw
right hand										
1228680	KM32CLANVDI3060	KM32	VDI30	1.26	1.181	2.68	2.362	.79	2.17	6mm
1145074	KM40CLANVDI4070	KM40	VDI40	1.57	1.575	3.27	2.756	.91	2.48	8mm
1145067	KM50CLANVDI5080	KM50	VDI50	1.97	1.969	3.86	3.150	.98	3.07	10mm
1145093	KM63CLANVDI60160	KM63	VDI60	2.48	2.362	4.84	6.299	3.94	3.70	10mm
1145092	KM63CLANVDI6090	KM63	VDI60	2.48	2.362	4.84	3.543	1.18	3.70	10mm
left hand										
1145075	KM40CLAVVDI4070	KM40	VDI40	1.57	1.575	3.27	2.756	.91	2.48	8mm
1145068	KM50CLAVVDI5080	KM50	VDI50	1.97	1.969	3.86	3.150	.98	3.07	10mm
1145095	KM63CLAVVDI60160	KM63	VDI60	2.48	2.362	4.84	6.299	3.94	3.70	10mm
1145094	KM63CLAVVDI6090	KM63	VDI60	2.48	2.362	4.84	3.543	1.18	3.70	10mm

NOTE: For technical information, see page M1.
For actuation wrench, see page L53.


■ SA-CLNS • Sub-Assembly • Side Access

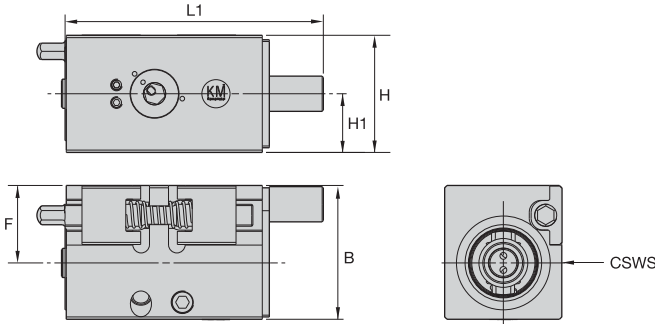
order number	catalog number	CSWS system size	D	D1	D2	B2	L1	LS	wrench size actuation screw	mounting screw
1092017	SA32CLNS2812	KM32	32	32	60	40	12	66,2	6mm	MS1575PKG
1018161	SA40CLNS4008	KM40	41	40	74	46	14	71,6	8mm	—
1024677	SA40CLNS4012	KM40	41	40	74	46	14	80,7	8mm	—
1018163	SA50CLNS5008	KM50	51	50	85	58	16	89,0	10mm	—
1018159	SA50CLNS5012	KM50	51	50	85	58	16	100,2	10mm	—
1150162	SA63CLNS5012	KM63	60	63	104	75	20	107,2	10mm	MS1085PKG
1150163	SA63CLNS6008	KM63	60	63	104	75	20	96,4	10mm	MS1085PKG
1150164	SA63CLNS6012	KM63	60	63	104	75	20	107,9	10mm	MS1085PKG

NOTE: For technical information, see page M1.
 For actuation wrench, see page L53.
 Supplied unassembled.


■ SA • Sub-Assembly • Top Access

order number	catalog number	CSWS system size	D	D1	D2	B2	L1	LS	wrench size actuation screw
1092019	SA32CLNT2812	KM32	32	32	60	40	12	66,2	6mm
1092020	SA32CLNT2818	KM32	32	32	60	40	12	75,1	6mm
1018162	SA40CLNT4008	KM40	41	40	74	46	14	71,6	8mm
1024678	SA40CLNT4012	KM40	41	40	74	46	14	80,7	8mm
1018214	SA50CLNT5008	KM50	51	50	85	58	16	89,0	10mm
1018160	SA50CLNT5012	KM50	51	50	85	58	16	100,2	10mm
1150166	SA63CLNT6008	KM63	60	63	104	75	20	96,4	10mm
1176388	SA63CLNT6012	KM63	60	63	104	75	20	107,9	10mm

NOTE: For technical information, see page M1.
 For actuation wrench, see page L53.
 Supplied unassembled.



■ CL2S • Square Shank • Metric

order number	catalog number	CSWS system size	B	F	H	H1	L1	wrench size actuation screw
right hand								
1785187	KM40CL2SR2560M	KM40	57	33	50	25	110	8mm
1785188	KM40CL2SR3260P	KM40	57	33	64	32	130	8mm
2044928	KM50CL2SR2575M	KM50	70	40	50	25	100	10mm
2044930	KM50CL2SR3275P	KM50	70	40	64	32	120	10mm
2044942	KM63CL2SR3290P	KM63	85	47	64	32	110	10mm
left hand								
1785189	KM40CL2SL2560M	KM40	57	33	50	25	110	8mm
1785190	KM40CL2SL3260P	KM40	57	33	64	32	130	8mm
2044929	KM50CL2SL2575M	KM50	70	40	50	25	100	10mm
2044931	KM50CL2SL3275P	KM50	70	40	64	32	120	10mm
2044943	KM63CL2SL3290P	KM63	85	47	64	32	110	10mm

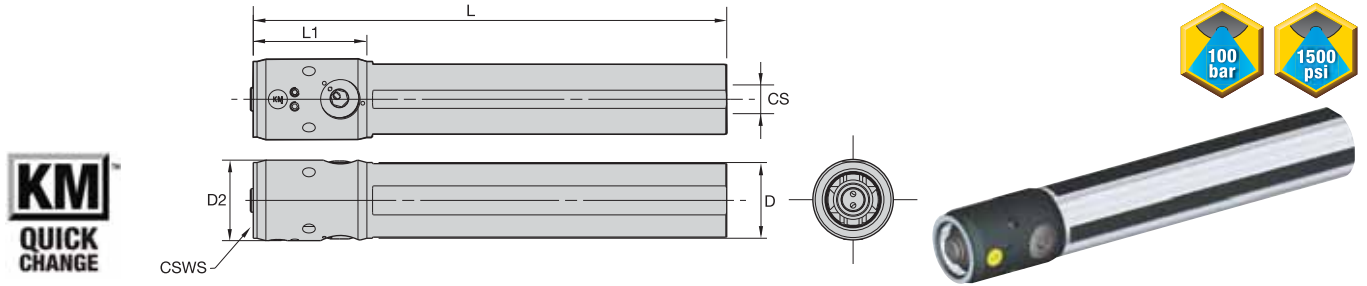
■ CL2S • Square Shank • Inch

order number	catalog number	CSWS system size	B	F	H	H1	L1	wrench size actuation screw
right hand								
1785156	KM40CL2SR1260B	KM40	2.244	1.299	1.50	.75	2.925	8mm
1785157	KM40CL2SR1660C	KM40	2.244	1.299	2.00	1.00	3.425	8mm
1785158	KM40CL2SR1660D	KM40	2.244	1.299	2.00	1.00	4.425	8mm
1785159	KM40CL2SR2060D	KM40	2.244	1.299	2.50	1.25	4.425	8mm
2044920	KM50CL2SR1675D	KM50	2.756	1.575	2.00	1.00	4.031	10mm
2044922	KM50CL2SR2075D	KM50	2.756	1.575	2.50	1.25	4.031	10mm
2044938	KM63CL2SR2090E	KM63	3.347	1.850	2.50	1.25	4.638	10mm
left hand								
1785161	KM40CL2SL1260B	KM40	2.244	1.299	1.50	.75	2.925	8mm
1785162	KM40CL2SL1660C	KM40	2.244	1.299	2.00	1.00	3.425	8mm
1785183	KM40CL2SL1660D	KM40	2.244	1.299	2.00	1.00	4.425	8mm
1785184	KM40CL2SL2060D	KM40	2.244	1.299	2.50	1.25	4.425	8mm
2044921	KM50CL2SL1675D	KM50	2.756	1.575	2.00	1.00	4.031	10mm
2044923	KM50CL2SL2075D	KM50	2.756	1.575	2.50	1.25	4.031	10mm
2044939	KM63CL2SL2090E	KM63	3.347	1.850	2.50	1.25	4.638	10mm

■ Wedge Tightening Torque

catalog number	KM size	torque range (Nm)	torque range (ft. lbs.)	wedge hex size
KM40CL2SR/L1260B	40	41-46	30-34	6mm
KM40CL2SR/L...	40	58-64	43-47	7mm
KM50CL2SR/L1675D KM50CL2SR/L2575M	50	58-64	43-47	7mm
KM50CL2SR/L2075D KM50CL2SR/L3275P	50	79-84	58-62	8mm
KM63CL2SR/L.....	63	79-84	58-62	8mm

NOTE: For technical information, see page M1.
For actuation wrench, see page L53.

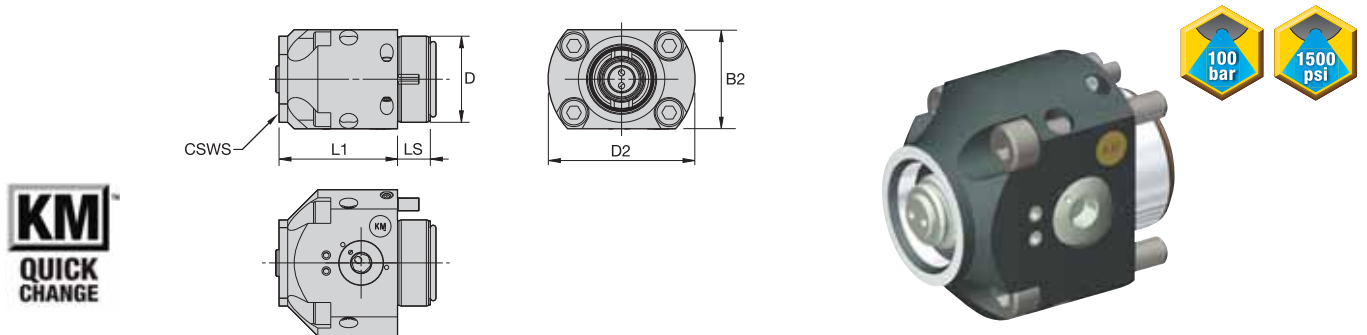

■ CL2N-SS • Round Shank • Metric

order number	catalog number	CSWS system size	D	D2	L1	L	CS	wrench size	actuation screw
1785191	KM40CL2NSS4060	KM40	40	42,5	60	250	RP3/8	8mm	
2044932	KM50CL2NSS5075	KM50	50	52,5	75	300	RP3/8	10mm	
2044944	KM63CL2NSS6085	KM63	60	64,5	85	350	RP3/8	10mm	

■ CL2N-SS • Round Shank • Inch

order number	catalog number	CSWS system size	D	D2	L1	L	CS	wrench size	actuation screw
1785185	KM40CL2NSS24236	KM40	1.500	1.673	2.362	10.000	3/8-18 NPSC	8mm	
2044924	KM50CL2NSS32295	KM50	2.000	2.067	2.953	12.000	3/8-18 NPSC	10mm	
2044940	KM63CL2NSS40335	KM63	2.500	2.539	3.346	14.000	3/8-18 NPSC	10mm	

NOTE: For technical information, see page M1.
 For actuation wrench, see page L53.

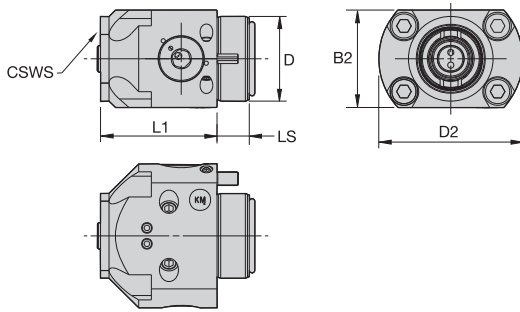

■ CL2NS-EF • Flange Mount, Side Access • Metric

order number	catalog number	CSWS system size	D	D2	B2	L1	LS	wrench size	actuation screw	mounting screw
1785153	KM40CL2NSEF	KM40	40	68	46	55	15.2	8mm		DWG MS1277
2044926	KM50CL2NSEF	KM50	50	84	58	65	20.0	10mm		DWG MS1494
2044936	KM63CL2NSEF	KM63	63	102	76	80	20.0	10mm		MS1252

■ CL2NS-EF • Flange Mount, Side Access • Inch

order number	catalog number	CSWS system size	D	D2	B2	L1	LS	wrench size	actuation screw	mounting screw
1785153	KM40CL2NSEF	KM40	1.575	2.68	1.81	2.165	.60	8mm		DWG MS1277
2044926	KM50CL2NSEF	KM50	1.969	3.31	2.28	2.559	.79	10mm		DWG MS1494
2044936	KM63CL2NSEF	KM63	2.480	4.02	2.99	3.150	.79	10mm		MS1252

NOTE: For technical information, see page M1.
 For mounting dimensions, see page M53.
 For actuation wrench, see page L53.



■ CL2NT-EF • Flange Mount, Top Access • Metric



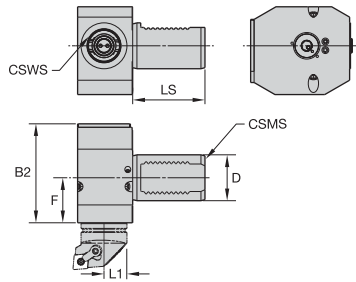
order number	catalog number	CSWS system size	D	D2	B2	L1	LS	wrench size actuation screw	mounting screw
1785032	KM40CL2NTEF	KM40	40	68	46	55	15,2	8mm	DWG MS1277
2044927	KM50CL2NTEF	KM50	50	84	58	65	20,0	10mm	DWG MS1494
2044937	KM63CL2NTEF	KM63	63	102	76	80	20,0	10mm	MS1252

■ CL2NT-EF • Flange Mount, Top Access • Inch



order number	catalog number	CSWS system size	D	D2	B2	L1	LS	wrench size actuation screw	mounting screw
1785032	KM40CL2NTEF	KM40	1.57	2.677	1.811	2.165	.600	8mm	DWG MS1277
2044927	KM50CL2NTEF	KM50	1.97	3.307	2.284	2.559	.787	10mm	DWG MS1494
2044937	KM63CL2NTEF	KM63	2.48	4.016	2.992	3.150	.787	10mm	MS1252

NOTE: For technical information, see page M1.
For mounting dimensions, see page M53.
For actuation wrench, see page L53.

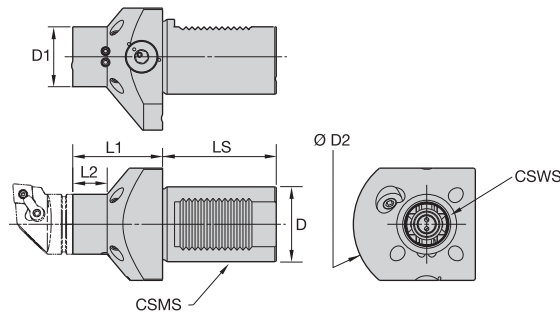

■ CL2RR/L • VDI Right Angle • Metric

order number	catalog number	CSWS system size	CSMS system size	D	F	B2	L1	LS	wrench size actuation screw
right hand									
1785233	KM40CL2RRVDI4040	KM40	VDI40	40	40	87	25	63	8mm
1785236	KM40CL2RRVDI5040	KM40	VDI50	50	40	87	25	78	8mm
left hand									
1785234	KM40CL2RLVDI4040	KM40	VDI40	40	40	87	25	63	8mm
1785240	KM40CL2RLVDI5040	KM40	VDI50	50	40	87	25	78	8mm

■ CL2RR/L • VDI Right Angle • Inch

order number	catalog number	CSWS system size	CSMS system size	D	F	B2	L1	LS	wrench size actuation screw
right hand									
1785233	KM40CL2RRVDI4040	KM40	VDI40	1.575	1.575	3.43	.984	2.48	8mm
1785236	KM40CL2RRVDI5040	KM40	VDI50	1.969	1.575	3.43	.984	3.07	8mm
left hand									
1785234	KM40CL2RLVDI4040	KM40	VDI40	1.575	1.575	3.43	.984	2.48	8mm
1785240	KM40CL2RLVDI5040	KM40	VDI50	1.969	1.575	3.43	.984	3.07	8mm

NOTE: For technical information, see page M1.
 For actuation wrench, see page L53.

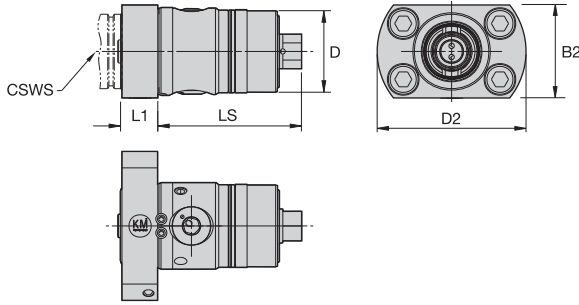

■ CL2AN/V • VDI Axial • Metric

order number	catalog number	CSWS system size	CSMS system size	D1	D	D2	L1	L2	LS	wrench size actuation screw
right hand										
1785241	KM40CL2ANVDI4060	KM40	VDI40	40	40	83	60	23	63	8mm

■ CL2AN/V • VDI Axial • Inch

order number	catalog number	CSWS system size	CSMS system size	D1	D	D2	L1	L2	LS	wrench size actuation screw
right hand										
1785241	KM40CL2ANVDI4060	KM40	VDI40	1.575	1.575	3.27	2.362	.91	2.48	8mm

NOTE: For technical information, see page M1.
 For actuation wrench, see page L53.



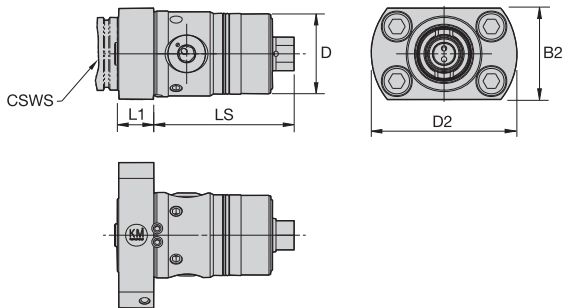
■ CL2NS-BC • Boring Cartridge, Side Access • Metric

order number	catalog number	CSWS system size	D	D2	B2	L1	LS	wrench size actuation screw	mounting screw
1785155	KM40CL2NSBC3216B	KM40	47	80	50	20	77,2	8mm	MS1234
1908331	KM50CL2NSBC4010B	KM50	58	96	64	22	86,7	10mm	MS1085PKG
1920417	KM63CL2NSBC5010B	KM63	74	122	78	30	99,5	10mm	MS1239

■ CL2NS-BC • Boring Cartridge, Side Access • Inch

order number	catalog number	CSWS system size	D	D2	B2	L1	LS	wrench size actuation screw	mounting screw
1785155	KM40CL2NSBC3216B	KM40	1.850	3.15	1.97	.787	3.04	8mm	MS1234
1908331	KM50CL2NSBC4010B	KM50	2.293	3.78	2.52	.866	3.41	10mm	MS1085PKG
1920417	KM63CL2NSBC5010B	KM63	2.913	4.80	3.07	1.181	3.92	10mm	MS1239

NOTE: For technical information, see page M1.
For mounting dimensions, see page M57.
For actuation wrench, see page L53.



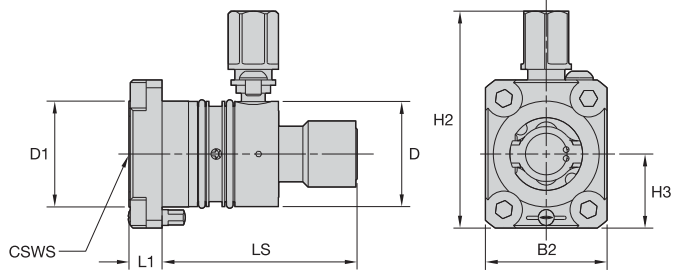
■ CL2NT-BC • Boring Cartridge, Top Access • Metric

order number	catalog number	CSWS system size	D	D2	B2	L1	LS	wrench size actuation screw	mounting screw
1785154	KM40CL2NTBC3216B	KM40	47	80	50	20	77,2	8mm	MS1234
2044919	KM50CL2NTBC4010B	KM50	58	96	64	22	86,7	10mm	MS1085PKG
1962610	KM63CL2NTBC5010B	KM63	74	122	78	30	99,5	10mm	MS1239

■ CL2NT-BC • Boring Cartridge, Top Access • Inch

order number	catalog number	CSWS system size	D	D2	B2	L1	LS	wrench size actuation screw	mounting screw
1785154	KM40CL2NTBC3216B	KM40	1.850	3.15	1.97	.787	3.04	8mm	MS1234
2044919	KM50CL2NTBC4010B	KM50	2.293	3.78	2.52	.866	3.41	10mm	MS1085PKG
1962610	KM63CL2NTBC5010B	KM63	2.913	4.80	3.07	1.181	3.92	10mm	MS1239

NOTE: For technical information, see page M1.
For mounting dimensions, see page M57.
For actuation wrench, see page L53.

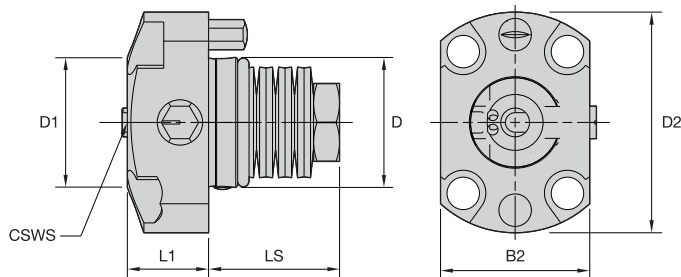

■ RPNT-F • Flange Mount, Rapid Plus, Top Access • Metric

order number	catalog number	CSWS system size	D	D1	B2	H2	H3	L1	LS	wrench size actuation screw	mounting screw
2018139	KM40RPNTF	KM40	40	40	46	56	28	13	80,0	17mm	12148781500
2018140	KM50RPNTF	KM50	50	50	58	67	34	15	105,0	22mm	12147658400
2033465	KM63RPNTF	KM63	63	63	72	90	45	16	120,0	22mm	—

■ RPNT-F • Flange Mount, Rapid Plus, Top Access • Inch

order number	catalog number	CSWS system size	D	D1	B2	H2	H3	L1	LS	wrench size actuation screw	mounting screw
2018139	KM40RPNTF	KM40	1.57	1.575	1.811	2.205	28,000	.492	3.15	17mm	12148781500
2018140	KM50RPNTF	KM50	1.97	1.969	2.283	2.638	33,500	.591	4.13	22mm	12147658400
2033465	KM63RPNTF	KM63	2.48	2.480	2.835	3.543	45,000	.630	4.72	22mm	—

NOTE: For technical information, see page M1.
 For mounting dimensions, see page M55.
 For actuation wrench, see page L58.

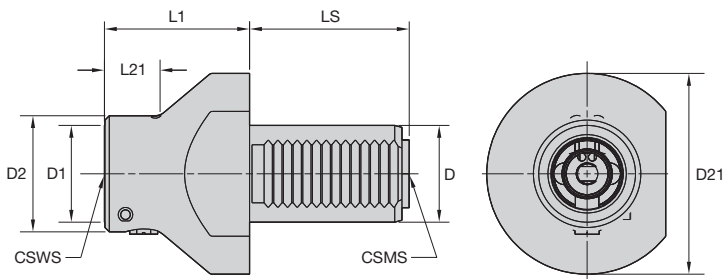

■ RNS-EF • Flange Mount, Rapid, Side Access • Metric

order number	catalog number	CSWS system size	D	D1	D2	B2	L1	LS	wrench size actuation screw	mounting screw
2012922	KM40RNSEF	KM40	40	40	68	46	25	39,3	10mm	12146021000
2032936	KM50RNSEF	KM50	50	50	90	58	32	44,9	12mm	12147625400
2033075	KM63RNSEF	KM63	63	63	102	72	40	48,5	17mm	12146021100

■ RNS-EF • Flange Mount, Rapid, Side Access • Inch

order number	catalog number	CSWS system size	D	D1	D2	B2	L1	LS	wrench size actuation screw	mounting screw
2012922	KM40RNSEF	KM40	1.575	1.57	2.68	1.81	.984	1.55	10mm	12146021000
2032936	KM50RNSEF	KM50	1.969	1.97	3.54	2.28	1.260	1.77	12mm	12147625400
2033075	KM63RNSEF	KM63	2.480	2.48	4.02	2.83	1.575	1.91	17mm	12146021100

NOTE: For technical information, see page M1.
 For mounting dimensions, see page M54.
 For actuation wrench, see page L58.



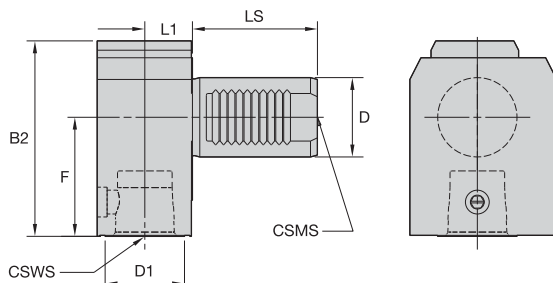
■ RA R/L • VDI Axial • Metric

order number	catalog number	CSWS system size	CSMS system size	D1	D	D2	D21	L1	L21	LS	wrench size actuation screw
right hand											
2012951	KM40RARVDI4060	KM40	VDI40	40	40	48	83	60	23	63	10mm
2012989	KM40RARVDI5060	KM40	VDI50	40	50	48	98	60	23	78	10mm
2013887	KM50RARVDI4070	KM50	VDI40	50	40	60	83	70	32	63	12mm
left hand											
2012947	KM40RALVDI4060	KM40	VDI40	40	40	48	83	60	23	63	10mm
2032938	KM50RALVDI4070	KM50	VDI40	50	40	60	83	70	32	63	12mm

■ RA R/L • VDI Axial • Inch

order number	catalog number	CSWS system size	CSMS system size	D	D1	D2	D21	L1	L21	LS	wrench size actuation screw
right hand											
2012951	KM40RARVDI4060	KM40	VDI40	1.575	1.575	1.89	3.268	2.362	.906	2.48	10 mm
2012989	KM40RARVDI5060	KM40	VDI50	1.969	1.575	1.89	3.858	2.362	.906	3.07	10 mm
2013887	KM50RARVDI4070	KM50	VDI40	1.575	1.969	2.36	3.268	2.756	1.260	2.48	12 mm
left hand											
2012947	KM40RALVDI4060	KM40	VDI40	1.575	1.575	1.89	3.268	2.362	.906	2.48	10 mm
2032938	KM50RALVDI4070	KM50	VDI40	1.575	1.969	2.36	3.268	2.756	1.260	2.48	12 mm

NOTE: For technical information, see page M1.
For actuation wrench, see page L58.

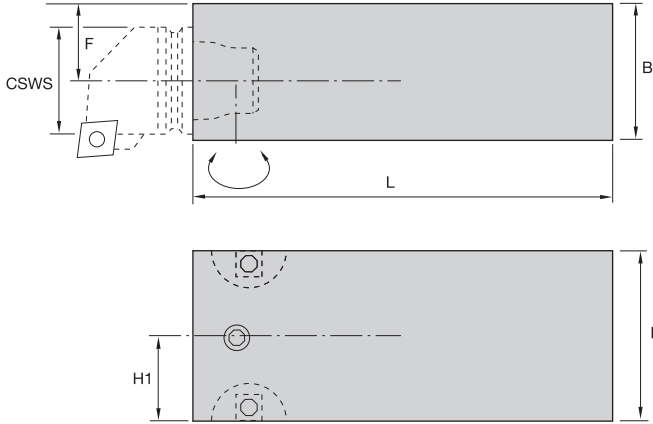

■ RRR/L-VDI • Right-Angle • Metric

order number	catalog number	CSWS system size	CSMS system size	D	D1	F	B2	L1	LS	wrench size actuation screw
right hand										
2012949	KM40RRRVDI4040	KM40	VDI40	40	40	40	79	25	63	10mm
2012950	KM40RRRVDI4060	KM40	VDI40	40	40	60	99	25	63	10mm
2012987	KM40RRRVDI5040	KM40	VDI50	50	40	40	82	25	78	10mm
left hand										
2013892	KM50RRRVDI5050	KM50	VDI50	50	50	50	106	30	78	12mm
2012945	KM40RRLVDI4040	KM40	VDI40	40	40	40	79	25	63	10mm
2032759	KM40RRLVDI4060	KM40	VDI40	40	40	60	99	25	63	10mm

■ RRR/L-VDI • Right-Angle • Inch

order number	catalog number	CSWS system size	CSMS system size	D	D1	F	B2	L1	LS	wrench size actuation screw
right hand										
2012949	KM40RRRVDI4040	KM40	VDI40	1.575	40,000	1.575	3.09	.984	2.48	10mm
2012950	KM40RRRVDI4060	KM40	VDI40	1.575	40,000	2.362	3.88	.984	2.48	10mm
2012987	KM40RRRVDI5040	KM40	VDI50	1.969	40,000	1.575	3.23	.984	3.07	10mm
left hand										
2013892	KM50RRRVDI5050	KM50	VDI50	1.969	50,000	1.969	4.17	1.181	3.07	12mm
2012945	KM40RRLVDI4040	KM40	VDI40	1.575	40,000	1.575	3.09	.984	2.48	10mm
2032759	KM40RRLVDI4060	KM40	VDI40	1.575	40,000	2.362	3.88	.984	2.48	10mm

NOTE: For technical information, see page M1.
 For actuation wrench, see page L58.



■ NCM • Square Shank Replacement • Metric

order number	catalog number	CSWS system size	B	F	H	H1	L	wrench size actuation screw	spare parts package	Nm
1021574	KM32NCM4040	KM32	40	23	40	20	125	5mm	KM32PKG3S	8-11
1021575	KM32NCM5040	KM32	40	23	50	25	125	5mm	KM32PKG3S	8-11
1021641	KM40NCM5044	KM40	44	23	50	25	150	6mm	KM40PKG3S	12-16
1021640	KM40NCM6444	KM40	44	23	64	32	150	6mm	KM40PKG3S	12-16
1021748	KM50NCM6454	KM50	54	28	64	32	150	10mm	KM50PKG3S	27-34

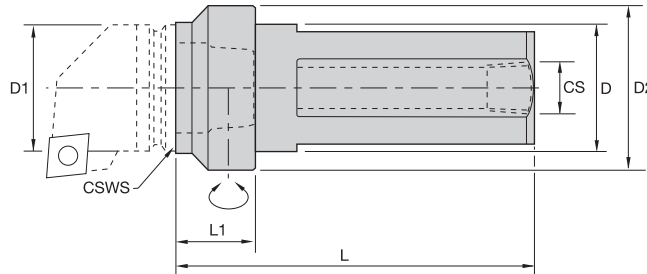
■ NCM • Square Shank Replacement • Inch

order number	catalog number	CSWS system size	B	F	H	H1	L	wrench size actuation screw	spare parts package	ft. lbs.
1021531	KM32NCM2425	KM32	1.562	.884	1.50	.75	5.00	5mm	KM32PKG3S	6-8
1021532	KM32NCM3225	KM32	1.562	.884	2.00	1.00	5.00	5mm	KM32PKG3S	6-8
1021637	KM40NCM3228	KM40	1.750	.937	2.00	1.00	6.00	6mm	KM40PKG3S	9-12
1021638	KM40NCM4028	KM40	1.750	.937	2.50	1.25	6.00	6mm	KM40PKG3S	9-12
1021746	KM50NCM4034	KM50	2.125	1.122	2.50	1.25	6.00	10mm	KM50PKG3S	20-25

■ Wedge Tightening Torque

KM size CSWS	torque (Nm)	torque ft. lbs.
32	16	12
40	34	25
50	48	35

NOTE: For technical information, see page M1.
For torque wrench, see page L52.

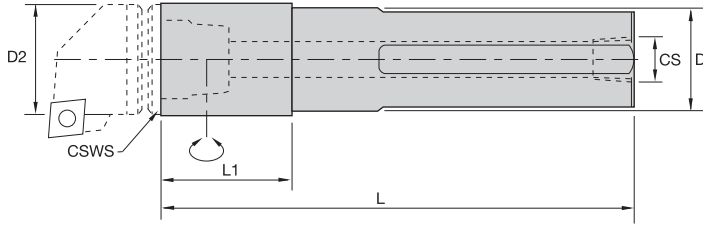

■ NCM-SS • Round Shank, Standard Length • Metric


order number	catalog number	CSWS system size	D	D1	D2	L1	L	CS	wrench size actuation screw	spare parts package	Nm
1144817	KM32NCMSS3225	KM32	32	32	40	25	90	RP3/8	5mm	KM32PKG3L	8-11
1144818	KM32NCMSS4025	KM32	40	32	50	25	90	RP3/8	5mm	KM32PKG3L	8-11
1144830	KM40NCMSS4025	KM40	40	40	50	25	110	RP3/8	6mm	KM40PKG3L	12-16
1144831	KM40NCMSS5025	KM40	50	40	63	25	110	RP3/8	6mm	KM40PKG3L	12-16
1144848	KM50NCMSS5032	KM50	50	50	63	32	142	RP3/8	10mm	KM50PKG3L	27-34
1144847	KM50NCMSS6032	KM50	60	50	80	32	142	RP3/8	10mm	KM50PKG3L	27-34

■ NCM-SS • Round Shank, Standard Length • Inch


order number	catalog number	CSWS system size	D	D1	D2	L1	L	CS	wrench size actuation screw	spare parts package	ft. lbs.
1144815	KM32NCMSS20100	KM32	1.25	1.260	1.57	1.000	3.54	3/8-18NPT	5mm	KM32PKG3L	6-8
1144816	KM32NCMSS24100	KM32	1.50	1.260	1.97	1.000	3.54	3/8-18NPT	5mm	KM32PKG3L	6-8
1144829	KM40NCMSS24100	KM40	1.50	1.575	1.97	1.000	4.33	3/8-18NPT	6mm	KM40PKG3L	9-12
1148349	KM40NCMSS28100	KM40	1.75	1.575	2.48	1.000	4.33	3/8-18NPT	6mm	KM40PKG3L	9-12
1117705	KM40NCMSS32100	KM40	2.00	1.575	2.48	1.000	4.33	3/8-18NPT	6mm	KM40PKG3L	9-12
1085675	KM50NCMSS32125	KM50	2.00	1.969	2.48	1.250	5.59	3/8-18NPT	10mm	KM50PKG3L	20-25
1144846	KM50NCMSS40125	KM50	2.50	1.969	3.15	1.250	5.59	3/8-18NPT	10mm	KM50PKG3L	20-25
1144798	KM63NCMSS40162	KM63	2.50	2.480	3.15	1.625	5.96	3/8-18NPT	12mm	KM63PKG3L	35-40

NOTE: For technical information, see page M1.
 For torque wrench, see page L52.



■ NCM-S • Round Shank, Extended Length • Metric



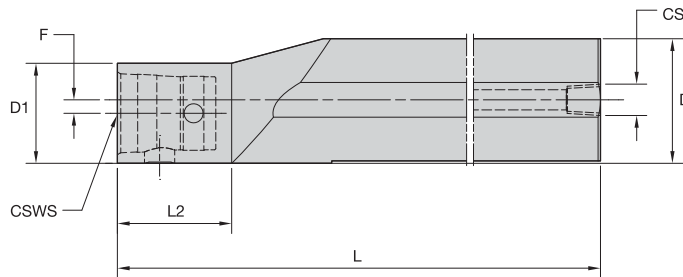
order number	catalog number	CSWS system size	D2	D	L1	L	CS	wrench size actuation screw	spare parts package	Nm
1021533	KM32NCMS32P	KM32	32	32	38	170	RP3/8	5mm	KM32PKG3S	8-11
1021578	KM32NCMS32R	KM32	32	32	38	200	RP3/8	5mm	KM32PKG3S	8-11
1021635	KM40NCMS40S	KM40	40	40	44	250	RP3/8	6mm	KM40PKG3S	12-16
1021744	KM50NCMS50T	KM50	50	50	52	300	RP3/8	10mm	KM50PKG3S	27-34
1021525	KM63NCMS60U	KM63	63	60	72	350	RP3/8	12mm	KM63PKG3S	47-54

■ NCM-S • Round Shank, Extended Length • Inch



order number	catalog number	CSWS system size	D2	D	L1	L	CS	wrench size actuation screw	spare parts package	ft. lbs.
1021530	KM32NCMS20	KM32	1.26	1.25	1.50	6.75	3/8-18NPT	5mm	KM32PKG3S	6-8
1021636	KM40NCMS24	KM40	1.57	1.50	1.75	10.00	3/8-18NPT	6mm	KM40PKG3S	9-12
1021747	KM50NCMS32	KM50	1.97	2.00	2.05	12.00	3/8-18NPT	10mm	KM50PKG3S	20-25
1021528	KM63NCMS40	KM63	2.48	2.50	2.83	14.00	3/8-18NPT	12mm	KM63PKG3S	35-40

NOTE: For technical information, see page M1.
For torque wrench, see page L52.



■ **ECM-S • Round Shank, Offset Extended Length • Metric**



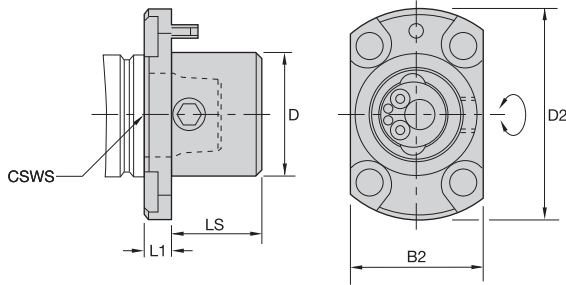
order number	catalog number	CSWS system size	D1	D	F	L2	L	CS	wrench size actuation screw	spare parts package	Nm
1021699	KM40ECMS50S	KM40	40	50	5	45	250	RP3/8	6mm	KM40PKG3S	12-16
1021745	KM50ECMS60U	KM50	50	60	5	52	350	RP3/8	10mm	KM50PKG3S	27-34
1021526	KM63ECMS80W	KM63	63	80	8	72	450	RP3/8	12mm	KM63PKG3S	47-54

■ **ECM-S • Round Shank, Offset Extended Length • Inch**



order number	catalog number	CSWS system size	D1	D	F	L2	L	CS	wrench size actuation screw	spare parts package	ft. lbs.
1021698	KM40ECMS32	KM40	1.57	2.00	.21	1.77	10.00	3/8-18 NPT	6mm	KM40PKG3S	9-12
1021703	KM50ECMS40	KM50	1.97	2.50	.27	2.05	14.00	3/8-18 NPT	10mm	KM50PKG3S	20-25
1021527	KM63ECMS48	KM63	2.48	3.00	.26	2.83	17.00	3/8-18 NPT	12mm	KM63PKG3S	35-40

NOTE: For technical information, see page M1.
For torque wrench, see page L52.



■ **NCM-F • Flange Mount, Standard Length • Metric**



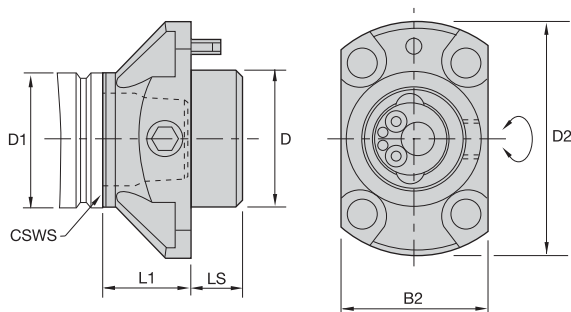
order number	catalog number	CSWS system size	D	D2	B2	L1	LS	wrench size actuation screw	mounting screw	spare parts package	Nm
1144814	KM32NCMF	KM32	32	54	36	7,5	24,5	5mm	MS1347	KM32PKG3S	8-11
1013675	KM40NCMF	KM40	40	68	44	10,0	30,0	6mm	MS1217	KM40PKG3S	12-16
1144845	KM50NCMF	KM50	50	84	55	12,0	38,0	10mm	MS1361	KM50PKG3S	27-34
1083015	KM63NCMF	KM63	63	102	72	15,0	45,0	12mm	MS1460	KM63PKG3S	47-54
1144800	KM80NCMF	KM80	80	132	90	18,5	57,0	14mm	DWG MS1599	KM80PKG3S	79-85

■ **NCM-F • Flange Mount, Standard Length • Inch**



order number	catalog number	CSWS system size	D	D2	B2	L1	LS	wrench size actuation screw	mounting screw	spare parts package	ft. lbs.
1144814	KM32NCMF	KM32	1.260	2.13	1.42	.295	.96	5mm	MS1347	KM32PKG3S	6-8
1013675	KM40NCMF	KM40	1.575	2.68	1.73	.394	1.18	6mm	MS1217	KM40PKG3S	9-12
1144845	KM50NCMF	KM50	1.969	3.31	2.17	.472	1.50	10mm	MS1361	KM50PKG3S	20-25
1083015	KM63NCMF	KM63	2.480	4.02	2.84	.591	1.77	12mm	MS1460	KM63PKG3S	35-40
1144800	KM80NCMF	KM80	3.150	5.20	3.54	.728	2.24	14mm	DWG MS1599	KM80PKG3S	58-63

NOTE: For technical information, see page M1.
For mounting dimensions, see page M52.
For torque wrench, see page L52.

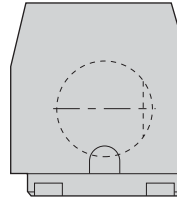
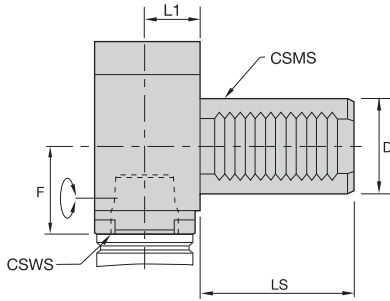

■ NCM-EF • Flange Mount, Extended Length • Metric


order number	catalog number	CSWS system size	D1	D	D2	B2	L1	LS	wrench size actuation screw	mounting screw	spare parts package	Nm
1021576	KM32NCMEF	KM32	32	32	54	36	20	12	5mm	MS1347	KM32PKG3L	8-11
1021642	KM40NCMEF	KM40	40	40	68	44	25	15	6mm	MS1217	KM40PKG3L	12-16
1021749	KM50NCMEF	KM50	50	50	84	55	30	20	10mm	MS1361	KM50PKG3L	27-34
1021753	KM63NCMEF	KM63	63	63	102	72	40	20	12mm	MS1460	KM63PKG3L	47-54
1144799	KM80NCMEF	KM80	80	80	132	90	50	25	14mm	DWG MS1599	KM80PKG3L	79-85
2420366	KM100NCMEF	KM100	100	100	167	112	56	32	17mm	—	—	100-120

■ NCM-EF • Flange Mount, Extended Length • Inch


order number	catalog number	CSWS system size	D1	D	D2	B2	L1	LS	wrench size actuation screw	mounting screw	spare parts package	ft. lbs.
1021576	KM32NCMEF	KM32	1.260	1.260	2.13	1.42	.787	.47	5mm	MS1347	KM32PKG3L	6-8
1021642	KM40NCMEF	KM40	1.575	1.575	2.68	1.73	.984	.59	6mm	MS1217	KM40PKG3L	9-12
1021749	KM50NCMEF	KM50	1.969	1.969	3.31	2.17	1.181	.79	10mm	MS1361	KM50PKG3L	20-25
1021753	KM63NCMEF	KM63	2.480	2.480	4.02	2.84	1.575	.79	12mm	MS1460	KM63PKG3L	35-40
1144799	KM80NCMEF	KM80	3.150	3.150	5.20	3.54	1.969	.98	14mm	DWG MS1599	KM80PKG3L	58-63
2420366	KM100NCMEF	KM100	3.937	3.937	6.57	4.41	2.205	1.26	17mm	—	—	75-85

NOTE: For technical information, see page M1.
 For mounting dimensions, see page M53.
 For torque wrench, see page L52.



■ R/LCM • VDI • Right-Angle • Metric



order number	catalog number	CSWS system size	CSMS system size	D	F	L1	LS	wrench size actuation screw	spare parts package	Nm
right hand										
1144801	KM32RCMVDI3035	KM32	VDI30	30	35	23	55	5mm	KM32PKG3S	8-11
2420312	KM40RCMVDI3035	KM40	VDI30	30	35	25	55	6mm	KM40PKG3L	12-16
1144824	KM40RCMVDI4040	KM40	VDI40	40	40	25	63	6mm	KM40PKG3S	12-16
1144825	KM40RCMVDI5040	KM40	VDI50	50	40	25	78	6mm	KM40PKG3S	12-16
1144842	KM50RCMVDI4050	KM50	VDI40	40	50	30	63	10mm	KM50PKG3S	27-34
1144841	KM50RCMVDI5050	KM50	VDI50	50	50	30	78	10mm	KM50PKG3S	27-34
1144856	KM63RCMVDI6060	KM63	VDI60	60	60	37	94	12mm	KM63PKG3S	47-54
left hand										
2420363	KM40LCMVDI3035	KM40	VDI30	30	35	25	55	6mm	KM40PKG3L	12-16
1144827	KM40LCMVDI4040	KM40	VDI40	40	40	25	63	6mm	KM40PKG3S	12-16
2420370	KM40LCMVDI4060	KM40	VDI40	40	60	25	63	6mm	KM40PKG3L	12-16
1144828	KM40LCMVDI5040	KM40	VDI50	50	40	25	78	6mm	KM40PKG3S	12-16
1144844	KM50LCMVDI4050	KM50	VDI40	40	50	30	63	10mm	KM50PKG3S	27-34
1144843	KM50LCMVDI5050	KM50	VDI50	50	50	30	78	10mm	KM50PKG3S	27-34
1144857	KM63LCMVDI6060	KM63	VDI60	60	60	37	94	12mm	KM63PKG3S	47-54

■ R/LCM • VDI • Right-Angle • Inch



order number	catalog number	CSWS system size	CSMS system size	D	F	L1	LS	wrench size actuation screw	spare parts package	ft. lbs.
right hand										
1144801	KM32RCMVDI3035	KM32	VDI30	1.181	1.378	.906	2.17	5mm	KM32PKG3S	6-8
2420312	KM40RCMVDI3035	KM40	VDI30	1.181	1.378	.984	2.17	6mm	KM40PKG3L	9-12
1144824	KM40RCMVDI4040	KM40	VDI40	1.575	1.575	.984	2.48	6mm	KM40PKG3S	9-12
1144825	KM40RCMVDI5040	KM40	VDI50	1.969	1.575	.984	3.07	6mm	KM40PKG3S	9-12
1144842	KM50RCMVDI4050	KM50	VDI40	1.575	1.969	1.181	2.48	10mm	KM50PKG3S	20-25
1144841	KM50RCMVDI5050	KM50	VDI50	1.969	1.969	1.181	3.07	10mm	KM50PKG3S	20-25
1144856	KM63RCMVDI6060	KM63	VDI60	2.362	2.362	1.457	3.70	12mm	KM63PKG3S	35-40
left hand										
2420363	KM40LCMVDI3035	KM40	VDI30	1.181	1.378	.984	2.17	6mm	KM40PKG3L	9-12
1144827	KM40LCMVDI4040	KM40	VDI40	1.575	1.575	.984	2.48	6mm	KM40PKG3S	9-12
2420370	KM40LCMVDI4060	KM40	VDI40	1.575	2.362	.984	2.48	6mm	KM40PKG3L	9-12
1144828	KM40LCMVDI5040	KM40	VDI50	1.969	1.575	.984	3.07	6mm	KM40PKG3S	9-12
1144844	KM50LCMVDI4050	KM50	VDI40	1.575	1.969	1.181	2.48	10mm	KM50PKG3S	20-25
1144843	KM50LCMVDI5050	KM50	VDI50	1.969	1.969	1.181	3.07	10mm	KM50PKG3S	20-25
1144857	KM63LCMVDI6060	KM63	VDI60	2.362	2.362	1.457	3.70	12mm	KM63PKG3S	35-40

NOTE: For technical information, refer to page M1.
For torque wrench, see page L52.



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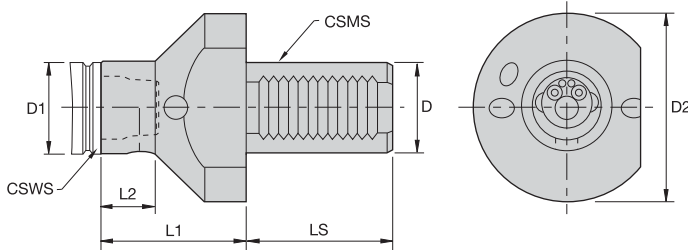
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■ R/L • CMI • VDI • Axial • Metric



order number	catalog number	CSWS system size	CSMS system size	D1	D	D2	L1	L2	LS	wrench size actuation screw	spare parts package	Nm
right hand												
1329141	KM32RCMIVDI30100	KM32	VDI30	32	30	68	100	70	55	5mm	KM32PKG3S	8-11
1144821	KM32RCMIVDI3050	KM32	VDI30	32	30	68	50	20	55	5mm	KM32PKG3S	8-11
1144823	KM32RCMIVDI40100	KM32	VDI40	32	40	83	100	70	63	5mm	KM32PKG3S	8-11
1144822	KM32RCMIVDI4050	KM32	VDI40	32	40	83	50	20	63	5mm	KM32PKG3S	8-11
2420364	KM40RCMIVDI3050	KM40	VDI30	40	30	68	50	23	55	6mm	KM40PKG3S	12-16
1144840	KM40RCMIVDI40120	KM40	VDI40	40	40	83	120	83	63	6mm	KM40PKG3S	12-16
1144837	KM40RCMIVDI4060	KM40	VDI40	40	40	83	60	23	63	6mm	KM40PKG3S	12-16
1144839	KM40RCMIVDI50120	KM40	VDI50	40	50	98	120	83	78	6mm	KM40PKG3S	12-16
1144838	KM40RCMIVDI5060	KM40	VDI50	40	50	98	60	23	78	6mm	KM40PKG3S	12-16
1144851	KM50RCMIVDI40140	KM50	VDI40	50	40	83	140	95	63	10mm	KM50PKG3S	27-34
1144853	KM50RCMIVDI4070	KM50	VDI40	50	40	83	70	25	63	10mm	KM50PKG3S	27-34
1144854	KM50RCMIVDI50140	KM50	VDI50	50	50	98	140	95	78	10mm	KM50PKG3S	27-34
1144852	KM50RCMIVDI5070	KM50	VDI50	50	50	98	70	25	78	10mm	KM50PKG3S	27-34
1144809	KM63RCMIVDI50160	KM63	VDI50	63	50	98	160	110	78	12mm	KM63PKG3S	47-54
1144807	KM63RCMIVDI5080	KM63	VDI50	63	50	98	80	30	78	12mm	KM63PKG3S	47-54
1144859	KM63RCMIVDI60160	KM63	VDI60	63	60	123	160	110	94	12mm	KM63PKG3S	47-54
1144858	KM63RCMIVDI6080	KM63	VDI60	63	60	123	80	30	94	12mm	KM63PKG3S	47-54
left hand												
1312285	KM32LCMIVDI40100	KM32	VDI40	32	40	83	100	70	63	5mm	KM32PKG3S	8-11
1144820	KM32LCMIVDI4050	KM32	VDI40	32	40	83	50	20	63	5mm	KM32PKG3S	8-11
1144836	KM40LCMIVDI40120	KM40	VDI40	40	40	83	120	83	63	6mm	KM40PKG3S	12-16
1144833	KM40LCMIVDI4060	KM40	VDI40	40	40	83	60	23	63	6mm	KM40PKG3S	12-16
1144835	KM40LCMIVDI50120	KM40	VDI50	40	50	98	120	83	78	6mm	KM40PKG3S	12-16
1144834	KM40LCMIVDI5060	KM40	VDI50	40	50	98	60	23	78	6mm	KM40PKG3S	12-16
1144797	KM50LCMIVDI40140	KM50	VDI40	50	40	83	140	95	63	10mm	KM50PKG3S	27-34
1144850	KM50LCMIVDI4070	KM50	VDI40	50	40	83	70	25	63	10mm	KM50PKG3S	27-34
1144849	KM50LCMIVDI5070	KM50	VDI50	50	50	98	70	25	78	10mm	KM50PKG3S	27-34
1144810	KM63LCMIVDI50160	KM63	VDI50	63	50	98	160	110	78	12mm	KM63PKG3S	47-54
1144808	KM63LCMIVDI5080	KM63	VDI50	63	50	98	80	30	78	12mm	KM63PKG3S	47-54
1144861	KM63LCMIVDI60160	KM63	VDI60	63	60	123	160	110	94	12mm	KM63PKG3S	47-54
1144860	KM63LCMIVDI6080	KM63	VDI60	63	60	123	80	30	94	12mm	KM63PKG3S	47-54

(continued)

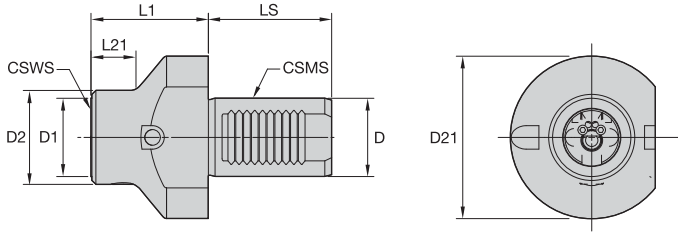


(R/L • CMI • VDI • Axial continued)

■ R/L • CMI • VDI • Axial • Inch


order number	catalog number	CSWS system size	CSMS system size	D1	D	D2	L1	L2	LS	wrench size actuation screw	spare parts package	ft. lbs.
right hand												
1329141	KM32RCMIVDI30100	KM32	VDI30	1.26	1.181	2.677	3.94	2.76	2.17	5mm	KM32PKG3S	6-8
1144821	KM32RCMIVDI3050	KM32	VDI30	1.26	1.181	2.677	1.97	.79	2.17	5mm	KM32PKG3S	6-8
1144823	KM32RCMIVDI40100	KM32	VDI40	1.26	1.575	3.268	3.94	2.76	2.48	5mm	KM32PKG3S	6-8
1144822	KM32RCMIVDI4050	KM32	VDI40	1.26	1.575	3.268	1.97	.79	2.48	5mm	KM32PKG3S	6-8
2420364	KM40RCMIVDI3050	KM40	VDI30	1.57	1.181	2.677	1.97	.91	2.17	6mm	KM40PKG3S	9-12
1144840	KM40RCMIVDI40120	KM40	VDI40	1.57	1.575	3.268	4.72	3.27	2.48	6mm	KM40PKG3S	9-12
1144837	KM40RCMIVDI4060	KM40	VDI40	1.57	1.575	3.268	2.36	.91	2.48	6mm	KM40PKG3S	9-12
1144839	KM40RCMIVDI50120	KM40	VDI50	1.57	1.969	3.858	4.72	3.27	3.07	6mm	KM40PKG3S	9-12
1144838	KM40RCMIVDI5060	KM40	VDI50	1.57	1.969	3.858	2.36	.91	3.07	6mm	KM40PKG3S	9-12
1144851	KM50RCMIVDI40140	KM50	VDI40	1.97	1.575	3.268	5.51	3.74	2.48	10mm	KM50PKG3S	20-25
1144853	KM50RCMIVDI4070	KM50	VDI40	1.97	1.575	3.268	2.76	.98	2.48	10mm	KM50PKG3S	20-25
1144854	KM50RCMIVDI50140	KM50	VDI50	1.97	1.969	3.858	5.51	3.74	3.07	10mm	KM50PKG3S	20-25
1144852	KM50RCMIVDI5070	KM50	VDI50	1.97	1.969	3.858	2.76	.98	3.07	10mm	KM50PKG3S	20-25
1144809	KM63RCMIVDI50160	KM63	VDI50	2.48	1.969	3.858	6.30	4.33	3.07	12mm	KM63PKG3S	35-40
1144807	KM63RCMIVDI5080	KM63	VDI50	2.48	1.969	3.858	3.15	1.18	3.07	12mm	KM63PKG3S	35-40
1144859	KM63RCMIVDI60160	KM63	VDI60	2.48	2.362	4.843	6.30	4.33	3.70	12mm	KM63PKG3S	35-40
1144858	KM63RCMIVDI6080	KM63	VDI60	2.48	2.362	4.843	3.15	1.18	3.70	12mm	KM63PKG3S	35-40
left hand												
1312285	KM32LCMIVDI40100	KM32	VDI40	1.26	1.575	3.268	3.94	2.76	2.48	5mm	KM32PKG3S	6-8
1144820	KM32LCMIVDI4050	KM32	VDI40	1.26	1.575	3.268	1.97	.79	2.48	5mm	KM32PKG3S	6-8
1144836	KM40LCMIVDI40120	KM40	VDI40	1.57	1.575	3.268	4.72	3.27	2.48	6mm	KM40PKG3S	9-12
1144833	KM40LCMIVDI4060	KM40	VDI40	1.57	1.575	3.268	2.36	.91	2.48	6mm	KM40PKG3S	9-12
1144835	KM40LCMIVDI50120	KM40	VDI50	1.57	1.969	3.858	4.72	3.27	3.07	6mm	KM40PKG3S	9-12
1144834	KM40LCMIVDI5060	KM40	VDI50	1.57	1.969	3.858	2.36	.91	3.07	6mm	KM40PKG3S	9-12
1144797	KM50LCMIVDI40140	KM50	VDI40	1.97	1.575	3.268	5.51	3.74	2.48	10mm	KM50PKG3S	20-25
1144850	KM50LCMIVDI4070	KM50	VDI40	1.97	1.575	3.268	2.76	.98	2.48	10mm	KM50PKG3S	20-25
1144849	KM50LCMIVDI5070	KM50	VDI50	1.97	1.969	3.858	2.76	.98	3.07	10mm	KM50PKG3S	20-25
1144810	KM63LCMIVDI50160	KM63	VDI50	2.48	1.969	3.858	6.30	4.33	3.07	12mm	KM63PKG3S	35-40
1144808	KM63LCMIVDI5080	KM63	VDI50	2.48	1.969	3.858	3.15	1.18	3.07	12mm	KM63PKG3S	35-40
1144861	KM63LCMIVDI60160	KM63	VDI60	2.48	2.362	4.843	6.30	4.33	3.70	12mm	KM63PKG3S	35-40
1144860	KM63LCMIVDI6080	KM63	VDI60	2.48	2.362	4.843	3.15	1.18	3.70	12mm	KM63PKG3S	35-40

 NOTE: For technical information, see page M1.
 For torque wrench, see page L52.



■ RCML • Axial VDI, Large Body Diameter • Metric



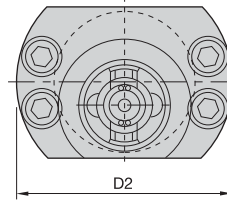
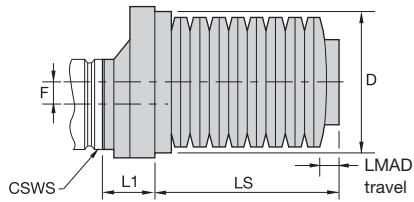
order number	catalog number	CSWS system size	CSMS system size	D1	D2	D	L1	L21	LS	D21	wrench size actuation screw	spare parts package	Nm
2032697	KM32RCMLVDI2050	KM32	VDI20	32	38	20	50	20	40	50	5 mm	KM32PKG3L	8-11
2032703	KM32RCMLVDI4060	KM32	VDI40	32	38	40	60	21	63	83	5 mm	KM32PKG3L	8-11
2013052	KM40RCMLVDI3050	KM40	VDI30	40	48	30	50	23	55	68	6 mm	KM40PKG3L	12-16
2013076	KM40RCMLVDI40120	KM40	VDI40	40	48	40	120	83	63	83	6 mm	KM40PKG3L	12-16
2013075	KM40RCMLVDI4060	KM40	VDI40	40	48	40	60	23	63	83	6 mm	KM40PKG3L	12-16
2032762	KM40RCMLVDI50120	KM40	VDI50	40	48	50	120	77	78	98	6 mm	KM40PKG3L	12-16
2013079	KM40RCMLVDI5060	KM40	VDI50	40	48	50	60	17	78	98	6 mm	KM40PKG3L	12-16
2032763	KM40RCMLVDI6080	KM40	VDI60	40	48	60	80	42	94	123	6 mm	KM40PKG3L	12-16
2032952	KM50RCMLVDI40120	KM50	VDI40	50	60	40	120	87	63	83	10 mm	KM50PKG3L	27-34
2032951	KM50RCMLVDI4060	KM50	VDI40	50	60	40	60	30	63	83	10 mm	KM50PKG3L	27-34
2032954	KM50RCMLVDI50140	KM50	VDI50	50	60	50	140	97	78	98	10 mm	KM50PKG3L	27-34
2032953	KM50RCMLVDI5070	KM50	VDI50	50	60	50	70	32	78	98	10 mm	KM50PKG3L	27-34
2033100	KM63RCMLVDI60160	KM63	VDI60	63	75	60	160	112	94	123	12 mm	KM63PKG3L	47-54

■ RCML • Axial VDI, Large Body Diameter • Inch



order number	catalog number	CSWS system size	CSMS system size	D1	D2	D	L1	L21	LS	D21	wrench size actuation screw	spare parts package	ft. lbs.
2032697	KM32RCMLVDI2050	KM32	VDI20	1.260	1.50	.787	1.969	.79	1.57	1.97	5 mm	KM32PKG3L	6-8
2032703	KM32RCMLVDI4060	KM32	VDI40	1.260	1.50	1.575	2.362	.83	2.48	3.27	5 mm	KM32PKG3L	6-8
2013052	KM40RCMLVDI3050	KM40	VDI30	1.575	1.89	1.181	1.969	.91	2.17	2.68	6 mm	KM40PKG3L	9-12
2013076	KM40RCMLVDI40120	KM40	VDI40	1.575	1.89	1.575	4.724	3.27	2.48	3.27	6 mm	KM40PKG3L	9-12
2013075	KM40RCMLVDI4060	KM40	VDI40	1.575	1.89	1.575	2.362	.91	2.48	3.27	6 mm	KM40PKG3L	9-12
2032762	KM40RCMLVDI50120	KM40	VDI50	1.575	1.89	1.969	4.724	3.03	3.07	3.86	6 mm	KM40PKG3L	9-12
2013079	KM40RCMLVDI5060	KM40	VDI50	1.575	1.89	1.969	2.362	.67	3.07	3.86	6 mm	KM40PKG3L	9-12
2032763	KM40RCMLVDI6080	KM40	VDI60	1.575	1.89	2.362	3.150	1.65	3.70	4.84	6 mm	KM40PKG3L	9-12
2032952	KM50RCMLVDI40120	KM50	VDI40	1.969	2.36	1.575	4.724	3.43	2.48	3.27	10 mm	KM50PKG3L	20-25
2032951	KM50RCMLVDI4060	KM50	VDI40	1.969	2.36	1.575	2.362	1.18	2.48	3.27	10 mm	KM50PKG3L	20-25
2032954	KM50RCMLVDI50140	KM50	VDI50	1.969	2.36	1.969	5.512	3.82	3.07	3.86	10 mm	KM50PKG3L	20-25
2032953	KM50RCMLVDI5070	KM50	VDI50	1.969	2.36	1.969	2.756	1.26	3.07	3.86	10 mm	KM50PKG3L	20-25
2033100	KM63RCMLVDI60160	KM63	VDI60	2.480	2.95	2.362	6.299	4.41	3.70	4.84	12 mm	KM63PKG3L	35-40

NOTE: For technical information, see page M1.
For torque wrench, see page L52.


■ NCA • DS • Axial Disk Spring Unit • Metric

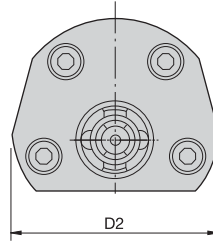
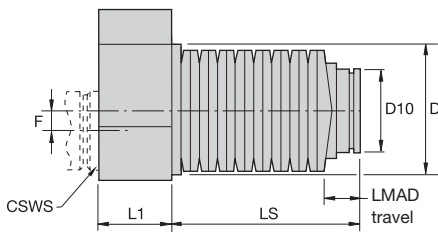
order number	catalog number	CSWS system size	D	F	L1	LS	D2	LMAD travel
1021579	KM32NCADS16T	KM32	51	8	16,0	66	78	5,08
1021697	KM40NCADS40	KM40	62	10	40,0	53	114	5,60
1021750	KM50NCADS50	KM50	78	11	50,0	74	138	7,62

■ NCA • DS • Axial Disk Spring Unit • Inch

order number	catalog number	CSWS system size	D	F	L1	LS	D2	LMAD travel
1021579	KM32NCADS16T	KM32	2.007	.315	.630	2.60	3.07	.200
1021697	KM40NCADS40	KM40	2.439	.394	1.575	2.09	4.49	.220
1021750	KM50NCADS50	KM50	3.069	.433	1.969	2.92	5.43	.300

■ Actuating Force

catalog number	actuating force (kN)	actuating force (lbs)
KM32NCADS16T	14,2	3200
KM40NCADS40	16,9	3800
KM50NCADS50	26	6000



■ NACA • DS • Axial Disk Spring Unit • Metric

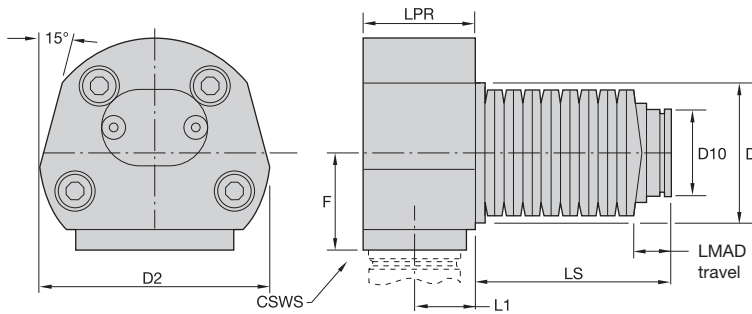
order number	catalog number	CSWS system size	D	D10	F	L1	LS	D2	LMAD travel
1021700	KM40NACADS55	KM40	62	38	10	55	90	100	6,50
1021702	KM40NACADS55DT	KM40	62	55	10	55	90	100	5,64
1021752	KM50NACADS70DT	KM50	72	65	11	70	111	120	7,62
1021529	KM63NACADS85DT	KM63	85	75	12	85	145	140	9,00

■ NACA • DS • Axial Disk Spring Unit • Inch

order number	catalog number	CSWS system size	D	D10	F	L1	LS	D2	LMAD travel
1021700	KM40NACADS55	KM40	2.441	1.496	.394	2.165	3.53	3.94	.256
1021702	KM40NACADS55DT	KM40	2.439	2.159	.394	2.165	3.53	3.94	.222
1021752	KM50NACADS70DT	KM50	2.833	2.553	.433	2.756	4.36	4.72	.300
1021529	KM63NACADS85DT	KM63	3.345	2.947	.472	3.346	5.71	5.51	.354

■ Actuating Force

catalog number	actuating force (kN)	actuating force (lbs)
KM40NACADS55DT	16,9	3800
KM50NACADS70DT	18	4000
KM63NACADS85DT	27	6000


■ RACA • DS • Right-Angle Disk Spring Unit • Metric

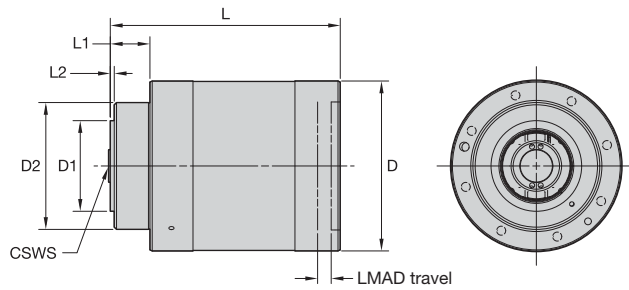
order number	catalog number	CSWS system size	D	D10	F	L1	LPR	LS	D2	LMAD travel
1021701	KM40RACADS40DT	KM40	62	55	40,0	28	52	94	100	10,67
1021524	KM63RACADS60DT	KM63	85	75	60,0	42	80	150	140	14,00

■ RACA • DS • Right-Angle Disk Spring Unit • Inch

order number	catalog number	CSWS system size	D	D10	F	L1	LPR	LS	D2	LMAD travel
1021701	KM40RACADS40DT	KM40	2.441	2.16	1.575	1.102	2.047	3.70	3.94	.420
1021524	KM63RACADS60DT	KM63	3.347	2.95	2.362	1.654	3.150	5.91	5.51	.551

■ Actuating Force

system size	actuating force (kN)	actuating force (lbs)
KM40	12,5	2800
KM50	39,5	8875

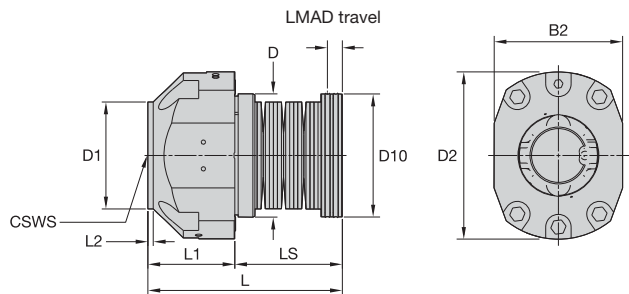


■ XGL • KM80 Rotating • Metric

order number	catalog number	CSWS system size	D1	D2	D	L1	L2	L	LMAD travel	kg
2247834	KM80XGL1062756	KM80	80	112	150	35	3,5	203	12	21,81
2452550	KM80XGL1560573	KM80	80	112	150	35	3,5	203	12	21,81

■ XGL • KM80 Rotating • Inch

order number	catalog number	CSWS system size	D1	D2	D	L1	L2	L	LMAD travel	lbs
2247834	KM80XGL1062756	KM80	3.15	4.41	5.906	1.378	.14	7.99	.472	48.08
2452550	KM80XGL1560573	KM80	3.15	4.41	5.906	1.378	.14	7.99	.472	48.08



■ XGL • KM80 Static • Metric

order number	catalog number	CSWS system size	D1	D	D10	D2	L1	LS	L	L2	B2	LMAD travel	kg
3449440	KM80XGL1724179	KM80	80	92	92,0	125	65	80,00	145,00	4	96	11,19	6,77
1954766	KM80XGL1064593	KM80	80	108	101,4	165	60	62,75	122,75	2	140	11,00	11,07
2500998	KM80XGL1555011	KM80	80	108	101,4	165	60	62,75	122,75	2	140	11,00	11,07

■ XGL • KM80 Static • Inch

order number	catalog number	CSWS system size	D1	D	D10	D2	L1	LS	L	L2	B2	LMAD travel	lbs
3449440	KM80XGL1724179	KM80	3.15	3.622	3.622	4.92	2.559	3.15	5.71	.16	3.78	.440	14.92
1954766	KM80XGL1064593	KM80	3.15	4.253	3.992	6.50	2.362	2.47	4.83	.06	5.49	.433	24.35
2500998	KM80XGL1555011	KM80	3.15	4.253	3.992	6.50	2.362	2.47	4.83	.06	5.49	.433	24.35



KM MicroTM and KM MiniTM

The most economical modular quick-change tooling system available.

The KM Micro and KM Mini couplings offer a very rigid joint with a high degree of repeatability while maintaining a very compact envelope. This permits a high degree of versatility without sacrificing cutting performance.

- Reduce downtime, increase productivity.
- Replaces conventional square-shank tooling.
- No machine modifications required.
- KM Mini is ideal for machines up to 30 hp (22kW).

Experience the advantages at your Authorized Kennametal Distributor or at www.kennametal.com.

www.kennametal.com



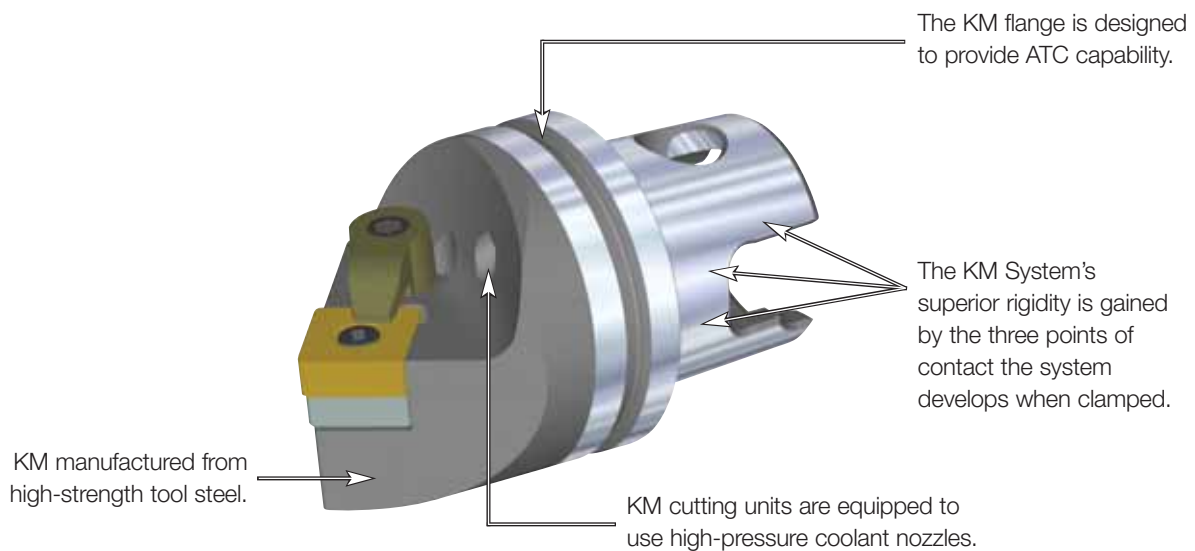
KM™ Quick Change Clamping System • KM32TS™ Series

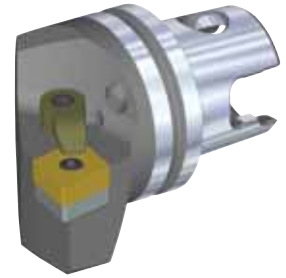
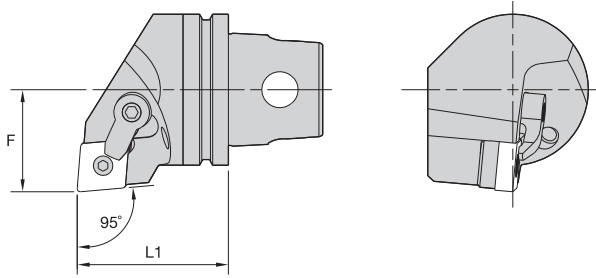
Primary Application

The KM Quick Change Clamping System is the best system on the market suitable for static, rotating, and multitasking operations. With its industry-leading design, the KM Quick Change System provides greater clamping forces than other quick-change systems. The KM Quick Change System gives you the flexibility to use KM on any application within your shop.

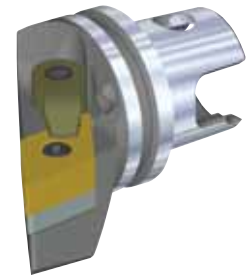
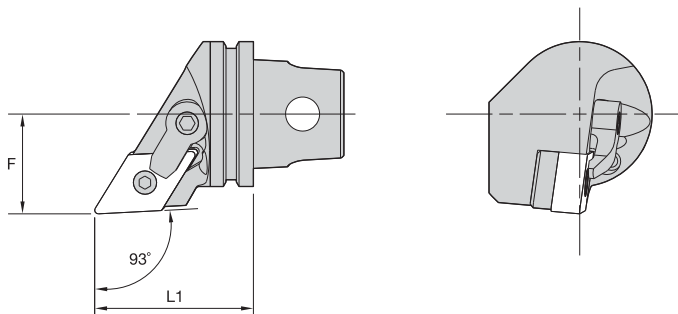
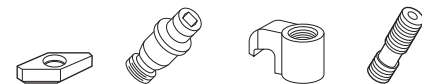
Features and Benefits

- KM is an ISO standard (ISO 26622).
- KM clamping units provide a 4:1 mechanical advantage.
- KM cutting units are capable of 100 bar (1,500 psi) coolant pressure.

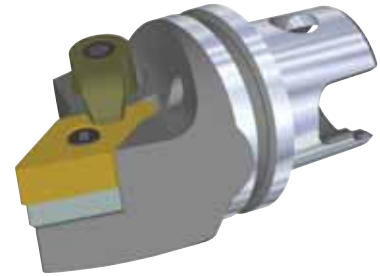
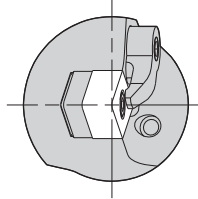
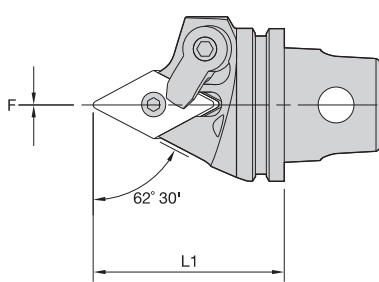



MCLN 95°

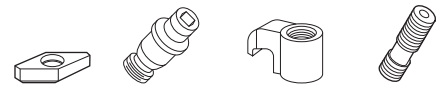

order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw
		mm	in	mm	in					
1023224	right hand KM32TSMCLNR12	35	1.378	22	.866	CN..120408/CN..432	ICSN432	KLM46	CKM20LP	STCM11
1023228	left hand KM32TSMCLNL12	35	1.378	22	.866	CN..120408/CN..432	ICSN432	KLM46	CKM20LP	STCM11


MDJN 93°


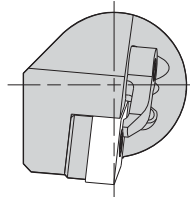
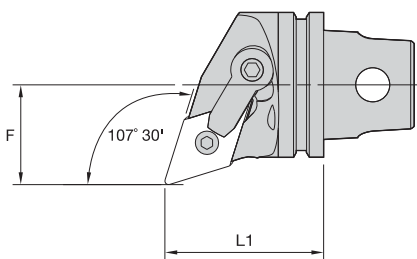
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw
		mm	in	mm	in					
3095644	right hand KM32TSMDJNR1504	35	1.378	22	.866	DN..150408/DN..432	IDSN442	KLM46L	CKM20LP	STCM11
1023232	right hand KM32TSMDJNR1506	35	1.378	22	.866	DN..150608/DN..442	IDSN432	KLM46L	CKM20LP	STCM11
3095643	left hand KM32TSMDJNLR1504	35	1.378	22	.866	DN..150408/DN..432	IDSN442	KLM46L	CKM20LP	STCM11
1023275	left hand KM32TSMDJNLR1506	35	1.378	22	.866	DN..150608/DN..442	IDSN432	KLM46L	CKM20LP	STCM11



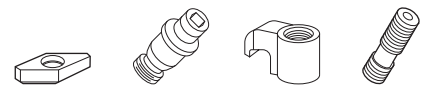
■ MDPN 62° 30'



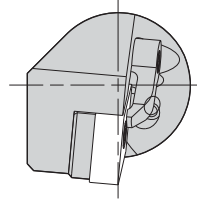
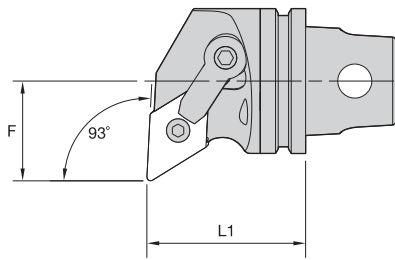
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw
		mm	in	mm	in					
3095645	KM32TSDPNN1504	40	1.575	0	.000	DN..150408/DN..432	IDSN442	KLM46L	CKM20LP	STCM11
1022560	KM32TSDPNN1506	40	1.575	0	.000	DN..150608/DN..442	IDSN432	KLC46L	CKM20LP	STCC11



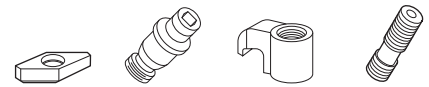
■ MDQN 107° 30'



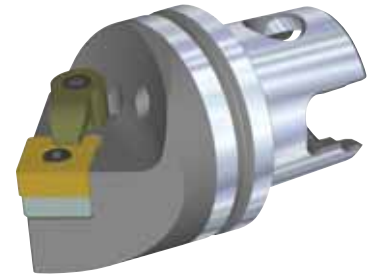
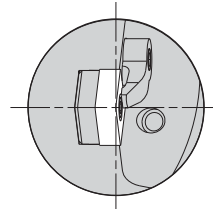
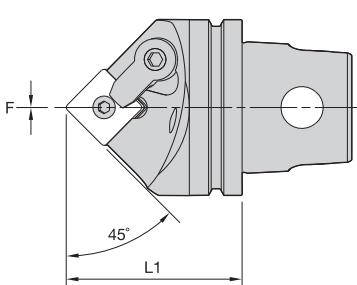
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw
		mm	in	mm	in					
1023233	KM32TSMQNR1506	35	1.378	22	.866	DN..150608/DN..442	IDSN432	KLM46L	CKM23LP	STCM11
1023276	KM32TSMQNL1506	35	1.378	22	.866	DN..150608/DN..442	IDSN432	KLM46L	CKM23LP	STCM11



■ MDUN 93°



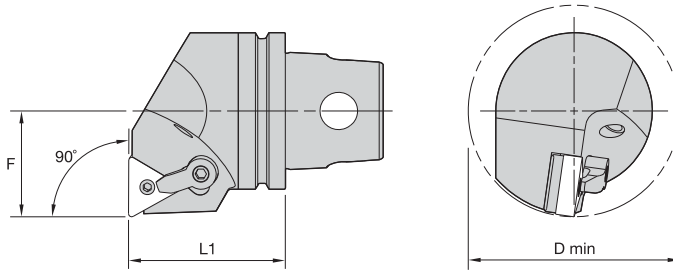
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw
		mm	in	mm	in					
1023274	right hand	35	1.378	22	.866	DN..150608/DN..442	IDSN432	KLM46L	CKM23LP	STCM11
	left hand									
1023277	KM32TSM DUNL1506	35	1.378	22	.866	DN..150608/DN..442	IDSN432	KLM46L	CKM23LP	STCM11



■ MSDN 45°



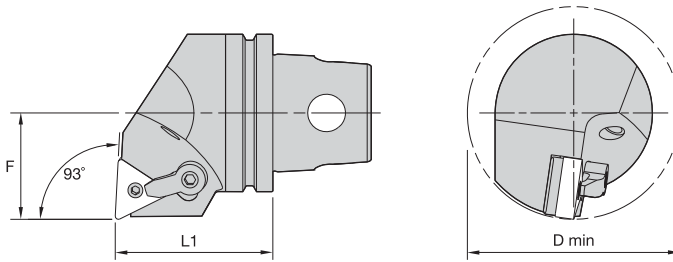
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw
		mm	in	mm	in					
1144875	KM32TSM DNN12	40	1.575	0	.000	SN..120408/SN..432	ISSN432	KLM46	CKM20LP	STCM11



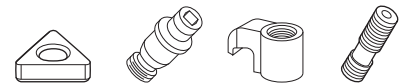
■ MTFN 90°



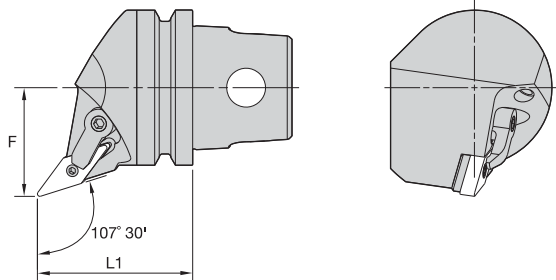
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw
		mm	in	mm	in	mm	in					
1023281	KM32TSMTFNL16	35	1.378	22	.866	44	1.732	TN..160408/TN..332	ITSN322	KLM34L	CKM7LP	STCM9



■ MTUN 93°

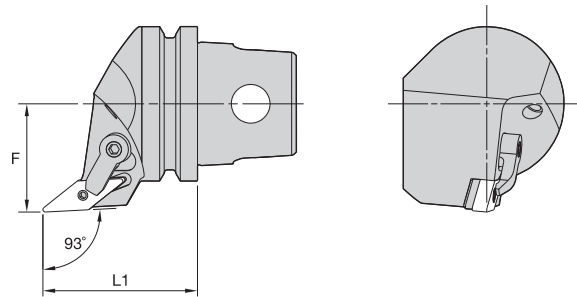
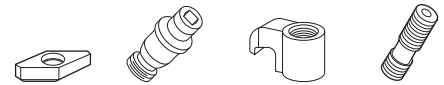


order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw
		mm	in	mm	in	mm	in					
1144903	KM32TSMTUNR16	35	1.378	22	.866	44	1.732	TN..160408/TN..332	ITSN322	KLM34L	CKM7LP	STCM9



■ MVHN 107° 30'

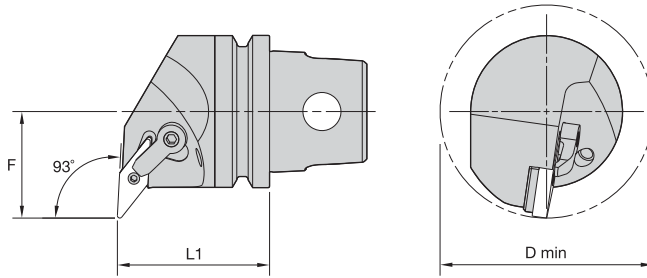
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw
		mm	in	mm	in					
1144909	KM32TSMVHNR16	35	1.378	22	.866	VN..160408/VN..332	IVSN322	KLM34L	CKM23LP	STCM11
1144910	KM32TSMVHNL16	35	1.378	22	.866	VN..160408/VN..332	IVSN322	KLM34L	CKM23LP	STCM11



■ MVJN 93°

order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw
		mm	in	mm	in					
1023280	KM32TSMVJNR16	40	1.575	22	.866	VN..160408/VN..332	IVSN322	KLM34L	CKM23LP	STCM11
1023283	KM32TSMVJNL16	40	1.575	22	.866	VN..160408/VN..332	IVSN322	KLM34L	CKM23LP	STCM11

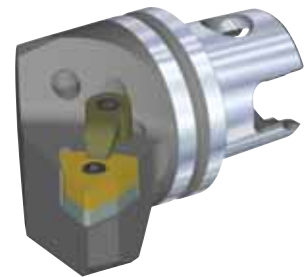
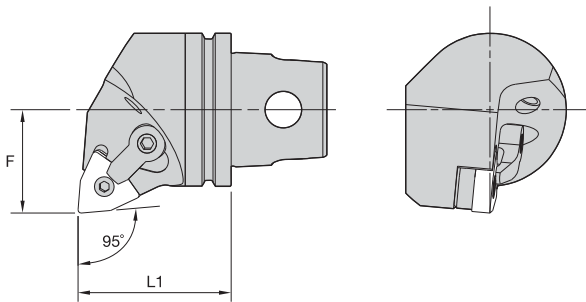




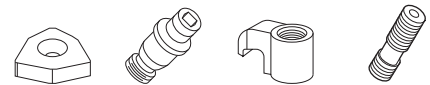
■ MVUN 93°



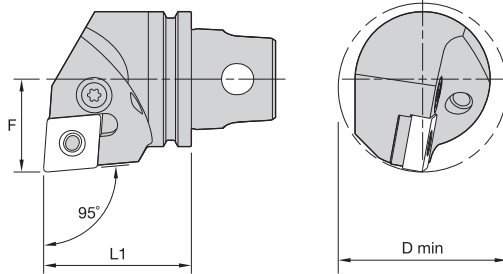
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw
		mm	in	mm	in	mm	in					
1144911	KM32TSMVUNR16	35	1.378	27	1.063	54	2.126	VN..160408/VN..332	IVSN322	KLM34L	CKM23LP	STCM11
1144912	KM32TSMVUNL16	35	1.378	27	1.063	54	2.126	VN..160408/VN..332	IVSN322	KLM34L	CKM23LP	STCM11



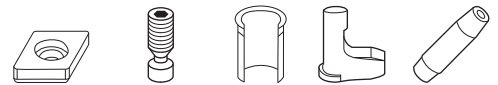
■ MWLN 95°



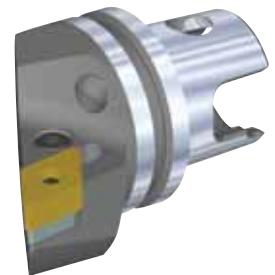
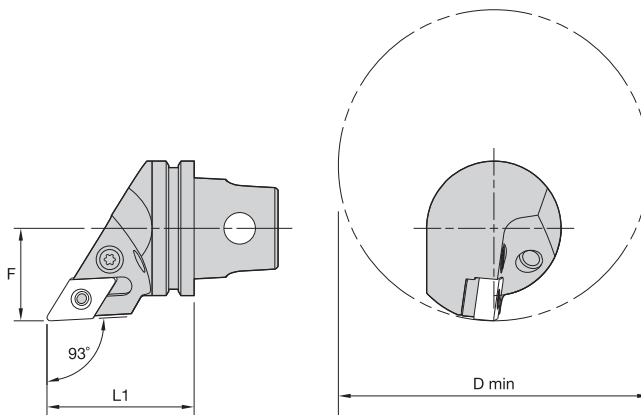
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw
		mm	in	mm	in					
1144914	KM32TSMWLNRO8	35	1.378	22	.866	WN..080408/WN..432	IWSN433	KLM46	CKM20LP	STCM11
1144915	KM32TSMWLNLO8	35	1.378	22	.866	WN..080408/WN..432	IWSN433	KLM46	CKM20LP	STCM11



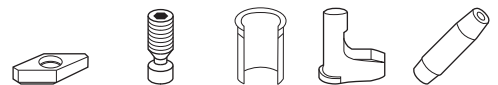
■ PCLN 95°



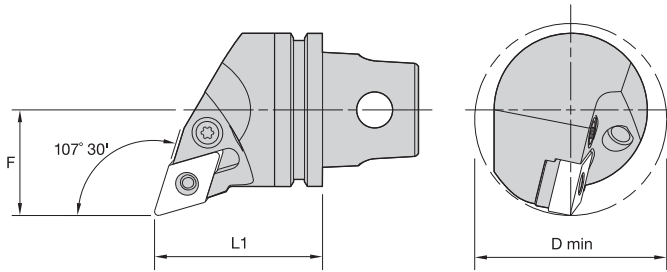
order number	catalog number	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch
		mm	in	mm	in	mm	in						
	right hand												
1624632	KM32TSPCLNR12	35	1.378	22	.866	40	1.575	CN..120408/CN..432	512.112	514.123	513.023	511.023	515.018
	left hand												
1135468	KM32TSPCLNL12	35	1.378	22	.866	40	1.575	CN..120408/CN..432	512.112	514.123	513.023	511.023	515.018



■ PDJN 93°

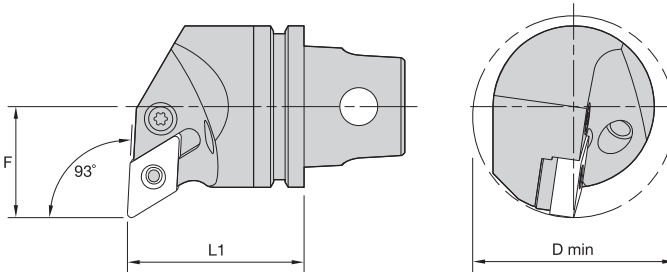


order number	catalog number	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch
		mm	in	mm	in	mm	in						
	right hand												
1232377	KM32TSPDJNR11	35	1.378	22	.866	74	2.913	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018
	left hand												
1232378	KM32TSPDJNL11	35	1.378	22	.866	74	2.913	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018



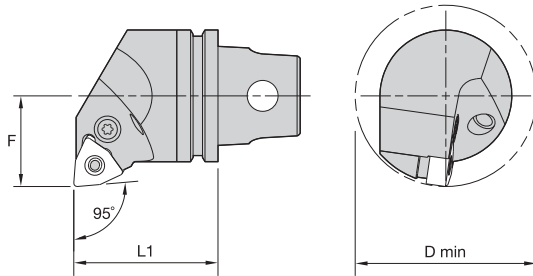
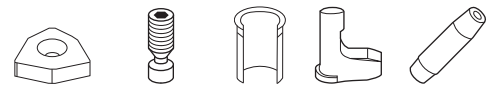
■ PDQN 107° 30'

order number	catalog number	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch
		mm	in	mm	in	mm	in						
1671515	KM32TSPDQNR11	35	1.378	22	.866	44	1.732	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018

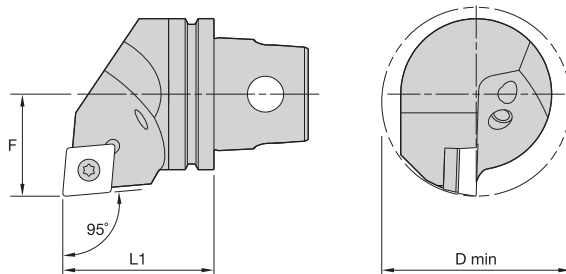


■ PDUN 93°

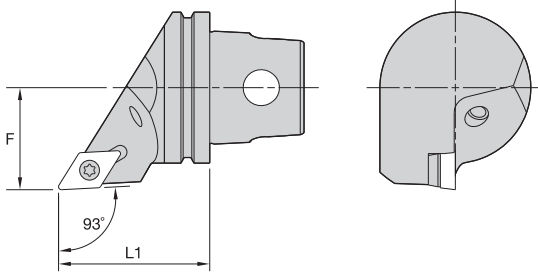
order number	catalog number	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch
		mm	in	mm	in	mm	in						
1232375	KM32TSPDUNR11	35	1.378	22	.866	40	1.575	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018
1232376	KM32TSPDUNL11	35	1.378	22	.866	40	1.575	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018


■ PWLN 95°


order number	catalog number	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch
		mm	in	mm	in	mm	in						
		right hand											
1232372	KM32TSPWLNLR06	35	1.378	22	.866	44	1.732	WN..060408/WN..332	512.134	514.118	513.018	511.018	515.018
		left hand											
1232374	KM32TSPWLNLR06	35	1.378	22	.866	44	1.732	WN..060408/WN..332	512.134	514.118	513.018	511.018	515.018


■ SCLC 95°

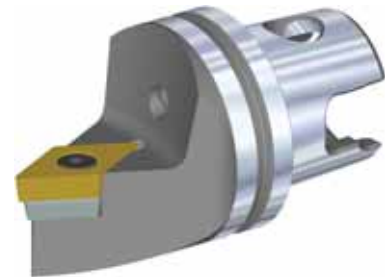
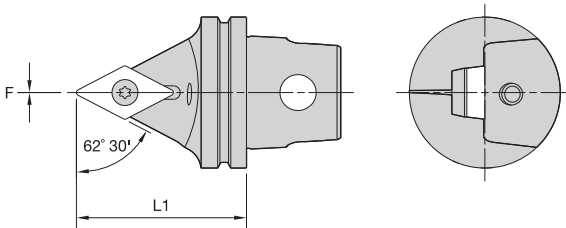

order number	catalog number	L1		F		D min		gage insert	shim	insert screw	shim screw
		mm	in	mm	in	mm	in				
		right hand									
1144416	KM32TSSCLCR09	35	1.378	22	.866	44	1.732	CC..09T308/CC..3252	SKCP343	MS1156	SRS3
1144430	KM32TSSCLCR12	35	1.378	22	.866	44	1.732	CC..120408/CC..432	SKCP453	MS1158	SRS4
		left hand									
1144417	KM32TSSCLCL09	35	1.378	22	.866	44	1.732	CC..09T308/CC..3252	SKCP343	MS1156	SRS3
1144434	KM32TSSCLCL12	35	1.378	22	.866	44	1.732	CC..120408/CC..432	SKCP453	MS1158	SRS4



■ SDJC 93°



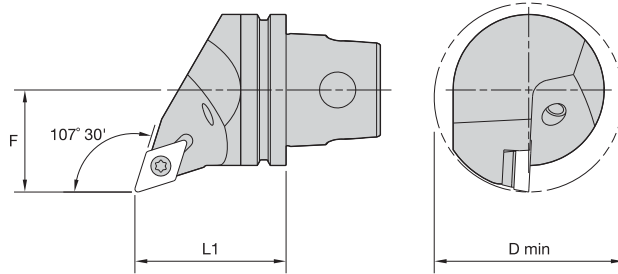
order number	catalog number	L1		F		gage insert	shim	insert screw	shim screw
		mm	in	mm	in				
1144422	right hand KM32TSSDJCR11	35	1.378	22	.866	DC..11T308/DC..3252	SKDP343	MS1156	SRS3
1144427	left hand KM32TSSDJCL11	35	1.378	22	.866	DC..11T308/DC..3252	SKDP343	MS1156	SRS3



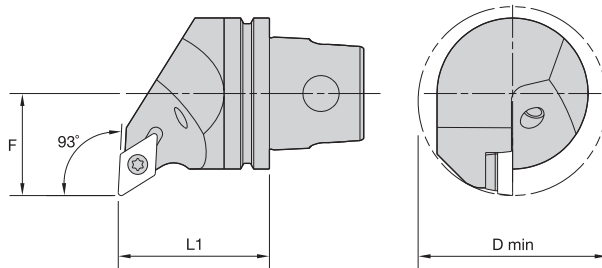
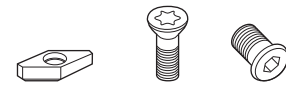
■ SDNC 62° 30'



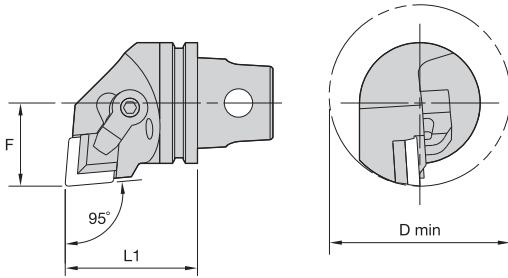
order number	catalog number	L1		F		gage insert	shim	insert screw	shim screw
		mm	in	mm	in				
1144424	KM32TSSDNCN11	35	1.378	0	.000	DC..11T308/DC..3252	SKDP343	MS1156	SRS3


SDQC 107° 30'

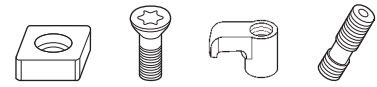

order number	catalog number	L1		F		D min		gage insert	shim	insert screw	shim screw
		mm	in	mm	in	mm	in				
1144423	right hand	35	1.378	22	.866	44	1.732	DC..11T308/DC..3252	SKDP343	MS1156	SRS3
	KM32TSSDQCR11										
1144428	left hand	35	1.378	22	.866	44	1.732	DC..11T308/DC..3252	SKDP343	MS1156	SRS3
	KM32TSSDQCL11										


SDUC 93°


order number	catalog number	L1		F		D min		gage insert	shim	insert screw	shim screw
		mm	in	mm	in	mm	in				
1144425	right hand	35	1.378	22	.866	44	1.732	DC..11T308/DC..3252	SKDP343	MS1156	SRS3
	KM32TSSDUCR11										
1144429	left hand	35	1.378	22	.866	44	1.732	DC..11T308/DC..3252	SKDP343	MS1156	SRS3
	KM32TSSDUC11										

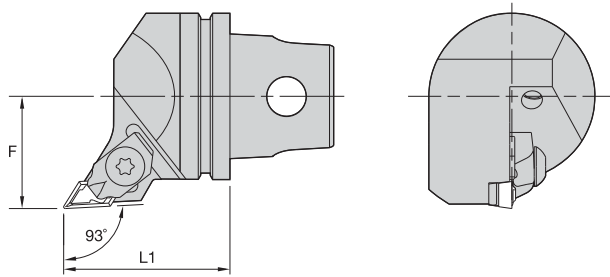


■ CCLP 95°



order number	catalog number	L1		F		D min		gage insert	shim	shim screw	clamp	clamp screw
		mm	in	mm	in	mm	in					
1091617	KM32TSCCLPL12	35	1.378	22	.866	48	1.890	CP..120308/CP.422	SM891	MS109	CKM37	STCM11

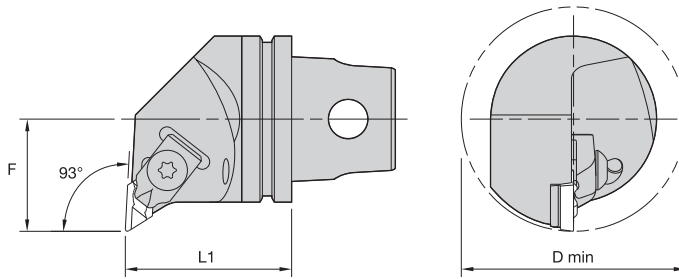
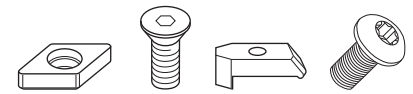
NOTE: Chipbreakers must be ordered separately. Chipbreaker catalog number is CBD-16N.



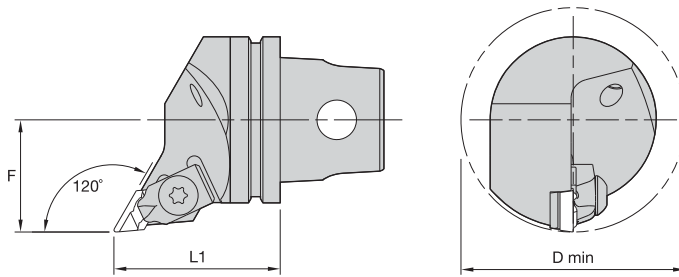
■ NKJC 93°



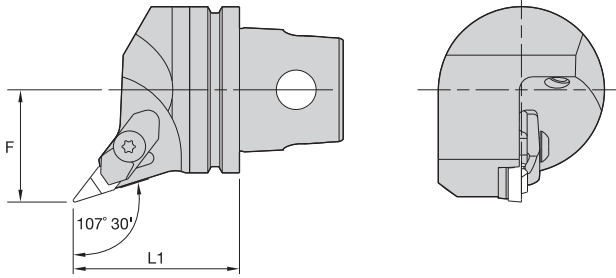
order number	catalog number	L1		F		gage insert	shim	shim screw	clamp	clamp screw
		mm	in	mm	in					
1019508	KM32TSNKJCR11	35	1.378	22	.866	KC..110304R08/NP..51R	SM885	MS959	CM71	MS1220
1019565	KM32TSNKJCL11	35	1.378	22	.866	KC..110304L08/NP..51L	SM886	MS959	CM79	MS1220


■ NKUC 93°


order number	catalog number	L1		F		D min		gage insert	shim	shim screw	clamp	clamp screw
		mm	in	mm	in	mm	in					
		right hand										
1019509	KM32TSNKUCR11	35	1.378	22	.866	44	1.732	KC..110304L08/NP..51L	SM886	MS959	CM68	MS1220
		left hand										
1019566	KM32TSNKUCL11	35	1.378	22	.866	44	1.732	KC..110304R08/NP..51R	SM885	MS959	CM68	MS1220


■ NKXC 120°

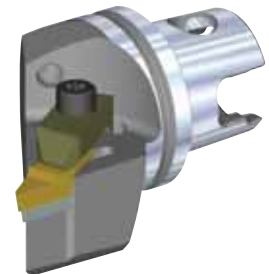
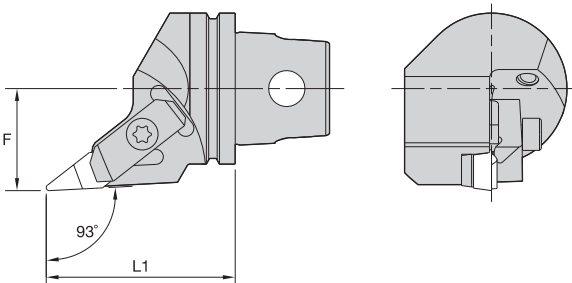

order number	catalog number	L1		F		D min		gage insert	shim	shim screw	clamp	clamp screw
		mm	in	mm	in	mm	in					
		left hand										
1019567	KM32TSNKXCL11	35	1.378	22	.866	44	1.732	KC..110304R08/NP..51R	SM885	MS959	CM68	MS1220



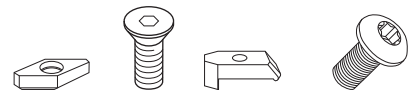
■ NVHB 107° 30'



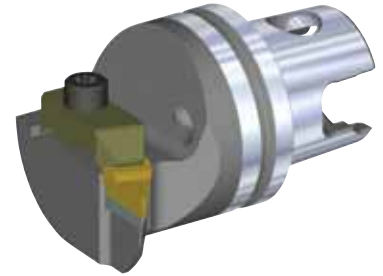
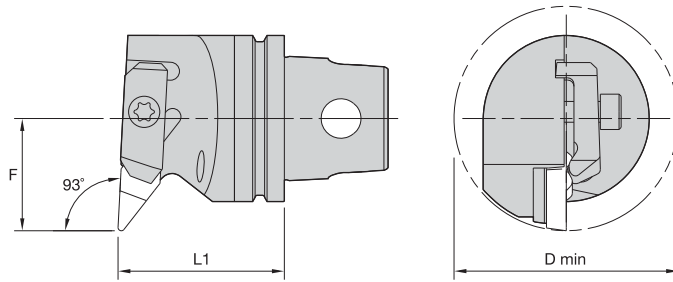
order number	catalog number	L1		F		gage insert	shim	shim screw	clamp	clamp screw
		mm	in	mm	in					
1144421	KM32TSNVHBR11	35	1.378	22	.866	VBMR110304/VBMR221	SM813	MS959	CM158	MS1375



■ NVJC 93°

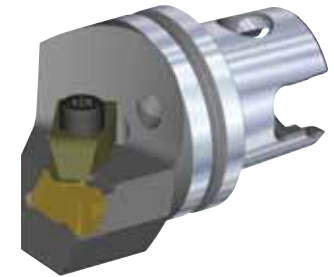
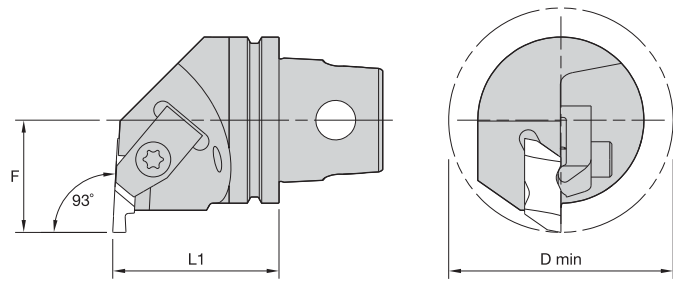


order number	catalog number	L1		F		gage insert	shim	shim screw	clamp	clamp screw
		mm	in	mm	in					
1144437	KM32TSNVJCR16	47	1.850	22	.866	VCGR160408/VPGR332	SM812	MS959	CM113	MS1489PKG
1144440	KM32TSNVJCL16	47	1.850	22	.866	VCGR160408/VPGR332	SM812	MS959	CM114	MS1489PKG



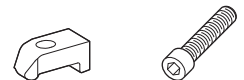
■ NVUC 93°

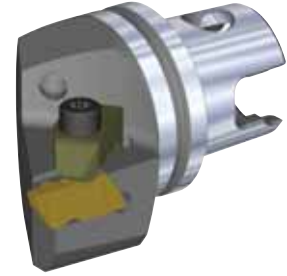
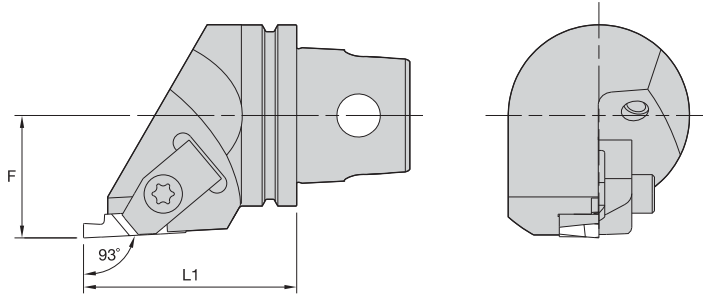
order number	catalog number	L1		F		D min		gage insert	shim	shim screw	clamp	clamp screw
		mm	in	mm	in	mm	in					
1091627	KM32TSNVUCR16 right hand	35	1.378	27	1.063	54	2.126	VCGR160408/VPGR332	SM812	MS959	CM113	MS1489
1019564	KM32TSNVUCL16 left hand	35	1.378	27	1.063	54	2.126	VCGR160408/VPGR332	SM812	MS959	CM114	MS1489



■ NE 93°

order number	catalog number	L1		F		D min		gage insert	clamp	clamp screw
		mm	in	mm	in	mm	in			
1019406	KM32TSNER2 right hand	35	1.378	22	.866	44	1.732	NG2L	CM75	MS1488
1019410	KM32TSNER3	35	1.378	22	.866	44	1.732	NG3L	CM73	MS1489

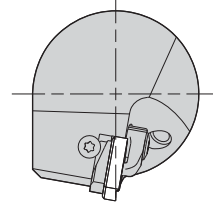
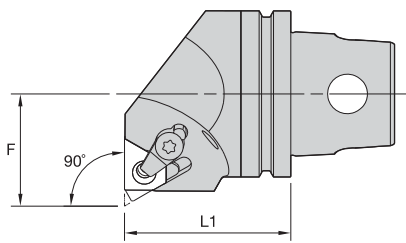
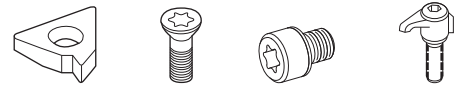




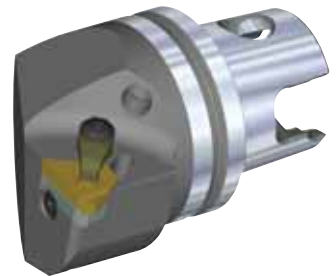
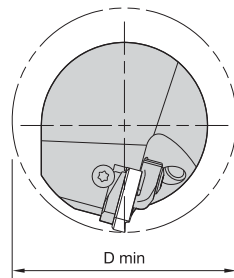
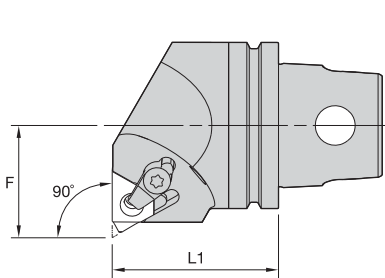
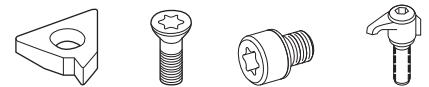
■ NS 90°

order number	catalog number	L1		F		gage insert	clamp	clamp screw
		mm	in	mm	in			
1019407	right hand KM32TSNSR2	35	1.378	22	.866	NG2R	CM74	MS1488
1019411	KM32TSNSR3 left hand	40	1.575	22	.866	NG3R	CM72	MS1489
1019409	KM32TSNSL2	35	1.378	22	.866	NG2L	CM75	MS1488
1019413	KM32TSNSL3	40	1.575	22	.866	NG3L	CM73	MS1489



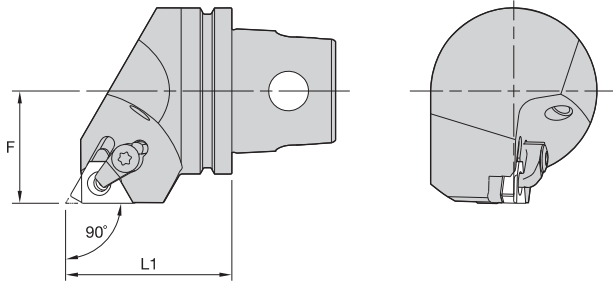

■ LSE-E 90° • External Only


order number	catalog number	L1		F		gage insert	shim	insert screw	shim screw	clamp assembly
		mm	in	mm	in					
1144372	KM32TSLSEL16E	35	1.378	22	.866	LT16ER	SMYE3	SSA3T	SSY3T	CKC3


■ LSE-N 90° • Internal Only


order number	catalog number	L1		F		D min		gage insert	shim	insert screw	shim screw	clamp assembly
		mm	in	mm	in	mm	in					
1144357	KM32TSLSER16N	35	1.378	22	.866	44	1.732	LT16NR	SMYI3	SSA3T	SSY3T	CKC3

NOTE: Cutting units are supplied with insert screw and clamp assembly. However, tools are designed to use either the insert screw or the clamp assembly, not both.



■ LSS 90°



order number	catalog number	L1		F		gage insert	shim	insert screw	shim screw	clamp assembly
		mm	in	mm	in					
1019298	right hand	35	1.378	22	.866	LT16ER	SMYE3	SSA3T	SSY3T	CKC3
	catalog number										KM32TSLSSR16
1019299	left hand	35	1.378	22	.866	LT16EL	SMYI3	SSA3T	SSY3T	CKC3
	catalog number										KM32TSLSSL16

NOTE: Cutting units are supplied with insert screw and clamp assembly. However, tools are designed to use either the insert screw or the clamp assembly, not both.



KM MicroTM and KMTM Mini

The most economical modular quick-change tooling system available.

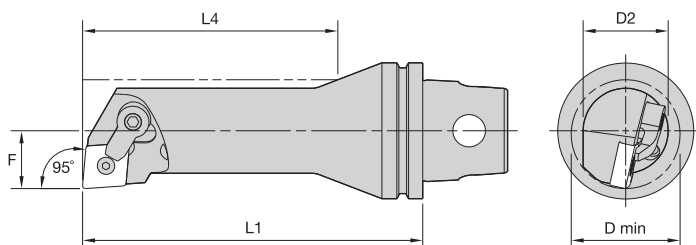
The KM Micro and KM Mini couplings offer a very rigid joint with a high degree of repeatability while maintaining a very compact envelope. This permits a high degree of versatility without sacrificing cutting performance.

- Reduce downtime, increase productivity.
- Replaces conventional square-shank tooling.
- No machine modifications required.
- KM Mini is ideal for machines up to 30 hp (22kW).

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www.kennametal.com





■ MCLN 95°

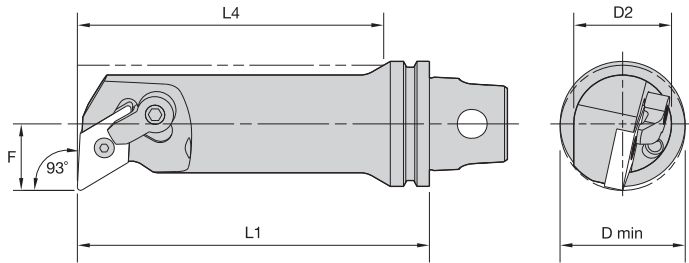
order number	catalog number	D2		D min		F		L4		L1		gage insert
		mm	in	mm	in	mm	in	mm	in	mm	in	
		right hand										
1023729	KM32TSS25EMCLNR12	25	.98	32	1.26	17	.669	58	2.28	70	2.756	CN..120408/CN..432
1023866	KM32TSS25GMCLNR12	25	.98	32	1.26	17	.669	75	2.95	90	3.543	CN..120408/CN..432
		left hand										
1023841	KM32TSS25EMCLNL12	25	.98	32	1.26	17	.669	58	2.28	70	2.756	CN..120408/CN..432
1023868	KM32TSS25GMCLNL12	25	.98	32	1.26	17	.669	75	2.95	90	3.543	CN..120408/CN..432

■ Spare Parts

catalog number			
	lock pin	clamp	clamp screw



KM32TS Internal Cutting Units

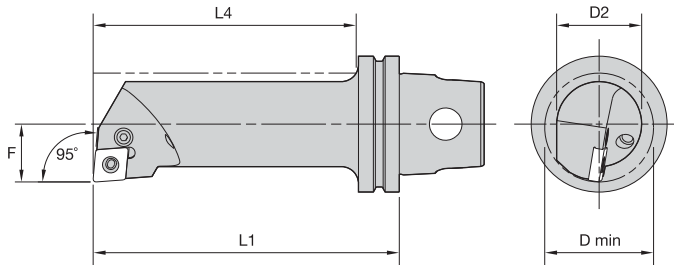


■ MDUN 93°

order number	catalog number	D2		D min		F		L4		L1		gage insert
		mm	in	mm	in	mm	in	mm	in	mm	in	
		right hand										
1023730	KM32TSS25EMDUNR15	25	.98	32	1.26	17	.669	58	2.28	70	2.756	DN..150408/DN..432
1023938	KM32TSS25GMDUNR15	25	.98	32	1.26	17	.669	75	2.95	90	3.543	DN..150408/DN..432

■ Spare Parts



catalog number	lock pin clamp clamp screw		
	right hand		
KM32TSS25EMDUNR15	KLM43	CKM20LP	STCM11
KM32TSS25GMDUNR15	KLM43	CKM20LP	STCM11



■ PCLN 95°

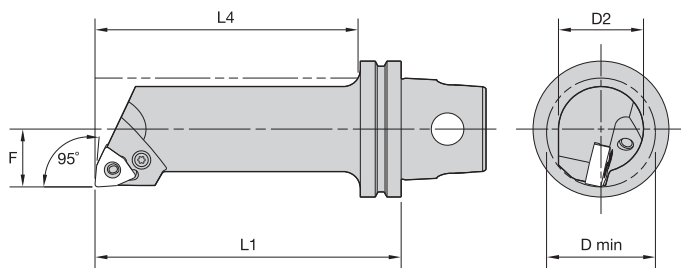
order number	catalog number	D2		D min		F		L4		L1		gage insert
		mm	in	mm	in	mm	in	mm	in	mm	in	
1671735	right hand	25	.984	32	1.260	17	.669	80	3.150	90	3.543	CN..090308/CN..322
	KM32TSS25GPCLNR09											
1671736	left hand	25	.984	32	1.260	17	.669	80	3.132	90	3.543	CN..090308/CN..322
	KM32TSS25GPCLNL09											

■ Spare Parts

catalog number	 lever screw	 toggle lever
right hand KM32TSS25GPCLNR09	514.011	511.013
left hand KM32TSS25GPCLNL09	514.011	511.013





KM32TS Internal Cutting Units

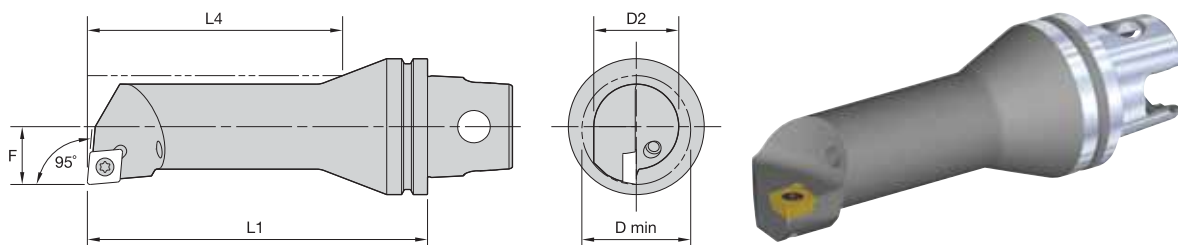


■ PWLN 95°

order number	catalog number	D2		D min		F		L4		L1		gage insert
		mm	in	mm	in	mm	in	mm	in	mm	in	
1695783	right hand	25	.984	32	1.260	17	.669	80	3.150	90	3.543	WN..060408/WN..332
	KM32TSS25GPWLNRO6											
1695784	left hand	25	.984	32	1.260	17	.669	80	3.150	90	3.543	WN..060408/WN..332
	KM32TSS25GPWLNLO6											

■ Spare Parts

catalog number	 lever screw	 toggle lever
right hand KM32TSS25GPWLNRO6	514.112	511.030
left hand KM32TSS25GPWLNLO6	514.112	511.030



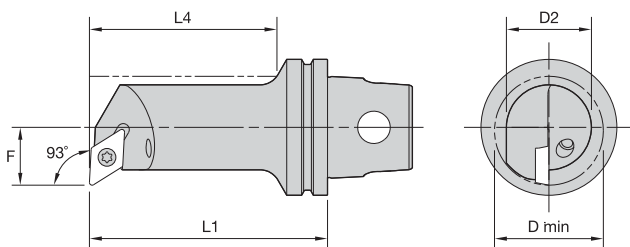
■ SCLP 95°

order number	catalog number	D2		D min		F		L4		L1		gage insert
		mm	in	mm	in	mm	in	mm	in	mm	in	
right hand												
1144614	KM32TSS10CSCLPR06	10	.39	13	.51	7	.276	35	1.38	50	1.969	CP..060204/CP..2151
1144616	KM32TSS12DSCLPR06	12	.47	16	.63	9	.354	43	1.70	60	2.362	CP..060204/CP..2151
1144618	KM32TSS16ESCLPR09	16	.63	20	.79	11	.433	56	2.20	70	2.756	CP..09T308/CP..3252
1144645	KM32TSS20FSCLPR09	20	.79	25	.98	13	.512	60	2.36	80	3.150	CP..09T308/CP..3252
1144647	KM32TSS25GSCLPR09	25	.98	32	1.26	17	.669	75	2.95	90	3.543	CP..09T308/CP..3252
left hand												
1144615	KM32TSS10CSCLPL06	10	.39	13	.51	7	.276	35	1.38	50	1.969	CP..060204/CP..2151
1144617	KM32TSS12DSCLPL06	12	.47	16	.63	9	.354	43	1.70	60	2.362	CP..060204/CP..2151
1144619	KM32TSS16ESCLPL09	16	.63	20	.79	11	.433	56	2.20	70	2.756	CP..09T308/CP..3252
1144646	KM32TSS20FSCLPL09	20	.79	25	.98	13	.512	60	2.36	80	3.150	CP..09T308/CP..3252
1144745	KM32TSS25ESCLPL09	25	.98	32	1.26	17	.669	58	2.28	70	2.756	CP..09T308/CP..3252

■ Spare Parts



catalog number	insert screw
right hand	
KM32TSS10CSCLPR06	MS1153
KM32TSS12DSCLPR06	MS1153
KM32TSS16ESCLPR09	MS1155
KM32TSS20FSCLPR09	MS1155
KM32TSS25GSCLPR09	MS1155
left hand	
KM32TSS10CSCLPL06	MS1153
KM32TSS12DSCLPL06	MS1153
KM32TSS16ESCLPL09	MS1155
KM32TSS20FSCLPL09	MS1155
KM32TSS25ESCLPL09	MS1155



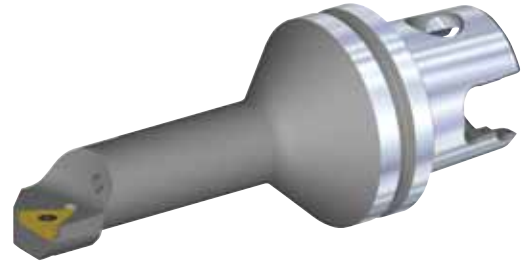
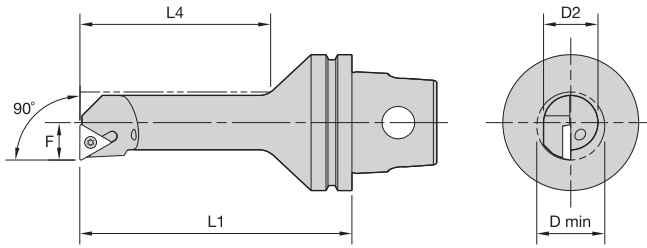
■ SDUP 93°

order number	catalog number	D2		D min		F		L4		L1		gage insert
		mm	in	mm	in	mm	in	mm	in	mm	in	
	right hand											
1020682	KM32TSS12DSDUPR07	12	.47	16	.63	9	.354	42	1.65	60	2.362	DP..070204/DP..2151
1020724	KM32TSS16ESDUPR07	16	.63	20	.79	11	.433	56	2.20	70	2.756	DP..070204/DP..2151
1144657	KM32TSS20FSDUPR07	20	.79	25	.98	13	.512	60	2.36	80	3.150	DP..070204/DP..2151
1144743	KM32TSS25ESDUPR11	25	.98	32	1.26	17	.669	58	2.28	70	2.756	DP..11T308/DP..3252
	left hand											
1020683	KM32TSS12DSDUPL07	12	.47	16	.63	9	.354	42	1.65	60	2.362	DP..070204/DP..2151
1020725	KM32TSS16ESDUPL07	16	.63	20	.79	11	.433	56	2.20	70	2.756	DP..070204/DP..2151
1144658	KM32TSS20FSDUPL07	20	.79	25	.98	13	.512	60	2.36	80	3.150	DP..070204/DP..2151
1144746	KM32TSS25ESDUPL11	25	.98	32	1.26	17	.669	58	2.28	70	2.756	DP..11T308/DP..3252

■ Spare Parts



catalog number	insert screw
right hand	
KM32TSS12DSDUPR07	MS1153
KM32TSS16ESDUPR07	MS1153
KM32TSS20FSDUPR07	MS1153
KM32TSS25ESDUPR11	MS1155
left hand	
KM32TSS12DSDUPL07	MS1153
KM32TSS16ESDUPL07	MS1153
KM32TSS20FSDUPL07	MS1153
KM32TSS25ESDUPL11	MS1155



■ STFP 90°

order number	catalog number	D2		D min		F		L4		L1		gage insert
		mm	in	mm	in	mm	in	mm	in	mm	in	
1144626	KM32TSS10CSTFPR11	10	.39	13	.512	7	.276	35	1.38	50	1.969	TP..110204/TP..2151
1144629	KM32TSS16ESTFPR11	16	.63	20	.787	11	.433	56	2.20	70	2.756	TP..110204/TP..2151
1144627	KM32TSS10CSTFPL11	10	.39	13	.512	7	.276	35	1.38	50	1.969	TP..110204/TP..2151

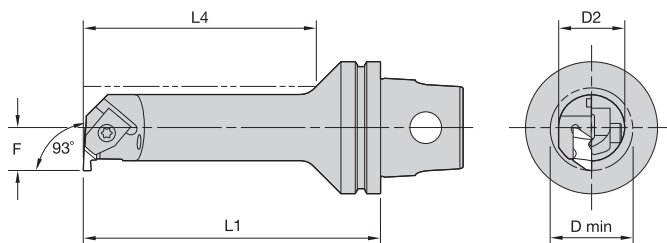
■ Spare Parts



catalog number	insert screw
right hand KM32TSS10CSTFPR11	MS1153
KM32TSS16ESTFPR11	MS1153
left hand KM32TSS10CSTFPL11	MS1153



KM32TS Internal Cutting Units



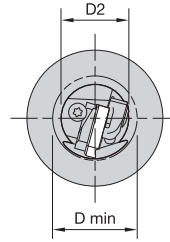
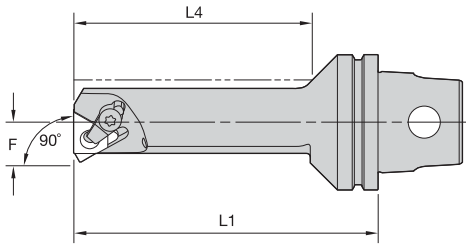
■ NE 93°

order number	catalog number	D2		D min		F		L4		L1		gage insert
		mm	in	mm	in	mm	in	mm	in	mm	in	
1020727	right hand	12	.47	19	.728	11	.433	42	1.654	60	2.362	NG2L
	KM32TSS12DNER2											
1020728	left hand	12	.47	19	.728	11	.433	42	1.654	60	2.362	NG2R
	KM32TSS12DNEL2											
1144713	KM32TSS20FNEL2	20	.79	25	.984	13	.512	60	2.362	80	3.150	NG2R

■ Spare Parts



catalog number	clamp	clamp screw
right hand		
KM32TSS12DNER2	CM147	MS1488
left hand		
KM32TSS12DNEL2	CM146	MS1488
KM32TSS20FNEL2	CM74	MS1488



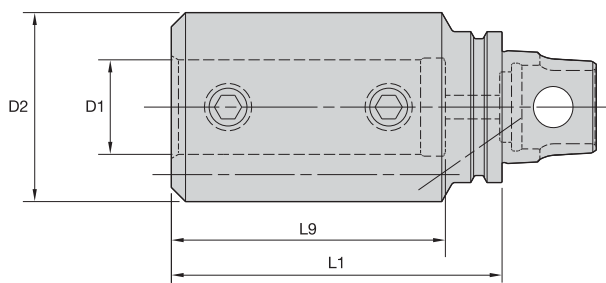
■ LSE 90°

order number	catalog number	D2		D min		F		L4		L1		gage insert
		mm	in	mm	in	mm	in	mm	in	mm	in	
		right hand										
1020454	KM32TSS10CLSER11	10	.39	13	.51	7	.276	35	1.38	50	1.969	LT11NR
1020456	KM32TSS12DLSER11	12	.47	16	.63	9	.354	42	1.65	60	2.362	LT11NR
1144724	KM32TSS16ELSER16	16	.63	20	.79	11	.433	56	2.21	70	2.756	LT16NR
1020458	KM32TSS20FLSER16	20	.79	25	.98	13	.512	60	2.36	80	3.150	LT16NR
		left hand										
1020461	KM32TSS25GLSEL16	25	.98	32	1.26	17	.669	75	2.95	90	3.543	LT16NL

■ Spare Parts

catalog number				
	shim	insert screw	shim screw	clamp assembly
	right hand			
KM32TSS10CLSER11	—	SSN2T	—	—
KM32TSS12DLSER11	—	SSN2T	—	—
KM32TSS16ELSER16	—	SSA3T	—	—
	left hand			
KM32TSS20FLSER16	SMYI3	SSA3T	SSY3T	CKC3
KM32TSS25GLSEL16	SMYE3	SSA3T	SSY3T	CKC3

NOTE: Items listed without a shim are designed for a 1.5° inclination angle.
Cutting units are supplied with insert screw and clamp assembly. However, tools are designed to use either the insert screw or the clamp assembly, not both.

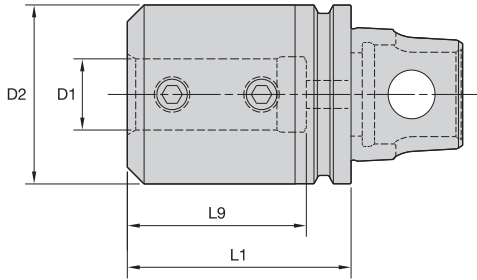

■ BA • Internal and External Coolant • Metric


order number	catalog number	D1	D2	L1	L9	clamp screw	wrench size clamp screw	Nm
1144729	KM32TSBA06045M	6	40	45	36	MS1210	2.5mm	4
1144730	KM32TSBA08045M	8	40	45	36	MS1210	2.5mm	4
1144544	KM32TSBA10055M	10	40	55	48	MS1211	4mm	18
1144545	KM32TSBA12060M	12	40	60	52	MS1211	4mm	15
1144546	KM32TSBA16065M	16	40	65	55	MS1212	5mm	34
1144547	KM32TSBA20070M	20	40	70	58	MS1212	5mm	35

■ BA • Internal and External Coolant • Inch


order number	catalog number	D1	D2	L1	L9	clamp screw	wrench size clamp screw	ft. lbs.
1020175	KM32TSBA06217	3/8	1.57	2.165	1.89	S843	1/8	8
1020176	KM32TSBA08236	1/2	1.58	2.362	2.05	S852	5/32	15
1020177	KM32TSBA10256	5/8	1.58	2.559	2.17	S862	3/16	25
1020178	KM32TSBA12276	3/4	1.57	2.756	2.28	S862	3/16	25

NOTE: Do not overtighten clamp screw; use torque recommendations above.
 Supplied with clamp screw.
 Clamp screw wrench not included.



■ BAI • Internal Coolant Only • Metric

order number	catalog number	D1	D2	L1	L9	wrench size clamp screw	Nm
1279245	KM32TSBAI25070M	25	50	70	58	5mm	25

■ Spare Parts • Metric

catalog number	clamp screw
KM32TSBAI25070M	MS1212



■ BAI • Internal Coolant Only • Inch

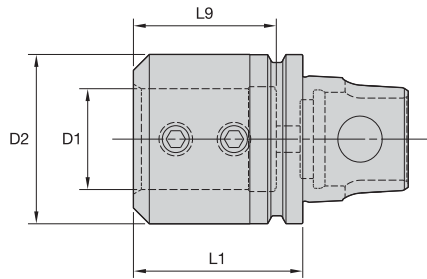
order number	catalog number	D1	D2	L1	L9	wrench size clamp screw	ft. lbs.
1722930	KM32TSBAI04126	1/4	1.26	1.260	1.06	3/32	2
1723301	KM32TSBAI06126	3/8	1.26	1.260	1.06	1/8	5
1723302	KM32TSBAI08157	1/2	1.26	1.575	1.26	1/8	8
1723303	KM32TSBAI10185	5/8	1.26	1.850	1.58	1/8	8
1021122	KM32TSBAI16276	1	1.97	2.756	2.28	3/16	15

■ Spare Parts • Inch

catalog number	clamp screw
KM32TSBAI04126	S836PKG
KM32TSBAI06126	S841PKG
KM32TSBAI08157	S841PKG
KM32TSBAI10185	—
KM32TSBAI16276	S862



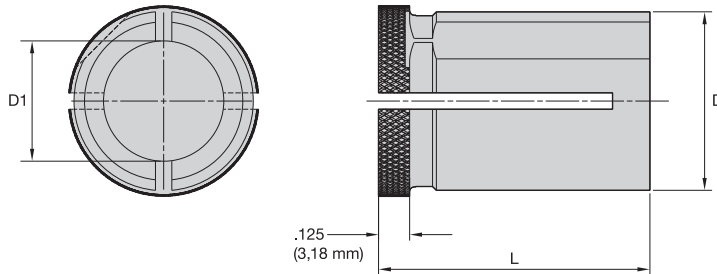
NOTE: Do not overtighten clamp screw; use torque recommendations above.
Supplied with clamp screw.
Clamp screw wrench not included.



■ HDB • Internal Coolant Only • Inch

order number	catalog number	D1	D2	L1	L9
1021167	KM32TSHDB6126	.750	1.26	1.260	1.06

NOTE: For bushings, see page A251.



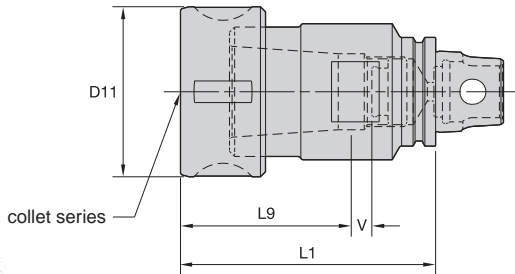
■ HDB • Inch

order number	catalog number	D1	D	L
1272797	HDB6250	.250	.750	1.120
1272798	HDB6375	.375	.750	1.120
1272799	HDB6500	.500	.750	1.120
1272800	HDB6625	.625	.750	1.120

- Tremendous Grip (3:1 advantage).
- Balanced by design.



KM32TS Shank Tools



■ TG • Round Nut

order number	catalog number	CST collet series	D11		L1		L9		V	
			mm	in	mm	in	mm	in	mm	in
1144185	KM32TSTGB075075M	TG75	50	1.97	75	2.953	53,0	2.09	2	.08

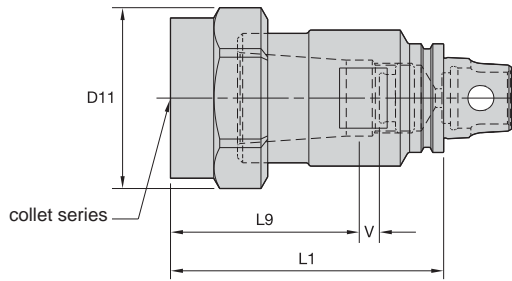
■ Spare Parts

catalog number	round assembly	HSW	Nm	ft. lbs.	stop screw	wrench size stop screw
KM32TSTGB075075M	LNA075M	HSW45M	136	100	SS081041G	4 mm & 5/32

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16–L17.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 Balanceable/Interchangeable locknuts are available and must be ordered separately; see page L16.
 TG standard straight-bore collets, see page J10.
 TG tap collets, see page J10.

(continued)

(TG continued)



TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG75	2,6	20,0	3/64	3/4

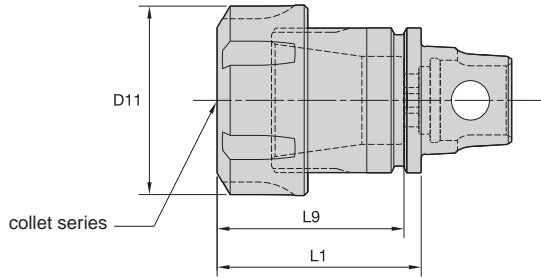
■ TG • Hex Nut

order number	catalog number	CST collet series	D11		L1		L9		V	
			mm	in	mm	in	mm	in	mm	in
1024232	KM32TSTGB075316	TG75	53	2.09	80	3.161	58,0	2.28	2	.08

■ Spare Parts


catalog number	locknut	wrench	Nm	ft. lbs.	stop screw	wrench size stop screw
KM32TSTGB075316	NPA075	OEW188	136	100	SS081041G	4 mm & 5/32

- Grip (2:1 advantage).
- Balanced by design.



ER collet series	mm		inch	
	min	max	min	max
ER25	1,0	16,0	.02	.63
ER32	1,0	20,0	.08	.81

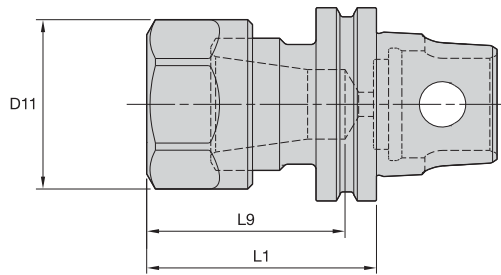
■ ER • Round Nut



order number	catalog number	CST collet series	D11		L1		L9		locknut	wrench	Nm	ft. lbs.
			mm	in	mm	in	mm	in				
1013521	KM32TSER25045M	ER25	42	1.654	45	1.772	41,2	1.622	LNSER25M	ER25WM	104	77
1013522	KM32ER3251	ER32	50	1.969	51	2.008	47,3	1.863	LNSER32M	ER32WM	136	100



(continued)

(ER continued)



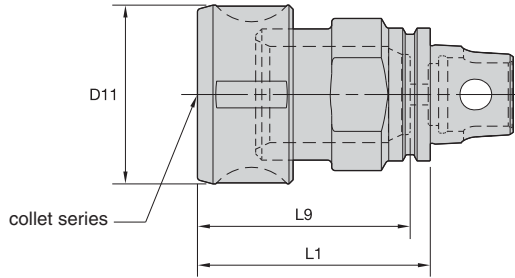
ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER16	0,5	10,0	.02	.40

■ ER • Hex Nut

order number	catalog number	CST collet series	D11		L1		L9		locknut	wrench	straight collet torque (Nm)	straight collet torque (ft. lbs.)	counterbore collet torque (Nm)	counterbore collet torque (ft. lbs.)
			mm	in	mm	in	mm	in						
1013520	KM32TSER16036M	ER16	28	1.102	36	1.417	32,8	1.291			56	42	40	30

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Interchangeable coolant-style locknuts and coolant disks are available and must be ordered separately; see pages L16–L17.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.

- Grip 1:1.
- Balanced by design.



KM32TS Shank Tools



DA collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
200DA	1,0	10,0	.04	.39
180DA	3,0	20,0	.04	.75

■ DA • Round Nut

order number	catalog number	CST collet series	D11		L1		L9		V	
			mm	in	mm	in	mm	in	mm	in
1144184	KM32TSDA208060M	DA200	28	1.10	60	2.362	37	1.46	6,0	.24
1144190	KM32TSDA188056M	DA180	43	1.69	56	2.205	53	2.08	—	—

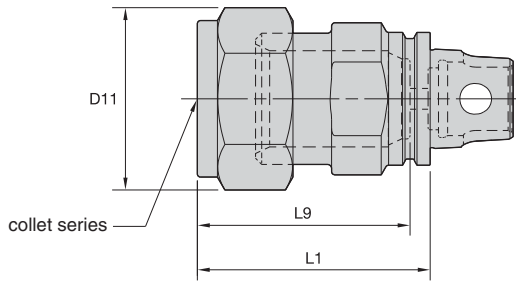
■ Spare Parts



catalog number	locknut	wrench	Nm	ft. lbs.	stop screw	wrench size stop screw
KM32TSDA208060M	LNA208RM	HSW25M	61	45	SS038031G	2 mm & 5/64
KM32TSDA188056M	LNA188M	HSW45M	136	100	—	—

(continued)

(DA continued)



DA collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
200DA	1,0	10,0	.04	.39
180DA	3,0	20,0	.04	.75

■ DA • Hex Nut

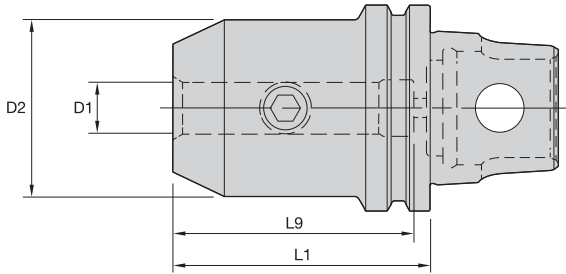
order number	catalog number	CST collet series	D11		L1		L9		V	
			mm	in	mm	in	mm	in	mm	in
1024325	KM32TSDA208236	DA200	29	1.15	60	2.362	35	1.38	8,0	.32
1145045	KM32TSDA188220	DA180	44	1.73	56	2.205	53	2.08	—	—
1024326	KM32TSDA188295	DA180	44	1.73	75	2.953	49	1.93	5,0	.20

■ Spare Parts



catalog number	locknut	wrench	Nm	ft. lbs.	stop screw	wrench size stop screw
KM32TSDA208236	NPA208	OEW100	54	40	SS038031G	2 mm & 5/64
KM32TSDA188220	NPA188	OEW225	102	75	—	—
KM32TSDA188295	NPA188	OEW150	102	75	SS081041G	4 mm & 5/32

NOTE: Tighten locknut to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 DA standard straight-bore collets, see page J62.
 DA non-pullout collets, see pages J65–J68.



■ EM • Metric

order number	catalog number	D1	D2	L1	L9	clamp screw	wrench size clamp screw	Nm
1144187	KM32TSEM06040M	6	25	40	37,5	SS03M012	3mm	7
1144188	KM32TSEM08040M	8	28	40	37,5	SS03M014	4mm	15
1144191	KM32TSEM10045M	10	35	45	42,0	SS03M018	5mm	25
1144189	KM32TSEM12050M	12	42	50	47,0	SS03M023	6mm	35

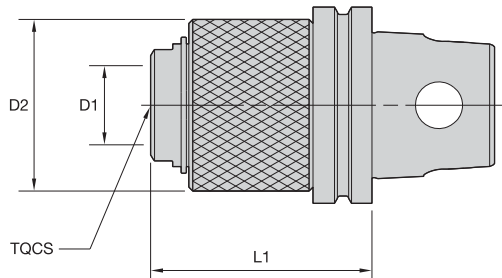
■ EM • Inch

order number	catalog number	D1	D2	L1	L9	clamp screw	wrench size clamp screw	ft. lbs.
1145046	KM32TSEM038177	.375	1.00	1.772	1.63	ELS038031PKG	3/16	15
1024263	KM32TSEM050197	.500	1.38	1.969	1.84	ELS044038PKG	7/32	20

NOTE: Do not overtighten clamp screw; use torque recommendations above.
Supplied with clamp screw.
Clamp screw wrench not included.

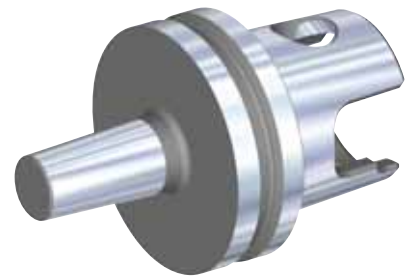
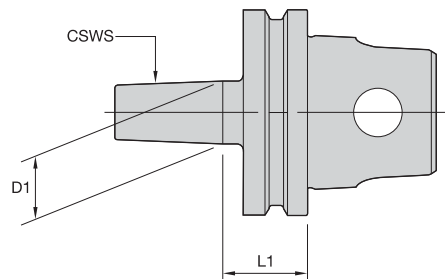


KM32TS Shank Tools


■ ST • Solid Tap Chuck

order number	catalog number	TQCS adapter size	D1		D2		L1	
			mm	in	mm	in	mm	in
1013514	KM32TSST140	1	19	.748	35	1.38	40,05	1.577

NOTE: Quick-change tap adapters are available and must be ordered separately; see page J76.


■ JT

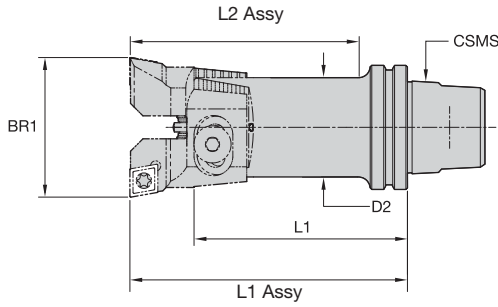
order number	catalog number	CSWS system size	D1		L1	
			mm	in	mm	in
1021467	KM32TSJT1	1	10	.384	13,34	.525



- Preset on tool setter.
- Blade set included.



KM32 ModBORE



■ **RBHT-F • 0° Lead**



order number	catalog number	BR1 bore range		CSMS system size	D2		L1		L1 Assy		L2 Assy		blade screw	washer	pin
		mm	in		mm	in	mm	in	mm	in	mm	in			
3586519	KM32RBHT24	23,500-30,500	.9252-1.2008	KM32	20,0	.79	75,4	2.97	90,0	3.54	76,0	2.99	840.142.200	841.142.200	841.342.200
3586520	KM32RBHT30	29,500-40,000	1.1614-1.5748	KM32	25,0	.98	83,8	3.30	100,0	3.94	86,0	3.39	840.142.250	841.142.250	841.342.200

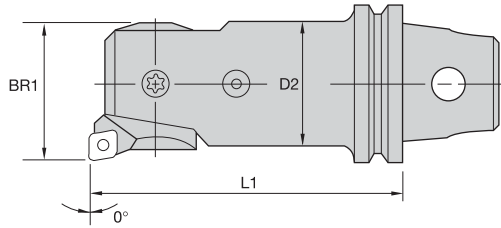
NOTE: Blade sets are ordered separately; see the Kennametal Innovations Master Catalog Cutting Tools 2013.

■ **Reference Insert Blade Sets**

BR1		90° lead blade sets	70° lead blade sets	90° lead simultaneous adjusting blade sets	90° lead split depth of cut blade
mm	inch				
23.500 - 30.500	.9252 - 1.2008	MB24RBHT06F	MB24RBHT06K	SYB24RBHT06F	SDB24RBHT06F
29.500 - 40.000	1.1614 - 1.5748	MB30RBHT06F	MB30RBHT06K	SYB30RBHT06F	SDB30RBHT06F

NOTE: Blade gage insert is CC..T21.51.

- 0,01mm (.0004") diameter adjustment.
- Insert holder included.

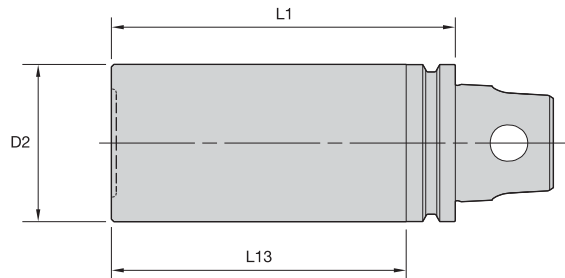


KM32 ModBORE • KM32TS Shank Tools

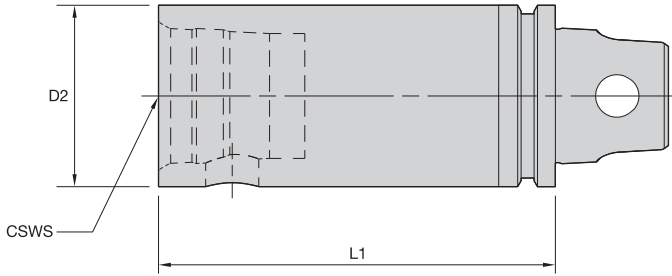
■ FBHS • 0° Lead

order number	catalog number	BR1 bore range		L1		D2		cartridge
		mm	in	mm	in	mm	in	
3586572	KM32FBHS24	23,9	.941	85,94	3.384	20	.79	R24FBHS06
3586573	KM32FBHS31	30,9	1.217	82,12	3.233	25	.98	R31FBHS06

NOTE: Blade gage insert is CC..T21.51.


■ GB • Gage Bar

order number	catalog number	L1		D2		L13	
		mm	in	mm	in	mm	in
1144559	KM32TSGB32070M	70,00	2.756	32,00	1.260	60,00	2.362



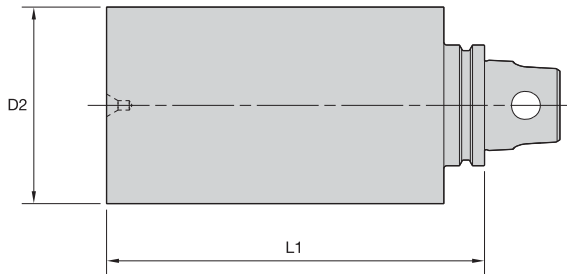
■ S • KM Extension



order number	catalog number	CSWS system size	D2		L1		wrench size			spare parts package
			mm	in	mm	in	actuation screw	Nm	ft. lbs.	
1144258	KM32TSS32050M	KM32	32	1.260	50	1.969	5mm	8-11	6-8	KM32PKG3S
1144259	KM32TSS32070M	KM32	32	1.260	70	2.756	5mm	8-11	6-8	KM32PKG3S



KM32TS Shank Tools



■ BN • Blank

order number	catalog number	D2		L1		hardness range
		mm	in	mm	in	
1017544	KM32TSBN52100M	52	2.047	100	3.937	32-38 RW C
1021072	KM32TSBN52048M	52	2.047	48	1.890	32-38 RW C
1021073	KM32TSBN75048M	75	2.953	48	1.890	32-38 RW C

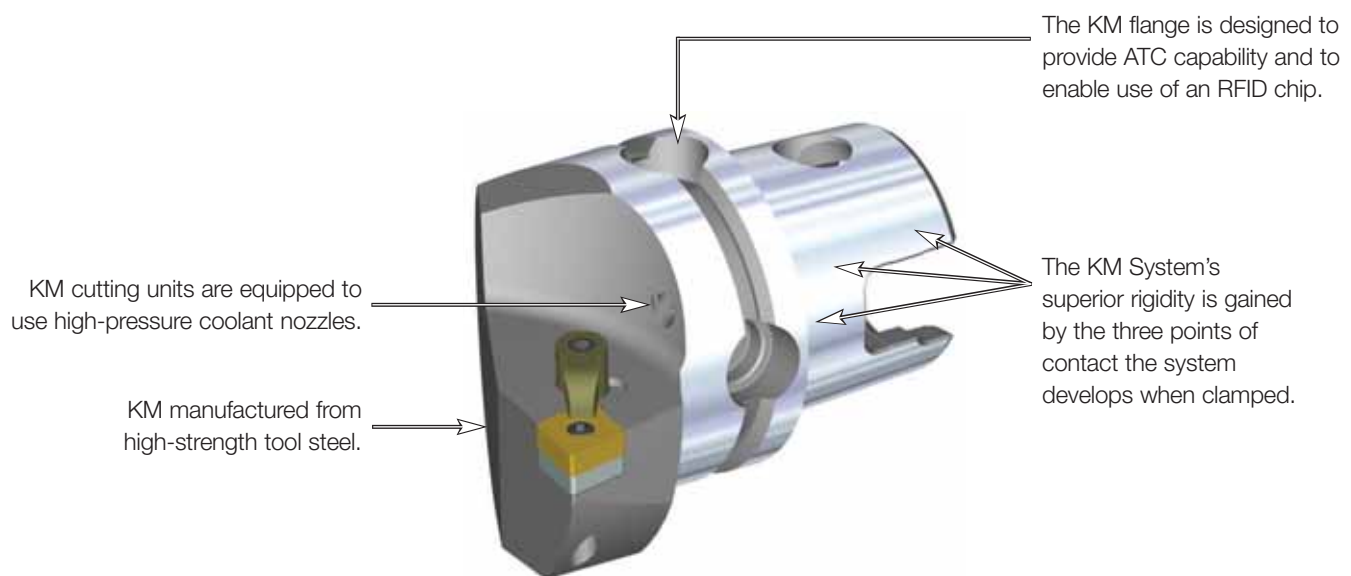
KM™ Quick Change Clamping System • KM40TS™ Series

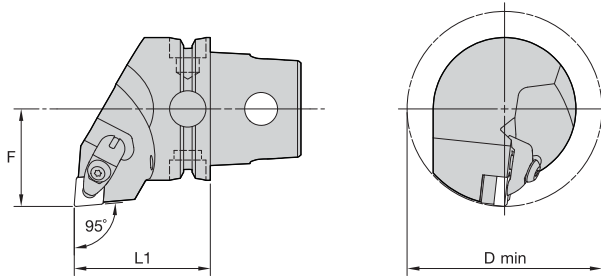
Primary Application

The KM Quick Change Clamping System is the best system on the market suitable for static, rotating, and multitasking operations. With its industry-leading design, the KM Quick Change System provides greater clamping forces than other quick-change systems. The KM Quick Change System gives you the flexibility to use KM on any application within your shop.

Features and Benefits





- KM is an ISO standard (ISO 26622).
- KM clamping units provide a 4:1 mechanical advantage.
- KM cutting units are capable of 100 bar (1,500 psi) coolant pressure.

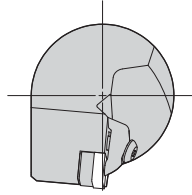
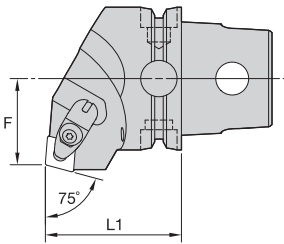



KM40TS Cutting Units

■ DCLN 95°

order number	catalog number	L1		F		D min		gage insert	kg
		mm	in	mm	in	mm	in		
		right hand							
3950183	KM40TSDCLNR12KC04	45	1.772	27	1.063	54	2.13	CN..120408/CN..432	0,36
3950184	KM40TSDCLNR16KC06	45	1.772	27	1.063	—	—	CN..160612/CN..543	0,36
		left hand							
3950161	KM40TSDCLNL12KC04	45	1.772	27	1.063	54	2.13	CN..120408/CN..432	0,36
3950162	KM40TSDCLNL16KC06	45	1.772	27	1.063	—	—	CN..160612/CN..543	0,36

■ Spare Parts





catalog number	 shim	 shim screw	 clamp assembly	 pin
	right hand			
KM40TSDCLNR12KC04	ICSN433	KMSP415IP	CM234R ASSY	SSP025016M
KM40TSDCLNR16KC06	ICSN543	KMSP515IP	CM209R ASSY	SSP025018M
	left hand			
KM40TSDCLNL12KC04	ICSN433	KMSP415IP	CM234R ASSY	SSP025016M
KM40TSDCLNL16KC06	ICSN543	KMSP515IP	CM209R ASSY	SSP025018M

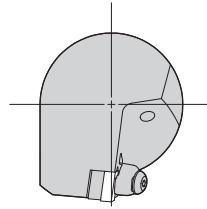
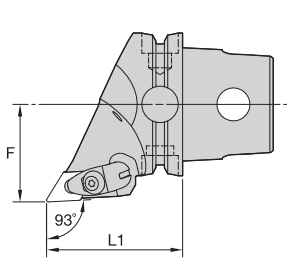


■ DCRN 75°

order number	catalog number	L1		F		gage insert	kg
		mm	in	mm	in		
	right hand						
3950186	KM40TSDCRNR12KC04	45	1.772	24	.945	CN..120408/CN..432	0,39
	left hand						
3950185	KM40TSDCRNL12KC04	45	1.772	24	.945	CN..120408/CN..432	0,39

■ Spare Parts





catalog number	   			
	shim	shim screw	clamp assembly	pin
right hand				
KM40TSDCRNR12KC04	ICSN443	KMSP415IP	CM234R ASSY	SSP025016M
left hand				
KM40TSDCRNL12KC04	ICSN443	KMSP415IP	CM234R ASSY	SSP025016M

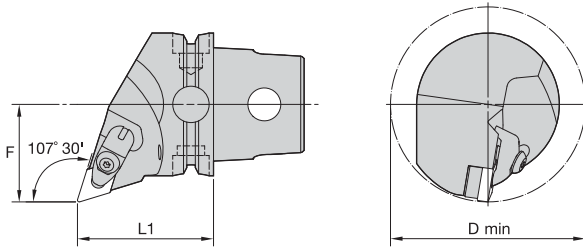


■ DDJN 93°

order number	catalog number	L1		F		gage insert	kg
		mm	in	mm	in		
		right hand					
3950163	KM40TSDDJNR15KC04	50	1.969	27	1.063	DN..150408/DN..432	0,33
3950164	KM40TSDDJNR15KC06	50	1.969	27	1.063	DN..150608/DN..442	0,32
		left hand					
3950151	KM40TSDDJNL15KC04	50	1.969	27	1.063	DN..150408/DN..432	0,33
3950152	KM40TSDDJNL15KC06	50	1.969	27	1.063	DN..150608/DN..442	0,32

■ Spare Parts

catalog number	 shim	 shim screw	 clamp assembly	 pin
	right hand			
KM40TSDDJNR15KC04	IDSN443	KMSP415IP	CM234R ASSY	SSP025016M
KM40TSDDJNR15KC06	IDSN433	KMSP415IP	CM234R ASSY	SSP025016M
	left hand			
KM40TSDDJNL15KC04	IDSN443	KMSP415IP	CM234R ASSY	SSP025016M
KM40TSDDJNL15KC06	IDSN433	KMSP415IP	CM234R ASSY	SSP025016M

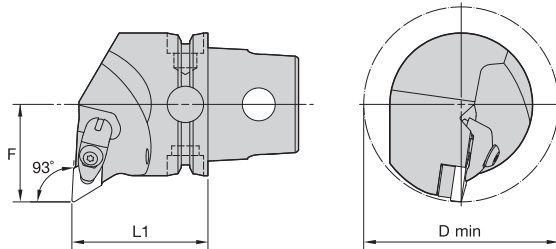


■ DDQN 107° 30'

order number	catalog number	L1		F		D min		gage insert	kg
		mm	in	mm	in	mm	in		
	right hand								
3950167	KM40TSDDQNR15KC04	45	1.772	27	1.063	86	3.39	DN..150408/DN..432	0,31
3950168	KM40TSDDQNR15KC06	45	1.772	27	1.063	86	3.39	DN..150608/DN..442	0,31
	left hand								
3950165	KM40TSDDQNL15KC04	45	1.772	27	1.063	86	3.39	DN..150408/DN..432	0,31
3950166	KM40TSDDQNL15KC06	45	1.772	27	1.063	86	3.39	DN..150608/DN..442	0,31

■ Spare Parts

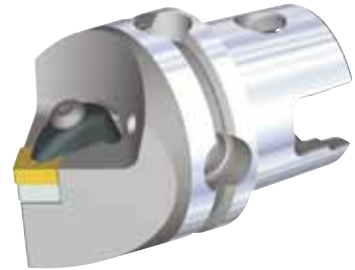
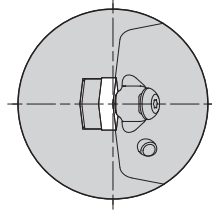
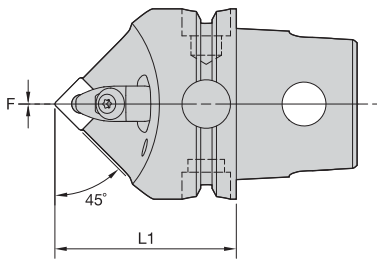
catalog number				
	shim	shim screw	clamp assembly	pin
right hand				
KM40TSDDQNR15KC04	IDSN443	KMSP415IP	CM234R ASSY	SSP025016M
KM40TSDDQNR15KC06	IDSN433	KMSP415IP	CM234R ASSY	SSP025016M
left hand				
KM40TSDDQNL15KC04	IDSN443	KMSP415IP	CM234R ASSY	SSP025016M
KM40TSDDQNL15KC06	IDSN433	KMSP415IP	CM234R ASSY	SSP025016M


KM40TS Cutting Units

■ DDUN 93°

order number	catalog number	L1		F		D min		gage insert	kg
		mm	in	mm	in	mm	in		
	right hand								
3950171	KM40TSDDUNR15KC04	45	1.772	27	1.063	86	3.39	DN..150408/DN..432	0,37
3950172	KM40TSDDUNR15KC06	45	1.772	27	1.063	86	3.39	DN..150608/DN..442	0,37
	left hand								
3950169	KM40TSDDUNL15KC04	45	1.772	27	1.063	86	3.39	DN..150408/DN..432	0,37
3950170	KM40TSDDUNL15KC06	45	1.772	27	1.063	86	3.39	DN..150608/DN..442	0,36

■ Spare Parts

catalog number	shim	shim screw	clamp assembly	pin
right hand				
KM40TSDDUNR15KC04	IDSN443	KMSP415IP	CM234R ASSY	SSP025016M
KM40TSDDUNR15KC06	IDSN433	KMSP415IP	CM234R ASSY	SSP025016M
left hand				
KM40TSDDUNL15KC04	IDSN443	KMSP415IP	CM234R ASSY	SSP025016M
KM40TSDDUNL15KC06	IDSN433	KMSP415IP	CM234R ASSY	SSP025016M

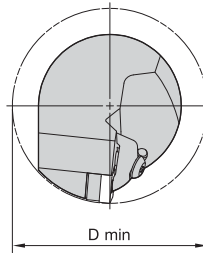
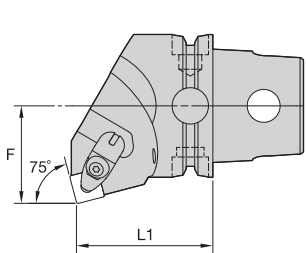


■ DSDN 45°

order number	catalog number	L1		F		gage insert	kg
		mm	in	mm	in		
3950743	KM40TSDSDNN12KC04	45	1.772	0	.000	SN..120408/SN..432	0,33

■ Spare Parts

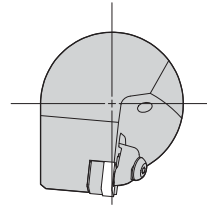
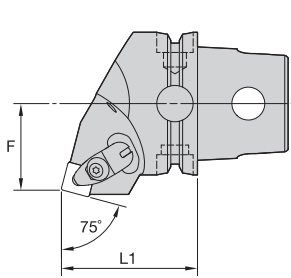
catalog number				
	shim	shim screw	clamp assembly	pin
KM40TSDSDNN12KC04	ISSN443	KMSP415IP	CM234R ASSY	SSP025016M


■ DSKN 75°

order number	catalog number	L1		F		D min		gage insert	kg
		mm	in	mm	in	mm	in		
	right hand								
3950745	KM40TSDSKNR12KC04	45	1.772	27	1.063	54	2.13	SN..120408/SN..432	0,40
	left hand								
3950744	KM40TSDSKNL12KC04	45	1.772	27	1.063	54	2.13	SN..120408/SN..432	0,40

■ Spare Parts





catalog number	shim	shim screw	clamp assembly	pin
right hand KM40TSDSKNR12KC04	ISSN443	KMSP415IP	CM234R ASSY	SSP025016M
left hand KM40TSDSKNL12KC04	ISSN443	KMSP415IP	CM234R ASSY	SSP025016M

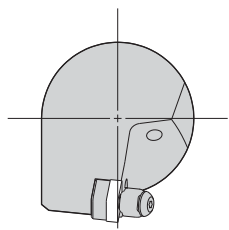
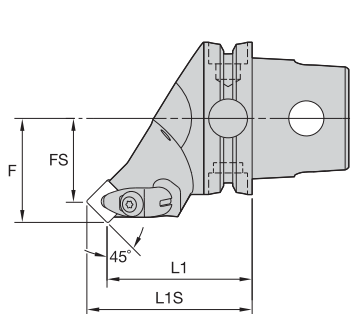


■ DSRN 75°

order number	catalog number	L1		F		gage insert	kg
		mm	in	mm	in		
	right hand						
3950747	KM40TSDSRNR12KC04	45	1.772	24	.945	SN..120408/SN..432	0,36
	left hand						
3950746	KM40TSDSRNL12KC04	45	1.772	24	.945	SN..120408/SN..432	0,36

■ Spare Parts

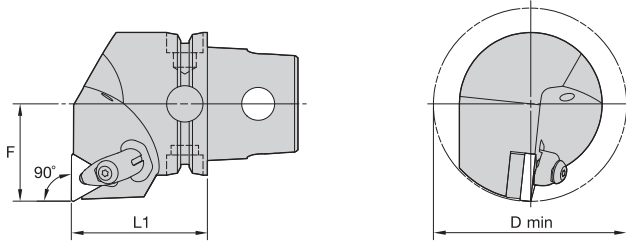
catalog number				
	shim	shim screw	clamp assembly	pin
right hand				
KM40TSDSRNR12KC04	ISSN443	KMSP415IP	CM234R ASSY	SSP025016M
left hand				
KM40TSDSRNL12KC04	ISSN443	KMSP415IP	CM234R ASSY	SSP025016M


KM40TS Cutting Units

■ DSSN 45°

order number	catalog number	L1		L1S		F		FS		gage insert	kg
		mm	in	mm	in	mm	in	mm	in		
		right hand									
3950749	KM40TSDSSNR12KC04	45	1.772	53,3	2.100	27	1.063	19	.735	SN..120408/SN..432	0,38
		left hand									
3950748	KM40TSDSSNL12KC04	45	1.772	53,3	2.100	27	1.063	19	.735	SN..120408/SN..432	0,38

■ Spare Parts

catalog number				
	shim	shim screw	clamp assembly	pin
	right hand			
KM40TSDSSNR12KC04	ISSN443	KMSP415IP	CM234R ASSY	SSP025016M
	left hand			
KM40TSDSSNL12KC04	ISSN443	KMSP415IP	CM234R ASSY	SSP025016M



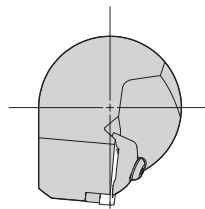
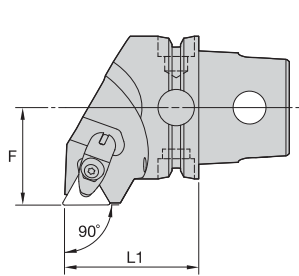
■ DTFN 90°

order number	catalog number	L1		F		D min		gage insert	kg
		mm	in	mm	in	mm	in		
	right hand								
3950751	KM40TSDTFNR22KC04050M	50	1.969	27	1.063	54	2.13	TN..220408/TN..432	0,45
	left hand								
3950750	KM40TSDTFNL22KC04050M	50	1.969	27	1.063	54	2.13	TN..220408/TN..432	0,45

■ Spare Parts



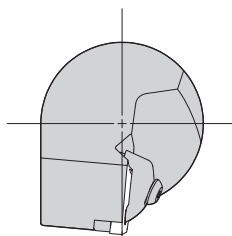
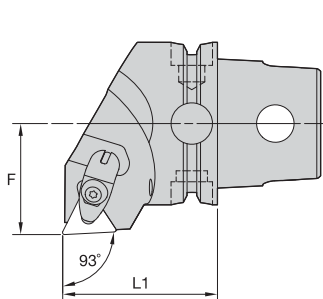
catalog number	shim	shim screw	clamp assembly	pin
right hand KM40TSDTFNR22KC04050M	ITSN433	KMSP415IP	CM234R ASSY	SSP025016M
left hand KM40TSDTFNL22KC04050M	ITSN433	KMSP415IP	CM234R ASSY	SSP025016M


■ DTGN 90°

order number	catalog number	L1		F		gage insert	kg
		mm	in	mm	in		
3950753	right hand KM40TSDTGNR22KC04	45	1.772	27	1.063	TN..220408/TN..432	0,39
3950752	left hand KM40TSDTGNL22KC04	45	1.772	27	1.063	TN..220408/TN..432	0,39

■ Spare Parts

catalog number				
	shim	shim screw	clamp assembly	pin
right hand KM40TSDTGNR22KC04	ITSN443	KMSP415IP	CM234R ASSY	SSP025016M
left hand KM40TSDTGNL22KC04	ITSN443	KMSP415IP	CM234R ASSY	SSP025016M

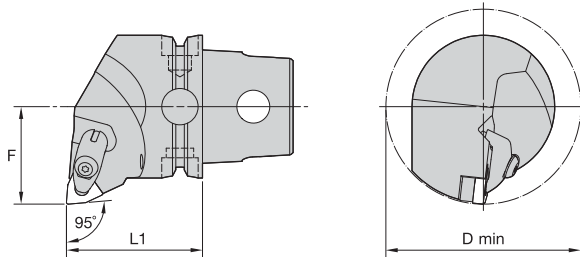


■ DTJN 93°

order number	catalog number	L1		F		gage insert	kg
		mm	in	mm	in		
3950755	right hand KM40TSDTJNR22KC04	45	1.772	27	1.063	TN..220408/TN..432	0,39
3950754	left hand KM40TSDTJNL22KC04	45	1.772	27	1.063	TN..220408/TN..432	0,39

■ Spare Parts

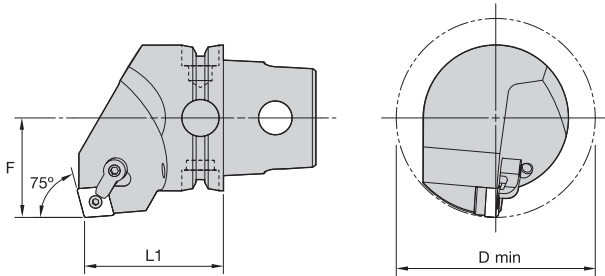
catalog number				
	shim	shim screw	clamp assembly	pin
right hand KM40TSDTJNR22KC04	ITSN443	KMSP415IP	CM234R ASSY	SSP025016M
left hand KM40TSDTJNL22KC04	ITSN443	KMSP415IP	CM234R ASSY	SSP025016M


■ DWLN 95°

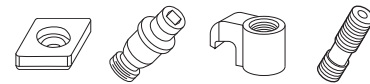
order number	catalog number	L1		F		D min		gage insert	kg
		mm	in	mm	in	mm	in		
	right hand								
3950757	KM40TSDWLN R08KC04	45	1.772	27	1.063	54	2.13	WN..080408/WN..432	0,38
	left hand								
3950756	KM40TSDWLN L08KC04	45	1.772	27	1.063	54	2.13	WN..080408/WN..432	0,38

■ Spare Parts

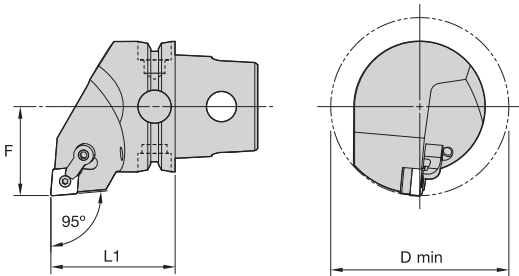
catalog number	shim	shim screw	clamp assembly	pin
KM40TSDWLN R08KC04	IWSN433	KMSP415IP	CM234R ASSY	SSP025016M
KM40TSDWLN L08KC04	IWSN433	KMSP415IP	CM234R ASSY	SSP025016M



■ MCKN 75°



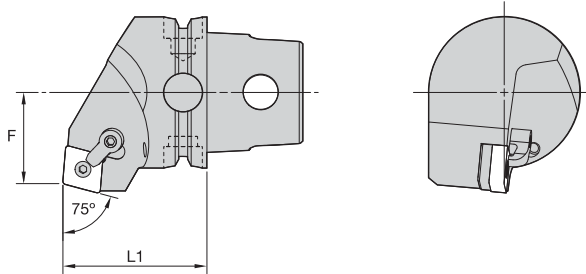
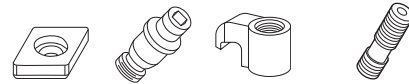
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
	right hand													
3901336	KM40TSMCKNR12	40	1.575	27	1.063	54	2.126	CN..120408/CN..432	ICSN432	KLM46	CKM20LP	STCM11	0,35	.76
	left hand													
3901335	KM40TSMCKNL12	40	1.575	27	1.063	54	2.126	CN..120408/CN..432	ICSN432	KLM46	CKM20LP	STCM11	0,35	.76



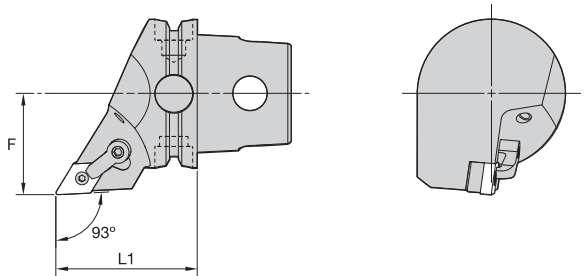
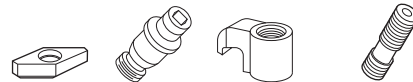
■ MCLN 95°



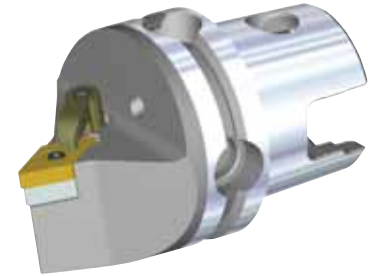
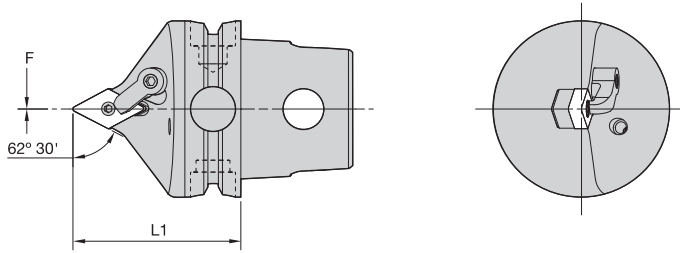
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
	right hand													
2647737	KM40TSMCLNR12	40	1.575	27	1.063	54	2.126	CN..120408/CN..432	ICSN432	KLM46	CKM20LP	STCM11	0,32	.70
3901339	KM40TSMCLNR16	40	1.575	27	1.063	120	4.724	CN..160612/CN..543	ICSN533	KLM58	CKM20LP	STCM11	0,33	.73
	left hand													
3901337	KM40TSMCLNL12	40	1.575	27	1.063	54	2.126	CN..120408/CN..432	ICSN432	KLM46	CKM20LP	STCM11	0,32	.70
3901338	KM40TSMCLNL16	40	1.575	27	1.063	120	4.724	CN..160612/CN..543	ICSN533	KLM58	CKM20LP	STCM11	0,33	.73


■ MCRN 75°


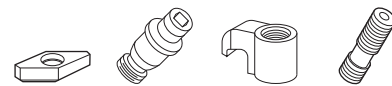
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
3901341	right hand	40	1.575	24	.945	CN..120408/CN..432	ICSN432	KLM46	CKM20LP	STCM11	0,33	.72
	KM40TSMCRNR12											
3901340	left hand	40	1.575	24	.945	CN..120408/CN..432	ICSN432	KLM46	CKM20LP	STCM11	0,33	.72
	KM40TSMCRNL12											


■ MDJN 93°


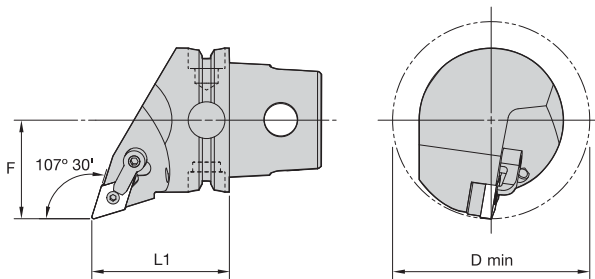
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
3901291	KM40TSMDJNR1504	40	1.575	27	1.063	DN..150408/DN..432	IDSN442	KLM46L	CKM23LP	STCM11	0,26	.570
3901292	KM40TSMDJNR1506	40	1.575	27	1.063	DN..150608/DN..442	IDSN432	KLM46L	CKM23LP	STCM11	0,26	.570
3901289	KM40TSMDJNL1504	40	1.575	27	1.063	DN..150408/DN..432	IDSN442	KLM46L	CKM23LP	STCM11	0,26	.570
3901290	KM40TSMDJNL1506	40	1.575	27	1.063	DN..150608/DN..442	IDSN432	KLM46L	CKM23LP	STCM11	0,26	.570



■ MDPN 62° 30'



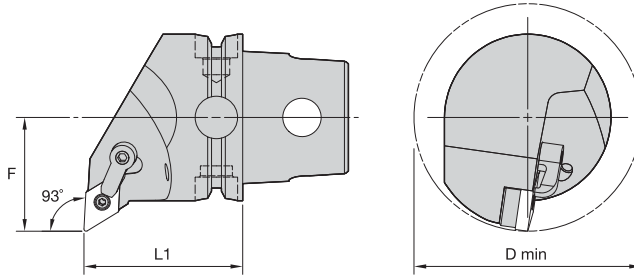
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		mm	in	mm	in							
3901293	KM40TSMDPNN1504	40	1.575	0	.000	DN..150408/DN..432	IDSN442	KLM46L	CKM20LP	STCM11	0,23	.50
3901294	KM40TSMDPNN1506	40	1.575	0	.000	DN..150608/DN..442	IDSN432	KLM46L	CKM20LP	STCM11	0,22	.49



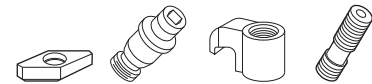
■ MDQN 107° 30'



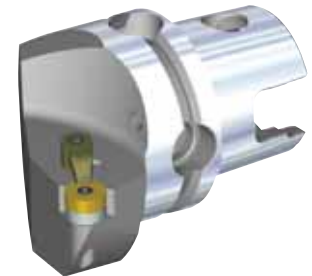
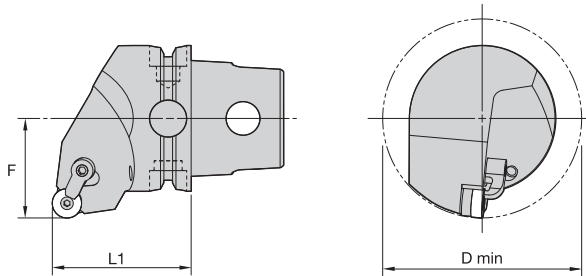
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
3901297	KM40TSMDQNR1504	40	1.575	27	1.063	54	2.126	DN..150408/DN..432	IDSN442	KLM46L	CKM23LP	STCM11	0,29	.63
3901298	KM40TSMDQNR1506	40	1.575	27	1.063	54	2.126	DN..150608/DN..442	IDSN432	KLM46L	CKM23LP	STCM11	0,28	.62
3901295	KM40TSMDQNL1504	40	1.575	27	1.063	54	2.126	DN..150408/DN..432	IDSN442	KLM46L	CKM23LP	STCM11	0,28	.63
3901296	KM40TSMDQNL1506	40	1.575	27	1.063	54	2.126	DN..150608/DN..442	IDSN432	KLM46L	CKM23LP	STCM11	0,28	.62



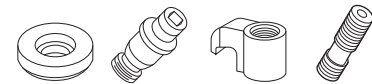
■ MDUN 93°



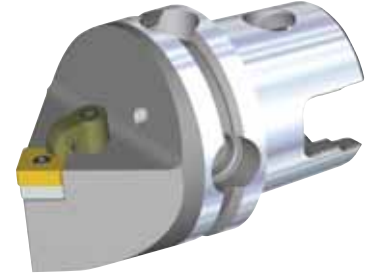
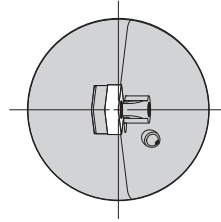
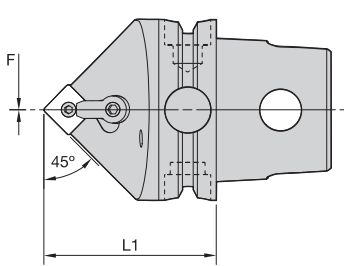
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
right hand														
3901301	KM40TSM DUNR1504	40	1.575	27	1.063	54	2.126	DN..150408/DN..432	IDSN442	KLM46L	CKM23LP	STCM11	0,31	.69
3901302	KM40TSM DUNR1506	40	1.575	27	1.063	54	2.126	DN..150608/DN..442	IDSN432	KLM46L	CKM23LP	STCM11	0,31	.68
left hand														
3901299	KM40TSM DUNL1504	40	1.575	27	1.063	54	2.126	DN..150408/DN..432	IDSN442	KLM46L	CKM23LP	STCM11	0,31	.69
3901300	KM40TSM DUNL1506	40	1.575	27	1.063	54	2.126	DN..150608/DN..442	IDSN432	KLM46L	CKM23LP	STCM11	0,31	.68



■ MRGN 0°



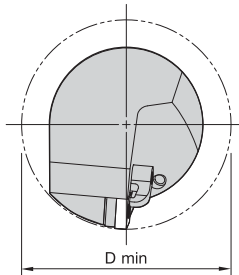
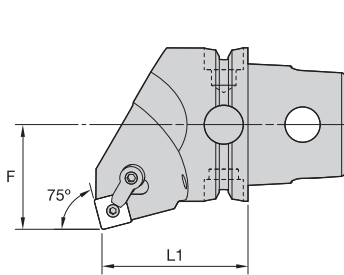
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
right hand														
3901306	KM40TSM RGNR12	40	1.575	27	1.063	100	3.937	RN..120400/RN..43	IRSN43	KLM46	CKM20LP	STCM11	0,32	.71
left hand														
3901305	KM40TSM RGNL12	40	1.575	27	1.063	100	3.937	RN..120400/RN..43	IRSN43	KLM46	CKM20LP	STCM11	0,32	.71



■ MSDN 45°



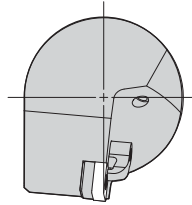
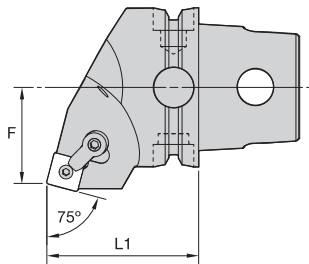
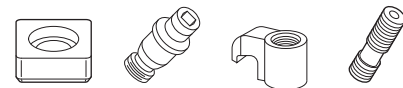
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
3901307	KM40TSMDDN12	40	1.575	0	.000	SN..120408/SN..432	ISSN432	KLM46	CKM20LP	STCM11	0,26	.57



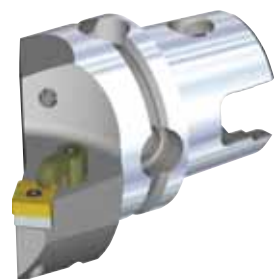
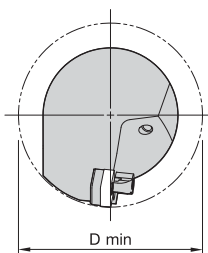
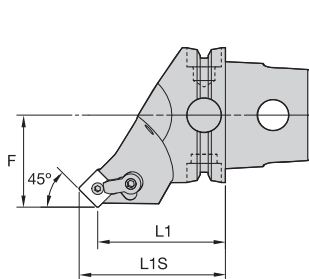
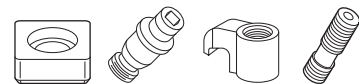
■ MSKN 75°



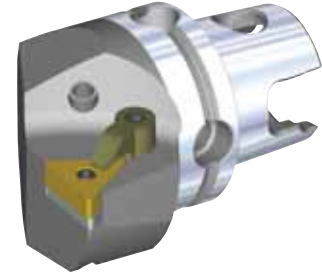
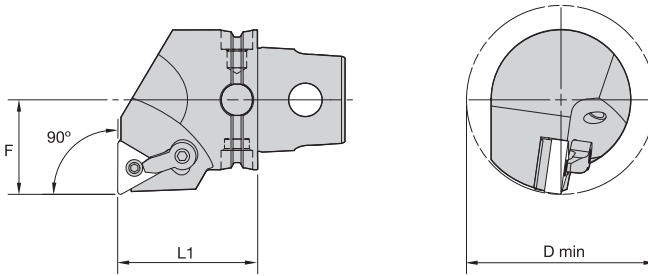
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
3901309	KM40TSMKSKNR12	40	1.575	27	1.063	54	2.126	SN..120408/SN..432	ISSN432	KLM46	CKM20LP	STCM11	0,36	.80
3901308	KM40TSMKSKNL12	40	1.575	27	1.063	54	2.126	SN..120408/SN..432	ISSN432	KLM46	CKM20LP	STCM11	0,36	.80


MSRN 75°


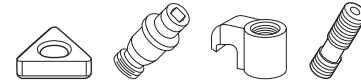
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
right hand												
3901311	KM40TMSRNR12	40	1.575	24	.945	SN..120408/SN..432	ISSN432	KLM46	CKM20LP	STCM11	0,31	.67
3901312	KM40TMSRNR15	40	1.575	24	.945	SN..150612/SN..543	ISSN533	KLM58	CKM20LP	STCM11	0,33	.73
left hand												
3901310	KM40TMSRNL12	40	1.575	24	.945	SN..120408/SN..432	ISSN432	KLM46	CKM20LP	STCM11	0,31	.68


MSSN 45°


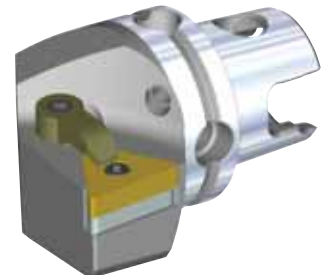
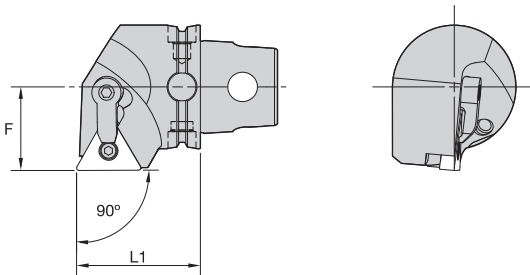
order number	catalog number	L1		L1S		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in	mm	in							
right hand																
3901314	KM40TSMSSNR12	40	1.575	48,3	1.903	27	1.063	80	3.150	SN..120408/SN..432	ISSN432	KLM46	CKM20LP	STCM11	0,32	.72
left hand																
3901313	KM40TSMSSNL12	40	1.575	48,3	1.903	27	1.063	80	3.150	SN..120408/SN..432	ISSN432	KLM46	CKM20LP	STCM11	0,32	.71



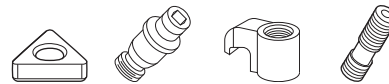
■ MTFN 90°



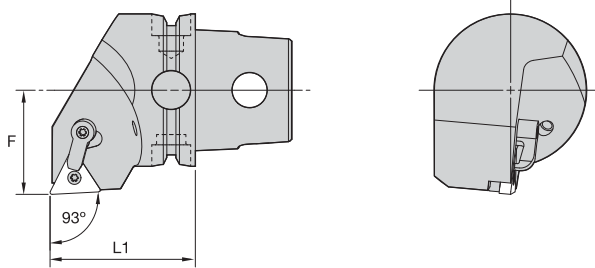
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
	right hand													
3902249	KM40SMTFNR16	40	1.575	27	1.063	54	2.126	TN..160408/TN..332	ITSN322	KLM34L	CKM7LP	STCM9	0,35	.78
	left hand													
3902247	KM40SMTFNL16	40	1.575	27	1.063	54	2.126	TN..160408/TN..332	ITSN322	KLM34L	CKM7LP	STCM9	0,35	.78



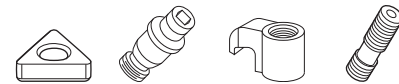
■ MTGN 90°



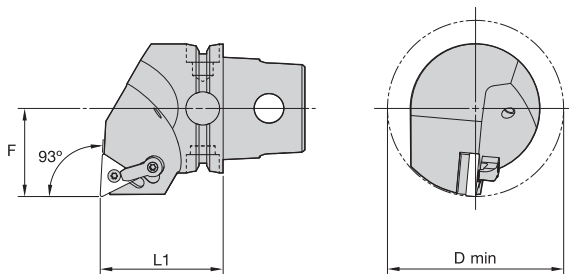
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
	right hand											
3902251	KM40SMTGNR22	40	1.575	27	1.063	TN..220408/TN..432	ITSN433	KLM46	CKM23LP	STCM11	0,35	.78
	left hand											
3902250	KM40SMTGNL22	40	1.575	27	1.063	TN..220408/TN..432	ITSN433	KLM46	CKM23LP	STCM11	0,35	.78



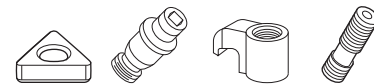
■ MTJN 93°



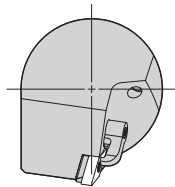
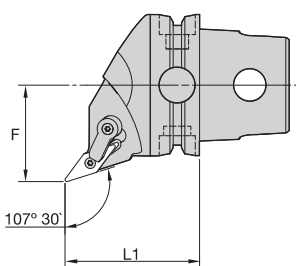
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg lbs	
		mm	in	mm	in						kg	lbs
right hand												
3902274	KM40TSM TJNR16	40	1.575	27	1.063	TN..160408/TN..332	ITSN322	KLM34L	CKM7LP	STCM9	0,33	.73
3902275	KM40TSM TJNR22	40	1.575	27	1.063	TN..220408/TN..432	ITSN433	KLM46	CKM23LP	STCM11	0,36	.79
left hand												
3902252	KM40TSM TJNL16	40	1.575	27	1.063	TN..160408/TN..332	ITSN322	KLM34L	CKM7LP	STCM9	0,33	.73
3902273	KM40TSM TJNL22	40	1.575	27	1.063	TN..220408/TN..432	ITSN433	KLM46	CKM23LP	STCM11	0,36	.79



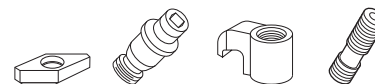
■ MTUN 93°



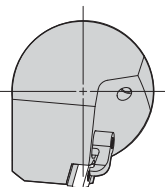
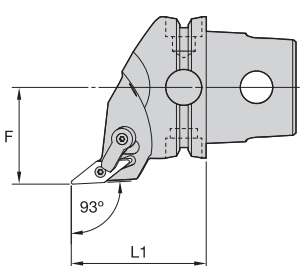
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg lbs	
		mm	in	mm	in	mm	in						kg	lbs
right hand														
3902278	KM40TSM TUNR16	40	1.575	27	1.063	54	2.126	TN..160408/TN..332	ITSN322	KLM34L	CKM7LP	STCM9	0,34	.76
left hand														
3902276	KM40TSM TUNL16	40	1.575	27	1.063	54	2.126	TN..160408/TN..332	ITSN322	KLM34L	CKM7LP	STCM9	0,34	.76
3902277	KM40TSM TUNL22	40	1.575	27	1.063	54	2.126	TN..220408/TN..432	ITSN433	KLM46	CKM20LP	STCM11	0,34	.75



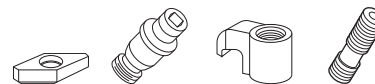
■ MVHN 107° 30'



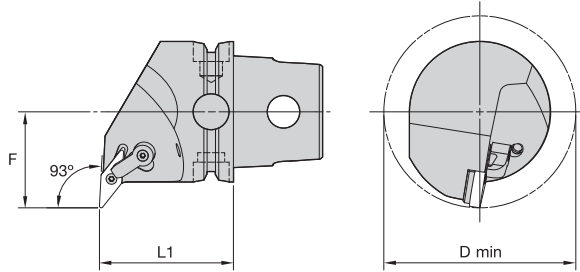
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
		right hand										
3902239	KM40TSMVHNR16050M	50	1.969	27	1.063	VN..160408/VN..332	IVSN322	KLM34L	CKM23LP	STCM11	0,35	.77
		left hand										
3902238	KM40TSMVHNL16050M	50	1.969	27	1.063	VN..160408/VN..332	IVSN322	KLM34L	CKM23LP	STCM11	0,35	.77



■ MVJN 93°



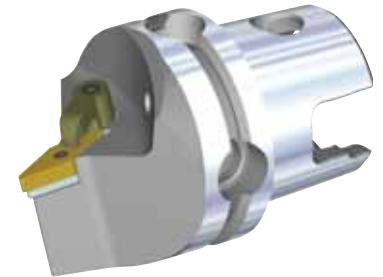
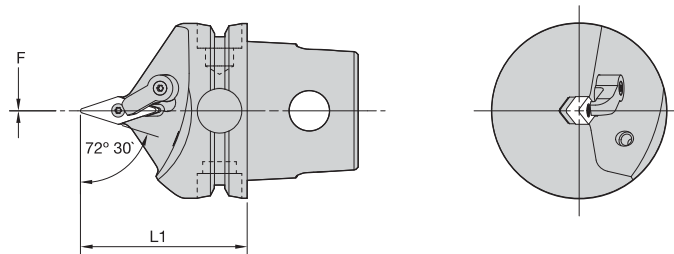
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
		right hand										
3902241	KM40TSMVJNR16045M	45	1.772	27	1.063	VN..160408/VN..332	IVSN322	KLM34L	CKM20LP	STCM11	0,30	.65
		left hand										
3902240	KM40TSMVJNL16045M	45	1.772	27	1.063	VN..160408/VN..332	IVSN322	KLM34L	CKM20LP	STCM11	0,30	.65



■ MVUN 93°



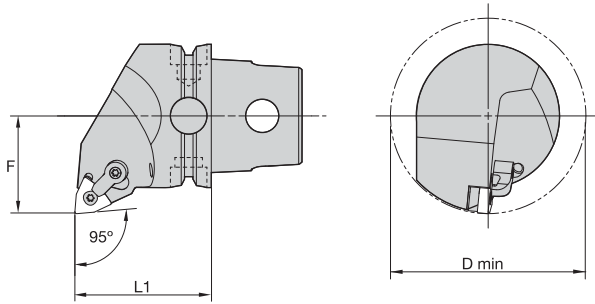
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs	
		mm	in	mm	in	mm	in								
		right hand													
3902253	KM40TSMVUNR16045M	45	1.772	27	1.063	54	2.126	VN..160408/VN..332	IVSN322	KLM34L	CKM23LP	STCM11	0,36	.79	
		left hand													
3902242	KM40TSMVUNL16045M	45	1.772	27	1.063	54	2.126	VN..160408/VN..332	IVSN322	KLM34L	CKM23LP	STCM11	0,36	.79	



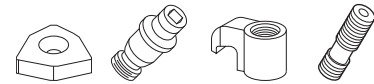
■ MVVN 72° 30'



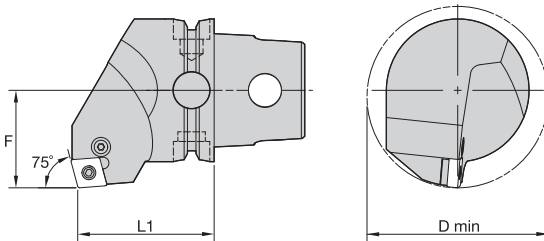
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
3902254	KM40TSMVNN16050M	50	1.969	0	.000	VN..160408/VN..332	IVSN322	KLM34L	CKM20LP	STCM11	0,29	.64



■ MWLN 95°



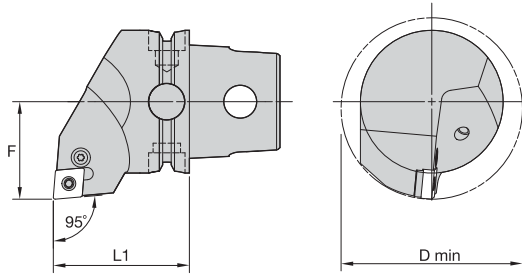
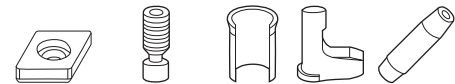
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
	right hand													
3902256	KM40TSMWLNRO8	40	1.575	27	1.063	54	2.126	WN..080408/WN..432	IWSN433	KLM46	CKM20LP	STCM11	0,34	.76
	left hand													
3902255	KM40TSMWLNLO8	40	1.575	27	1.063	54	2.126	WN..080408/WN..432	IWSN433	KLM46	CKM20LP	STCM11	0,34	.76



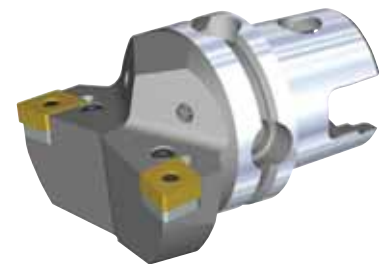
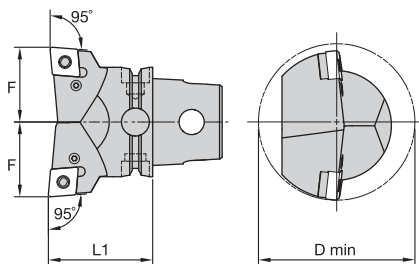
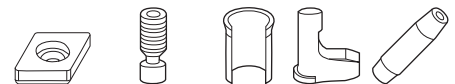
■ PCKN 75°



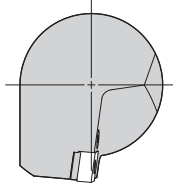
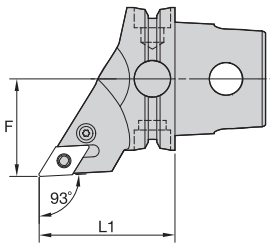
order number	catalog number	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in	mm	in								
	right hand														
3902261	KM40TSPCKNR12	40	1.575	27	1.063	50	1.969	CN..120408/CN..432	512.112	514.123	513.023	511.023	515.018	0,36	.78
	left hand														
3902260	KM40TSPCKNL12	40	1.575	27	1.063	50	1.969	CN..120408/CN..432	512.112	514.123	513.023	511.023	515.018	0,35	.77


■ PCLN 95°


order number	catalog number	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg lbs
		mm	in	mm	in	mm	in							
right hand														
3902315	KM40TSPCLNR09	40	1.575	27	1.063	50	1.969	CN..090308/CN..322	512.111	514.118	513.019	511.018	515.018	0,32 .71
3902316	KM40TSPCLNR12	40	1.575	27	1.063	50	1.969	CN..120408/CN..432	512.112	514.123	513.023	511.023	515.018	0,32 .70
left hand														
3902262	KM40TSPCLNL09	40	1.575	27	1.063	50	1.969	CN..090308/CN..322	512.111	514.118	513.019	511.018	515.018	0,33 .72
3902313	KM40TSPCLNL12	40	1.575	27	1.063	50	1.969	CN..120408/CN..432	512.112	514.123	513.023	511.023	515.018	0,32 .71


■ PCLN-2W 95°


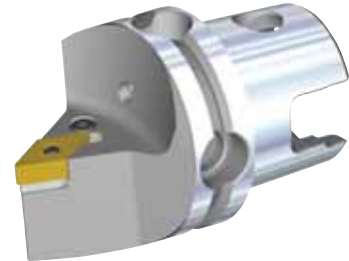
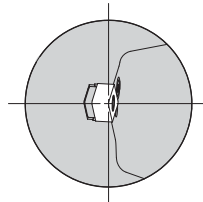
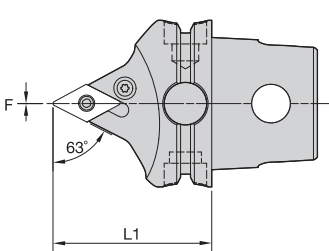
order number	catalog number	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg lbs
		mm	in	mm	in	mm	in							
right hand														
3902317	KM40TSPCLNR122W	40	1.575	27	1.063	60	2.362	CN..120408/CN..432	512.112	514.123	513.023	511.023	515.018	0,35 .77
left hand														
3902314	KM40TSPCLNL122W	40	1.575	27	1.063	60	2.362	CN..120408/CN..432	512.112	514.123	513.023	511.023	515.018	0,35 .77



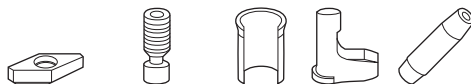
■ PDJN 93°



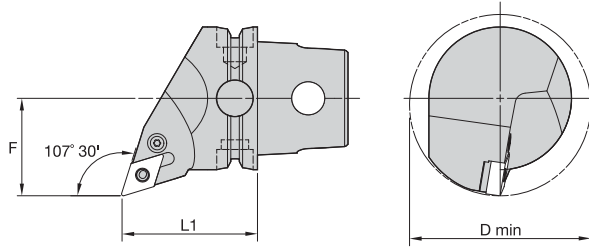
order number	catalog number	L1		F		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in								
	right hand												
3902312	KM40TSPDJNR11	40	1.575	27	1.063	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018	0,26	.56
3902323	KM40TSPDJNR15	40	1.575	27	1.063	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	0,26	.56
	left hand												
3902310	KM40TSPDJNL11	40	1.575	27	1.063	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018	0,25	.56
3902311	KM40TSPDJNL15	40	1.575	27	1.063	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	0,26	.56



■ PDNN 63°

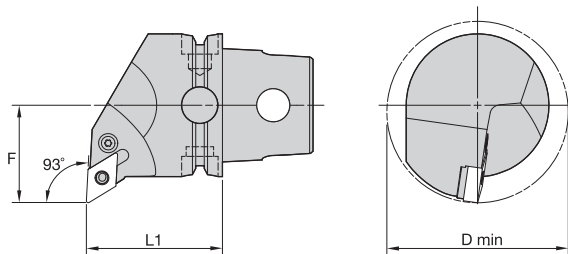
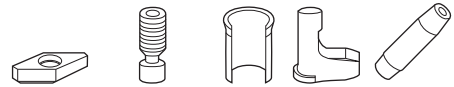


order number	catalog number	L1		F		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in								
	right hand												
3902325	KM40TSPDNNR15	45	1.772	0	.000	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	0,24	.52
	left hand												
3902324	KM40TSPDNNL15	45	1.772	0	.000	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	0,24	.52



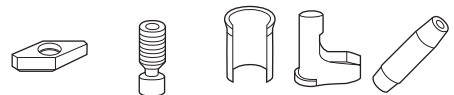
■ PDQN 107° 30'

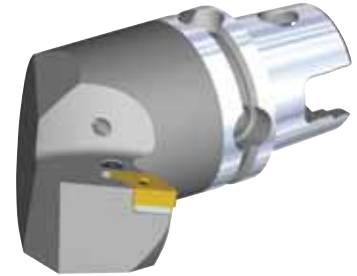
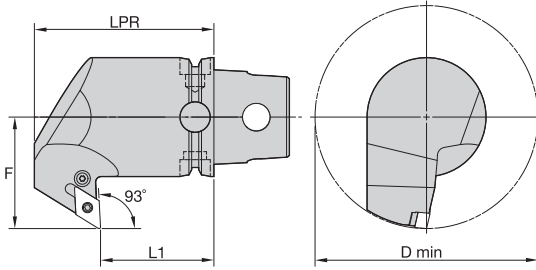
order number	catalog number	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in	mm	in								
	right hand														
3902327	KM40TSPDQNR11	40	1.575	27	1.063	50	1.969	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018	0,29	.63
	left hand														
3902326	KM40TSPDQNL11	40	1.575	27	1.063	50	1.969	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018	0,29	.63



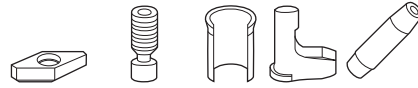
■ PDUN 93°

order number	catalog number	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in	mm	in								
	right hand														
3902330	KM40TSPDUNR11	40	1.575	27	1.063	50	1.969	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018	0,33	.72
3902331	KM40TSPDUNR15	40	1.575	27	1.063	50	1.969	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	0,32	.71
	left hand														
3902328	KM40TSPDUNL11	40	1.575	27	1.063	50	1.969	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018	0,31	.68
3902329	KM40TSPDUNL15	40	1.575	27	1.063	50	1.969	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	0,32	.71

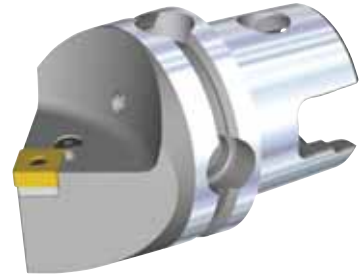
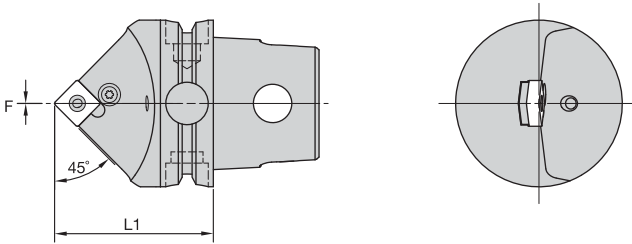




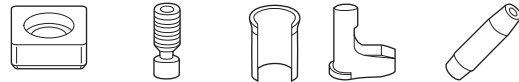
■ PDXN 93°



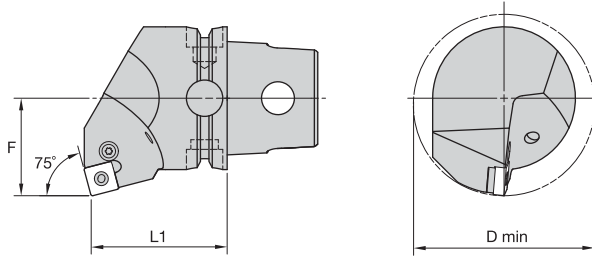
order number	catalog number	L1		LPR		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in	mm	in	mm	in								
		right hand															
3902333	KM40TSPDXNR15	40	1.575	65	2.559	47	1.850	94	3.701	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	0,66	1.45
		left hand															
3902332	KM40TSPDXNL15	40	1.575	65	2.559	47	1.850	94	3.701	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	0,65	1.44



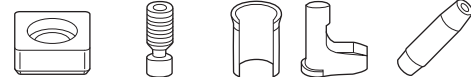
■ PSDN 45°



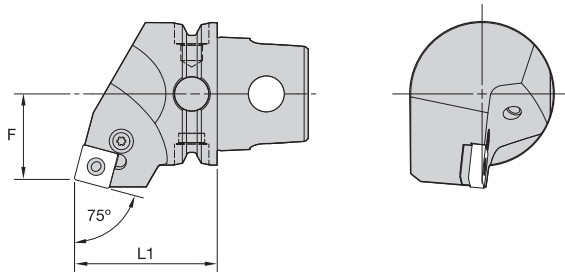
order number	catalog number	L1		F		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in								
3950775	KM40TSPSDNN09	40	1.575	0	.000	SN..090308/SN..322	512.053	514.118	513.019	511.018	515.018	0,26	.57
3950776	KM40TSPSDNN12	40	1.575	0	.000	SN..120408/SN..432	512.063	514.123	513.023	511.023	515.018	0,25	.54



■ PSKN 75°



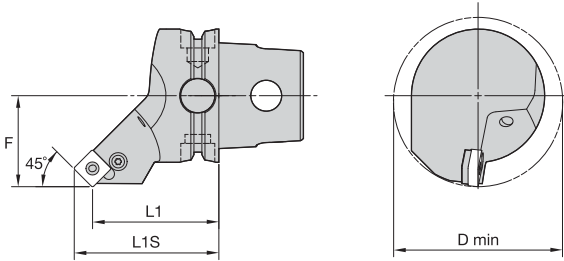
order number	catalog number	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in	mm	in								
	right hand														
3950778	KM40TSPSKNR12	40	1.575	27	1.063	50	1.969	SN..120408/SN..432	512.063	514.123	513.023	511.023	515.018	0,36	.79
	left hand														
3950777	KM40TSPSKNL12	40	1.575	27	1.063	50	1.969	SN..120408/SN..432	512.063	514.123	513.023	511.023	515.018	0,36	.79



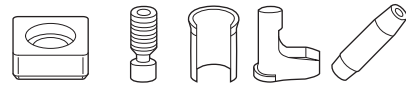
■ PSRN 75°



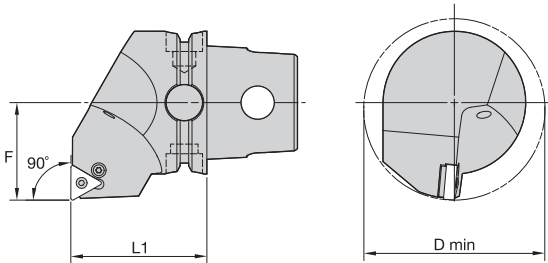
order number	catalog number	L1		F		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in								
	right hand												
3950780	KM40TSPSRNR12	40	1.575	24	.945	SN..120408/SN..432	512.063	514.123	513.023	511.023	515.018	0,31	.69
	left hand												
3950779	KM40TSPSRNL12	40	1.575	24	.945	SN..120408/SN..432	512.063	514.123	513.023	511.023	515.018	0,31	.69



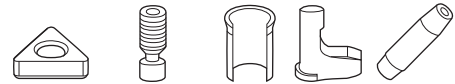
■ PSSN 45°



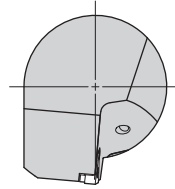
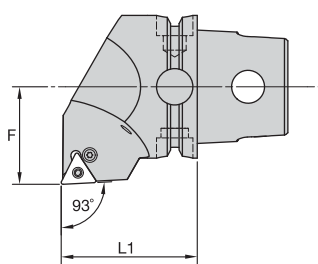
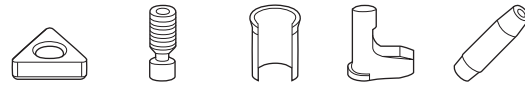
order number	catalog number	L1		L1S		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in	mm	in	mm	in								
3950781	KM40TSPSSNR12	40	1.575	48,3	1.903	27	1.063	80	3.150	SN..120408/SN..432	512.063	514.123	513.023	511.023	515.018	0,31	.69



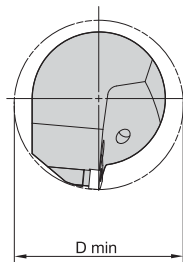
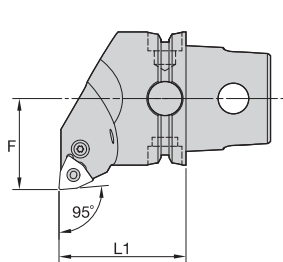
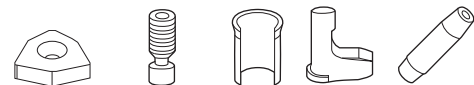
■ PTFN 90°



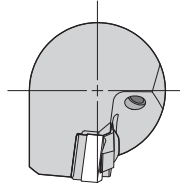
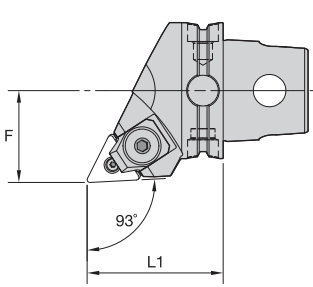
order number	catalog number	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in	mm	in								
3950783	KM40TSPTFNR16	40	1.575	27	1.063	50	1.969	TN..160408/TN..332	512.013	514.118	513.018	511.018	515.018	0,36	.78
3950782	KM40TSPTFNL16	40	1.575	27	1.063	50	1.969	TN..160408/TN..332	512.013	514.118	513.018	511.018	515.018	0,36	.79


PTJN 93°


order number	catalog number	L1		F		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in								
	right hand												
3950785	KM40TSPTJNR16	40	1.575	27	1.063	TN..160408/TN..332	512.013	514.118	513.018	511.018	515.018	0,34	.75
	left hand												
3950784	KM40TSPTJNL16	40	1.575	27	1.063	TN..160408/TN..332	512.013	514.118	513.018	511.018	515.018	0,34	.75


PWLN 95°


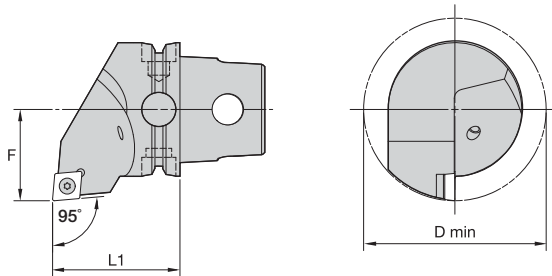
order number	catalog number	L1		F		D min	gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in										mm	in
	right hand													
3950788	KM40TSPWLNRO6	40	1.575	27	1.063	50 1.969	WN..060408/WN..332	512.134	514.118	513.018	511.018	515.018	0,33	.73
3950789	KM40TSPWLNRO8	40	1.575	27	1.063	50 1.969	WN..080408/WN..432	512.135	514.123	513.023	511.023	515.018	0,32	.70
	left hand													
3950786	KM40TSPWLNLO6	40	1.575	27	1.063	50 1.969	WN..060408/WN..332	512.134	514.118	513.018	511.018	515.018	0,33	.73
3950787	KM40TSPWLNLO8	40	1.575	27	1.063	50 1.969	WN..080408/WN..432	512.135	514.123	513.023	511.023	515.018	0,32	.71



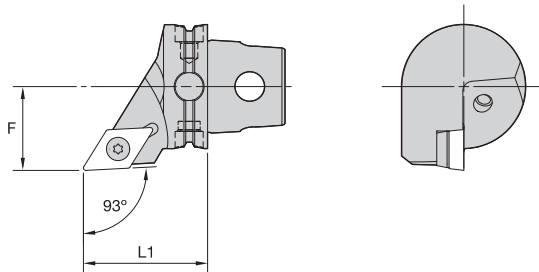
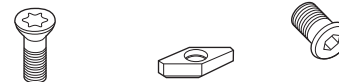
■ WTJN 93°



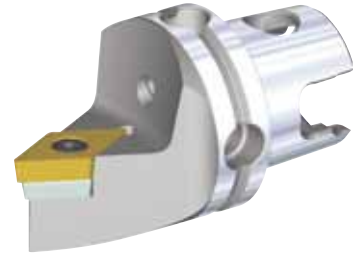
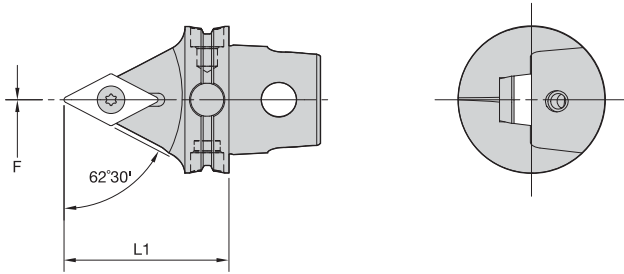
order number	catalog number	L1		F		gage insert	clamp	lock pin	shim	retaining ring	Wedgelock screw	kg	lbs
		mm	in	mm	in								
	right hand												
3964067	KM40TSWTJNR16	40	1.575	27	1.063	TN..160408/TN..332	WC4	FP4	SM290	MRA5	MS988	0,28	.63
	left hand												
3964066	KM40TSWTJNL16	40	1.575	27	1.063	TN..160408/TN..332	WC4	FP4	SM290	MRA5	MS988	0,28	.63


■ SCLC 95°

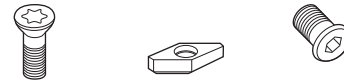

order number	catalog number	L1		F		D min		gage insert	insert screw	shim	shim screw	kg	lbs
		mm	in	mm	in	mm	in						
	right hand												
3960003	KM40TSSCLCR12	40	1.575	27	1.063	50	1.969	CC..120408/CC..432	MS1158	SKCP453	SRS4	0,32	.70
	left hand												
3959952	KM40TSSCLCL12	40	1.575	27	1.063	50	1.969	CC..120408/CC..432	MS1158	SKCP453	SRS4	0,32	.70


■ SDJC 93°


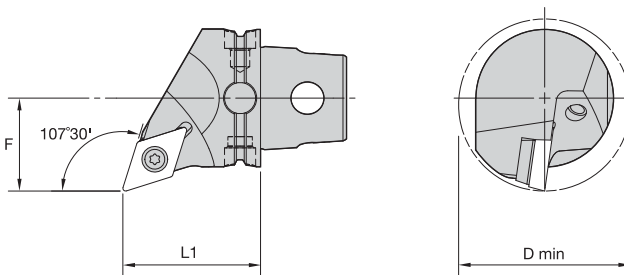
order number	catalog number	L1		F		gage insert	insert screw	shim	shim screw	kg	lbs
		mm	in	mm	in						
	right hand										
3960005	KM40TSSDJCR11	40	1.575	27	1.063	DC..11T308/DC..3252	MS1156	SKDP343	SRS3	0,25	.55
3960007	KM40TSSDJCR15	40	1.575	27	1.063	DC..150408/DC..432	MS1158	SKDP453	SRS4	0,24	.53
	left hand										
3960004	KM40TSSDJCL11	40	1.575	27	1.063	DC..11T308/DC..3252	MS1156	SKDP343	SRS3	0,25	.55
3960006	KM40TSSDJCL15	40	1.575	27	1.063	DC..150408/DC..432	MS1158	SKDP453	SRS4	0,24	.52



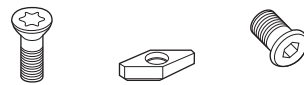
■ SDNC 62° 30'



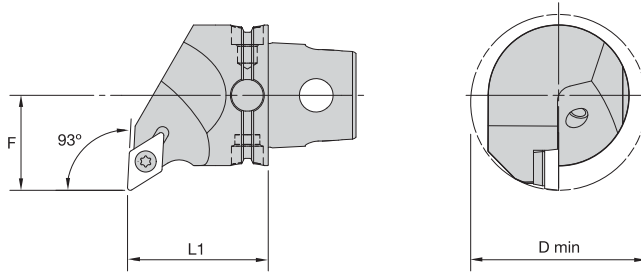
order number	catalog number	L1		F		gage insert	insert screw	shim	shim screw	kg	lbs
		mm	in	mm	in						
3960008	KM40TSSDNCN15045M	45	1.772	0	.000	DC..150408/DC..432	MS1158	SKDP453	SRS4	0,23	.50



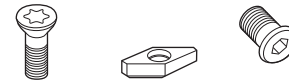
■ SDQC 107° 30'



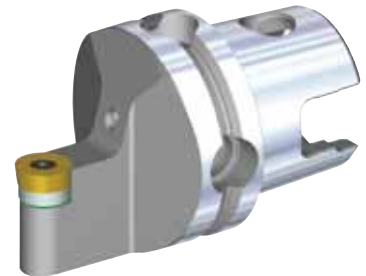
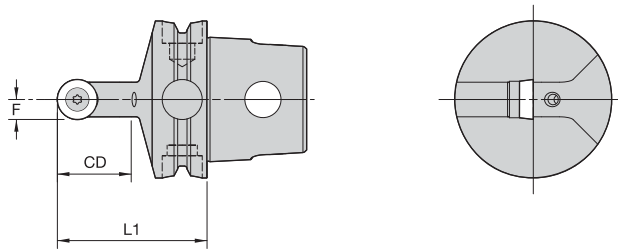
order number	catalog number	L1		F		D min		gage insert	insert screw	shim	shim screw	kg	lbs
		mm	in	mm	in	mm	in						
	right hand												
3960010	KM40TSSDQCR11	40	1.575	27	1.063	50	1.969	DC..11T308/DC..3252	MS1156	SKDP343	SRS3	0,27	.61
3960012	KM40TSSDQCR15	40	1.575	27	1.063	50	1.969	DC..150408/DC..432	MS1158	SKDP453	SRS4	0,27	.60
	left hand												
3960009	KM40TSSDQCL11	40	1.575	27	1.063	50	1.969	DC..11T308/DC..3252	MS1156	SKDP343	SRS3	0,27	.61
3960011	KM40TSSDQCL15	40	1.575	27	1.063	50	1.969	DC..150408/DC..432	MS1158	SKDP453	SRS4	0,27	.60



■ SDUC 93°



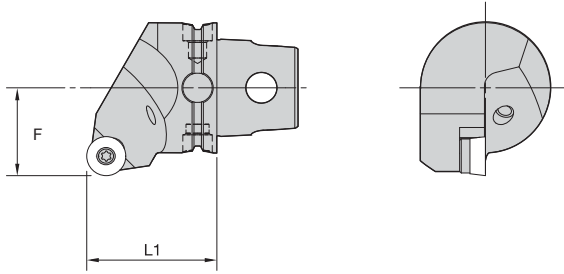
order number	catalog number	L1		F		D min		gage insert	insert screw	shim	shim screw	kg	lbs
		mm	in	mm	in	mm	in						
3960014	right hand	40	1.575	27	1.063	50	1.969	DC..11T308/DC..3252	MS1156	SKDP343	SRS3	0,30	.66
	KM40TSSDUCR11												
3960013	left hand	40	1.575	27	1.063	50	1.969	DC..11T308/DC..3252	MS1156	SKDP343	SRS3	0,30	.66
	KM40TSSDUCL11												



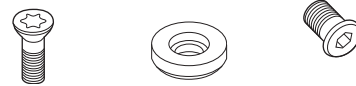
■ SRDC 0°



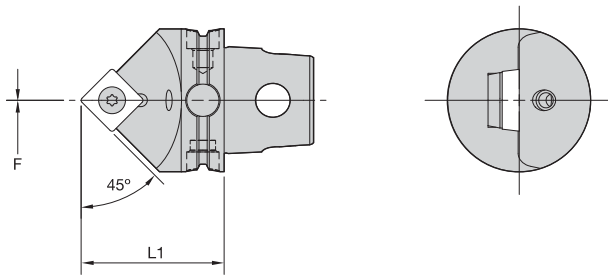
order number	catalog number	L1		F		CD		gage insert	insert screw	shim	shim screw	kg	lbs
		mm	in	mm	in	mm	in						
3960015	KM40TSSRDCN06	40	1.575	3	.118	12	.472	RC..0602M0	MS1153	—	—	0,22	.48
3960016	KM40TSSRDCN08	40	1.575	4	.158	16	.630	RC..0803M0	MS1154	—	—	0,22	.48
3960017	KM40TSSRDCN10	40	1.575	5	.197	20	.787	RC..10T3M0	MS1156	SKRN100300	SRS3	0,21	.47



■ SRGC 0°



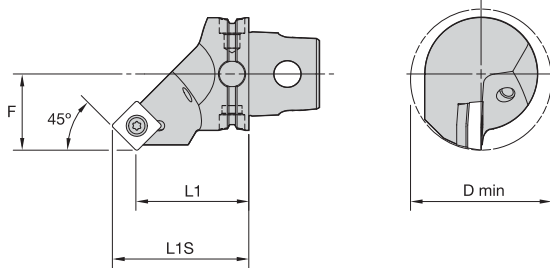
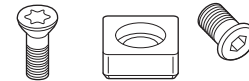
order number	catalog number	L1		F		gage insert	insert screw	shim	shim screw	kg	lbs
		mm	in	mm	in						
right hand											
3960019	KM40TSSRGCR10	40	1.575	27	1.063	RC..10T3M0	MS1156	SKRN100300	SRS3	0,31	.69
3960021	KM40TSSRGCR12	40	1.575	27	1.063	RC..1204M0	MS1156	SKRN1203M0	SRS3	0,31	.69
left hand											
3960018	KM40TSSRGCL10	40	1.575	27	1.063	RC..10T3M0	MS1156	SKRN100300	SRS3	0,32	.70
3960020	KM40TSSRGCL12	40	1.575	27	1.063	RC..1204M0	MS1156	SKRN1203M0	SRS3	0,31	.69



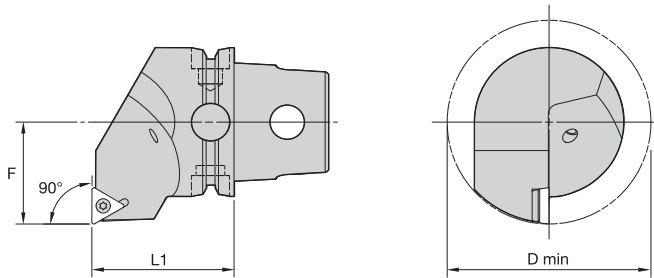
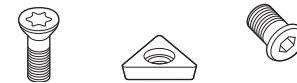
■ SSDC 45°



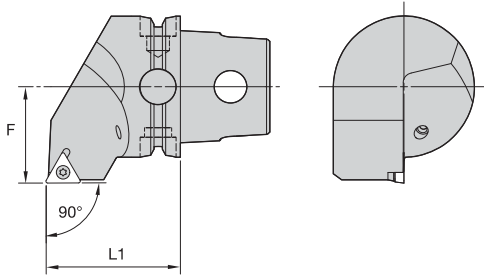
order number	catalog number	L1		F		gage insert	insert screw	shim	shim screw	kg	lbs
		mm	in	mm	in						
3960022	KM40TSSSDCN12	40	1.575	0	.000	SC..120408/SC..432	MS1158	SKSP453	SRS4	0,25	.55


SSSC 45°


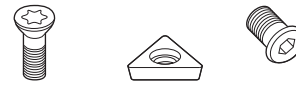
order number	catalog number	L1		L1S		F		D min		gage insert	insert screw	shim	shim screw	kg	lbs
		mm	in	mm	in	mm	in	mm	in						
	right hand														
3960034	KM40TSSSSCR12	40	1.575	48,3	1.902	27	1.063	50	1.969	SC..120408/SC..432	MS1158	SKSP453	SRS4	0,29	.64
	left hand														
3960033	KM40TSSSSCL12	40	1.575	48,3	1.902	27	1.063	50	1.969	SC..120408/SC..432	MS1158	SKSP453	SRS4	0,29	.64


STFC 90°


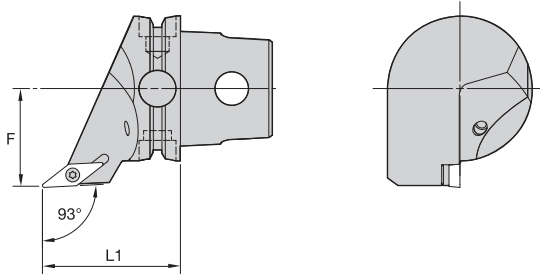
order number	catalog number	L1		F		D min		gage insert	insert screw	shim	shim screw	kg	lbs
		mm	in	mm	in	mm	in						
	right hand												
3960036	KM40TSSTFCR16	40	1.575	27	1.063	50	1.969	TC..16T308/TC..3252	MS1156	SKTP343	SRS3	0,33	.72
	left hand												
3960035	KM40TSSTFCL16	40	1.575	27	1.063	50	1.969	TC..16T308/TC..3252	MS1156	SKTP343	SRS3	0,33	.73



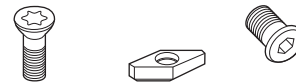
■ STGC 90°



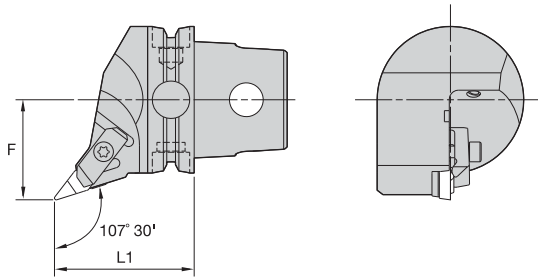
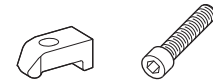
order number	catalog number	L1		F		gage insert	insert screw	shim	shim screw	kg	lbs
		mm	in	mm	in						
3960038	right hand KM40TSSSTGCR16	40	1.575	27	1.063	TC..16T308/TC..3252	MS1156	SKTP343	SRS3	0,33	.73
3960037	left hand KM40TSSSTGCL16	40	1.575	27	1.063	TC..16T308/TC..3252	MS1156	SKTP343	SRS3	0,33	.73



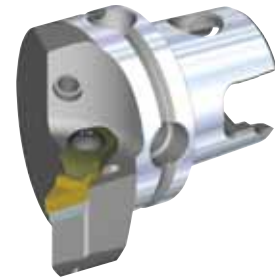
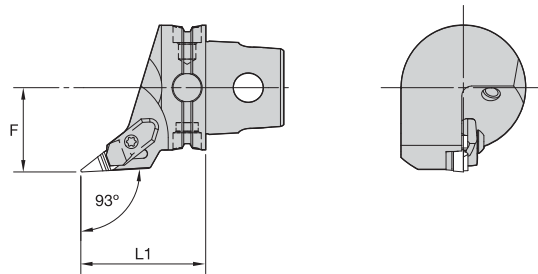
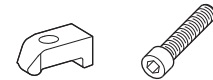
■ SVJB 93°



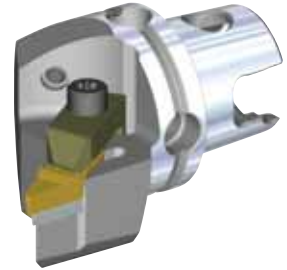
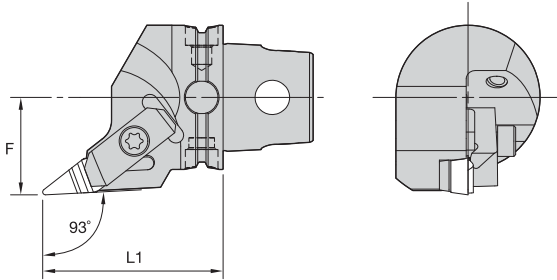
order number	catalog number	L1		F		gage insert	insert screw	shim	shim screw	kg	lbs
		mm	in	mm	in						
3960040	right hand KM40TSSVJBR16	47	1.850	27	1.063	VB..160408/VB..332	MS1156	SKVN343	SRS3	0,27	.59
3960039	left hand KM40TSSVJBL16	47	1.850	27	1.063	VB..160408/VB..332	MS1156	SKVN343	SRS3	0,27	.59


■ NVHC 107.5° • Metric CU


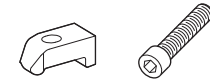
order number	catalog number	L1		F		gage insert	clamp	clamp screw	kg	lbs
		mm	in	mm	in					
3951859	KM40TSNVHCR16050M right hand	50	1.969	27	1.063	VCGR160408/VPGR332	CM113	MS1489	0,28	.62
3951858	KM40TSNVHCL16050M left hand	50	1.969	27	1.063	VCGR160408/VPGR332	CM114	MS1489	0,28	.62


■ NVJB 93° • Metric CU


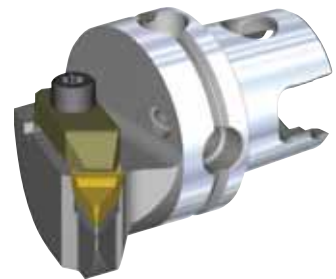
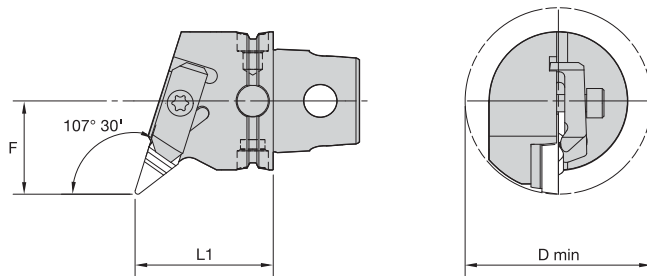
order number	catalog number	L1		F		gage insert	clamp	clamp screw	kg	lbs
		mm	in	mm	in					
3951861	KM40TSNVJBR11 right hand	40	1.575	27	1.063	VBMR110304/VBMR221	CM158	—	0,23	.52
3951860	KM40TSNVJBL11 left hand	40	1.575	27	1.063	VBMR110304/VBMR221	CM159	—	0,23	.52



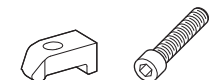
■ NVJC 93° • Metric CU



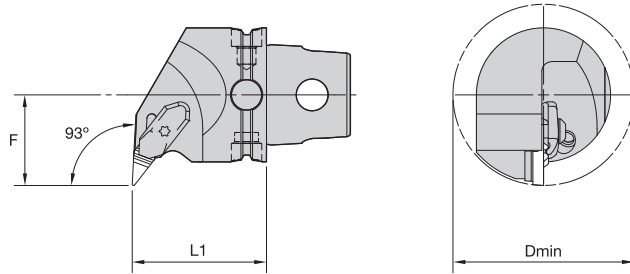
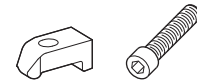
order number	catalog number	L1		F		gage insert	clamp	clamp screw	kg	lbs	
		mm	in	mm	in						
		right hand									
3951913	KM40TSNVJCR16050M	50	1.969	27	1.063	VCGR160408/VPGR332	CM113	MS1489	0,30	.67	
		left hand									
3951862	KM40TSNVJCL16050M	50	1.969	27	1.063	VCGR160408/VPGR332	CM114	MS1489	0,30	.67	



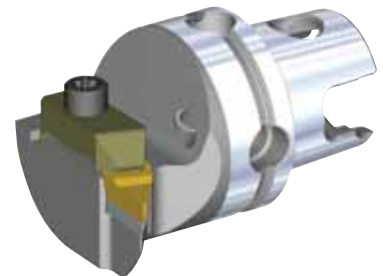
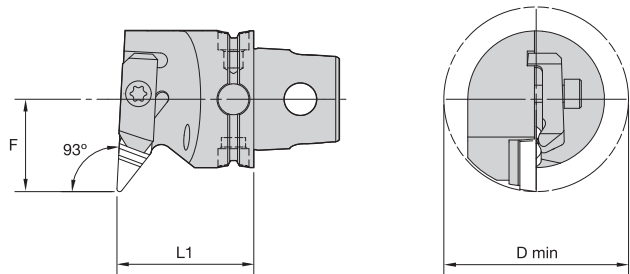
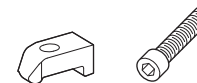
■ NVQC 107.5° • Metric CU



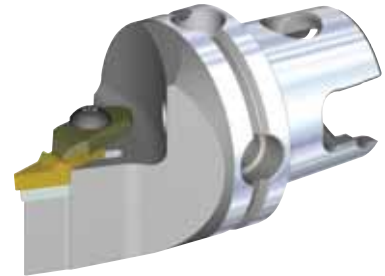
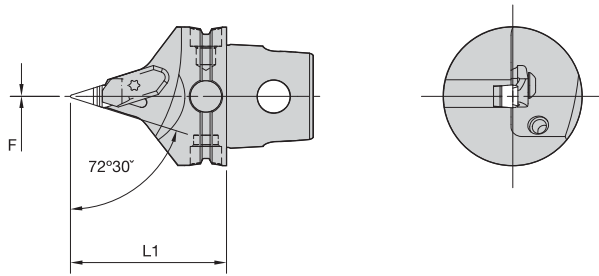
order number	catalog number	L1		F		D min		gage insert	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in					
		right hand										
3951915	KM40TSNVQCR16	40	1.575	27	1.063	54	2.126	VCGR160408/VPGR332	CM113	MS1489	0,27	.60
		left hand										
3951914	KM40TSNVQCL16	40	1.575	27	1.063	54	2.126	VCGR160408/VPGR332	CM114	MS1489	0,27	.60


■ NVUB 93° • Metric CU


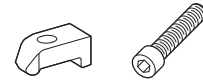
order number	catalog number	L1		F		D min		gage insert	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in					
3951917	KM40TSNVUBR11	40	1.575	27	1.063	54	2.126	VCGR160408/VPGR332	CM159	—	0,31	.68
3951916	KM40TSNVUBL11	40	1.575	27	1.063	54	2.126	VCGR160408/VPGR332	CM158	—	0,31	.68


■ NVUC 93° • Metric CU


order number	catalog number	L1		F		D min		gage insert	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in					
3951919	KM40TSNVUCR16	40	1.575	27	1.063	54	2.126	VBMR110304/VBMR221	CM113	MS1489	0,32	.70
3951918	KM40TSNVUCL16	40	1.575	27	1.063	54	2.126	VBMR110304/VBMR221	CM114	MS1489	0,32	.70



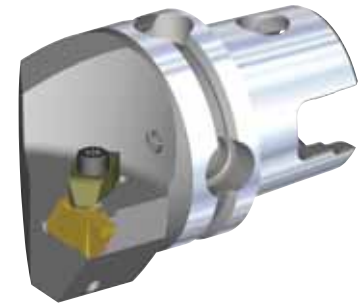
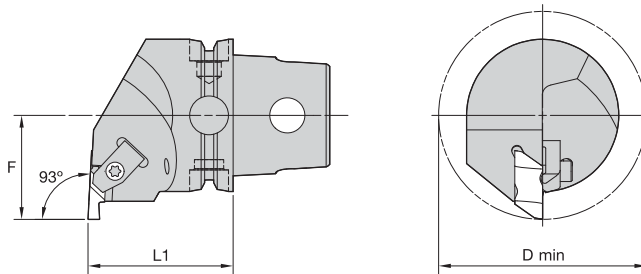
■ NVVB 72.5° • Metric CU



order number	catalog number	L1		F		gage insert	clamp	clamp screw	kg	lbs
		mm	in	mm	in					
3951920	left hand KM40TSNVVB11045M	45	1.772	0	.000	VCGR160408/VPGR332	CM158	—	0,23	.52



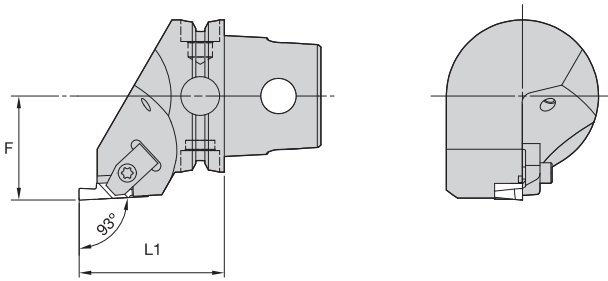
KM40TS Cutting Units



■ NE 93°



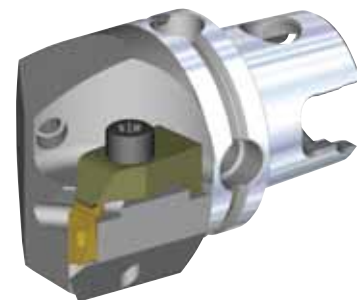
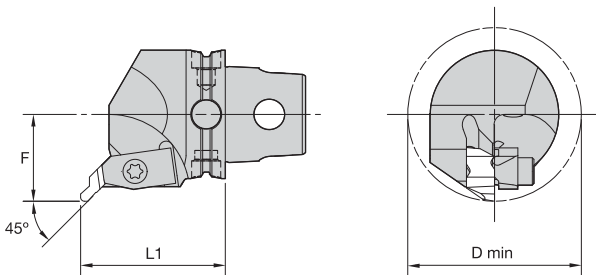
order number	catalog number	L1		F		D min		gage insert	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in					
		right hand										
3902285	KM40TSNER2	40	1.575	27	1.063	54	2.126	NG2L	CM75	MS1488	0,31	.68
3902286	KM40TSNER3	40	1.575	27	1.063	54	2.126	NG3L	CM73	MS1489	0,32	.70
3902287	KM40TSNER4	40	1.575	27	1.063	54	2.126	NG4L	CM73	MS1489	0,30	.66
		left hand										
3902132	KM40TSNEL2	40	1.575	27	1.063	54	2.126	NG2R	CM74	MS1488	0,31	.68
3902283	KM40TSNEL3	40	1.575	27	1.063	54	2.126	NG3R	CM72	MS1489	0,32	.70
3902284	KM40TSNEL4	40	1.575	27	1.063	54	2.126	NG4R	CM72	MS1489	0,30	.66



■ NS 93°



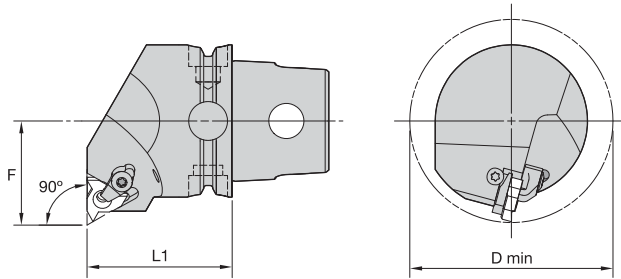
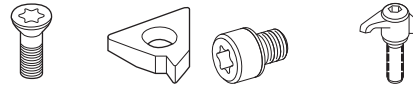
order number	catalog number	L1		F		gage insert	clamp	clamp screw	kg	lbs
		mm	in	mm	in					
right hand										
3902293	KM40TSNSR2	40	1.575	27	1.063	NG2R	CM74	MS1488	0,32	.70
3902294	KM40TSNSR3	47	1.850	27	1.063	NG3R	CM72	MS1489	0,32	.71
3902295	KM40TSNSR4	47	1.850	27	1.063	NG4R	CM72	MS1489	0,31	.68
left hand										
3902290	KM40TSNSL2	40	1.575	27	1.063	NG2L	CM75	MS1488	0,32	.70
3902291	KM40TSNSL3	47	1.850	27	1.063	NG3L	CM73	MS1489	0,33	.72
3902292	KM40TSNSL4	47	1.850	27	1.063	NG4L	CM73	MS1489	0,31	.68



■ NR 45°

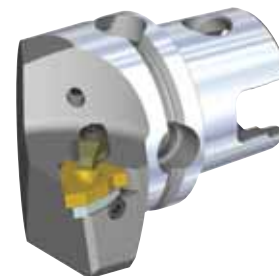
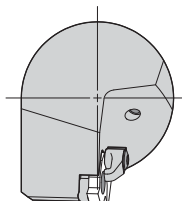
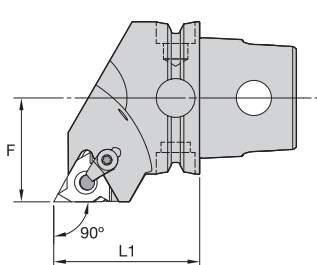


order number	catalog number	L1		F		D min		gage insert	clamp	clamping screw	kg	lbs
		mm	in	mm	in	mm	in					
right hand												
3902289	KM40TSNRR3045M	45	1.772	27	1.063	54	2.126	NU3L	CM73	MS1489	0,34	.75
left hand												
3902288	KM40TSNRL3045M	45	1.772	27	1.063	54	2.126	NU3R	CM72	MS1489	0,33	.74


■ LSE-N 90° • Internal Only


order number	catalog number	L1		F		D min		gage insert	insert screw	shim	shim screw	clamp assembly	kg	lbs
		mm	in	mm	in	mm	in							
right hand														
3950832	KM40TSLSER16N	40	1.575	27	1.063	54	2.126	LT16NR	SSA3T	SMYI3	SSY3T	CKC3	0,35	.77
3950854	KM40TSLSER22N	40	1.575	27	1.063	54	2.126	LT22NR	SSA4T	SMYI4	SSY4T	CKC4	0,35	.77
3959399	KM40TSLSER27N	45	1.772	27	1.063	54	2.126	LT27NR	SSA5T	SMYI5	SSY5T	CKC5	0,39	.86
left hand														
3950831	KM40TSLSEL16N	40	1.575	27	1.063	54	2.126	LT16NL	SSA3T	SMYE3	SSY3T	CKC3	0,35	.77
3950853	KM40TSLSEL22N	40	1.575	27	1.063	54	2.126	LT22NL	SSA4T	SMYE4	SSY4T	CKC4	0,35	.77
3959398	KM40TSLSEL27N	45	1.772	27	1.063	54	2.126	LT27NL	SSA5T	SMYE5	SSY5T	CKC5	0,39	.86

NOTE: Cutting units are supplied with insert screw and clamp assembly. However, tools are designed to use either the insert screw or the clamp assembly, not both.

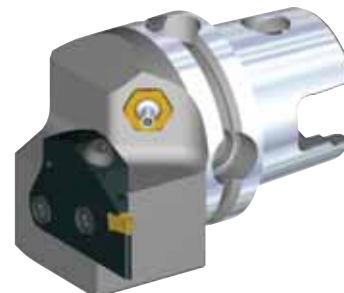
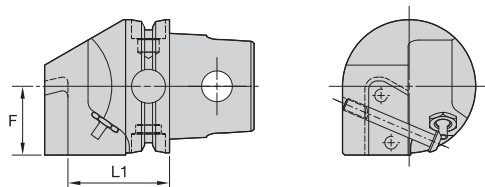


■ LSS 90°



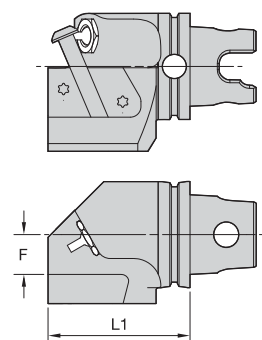
order number	catalog number	L1		F		gage insert	insert screw	shim	shim screw	clamp assembly	kg	lbs
		mm	in	mm	in							
right hand												
3950857	KM40TSLSSR16	40	1.575	27	1.063	LT16ER	SSA3T	SMYE3	SSY3T	CKC3	0,31	.68
3950858	KM40TSLSSR22	40	1.575	27	1.063	LT22ER	SSA4T	SMYE4	SSY4T	CKC4	0,30	.66
3959401	KM40TSLSSR27	45	1.772	27	1.063	LT27ER	SSA5T	SMYE5	SSY5T	CKC5	0,37	.82
left hand												
3950855	KM40TSLSSL16	40	1.575	27	1.063	LT16EL	SSA3T	SMYI3	SSY3T	CKC3	0,32	.70
3950856	KM40TSLSSL22	40	1.575	27	1.063	LT22EL	SSA4T	SMYI4	SSY4T	CKC4	0,31	.68
3959400	KM40TSLSSL27	45	1.772	27	1.063	LT27EL	SSA5T	SMYI5	SSY5T	CKC5	0,37	.82

NOTE: Cutting units are supplied with insert screw and clamp assembly. However, tools are designed to use either the insert screw or the clamp assembly, not both.


■ KGME • End Mount

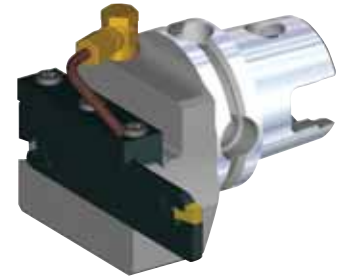
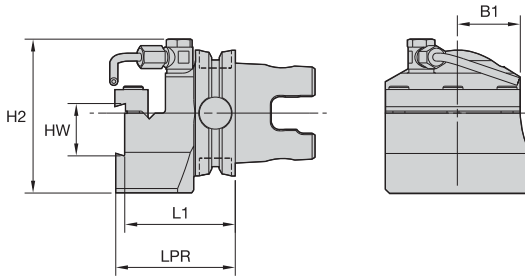
order number	catalog number	L1		F		cartridge size	blade screw	clamp screw	nozzle	kg
		mm	in	mm	in					
3950266	right hand	28	1.102	20,5	.807	50	MS1162	MS2002	PMT08430	0,40
	KM40TSKGMER50									
3950265	left hand	28	1.102	20,5	.807	50	MS1162	MS2002	PMT08430	0,40
	KM40TSKGMEL50									

NOTE: Right-hand cutting units use left-hand blades.
 For A3/A4 modular blades, see the Kennametal Innovations Master Catalog Cutting Tools 2013.


■ KGMS • Side Mount

order number	catalog number	L1		F		cartridge size	blade screw	clamp screw	nozzle	kg
		mm	in	mm	in					
3950268	right hand	53,5	2.106	15	.591	50	MS1162	MS2002	PMT08430	0,54
	KM40TSKGMRS50									
3950267	left hand	53,5	2.106	15	.591	50	MS1162	MS2002	PMT08430	0,54
	KM40TSKGMSL50									





NOTE: Right-hand cutting units use right-hand blades.
 For A3/A4 modular blades, see the Kennametal Innovations Master Catalog Cutting Tools 2013.



■ BE • End Mount

order number	catalog number	L1		LPR		H2		HW		B1		cartridge size	cartridge 1	kg
		mm	in	mm	in	mm	in	mm	in	mm	in			
3950835	right hand	50,30	1.98	54,80	2.16	56,50	2.22	26	1.02	25	.98	26	A2BN..26...	1,07
	KM40TSBER													
3950834	left hand	50,30	1.98	54,80	2.16	56,50	2.22	26	1.02	25	.98	26	A2BN..26...	1,07
	KM40TSBEL													

■ BE • Spare Parts

catalog number				
	clamp	clamp screw	coolant tube	coolant swivel base
right hand KM40TSBER	CGS4	MS1595	12649910900	12649910800
left hand KM40TSBEL	CGS4	MS1595	12649910900	12649910800

NOTE: Blades must be ordered separately; see the Kennametal Innovations Master Catalog Cutting Tools 2013.

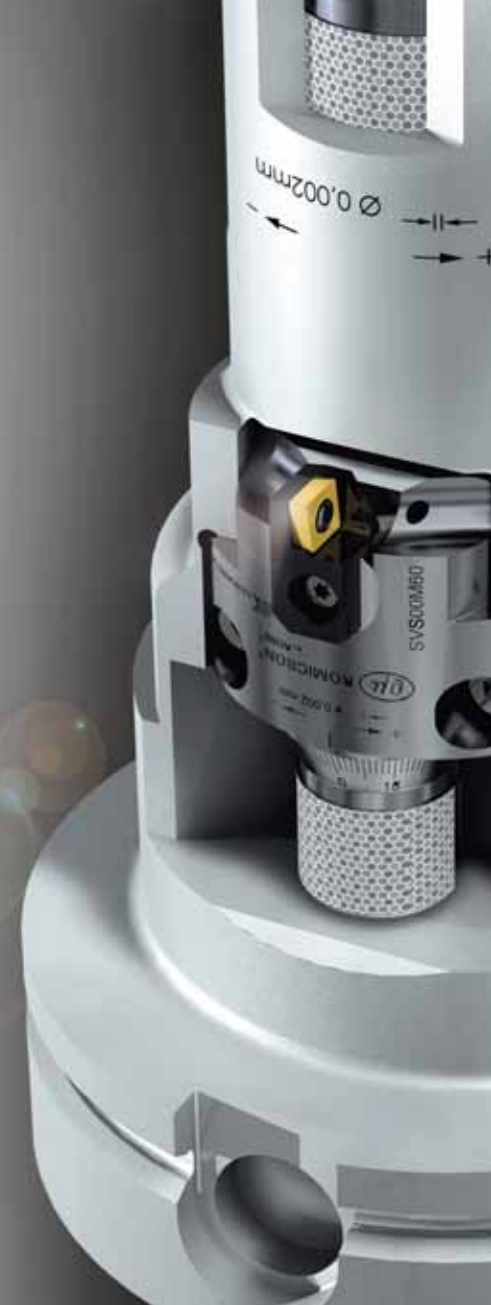
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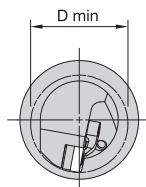
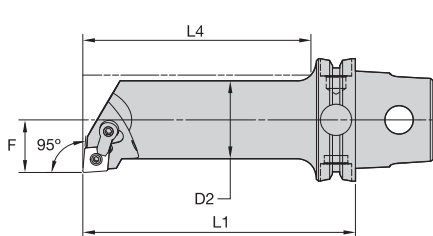


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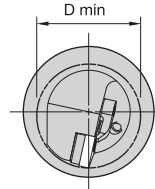
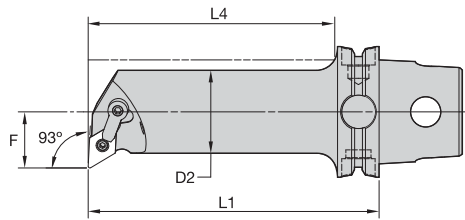


■ MCLN 95°

order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs
		mm	in	mm	in	mm	in	mm	in	mm	in			
right hand														
3955549	KM40TSS25EMCLNR12	25	.98	32	1.26	17	.669	55	2.17	70	2.756	CN..120408/CN..432	0,35	.76
3955551	KM40TSS25HMCLNR12	25	.98	32	1.26	17	.669	75	2.95	100	3.937	CN..120408/CN..432	0,50	1.10
3955553	KM40TSS32GMCLNR12	32	1.26	40	1.57	22	.866	76	2.99	90	3.543	CN..120408/CN..432	0,59	1.29
3955555	KM40TSS32JMCLNR12	32	1.26	40	1.57	22	.866	96	3.78	110	4.331	CN..120408/CN..432	0,71	1.56
left hand														
3955548	KM40TSS25EMCLNL12	25	.98	32	1.26	17	.669	55	2.17	70	2.756	CN..120408/CN..432	0,35	.76
3955550	KM40TSS25HMCLNL12	25	.98	32	1.26	17	.669	75	2.95	100	3.937	CN..120408/CN..432	0,50	1.10
3955552	KM40TSS32GMCLNL12	32	1.26	40	1.57	22	.866	76	2.99	90	3.543	CN..120408/CN..432	0,59	1.29
3955554	KM40TSS32JMCLNL12	32	1.26	40	1.57	22	.866	96	3.78	110	4.331	CN..120408/CN..432	0,71	1.56

■ Spare Parts

catalog number	shim	lock pin	clamp	clamp screw
right hand				
KM40TSS25EMCLNR12	—	KLM43	CKM20LP	STCM11
KM40TSS25HMCLNR12	—	KLM43	CKM20LP	STCM11
KM40TSS32GMCLNR12	ICSN432	KLM46	CKM20LP	STCM11
KM40TSS32JMCLNR12	ICSN432	KLM46	CKM20LP	STCM11
left hand				
KM40TSS25EMCLNL12	—	KLM43	CKM20LP	STCM11
KM40TSS25HMCLNL12	—	KLM43	CKM20LP	STCM11
KM40TSS32GMCLNL12	ICSN432	KLM46	CKM20LP	STCM11
KM40TSS32JMCLNL12	ICSN432	KLM46	CKM20LP	STCM11

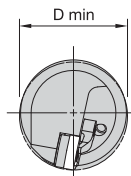
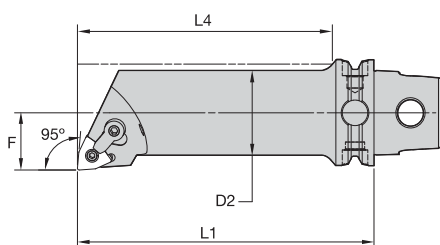


■ MDUN 93°

order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs
		mm	in	mm	in	mm	in	mm	in	mm	in			
right hand														
3959375	KM40TSS25EMDUNR15	25	.98	32	1.26	17	.669	55	2.17	70	2.756	DN..150408/DN..432	0,33	.74
3959377	KM40TSS25HMDUNR15	25	.98	32	1.26	17	.669	75	2.95	100	3.937	DN..150408/DN..432	0,49	1.07
3959379	KM40TSS32GMDUNR15	32	1.26	40	1.57	22	.866	76	2.99	90	3.543	DN..150408/DN..432	0,57	1.26
3959381	KM40TSS32JMDUNR15	32	1.26	40	1.57	22	.866	96	3.78	110	4.331	DN..150408/DN..432	0,69	1.53
left hand														
3959374	KM40TSS25EMDUNL15	25	.98	32	1.26	17	.669	55	2.17	70	2.756	DN..150408/DN..432	0,33	.74
3959376	KM40TSS25HMDUNL15	25	.98	32	1.26	17	.669	75	2.95	100	3.937	DN..150408/DN..432	0,49	1.08
3959378	KM40TSS32GMDUNL15	32	1.26	40	1.57	22	.866	76	2.99	90	3.543	DN..150408/DN..432	0,57	1.26
3959380	KM40TSS32JMDUNL15	32	1.26	40	1.57	22	.866	96	3.78	110	4.331	DN..150408/DN..432	0,69	1.53

■ Spare Parts

catalog number	shim	lock pin	clamp	clamp screw
right hand				
KM40TSS25EMDUNR15	—	KLM43	CKM20LP	STCM11
KM40TSS25HMDUNR15	—	KLM43	CKM20LP	STCM11
KM40TSS32GMDUNR15	IDSN432	KLM46	CKM23LP	STCM11
KM40TSS32JMDUNR15	IDSN432	KLM46	CKM23LP	STCM11
left hand				
KM40TSS25EMDUNL15	—	KLM43	CKM20LP	STCM11
KM40TSS25HMDUNL15	—	KLM43	CKM20LP	STCM11
KM40TSS32GMDUNL15	IDSN432	KLM46	CKM23LP	STCM11
KM40TSS32JMDUNL15	IDSN432	KLM46	CKM23LP	STCM11



■ MWLN 95°

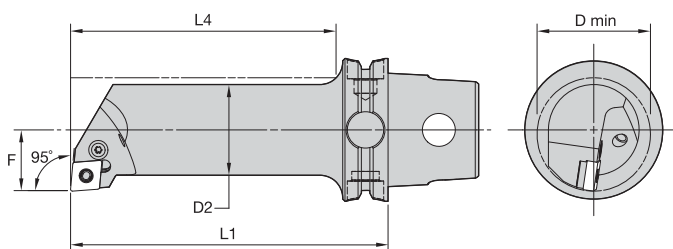
order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs
		mm	in	mm	in	mm	in	mm	in	mm	in			
	right hand													
3959331	KM40TSS25HMWLNRO8	25	.98	32	1.26	17	.669	75	2.95	100	3.937	WN..080408/WN..432	0,50	1.10
3959373	KM40TSS32JMWLNRO8	32	1.26	40	1.57	22	.866	96	3.78	110	4.331	WN..080408/WN..432	0,69	1.53
	left hand													
3959330	KM40TSS25HMWLNLO8	25	.98	32	1.26	17	.669	75	2.95	100	3.937	WN..080408/WN..432	0,50	1.10
3959332	KM40TSS32JMWLNLO8	32	1.26	40	1.57	22	.866	96	3.78	110	4.331	WN..080408/WN..432	0,69	1.53

■ Spare Parts

catalog number				
	shim	lock pin	clamp	clamp screw
right hand				
KM40TSS25HMWLNRO8	—	KLM43	CKM20LP	STCM11
KM40TSS32JMWLNRO8	IWSN433	KLM46	CKM20LP	STCM11
left hand				
KM40TSS25HMWLNLO8	—	KLM43	CKM20LP	STCM11
KM40TSS32JMWLNLO8	IWSN433	KLM46	CKM20LP	STCM11



KM40TS Internal Cutting Units

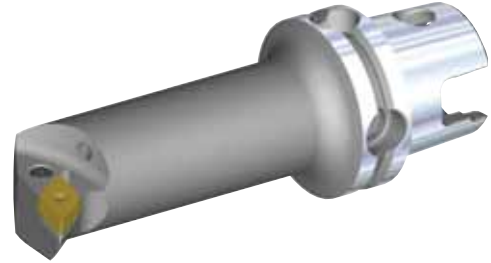
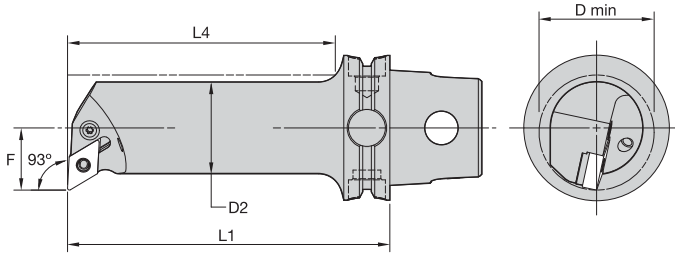


■ PCLN 95°

order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs
		mm	in	mm	in	mm	in	mm	in	mm	in			
right hand														
3959339	KM40TSS25HPCLNR12	25	.98	32	1.26	17	.669	75	2.95	100	3.937	CN..120408/CN..432	0,49	1.09
3959337	KM40TSS25GPCLNR12	25	.98	32	1.26	17	.669	77	3.04	90	3.543	CN..120408/CN..432	0,41	.90
3959341	KM40TSS32GPCLNR12	32	1.26	40	1.57	22	.866	76	2.99	90	3.543	CN..120408/CN..432	0,59	1.29
left hand														
3959338	KM40TSS25HPCLNL12	25	.98	32	1.26	17	.669	75	2.95	100	3.937	CN..120408/CN..432	0,49	1.09
3959336	KM40TSS25GPCLNL12	25	.98	32	1.26	17	.669	77	3.04	90	3.543	CN..120408/CN..432	0,41	.90
3959340	KM40TSS32GPCLNL12	32	1.26	40	1.57	22	.866	76	2.99	90	3.543	CN..120408/CN..432	0,59	1.29

■ Spare Parts

catalog number					
	shim	lever screw	shim pin	toggle lever	punch
right hand					
KM40TSS25GPCLNR12	—	514.122	—	511.022	—
KM40TSS25HPCLNR12	—	514.122	—	511.022	—
KM40TSS32GPCLNR12	512.112	514.123	513.023	511.023	515.018
left hand					
KM40TSS25GPCLNL12	—	514.122	—	511.022	—
KM40TSS25HPCLNL12	—	514.122	—	511.022	—
KM40TSS32GPCLNL12	512.112	514.123	513.023	511.023	515.018

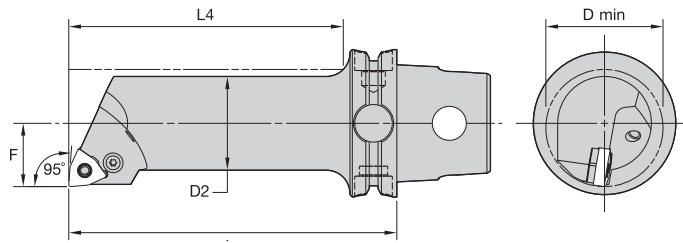


■ PDUN 93°

order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs
		mm	in	mm	in	mm	in	mm	in	mm	in			
	right hand													
3959343	KM40TSS25GPDUNR11	25	.98	32	1.26	17	.669	77	3.04	90	3.543	DN..110408/DN..332	0,41	.900
	left hand													
3959342	KM40TSS25GPDUNL11	25	.98	32	1.26	17	.669	77	3.04	90	3.543	DN..110408/DN..332	0,41	.900

■ Spare Parts



catalog number	lever screw	toggle lever
right hand KM40TSS25GPDUNR11	514.112	511.015
left hand KM40TSS25GPDUNL11	514.112	511.015

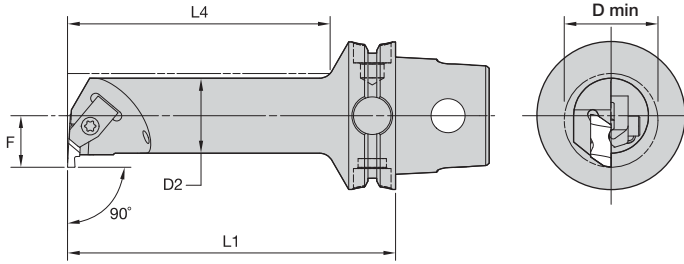


■ PWLN 95°

order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs
		mm	in	mm	in	mm	in	mm	in	mm	in			
right hand														
3959345	KM40TSS25EPWLNRO8	25	.98	32	1.26	17	.669	55	2.17	70	2.756	WN..080408/WN..432	0,34	.75
3959351	KM40TSS25HPWLNRO8	25	.98	32	1.26	17	.669	75	2.95	100	3.937	WN..080408/WN..432	0,49	1.08
3959347	KM40TSS25GPWLNRO6	25	.98	32	1.26	17	.669	77	3.04	90	3.543	WN..060408/WN..332	0,41	.90
3959349	KM40TSS25GPWLNRO8	25	.98	32	1.26	17	.669	77	3.04	90	3.543	WN..080408/WN..432	0,40	.89
left hand														
3959344	KM40TSS25EPWLNLO8	25	.98	32	1.26	17	.669	55	2.17	70	2.756	WN..080408/WN..432	0,34	.75
3959350	KM40TSS25HPWLNLO8	25	.98	32	1.26	17	.669	75	2.95	100	3.937	WN..080408/WN..432	0,49	1.08
3959346	KM40TSS25GPWLNLO6	25	.98	32	1.26	17	.669	77	3.04	90	3.543	WN..060408/WN..332	0,41	.90
3959348	KM40TSS25GPWLNLO8	25	.98	32	1.26	17	.669	77	3.04	90	3.543	WN..080408/WN..432	0,40	.89

■ Spare Parts

catalog number	 lever screw	 toggle lever
right hand		
KM40TSS25EPWLNRO8	514.122	511.022
KM40TSS25GPWLNRO6	514.112	511.030
KM40TSS25GPWLNRO8	514.122	511.022
KM40TSS25HPWLNRO8	514.122	511.022
left hand		
KM40TSS25EPWLNLO8	514.122	511.022
KM40TSS25GPWLNLO6	514.112	511.030
KM40TSS25GPWLNLO8	514.122	511.022
KM40TSS25HPWLNLO8	514.122	511.022





■ NE 90° • Steel

order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs
		mm	in	mm	in	mm	in	mm	in	mm	in			
right hand														
3955481	KM40TSS12ENER2	12	.47	19	.73	11	.433	42	1.655	70	2.756	NG2L	0,27	.58
3955483	KM40TSS16FNER2	16	.63	20	.79	11	.433	56	2.209	80	3.150	NG2L	0,28	.62
3955485	KM40TSS20GNER2	20	.79	25	.98	13	.512	70	2.757	90	3.543	NG2L	0,35	.76
3955487	KM40TSS25ENER2	25	.98	32	1.26	17	.669	55	2.169	70	2.756	NG2L	0,34	.75
3955491	KM40TSS25ENER3	25	.98	34	1.34	17	.669	55	2.169	70	2.756	NG3L	0,35	.77
3955489	KM40TSS25HNER2	25	.98	32	1.26	17	.669	75	2.954	100	3.937	NG2L	0,49	1.08
3955493	KM40TSS25HNER3	25	.98	34	1.34	17	.669	75	2.954	100	3.937	NG3L	0,49	1.09
3955497	KM40TSS32GNER3	32	1.26	40	1.57	22	.866	76	2.993	90	3.543	NG3L	0,55	1.21
3955495	KM40TSS32JNER3	32	1.26	40	1.57	22	.866	96	3.780	110	4.331	NG3L	0,67	1.48
left hand														
3955480	KM40TSS12ENEL2	12	.47	19	.73	11	.433	42	1.655	70	2.756	NG2R	0,27	.59
3955482	KM40TSS16FNEL2	16	.63	20	.79	11	.433	56	2.209	80	3.150	NG2R	0,28	.62
3955484	KM40TSS20GNEL2	20	.79	25	.98	13	.512	70	2.757	90	3.543	NG2R	0,35	.76
3955486	KM40TSS25ENEL2	25	.98	32	1.26	17	.669	55	2.169	70	2.756	NG2R	0,34	.75
3955490	KM40TSS25ENEL3	25	.98	34	1.34	17	.669	55	2.169	70	2.756	NG3R	0,35	.77
3955492	KM40TSS25HNEL3	25	.98	34	1.34	17	.669	75	2.954	100	3.937	NG3R	0,49	1.09
3955488	KM40TSS25HNEL2	25	.98	32	1.26	17	.669	75	2.954	100	3.937	NG2R	0,49	1.08
3955496	KM40TSS32GNEL3	32	1.26	40	1.57	22	.866	76	2.993	90	3.543	NG3R	0,55	1.21
3955494	KM40TSS32JNEL3	32	1.26	40	1.57	22	.866	96	3.780	110	4.331	NG3R	0,67	1.48

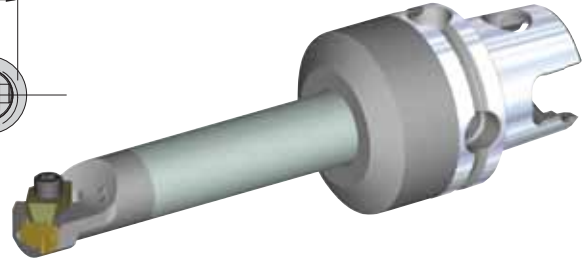
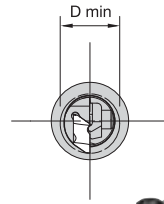
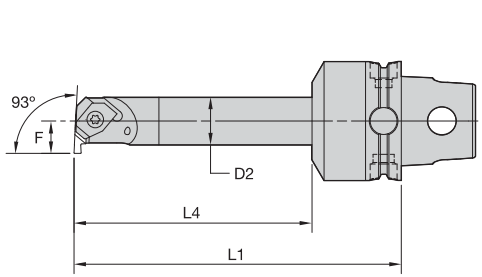
(continued)

(NE 90° • Steel continued)

■ Spare Parts

catalog number	 clamp	 clamp screw
right hand		
KM40TSS12ENER2	CM147	MS1488
KM40TSS16FNER2	CM147	MS1488
KM40TSS20GNER2	CM75	MS1488
KM40TSS25ENER2	CM75	MS1488
KM40TSS25ENER3	CM73	MS1489
KM40TSS25HNER2	CM75	MS1488
KM40TSS25HNER3	CM73	MS1489
KM40TSS32GNER3	CM73	MS1489
KM40TSS32JNER3	CM73	MS1489
left hand		
KM40TSS12ENEL2	CM146	MS1488
KM40TSS16FNEL2	CM146	MS1488
KM40TSS20GNEL2	CM74	MS1488
KM40TSS25ENEL2	CM74	MS1488
KM40TSS25ENEL3	CM72	MS1489
KM40TSS25HNEL2	CM74	MS1488
KM40TSS25HNEL3	CM72	MS1489
KM40TSS32GNEL3	CM72	MS1489
KM40TSS32JNEL3	CM72	MS1489

KM40TS Internal Cutting Units



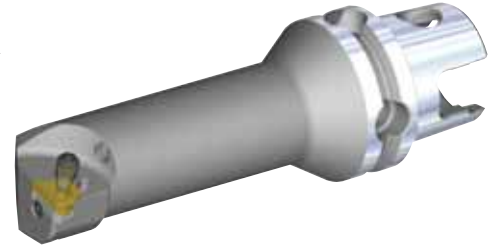
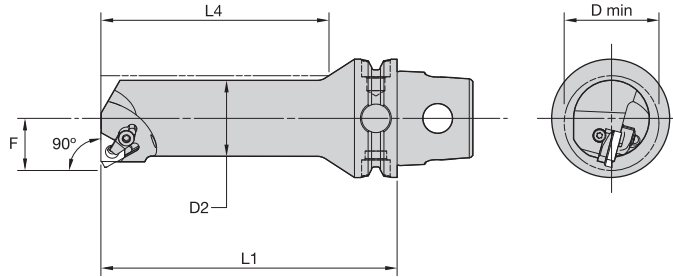
■ NE 93° • Carbide

order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs
		mm	in	mm	in	mm	in	mm	in	mm	in			
	right hand													
3951836	KM40TSE16JNER2	16	.63	20	.79	11	.433	80	3.15	110	4.331	NG2L	0,41	.90
	left hand													
3951835	KM40TSE16JNEL2	16	.63	20	.79	11	.433	80	3.15	110	4.331	NG2R	0,41	.90

■ Spare Parts

catalog number	clamp	clamp screw
right hand KM40TSE16JNER2	CM146	MS1488
left hand KM40TSE16JNEL2	CM147	MS1488





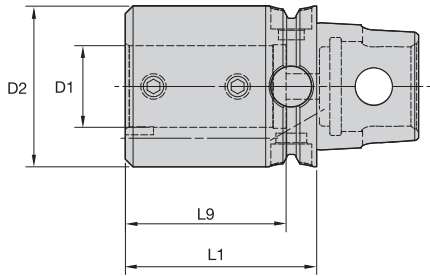
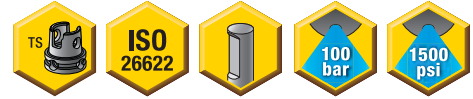
■ LSE 90°

order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs
		mm	in	mm	in	mm	in	mm	in	mm	in			
right hand														
3955464	KM40TSS10DLSER11	10	.39	13	.51	7	.276	35	1.38	60	2.362	LT11NR	0,22	.49
3955466	KM40TSS12ELSER11	12	.47	16	.63	9	.354	42	1.66	70	2.756	LT11NR	0,25	.56
3955468	KM40TSS16FLSER16	16	.63	20	.79	11	.433	56	2.21	80	3.150	LT16NR	0,28	.61
3955470	KM40TSS20GLSER16	20	.79	25	.98	13	.512	70	2.76	90	3.543	LT16NR	0,34	.75
3955472	KM40TSS25HLSER16	25	.98	32	1.26	17	.669	75	2.95	100	3.937	LT16NR	0,50	1.11
3955474	KM40TSS32JLSER16	32	1.26	40	1.57	22	.866	96	3.78	110	4.331	LT16NR	0,72	1.58
3955476	KM40TSS32JLSER22	32	1.26	40	1.57	22	.866	96	3.78	110	4.331	LT22NR	0,71	1.56
left hand														
3955463	KM40TSS10DLSEL11	10	.39	13	.51	7	.276	35	1.38	60	2.362	LT11NL	0,22	.49
3955465	KM40TSS12ELSEL11	12	.47	16	.63	9	.354	42	1.65	70	2.756	LT11NL	0,25	.55
3955467	KM40TSS16FLSEL16	16	.63	20	.79	11	.433	56	2.21	80	3.150	LT16NL	0,28	.61
3955469	KM40TSS20GLSEL16	20	.79	25	.98	13	.512	70	2.76	90	3.543	LT16NL	0,34	.75
3955471	KM40TSS25HLSSEL16	25	.98	32	1.26	17	.669	75	2.95	100	3.937	LT16NL	0,50	1.11
3955473	KM40TSS32JLSEL16	32	1.26	40	1.57	22	.866	96	3.78	110	4.331	LT16NL	0,72	1.58
3955475	KM40TSS32JLSEL22	32	1.26	40	1.57	22	.866	96	3.78	110	4.331	LT22NL	0,71	1.56

■ Spare Parts

catalog number	insert screw	shim	shim screw	clamp assembly
right hand				
KM40TSS10DLSER11	SSN2T	—	—	—
KM40TSS12ELSER11	SSN2T	—	—	—
KM40TSS16FLSER16	SN3TPKG	—	—	—
KM40TSS20GLSER16	SSA3T	SMYI3	SSY3T	CKC3
KM40TSS25HLSER16	SSA3T	SMYI3	SSY3T	CKC3
KM40TSS32JLSER16	SSA3T	SMYI3	SSY3T	CKC3
KM40TSS32JLSER22	SSA4T	SMYI4	SSY4T	CKC4
left hand				
KM40TSS10DLSEL11	SSN2T	—	—	—
KM40TSS12ELSEL11	SSN2T	—	—	—
KM40TSS16FLSEL16	SN3TPKG	—	—	—
KM40TSS20GLSEL16	SSA3T	SMYE3	SSY3T	CKC3
KM40TSS25HLSSEL16	SSA3T	SMYE3	SSY3T	CKC3
KM40TSS32JLSEL16	SSA3T	SMYE3	SSY3T	CKC3
KM40TSS32JLSEL22	SSA4T	SMYE4	SSY4T	CKC4

NOTE: Items listed without a shim are designed for a 1.5° inclination angle.
Cutting units are supplied with insert screw and clamp assembly. However, tools are designed to use either the insert screw or the clamp assembly, not both.



■ BA • Boring Bar Adapter • Internal and External Coolant • Metric



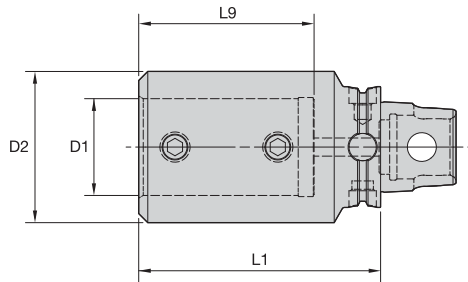
order number	catalog number	D1	D2	L1	L9	clamp screw	wrench size clamp screw	Nm	kg
3950818	KM40TSBA06050M	6	40	50	36	MS1210	2,5mm	3	0,50
3950819	KM40TSBA08050M	8	40	50	36	MS1210	2,5mm	3	0,50
3950820	KM40TSBA10060M	10	40	60	48	MS1211	4mm	12	0,58
3950821	KM40TSBA12065M	12	40	65	52	MS1211	4mm	12	0,61
3950822	KM40TSBA16070M	16	40	70	55	MS1081	5mm	25	0,61
3950823	KM40TSBA20075M	20	40	75	58	MS1213	5mm	25	0,60
3950824	KM40TSBA25075M	25	50	75	56	MS1081	5mm	25	0,87

■ BA • Boring Bar Adapter • Internal and External Coolant • Inch



order number	catalog number	D1	D2	L1	L9	clamp screw	wrench size clamp screw	ft. lbs.	lbs
3950813	KM40TSBA06236	3/8	1.58	2.362	1.89	S843	1/8	5	1.27
3950814	KM40TSBA08256	1/2	1.58	2.559	2.05	S852	5/32	10	1.33
3950815	KM40TSBA10276	5/8	1.58	2.756	2.17	S862	3/16	15	1.35
3950816	KM40TSBA12295	3/4	1.58	2.953	2.28	S862	3/16	15	1.37
3950817	KM40TSBA16295	1	1.97	2.953	2.21	S862	3/16	15	1.90

NOTE: Do not overtighten clamp screw; use torque recommendations above.
Supplied with clamp screw.
Clamp screw wrench not included.



■ BAI • Boring Bar Adapter • Internal Coolant Only • Metric



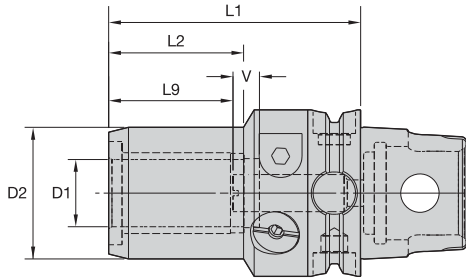
order number	catalog number	D1	D2	L1	L9	clamp screw	wrench size clamp screw	Nm	kg
3950158	KM40TSBAI32080M	32	50	80	58	MS1213	5mm	25	0,81
3950159	KM40TSBAI40090M	40	58	90	68	MS1213	5mm	25	1,04

■ BAI • Boring Bar Adapter • Internal Coolant Only • Inch



order number	catalog number	D1	D2	L1	L9	clamp screw	wrench size clamp screw	ft. lbs.	lbs
3950156	KM40TSBAI20315	1 1/4	1.97	3.150	2.28	S861	3/16	15	1.78
3950157	KM40TSBAI24354	1 1/2	2.28	3.543	2.68	S861	3/16	15	2.43

NOTE: Do not overtighten clamp screw; use torque recommendations above.
Supplied with clamp screw.
Clamp screw wrench not included.



■ HC • Metric



order number	catalog number	D1	D2	L1	L2	L9	V	actuation wrench	wrench size actuation screw	length adjustment wrench	wrench size stop screw	kg
3960498	KM40TSHC06065M	6	26	65	34	27	10	170.135	5mm	170.002	2,5mm	0,43
3960499	KM40TSHC08065M	8	28	65	34	27	10	170.135	5mm	170.002	2,5mm	0,44
3960500	KM40TSHC10070M	10	30	70	38	31	10	170.135	5mm	170.002	2,5mm	0,49
3960501	KM40TSHC12075M	12	32	75	41	36	10	170.135	5mm	170.002	2,5mm	0,53

■ HC • Inch



order number	catalog number	D1	D2	L1	L2	L9	V	actuation wrench	wrench size actuation screw	length adjustment wrench	wrench size stop screw	lbs
3960497	KM40TSHC050300	1/2	1.24	3.000	1.75	1.42	.39	170.135	5mm	170.002	2,5mm	1.16

NOTE: Do not overtorque clamp screw. Tighten by hand until stop is felt.
Hydraulic chuck technical section, see page M84.
Reduction sleeves are available and must be ordered separately; see page J2.
Wrenches must be ordered separately.



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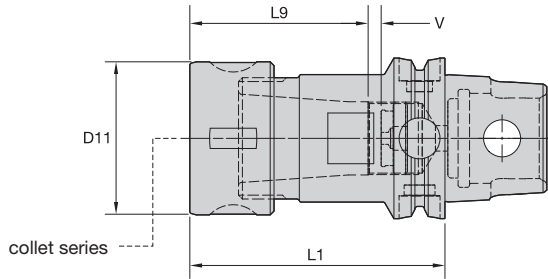
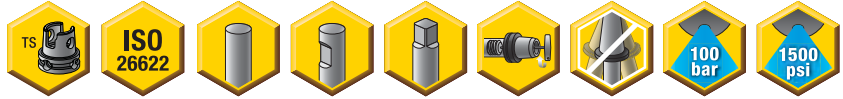
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TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG75	2,6	20,0	3/64	3/4
TG100	2,6	25,5	5/64	1

■ Collet Chuck • Round Nut

order number	catalog number	collet series	D11		L1		L9		V		kg	lbs
			mm	in	mm	in	mm	in	mm	in		
3969764	KM40TSTG075075M	TG75	50	1.97	75	2.953	53	2.09	2	.08	0,64	1.41
3969765	KM40TSTG100100M	TG100	60	2.36	100	3.937	69	2.72	5	.20	1,17	2.58

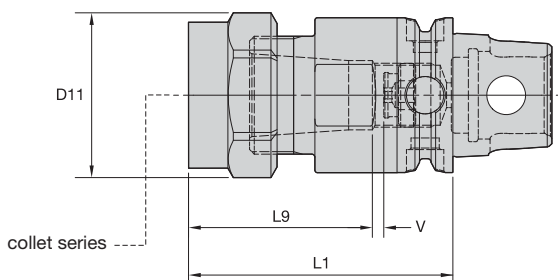
■ Spare Parts



catalog number	locknut	wrench	Nm	ft. lbs.	stop screw	wrench size stop screw
KM40TSTG075075M	LNA075M	HSW45M	136	100	SS081041G	4mm & 5/32
KM40TSTG100100M	LNA100M	HSW58M	203	150	SS112041G	4mm & 5/32

(continued)

(Collet Chuck continued)


KM40TS Shank Tools


TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG75	2,6	20,0	3/64	3/4
TG100	2,6	25,5	5/64	1

■ Collet Chuck • Hex Nut

order number	catalog number	collet series	D11		L1		L9		V		kg	lbs
			mm	in	mm	in	mm	in	mm	in		
3969763	KM40TSTG075316	TG75	53	2.09	80	3.161	58	2.28	2	.08	0,63	1.39
3969766	KM40TSTG100417	TG100	62	2.44	106	4.173	75	2.95	5	.20	1,21	2.67

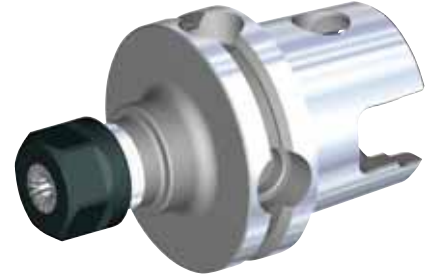
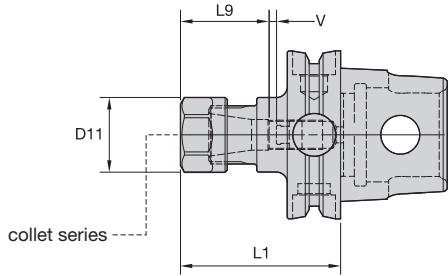
■ Spare Parts



catalog number	locknut	wrench	Nm	ft. lbs.	stop screw	wrench size stop screw
KM40TSTG075316	NPA075	OEW188	136	100	SS081041G	4mm & 5/32
KM40TSTG100417	NPA100	OEW225	203	150	SS112041G	4mm & 5/32

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16–L17.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 Balanceable/Interchangeable locknuts are available and must be ordered separately; see page L16.
 TG standard straight-bore collets, see page J10.
 TG tap collets, see page J10.

- Grip (2:1 advantage).



ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER16	0,5	10,0	.02	.41

■ Collet Chuck • Hex Nut

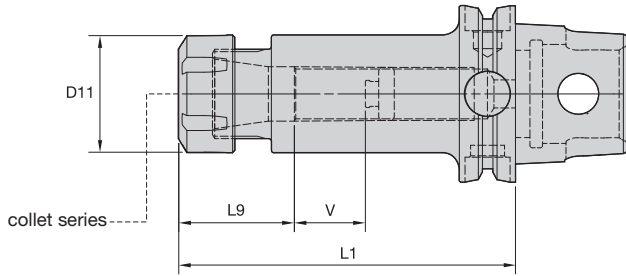


order number	catalog number	collet series	D11		L1		L9		V		locknut	wrench	straight collet torque		counterbore collet torque		kg	lbs
			mm	in	mm	in	mm	in	mm	in			Nm	ft. lbs.	Nm	ft. lbs.		
3950246	KM40TSER16038M	ER16	28	1.10	38	1.496	32,8	1.29	—	—	LNHSER16M	OEW25M	56	42	40	30	0,20	.44

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Interchangeable coolant-style locknuts and coolant disks are available and must be ordered separately; see pages L16–L17.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.

(continued)

(Collet Chuck continued)



KM40TS Shank Tools



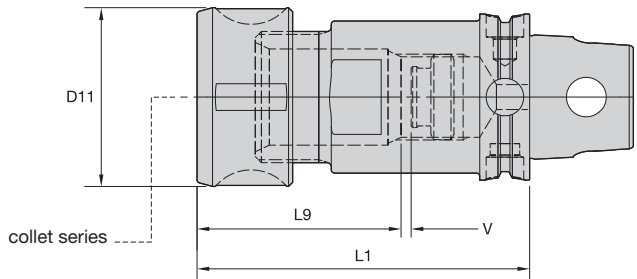
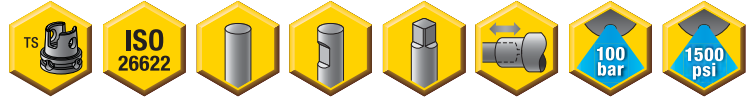
ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER25	1,0	16,0	.04	.63
ER32	2,0	20,0	.08	.81

■ Collet Chuck • Round Nut



order number	catalog number	collet series	D11		L1		L9		V		locknut	wrench	Nm	ft. lbs.	kg	lbs
			mm	in	mm	in	mm	in	mm	in						
3950247	KM40TSER25045M	ER25	42	1.65	45	1.772	41,2	1.62	—	—	LNSER25M	ER25WM	104	77	0,29	.64
3950248	KM40TSER32060M	ER32	50	1.97	60	2.362	47,3	1.86	—	—	LNSER32M	ER32WM	136	100	0,46	1.01

• Grip 1:1.



DA collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
200DA	0,2	10,0	1/64	25/64
180DA	2,2	20,0	1/64	3/4

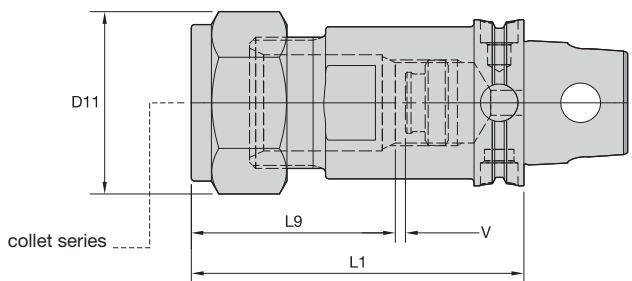
■ Collet Chuck • Round Nut

order number	catalog number	collet series	D11		L1		L9		V		kg	lbs
			mm	in	mm	in	mm	in	mm	in		
3950189	KM40TSDA188065M	DA180	43	1.69	65	2.559	49,0	1.93	—	—	0,48	1.05
3950190	KM40TSDA188080M	DA180	43	1.69	80	3.150	49,0	1.93	5	.20	0,58	1.28

■ Spare Parts



catalog number	locknut	wrench	Nm	ft. lbs.	stop screw	wrench size stop screw
KM40TSDA188065M	LNA188M	HSW45M	80-100	60-75	—	—
KM40TSDA188080M	LNA188M	HSW45M	80-100	60-75	SS081041G	M4 & 5/32



■ Collet Chuck • Hex Nut

order number	catalog number	collet series	D11		L1		L9		V		kg	lbs
			mm	in	mm	in	mm	in	mm	in		
3950191	KM40TSDA208236	DA200	29	1.15	60	2.362	35,0	1.38	8	.32	0,28	.61
3950187	KM40TSDA188256	DA180	44	1.73	65	2.559	49,0	1.93	—	—	0,39	.85
3950188	KM40TSDA188315	DA180	44	1.73	80	3.150	49,0	1.93	5	.20	0,49	1.09

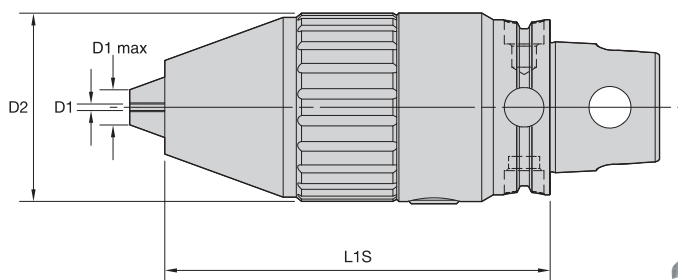
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(Collet Chuck continued)

Spare Parts

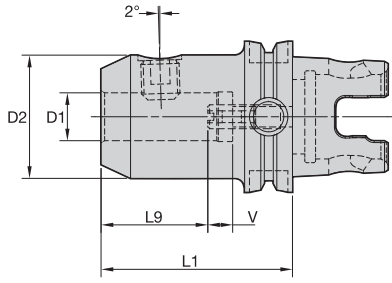
catalog number	locknut	wrench	Nm		ft. lbs.		stop screw	wrench size stop screw
KM40TSDA188256	NPA188	OEW150	80-100	60-75	—	—	—	—
KM40TSDA188315	NPA188	OEW150	80-100	60-75	SS081041G	M4 & 5/32		
KM40TSDA208236	NPA208	OEW100	45-55	32-40	SS038031G	M2 & 5/64		

NOTE: Tighten locknut to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 DA standard straight-bore collets, see page J62.
 DA non-pullout collets, see pages J65–J68.


RDC • Drill Chucks

order number	catalog number	D1		D1 max		D2		L1S	
		mm	in	mm	in	mm	in	mm	in
4053778	KM40TSRDC13092M	1	.039	13	.512	43	1.693	91,9	3.618

NOTE: Activation size is 6mm.
 Activation wrench included.
 Wrench reorder number is 170.136.



■ WN • Whistle Notch Adapter

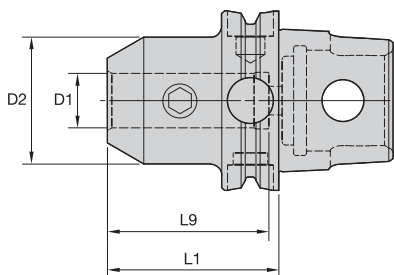


order number	catalog number	D1	D2	L1	L9	V	lock screw	wrench size lock screw	Nm	stop screw	wrench size stop screw	kg	lbs
3950205	KM40TSWN06065M	6	25	65	30	10	SS03M012	3mm	7	571.060	2,5mm	0,32	.71
3950206	KM40TSWN08065M	8	28	65	30	10	SS03M014	4mm	15	571.067	3mm	0,37	.81
3950207	KM40TSWN10070M	10	35	70	35	10	SS03M018	5mm	25	571.068	4mm	0,52	1.15
3950208	KM40TSWN12080M	12	42	80	40	10	SS03M023	6mm	35	571.074	5mm	0,78	1.72
3950209	KM40TSWN14080M	14	44	80	40	10	SS03M023	6mm	35	571.074	5mm	0,83	1.84
3950210	KM40TSWN16085M	16	48	85	43	10	SS03M025	6mm	50	571.075	6mm	1,02	2.25
3950211	KM40TSWN18085M	18	50	85	43	10	SS03M025	6mm	50	571.075	6mm	1,08	2.38
3950212	KM40TSWN20095M	20	52	95	45	10	SS03M026	8mm	95	571.076	6mm	1,28	2.83

NOTE: Do not overtighten lock screw; use torque recommendations above.
Supplied with lock screw and stop screw.
Lock screw and stop screw wrenches are not included.



KM40TS Shank Tools


EM • Metric


order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	Nm	kg
3950196	KM40TSEM06045M	6	25	45	40	SS03M012	3mm	7	0,25
3950197	KM40TSEM08045M	8	28	45	40	SS03M014	4mm	15	0,28
3950198	KM40TSEM10050M	10	35	50	45	SS03M018	5mm	25	0,38
3950199	KM40TSEM12055M	12	42	55	50	SS03M023	6mm	35	0,52
3950200	KM40TSEM16060M	16	48	60	53	SS03M025	6mm	50	0,68
3950201	KM40TSEM20065M	20	52	65	55	SS03M026	8mm	95	0,81

EM • Inch


order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
3950139	KM40TSEM038197	3/8	1.00	1.969	1.73	ELS038031PKG	3/16	15	.58
3950140	KM40TSEM050216	1/2	1.38	2.165	1.97	ELS044038PKG	7/32	20	.84
3950141	KM40TSEM062236	5/8	1.63	2.362	2.09	ELS056050PKG	1/4	40	1.16
3950142	KM40TSEM075256	3/4	1.75	2.559	2.22	ELS062050PKG	5/16	70	1.35

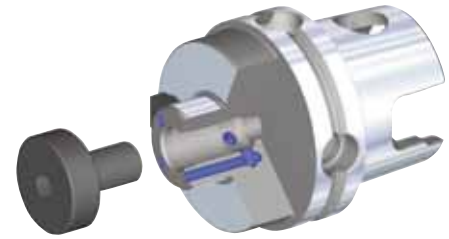
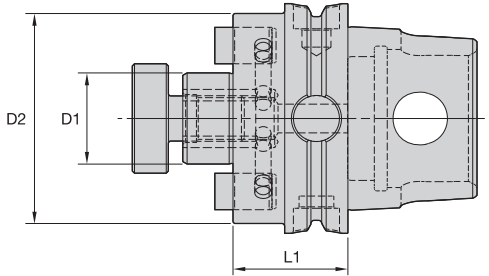
NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw.
 Lock screw wrench not included.

KM40TS™ Shank Tools

SMC Shell Mill Adapters with Through Coolant



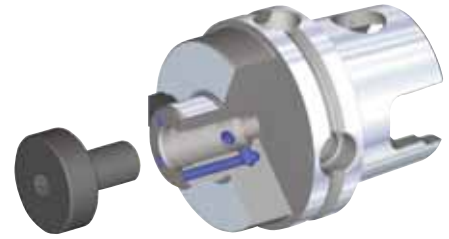
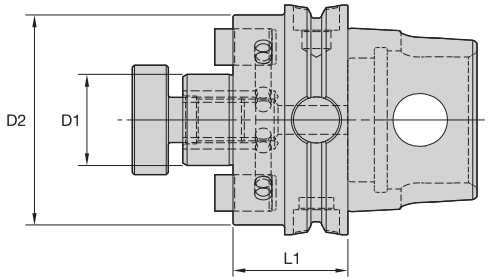
KM40TS Shank Tools



■ SMC • Metric



order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size lock screw	kg
3950261	KM40TSSMC16026M	16	44	26	MS1294	KDK16M	6mm	0,34
3950262	KM40TSSMC22028M	22	49	28	MS1234	KDK22M	8mm	0,44
3950263	KM40TSSMC27032M	27	60	32	KLSS27M	KDK27M	10mm	0,68



■ SMC/SM2C • Inch

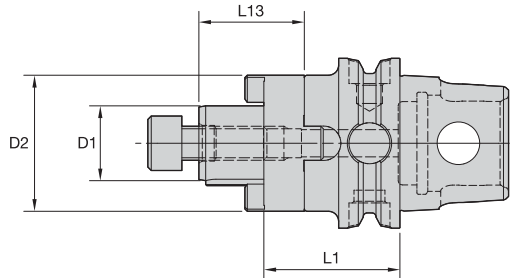


order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size lock screw	lbs
3950256	KM40TSSMC050102	1/2	1.44	1.024	KLS05	KDK04	3/16	.63
3950257	KM40TSSM2C075102	3/4	1.46	1.024	KLS07	—	1/4	.71
3950258	KM40TSSMC075102	3/4	1.75	1.024	KLS07	KDK05	1/4	.82
3950259	KM40TSSM2C100126	1	2.19	1.260	KLS10	KDK06	5/16	1.33
3950260	KM40TSSMC100126	1	2.75	1.260	KLS10	KDK06	5/16	1.64

NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive keys.
 Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
 Lock screw wrench not included.



KM40TS Shank Tools

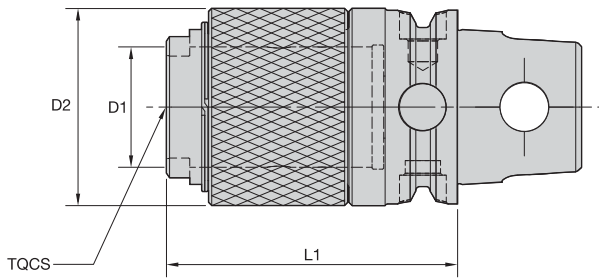


■ CS • Metric



order number	catalog number	D1	D2	L1	L13	lock screw	wrench size lock screw	drive ring	key	kg
3951833	KM40TSCS16036M	16	32	36	27	MS1294	6mm	CDR16M	CDK16M	0,33
3951834	KM40TSCS22038M	22	40	38	31	MS1234	8mm	CDR22M	CDK22M	0,47

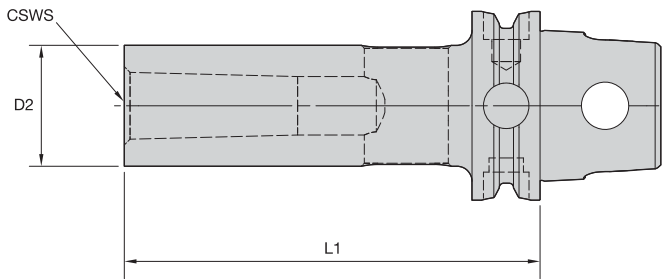
NOTE: Do not overtighten lock screw.
 Supplied with lock screw, drive ring, and key.
 Lock screw wrench not included.



■ **ST • Solid Tap Chuck**

order number	catalog number	TQCS adapter size	D1		D2		L1		kg	lbs
			mm	in	mm	in	mm	in		
3964071	KM40TSST1045M	1	19	.749	35	1.375	45	1.774	0,30	.65
3964072	KM40TSST2070M	2	31	1.222	51	2.000	70	2.758	0,71	1.56

NOTE: Quick-change tap adapters available and must be ordered separately; see page J76.



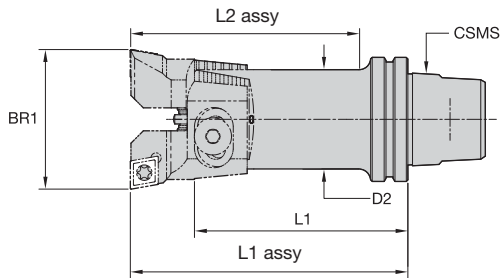
■ **MT • Morse Taper Adapter**

order number	catalog number	CSWS system size	D2		L1		kg	lbs
			mm	in	mm	in		
3950809	KM40TSMT1090M	1	25	.984	90	3.543	0,39	.86
3950810	KM40TSMT2105M	2	32	1.260	105	4.134	0,59	1.30
3950811	KM40TSMT3125M	3	40	1.575	125	4.921	0,95	2.09

- Preset on tool setter.



KM40TS Adapters



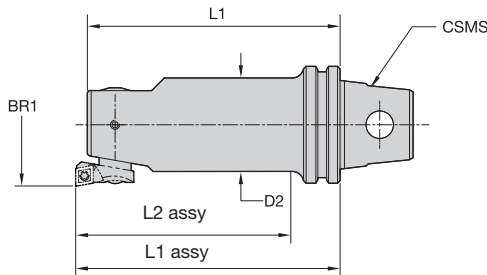
■ RBHT • KM™ Rough-Boring Twin Cutters



order number	catalog number	BR1 bore range		CSMS system size	D2		L1		L1 Assy		L2 Assy		blade screw	washer	pin
		mm	in		mm	in	mm	in	mm	in	mm	in			
3586521	KM40RBHT40	39,500-50,500	1.5551-1.9882	KM40	32,01	1.2668	68,82	2.71	90,0	3.54	74,0	2.91	840.142.320	841.142.320	841.342.200

NOTE: Blade sets are ordered separately; see the Kennametal Innovations Master Catalog Cutting Tools 2013.

- 0.01mm diameter adjustment respective 2 µm with vernier scale.
- Internal coolant directed to indexable insert.
- Order insert cartridges separately for required bore range; see the Kennametal Innovations Master Catalog Cutting Tools 2013.



■ **FBHS • KM™ Fine-Boring Single Cutters**

order number	catalog number	BR1 bore range		CSMS system size	D2		L1		L1 assy		L2 assy		cartridge mounting screw	lock screw
		mm	in		mm	in	mm	in	mm	in				
3586574	KM40FBHS40	39,900-59,100	1.5709-2.3268	KM40	32,01.26	86,03.39	90,0	3.54	74,0	2.92	880.252.320	881.252.320		

■ **Reference Insert Cartridges**

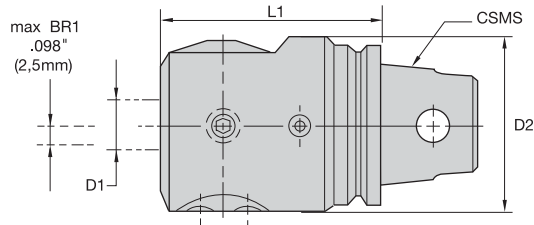
in	BR1 mm	insert cartridges			
		90° lead		95° lead	
.9409 - 1.2244	23,900 - 31,100	R24FBHS06	—	R24FBHS06LF	—
1.1772 - 1.4606	29,900 - 37,100	R30FBHS06	—	—	—
1.2165 - 1.5787	30,900 - 40,100	R31FBHS06	—	R31FBHS06LF	—
1.4921 - 1.8543	37,900 - 47,100	F38FBHS06	—	—	—
1.5709 - 2.0118	39,900 - 51,100	R40FBHS06	—	R40FBHS06LF	—
1.8858 - 2.3268	47,900 - 59,100	R48FBHS06	—	—	—
2.0039 - 2.6417	50,900 - 67,100	R51FBHS06	—	R51FBHS06LF	—
2.5551 - 3.1929	64,900 - 81,100	R65FBHS06	—	—	—
2.6339 - 3.4291	66,900 - 87,100	R67FBHS06	R67FBHS09	—	R67FBHS09LF
3.3425 - 4.1378	84,900 - 105,100	R85FBHS06	R85FBHS09	—	—
3.4213 - 4.5709	86,900 - 116,100	R67FBHS06	R67FBHS09	—	R67FBHS09LF
4.1299 - 5.2795	104,900 - 134,100	R85FBHS06	R85FBHS09	—	—
4.5630 - 6.0669	115,900 - 154,100	R67FBHS06	R67FBHS09	—	R67FBHS09LF
5.2717 - 6.7362	133,900 - 171,100	R85FBHS06	R85FBHS09	—	—
6.0591 - 7.5236	153,900 - 191,100	—	R125FBHS09	—	—

NOTE: Boring heads are ordered separately; see the Kennametal Innovations Master Catalog Cutting Tools 2013.

- 0,01mm (.0004") diameter adjustment respective 2 µm (.00008") with vernier scale.
- Order boring bars separately for required diameter; see the Kennametal Innovations Master Catalog Cutting Tools 2013.

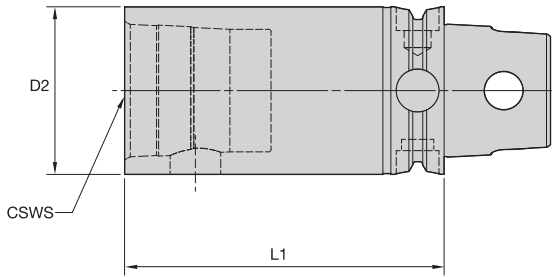


KM40TS Adapters



■ FBHO • KM™ Offset Boring Head

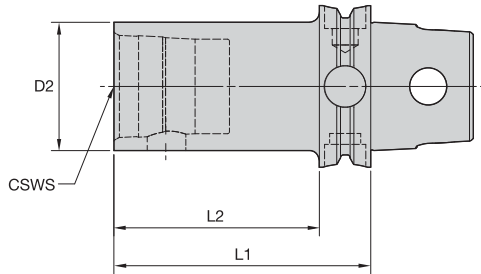
order number	catalog number	CSMS system size	D1		D2		L1		ModBORE FBHO parts package
			mm	in	mm	in	mm	in	
1131111	KM40FBHO1660	KM40	16	.63	55,0	2.17	60,0	2.36	PKG7001



■ S • KM Extension



order number	catalog number	CSWS system size	D2		L1		wrench size actuation screw	Nm	ft. lbs.	spare parts package	kg	lbs
			mm	in	mm	in						
3950179	KM40TSS40060M	KM40	40	1.575	60	2.362	6mm	12-16	9-12	KM40PKG3S	0,52	1.15
3950180	KM40TSS40080M	KM40	40	1.575	80	3.150	6mm	12-16	9-12	KM40PKG3S	0,71	1.57



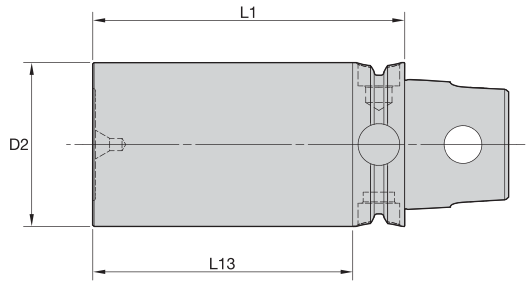
■ S • KM Reducer



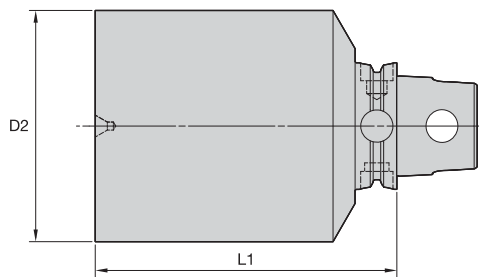
order number	catalog number	CSWS system size	D2		L1		L2		wrench size actuation screw	Nm	ft. lbs.	spare parts package	kg	lbs
			mm	in	mm	in	mm	in						
3950178	KM40TSS32070M	KM32	32	1.260	70	2.756	58	2.284	5mm	8-11	6-8	KM32PKG3S	0,46	1.01



KM40TS Shank Tools


■ GB • Gage Bar

order number	catalog number	D2		L1		L13		kg	lbs
		mm	in	mm	in	mm	in		
3959981	KM40TSGB40080M	40	1.58	80	3.15	68	2.68	0,81	1.79


■ BN • Blank

order number	catalog number	D2		L1		hardness range	kg	lbs
		mm	in	mm	in			
3950194	KM40TSBN63052M	63	2.480	52	2.047	32-38 HRC	1,11	2.45
3950193	KM40TSBN63125M	63	2.480	125	4.921	32-38 HRC	2,89	6.38
3950195	KM40TSBN90052M	90	3.543	52	2.047	32-38 HRC	2,00	4.42

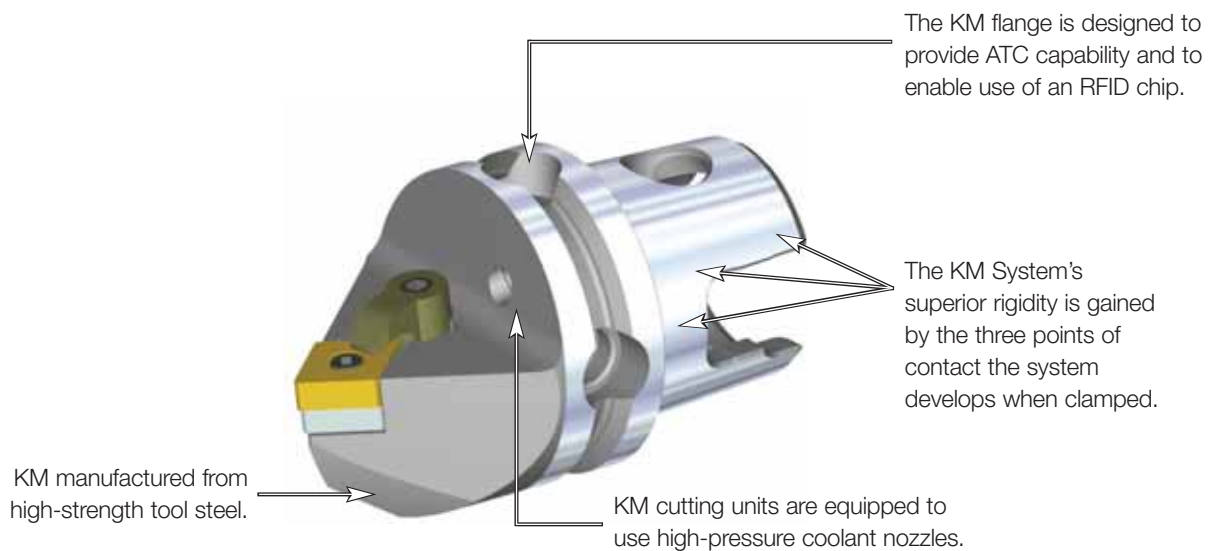
KM™ Quick Change Clamping System • KM50TS™ Series

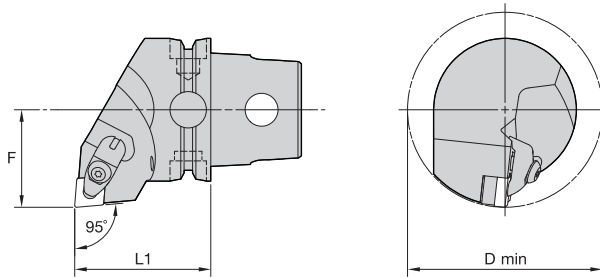
Primary Application

The KM Quick Change Clamping System is the best system on the market suitable for static, rotating, and multitasking operations. With its industry-leading design, the KM Quick Change System provides greater clamping forces than other quick-change systems. The KM Quick Change System gives you the flexibility to use KM on any application within your shop.

Features and Benefits

- KM is an ISO standard (ISO 26622).
- KM clamping units provide a 4:1 mechanical advantage.
- KM cutting units are capable of 100 bar (1,500 psi) coolant pressure.

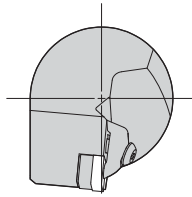
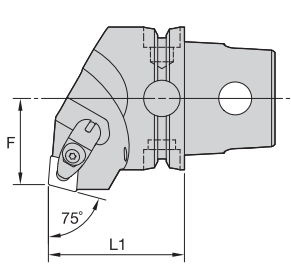



KM50TS Cutting Units

■ DCLN 95°

order number	catalog number	L1		F		D min		gage insert	kg
		mm	in	mm	in	mm	in		
	right hand								
3738457	KM50SDCLNR12KC04	50	1.969	35	1.378	70	2.756	CN..120408/CN..432	0,62
3738459	KM50SDCLNR16KC06	50	1.969	35	1.378	—	—	CN..160612/CN..543	0,61
	left hand								
3738456	KM50SDCLNL12KC04	50	1.969	35	1.378	70	2.756	CN..120408/CN..432	0,62
3738458	KM50SDCLNL16KC06	50	1.969	35	1.378	—	—	CN..160612/CN..543	0,61

■ Spare Parts





catalog number	shim	shim screw	clamp assembly	pin
right hand				
KM50SDCLNR12KC04	ICSN443	KMSP415IP	CM234R ASSY	SSP025016M
KM50SDCLNR16KC06	ICSN543	KMSP515IP	CM209R ASSY	SSP025018M
left hand				
KM50SDCLNL12KC04	ICSN443	KMSP415IP	CM234R ASSY	SSP025016M
KM50SDCLNL16KC06	ICSN543	KMSP515IP	CM209R ASSY	SSP025018M

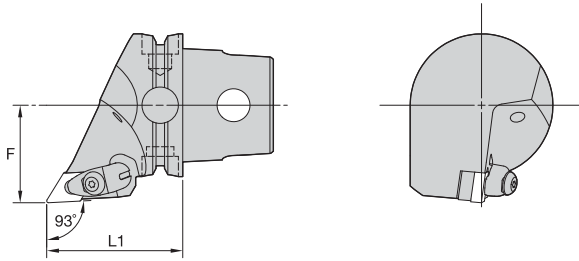


■ DCRN 75°

order number	catalog number	L1		F		gage insert	kg
		mm	in	mm	in		
3738461	KM50TSDCRNR12KC04	50	1.969	30	1.181	CN..120408/CN..432	0,62
3738460	KM50TSDCRNL12KC04	50	1.969	30	1.181	CN..120408/CN..432	0,62





■ Spare Parts

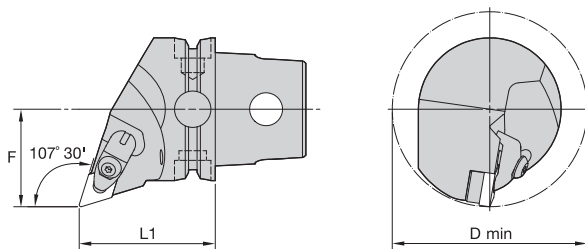
catalog number				
	shim	shim screw	clamp assembly	pin
right hand KM50TSDCRNR12KC04	ICSN443	KMSP415IP	CM234R ASSY	SSP025016M
left hand KM50TSDCRNL12KC04	ICSN443	KMSP415IP	CM234R ASSY	SSP025016M


KM50TS Cutting Units

■ DDJN 93°

order number	catalog number	L1		F		gage insert	kg
		mm	in	mm	in		
	right hand						
3741359	KM50TSDDJNR15KC04060M	60	2.362	35	1.378	DN..150408/DN..432	0,63
3741360	KM50TSDDJNR15KC06060M	60	2.362	35	1.378	DN..150608/DN..442	0,63
	left hand						
3741357	KM50TSDDJNL15KC04060M	60	2.362	35	1.378	DN..150408/DN..432	0,63
3741358	KM50TSDDJNL15KC06060M	60	2.362	35	1.378	DN..150608/DN..442	0,62

■ Spare Parts





catalog number	 shim	 shim screw	 clamp assembly	 pin
right hand				
KM50TSDDJNR15KC04060M	IDSN443	KMSP415IP	CM234R ASSY	SSP025016M
KM50TSDDJNR15KC06060M	IDSN433	KMSP415IP	CM234R ASSY	SSP025016M
left hand				
KM50TSDDJNL15KC04060M	IDSN443	KMSP415IP	CM234R ASSY	SSP025016M
KM50TSDDJNL15KC06060M	IDSN433	KMSP415IP	CM234R ASSY	SSP025016M

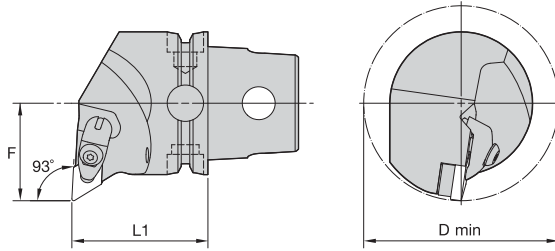


■ DDQN 107° 30'

order number	catalog number	L1		F		D min		gage insert	kg
		mm	in	mm	in	mm	in		
		right hand							
3741384	KM50TSDDQNR15KC04	50	1.969	35	1.378	80	3.15	DN..150408/DN..432	0,55
3741385	KM50TSDDQNR15KC06	50	1.969	35	1.378	80	3.15	DN..150608/DN..442	0,55
		left hand							
3741361	KM50TSDDQNL15KC04	50	1.969	35	1.378	80	3.15	DN..150408/DN..432	0,55
3741383	KM50TSDDQNL15KC06	50	1.969	35	1.378	80	3.15	DN..150608/DN..442	0,54





■ Spare Parts

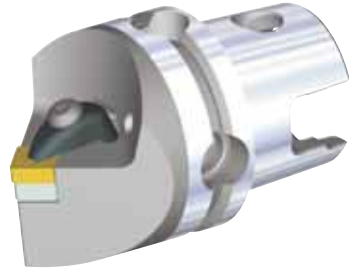
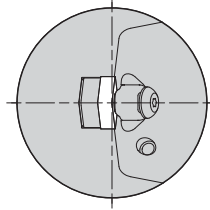
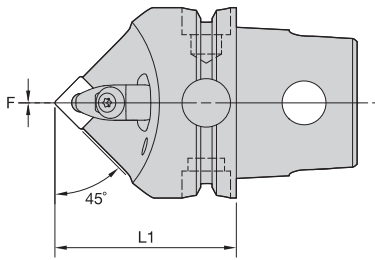
catalog number	 shim	 shim screw	 clamp assembly	 pin
	right hand			
KM50TSDDQNR15KC04	IDSN443	KMSP415IP	CM234R ASSY	SSP025016M
KM50TSDDQNR15KC06	IDSN433	KMSP415IP	CM234R ASSY	SSP025016M
	left hand			
KM50TSDDQNL15KC04	IDSN443	KMSP415IP	CM234R ASSY	SSP025016M
KM50TSDDQNL15KC06	IDSN433	KMSP415IP	CM234R ASSY	SSP025016M


KM50TS Cutting Units

■ DDUN 93°

order number	catalog number	L1		F		D min		gage insert	kg
		mm	in	mm	in	mm	in		
	right hand								
3741389	KM50TSDDUNR15KC04	50	1.969	35	1.378	80	3.15	DN..150408/DN..432	0,65
3741391	KM50TSDDUNR15KC06	50	1.969	35	1.378	80	3.15	DN..150608/DN..442	0,65
	left hand								
3741386	KM50TSDDUNL15KC04	50	1.969	35	1.378	80	3.15	DN..150408/DN..432	0,65
3741387	KM50TSDDUNL15KC06	50	1.969	35	1.378	80	3.15	DN..150608/DN..442	0,64

■ Spare Parts

catalog number	 shim	 shim screw	 clamp assembly	 pin
right hand				
KM50TSDDUNR15KC04	IDSN443	KMSP415IP	CM234R ASSY	SSP025016M
KM50TSDDUNR15KC06	IDSN433	KMSP415IP	CM234R ASSY	SSP025016M
left hand				
KM50TSDDUNL15KC04	IDSN443	KMSP415IP	CM234R ASSY	SSP025016M
KM50TSDDUNL15KC06	IDSN433	KMSP415IP	CM234R ASSY	SSP025016M



■ DSDN 45°

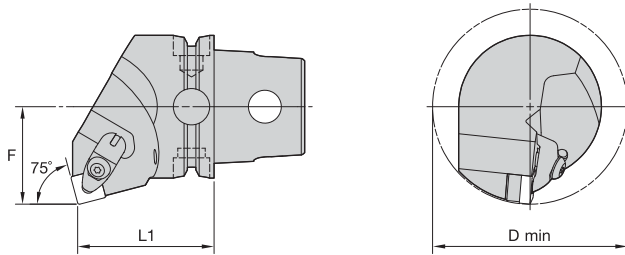
order number	catalog number	L1		F		gage insert	kg
		mm	in	mm	in		
3738085	KM50TSDSDNN12KC04	50	1.969	0	.000	SN..120408/SN..432	0,51

■ Spare Parts

catalog number				
	shim	shim screw	clamp assembly	pin
KM50TSDSDNN12KC04	ISSN443	KMSP415IP	CM234R ASSY	SSP025016M



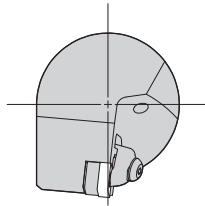
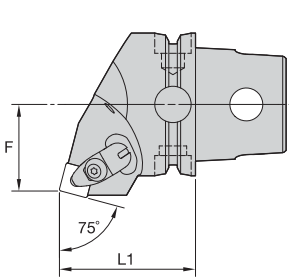
KM50TS Cutting Units


■ DSKN 75°

order number	catalog number	L1		F		D min		gage insert	kg
		mm	in	mm	in	mm	in		
3738087	KM50TSDSKNR12KC04	50	1.969	35	1.378	70	2.76	SN..120408/SN..432	0,69
3738086	KM50TSDSKNL12KC04	50	1.969	35	1.378	70	2.76	SN..120408/SN..432	0,69

■ Spare Parts

catalog number				
	shim	shim screw	clamp assembly	pin
right hand KM50TSDSKNR12KC04	ISSN443	KMSP415IP	CM234R ASSY	SSP025016M
left hand KM50TSDSKNL12KC04	ISSN443	KMSP415IP	CM234R ASSY	SSP025016M

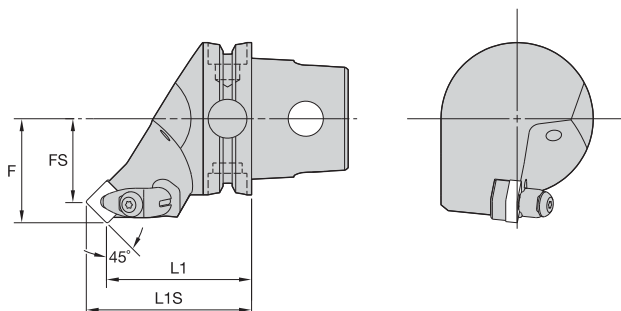


■ DSRN 75°

order number	catalog number	L1		F		gage insert	kg
		mm	in	mm	in		
	right hand						
3738089	KM50TSDSRNR12KC04	50	1.969	30	1.181	SN..120408/SN..432	0,61
	left hand						
3738088	KM50TSDSRNL12KC04	50	1.969	30	1.181	SN..120408/SN..432	0,61

■ Spare Parts

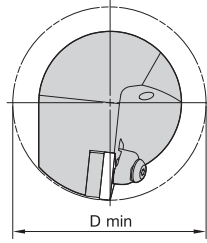
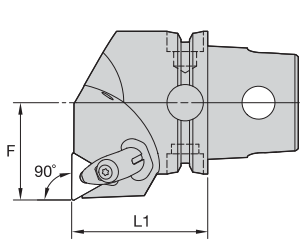
catalog number	shim	shim screw	clamp assembly	pin
KM50TSDSRNR12KC04	ISSN443	KMSP415IP	CM234R ASSY	SSP025016M
KM50TSDSRNL12KC04	ISSN443	KMSP415IP	CM234R ASSY	SSP025016M


KM50TS Cutting Units

■ DSSN 45°

order number	catalog number	L1		L1S		F		FS		gage insert	kg
		mm	in	mm	in	mm	in	mm	in		
3738091	KM50TSDSSNR12KC04	50	1.969	58,3	2.297	35	1.378	27	1.050	SN..120408/SN..432	0,64
3738090	KM50TSDSSNL12KC04	50	1.969	58,3	2.297	35	1.378	27	1.050	SN..120408/SN..432	0,64

■ Spare Parts

catalog number				
	shim	shim screw	clamp assembly	pin
right hand KM50TSDSSNR12KC04	ISSN443	KMSP415IP	CM234R ASSY	SSP025016M
left hand KM50TSDSSNL12KC04	ISSN443	KMSP415IP	CM234R ASSY	SSP025016M

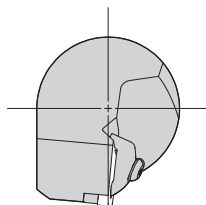
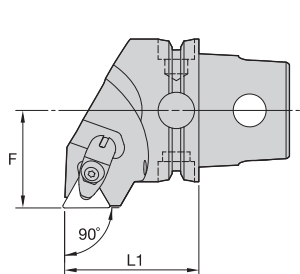


■ DTFN 90°

order number	catalog number	L1		F		D min		gage insert	kg
		mm	in	mm	in	mm	in		
	right hand								
3738158	KM50TSDTFNR22KC04055M	55	2.165	35	1.378	70	2.76	TN..220408/TN..432	0,78
	left hand								
3738157	KM50TSDTFNL22KC04055M	55	2.165	35	1.378	70	2.76	TN..220408/TN..432	0,78





■ Spare Parts

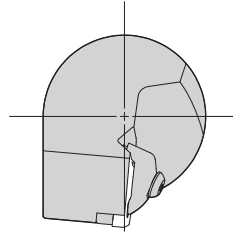
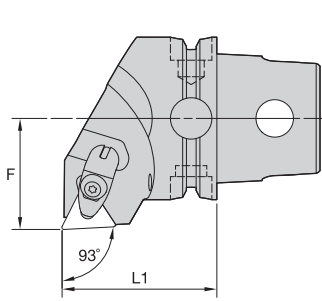
catalog number				
	shim	shim screw	clamp assembly	pin
right hand				
KM50TSDTFNR22KC04055M	ITSN443	KMSP415IP	CM234R ASSY	SSP025016M
left hand				
KM50TSDTFNL22KC04055M	ITSN443	KMSP415IP	CM234R ASSY	SSP025016M


DTGN 90°

order number	catalog number	L1		F		gage insert	kg
		mm	in	mm	in		
3738160	KM50TSDTGNR22KC04	50	1.969	35	1.378	TN..220408/TN..432	0,64
3738159	KM50TSDTGNL22KC04	50	1.969	35	1.378	TN..220408/TN..432	0,64

Spare Parts

catalog number	 shim	 shim screw	 clamp assembly	 pin
KM50TSDTGNR22KC04	ITSN443	KMSP415IP	CM234R ASSY	SSP025016M
KM50TSDTGNL22KC04	ITSN443	KMSP415IP	CM234R ASSY	SSP025016M



■ DTJN 93°

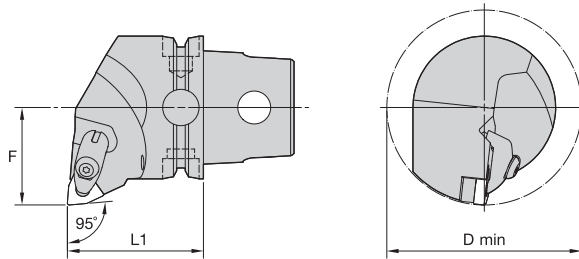
order number	catalog number	L1		F		gage insert	kg
		mm	in	mm	in		
	right hand						
3738162	KM50TSDTJNR22KC04	50	1.969	35	1.378	TN..220408/TN..432	0,64
	left hand						
3738161	KM50TSDTJNL22KC04	50	1.969	35	1.378	TN..220408/TN..432	0,64

■ Spare Parts

catalog number	shim	shim screw	clamp assembly	pin
KM50TSDTJNR22KC04	ITSN443	KMSP415IP	CM234R ASSY	SSP025016M
KM50TSDTJNL22KC04	ITSN443	KMSP415IP	CM234R ASSY	SSP025016M



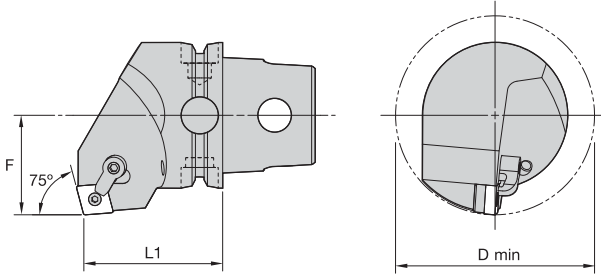
KM50TS Cutting Units


■ DWLN 95°

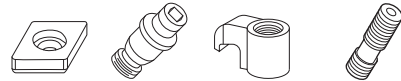
order number	catalog number	L1		F		D min		gage insert	kg
		mm	in	mm	in	mm	in		
	right hand								
3738178	KM50SDWLNRO8KC04	50	1.969	35	1.378	70	2.76	WN..080408/WN..432	0,65
	left hand								
3738177	KM50SDWLNLO8KC04	50	1.969	35	1.378	70	2.76	WN..080408/WN..432	0,66

■ Spare Parts

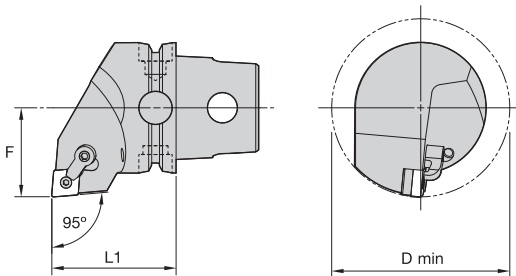
catalog number				
	shim	shim screw	clamp assembly	pin
right hand KM50SDWLNRO8KC04	IWSN443	KMSP415IP	CM234R ASSY	SSP025016M
left hand KM50SDWLNLO8KC04	IWSN443	KMSP415IP	CM234R ASSY	SSP025016M



■ MCKN 75°



order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
right hand														
3738139	KM50TSMCKNR12	50	1.969	35	1.378	70	2.756	CN..120408/CN..432	ICSN432	KLM46	CKM20LP	STCM11	0,68	1.51
3738140	KM50TSMCKNR16	50	1.969	35	1.378	70	2.756	CN..160612/CN..543	ICSN533	KLM58	CKM20LP	STCM11	0,71	1.57
left hand														
3738137	KM50TSMCKNL12	50	1.969	35	1.378	70	2.756	CN..120408/CN..432	ICSN432	KLM46	CKM20LP	STCM11	0,68	1.51
3738138	KM50TSMCKNL16	50	1.969	35	1.378	70	2.756	CN..160612/CN..543	ICSN533	KLM58	CKM20LP	STCM11	0,71	1.57



■ MCLN 95°



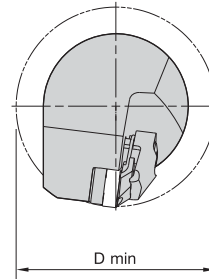
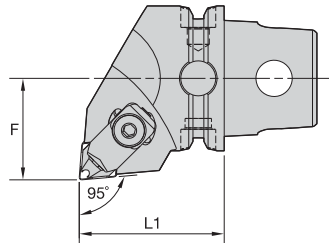
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
right hand														
3738164	KM50TSMCLNR12	50	1.969	35	1.378	70	2.756	CN..120408/CN..432	ICSN432	KLM46	CKM20LP	STCM11	0,64	1.42
3738165	KM50TSMCLNR16	50	1.969	35	1.378	90	3.543	CN..160612/CN..543	ICSN533	KLM58	CKM20LP	STCM11	0,64	1.41
3738166	KM50TSMCLNR19	50	1.969	35	1.378	90	3.543	CN..190612/CN..643	ICSN633	KLM68	CKM13LP	STCM8	0,63	1.39
left hand														
3738141	KM50TSMCLNL12	50	1.969	35	1.378	70	2.756	CN..120408/CN..432	ICSN432	KLM46	CKM20LP	STCM11	0,64	1.41
3738142	KM50TSMCLNL16	50	1.969	35	1.378	90	3.543	CN..160612/CN..543	ICSN533	KLM58	CKM20LP	STCM11	0,64	1.41
3738163	KM50TSMCLNL19	50	1.969	35	1.378	90	3.543	CN..190612/CN..643	ICSN633	KLM68	CKM13LP	STCM8	0,63	1.39



KM50TS Cutting Units

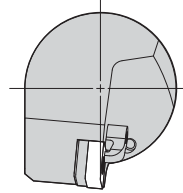
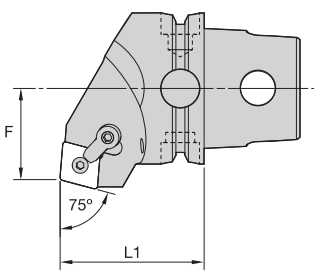
beyond BLAST™

KM
QUICK
CHANGE

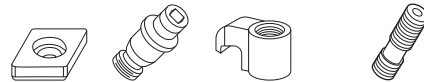


■ MCLN 95°

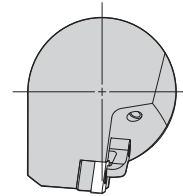
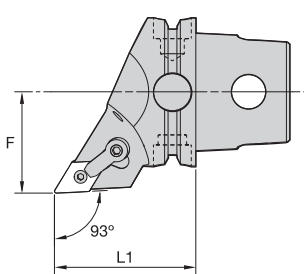
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp assembly	top plate	kg	lbs
		mm	in	mm	in	mm	in							
4098740	KM50TSMCLNR12BB	50	1.969	35	1.378	130	5.118	CN..120408RBB/CN..432RBB	ICSN433BB	KLM48BB	551.350	557.150	0,33	1.45
4098741	KM50TSMCLNL12BB	50	1.969	35	1.378	130	5.118	CN..120408RBB/CN..432RBB	ICSN433BB	KLM48BB	551.350	557.150	0,33	1.45



■ MCRN 75°



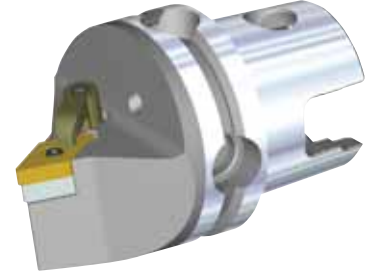
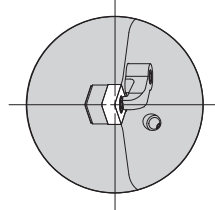
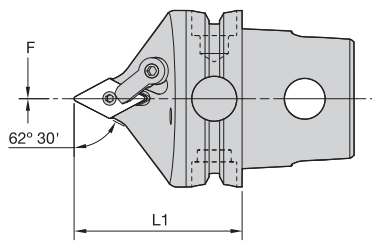
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
right hand												
3738182	KM50TSMCRNR12	50	1.969	30	1.181	CN..120408/CN..432	ICSN433	KLM46	CKM20LP	STCM11	0,66	1.44
3838383	KM50TSMCRNR16	50	1.969	30	1.181	CN..160612/CN..543	ICSN533	KLM58	CKM20LP	STCM11	0,66	1.45
3738183	KM50TSMCRNR19	50	1.969	30	1.181	CN..190612/CN..643	ICSN633	KLM68	CKM13LP	STCM8	0,66	1.45
left hand												
3738179	KM50TSMCRNL12	50	1.969	30	1.181	CN..120408/CN..432	ICSN433	KLM46	CKM20LP	STCM11	0,66	1.45
3738181	KM50TSMCRNL16	50	1.969	30	1.181	CN..160612/CN..543	ICSN533	KLM58	CKM20LP	STCM11	0,64	1.41
3838384	KM50TSMCRNL19	50	1.969	30	1.181	CN..190612/CN..643	ICSN633	KLM68	CKM13LP	STCM8	0,66	1.44



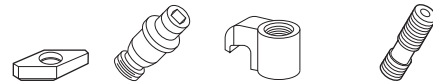
■ MDJN 93°



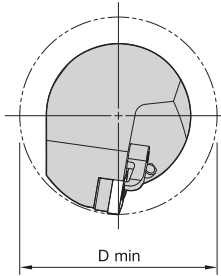
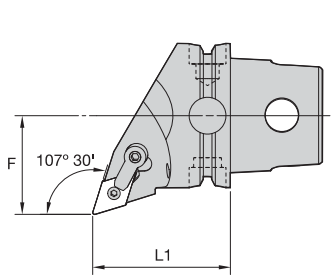
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		mm	in	mm	in							
right hand												
3738151	KM50TSMDJNR1504	50	1.969	35	1.378	DN..150408/DN..432	IDSN442	KLM46L	CKM23LP	STCM11	0,50	1.110
3738152	KM50TSMDJNR1506	50	1.969	35	1.378	DN..150408/DN..432	IDSN432	KLM46L	CKM23LP	STCM11	0,50	1.110
3738153	KM50TSMDJNR1906	50	1.969	35	1.378	DN..190612/DN..532	IDSN532	KLM58	CKM13LP	STCM8	0,55	1.200
left hand												
3738149	KM50TSMDJNL1504	50	1.969	35	1.378	DN..150408/DN..432	IDSN442	KLM46L	CKM23LP	STCM11	0,51	1.110
3738150	KM50TSMDJNL1506	50	1.969	35	1.378	DN..150408/DN..432	IDSN432	KLM46L	CKM23LP	STCM11	0,50	1.110



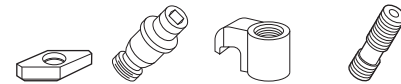
■ MDPN 62° 30'



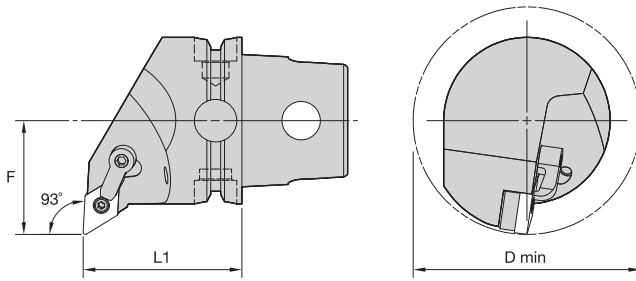
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
3738489	KM50TSM DPNN1504	50	1.969	0	.000	DN..150408/DN..432	IDSN442	KLM46L	CKM23	STCM11	0,46	1.02
3738509	KM50TSM DPNN1506	50	1.969	0	.000	DN..150608/DN..442	IDSN432	KLM46L	CKM23	STCM11	0,46	1.02



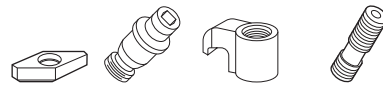
■ MDQN 107° 30'



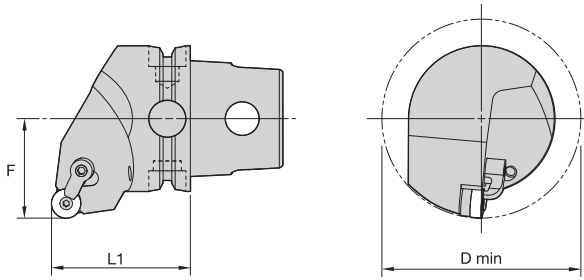
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
3738522	KM50TSM DQNR1504	50	1.969	35	1.378	70	2.756	DN..150408/DN..432	IDSN442	KLM46L	CKM23LP	STCM11	0,59	1.30
3738524	KM50TSM DQNR1506	50	1.969	35	1.378	70	2.756	DN..150608/DN..442	IDSN432	KLM46L	CKM23LP	STCM11	0,59	1.29
3738515	KM50TSM DQNL1504	50	1.969	35	1.378	70	2.756	DN..150408/DN..432	IDSN442	KLM46L	CKM23LP	STCM11	0,59	1.30
3738519	KM50TSM DQNL1506	50	1.969	35	1.378	70	2.756	DN..150608/DN..442	IDSN432	KLM46L	CKM23LP	STCM11	0,59	1.29



■ MDUN 93°



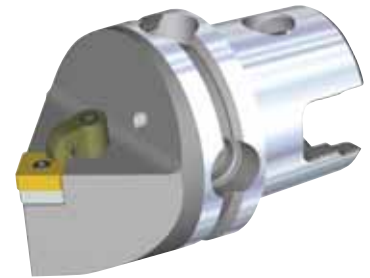
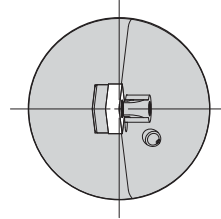
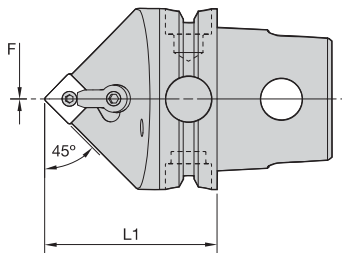
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs	
		mm	in	mm	in	mm	in								
		right hand													
3738529	KM50TSM DUNR1504	50	1.969	35	1.378	70	2.756	DN..150408/DN..432	IDSN442	KLM46L	CKM23LP	STCM11	0,64	1.41	
3738530	KM50TSM DUNR1506	50	1.969	35	1.378	70	2.756	DN..150608/DN..442	IDSN432	KLM46L	CKM23LP	STCM11	0,64	1.40	
		left hand													
3738526	KM50TSM DUNL1504	50	1.969	35	1.378	70	2.756	DN..150408/DN..432	IDSN442	KLM46L	CKM23LP	STCM11	0,64	1.41	
3738528	KM50TSM DUNL1506	50	1.969	35	1.378	70	2.756	DN..150608/DN..442	IDSN432	KLM46L	CKM23LP	STCM11	0,64	1.40	



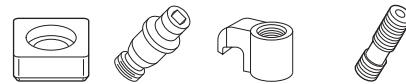
■ MRGN 0°



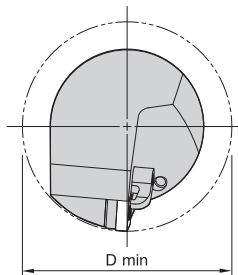
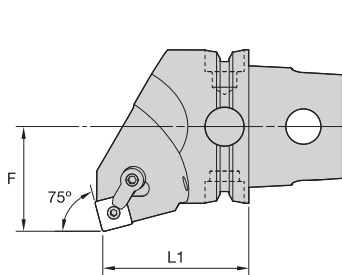
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs	
		mm	in	mm	in	mm	in								
		right hand													
3738485	KM50TSMRGNR12	50	1.969	35	1.378	100	3.937	RN..1204000/RN..43	IRSN43	KLM46	CKM20LP	STCM11	0,64	1.41	
		left hand													
3738484	KM50TSMRGNL12	50	1.969	35	1.378	100	3.937	RN..1204000/RN..43	IRSN43	KLM46	CKM20LP	STCM11	0,64	1.41	



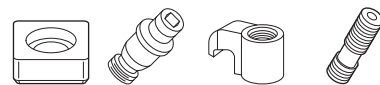
■ MSDN 45°



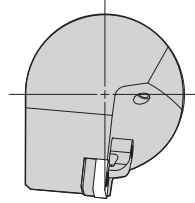
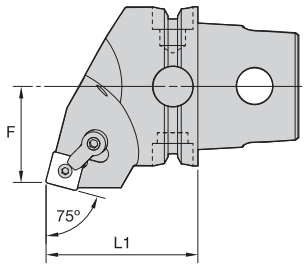
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
3738567	KM50TSMDDNN12	50	1.969	0	.000	SN..120408/SN..432	ISSN432	KLM46	CKM20LP	STCM11	0,51	1.13



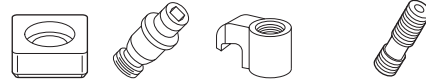
■ MSKN 75°



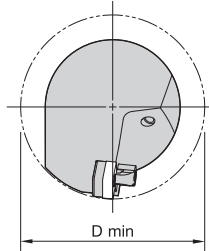
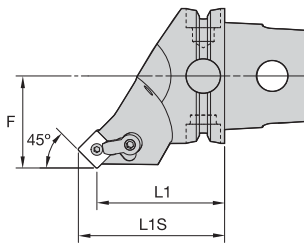
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
right hand														
3738572	KM50TSMKNNR12	50	1.969	35	1.378	70	2.756	SN..120408/SN..432	ISSN432	KLM46	CKM20LP	STCM11	0,69	1.52
3738583	KM50TSMKNNR15	50	1.969	35	1.378	70	2.756	SN..150612/SN..543	ISSN533	KLM58	CKM20LP	STCM11	0,71	1.57
3738585	KM50TSMKNNR19	50	1.969	35	1.378	70	2.756	SN..190612/SN..643	ISSN633	KLM68	CKM13LP	STCM8	0,72	1.59
left hand														
3738568	KM50TSMKNNL12	50	1.969	35	1.378	70	2.756	SN..120408/SN..432	ISSN432	KLM46	CKM20LP	STCM11	0,69	1.53
3738569	KM50TSMKNNL15	50	1.969	35	1.378	70	2.756	SN..150612/SN..543	ISSN533	KLM58	CKM20LP	STCM11	0,71	1.57
3738571	KM50TSMKNNL19	50	1.969	35	1.378	70	2.756	SN..190612/SN..643	ISSN633	KLM68	CKM13LP	STCM8	0,72	1.59



■ MSRN 75°



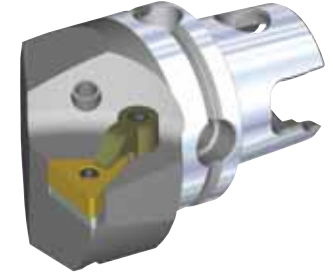
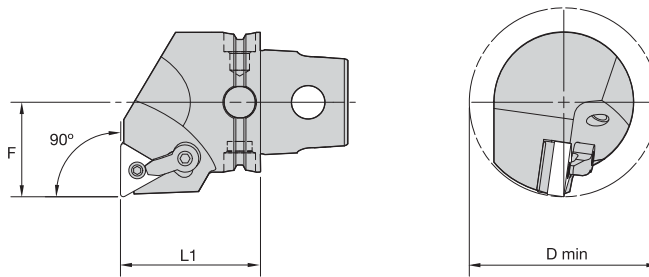
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
right hand												
3738615	KM50TSMSSNR12	50	1.969	30	1.181	SN..120408/SN..432	ISSN432	KLM46	CKM20LP	STCM11	0,58	1.28
3738616	KM50TSMSSNR15	50	1.969	30	1.181	SN..150612/SN..543	ISSN533	KLM58	CKM20LP	STCM11	0,60	1.32
3738617	KM50TSMSSNR19	50	1.969	30	1.181	SN..190612/SN..643	ISSN633	KLM68	CKM13LP	STCM8	0,60	1.31
left hand												
3738592	KM50TSMSSNRL12	50	1.969	30	1.181	SN..120408/SN..432	ISSN432	KLM46	CKM20LP	STCM11	0,58	1.28
3738613	KM50TSMSSNRL15	50	1.969	30	1.181	SN..150612/SN..543	ISSN533	KLM58	CKM20LP	STCM11	0,60	1.32
3738614	KM50TSMSSNRL19	50	1.969	30	1.181	SN..190612/SN..643	ISSN633	KLM68	CKM13LP	STCM8	0,60	1.31



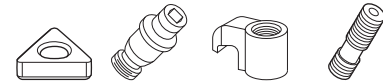
■ MSSN 45°



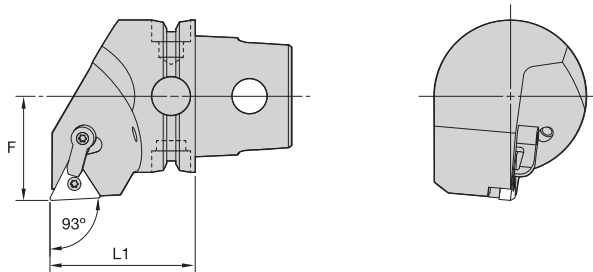
order number	catalog number	L1		L1S		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in	mm	in							
right hand																
3738621	KM50TSMSSNR12	50	1.969	58,3	2.297	35	1.378	86	3.386	SN..120408/SN..432	ISSN432	KLM46	CKM20LP	STCM11	0,60	1.30
3738622	KM50TSMSSNR15	50	1.969	60,2	2.372	35	1.378	100	3.937	SN..150612/SN..543	ISSN533	KLM58	CKM20LP	STCM11	0,63	1.38
3738623	KM50TSMSSNR19	50	1.969	62,5	2.460	35	1.378	100	3.937	SN..190612/SN..643	ISSN633	KLM68	CKM13LP	STCM8	0,67	1.47
left hand																
3738618	KM50TSMSSNRL12	50	1.969	58,3	2.297	35	1.378	86	3.386	SN..120408/SN..432	ISSN432	KLM46	CKM20LP	STCM11	0,60	1.30
3738619	KM50TSMSSNRL15	50	1.969	60,2	2.372	35	1.378	100	3.937	SN..150612/SN..543	ISSN533	KLM58	CKM20LP	STCM11	0,63	1.38
3738620	KM50TSMSSNRL19	50	1.969	62,5	2.460	35	1.378	100	3.937	SN..190612/SN..643	ISSN633	KLM68	CKM13LP	STCM8	0,67	1.47



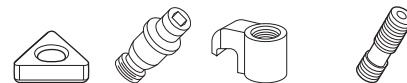
■ MTFN 90°



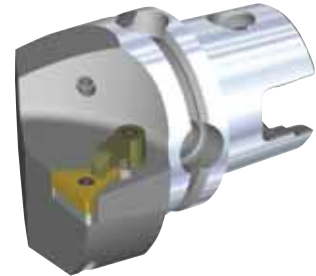
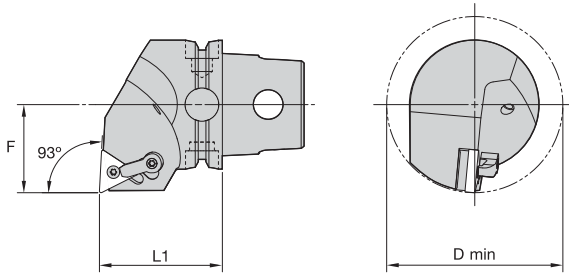
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
right hand														
3738587	KM50TSMTFNR16	50	1.969	35	1.378	70	2.756	TN..160408/TN..332	ITSN322	KLM34L	CKM7LP	STCM9	0,66	1.46
3738588	KM50TSMTFNR22	50	1.969	35	1.378	70	2.756	TN..220408/TN..432	ITSN433	KLM46	CKM23LP	STCM11	0,68	1.50
left hand														
3838530	KM50TSMTFNL16	50	1.969	35	1.378	70	2.756	TN..160408/TN..332	ITSN322	KLM34L	CKM7LP	STCM9	0,66	1.44
3838532	KM50TSMTFNL22	50	1.969	35	1.378	70	2.756	TN..220408/TN..432	ITSN433	KLM46	CKM23LP	STCM11	0,68	1.50



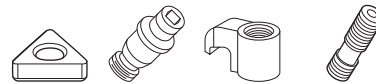
■ MTJN 93°



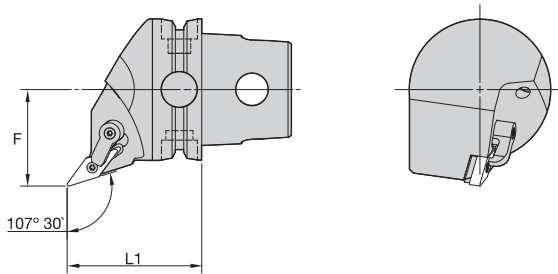
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		mm	in	mm	in							
right hand												
3738590	KM50TSMTJNR16	50	1.969	35	1.378	TN..160408/TN..332	ITSN322	KLM34L	CKM7LP	STCM9	0,64	1.41
left hand												
3738589	KM50TSMTJNL16	50	1.969	35	1.378	TN..160408/TN..332	ITSN322	KLM34L	CKM7LP	STCM9	0,64	1.41



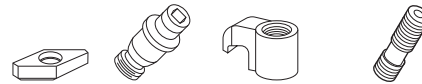
■ **MTUN 93°**



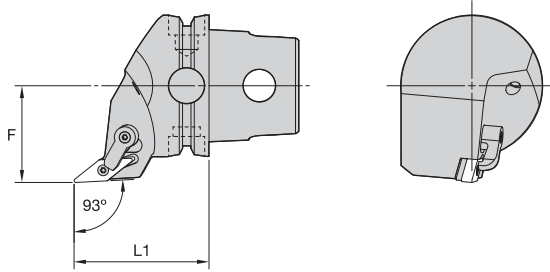
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
3738591	KM50TSMTUNL16	50	1.969	35	1.378	70	2.756	TN..160408/TN..332	ITSN322	KLM34L	CKM7LP	STCM9	0,63	1.39



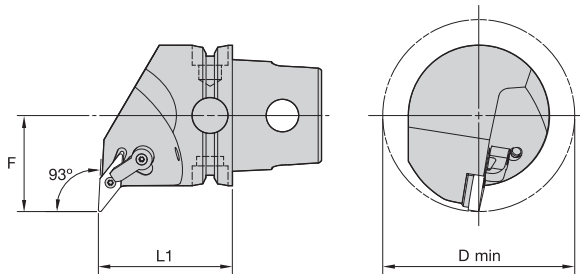
■ **MVHN 107° 30'**



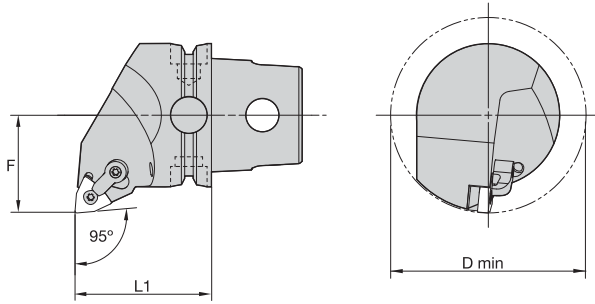
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
3738558	KM50TSMVHNR16	50	1.969	35	1.378	VN..160408/VN..332	IVSN322	KLM34L	CKM23LP	STCM11	0,56	1.23
3738557	KM50TSMVHNL16	50	1.969	35	1.378	VN..160408/VN..332	IVSN322	KLM34L	CKM23LP	STCM11	0,55	1.22


MVJN 93°

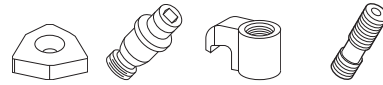

order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
3738560	KM50TSMVJNR16	50	1.969	35	1.378	VN..160408/VN..332	IVSN322	KLM34L	CKM23LP	STCM11	0,53	1.16
3738559	KM50TSMVJNL16	50	1.969	35	1.378	VN..160408/VN..332	IVSN322	KLM34L	CKM23LP	STCM11	0,53	1.16


MVUN 93°

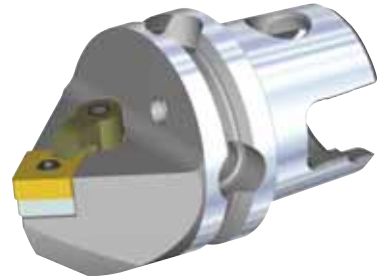
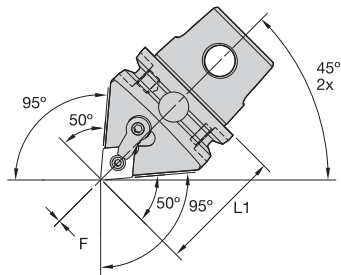

order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
3738593	KM50TSMVUNR16	50	1.969	35	1.378	70	2.756	VN..160408/VN..332	IVSN322	KLM34L	CKM23LP	STCM11	0,63	1.38
3738562	KM50TSMVUNL16	50	1.969	35	1.378	70	2.756	VN..160408/VN..332	IVSN322	KLM34L	CKM23LP	STCM11	0,63	1.39



■ MWLN 95°



order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs	
		mm	in	mm	in	mm	in								
		right hand													
3738596	KM50TSMWLN08	50	1.969	35	1.378	70	2.756	WN..080408/WN..432	IWSN433	KLM46	CKM20LP	STCM11	0,64	1.41	
		left hand													
3738595	KM50TSMWLN08	50	1.969	35	1.378	70	2.756	WN..080408/WN..432	IWSN433	KLM46	CKM20LP	STCM11	0,64	1.41	

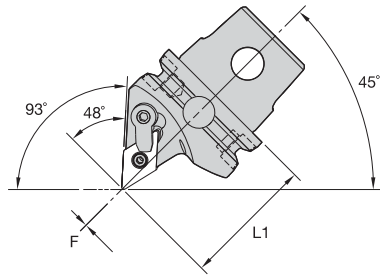


■ MCMN 50° • 95° Application • Centerline



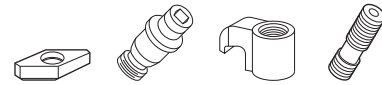
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
3738167	KM50TSMCMNN12	50	1.969	0	.000	CN..120408/CN..432	ICSN432	KLM46	CKM20	STCM11	0,47	1.03

NOTE: Use the KM63TSS5065 reducer to produce an L1 of 115mm.



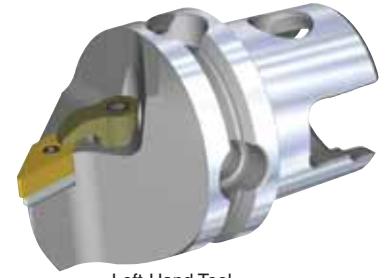
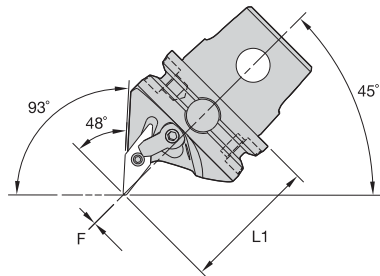
Left-Hand Tool

■ MDMN 48° • 93° Application • Centerline



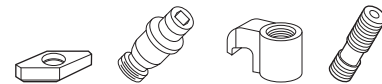
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
3738154	KM50TSMNMNL1504	50	1.969	0	.000	DN..150408/DN..432	IDSN442	KLM46L	CKM20	STCM11	0,45	.98
3738155	KM50TSMNMNL1506	50	1.969	0	.000	DN..150408/DN..432	IDSN432	KLM46L	CKM20	STCM11	0,44	.97

NOTE: Use the KM63TSS5065 reducer to produce an L1 of 115mm.



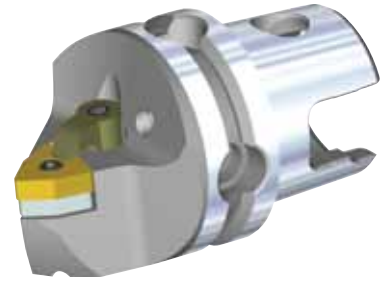
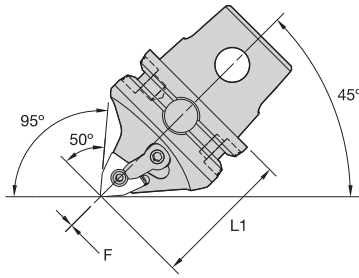
Left-Hand Tool

■ MVMN 48° • 93° Application • Centerline



order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
3738561	left hand KM50TSMVMNML16	50	1.969	0	.000	VN..160408/VN..332	IVSN322	KLM34L	CKM20LP	STCM11	0,44	.98

NOTE: Use the KM63TSS5065 reducer to produce an L1 of 115mm.



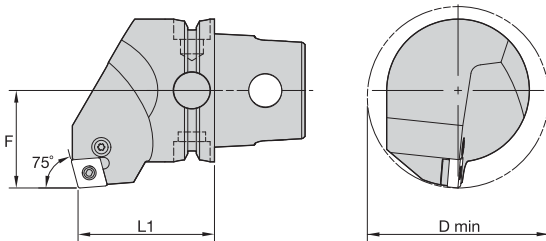
Left-Hand Tool

■ MWMN 50° • 95° Application • Centerline

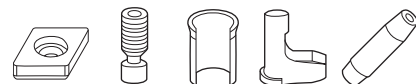


order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
3738598	KM50TSMWMNR08	50	1.969	0	.000	WN..080408/WN..432	IWSN433	KLM46	CKM20LP	STCM11	0,49	1.08
3738597	KM50TSMWMNL08	50	1.969	0	.000	WN..080408/WN..432	IWSN433	KLM46	CKM20LP	STCM11	0,49	1.08

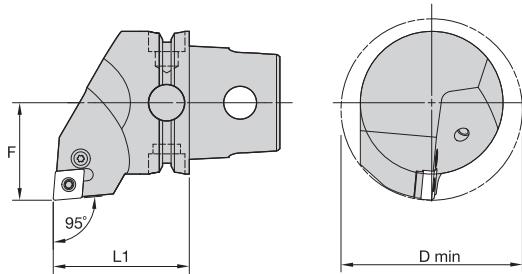
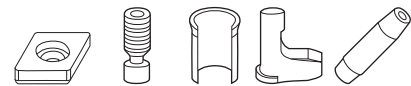
NOTE: Use the KM63TSS5065 reducer to produce an L1 of 115mm.



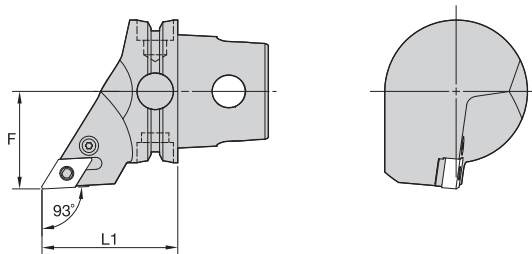
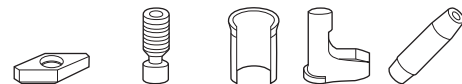
■ PCKN 75°



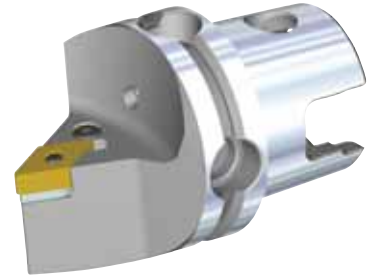
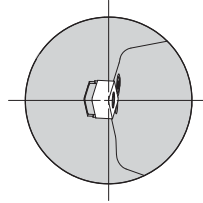
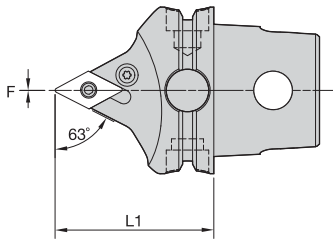
order number	catalog number	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in	mm	in								
3738514	KM50TSPCKNR12	50	1.969	35	1.378	63	2.480	CN..120408/CN..432	512.112	514.123	513.023	511.023	515.018	0,68	1.50
3738513	KM50TSPCKNL12	50	1.969	35	1.378	63	2.480	CN..120408/CN..432	512.112	514.123	513.023	511.023	515.018	0,68	1.50


■ PCLN 95°


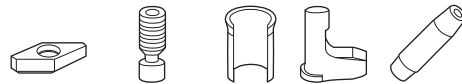
order number	catalog number	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in	mm	in								
	right hand														
3738517	KM50TSPCLNR12	50	1.969	35	1.378	63	2.480	CN..120408/CN..432	512.112	514.123	513.023	511.023	515.018	0,63	1.39
3738520	KM50TSPCLNR16	50	1.969	35	1.378	63	2.480	CN..160612/CN..543	512.117	514.125	513.025	511.025	515.022	0,63	1.38
	left hand														
3738516	KM50TSPCLNL12	50	1.969	35	1.378	63	2.480	CN..120408/CN..432	512.112	514.123	513.023	511.023	515.018	0,63	1.39
3738518	KM50TSPCLNL16	50	1.969	35	1.378	63	2.480	CN..160612/CN..543	512.117	514.125	513.025	511.025	515.022	0,63	1.38


■ PDJN 93°


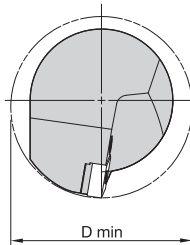
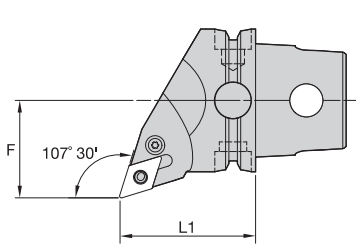
order number	catalog number	L1		F		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in								
	right hand												
3741390	KM50TSPDJNR11	50	1.969	35	1.378	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018	0,52	1.15
3741392	KM50TSPDJNR15	50	1.969	35	1.378	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	0,51	1.12
	left hand												
3741362	KM50TSPDJNL11	50	1.969	35	1.378	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018	0,52	1.15
3741388	KM50TSPDJNL15	50	1.969	35	1.378	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	0,51	1.12



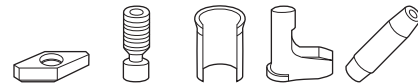
■ PDNN 63°



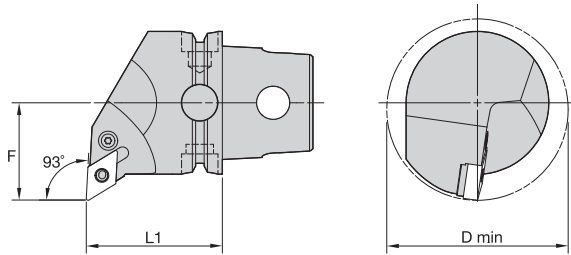
order number	catalog number	L1		F		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in								
	right hand												
3741394	KM50TSPDNNR15	50	1.969	0	.000	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	0,42	.93
	left hand												
3741393	KM50TSPDNNL15	50	1.969	0	.000	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	0,43	.94



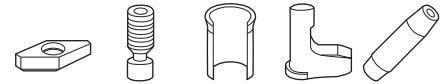
■ PDQN 107° 30'



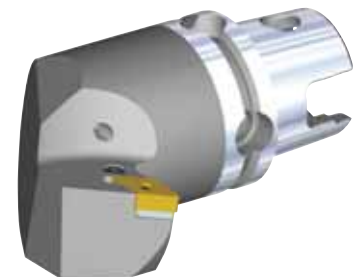
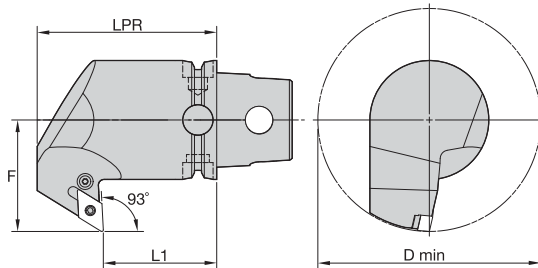
order number	catalog number	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in	mm	in								
	right hand														
3741396	KM50TSPDQNR11	50	1.969	35	1.378	63	2.480	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018	0,57	1.25
	left hand														
3741395	KM50TSPDQNL11	50	1.969	35	1.378	63	2.480	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018	0,57	1.25



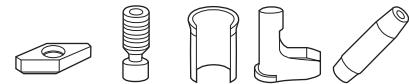
■ PDUN 93°



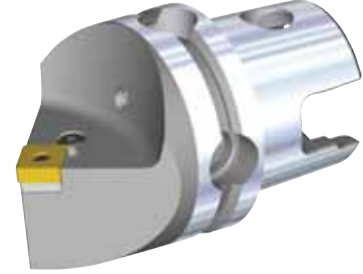
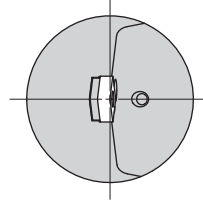
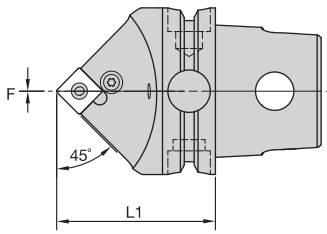
order number	catalog number	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in	mm	in								
	right hand														
3741398	KM50TSPDUNR15	50	1.969	35	1.378	63	2.480	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	0,64	1.40
	left hand														
3741397	KM50TSPDUNL15	50	1.969	35	1.378	63	2.480	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	0,64	1.40



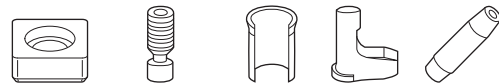
■ PDXN 93°



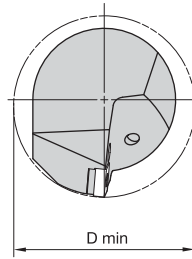
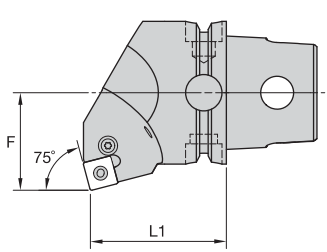
order number	catalog number	L1		LPR		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in	mm	in	mm	in								
	right hand																
3741400	KM50TSPDXNR15	50	1.969	75	2.953	52	2.047	104	4.095	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	1,17	2.57
	left hand																
3741399	KM50TSPDXNL15	50	1.969	75	2.953	52	2.047	104	4.095	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	1,17	2.57



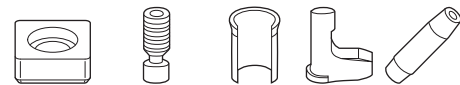
■ PSDN 45°



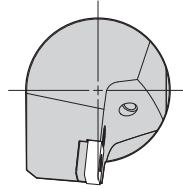
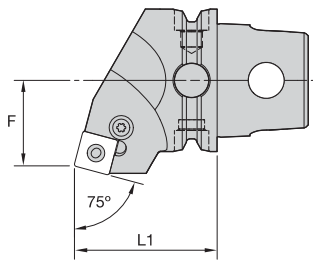
order number	catalog number	L1		F		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in								
3752980	KM50TSPDNN12	50	1.969	0	.000	SN..120408/SN..432	512.063	514.123	513.023	511.023	515.018	0,50	1.09
3752981	KM50TSPDNN15	50	1.969	0	.000	SN..150612/SN..543	512.025	514.125	513.025	511.025	515.022	0,50	1.08



■ PSKN 75°



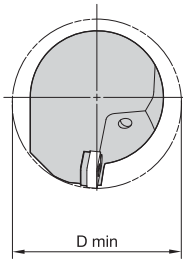
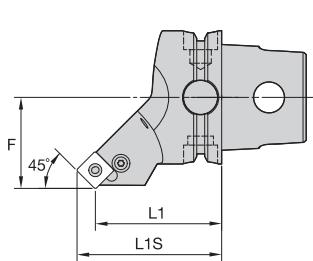
order number	catalog number	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in	mm	in								
right hand															
3753153	KM50TSPSKNR12	50	1.969	35	1.378	63	2.480	SN..120408/SN..432	512.063	514.123	513.023	511.023	515.018	0,69	1.52
3753155	KM50TSPSKNR15	50	1.969	35	1.378	63	2.480	SN..150612/SN..543	512.025	514.125	513.025	511.025	515.022	0,69	1.53
left hand															
3752982	KM50TSPSKNL12	50	1.969	35	1.378	63	2.480	SN..120408/SN..432	512.063	514.123	513.023	511.023	515.018	0,69	1.52
3753154	KM50TSPSKNL15	50	1.969	35	1.378	63	2.480	SN..150612/SN..543	512.025	514.125	513.025	511.025	515.022	0,69	1.53



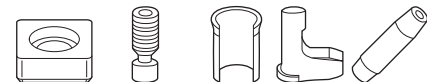
■ PSRN 75°



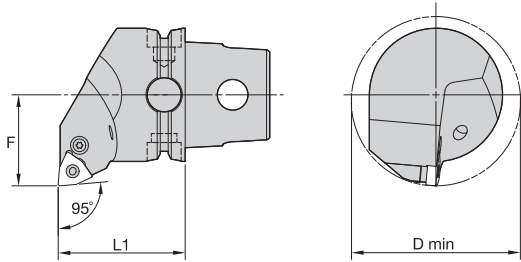
order number	catalog number	L1		F		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in								
right hand													
3752977	KM50TSPSRNR12	50	1.969	30	1.181	SN..120408/SN..432	512.063	514.123	513.023	511.023	515.018	0,61	1.34
3752979	KM50TSPSRNR15	50	1.969	30	1.181	SN..150612/SN..543	512.025	514.125	513.025	511.025	515.022	0,60	1.31
left hand													
3752976	KM50TSPSRNL12	50	1.969	30	1.181	SN..120408/SN..432	512.063	514.123	513.023	511.023	515.018	0,61	1.34
3752978	KM50TSPSRNL15	50	1.969	30	1.181	SN..150612/SN..543	512.025	514.125	513.025	511.025	515.022	0,60	1.31



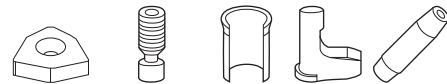
■ PSSN 45°



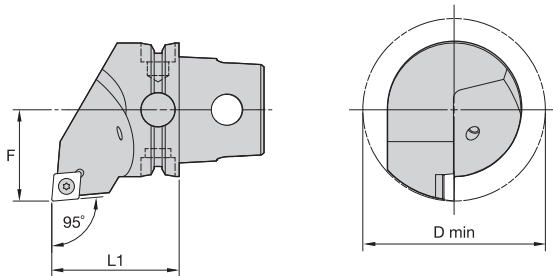
order number	catalog number	L1		L1S		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in	mm	in	mm	in								
right hand																	
3753157	KM50TSPSSNR12	50	1.969	58,3	2.30	35	1.38	80	3.150	SN..120408/SN..432	512.063	514.123	513.023	511.023	515.018	0,55	1.22
left hand																	
3753156	KM50TSPSSNL12	50	1.969	58,3	2.30	35	1.38	80	3.150	SN..120408/SN..432	512.063	514.123	513.023	511.023	515.018	0,55	1.22



■ PWLN 95°



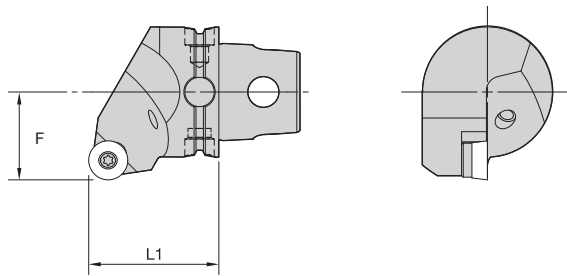
order number	catalog number	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in	mm	in								
	right hand														
3753159	KM50TSPWLN R08	50	1.969	35	1.378	63	2.480	WN..080408/WN..432	512.135	514.123	513.023	511.023	515.018	0,67	1.48
	left hand														
3753158	KM50TSPWLN L08	50	1.969	35	1.378	63	2.480	WN..080408/WN..432	512.135	514.123	513.023	511.023	515.018	0,67	1.48



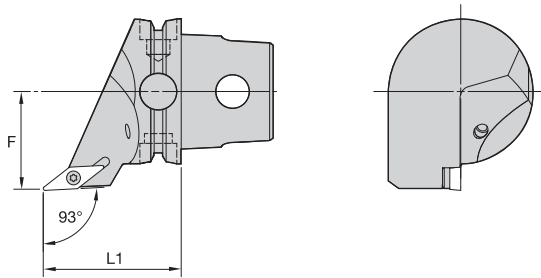
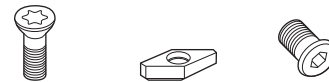
■ SCLC 95°



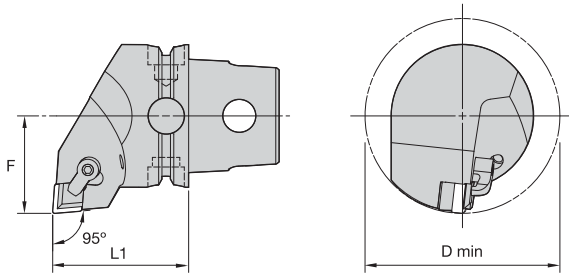
order number	catalog number	L1		F		D min		gage insert	insert screw	shim	shim screw	kg	lbs
		mm	in	mm	in	mm	in						
	right hand												
3746594	KM50TSSCLCR12	50	1.969	35	1.378	70	2.756	CC..120408/CC..432	MS1158	SKCP453	SRS4	0,64	1.40
	left hand												
3746593	KM50TSSCLCL12	50	1.969	35	1.378	70	2.756	CC..120408/CC..432	MS1158	SKCP453	SRS4	0,64	1.40


SRGC 0°

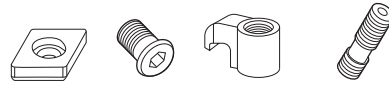

order number	catalog number	L1		F		gage insert	insert screw	shim	shim screw	kg	lbs
		mm	in	mm	in						
	right hand										
3746595	KM50TSSRGCR12	50	1.969	35	1.378	RC..1204M0	MS1156	SKRN1203M0	SRS3	0,65	1.43
	left hand										
3838582	KM50TSSRGCL12	50	1.969	35	1.378	RC..1204M0	MS1156	SKRN1203M0	SRS3	0,65	1.43


SVJB 93°


order number	catalog number	L1		F		gage insert	insert screw	shim	shim screw	kg	lbs
		mm	in	mm	in						
	right hand										
3746597	KM50TSSVJBR16	50	1.969	35	1.378	VB..160408/VB..332	MS1156	SKVN343	SRS3	0,51	1.13
	left hand										
3746596	KM50TSSVJBL16	50	1.969	35	1.378	VB..160408/VB..332	MS1156	SKVN343	SRS3	0,51	1.13

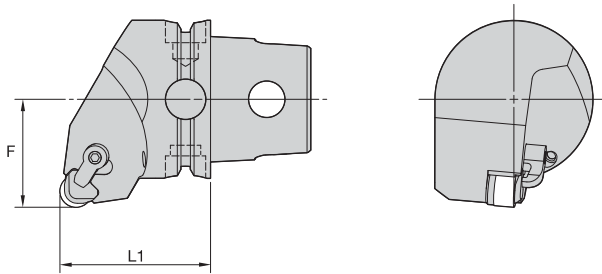


■ CCLN 95°



order number	catalog number	L1		F		D min		gage insert	shim	shim screw	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
3746732	right hand KM50TSCCLNR12	50	1.969	35	1.378	70	2.756	CN..120408/CN.432	ICSN442	KMS4	CKM20	STCM11	0,70	1.55
3746726	left hand KM50TSCCLNL12	50	1.969	35	1.378	70	2.756	CN..120408/CN.432	ICSN442	KMS4	CKM20	STCM11	0,70	1.54

NOTE: Chipbreakers must be ordered separately. Chipbreaker catalog number is CBD-16F.

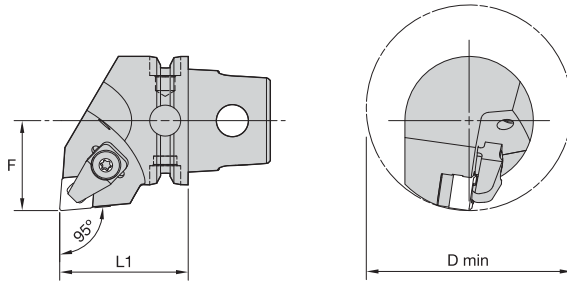
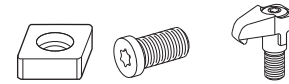


■ CRGN 0°

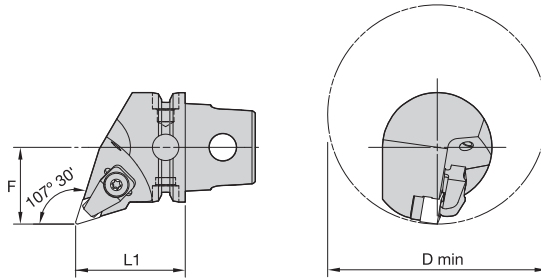
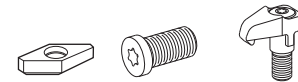


order number	catalog number	L1		F		gage insert	shim	shim screw	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
3746739	right hand KM50TSCRGNR12	50	1.969	35	1.378	RN..120700/RN.45	IRSN42	KMS4	CKM23	STCM11	0,67	1.47
3746735	left hand KM50TSCRGNL12	50	1.969	35	1.378	RN..120700/RN.45	IRSN42	KMS4	CKM23	STCM11	0,67	1.47

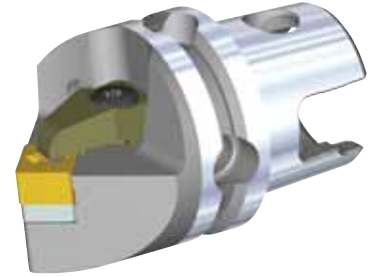
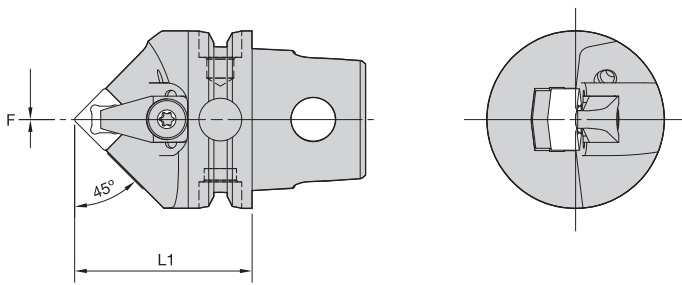
NOTE: Chipbreakers must be ordered separately. Chipbreaker catalog number is CBR-16.


■ CCLN • MX 95°


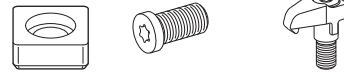
order number	catalog number	L1		F		D min		gage insert	shim	shim screw	clamp assembly	kg	lbs
		mm	in	mm	in	mm	in						
	right hand												
3746972	KM50TSCCLNR12MX7	50	1.969	35	1.378	80	3.150	CN.X120708/CN.X452	552.221	554.260	551.326	0,67	1.48
	left hand												
3746966	KM50TSCCLNL12MX7	50	1.969	35	1.378	80	3.150	CN.X120708/CN.X452	552.221	554.260	551.326	0,67	1.48


■ CDQN • MX 107° 30'


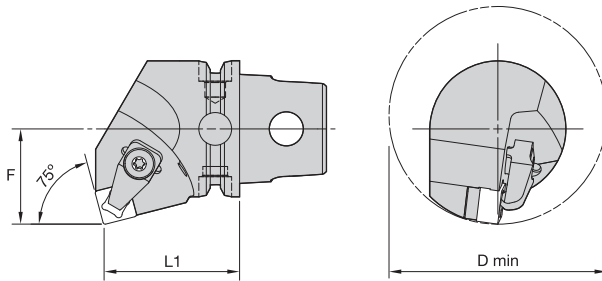
order number	catalog number	L1		F		D min		gage insert	shim	shim screw	clamp screw	kg	lbs
		mm	in	mm	in	mm	in						
	right hand												
3746978	KM50TSCDQNR12MX7	50	1.969	35	1.378	100	3.937	DNGX120708	552.225	554.254	551.326	0,60	1.31
	left hand												
3746975	KM50TSCDQNL12MX7	50	1.969	35	1.378	100	3.937	DNGX120708	552.225	554.254	551.326	0,60	1.31



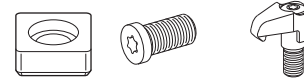
■ CSDN • MX 45°



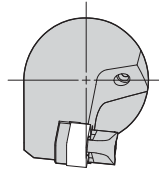
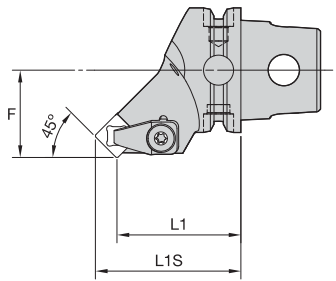
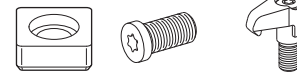
order number	catalog number	L1		F		gage insert	shim	shim screw	clamp assembly	kg	lbs
		mm	in	mm	in						
3746980	KM50TSCSDNN12MX7	50	1.969	0	.000	SN.X120708/SN.X452	552.232	554.260	551.326	0,52	1.15



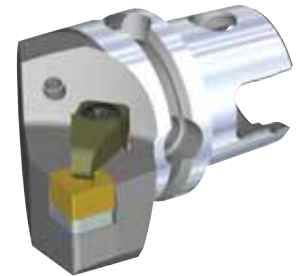
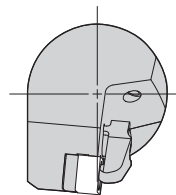
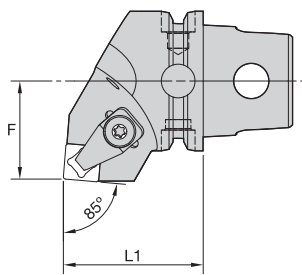
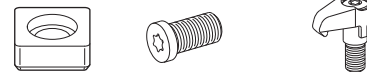
■ CSKN • MX 75°



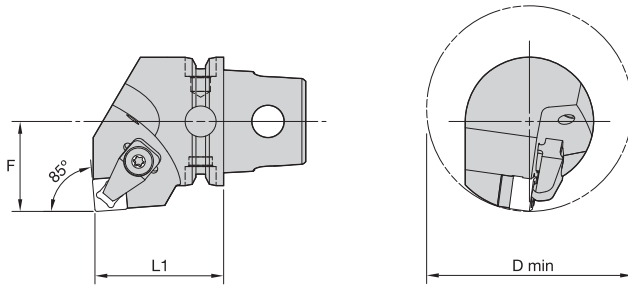
order number	catalog number	L1		F		D min		gage insert	shim	shim screw	clamp assembly	kg	lbs
		mm	in	mm	in	mm	in						
3746986	right hand	50	1.969	35	1.378	80	3.150	SN.X120708/SN.X452	552.232	554.260	551.326	0,74	1.62
	KM50TSCSKNR12MX7												
3746984	left hand	50	1.969	35	1.378	80	3.150	SN.X120708/SN.X452	552.232	554.260	551.326	0,74	1.62
	KM50TSCSKNL12MX7												


■ CSSN • MX 45°


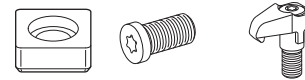
order number	catalog number	L1		L1S		F		gage insert	shim	shim screw	clamp assembly	kg	lbs
		mm	in	mm	in	mm	in						
		right hand											
3746992	KM50TSCSSNR12MX7	50	1.969	58	2.297	35	1.378	SN.X120708/SN.X452	552.232	554.252	551.326	0,60	1.32
		left hand											
3746989	KM50TSCSSNL12MX7	50	1.969	58	2.297	35	1.378	SN.X120708/SN.X452	552.232	554.252	551.326	0,60	1.32


■ CSXN • MX 85°


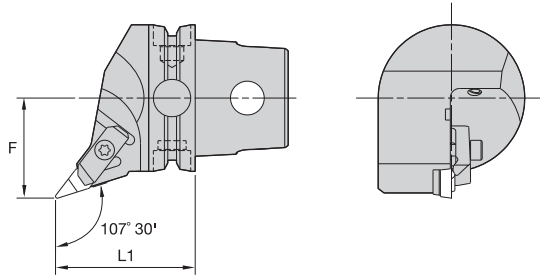
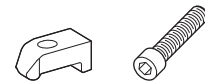
order number	catalog number	L1		F		gage insert	shim	shim screw	clamp assembly	kg	lbs
		mm	in	mm	in						
		right hand									
3746998	KM50TSCSXNR12MX7	50	1.969	35	1.378	SN.X120708/SN.X452	552.232	554.260	551.326	0,67	1.48
		left hand									
3746996	KM50TSCSXNL12MX7	50	1.969	35	1.378	SN.X120708/SN.X452	552.232	554.260	551.326	0,67	1.48



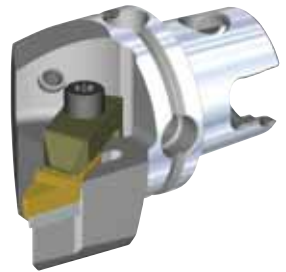
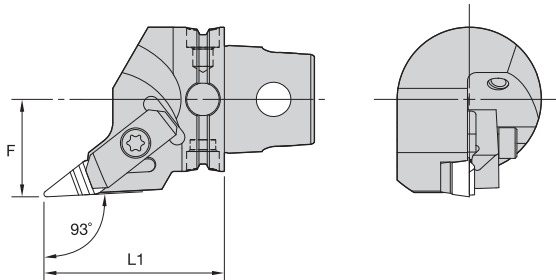
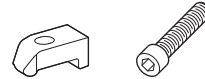
■ CSYN • MX 85°



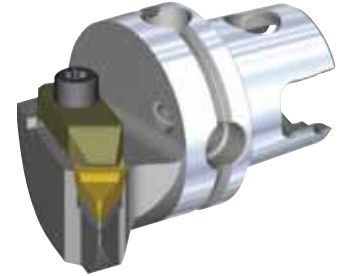
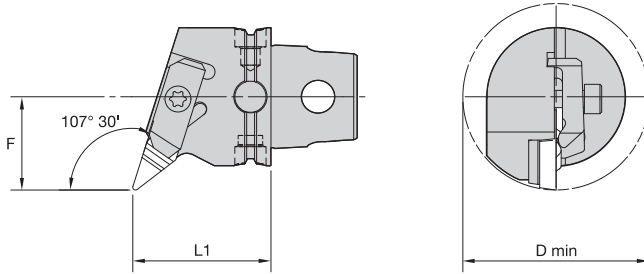
order number	catalog number	L1		F		D min		gage insert	shim	shim screw	clamp assembly	kg	lbs
		mm	in	mm	in	mm	in						
3747004	KM50TSCSYNR12MX7	50	1.969	35	1.378	80	3.150	SN.X120708/SN.X452	552.232	554.260	551.326	0,73	1.60
3747001	KM50TSCSYNL12MX7	50	1.969	35	1.378	80	3.150	SN.X120708/SN.X452	552.232	554.260	551.326	0,73	1.60


NVHC 107.5° • Metric CU


order number	catalog number	L1		F		gage insert	clamp	clamp screw	kg	lbs
		mm	in	mm	in					
	right hand									
3747065	KM50TSNVHCR16	50	1.969	35	1.378	VCGR160408/VPGR332	CM113	MS1489	0,54	1.20
	left hand									
3747064	KM50TSNVHCL16	50	1.969	35	1.378	VCGR160408/VPGR332	CM114	MS1489	0,54	1.20

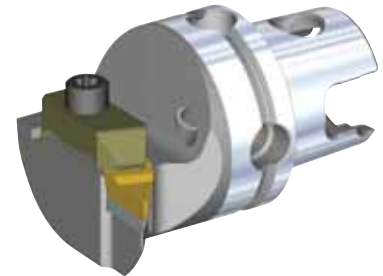
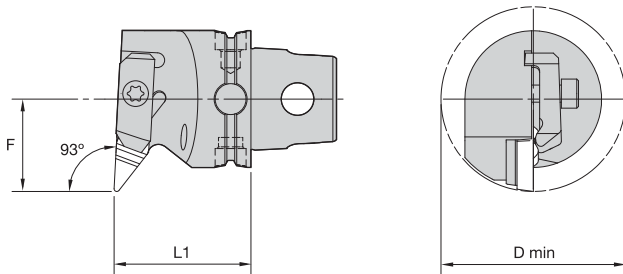
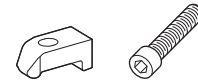

NVJC 93° • Metric CU


order number	catalog number	L1		F		gage insert	clamp	clamp screw	kg	lbs
		mm	in	mm	in					
	right hand									
3747067	KM50TSNVJCR16	60	2.362	35	1.378	VCGR160408/VPGR332	CM113	MS1489	0,59	1.30
	left hand									
3747066	KM50TSNVJCL16	60	2.362	35	1.378	VCGR160408/VPGR332	CM114	MS1489	0,59	1.30



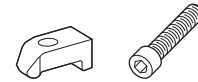
■ NVQC 107.5° • Metric CU

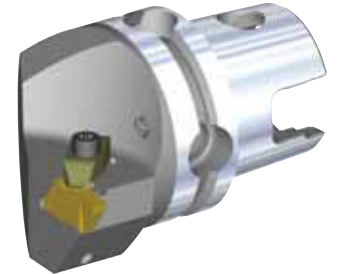
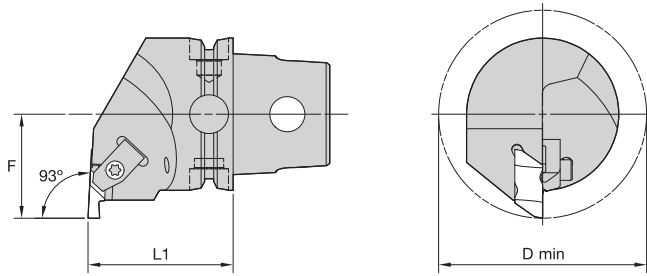
order number	catalog number	L1		F		D min		gage insert	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in					
	right hand											
3747069	KM50TSNVQCR16	50	1.969	35	1.378	70	2.756	VCGR160408/VPGR332	CM113	MS1489	0,56	1.22
	left hand											
3747068	KM50TSNVQCL16	50	1.969	35	1.378	70	2.756	VCGR160408/VPGR332	CM114	MS1489	0,56	1.22



■ NVUC 93° • Metric CU

order number	catalog number	L1		F		D min		gage insert	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in					
	right hand											
3747071	KM50TSNVUCR16	50	1.969	35	1.378	70	2.756	VCGR160408/VPGR332	CM113	MS1489	0,61	1.35
	left hand											
3747070	KM50TSNVUCL16	50	1.969	35	1.378	70	2.756	VCGR160408/VPGR332	CM114	MS1489	0,61	1.35

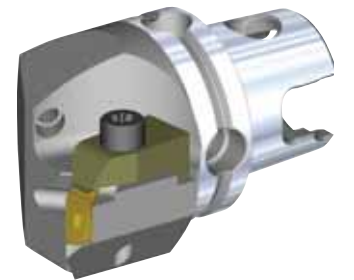
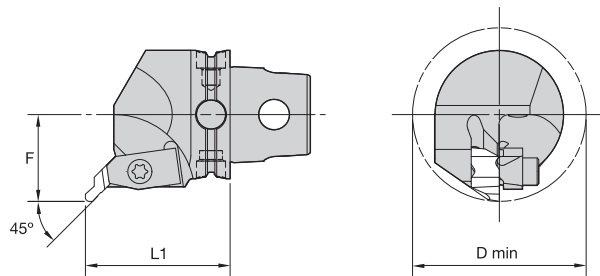




■ NE 93°



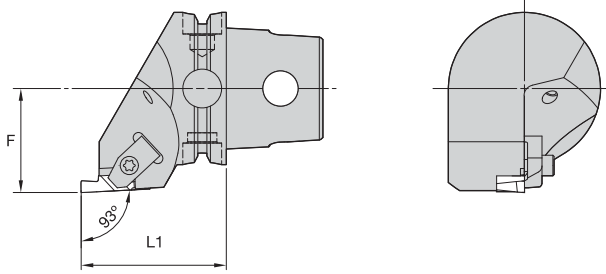
order number	catalog number	L1		F		D min		gage insert	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in					
		right hand										
3753584	KM50TSNER3	50	1.969	35	1.378	70	2.756	NG3L	CM73	MS1489	0,63	1.39
3753585	KM50TSNER4	50	1.969	35	1.378	70	2.756	NG4L	CM73	MS1489	0,63	1.39
		left hand										
3753572	KM50TSNEL3	50	1.969	35	1.378	70	2.756	NG3R	CM72	MS1489	0,65	1.42
3753583	KM50TSNEL4	50	1.969	35	1.378	70	2.756	NG4R	CM72	MS1489	0,63	1.39



■ NR 45°

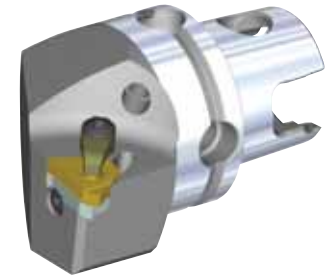
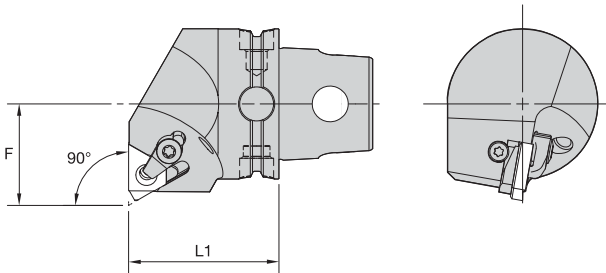


order number	catalog number	L1		F		D min		gage insert	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in					
		right hand										
3753587	KM50TSNRR3	50	1.969	35	1.378	70	2.756	NU3L	CM73	MS1489	0,57	1.26
		left hand										
3753586	KM50TSNRL3	50	1.969	35	1.378	70	2.756	NU3R	CM72	MS1489	0,57	1.26

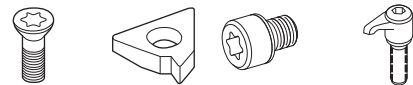


■ NS 93°

order number	catalog number	L1		F		gage insert	clamp	clamp screw	kg	lbs
		mm	in	mm	in					
	right hand									
3753590	KM50TSNSR3	50	1.969	35	1.378	NG3R	CM72	MS1489	0,59	1.29
3753591	KM50TSNSR4	60	2.362	35	1.378	NG4R	CM72	MS1489	0,69	1.53
	left hand									
3753588	KM50TSNSL3	50	1.969	35	1.378	NG3L	CM73	MS1489	0,59	1.29
3753589	KM50TSNSL4	60	2.362	35	1.378	NG4L	CM73	MS1489	0,70	1.54

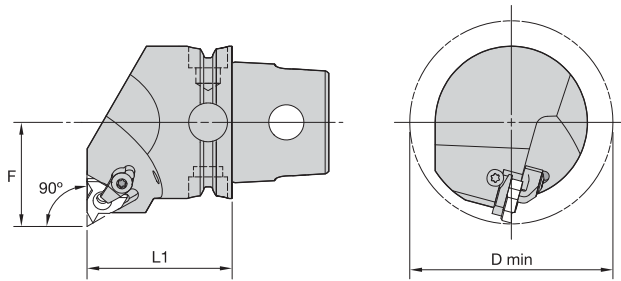
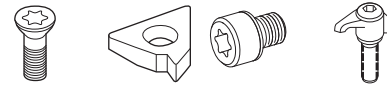


■ LSE-E 90° • External Only



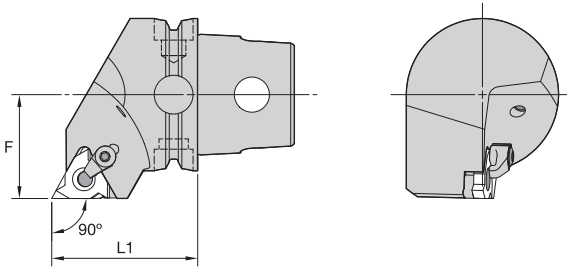
order number	catalog number	L1		F		gage insert	insert screw	shim	shim screw	clamp assembly	kg	lbs
		mm	in	mm	in							
	right hand											
3753566	KM50TSLSER16E	50	1.969	35	1.378	LT16EL	SSA3T	SMYI3	SSY3T	CKC3	0,68	1.51
3959391	KM50TSLSER27E	50	1.969	35	1.378	LT27EL	SSA5T	SMYI5	SSY5T	CKC5	0,70	1.55
	left hand											
3753565	KM50TSLSEL16E	50	1.969	35	1.378	LT16ER	SSA3T	SMYE3	SSY3T	CKC3	0,68	1.51
3959390	KM50TSLSEL27E	50	1.969	35	1.378	LT27ER	SSA5T	SMYE5	SSY5T	CKC5	0,70	1.55

NOTE: Cutting units are supplied with insert screw and clamp assembly. However, tools are designed to use either the insert screw or the clamp assembly, not both.


KM50TS Cutting Units

■ LSE-N 90° • Internal Only


order number	catalog number	L1		F		D min		gage insert	insert screw	shim	shim screw	clamp assembly	kg	lbs
		mm	in	mm	in	mm	in							
right hand														
3753567	KM50TSLSER16N	50	1.969	35	1.378	70	2.756	LT16NR	SSA3T	SMY13	SSY3T	CKC3	0,68	1.51
3753568	KM50TSLSER22N	50	1.969	35	1.378	70	2.756	LT22NR	SSA4T	SMY14	SSY4T	CKC4	0,67	1.49
3959393	KM50TSLSER27N	50	1.969	35	1.378	70	2.756	LT27NR	SSA5T	SMY15	SSY5T	CKC5	0,72	1.59
left hand														
3867563	KM50TSLSEL16N	50	1.969	35	1.378	70	2.756	LT16NL	SSA3T	SMYE3	SSY3T	CKC3	0,69	1.51
3867564	KM50TSLSEL22N	50	1.969	35	1.378	70	2.756	LT22NL	SSA4T	SMYE4	SSY4T	CKC4	0,68	1.49
3959392	KM50TSLSEL27N	50	1.969	35	1.378	70	2.756	LT27NL	SSA5T	SMYE5	SSY5T	CKC5	0,72	1.59

NOTE: Cutting units are supplied with insert screw and clamp assembly. However, tools are designed to use either the insert screw or the clamp assembly, not both.

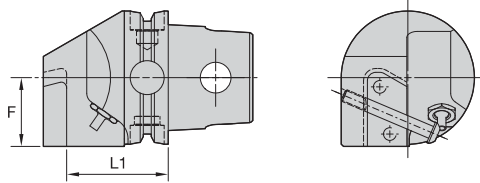


■ LSS 90°



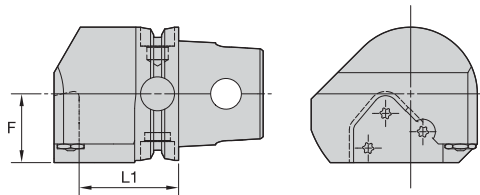
order number	catalog number	L1		F		gage insert	insert screw	shim	shim screw	clamp assembly	kg	lbs
		mm	in	mm	in							
right hand												
3753570	KM50TSLSSR16	50	1.969	35	1.378	LT16ER	SSA3T	SMYE3	SSY3T	CKC3	0,60	1.33
3753571	KM50TSLSSR22	50	1.969	35	1.378	LT22ER	SSA4T	SMYE4	SSY4T	CKC4	0,59	1.30
3959395	KM50TSLSSR27	50	1.969	35	1.378	LT27ER	SSA5T	SMYE5	SSY5T	CKC5	0,61	1.34
left hand												
3753569	KM50TSLSSL16	50	1.969	35	1.378	LT16EL	SSA3T	SMYI3	SSY3T	CKC3	0,60	1.31
3959394	KM50TSLSSL27	50	1.969	35	1.378	LT27EL	SSA5T	SMYI5	SSY5T	CKC5	0,63	1.38

NOTE: Cutting units are supplied with insert screw and clamp assembly. However, tools are designed to use either the insert screw or the clamp assembly, not both.


■ KGME • End Mount

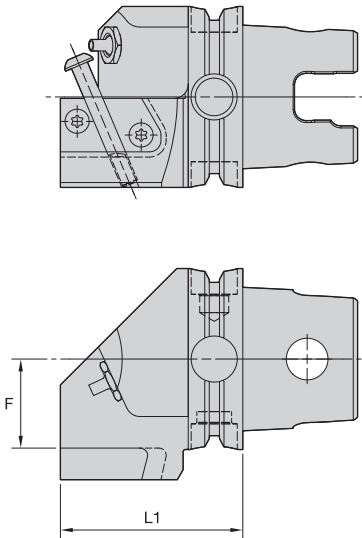

order number	catalog number	L1		F		cartridge size	blade screw	clamp screw	nozzle	kg
		mm	in	mm	in					
3747133	right hand	38	1.496	25,5	1.004	50	MS1162	MS2002	PMP08350	0,75
	KM50TSKGMER50									
3747132	left hand	38	1.496	25,5	1.004	50	MS1162	MS2002	PMP08350	0,75
	KM50TSKGMEL50									

NOTE: Right-hand cutting units use left-hand blades.
 For A3/A4 modular blades, see the Kennametal Innovations Master Catalog Cutting Tools 2013.


■ KGME • End Mount


order number	catalog number	L1		F		cartridge size	blade screw	nozzle	kg
		mm	in	mm	in				
3747136	right hand	47	1.850	25,5	1.004	65	MS1163	PMT04525	1,31
	KM50TSKGMER65								
3747137	left hand	47	1.850	25,5	1.004	65	MS1163	PMT04525	1,31
	KM50TSKGMEL65								

NOTE: Right-hand cutting units use left-hand blades.
 For A3/A4 modular blades, see the Kennametal Innovations Master Catalog Cutting Tools 2013.

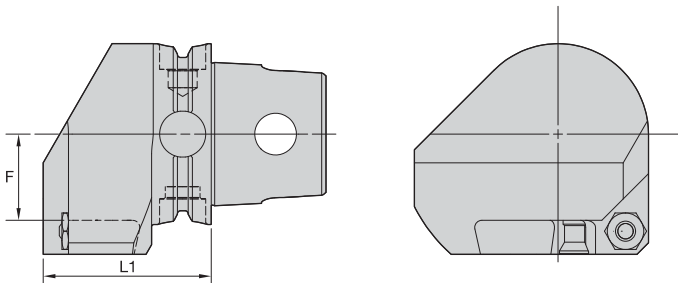


■ **KGMS • Side Mount**



order number	catalog number	L1		F		cartridge size	blade screw	clamp screw	nozzle	kg
		mm	in	mm	in					
	right hand									
3747129	KM50TSKGMSR50	58,5	2.303	23,0	.906	50	MS1162	MS2002	PMT04526 COOLANT NOZZLE SPRAY	0,91
	left hand									
3747130	KM50TSKGMSL50	58,5	2.303	23,0	.906	50	MS1162	MS2002	PMT04526 COOLANT NOZZLE SPRAY	0,94

NOTE: Right-hand cutting units use right-hand blades.
For A3/A4 modular blades, see the Kennametal Innovations Master Catalog Cutting Tools 2013.

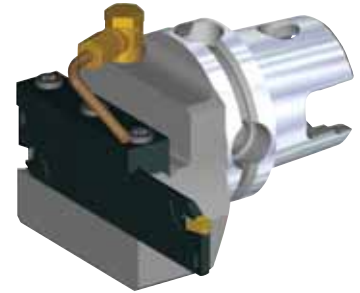
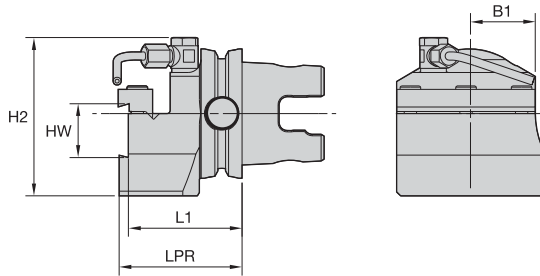


■ **KGMS • Side Mount**







order number	catalog number	L1		F		cartridge size	blade screw	nozzle	kg
		mm	in	mm	in				
	right hand								
3747134	KM50TSKGMSR65	53,5	2.106	22,0	.866	65	MS1163	PMT04525	1,19
	left hand								
3747135	KM50TSKGMSL65	53,5	2.106	22,0	.866	65	MS1163	PMT04525	1,19

NOTE: Right-hand cutting units use right-hand blades.
For A3/A4 modular blades, see the Kennametal Innovations Master Catalog Cutting Tools 2013.

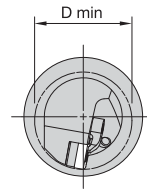
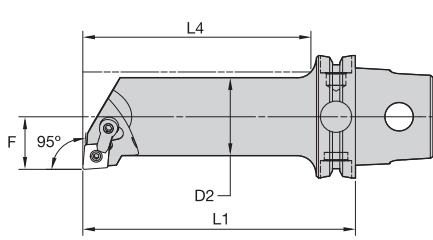

■ BE • End Mount

order number	catalog number	L1		LPR		H2		HW		B1		cartridge size	cartridge	kg
		mm	in	mm	in	mm	in	mm	in	mm	in			
3747118	right hand	55,3	2.177	59,8	2.354	65,5	2.579	26	1.02	30	1.18	26	A2BN..26...	1,27
	KM50TSBER													
3747117	left hand	55,3	2.177	59,8	2.354	65,5	2.579	26	1.02	30	1.18	26	A2BN..26...	1,27
	KM50TSBEL													

■ BE • Spare Parts

catalog number				
	clamp	clamp screw	coolant tube	coolant swivel base
right hand				
KM50TSBER	CGS4	MS1595	12649910900	12649910800
left hand				
KM50TSBEL	CGS4	MS1595	12649910900	12649910800

NOTE: Blade sets are ordered separately; see the Kennametal Innovations Master Catalog Cutting Tools 2013.







■ MCLN 95°

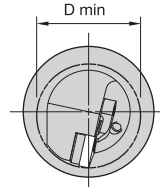
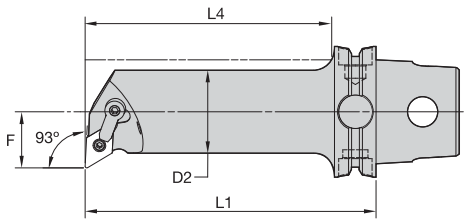
order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs
		mm	in	mm	in	mm	in	mm	in	mm	in			
right hand														
3753688	KM50TSS25DMCLNR12	25	.98	32	1.26	17	.669	38	1.51	60	2.362	CN..120408/CN..432	0,48	1.06
3753690	KM50TSS25EMCLNR12	25	.98	32	1.26	17	.669	49	1.94	70	2.756	CN..120408/CN..432	0,51	1.13
3753692	KM50TSS25JMCLNR12	25	.98	32	1.26	17	.669	87	3.43	110	4.331	CN..120408/CN..432	0,67	1.48
3753694	KM50TSS32FMCLNR12	32	1.26	40	1.57	22	.866	60	2.38	80	3.150	CN..120408/CN..432	0,67	1.48
3753696	KM50TSS32GMCLNR12	32	1.26	40	1.57	22	.866	70	2.77	90	3.543	CN..120408/CN..432	0,78	1.61
3753698	KM50TSS32KMCLNR12	32	1.26	40	1.57	22	.866	96	3.79	125	4.921	CN..120408/CN..432	1,00	2.20
3753668	KM50TSS40HMCLNR12	40	1.57	50	1.97	27	1.063	81	3.20	100	3.937	CN..120408/CN..432	1,03	2.27
3753670	KM50TSS40JMCLNR12	40	1.57	50	1.97	27	1.063	91	3.59	110	4.331	CN..120408/CN..432	1,13	2.49
3753684	KM50TSS40LMCLNR16	40	1.57	50	1.97	27	1.063	120	4.74	140	5.512	CN..160612/CN..543	1,44	3.17
3753683	KM50TSS40LMCLNR12	40	1.57	50	1.97	27	1.063	120	4.74	140	5.512	CN..120408/CN..432	1,42	3.14
3753686	KM50TSS50LMCLNR12	50	1.97	63	2.48	35	1.378	140	5.51	140	5.512	CN..120408/CN..432	2,00	4.41
left hand														
3753687	KM50TSS25DMCLNL12	25	.98	32	1.26	17	.669	38	1.51	60	2.362	CN..120408/CN..432	0,48	1.06
3753689	KM50TSS25EMCLNL12	25	.98	32	1.26	17	.669	49	1.94	70	2.756	CN..120408/CN..432	0,51	1.13
3753691	KM50TSS25JMCLNL12	25	.98	32	1.26	17	.669	87	3.43	110	4.331	CN..120408/CN..432	0,67	1.48
3753693	KM50TSS32FMCLNL12	32	1.26	40	1.57	22	.866	60	2.38	80	3.150	CN..120408/CN..432	0,67	1.48
3753695	KM50TSS32GMCLNL12	32	1.26	40	1.57	22	.866	70	2.77	90	3.543	CN..120408/CN..432	0,78	1.61
3753697	KM50TSS32KMCLNL12	32	1.26	40	1.57	22	.866	96	3.79	125	4.921	CN..120408/CN..432	1,00	2.20
3753667	KM50TSS40HMCLNL12	40	1.57	50	1.97	27	1.063	81	3.20	100	3.937	CN..120408/CN..432	1,03	2.27
3753669	KM50TSS40JMCLNL12	40	1.57	50	1.97	27	1.063	91	3.59	110	4.331	CN..120408/CN..432	1,13	2.48
3753672	KM50TSS40LMCLNL16	40	1.57	50	1.97	27	1.063	120	4.74	140	5.512	CN..160612/CN..543	1,44	3.17
3753671	KM50TSS40LMCLNL12	40	1.57	50	1.97	27	1.063	120	4.74	140	5.512	CN..120408/CN..432	1,42	3.13
3753685	KM50TSS50LMCLNL12	50	1.97	63	2.48	35	1.378	140	5.51	140	5.512	CN..120408/CN..432	2,00	4.41

(continued)

(MCLN 95° continued)

■ Spare Parts

catalog number	 shim	 lock pin	 clamp	 clamp screw
right hand				
KM50TSS25DMCLNR12	—	KLM43	CKM20LP	STCM11
KM50TSS25EMCLNR12	—	KLM43	CKM20LP	STCM11
KM50TSS25JMCLNR12	—	KLM43	CKM20LP	STCM11
KM50TSS32FMCLNR12	ICSN432	KLM46	CKM20LP	STCM11
KM50TSS32GMCLNR12	ICSN432	KLM46	CKM20LP	STCM11
KM50TSS32KMCLNR12	ICSN432	KLM46	CKM20LP	STCM11
KM50TSS40HMCLNR12	ICSN432	KLM46	CKM20LP	STCM11
KM50TSS40JMCLNR12	ICSN432	KLM46	CKM20LP	STCM11
KM50TSS40LMCLNR12	ICSN432	KLM46	CKM20LP	STCM11
KM50TSS40LMCLNR16	ICSN533	KLM58	CKM20LP	STCM11
KM50TSS50LMCLNR12	ICSN432	KLM46	CKM20LP	STCM11
left hand				
KM50TSS25DMCLNL12	—	KLM43	CKM20LP	STCM11
KM50TSS25EMCLNL12	—	KLM43	CKM20LP	STCM11
KM50TSS25JMCLNL12	—	KLM43	CKM20LP	STCM11
KM50TSS32FMCLNL12	ICSN432	KLM46	CKM20LP	STCM11
KM50TSS32GMCLNL12	ICSN432	KLM46	CKM20LP	STCM11
KM50TSS32KMCLNL12	ICSN432	KLM46	CKM20LP	STCM11
KM50TSS40HMCLNL12	ICSN432	KLM46	CKM20LP	STCM11
KM50TSS40JMCLNL12	ICSN432	KLM46	CKM20LP	STCM11
KM50TSS40LMCLNL12	ICSN432	KLM46	CKM20LP	STCM11
KM50TSS40LMCLNL16	ICSN533	KLM58	CKM20LP	STCM11
KM50TSS50LMCLNL12	ICSN432	KLM46	CKM20LP	STCM11







■ MDUN 93°

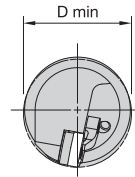
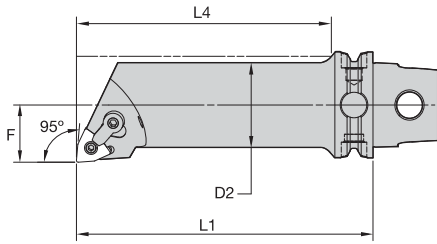
order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs	
		mm	in	mm	in	mm	in	mm	in	mm	in				
		right hand													
3753598	KM50TSS25DMDUNR15	25	.98	32	1.26	17	.669	38	1.51	60	2.362	DN..150408/DN..432	0,47	1.03	
3753601	KM50TSS25JMDUNR15	25	.98	32	1.26	17	.669	87	3.43	110	4.331	DN..150408/DN..432	0,66	1.46	
3753603	KM50TSS32FMDUNR15	32	1.26	40	1.57	22	.866	60	2.38	80	3.150	DN..150408/DN..432	0,66	1.46	
3753605	KM50TSS32GMDUNR15	32	1.26	40	1.57	22	.866	70	2.77	90	3.543	DN..150408/DN..432	0,72	1.59	
3753607	KM50TSS32KMDUNR15	32	1.26	40	1.57	22	.866	96	3.79	125	4.921	DN..150408/DN..432	0,99	2.18	
3753485	KM50TSS40HMDUNR15	40	1.57	50	1.97	27	1.063	81	3.20	100	3.937	DN..150408/DN..432	1,03	2.27	
3753490	KM50TSS40JMDUNR15	40	1.57	50	1.97	27	1.063	91	3.59	110	4.331	DN..150408/DN..432	1,13	2.49	
3753493	KM50TSS40LMDUNR15	40	1.57	50	1.97	27	1.063	120	4.74	140	5.512	DN..150408/DN..432	1,42	3.12	
		left hand													
3753597	KM50TSS25DMDUNL15	25	.98	32	1.26	17	.669	38	1.51	60	2.362	DN..150408/DN..432	0,47	1.03	
3753599	KM50TSS25EMDUNL15	25	.98	32	1.26	17	.669	48	1.90	70	2.756	DN..150408/DN..432	0,51	1.11	
3753600	KM50TSS25JMDUNL15	25	.98	32	1.26	17	.669	87	3.43	110	4.331	DN..150408/DN..432	0,66	1.45	
3753602	KM50TSS32FMDUNL15	32	1.26	40	1.57	22	.866	60	2.38	80	3.150	DN..150408/DN..432	0,66	1.46	
3753604	KM50TSS32GMDUNL15	32	1.26	40	1.57	22	.866	70	2.77	90	3.543	DN..150408/DN..432	0,72	1.59	
3753606	KM50TSS32KMDUNL15	32	1.26	40	1.57	22	.866	96	3.79	125	4.921	DN..150408/DN..432	0,99	2.18	
3753480	KM50TSS40HMDUNL15	40	1.57	50	1.97	27	1.063	81	3.20	100	3.937	DN..150408/DN..432	1,03	2.28	
3753488	KM50TSS40JMDUNL15	40	1.57	50	1.97	27	1.063	91	3.59	110	4.331	DN..150408/DN..432	1,13	2.49	
3753492	KM50TSS40LMDUNL15	40	1.57	50	1.97	27	1.063	120	4.74	140	5.512	DN..150408/DN..432	1,42	3.12	

(continued)

(MDUN 93° continued)

■ Spare Parts





catalog number	 shim	 lock pin	 clamp	 clamp screw
right hand				
KM50TSS25DMDUNR15	—	KLM43	CKM20LP	STCM11
KM50TSS25JMDUNR15	—	KLM43	CKM20LP	STCM11
KM50TSS32FMDUNR15	IDSN432	KLM46	CKM23LP	STCM11
KM50TSS32GMDUNR15	IDSN432	KLM46	CKM23LP	STCM11
KM50TSS32KMDUNR15	IDSN432	KLM46	CKM23LP	STCM11
KM50TSS40HMDUNR15	IDSN432	KLM46	CKM23LP	STCM11
KM50TSS40JMDUNR15	IDSN432	KLM46	CKM23LP	STCM11
KM50TSS40LMDUNR15	IDSN432	KLM46	CKM23LP	STCM11
left hand				
KM50TSS25DMDUNL15	—	KLM43	CKM20LP	STCM11
KM50TSS25EMDUNL15	—	KLM43	CKM20LP	STCM11
KM50TSS25JMDUNL15	—	KLM43	CKM20LP	STCM11
KM50TSS32FMDUNL15	IDSN432	KLM46	CKM23LP	STCM11
KM50TSS32GMDUNL15	IDSN432	KLM46	CKM23LP	STCM11
KM50TSS32KMDUNL15	IDSN432	KLM46	CKM23LP	STCM11
KM50TSS40HMDUNL15	IDSN432	KLM46	CKM23LP	STCM11
KM50TSS40JMDUNL15	IDSN432	KLM46	CKM23LP	STCM11
KM50TSS40LMDUNL15	IDSN432	KLM46	CKM23LP	STCM11



■ MWLN 95°

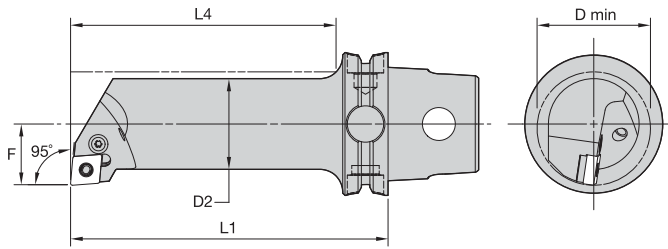
order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs
		mm	in	mm	in	mm	in	mm	in	mm	in			
right hand														
3747121	KM50TSS25JMWLNR08	25	.98	32	1.26	17	.669	87	3.43	110	4.331	WN..080408/WN..432	0,67	1.48
3747123	KM50TSS32KMWLNR08	32	1.26	40	1.57	22	.866	96	3.79	125	4.921	WN..080408/WN..432	0,99	2.17
3747120	KM50TSS40LMWLNR08	40	1.57	50	1.97	27	1.063	120	4.74	140	5.512	WN..080408/WN..432	1,40	3.08
left hand														
3747122	KM50TSS25JMWLNL08	25	.98	32	1.26	17	.669	87	3.43	110	4.331	WN..080408/WN..432	0,67	1.47
3747119	KM50TSS40LMWLNL08	40	1.57	50	1.97	27	1.063	120	4.74	140	5.512	WN..080408/WN..432	1,40	3.08

■ Spare Parts

catalog number	 shim	 lock pin	 clamp	 clamp screw
right hand				
KM50TSS25JMWLNR08	—	KLM43	CKM20LP	STCM11
KM50TSS32KMWLNR08	IWSN433	KLM46	CKM20LP	STCM11
KM50TSS40LMWLNR08	IWSN433	KLM46	CKM20LP	STCM11
left hand				
KM50TSS25JMWLNL08	—	KLM43	CKM20LP	STCM11
KM50TSS40LMWLNL08	IWSN433	KLM46	CKM20LP	STCM11



KM50TS Internal Cutting Units

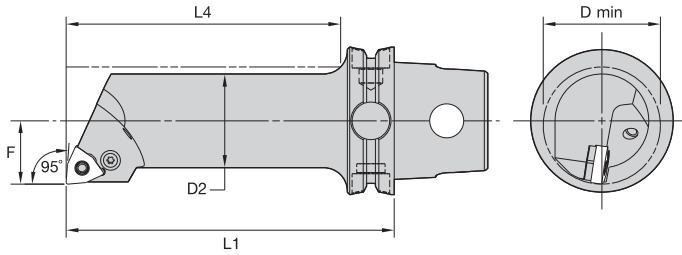


■ PCLN 95°

order number	catalog number	D2		D min		F		L4		L1		gage insert	kg lbs		
		mm	in	mm	in	mm	in	mm	in	mm	in				
		right hand													
3789272	KM50TSS25JPCLNR12	25	.98	32	1.26	17	.669	88	3.48	110	4.331	CN..120408/CN..432	0,66	1.46	
3789294	KM50TSS32KPCLNR12	32	1.26	40	1.57	22	.866	96	3.79	125	4.921	CN..120408/CN..432	0,99	2.17	
		left hand													
3789270	KM50TSS25GPCLNL12	25	.98	32	1.26	17	.669	70	2.77	90	3.543	CN..120408/CN..432	0,57	1.26	
3789271	KM50TSS25JPCLNL12	25	.98	32	1.26	17	.669	88	3.48	110	4.331	CN..120408/CN..432	0,66	1.46	
3789293	KM50TSS32KPCLNL12	32	1.26	40	1.57	22	.866	96	3.79	125	4.921	CN..120408/CN..432	0,99	2.17	

■ Spare Parts

catalog number					
	shim	lever screw	shim pin	toggle lever	punch
	right hand				
KM50TSS25JPCLNR12	—	514.122	—	511.022	515.018
KM50TSS32KPCLNR12	512.112	514.123	513.023	511.023	515.018
	left hand				
KM50TSS25GPCLNL12	—	514.122	—	511.022	515.018
KM50TSS25JPCLNL12	—	514.122	—	511.022	515.018
KM50TSS32KPCLNL12	512.112	514.123	513.023	511.023	515.018



■ **PWLN 95°**

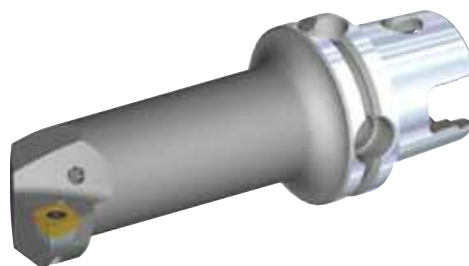
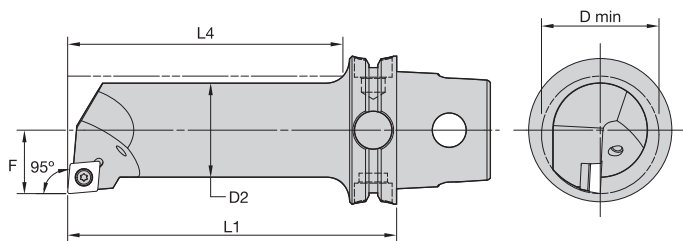
order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs	
		mm	in	mm	in	mm	in	mm	in	mm	in				
		right hand													
3789296	KM50TSS40LPWLN R08	40	1.57	50	1.97	27	1.063	120	4.74	140	5.512	WN..080408/WN..432	1,39	3.07	
		left hand													
3789295	KM50TSS40LPWLN L08	40	1.57	50	1.97	27	1.063	120	4.74	140	5.512	WN..080408/WN..432	1,39	3.07	

■ **Spare Parts**

catalog number					
	shim	lever lock screw	shim pin	toggle lever	punch
right hand KM50TSS40LPWLN R08	512.135	514.123	513.023	511.023	515.018
left hand KM50TSS40LPWLN L08	512.135	514.123	513.023	511.023	515.018



KM50TS Internal Cutting Units

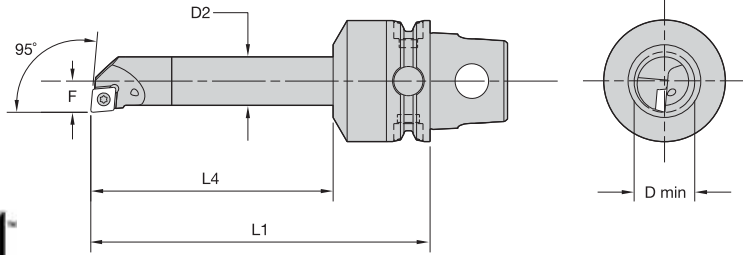


■ SCLC 95°

order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs
		mm	in	mm	in	mm	in	mm	in	mm	in			
3838715	left hand KM50TSS32GSCLCL12	32	1.26	40	1.57	22	.866	70	2.756	90	3.543	CC..120408/CC..432	0,72	1.58

■ Spare Parts

catalog number	insert screw	shim	shim screw
left hand KM50TSS32GSCLCL12	MS1158	SKCP453	SRS4



■ SCLP 95° • Carbide

order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs
		mm	in	mm	in	mm	in	mm	in	mm	in			
right hand														
3789876	KM50TSE10FSCSCLPR06	10	.39	13	.51	7	.276	50	1.968	80	3.150	CP.060204/CP.2151	0,48	1.05
3789878	KM50TSE12GSCSCLPR06	12	.47	16	.63	9	.354	60	2.362	90	3.543	CP.060204/CP.2151	0,50	1.10
3789880	KM50TSE16JSCSCLPR09	16	.63	20	.79	11	.433	80	3.150	110	4.331	CP.09T308/CP.3252	0,57	1.26
3789882	KM50TSE20LSCSCLPR09	20	.79	25	.98	13	.512	100	3.937	140	5.512	CP.09T308/CP.3252	0,84	1.83
left hand														
3789875	KM50TSE10FSCSCLPL06	10	.39	13	.51	7	.276	50	1.968	80	3.150	CP.060204/CP.2151	0,48	1.05
3789877	KM50TSE12GSCSCLPL06	12	.47	16	.63	9	.354	60	2.362	90	3.543	CP.060204/CP.2151	0,50	1.10
3789879	KM50TSE16JSCSCLPL09	16	.63	20	.79	11	.433	80	3.150	110	4.331	CP.09T308/CP.3252	0,57	1.26
3789881	KM50TSE20LSCSCLPL09	20	.79	25	.98	13	.512	100	3.937	140	5.512	CP.09T308/CP.3252	0,83	1.83

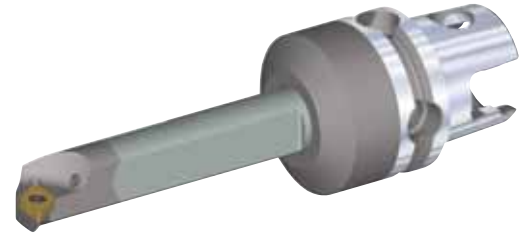
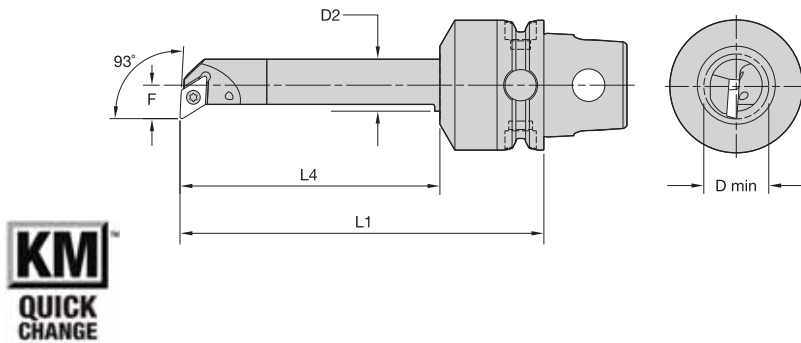
■ Spare Parts



catalog number	insert screw
right hand	
KM50TSE10FSCSCLPR06	MS1939
KM50TSE12GSCSCLPR06	MS1153
KM50TSE16JSCSCLPR09	MS1155
KM50TSE20LSCSCLPR09	MS1155
left hand	
KM50TSE10FSCSCLPL06	MS1939
KM50TSE12GSCSCLPL06	MS1153
KM50TSE16JSCSCLPL09	MS1155
KM50TSE20LSCSCLPL09	MS1155



KM50TS Internal Cutting Units



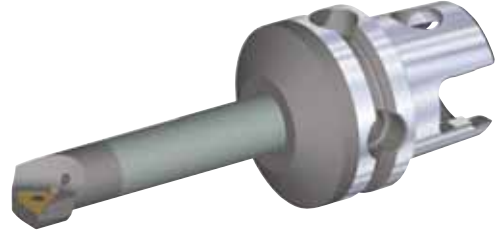
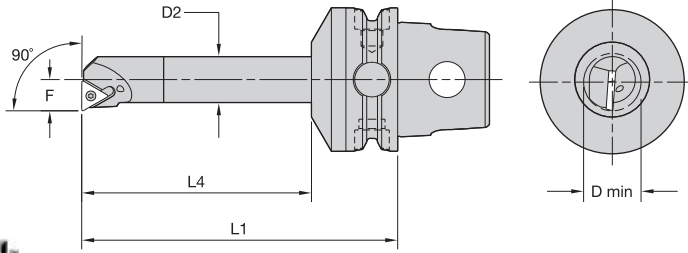
■ SDUP 93° • Carbide

order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs
		mm	in	mm	in	mm	in	mm	in	mm	in			
	right hand													
3812594	KM50TSE16JSDUPR07	16	.63	20	.79	11	.433	80	3.150	110	4.331	DP..070204/DP..2151	0,57	1.26
3812596	KM50TSE20LSDUPR11	20	.79	25	.98	13	.512	100	3.937	140	5.512	DP..11T308/DP..3252	0,81	1.78
	left hand													
3812593	KM50TSE16JSDUPL07	16	.63	20	.79	11	.433	80	3.150	110	4.331	DP..070204/DP..2151	0,57	1.26
3812595	KM50TSE20LSDUPL11	20	.79	25	.98	13	.512	100	3.937	140	5.512	DP..11T308/DP..3252	0,81	1.78

■ Spare Parts



catalog number	insert screw
right hand	
KM50TSE16JSDUPR07	MS1153
KM50TSE20LSDUPR11	MS1153
left hand	
KM50TSE16JSDUPL07	MS1153
KM50TSE20LSDUPL11	MS1153



■ STFP 90° • Carbide

order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs	
		mm	in	mm	in	mm	in	mm	in	mm	in				
		right hand													
3812597	KM50TSE12GSTFPR11	12	.47	16	.63	9	.354	60	2.362	90	3.543	TP..110204/TP..2151	0,50	1.10	
3812599	KM50TSE16JSTFPR11	16	.63	20	.79	11	.433	80	3.150	110	4.331	TP..110204/TP..2151	0,57	1.26	
		left hand													
3812598	KM50TSE12GSTFPL11	12	.47	16	.63	9	.354	60	2.362	90	3.543	TP..110204/TP..2151	0,50	1.10	
3812600	KM50TSE16JSTFPL11	16	.63	20	.79	11	.433	80	3.150	110	4.331	TP..110204/TP..2151	0,57	1.26	

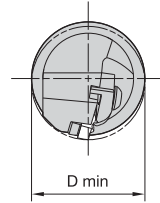
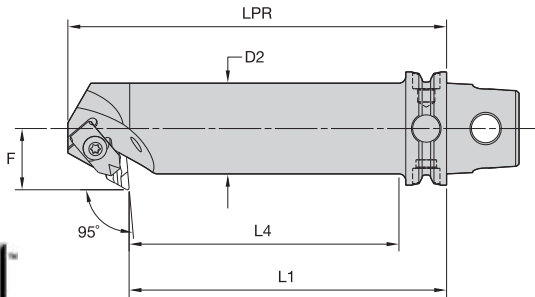
■ Spare Parts



catalog number	insert screw
right hand	
KM50TSE12GSTFPR11	MS1153
KM50TSE16JSTFPR11	MS1153
left hand	
KM50TSE12GSTFPL11	MS1153
KM50TSE16JSTFPL11	MS1153







KM50TS Internal Cutting Units

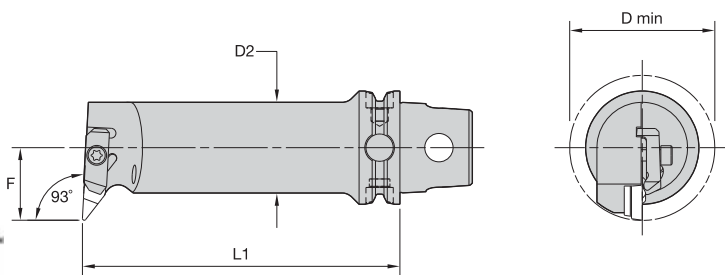


■ NKXN 95°

order number	catalog number	D2		D min		F		L4		L1		LPR		gage insert	kg	lbs
		mm	in	mm	in	mm	in	mm	in	mm	in	mm	in			
3964156	right hand	40	1.57	50	1.97	27	1.063	120	4.724	140	5.512	167	7	KNGX150408R20/NPR132F	1,67	3.69
	KM50TSS40LNKXNR15															
3964155	left hand	40	1.57	50	1.97	27	1.063	120	4.724	140	5.512	167	7	KNGX150408L20/NPL132F	1,67	3.69
	KM50TSS40LNKXNL15															

■ Spare Parts





catalog number				
	shim	shim screw	clamp	clamp screw
right hand KM50TSS40LNKXNR15	SM872	MS111	CM66	MS1221
left hand KM50TSS40LNKXNL15	SM871	MS111	CM66	MS1221



■ NVUC 93°

order number	catalog number	D2		D min		F		L1		gage insert	kg	lbs
		mm	in	mm	in	mm	in	mm	in			
3964160	right hand	40	1.57	64	2.52	32	1.260	140	5.512	VCGR160408/VPGR332	1,41	3.12
	KM50TSS40LNVUCR16											
3964159	left hand	40	1.57	64	2.52	32	1.260	140	5.512	VCGR160408/VPGR332	1,41	3.12
	KM50TSS40LNVUCL16											

■ Spare Parts

catalog number	 shim	 shim screw	 clamp	 clamp screw
right hand KM50TSS40LNVUCR16	SM812	MS959	CM113	MS1489
left hand KM50TSS40LNVUCL16	SM812	MS959	CM114	MS1489



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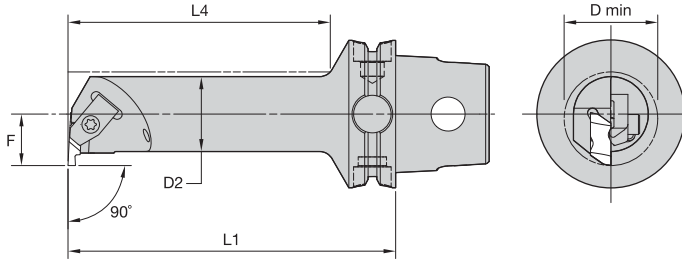
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■ NE 90° • Steel

order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs
		mm	in	mm	in	mm	in	mm	in	mm	in			
right hand														
3790585	KM50TSS12ENER2	12	.47	19	.73	11	.433	42	1.654	70	2.756	NG2L	0,44	.97
3790583	KM50TSS16FNER2	16	.63	20	.79	11	.433	56	2.211	80	3.150	NG2L	0,44	.97
3790587	KM50TSS20HNER2	20	.79	25	.98	13	.512	70	2.769	100	3.937	NG2L	0,58	1.28
3790589	KM50TSS25JNER3	25	.98	34	1.34	17	.669	88	3.469	110	4.331	NG3L	0,67	1.48
3790591	KM50TSS32GNER3	32	1.26	40	1.57	22	.866	70	2.774	90	3.543	NG3L	0,71	1.57
3790593	KM50TSS32KNER3	32	1.26	40	1.57	22	.866	96	3.790	125	4.921	NG3L	0,97	2.14
3790595	KM50TSS40JNER4	40	1.57	50	1.97	27	1.063	91	3.593	110	4.331	NG4L	1,09	2.41
3790599	KM50TSS40LNER4	40	1.57	50	1.97	27	1.063	120	4.738	140	5.512	NG4L	1,39	3.06
3790598	KM50TSS40LNER3	40	1.57	50	1.97	27	1.063	120	4.738	140	5.512	NG3L	1,40	3.09
left hand														
3790584	KM50TSS12ENEL2	12	.47	19	.73	11	.433	42	1.654	70	2.756	NG2R	0,44	.97
3790291	KM50TSS16FNEL2	16	.63	20	.79	11	.433	56	2.211	80	3.150	NG2R	0,44	.97
3790586	KM50TSS20HNEL2	20	.79	25	.98	13	.512	70	2.769	100	3.937	NG2R	0,58	1.28
3790588	KM50TSS25JNEL3	25	.98	34	1.34	17	.669	88	3.469	110	4.331	NG3R	0,67	1.48
3790590	KM50TSS32GNEL3	32	1.26	40	1.57	22	.866	70	2.774	90	3.543	NG3R	0,71	1.57
3790592	KM50TSS32KNEL3	32	1.26	40	1.57	22	.866	96	3.790	125	4.921	NG3R	0,97	2.14
3790594	KM50TSS40JNEL4	40	1.57	50	1.97	27	1.063	91	3.593	110	4.331	NG4R	1,09	2.41
3790596	KM50TSS40LNEL3	40	1.57	50	1.97	27	1.063	120	4.738	140	5.512	NG3R	1,40	3.09
3790597	KM50TSS40LNEL4	40	1.57	50	1.97	27	1.063	120	4.738	140	5.512	NG4R	1,39	3.06

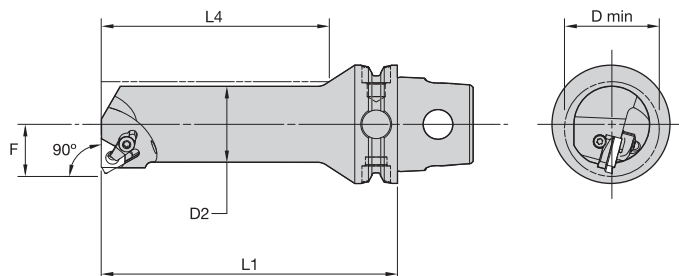
(continued)

(NE 90° • Steel continued)

■ Spare Parts



catalog number	clamp	clamp screw
right hand		
KM50TSS12ENER2	CM147	MS1488
KM50TSS16FNER2	CM147	MS1488
KM50TSS20HNER2	CM75	MS1488
KM50TSS25JNER3	CM73	MS1489
KM50TSS32GNER3	CM73	MS1489
KM50TSS32KNER3	CM73	MS1489
KM50TSS40JNER4	CM73	MS1489
KM50TSS40LNER3	CM73	MS1489
KM50TSS40LNER4	CM73	MS1489
left hand		
KM50TSS12ENEL2	CM146	MS1488
KM50TSS16FNEL2	CM146	MS1488
KM50TSS20HNEL2	CM74	MS1488
KM50TSS25JNEL3	CM72	MS1489
KM50TSS32GNEL3	CM72	MS1489
KM50TSS32KNEL3	CM72	MS1489
KM50TSS40JNEL4	CM72	MS1489
KM50TSS40LNEL3	CM72	MS1489
KM50TSS40LNEL4	CM72	MS1489



■ LSE 90°

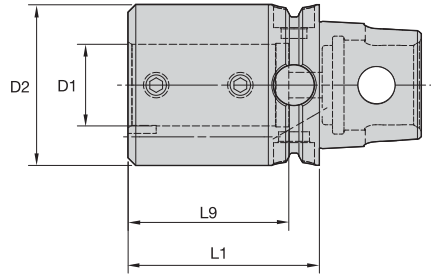
order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs
		mm	in	mm	in	mm	in	mm	in	mm	in			
right hand														
3838705	KM50TSS20HLSER16	20	.79	25	.98	13	.512	70	2.77	100	3.937	LT16NR	0,57	1.27
3838724	KM50TSS25JLSER16	25	.98	32	1.26	17	.669	88	3.48	110	4.331	LT16NR	0,68	1.49
3838709	KM50TSS32KLSER16	32	1.26	40	1.57	22	.866	96	3.79	125	4.921	LT16NR	1,01	2.24
3838710	KM50TSS40LLSER16	40	1.57	50	1.97	27	1.063	120	4.73	140	5.512	LT16NR	1,46	3.21
3838711	KM50TSS40LLSER22	40	1.57	50	1.97	27	1.063	120	4.73	140	5.512	LT22NR	1,45	3.21
left hand														
3964139	KM50TSS20HLSSEL16	20	.79	25	.98	13	.512	70	2.77	100	3.937	LT16NL	0,58	1.27
3838706	KM50TSS25JLSEL16	25	.98	32	1.26	17	.669	88	3.48	110	4.331	LT16NL	0,68	1.49
3838708	KM50TSS32KLSEL16	32	1.26	40	1.57	22	.866	96	3.79	125	4.921	LT16NL	1,01	2.24
3964141	KM50TSS40LLSEL22	40	1.57	50	1.97	27	1.063	120	4.73	140	5.512	LT22NL	1,45	3.21
3964140	KM50TSS40LLSEL16	40	1.57	50	1.97	27	1.063	120	4.73	140	5.512	LT16NL	1,46	3.21

■ Spare Parts



catalog number	insert screw	shim	shim screw	clamp assembly
right hand				
KM50TSS20HLSER16	SSA3T	SMY13	SSY3T	CKC3
KM50TSS25JLSER16	SSA3T	SMY13	SSY3T	CKC3
KM50TSS32KLSER16	SSA3T	SMY13	SSY3T	CKC3
KM50TSS40LLSER16	SSA3T	SMY13	SSY3T	CKC3
KM50TSS40LLSER22	SSA4T	SMY14	SSY4T	CKC4
left hand				
KM50TSS20HLSSEL16	SSA3T	SMYE3	SSY3T	CKC3
KM50TSS25JLSEL16	SSA3T	SMYE3	SSY3T	CKC3
KM50TSS32KLSEL16	SSA3T	SMYE3	SSY3T	CKC3
KM50TSS40LLSEL16	SSA3T	SMYE3	SSY3T	CKC3
KM50TSS40LLSEL22	SSA4T	SMYE4	SSY4T	CKC4

NOTE: Cutting units are supplied with insert screw and clamp assembly. However, tools are designed to use either the insert screw or the clamp assembly, not both.

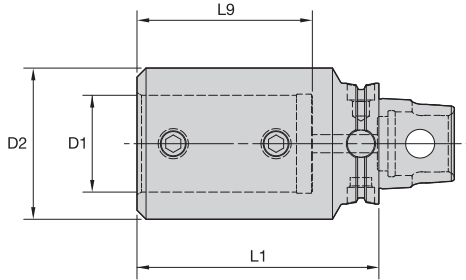
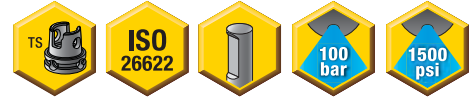

■ BA • Boring Bar Adapter • Internal and External Coolant • Metric


order number	catalog number	D1	D2	L1	L9	clamp screw	wrench size clamp screw	Nm	kg
3790547	KM50TSBA06045M	6	40	45	36	MS1210	2,5mm	4	0,59
3790548	KM50TSBA08045M	8	40	45	36	MS1210	2,5mm	4	0,58
3790549	KM50TSBA10055M	10	40	55	48	MS1211	4mm	15	0,67
3790550	KM50TSBA12060M	12	40	60	52	MS1211	4mm	15	0,70
3790551	KM50TSBA16065M	16	40	65	55	MS1211	4mm	15	0,70
3790552	KM50TSBA20070M	20	40	70	58	MS1212	5mm	25	0,70
3790573	KM50TSBA25070M	25	50	70	56	MS1212	5mm	25	0,90

■ BA • Boring Bar Adapter • Internal and External Coolant • Inch


order number	catalog number	D1	D2	L1	L9	clamp screw	wrench size clamp screw	ft. lbs.	lbs
3789937	KM50TSBA06217	3/8	1.57	2.165	1.89	S843	1/8	3	1.47
3789938	KM50TSBA08236	1/2	1.57	2.362	2.05	S852	5/32	8	1.53
3789939	KM50TSBA10256	5/8	1.57	2.559	2.17	S862	3/16	11	1.55
3789940	KM50TSBA12276	3/4	1.57	2.756	2.28	S862	3/16	11	1.57
3789941	KM50TSBA16276	1	1.97	2.756	2.20	S862	3/16	11	1.97

NOTE: Do not overtighten clamp screw; use torque recommendations above.
 Supplied with clamp screw.
 Clamp screw wrench not included.



■ BAI • Boring Bar Adapter • Internal Coolant Only • Metric



order number	catalog number	D1	D2	L1	L9	clamp screw	wrench size clamp screw	Nm	kg
3790289	KM50TSBAI32080M	32	50	80	58	MS1213	5mm	25	0,91
3790290	KM50TSBAI40090M	40	58	90	68	MS1213	5mm	25	1,13

■ BAI • Boring Bar Adapter • Internal Coolant Only • Inch

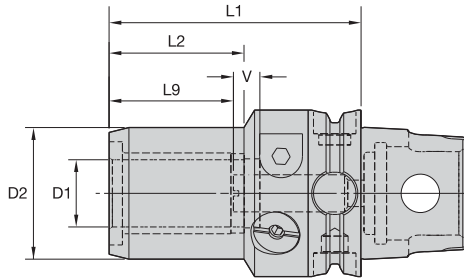


order number	catalog number	D1	D2	L1	L9	clamp screw	wrench size clamp screw	ft. lbs.	lbs
3790287	KM50TSBAI20315	1 1/4	1.97	3.150	2.28	S861	3/16	11	2.01
3790288	KM50TSBAI24354	1 1/2	2.28	3.543	2.68	S861	3/16	11	2.62

NOTE: Do not overtighten clamp screw; use torque recommendations above.
Supplied with clamp screw.
Clamp screw wrench not included.



KM50TS Shank Tools

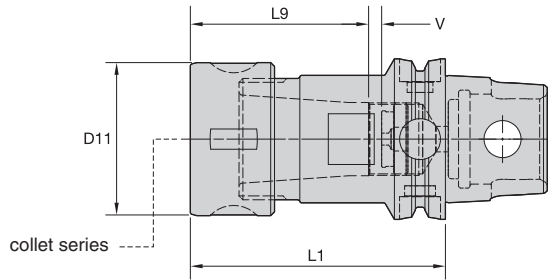
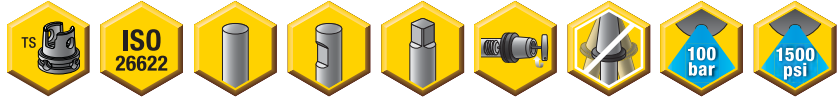


■ HC • Metric

order number	catalog number	D1	D2	L1	L2	L9	V	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw	kg
4007723	KM50TSHC06065M	6	26	65	30	27	10	170.135	5 mm	170.002	2.5 mm	0,63
4007724	KM50TSHC08065M	8	28	65	30	27	10	170.135	5 mm	170.002	2.5 mm	0,65
4007725	KM50TSHC10070M	10	30	70	36	31	10	170.135	5 mm	170.002	2.5 mm	0,69
4007726	KM50TSHC12075M	12	32	75	40	36	10	170.135	5 mm	170.002	2.5 mm	0,73
4007727	KM50TSHC14075M	14	34	75	43	36	10	170.135	5 mm	170.003	3 mm	0,72
4007728	KM50TSHC16080M	16	38	80	47	39	10	170.135	5 mm	170.003	3 mm	0,83
4007729	KM50TSHC18080M	18	40	80	47	39	10	170.135	5 mm	170.003	3 mm	0,85
4007730	KM50TSHC20085M	20	42	85	48	71	10	170.135	5 mm	170.003	3 mm	0,94

NOTE: Do not overtorque clamp screw; tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Reduction sleeves are available and must be ordered separately; see page J2.
 Wrenches must be ordered separately.

- Tremendous Grip (3:1 advantage).



TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG75	2,6	20,0	3/64	3/4
TG100	2,6	25,5	5/64	1

■ Collet Chuck • Round Nut

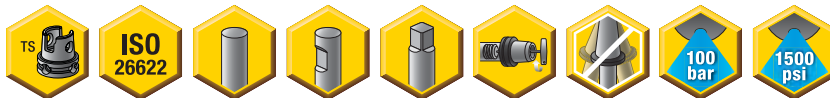
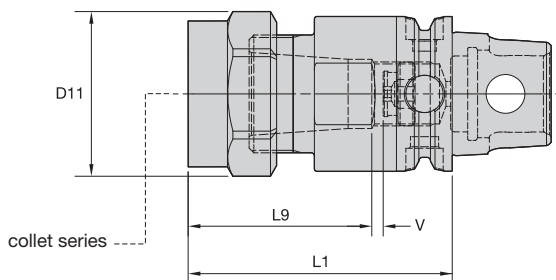
order number	catalog number	collet series	D11		L1		L9		V		kg	lbs
			mm	in	mm	in	mm	in	mm	in		
3790601	KM50TSTG075080M	TG75	50	1.97	80	3.150	53	2.09	10	.39	0,95	2.09
3790602	KM50TSTG100110M	TG100	60	2.36	110	4.331	69	2.72	10	.39	1,40	3.09

■ Spare Parts



catalog number	locknut	wrench	Nm	ft. lbs.	stop screw	wrench size stop screw
KM50TSTG075080M	LNA075M	HSW45M	108-136	80-100	SS081041G	4mm & 5/32
KM50TSTG100110M	LNA100M	HSW58M	163-203	120-150	SS112041G	4mm & 5/32

(continued)

(Collet Chuck continued)

KM50TS Shank Tools


TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG75	2,6	20,0	3/64	3/4
TG100	2,6	25,5	5/64	1

■ Collet Chuck • Hex Nut

order number	catalog number	collet series	D11		L1		L9		V		kg	lbs
			mm	in	mm	in	mm	in	mm	in		
3790600	KM50TSTG075336	TG75	53	2.09	85	3.358	58	2.28	10	.39	0,93	2.06
3790613	KM50TSTG100457	TG100	62	2.44	116	4.568	75	2.95	10	.39	1,44	3.18

■ Spare Parts



catalog number	locknut	wrench	Nm	ft. lbs.	stop screw	wrench size stop screw
KM50TSTG075336	NPA075	OEW188	108-136	80-100	SS081041G	4mm & 5/32
KM50TSTG100457	NPA100	OEW225	163-203	120-150	SS112041G	4mm & 5/32

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.

Collet chuck technical section, see page M98.

Supplied with locknut and stop screw.

Locknut wrench must be ordered separately.

Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16–L17.

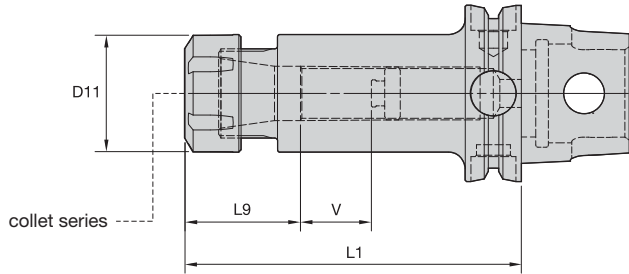
Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.

Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.

TG standard straight-bore collets, see page J10.

TG tap collets, see page J10.

- Grip (2:1 advantage).



KM50TS Shank Tools



ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER25	1,0	16,0	.04	.63
ER32	1,0	20,0	.08	.81
ER40	3,0	26,0	.08	1.00

■ Collet Chuck • Round Nut



order number	catalog number	collet series	D11		L1		L9		V		locknut	wrench	Nm	ft. lbs.	kg	lbs
			mm	in	mm	in	mm	in	mm	in						
3795029	KM50TSER25050M	ER25	42	1.65	50	1.969	41,2	1.62	—	—	LNSER25M	ER25WM	104	77	0,47	1.03
3795030	KM50TSER32060M	ER32	50	1.97	60	2.362	47,3	1.86	—	—	LNSER32M	ER32WM	136	100	0,62	1.36
3795031	KM50TSER40070M	ER40	63	2.48	70	2.756	53,3	2.10	—	—	LNSER40M	ER40WM	176	130	0,88	1.94

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Interchangeable coolant-style locknuts and coolant disks are available and must be ordered separately; see page L19.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.



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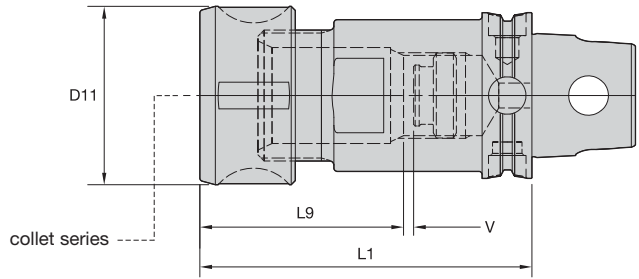
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- Great accuracy $\leq 5\mu\text{m}$ (.0002") at 3 x D and best gripping system.
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DA collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
DA200	0.2	10,0	1/64	25/64
DA180	2.2	20,0	1/64	3/4

■ Collet Chuck • Round Nut

order number	catalog number	collet series	D11		L1		L9		V		kg	lbs
			mm	in	mm	in	mm	in	mm	in		
3789365	KM50TSDA208060M	DA200	28	1.10	60	2.362	35	1.38	8	.32	0,48	1.05
3789364	KM50TSDA188075M	DA180	43	1.69	75	2.953	49	1.93	5	.20	0,69	1.52

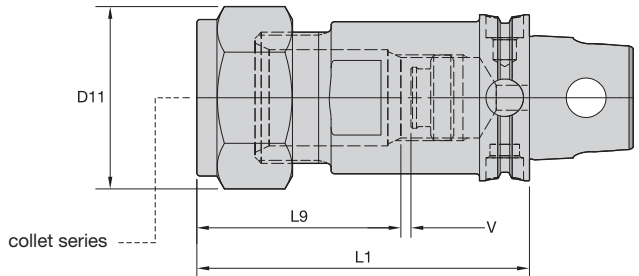
■ Spare Parts



catalog number	locknut	wrench	Nm	ft. lbs.	stop screw	wrench size stop screw
KM50TSDA208060M	LNA208RM	—	32-40	45-55	SS038031G	2mm & 5/64
KM50TSDA188075M	LNA188M	HSW45M	60-75	80-100	SS081041G	4mm & 5/32

(continued)

(Collet Chuck continued)



KM50TS Shank Tools

DA collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
DA200	0,2	10,0	1/64	25/64
DA180	2,2	20,0	1/64	3/4

■ Collet Chuck • Hex Nut

order number	catalog number	collet series	D11		L1		L9		V		kg	lbs
			mm	in	mm	in	mm	in	mm	in		
3789365	KM50TSDA208060M	DA200	28	1.10	60	2.362	35	1.38	8	.32	0,48	1.05
3789364	KM50TSDA188075M	DA180	43	1.69	75	2.953	49	1.93	5	.20	0,69	1.52

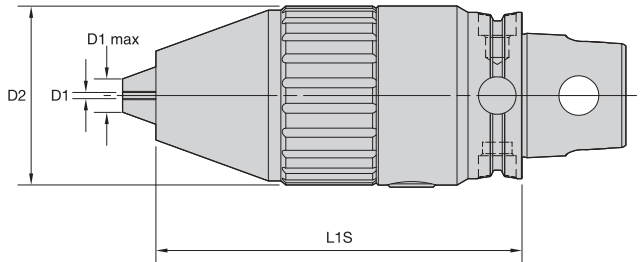
■ Spare Parts



catalog number	locknut	wrench	Nm	ft. lbs.	stop screw	wrench size stop screw
KM50TSDA208060M	LNA208RM	—	32-40	45-55	SS038031G	2 mm & 5/64
KM50TSDA188075M	LNA188M	HSW45M	60-75	80-100	SS081041G	4 mm & 5/32

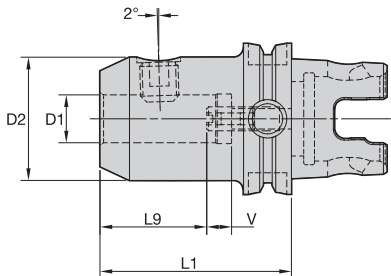
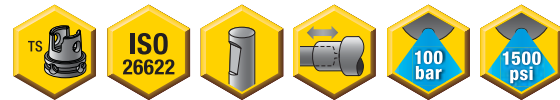
NOTE: Tighten locknut to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 DA standard straight-bore collets, see page J62.
 DA non-pullout collets, see pages J65–J68.

- Activation size is 6mm.
- Activation wrench included.
- Wrench reorder number is 170.136.



■ RDC • Drill Chuck

order number	catalog number	D1		D1 max		D2		L1S	
		mm	in	mm	in	mm	in	mm	in
4053779	KM50TSRDC16106M	3	.098	16	.630	56	2.205	106,0	4.055

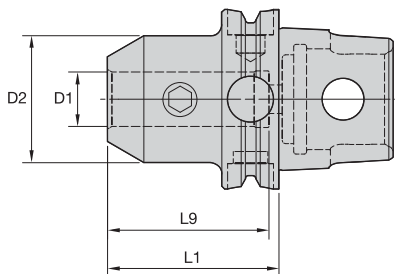


■ WN • Whistle Notch Adapter



order number	catalog number	D1	D2	L1	L9	V	lock screw	wrench size lock screw	Nm	stop screw	wrench size stop screw	kg	lbs
3795102	KM50TSWN06065M	6	25	65	30	10	SS03M012	3mm	7	571.060	2,5mm	0,49	1.07
3795103	KM50TSWN08065M	8	28	65	30	10	SS03M014	4mm	15	571.067	3mm	0,53	1.16
3795104	KM50TSWN10070M	10	35	70	35	10	SS03M018	5mm	25	571.068	4mm	0,66	1.46
3795105	KM50TSWN12080M	12	42	80	40	10	SS03M023	6mm	35	571.074	5mm	0,91	2.00
3795106	KM50TSWN14080M	14	44	80	40	10	SS03M023	6mm	35	571.074	5mm	0,95	2.10
3795107	KM50TSWN16085M	16	48	85	43	10	SS03M025	6mm	50	571.075	6mm	1,13	2.49
3795108	KM50TSWN18085M	18	50	85	43	10	SS03M025	6mm	50	571.075	6mm	1,18	2.61
3795109	KM50TSWN20095M	20	52	95	45	10	SS03M026	8mm	95	571.076	6mm	1,69	3.05
3795110	KM50TSWN25100M	25	65	100	50	10	SS03M027	10mm	135	571.077	6mm	2,06	4.53
3795111	KM50TSWN32105M	32	72	105	54	10	SS03M029	10mm	160	571.077	6mm	2,50	5.51

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw and stop screw.
 Lock screw and stop screw wrenches are not included.

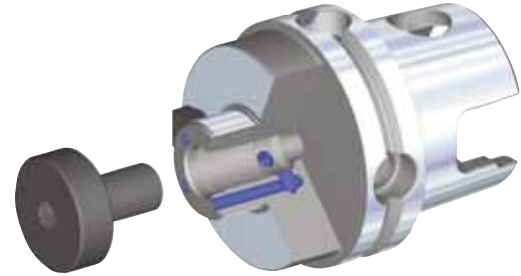
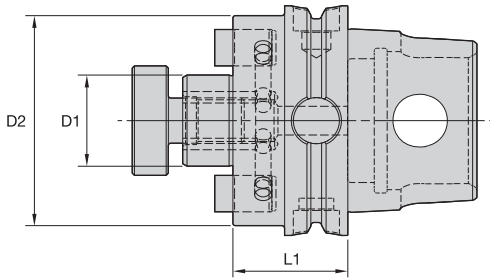

EM • Metric


order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	Nm	kg
3812617	KM50TSEM10050M	10	35	50	45	SS03M018	5mm	25	0,53
3812618	KM50TSEM12055M	12	42	55	50	SS03M023	6mm	35	0,65
3812619	KM50TSEM16060M	16	48	60	53	SS03M025	6mm	50	0,79
3812620	KM50TSEM20060M	20	52	60	55	SS03M026	8mm	95	0,84
3812621	KM50TSEM25080M	25	65	80	60	SS03M027	10mm	135	1,59
3812622	KM50TSEM32085M	32	72	85	65	SS03M029	10mm	160	1,94

EM • Inch


order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
3812635	KM50TSEM038197	3/8	1.00	1.969	1.73	ELS038031PKG	3/16	15	.95
3812636	KM50TSEM050216	1/2	1.38	2.165	1.97	ELS044038PKG	7/32	20	1.16
3812637	KM50TSEM062236	5/8	1.63	2.362	2.09	ELS056050PKG	1/4	40	1.43
3812638	KM50TSEM075236	3/4	1.75	2.362	2.22	ELS062050PKG	5/16	70	1.48
3812639	KM50TSEM100335	1	2.00	3.347	2.56	ELS075056PKG	3/8	110	2.38
3812640	KM50TSEM125335	1 1/4	2.50	3.347	2.51	ELS075056PKG	3/8	110	3.31

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw.
 Lock screw wrench not included.



■ SMC • Metric



order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size lock screw	kg
3950842	KM50TSSMC22028M	22	49	28	MS1234	KDK22M	8mm	0,54
3950913	KM50TSSMC27032M	27	60	32	KLSS27M	KDK27M	10mm	0,77
3950914	KM50TSSMC32040M	32	78	40	KLSS32M	KDK32M	14mm	1,30

■ SMC/SM2C-KM • Inch

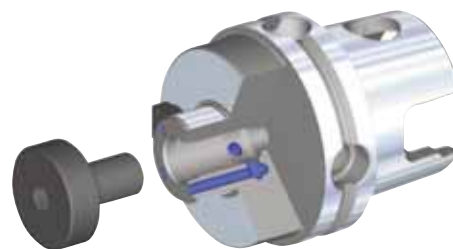
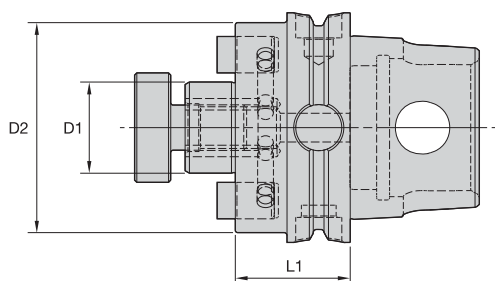


order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size lock screw	lbs
3950836	KM50TSSMC050102	1/2	1.44	1.024	KLS05	KDK04	3/16	.92
3950838	KM50TSSM2C075102	3/4	1.46	1.024	KLS07	—	1/4	1.02
3950837	KM50TSSMC075102	3/4	1.75	1.024	KLS07	KDK05	3/16	1.08
3950840	KM50TSSM2C100126	1	2.19	1.260	KLS10	KDK06	5/16	1.53
3950839	KM50TSSMC100126	1	2.75	1.260	KLS10	KDK06	5/16	1.81
3950841	KM50TSSMC125157	1 1/4	2.88	1.575	KLS12	KDK08	5/16	2.60

NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive keys.
 Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
 Lock screw wrench not included.



KM50TS Shank Tools

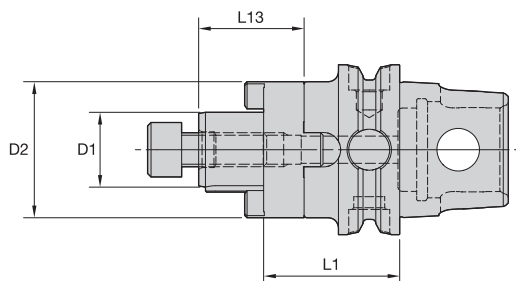


■ SM2C • Inch



order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size lock screw	lbs.
3950838	KM50TSSM2C075102	3/4	1.46	1.024	KLS07	—	1/4	1.02
3950840	KM50TSSM2C100126	1	2.19	1.260	KLS10	KDK06	5/16	1.53

NOTE: Do not overtighten lock screw.
Supplied with lock screw and drive keys.
Lock screw wrench not included.

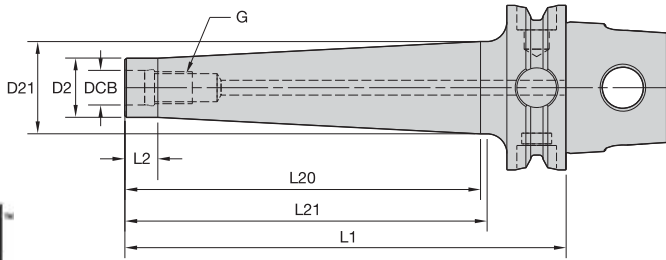


■ CS • Metric



order number	catalog number	D1	D2	L1	L13	lock screw	lock screw	wrench size lock screw	combi driver ring	combi drive key	kg
3862017	KM50TSCS22040M	22	40	40	31	MS1234	—	8 mm	CDR22M	CDK22M	0,61
3862018	KM50TSCS27042M	27	48	42	33	—	KLS27M	—	CDR27M	CDK27M	0,79
3862019	KM50TSCS32050M	32	58	50	38	—	KLS32M	—	CDR32M	CDK32M	1,19

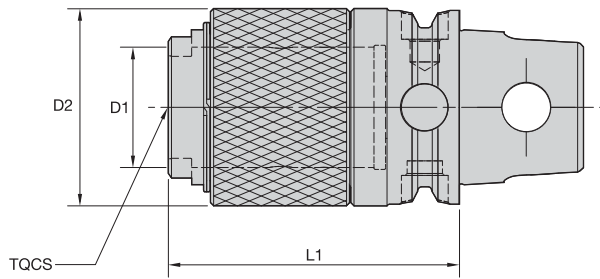
NOTE: Do not overtighten lock screw.
Supplied with lock screw, drive ring, and key.
Lock screw wrench not included.



■ **STC**

order number	catalog number	DCB	G	D2	D21	L1	L2	L20	L21	kg
4137801	KM50TSSTC06059M	6,5	M6	10	11	59	10	35	35	0,36
4137802	KM50TSSTC06084M	6,5	M6	10	12	84	10	60	60	0,37
4137823	KM50TSSTC06109M	6,5	M6	10	14	109	10	85	85	0,40
4137824	KM50TSSTC08059M	8,5	M8	13	15	59	10	33	35	0,37
4137825	KM50TSSTC08084M	8,5	M8	13	18	84	10	58	60	0,42
4137826	KM50TSSTC08109M	8,5	M8	13	23	109	10	83	85	0,51
4137827	KM50TSSTC08134M	8,5	M8	13	23	134	10	108	110	0,56
4137828	KM50TSSTC10059M	10,5	M10	18	20	59	10	33	35	0,41
4137829	KM50TSSTC10084M	10,5	M10	18	25	84	10	58	60	0,51
4137830	KM50TSSTC10109M	10,5	M10	18	25	109	10	83	85	0,57
4137831	KM50TSSTC10134M	10,5	M10	18	28	134	10	108	110	0,61
4137832	KM50TSSTC12059M	12,5	M12	21	24	59	10	33	35	0,44
4137833	KM50TSSTC12084M	12,5	M12	21	24	84	10	58	60	0,51
4137834	KM50TSSTC12109M	12,5	M12	21	28	109	10	83	85	0,64
4137835	KM50TSSTC12134M	12,5	M12	21	31	134	10	108	110	0,79

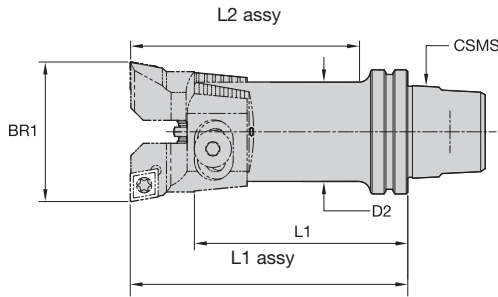
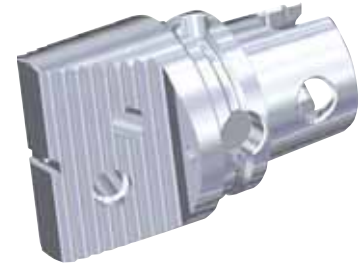
NOTE: For technical information, see page M96–97.



■ ST • Solid Tap Chuck

order number	catalog number	TQCS adapter size	D1		D2		L1		kg	lbs
			mm	in	mm	in	mm	in		
3964133	KM50TSST1050M	1	19	.749	35	1.375	50	1.971	0,48	1.06
3964134	KM50TSST2075M	2	31	1.222	51	2.000	75	2.955	0,89	1.95

NOTE: Quick-change tap adapters available and must be ordered separately; see page J76.

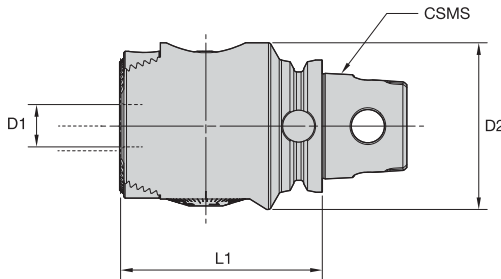


■ RBHT • KM™ Rough-Boring Twin Cutters

order number	catalog number	BR1 bore range		CSMS system size	D2		L1		L2		blade screw	washer	pin
		mm	in		mm	in	mm	in	mm	in			
3586522	KM50RBHT50	49,500-66,500	1.9488-2.6181	KM50	42,0	1.6562, 22.45	90,0	3.54	70,0	2.76	840.142.420	841.142.200	841.342.420
3586543	KM50RBHT66	65,500-87,500	2.5787-3.4449	KM50	55,0	2.1763, 02.48	100,0	3.94	100,0	3.94	840.142.550	841.142.550	841.342.420
3586544	KM50RBHT87	86,500-115,500	3.4055-4.5472	KM50	72,0	2.8370, 52.78	120,0	4.72	120,0	4.72	840.142.720	841.142.720	841.342.420



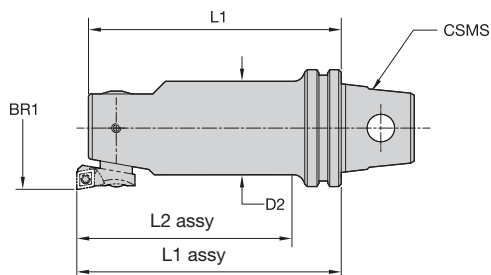
NOTE: Blade sets are ordered separately; see the Kennametal Innovations Master Catalog Cutting Tools 2013.



■ FBHM

order number	catalog number	BR1 bore range		CSMS system size	D1		D2		L1		ModBORE FBHS parts package	kg	lbs
		mm	in		mm	in	mm	in	mm	in			
4057060	KM50TSFBHM1677	9,750-164,000	.3838-6.4566	KM50TS	16,0	.63 63,0	2.48	76,6	3.02		PKG-8001	1,5	3.31




KM50TS Adapters

■ FBHS • KM™ Fine-Boring Single Cutters

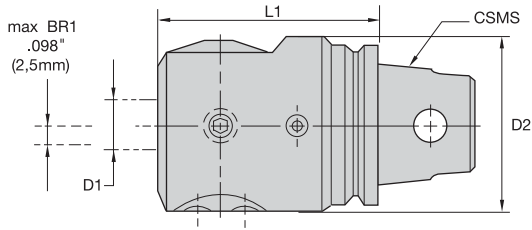
order number	catalog number	BR1 bore range		CSMS system size	D2		L1		L1 assy		L2 assy		cartridge mounting screw	lock screw
		mm	in		mm	in	mm	in	mm	in	mm	in		
3586575	KM50FBHS51	50,900-81,100	2.0039-3.1929	KM50	42,01.65	86,03.39	90,0	3.54	70,0	2.76	880.252.420	881.252.420		
3586576	KM50FBHS67	66,900-105,100	2.6339-4.1378	KM50	55,02.17	96,03.78	100,0	3.94	100,0	3.94	880.252.550	881.252.550		
3586577	KM50FBHS87	86,900-154,100	3.4213-6.0669	KM50	72,02.84	116,04.57	120,0	4.72	120,0	4.72	880.252.550	881.252.720		

NOTE: Boring heads are ordered separately; see the Kennametal Innovations Master Catalog Cutting Tools 2013.

■ Reference Insert Cartridges

BR1		insert cartridges			
in	mm	90° lead		95° lead	
.9409 - 1.2244	23,900 - 31,100	R24FBHS06	—	R24FBHS06LF	—
1.1772 - 1.4606	29,900 - 37,100	R30FBHS06	—	—	—
1.2165 - 1.5787	30,900 - 40,100	R31FBHS06	—	R31FBHS06LF	—
1.4921 - 1.8543	37,900 - 47,100	F38FBHS06	—	—	—
1.5709 - 2.0118	39,900 - 51,100	R40FBHS06	—	R40FBHS06LF	—
1.8858 - 2.3268	47,900 - 59,100	R48FBHS06	—	—	—
2.0039 - 2.6417	50,900 - 67,100	R51FBHS06	—	R51FBHS06LF	—
2.5551 - 3.1929	64,900 - 81,100	R65FBHS06	—	—	—
2.6339 - 3.4291	66,900 - 87,100	R67FBHS06	R67FBHS09	—	R67FBHS09LF
3.3425 - 4.1378	84,900 - 105,100	R85FBHS06	R85FBHS09	—	—
3.4213 - 4.5709	86,900 - 116,100	R67FBHS06	R67FBHS09	—	R67FBHS09LF
4.1299 - 5.2795	104,900 - 134,100	R85FBHS06	R85FBHS09	—	—
4.5630 - 6.0669	115,900 - 154,100	R67FBHS06	R67FBHS09	—	R67FBHS09LF
5.2717 - 6.7362	133,900 - 171,100	R85FBHS06	R85FBHS09	—	—
6.0591 - 7.5236	153,900 - 191,100	—	R125FBHS09	—	—

- 0,01mm (.0004") diameter adjustment.
- Boring bar not included.



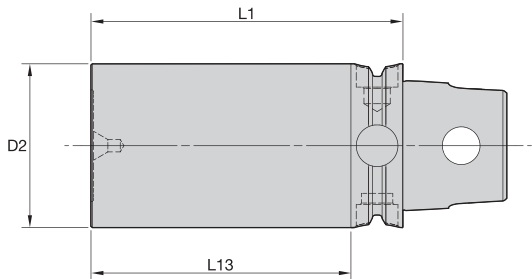
This tool is not KM50TS style according to ISO26622.



■ FBHO • KM™ Offset Boring Head

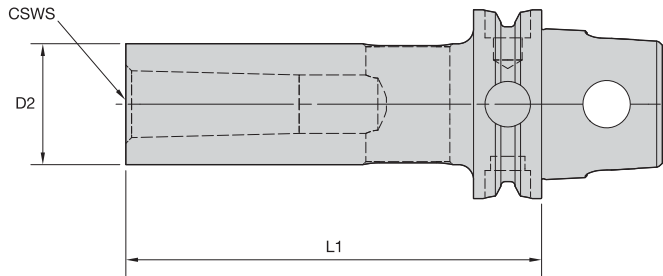


order number	catalog number	CSMS system size	D1		D2		L1		ModBORE FBHO parts package
			mm	in	mm	in	mm	in	
1132036	KM50FBHO1670	KM50	16	.63	55,0	2.17	70,0	2.76	PKG7001

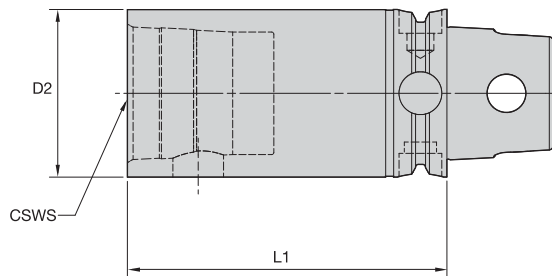


■ GB • Gage Bar

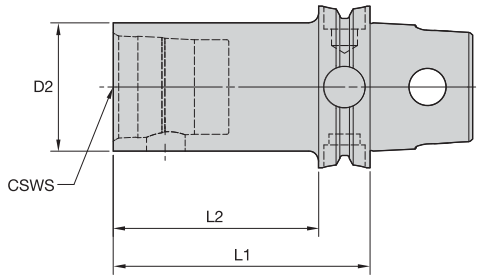
order number	catalog number	D2		L1		L13		kg	lbs
		mm	in	mm	in	mm	in		
3959978	KM50TSGB50100M	50	1.97	100	3.94	82	3.23	1,59	3.49


■ MT • Morse Taper Adapter

order number	catalog number	CSWS system size	D2		L1		kg	lbs
			mm	in	mm	in		
3862043	KM50TSMT1095M	1	25	.984	95	3.740	0,57	1.26
3862044	KM50TSMT2110M	2	32	1.260	110	4.331	0,77	1.70
3862045	KM50TSMT3130M	3	40	1.575	130	5.118	1,12	2.47
3862046	KM50TSMT4150M	4	48	1.890	150	5.906	1,54	3.40


■ S • KM Extension

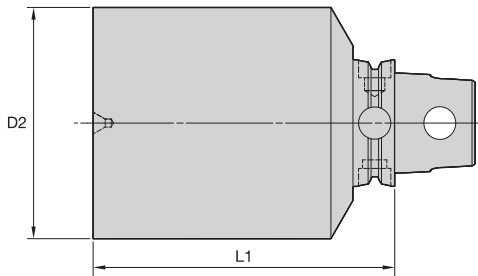

order number	catalog number	CSWS system size	D2		L1		wrench size actuation screw			spare parts package	kg	lbs
			mm	in	mm	in	Nm	ft. lbs.				
3862083	KM50TSS50070M	KM50	50	1.969	70	2.756	10mm	27-34	20-25	KM50PKG3S	0,92	2.03
3862084	KM50TSS50100M	KM50	50	1.969	100	3.937	10mm	27-34	20-25	KM50PKG3S	1,37	3.02



■ S • KM Reducer



order number	catalog number	CSWS system size	D2		L1		L2		wrench size actuation screw	Nm ft. lbs.		spare parts package	kg	lbs
			mm	in	mm	in	mm	in						
3862071	KM50TSS32070M	KM32	32	1.260	70	2.756	52	2.047	5mm	8-11	6-8	KM32PKG3S	0,61	1.34
3862072	KM50TSS40080M	KM40	40	1.575	80	3.150	62	2.441	6mm	12-16	9-12	KM40PKG3S	0,84	1.86



■ BN • Blank

order number	catalog number	D2		L1		hardness range	kg	lbs
		mm	in	mm	in			
3851267	KM50TSBN73135M	73	2.874	135	5.315	32-38 HRC	4,15	9.16
3851268	KM50TSBN75062M	75	2.953	62	2.441	32-38 HRC	1,84	4.06
3851266	KM50TSBN105062M	105	4.134	62	2.441	32-38 HRC	3,15	6.95



RomiconTM Boring System

Fast

Adjustments can be made in less than 5 seconds, while still holding 0,002mm (.0001") on the diameter!

Accurate

Each click of the dial is 0,001mm (.000040") on the radius and can be done in less than 5 seconds.

This high-performance boring system will give you:

- More uptime.
- Less scrap.
- Longer tool life.
- CPKs greater than 1.33.
- Less stress during adjustments.

NOTE: For Romicon boring systems, see the Kennametal Innovations Master Catalog Cutting Tools 2013.

Experience the advantages at your Authorized Kennametal Distributor or at www.kennametal.com.

www.kennametal.com

 **KENNAMETAL[®]**

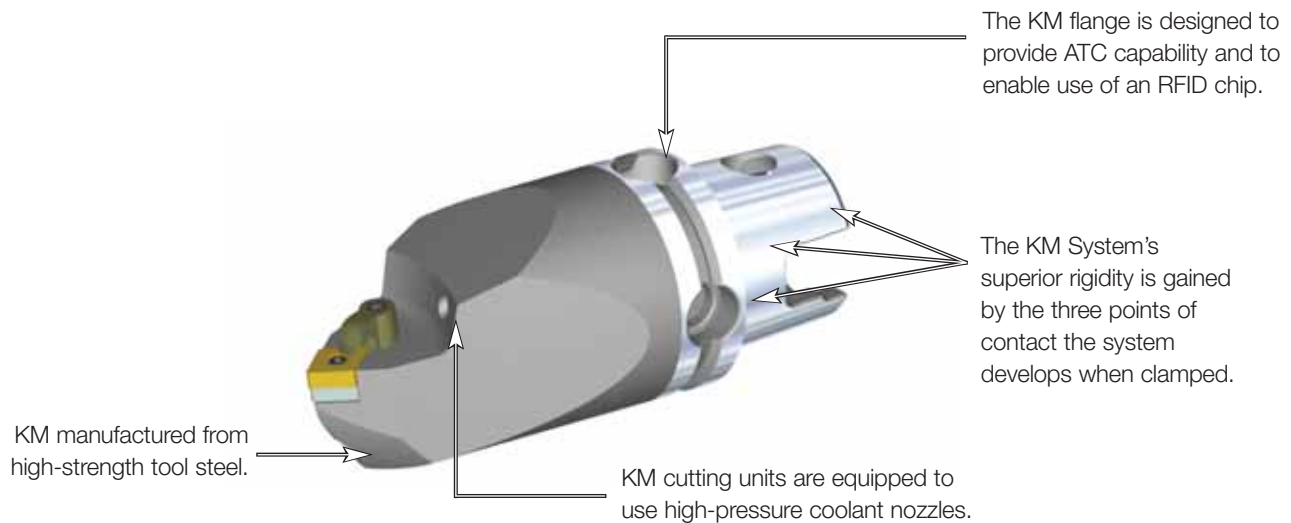
KM™ Quick Change Clamping System • KM63TS™ Series

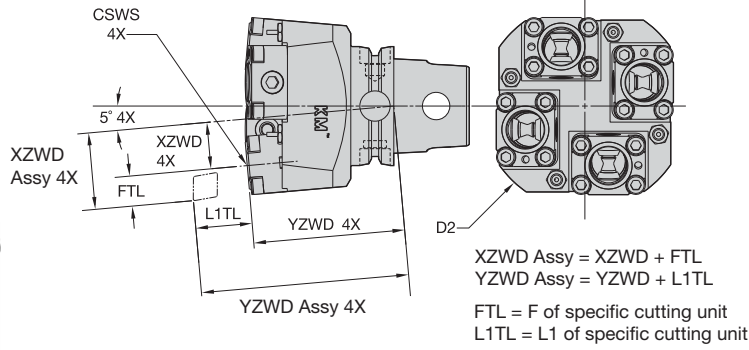
Primary Application

The KM Quick Change Clamping System is the best system on the market suitable for static, rotating, and multitasking operations. With its industry-leading design, the KM Quick Change System provides greater clamping forces than other quick-change systems. The KM Quick Change System gives you the flexibility to use KM on any application within your shop.

Features and Benefits

- KM is an ISO standard (ISO 26622).
- KM clamping units provide a 4:1 mechanical advantage.
- KM cutting units are capable of 100 bar (1,500 psi) coolant pressure.







Left-Hand Tool

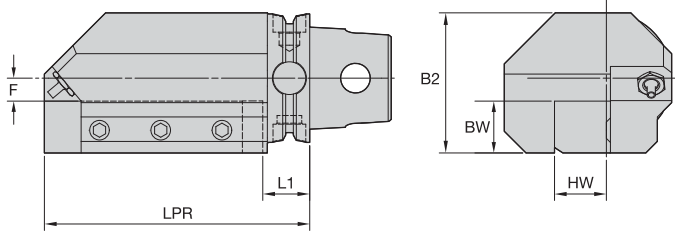
■ 4xSTAL • KM25

order number	catalog number	CSWS system size	XZWD		YZWD		Nm	kg	
			D2	mm	in	mm			in
2614688	left hand KM63TS4XSTALKM25	KM25	110	25	.9697	80	3.150	34	3,11

■ Spare Parts

catalog number	nozzle	flange clamping unit	KM spare parts package
left hand KM63TS4XSTALKM25	 PMT08420 COOLANT NOZZLE SPRAY	 KM25NCMSF3140MST	KM3225NRPKG

NOTE: For torque wrench, see pages L52–L53.



■ STAR/L • Metric

order number	catalog number	B2	BW	F	HW	L1	LPR	nozzle	kg
	right hand								
2255545	KM63TSSTAR2525M	68	25	11	25	25	130	PMT04526 COOLANT NOZZLE SPRAY	3,83
	left hand								
2255544	KM63TSSTAL2525M	68	25	11	25	25	130	PMT04526 COOLANT NOZZLE SPRAY	3,83

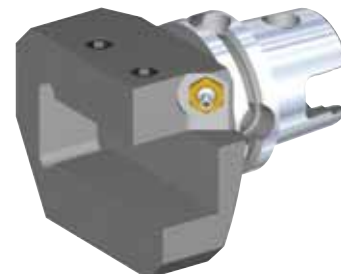
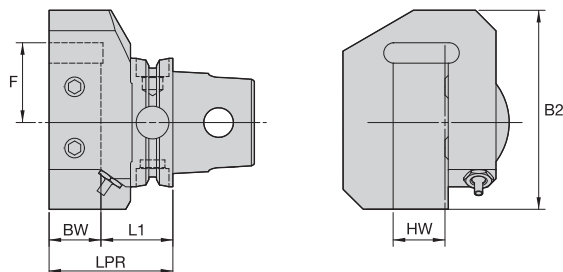


■ STAR/L • Inch

order number	catalog number	B2	BW	F	HW	L1	LPR	nozzle	lbs
	right hand								
2384740	KM63TSSTAR16	2.703	1.000	.443	1.000	.906	5.118	PMT04526 COOLANT NOZZLE SPRAY	8.46
	left hand								
2384741	KM63TSSTAL16	2.703	1.000	.443	1.000	.906	5.118	PMT04526 COOLANT NOZZLE SPRAY	8.46



KM63TS Adapters



■ ETAR/L • Metric

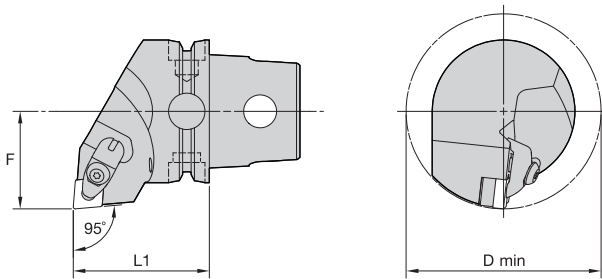


order number	catalog number	B2	BW	F	HW	L1	LPR	nozzle	kg
	right hand								
2255547	KM63TSETAR2525M	98	25	37,5	25	35	60	PMT04526 COOLANT NOZZLE SPRAY	2,06
	left hand								
2255546	KM63TSETAL2525M	98	25	37,5	25	35	60	PMT04526 COOLANT NOZZLE SPRAY	2,06

■ ETAR/L • Inch







order number	catalog number	B2	BW	F	HW	L1	LPR	nozzle	lbs
	right hand								
2384742	KM63TSETAR16	3.839	1.000	1.539	1.000	1.388	2.388	PMT08420 COOLANT NOZZLE SPRAY	4.58
	left hand								
2384743	KM63TSETAL16	3.839	1.000	1.539	1.000	1.388	2.388	PMT08420 COOLANT NOZZLE SPRAY	4.58

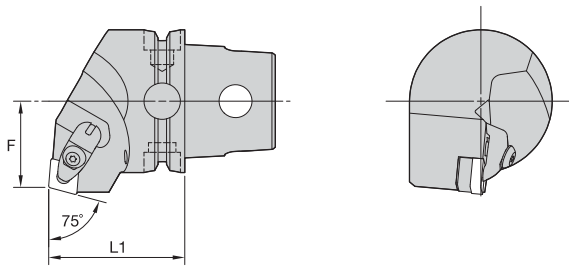


■ DCLN 95°

order number	catalog number	L1		F		D min		gage insert	kg
		mm	in	mm	in	mm	in		
		right hand							
2252467	KM63TSDCLNR12KC04	60	2.362	43	1.693	86	3.39	CN..120408/CN..432	1,21
2265432	KM63TSDCLNR16KC06	60	2.362	43	1.693	—	—	CN..160612/CN..543	1,19
		left hand							
2252465	KM63TSDCLNL12KC04	60	2.362	43	1.693	86	3.39	CN..120408/CN..432	1,20
2265433	KM63TSDCLNL16KC06	60	2.362	43	1.693	—	—	CN..160612/CN..543	1,19

■ Spare Parts

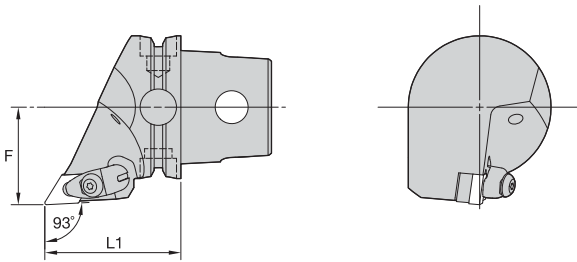
catalog number	 shim	 shim screw	 clamp assembly	 pin
	right hand			
KM63TSDCLNR12KC04	ICSN443	KMSP415IP	CM234R ASSY	SSP025016M
KM63TSDCLNR16KC06	ICSN543	KMSP515IP	CM209R ASSY	SSP025016M
	left hand			
KM63TSDCLNL12KC04	ICSN443	KMSP415IP	CM234R ASSY	SSP025016M
KM63TSDCLNL16KC06	ICSN543	KMSP515IP	CM209R ASSY	SSP025016M


■ DCRN 75°

order number	catalog number	L1		F		gage insert	kg
		mm	in	mm	in		
2265434	right hand	60	2.362	38	1.496	CN..120408/CN..432	1,26
	KM63TSDCRNR12KC04						
2265435	left hand	60	2.362	38	1.496	CN..120408/CN..432	1,25
	KM63TSDCRNL12KC04						

■ Spare Parts





catalog number	shim	shim screw	clamp assembly	pin
right hand KM63TSDCRNR12KC04	ICSN443	KMSP415IP	CM234R ASSY	SSP025016M
left hand KM63TSDCRNL12KC04	ICSN443	KMSP415IP	CM234R ASSY	SSP025016M

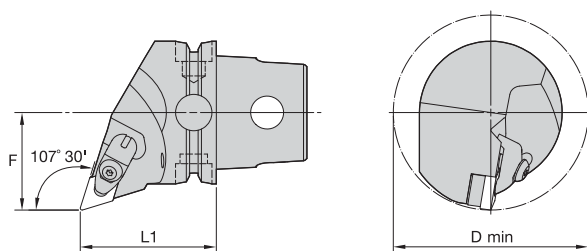


■ DDJN 93°

order number	catalog number	L1		F		gage insert	kg
		mm	in	mm	in		
	right hand						
2265438	KM63TSDDJNR15KC04	60	2.362	43	1.693	DN..150408/DN..432	1,03
2265436	KM63TSDDJNR15KC06	60	2.362	43	1.693	DN..150608/DN..442	1,03
	left hand						
2265439	KM63TSDDJNL15KC04	60	2.362	43	1.693	DN..150408/DN..432	1,03
2265437	KM63TSDDJNL15KC06	60	2.362	43	1.693	DN..150608/DN..442	1,03

■ Spare Parts

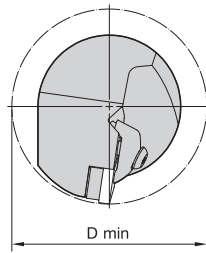
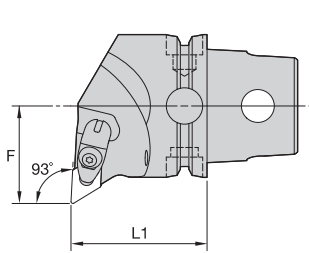
catalog number	 shim	 shim screw	 clamp assembly	 pin
right hand				
KM63TSDDJNR15KC04	IDSN443	KMSP415IP	CM234R ASSY	SSP025016M
KM63TSDDJNR15KC06	IDSN433	KMSP415IP	CM234R ASSY	SSP025016M
left hand				
KM63TSDDJNL15KC04	IDSN443	KMSP415IP	CM234R ASSY	SSP025016M
KM63TSDDJNL15KC06	IDSN433	KMSP415IP	CM234R ASSY	SSP025016M


■ DDQU 107° 30'

order number	catalog number	L1		F		D min		gage insert	kg
		mm	in	mm	in	mm	in		
	right hand								
2265440	KM63TSDDQNR15KC04	60	2.362	43	1.693	86	3.39	DN..150408/DN..432	1,11
2265442	KM63TSDDQNR15KC06	60	2.362	43	1.693	86	3.39	DN..150608/DN..442	1,11
	left hand								
2265441	KM63TSDDQNL15KC04	60	2.362	43	1.693	86	3.39	DN..150408/DN..432	1,11
2265443	KM63TSDDQNL15KC06	60	2.362	43	1.693	86	3.39	DN..150608/DN..442	1,11

■ Spare Parts






catalog number	shim	shim screw	clamp assembly	pin
right hand				
KM63TSDDQNR15KC04	IDSN443	KMSP415IP	CM234R ASSY	SSP025016M
KM63TSDDQNR15KC06	IDSN433	KMSP415IP	CM234R ASSY	SSP025016M
left hand				
KM63TSDDQNL15KC04	IDSN443	KMSP415IP	CM234R ASSY	SSP025016M
KM63TSDDQNL15KC06	IDSN433	KMSP415IP	CM234R ASSY	SSP025016M

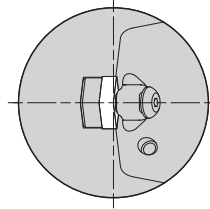
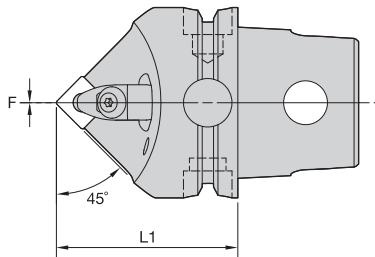


■ DDUN 93°

order number	catalog number	L1		F		D min		gage insert	kg
		mm	in	mm	in	mm	in		
	right hand								
2265444	KM63TSDDUNR15KC04	60	2.362	43	1.693	86	3.39	DN..150408/DN..432	1,25
2265446	KM63TSDDUNR15KC06	60	2.362	43	1.693	86	3.39	DN..150608/DN..442	1,27
	left hand								
2265445	KM63TSDDUNL15KC04	60	2.362	43	1.693	86	3.39	DN..150408/DN..432	1,25
2265447	KM63UTDDUNL15KC06	60	2.362	43	1.693	86	3.39	DN..150608/DN..442	1,27

■ Spare Parts

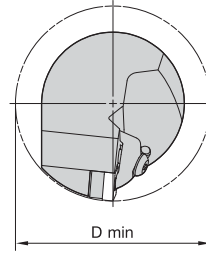
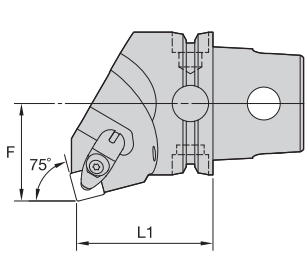
catalog number	 shim	 shim screw	 clamp assembly	 pin
right hand				
KM63TSDDUNR15KC04	IDSN443	KMSP415IP	CM234R ASSY	SSP025016M
KM63TSDDUNR15KC06	IDSN433	KMSP415IP	CM234R ASSY	SSP025016M
left hand				
KM63TSDDUNL15KC04	IDSN443	KMSP415IP	CM234R ASSY	SSP025016M
KM63UTDDUNL15KC06	IDSN433	KMSP415IP	CM234R ASSY	SSP025016M


■ DSDN 45°

order number	catalog number	L1		F		gage insert	kg
		mm	in	mm	in		
2265448	KM63TSDSDNN12KC04	60	2.362	0	.000	SN..120408/SN..432	1,05

■ Spare Parts





catalog number	shim	shim screw	clamp assembly	pin
KM63TSDSDNN12KC04	ISSN443	KMSP415IP	CM234R ASSY	SSP025016M

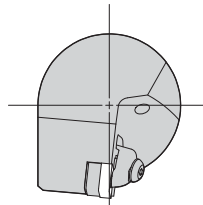
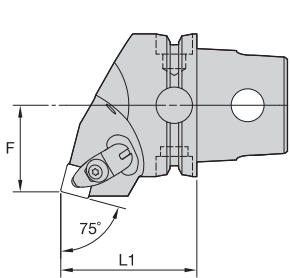


■ DSKN 75°

order number	catalog number	L1		F		D min		gage insert	kg
		mm	in	mm	in	mm	in		
	right hand								
2265449	KM63TSDSKNR12KC04	60	2.362	43	1.693	86	3.39	SN..120408/SN..432	1,3
	left hand								
2265450	KM63TSDSKNL12KC04	60	2.362	43	1.693	86	3.39	SN..120408/SN..432	1,3

■ Spare Parts

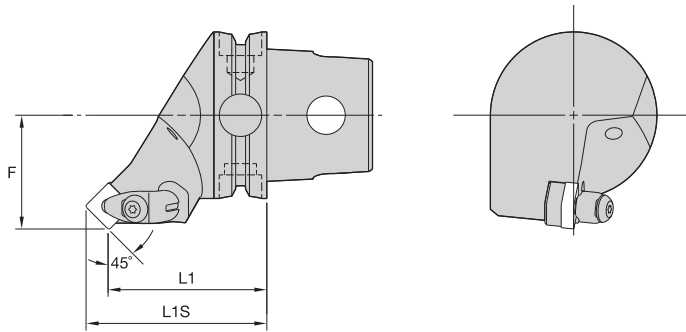
catalog number	 shim	 shim screw	 clamp assembly	 pin
right hand				
KM63TSDSKNR12KC04	ISSN443	KMSP415IP	CM234R ASSY	SSP025016M
left hand				
KM63TSDSKNL12KC04	ISSN443	KMSP415IP	CM234R ASSY	SSP025016M


■ DSRN 75°

order number	catalog number	L1		F		gage insert	kg
		mm	in	mm	in		
2265451	right hand	60	2.362	38	1.496	SN..120408/SN..432	1,21
	KM63TSDSRNR12KC04						
2265452	left hand	60	2.362	38	1.496	SN..120408/SN..432	1,21
	KM63TSDSRNL12KC04						

■ Spare Parts





catalog number				
	shim	shim screw	clamp assembly	pin
right hand KM63TSDSRNR12KC04	ISSN443	KMSP415IP	CM234R ASSY	SSP025016M
left hand KM63TSDSRNL12KC04	ISSN443	KMSP415IP	CM234R ASSY	SSP025016M

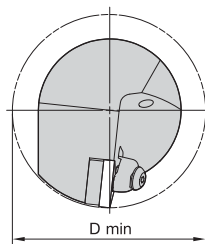
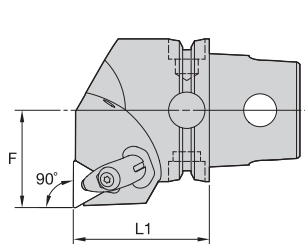


■ DSSN 45°

order number	catalog number	L1		L1S		F		gage insert	kg
		mm	in	mm	in	mm	in		
2265453	right hand	60	2.362	68,3	2.690	43	1.693	SN..120408/SN..432	1,15
	KM63TSDSSNR12KC04								
2265454	left hand	60	2.362	68,3	2.690	43	1.693	SN..120408/SN..432	1,15
	KM63TSDSSNL12KC04								

■ Spare Parts

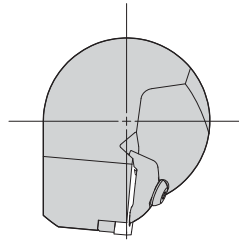
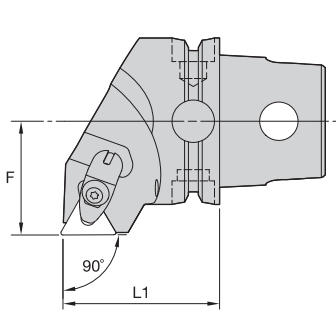
catalog number	 shim	 shim screw	 clamp assembly	 pin
right hand KM63TSDSSNR12KC04	ISSN443	KMSP415IP	CM234R ASSY	SSP025016M
left hand KM63TSDSSNL12KC04	ISSN443	KMSP415IP	CM234R ASSY	SSP025016M


■ DTFN 90°

order number	catalog number	L1		F		D min		gage insert	kg
		mm	in	mm	in	mm	in		
	right hand								
2265455	KM63TSDTFNR22KC04	60	2.362	43	1.693	86	3.39	TN..220408/TN..432	1,4
	left hand								
2265456	KM63TSDTFNL22KC04	60	2.362	43	1.693	86	3.39	TN..220408/TN..432	1,4

■ Spare Parts





catalog number	shim	shim screw	clamp assembly	pin
right hand				
KM63TSDTFNR22KC04	ITSN443	KMSP415IP	CM234R ASSY	SSP025016M
left hand				
KM63TSDTFNL22KC04	ITSN443	KMSP415IP	CM234R ASSY	SSP025016M

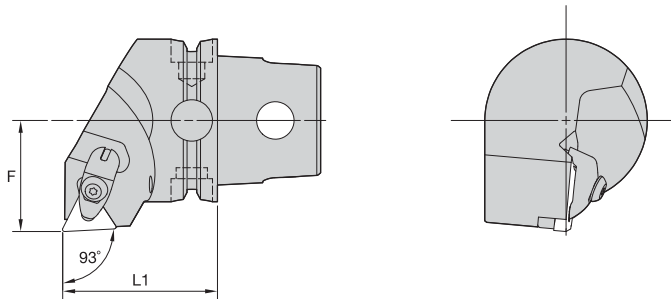


■ DTGN 90°

order number	catalog number	L1		F		gage insert	kg
		mm	in	mm	in		
2265457	right hand	60	2.362	43	1.693	TN..220408/TN..432	1,23
	KM63TSDTGNR22KC04						
2265458	left hand	60	2.362	43	1.693	TN..220408/TN..432	1,23
	KM63TSDTGNL22KC04						

■ Spare Parts

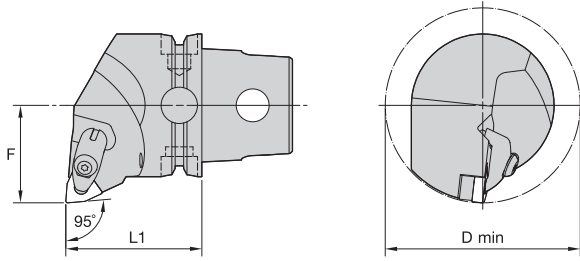
catalog number	 shim	 shim screw	 clamp assembly	 pin
right hand KM63TSDTGNR22KC04	ITSN443	KMSP415IP	CM234R ASSY	SSP025016M
left hand KM63TSDTGNL22KC04	ITSN443	KMSP415IP	CM234R ASSY	SSP025016M


KM63TS Cutting Units

■ DTJN 93°

order number	catalog number	L1		F		gage insert	kg
		mm	in	mm	in		
2265459	right hand KM63TSDTJNR22KC04	60	2.362	43	1.693	TN..220408/TN..432	1,26
2265460	left hand KM63TSDTJNL22KC04	60	2.362	43	1.693	TN..220408/TN..432	1,26

■ Spare Parts

catalog number	shim	shim screw	clamp assembly	pin
right hand KM63TSDTJNR22KC04	ITSN443	KMSP415IP	CM234R ASSY	SSP025016M
left hand KM63TSDTJNL22KC04	ITSN443	KMSP415IP	CM234R ASSY	SSP025016M

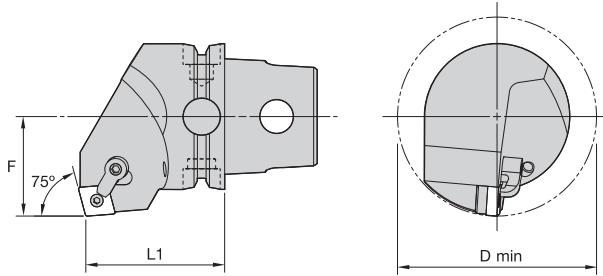


■ DWLN 95°

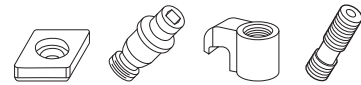
order number	catalog number	L1		F		D min		gage insert	kg
		mm	in	mm	in	mm	in		
2265461	right hand	60	2.362	43	1.693	86	3.39	WN..080408/WN..432	1,27
	KM63TSDWLN R08KC04								
2265462	left hand	60	2.362	43	1.693	86	3.39	WN..080408/WN..432	1,27
	KM63TSDWLN L08KC04								

■ Spare Parts

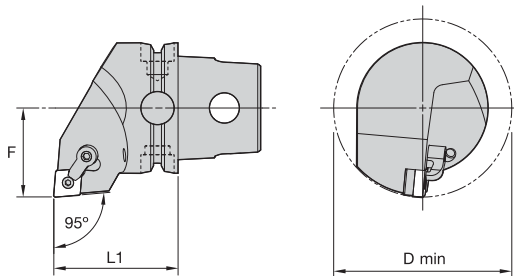
catalog number	shim	shim screw	clamp assembly	pin
right hand KM63TSDWLN R08KC04	IWSN443	KMSP415IP	CM234R ASSY	SSP025016M
left hand KM63TSDWLN L08KC04	IWSN443	KMSP415IP	CM234R ASSY	SSP025016M



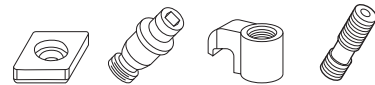
■ MCKN 75°



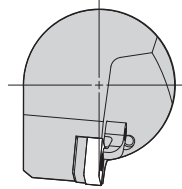
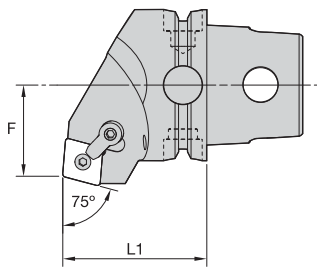
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
right hand														
2265024	KM63TSMCKNR12	60	2.362	43	1.693	86	3.386	CN..120408/CN..432	ICSN432	KLM46	CKM20	STCM11	1,28	2.83
2265026	KM63TSMCKNR16	60	2.362	43	1.693	86	3.386	CN..160612/CN..543	ICSN533	KLM58	CKM20	STCM11	1,34	2.95
2265028	KM63TSMCKNR19	60	2.362	43	1.693	86	3.386	CN..190612/CN..643	ICSN633	KLM68	CKM13	STCM8	1,34	2.95
left hand														
2265025	KM63TSMCKNL12	60	2.362	43	1.693	86	3.386	CN..120408/CN..432	ICSN432	KLM46	CKM20	STCM11	1,28	2.83
2265027	KM63TSMCKNL16	60	2.362	43	1.693	86	3.386	CN..160612/CN..543	ICSN533	KLM58	CKM20	STCM11	1,34	2.95
2265029	KM63TSMCKNL19	60	2.362	43	1.693	86	3.386	CN..190612/CN..643	ICSN633	KLM68	CKM13	STCM8	1,34	2.95



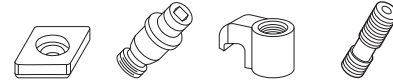
■ MCLN 95°



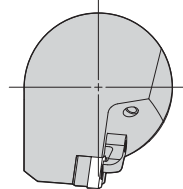
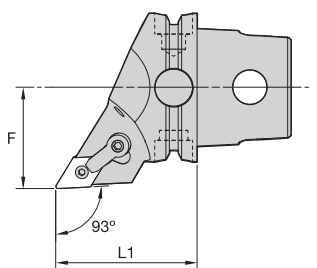
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
right hand														
2265030	KM63TSMCLNR12	60	2.362	43	1.693	86	3.386	CN..120408/CN..432	ICSN432	KLM46	CKM20	STCM11	1,19	2.62
2265032	KM63TSMCLNR16	60	2.362	43	1.693	86	3.386	CN..160612/CN..543	ICSN533	KLM58	CKM20	STCM11	1,19	2.62
2265274	KM63TSMCLNR19	60	2.362	43	1.693	86	3.386	CN..190612/CN..643	ICSN633	KLM68	CKM13	STCM8	1,18	2.61
left hand														
2265031	KM63TSMCLNL12	60	2.362	43	1.693	86	3.386	CN..120408/CN..432	ICSN432	KLM46	CKM20	STCM11	1,19	2.62
2265273	KM63TSMCLNL16	60	2.362	43	1.693	86	3.386	CN..160612/CN..543	ICSN533	KLM58	CKM20	STCM11	1,19	2.62
2265275	KM63TSMCLNL19	60	2.362	43	1.693	86	3.386	CN..190612/CN..643	ICSN633	KLM68	CKM13	STCM8	1,18	2.61



■ MCRN 75°



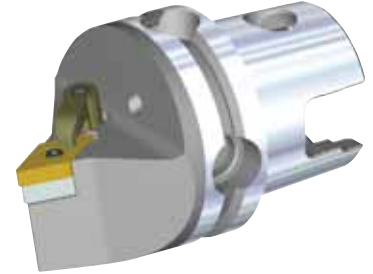
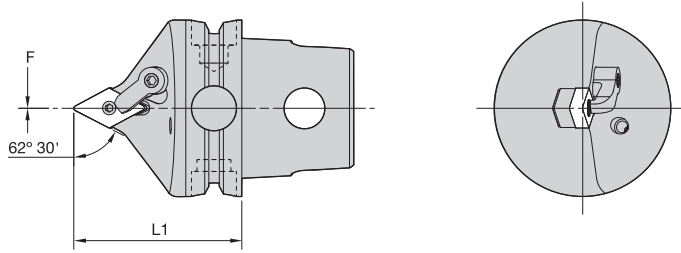
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		right hand										
2265276	KM63TSMCRNR16	60	2.362	38	1.496	CN..160612/CN..543	ICSN533	KLM58	CKM20	STCM11	1,19	2.63
2265278	KM63TSMCRNR19	60	2.362	38	1.496	CN..190612/CN..643	ICSN633	KLM68	CKM13	STCM8	1,19	2.62
		left hand										
2265277	KM63TSMCRNL16	60	2.362	38	1.496	CN..160612/CN..543	ICSN533	KLM58	CKM20	STCM11	1,19	2.63
2265279	KM63TSMCRNL19	60	2.362	38	1.496	CN..190612/CN..643	ICSN633	KLM68	CKM13	STCM8	1,19	2.62



■ MDJN 93°



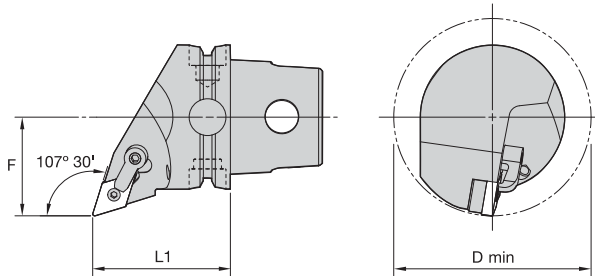
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
		right hand										
2397712	KM63TSMDJNR1504	60	2.362	43	1.693	DN..150408/DN..432	IDSN442	KLM46L	CKM23	STCM11	1,00	2.200
2265280	KM63TSMDJNR1506	60	2.362	43	1.693	DN..150608/DN..442	IDSN432	KLM46L	CKM23	STCM11	0,99	2.190
		left hand										
2397713	KM63TSMDJNL1504	60	2.362	43	1.693	DN..150408/DN..432	IDSN442	KLM46L	CKM23	STCM11	1,00	2.200
2265281	KM63TSMDJNL1506	60	2.362	43	1.693	DN..150608/DN..442	IDSN432	KLM46L	CKM23	STCM11	0,99	2.190



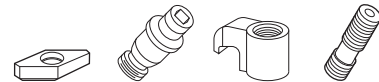
■ MDPN 62° 30'



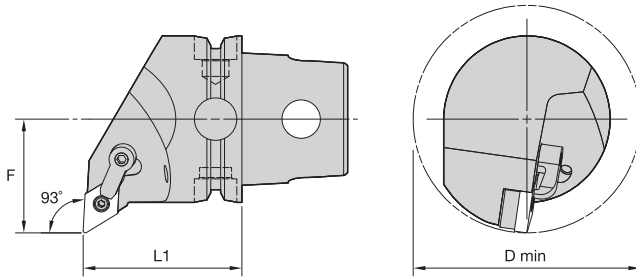
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		mm	in	mm	in							
2397714	KM63TSM DPNN1504	60	2.362	0	.000	DN..150408/DN..432	IDSN442	KLM46L	CKM23	STCM11	0,92	2.02
2265282	KM63TSM DPNN1506	60	2.362	0	.000	DN..150608/DN..442	IDSN432	KLM46L	CKM23	STCM11	0,92	2.01



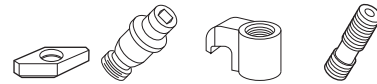
■ MDQN 107° 30'



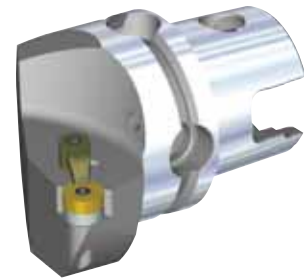
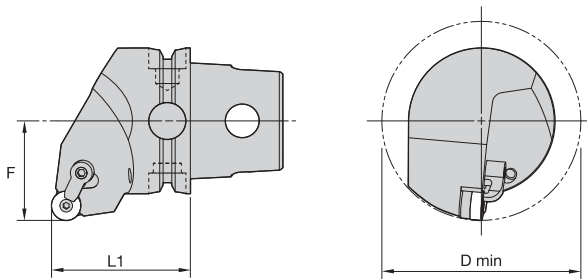
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
right hand														
2397715	KM63TSM DQNR1504	60	2.362	43	1.693	86	3.386	DN..150408/DN..432	IDSN442	KLM46L	CKM23	STCM11	1,07	2.36
2265283	KM63TSM DQNR1506	60	2.362	43	1.693	86	3.386	DN..150608/DN..442	IDSN432	KLM46L	CKM23	STCM11	1,07	2.35
left hand														
2397716	KM63TSM DQNL1504	60	2.362	43	1.693	86	3.386	DN..150408/DN..432	IDSN442	KLM46	CKM23	STCM11	1,07	2.36
2265284	KM63TSM DQNL1506	60	2.362	43	1.693	86	3.386	DN..150608/DN..442	IDSN432	KLM46L	CKM23	STCM11	1,07	2.35



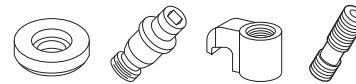
■ MDUN 93°



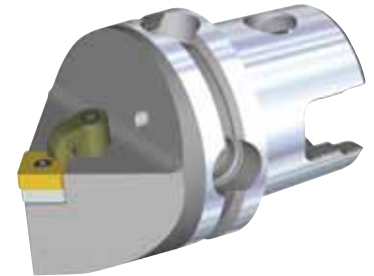
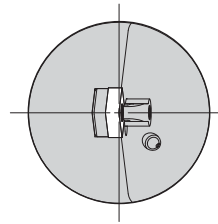
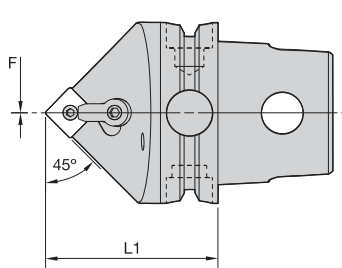
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
right hand														
2397717	KM63TSMUNR1504	60	2.362	43	1.693	86	3.386	DN..150408/DN..432	IDSN442	KLM46L	CKM23	STCM11	1,17	2.58
2265285	KM63TSMUNR1506	60	2.362	43	1.693	86	3.386	DN..150608/DN..442	IDSN432	KLM46L	CKM23	STCM11	1,17	2.58
left hand														
2397718	KM63TSMUNL1504	60	2.362	43	1.693	86	3.386	DN..150408/DN..432	IDSN442	KLM46L	CKM23	STCM11	1,17	2.58
2265286	KM63TSMUNL1506	60	2.362	43	1.693	86	3.386	DN..150608/DN..442	IDSN432	KLM46L	CKM23	STCM11	1,17	2.57



■ MRGN 0°



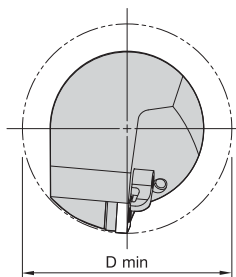
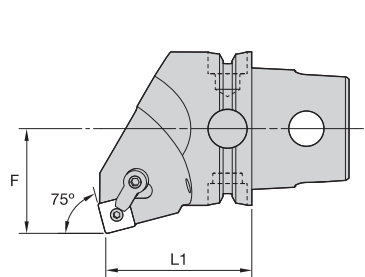
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
right hand														
2265287	KM63TSMRGNR12	60	2.362	43	1.693	100	3.937	RN..120400/RN..43	IRSN43	KLM46	CKM20	STCM11	1,21	2.66
left hand														
2265288	KM63TSMRGNL12	60	2.362	43	1.693	100	3.937	RN..120400/RN..43	IRSN43	KLM46	CKM20	STCM11	1,21	2.66



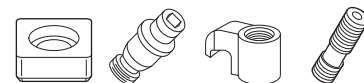
■ MSDN 45°



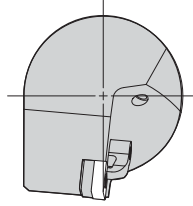
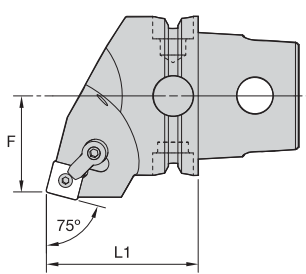
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
2265289	KM63TSMDSNN12	60	2.362	0	.000	SN..120408/SN..432	ISSN432	KLM46	CKM20	STCM11	0,99	2.18
2265290	KM63TSMDSNN15	60	2.362	0	.000	SN..150612/SN..543	ISSN533	KLM58	CKM20	STCM11	0,99	2.18
2265291	KM63TSMDSNN19	60	2.362	0	.000	SN..190612/SN..643	ISSN633	KLM68	CKM13	STCM8	0,97	2.14



■ MSKN 75°



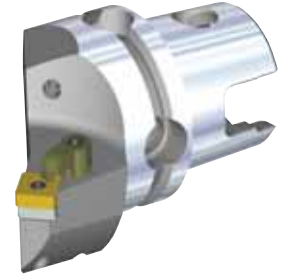
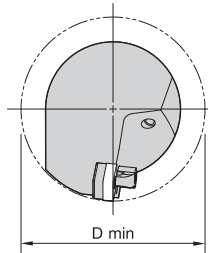
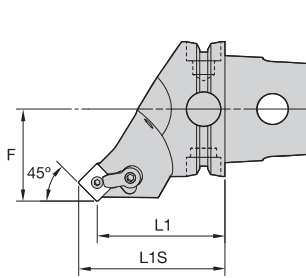
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
2265292	KM63TSMKSNR12	60	2.362	43	1.693	86	3.386	SN..120408/SN..432	ISSN432	KLM46	CKM20	STCM11	1,27	2.81
2265294	KM63TSMKSNR19	60	2.362	43	1.693	86	3.386	SN..190612/SN..643	ISSN633	KLM68	CKM13	STCM8	1,35	2.97
2265293	KM63TSMKSNL12	60	2.362	43	1.693	86	3.386	SN..120408/SN..432	ISSN432	KLM46	CKM20	STCM11	1,27	2.81
2265295	KM63TSMKSNL19	60	2.362	43	1.693	86	3.386	SN..190612/SN..643	ISSN633	KLM68	CKM13	STCM8	1,35	2.97



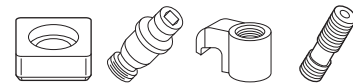
■ MSRN 75°



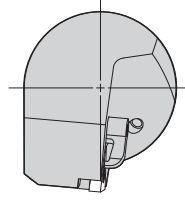
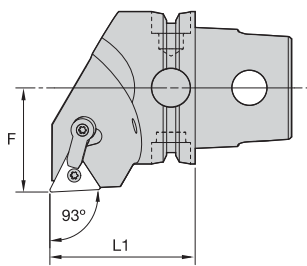
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		mm	in	mm	in							
right hand												
2265296	KM63TSMRNR12	60	2.362	38	1.496	SN..120408/SN..432	ISSN432	KLM46	CKM20	STCM11	1,18	2.61
2265298	KM63TSMRNR19	60	2.362	38	1.496	SN..190612/SN..643	ISSN633	KLM68	CKM13	STCM8	1,15	2.53
left hand												
2265297	KM63TSMRNL12	60	2.362	38	1.496	SN..120408/SN..432	ISSN432	KLM46	CKM20	STCM11	1,19	2.61
2265299	KM63TSMRNL19	60	2.362	38	1.496	SN..190612/SN..643	ISSN633	KLM68	CKM13	STCM8	1,15	2.53



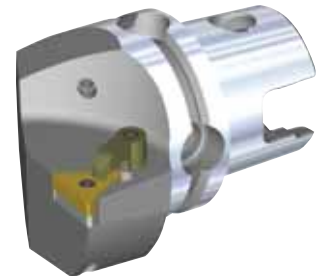
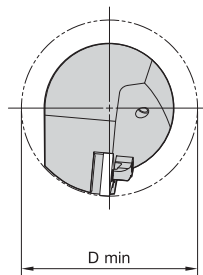
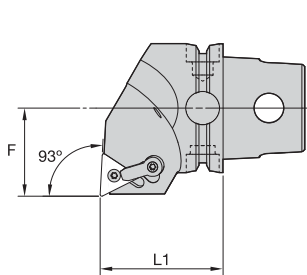
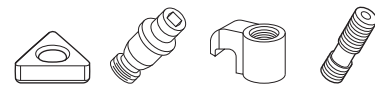
■ MSSN 45°



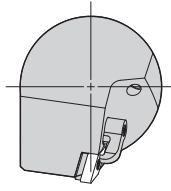
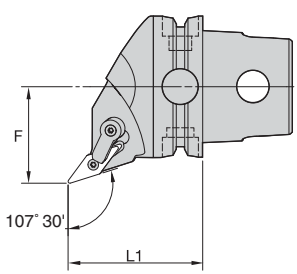
order number	catalog number	L1		L1S		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in	mm	in							
right hand																
2265300	KM63TSMSSNR12	60	2.362	68,3	2.690	43	1.693	86	3.386	SN..120408/SN..432	ISSN432	KLM46	CKM20	STCM11	1,11	2.45
2265302	KM63TSMSSNR15	60	2.362	70,2	2.765	43	1.693	100	3.937	SN..150612/SN..543	ISSN533	KLM58	CKM20	STCM11	1,10	2.42
2265304	KM63TSMSSNR19	60	2.362	72,5	2.854	43	1.693	100	3.937	SN..190612/SN..643	ISSN633	KLM68	CKM13	STCM8	1,14	2.51
left hand																
2265301	KM63TSMSSNL12	60	2.362	68,3	2.690	43	1.693	86	3.386	SN..120408/SN..432	ISSN432	KLM46	CKM20	STCM11	1,11	2.45
2265303	KM63TSMSSNL15	60	2.362	70,2	2.765	43	1.693	100	3.937	SN..150612/SN..543	ISSN533	KLM58	CKM20	STCM11	1,10	2.42
2265305	KM63TSMSSNL19	60	2.362	72,5	2.854	43	1.693	100	3.937	SN..190612/SN..643	ISSN633	KLM68	CKM13	STCM8	1,15	2.53


■ MTJN 93°

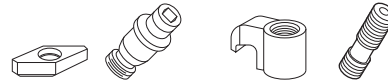

order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
	right hand											
2265306	KM63TSMTJNR22	60	2.362	43	1.693	TN..220408/TN..432	ITSN433	KLM46	CKM23	STCM11	1,23	2.72
	left hand											
2265307	KM63TSMTJNL22	60	2.362	43	1.693	TN..220408/TN..432	ITSN433	KLM46	CKM23	STCM11	1,23	2.72


■ MTUN 93°


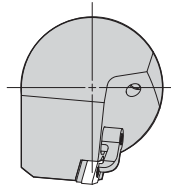
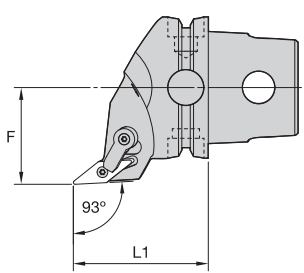
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
	right hand													
2265308	KM63TSMTUNR22	60	2.362	43	1.693	86	3.386	TN..220408/TN..432	ITSN433	KLM46	CKM23	STCM11	1,27	2.79
	left hand													
2265309	KM63TSMTUNL22	60	2.362	43	1.693	86	3.386	TN..220408/TN..432	ITSN433	KLM46	CKM23	STCM11	1,27	2.79



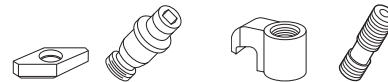
■ MVHN 107° 30'



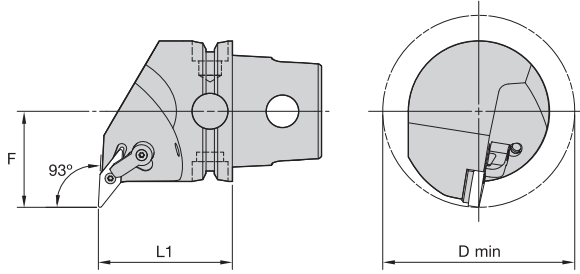
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
2265310	right hand KM63TSMVHNR16	60	2.362	43	1.693	VN..160408/VN..332	IVSN322	KLM34L	CKM23	STCM11	1,07	2.36
2265311	left hand KM63TSMVHNL16	60	2.362	43	1.693	VN..160408/VN..332	IVSN322	KLM34L	CKM23	STCM11	1,07	2.36



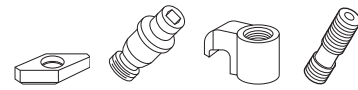
■ MVJN 93°



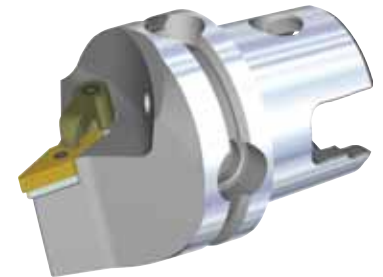
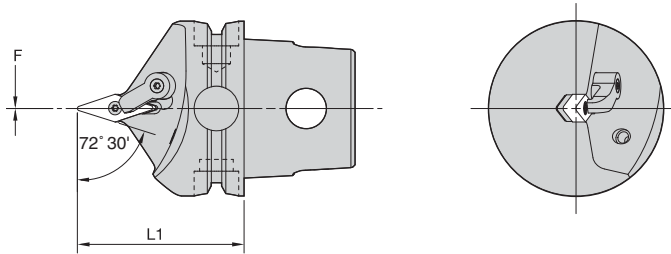
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
2265312	right hand KM63TSMVJNR16	60	2.362	43	1.693	VN..160408/VN..332	IVSN322	KLM34L	CKM23	STCM11	1,00	2.21
2265313	left hand KM63TSMVJNL16	60	2.362	43	1.693	VN..160408/VN..332	IVSN322	KLM34L	CKM23	STCM11	1,00	2.21



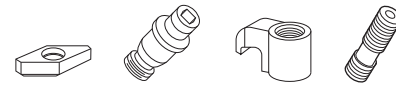
■ MVUN 93°



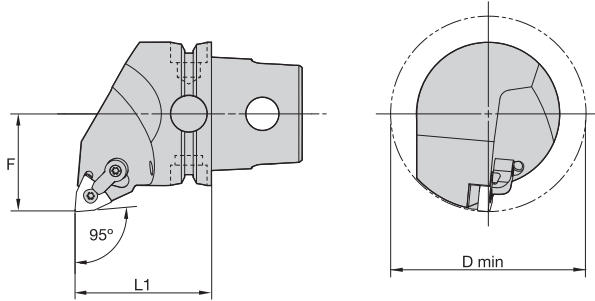
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs	
		mm	in	mm	in	mm	in								
		right hand													
2265314	KM63TSMVUNR16	60	2.362	43	1.693	86	3.386	VN..160408/VN..332	IVSN322	KLM34L	CKM23	STCM11	1,17	2.58	
		left hand													
2265315	KM63TSMVUNL16	60	2.362	43	1.693	86	3.386	VN..160408/VN..332	IVSN322	KLM34L	CKM23	STCM11	1,17	2.59	



■ MVVN 72° 30'



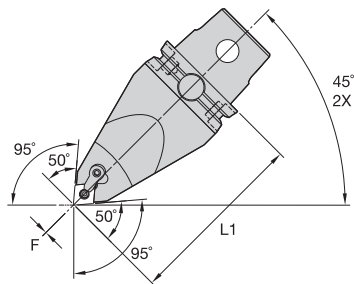
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
2265316	KM63TSMVVNN16	60	2.362	0	.000	VN..160408/VN..332	IVSN322	KLM34L	CKM23	STCM11	0,86	1.90



■ MCLN 95°



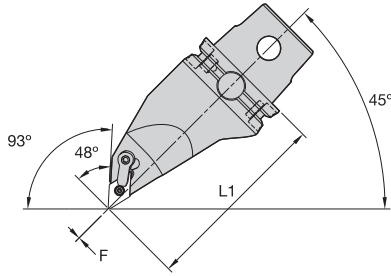
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
2265317	KM63TSMWLN08	60	2.362	43	1.693	86	3.386	WN..080408/WN..432	IWSN433	KLM46	CKM20	STCM11	1,20	2.65
	right hand													
2265318	KM63TSMWLN08	60	2.362	43	1.693	86	3.386	WN..080408/WN..432	IWSN433	KLM46	CKM20	STCM11	1,20	2.65
	left hand													



■ MCMN 50° • 95° Application • Centerline

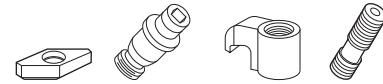


order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
3487474	KM63TSMCMNN12115	115	4.528	0	.000	CN..120408/CN..432	ICSN432	KLM46	CKM20	STCM11	2,01	4.42

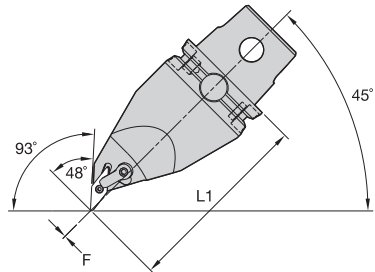


Left-Hand Tool

■ MDMN 48° • 93° Application • Centerline

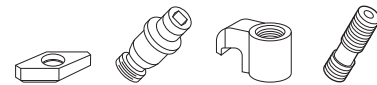


order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
		right hand										
3487478	KM63TSM DMNR1504115	115	4.528	0	.000	DN..150408/DN..432	IDSN442	KLM46L	CKM23	STCM11	1,84	4.05
3487479	KM63TSM DMNR1506115	115	4.528	0	.000	DN..150608/DN..442	IDSN442	KLM46L	CKM23	STCM11	1,83	4.04
		left hand										
3487475	KM63TSM DMNML1504115	115	4.528	0	.000	DN..150408/DN..432	IDSN442	KLM46L	CKM23	STCM11	1,84	4.05
3487476	KM63TSM DMNML1506115	115	4.528	0	.000	DN..150608/DN..442	IDSN442	KLM46L	CKM23	STCM11	1,83	4.04

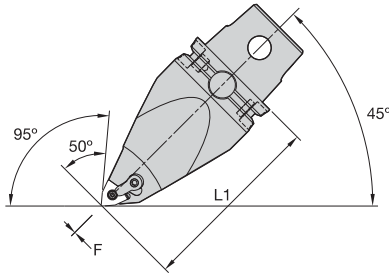


Left-Hand Tool

■ MVMN 48° • 93° Application • Centerline

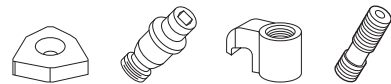


order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
		right hand										
3487480	KM63TSM VMNR16115	115	4.528	0	.000	VN..160408/VN..332	IVSN322	KLM34L	CKM23	STCM11	1,93	4.26
		left hand										
3487477	KM63TSM VMNML16115	115	4.528	0	.000	VN..160408/VN..332	IVSN322	KLM34L	CKM23	STCM11	1,93	4.26

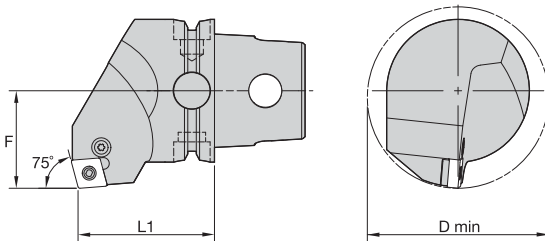


Left-Hand Tool

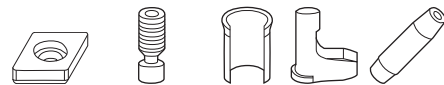
■ MWMN 50° • 95° Application • Centerline



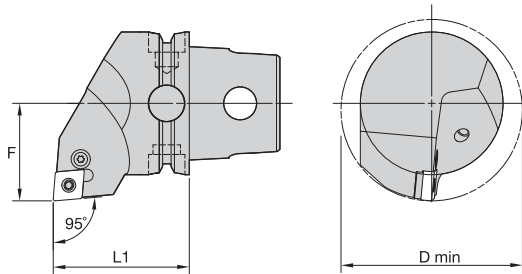
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
	right hand											
3487604	KM63TSMWMNR08115	115	4.528	0	.000	WN..080408/WN..432	IWSN433	KLM46	CKM20	STCM11	1,98	4.37
	left hand											
3487603	KM63TSMWMNL08115	115	4.528	0	.000	WN..080408/WN..432	IWSN433	KLM46	CKM20	STCM11	1,98	4.37



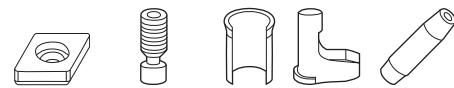
■ PCKN 75°



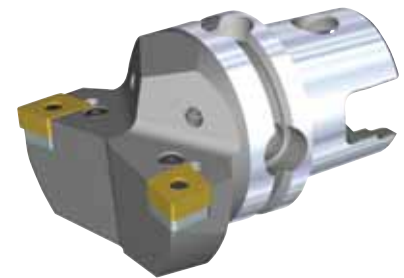
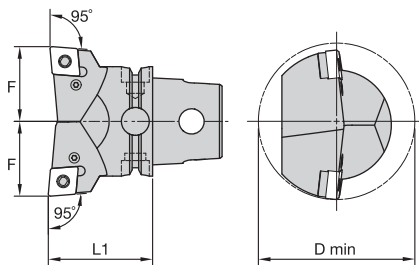
order number	catalog number	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in	mm	in								
	right hand														
2407450	KM63TSPCKNR12	60	2.362	43	1.693	80	3.150	CN..120408/CN..432	512.112	514.123	513.023	511.023	515.018	1,29	2.84
2407452	KM63TSPCKNR16	60	2.362	43	1.693	80	3.150	CN..160612/CN..543	512.117	514.125	513.025	511.025	515.022	1,32	2.91
2407954	KM63TSPCKNR19	60	2.362	43	1.693	80	3.150	CN..190612/CN..643	512.123	514.133	513.033	511.023	515.022	1,34	2.95
	left hand														
2407451	KM63TSPCKNL12	60	2.362	43	1.693	80	3.150	CN..120408/CN..432	512.112	514.123	513.023	511.023	515.018	1,29	2.84
2407953	KM63TSPCKNL16	60	2.362	43	1.693	80	3.150	CN..160612/CN..543	512.117	514.125	513.025	511.025	515.022	1,32	2.91
2407955	KM63TSPCKNL19	60	2.362	43	1.693	80	3.150	CN..190612/CN..643	512.123	514.133	513.033	511.033	515.022	1,34	2.95



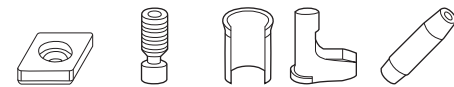
■ PCLN 95°



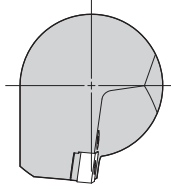
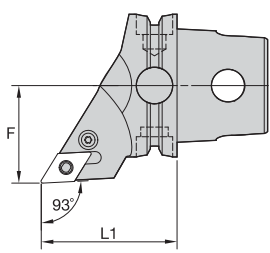
order number	catalog number	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in	mm	in								
right hand															
2257149	KM63TSPCLNR12	60	2.362	43	1.693	80	3.150	CN..120408/CN..432	512.112	514.123	513.023	511.023	515.018	1,21	2.66
2407957	KM63TSPCLNR16	60	2.362	43	1.693	80	3.150	CN..160612/CN..543	512.117	514.125	513.025	511.025	515.022	1,23	2.71
2407959	KM63TSPCLNR19	60	2.362	43	1.693	80	3.150	CN..190612/CN..643	512.123	514.133	513.033	511.033	515.022	1,23	2.71
left hand															
2407956	KM63TSPCLNL12	60	2.362	43	1.693	80	3.150	CN..120408/CN..432	512.112	514.123	513.023	511.023	515.018	1,21	2.66
2407958	KM63TSPCLNL16	60	2.362	43	1.693	80	3.150	CN..160612/CN..543	512.117	514.125	513.025	511.025	515.022	1,23	2.71
2407960	KM63TSPCLNL19	60	2.362	43	1.693	80	3.150	CN..190612/CN..643	512.123	514.133	513.033	511.033	515.022	1,23	2.71



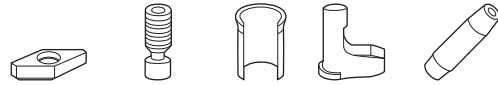
■ PCLN-2W 95°



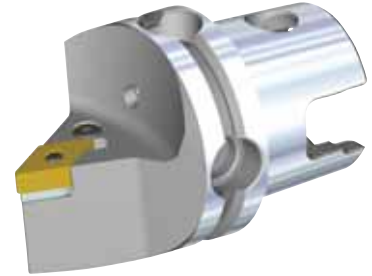
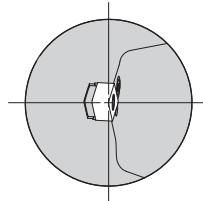
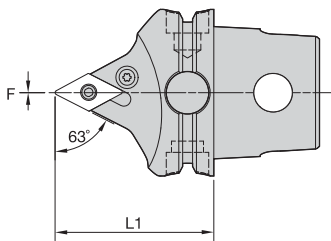
order number	catalog number	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in	mm	in								
right hand															
2408003	KM63TSPCLNR162W	60	2.362	43	1.693	90	3.543	CN..160612/CN..543	512.117	514.125	513.025	511.025	515.022	1,35	2.97
left hand															
2408004	KM63TSPCLNL162W	60	2.362	43	1.693	90	3.543	CN..160612/CN..543	512.117	514.125	513.025	511.025	515.022	1,35	2.98



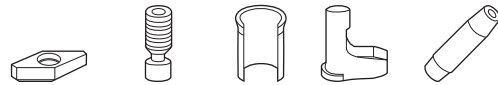
■ PDJN 93°



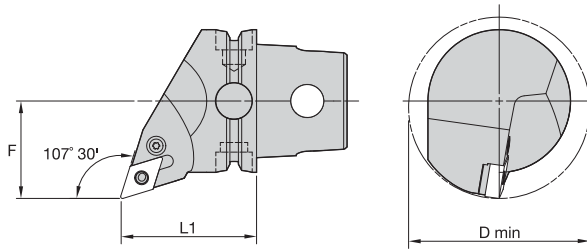
order number	catalog number	L1		F		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in								
right hand													
2407969	KM63TSPDJNR11	60	2.362	43	1.693	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018	0,95	2.10
2407971	KM63TSPDJNR15	60	2.362	43	1.693	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	0,94	2.08
left hand													
2407970	KM63TSPDJNL11	60	2.362	43	1.693	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018	0,97	2.14
2407972	KM63TSPDJNL15	60	2.362	43	1.693	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	0,94	2.08



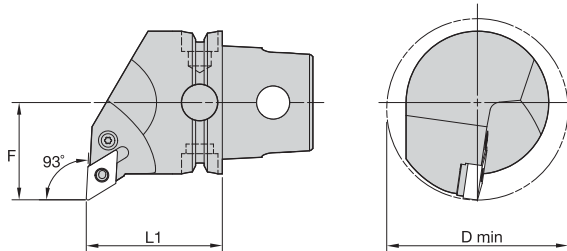
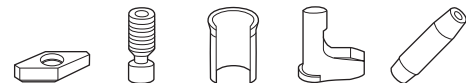
■ PDNN 63°



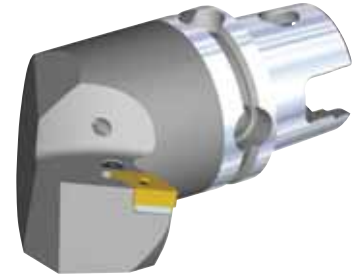
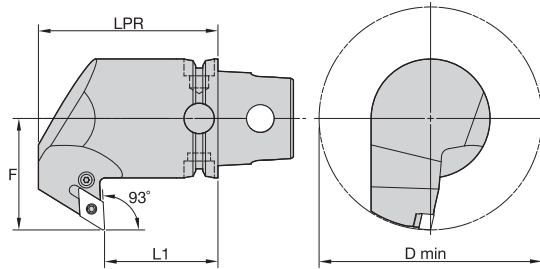
order number	catalog number	L1		F		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in								
right hand													
2407973	KM63TSPDNNR11	60	2.362	0	.000	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018	0,91	2.01
2407975	KM63TSPDNNR15	60	2.362	0	.000	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	0,84	1.86
left hand													
2407974	KM63TSPDNNL11	60	2.362	0	.000	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018	0,91	2.01
2407976	KM63TSPDNNL15	60	2.362	0	.000	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	0,85	1.86


■ PDQN 107° 30'

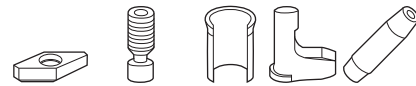

order number	catalog number	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in	mm	in								
right hand															
2407977	KM63TSPDQNR11	60	2.362	43	1.693	80	3.150	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018	1,11	2.45
2407979	KM63TSPDQNR15	60	2.362	43	1.693	80	3.150	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	1,08	2.38
left hand															
2407978	KM63TSPDQNL11	60	2.362	43	1.693	80	3.150	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018	1,11	2.45
2407980	KM63TSPDQNL15	60	2.362	43	1.693	80	3.150	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	1,08	2.38


■ PDUN 93°


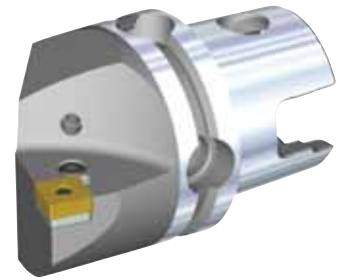
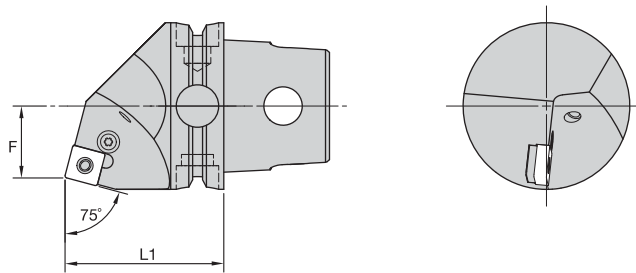
order number	catalog number	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in	mm	in								
right hand															
2407981	KM63TSPDUNR11	60	2.362	43	1.693	80	3.150	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018	1,19	2.62
2407983	KM63TSPDUNR15	60	2.362	43	1.693	80	3.150	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	1,23	2.71
left hand															
2407982	KM63TSPDUNL11	60	2.362	43	1.693	80	3.150	DN..110408/DN..332	512.060	514.118	513.060	511.060	515.018	1,19	2.63
2407984	KM63TSPDUNL15	60	2.362	43	1.693	80	3.150	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	1,23	2.71



■ PDXN 93°



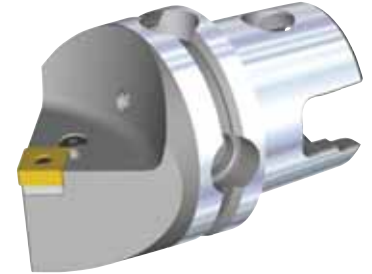
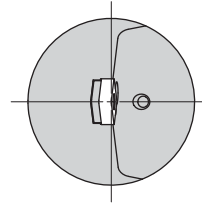
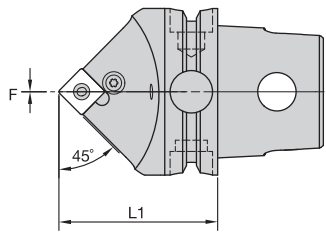
order number	catalog number	L1		LPR		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in	mm	in	mm	in								
right hand																	
2407992	KM63TSPDXNR15	60	2.362	95	3.740	59	2.323	118	4.646	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	2,21	4.85
left hand																	
2407993	KM63TSPDXNL15	60	2.362	95	3.740	59	2.323	118	4.646	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	2,21	4.85



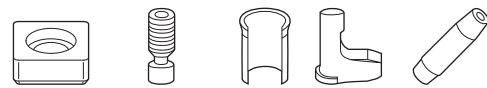
■ PSBN 75°



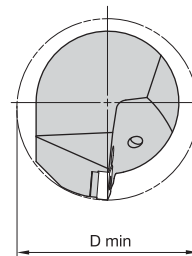
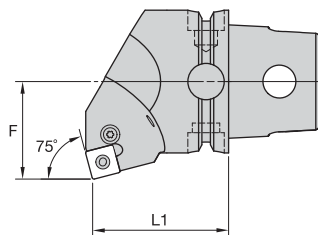
order number	catalog number	L1		F		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in								
right hand													
2407994	KM63TSPSBNR12	60	2.362	27	1.063	SN..120408/SN..432	512.063	514.123	513.023	511.023	515.018	1,15	2.54
2407996	KM63TSPSBNR15	60	2.362	27	1.063	SN..150612/SN..543	512.025	514.125	513.025	511.025	515.022	1,11	2.45
2407998	KM63TSPSBNR19	60	2.362	27	1.063	SN..190612/SN..643	512.083	514.133	513.033	511.033	515.022	1,10	2.42
left hand													
2407995	KM63TSPSBNL12	60	2.362	27	1.063	SN..120408/SN..432	512.063	514.123	513.023	511.023	515.018	1,10	2.42
2407997	KM63TSPSBNL15	60	2.362	27	1.063	SN..150612/SN..543	512.025	514.125	513.025	511.025	515.022	1,10	2.42
2407999	KM63TSPSBNL19	60	2.362	27	1.063	SN..190612/SN..643	512.083	514.133	513.033	511.033	515.022	1,10	2.42



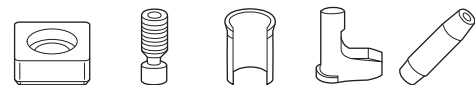
■ PSDN 45°



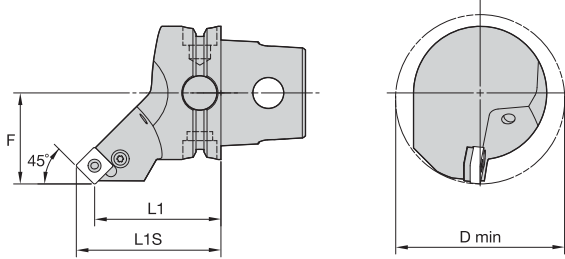
order number	catalog number	L1		F		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in								
2408000	KM63TSPSDNN12	60	2.362	0	.000	SN..120408/SN..432	512.063	514.123	513.023	511.023	515.018	0,98	2.16
2408001	KM63TSPSDNN15	60	2.362	0	.000	SN..150612/SN..543	512.025	514.125	513.025	511.025	515.022	1,01	2.23
2408002	KM63TSPSDNN19	60	2.362	0	.000	SN..190612/SN..643	512.083	514.133	513.033	511.033	515.022	0,94	2.06



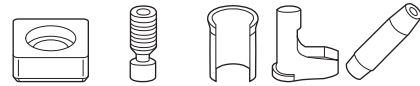
■ PSKN 75°



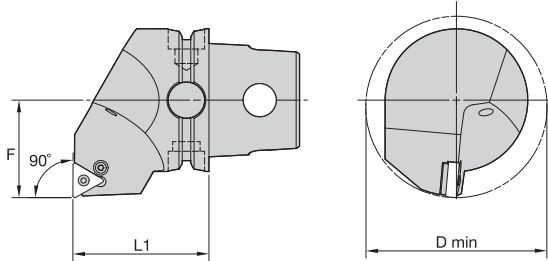
order number	catalog number	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in	mm	in								
right hand															
2408005	KM63TSPSKNR12	60	2.362	43	1.693	80	3.150	SN..120408/SN..432	512.063	514.123	513.023	511.023	515.018	1,36	3.01
2408007	KM63TSPSKNR15	60	2.362	43	1.693	80	3.150	SN..150612/SN..543	512.025	514.125	513.025	511.025	515.022	1,39	3.06
2408009	KM63TSPSKNR19	60	2.362	43	1.693	80	3.150	SN..190612/SN..643	512.083	514.133	513.033	511.033	515.022	1,34	2.95
left hand															
2408006	KM63TSPSKNL12	60	2.362	43	1.693	80	3.150	SN..120408/SN..432	512.063	514.123	513.023	511.023	515.018	1,36	3.00
2408008	KM63TSPSKNL15	60	2.362	43	1.693	80	3.150	SN..150612/SN..543	512.025	514.125	513.025	511.025	515.022	1,39	3.06
2408010	KM63TSPSKNL19	60	2.362	43	1.693	80	3.150	SN..190612/SN..643	512.083	514.133	513.033	511.033	515.022	1,34	2.95



■ PSSN 45°



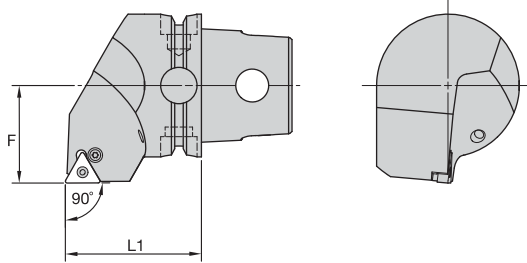
order number	catalog number	L1		L1S		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in	mm	in	mm	in								
right hand																	
2408011	KM63TSPSSNR12	60	2.362	68,3	2.690	43	1.693	80	3.150	SN..120408/SN..432	512.063	514.123	513.023	511.023	515.018	1,06	2.33
2408013	KM63TSPSSNR15	60	2.362	70,2	2.765	43	1.693	100	3.937	SN..150612/SN..543	512.025	514.125	513.025	511.025	515.022	1,05	2.32
2408015	KM63TSPSSNR19	60	2.362	72,5	2.854	43	1.693	100	3.937	SN..190612/SN..643	512.083	514.133	513.033	511.033	515.022	1,13	2.50
left hand																	
2408012	KM63TSPSSNL12	60	2.362	68,3	2.690	43	1.693	80	3.150	SN..120408/SN..432	512.063	514.123	513.023	511.023	515.018	1,06	2.33
2408016	KM63TSPSSNL19	60	2.362	72,5	2.854	43	1.693	100	3.937	SN..190612/SN..643	512.083	514.133	513.033	511.033	515.022	1,13	2.50



■ PTFN 90°



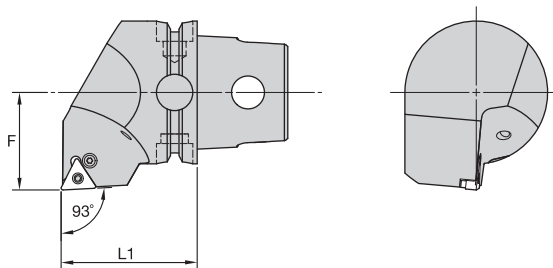
order number	catalog number	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in	mm	in								
right hand															
2408017	KM63TSPTFNR16	60	2.362	43	1.693	80	3.150	TN..160408/TN..332	512.013	514.118	513.018	511.018	515.018	1,26	2.77
left hand															
2408018	KM63TSPTFNL16	60	2.362	43	1.693	80	3.150	TN..160408/TN..332	512.013	514.118	513.018	511.018	515.018	1,30	2.86
2408022	KM63TSPTFNL27	60	2.362	43	1.693	80	3.150	TN..270612/TN..543	512.031	514.128	513.025	511.028	515.022	1,27	2.81



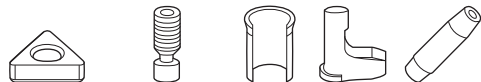
■ PTGN 90°



order number	catalog number	L1		F		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in								
right hand													
2408023	KM63TSPTGNR16	60	2.362	43	1.693	TN..160408/TN..332	512.013	514.118	513.018	511.018	515.018	1,30	2.87
2408025	KM63TSPTGNR22	60	2.362	43	1.693	TN..220408/TN..432	512.023	514.123	513.023	511.023	515.018	1,27	2.80
2408027	KM63TSPTGNR27	60	2.362	43	1.693	TN..270612/TN..543	512.031	514.128	513.025	511.028	515.022	1,27	2.80
left hand													
2408024	KM63TSPTGNL16	60	2.362	43	1.693	TN..160408/TN..332	512.013	514.118	513.018	511.018	515.018	1,28	2.82
2408026	KM63TSPTGNL22	60	2.362	43	1.693	TN..220408/TN..432	512.013	514.123	513.023	511.023	515.018	1,28	2.82
2408028	KM63TSPTGNL27	60	2.362	43	1.693	TN..270612/TN..543	512.031	514.128	513.025	511.028	515.022	1,27	2.80



■ PTJN 93°



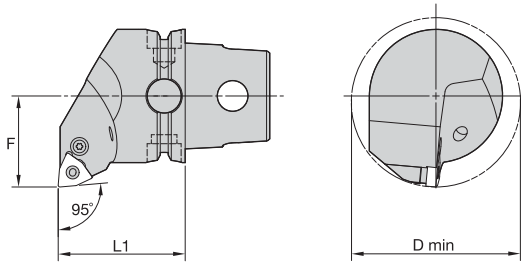
order number	catalog number	L1		F		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in								
right hand													
2408029	KM63TSPTJNR16	60	2.362	43	1.693	TN..160408/TN..332	512.013	514.118	513.018	511.018	515.018	1,33	2.92
2408031	KM63TSPTJNR22	60	2.362	43	1.693	TN..220408/TN..432	512.023	514.123	513.023	511.023	515.018	1,30	2.86
2408033	KM63TSPTJNR27	60	2.362	43	1.693	TN..270612/TN..543	512.031	514.128	513.025	511.028	515.022	1,26	2.71
left hand													
2408030	KM63TSPTJNL16	60	2.362	43	1.693	TN..160408/TN..332	512.013	514.118	513.018	511.018	515.018	1,22	2.68
2408032	KM63TSPTJNL22	60	2.362	43	1.693	TN..220408/TN..432	512.023	514.123	513.023	511.023	515.018	1,30	2.86
2408034	KM63TSPTJNL27	60	2.362	43	1.693	TN..270612/TN..543	512.031	514.128	513.025	511.028	515.022	1,26	2.71

KM63TS™ Cutting Units

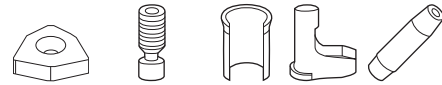
P-Clamping • S-Clamping



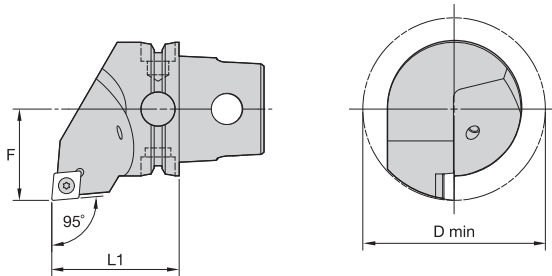
KM63TS Cutting Units



■ PWLN 95°



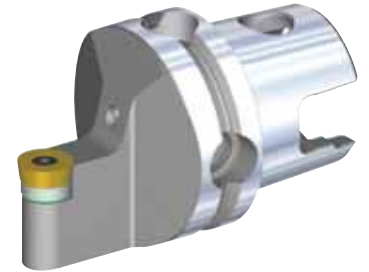
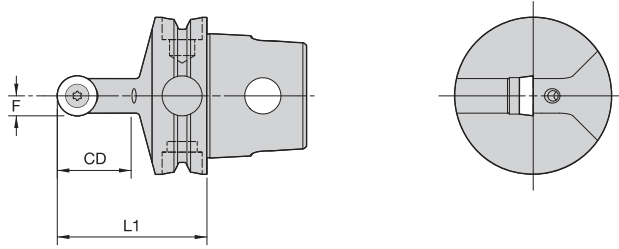
order number	catalog number	L1		F		D min		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in	mm	in								
		right hand													
2408035	KM63TSPWLN06	60	2.362	43	1.693	80	3.150	WN..060408/WN..332	512.134	514.118	513.018	511.018	515.018	1,33	2.94
2408037	KM63TSPWLN08	60	2.362	43	1.693	80	3.150	WN..080408/WN..432	512.135	514.123	513.023	511.023	515.018	1,24	2.74
		left hand													
2408036	KM63TSPWLN06	60	2.362	43	1.693	80	3.150	WN..060408/WN..332	512.134	514.118	513.018	511.018	515.018	1,33	2.94
2408038	KM63TSPWLN08	60	2.362	43	1.693	80	3.150	WN..080408/WN..432	512.135	514.123	513.023	511.023	515.018	1,24	2.74



■ SCLC 95°



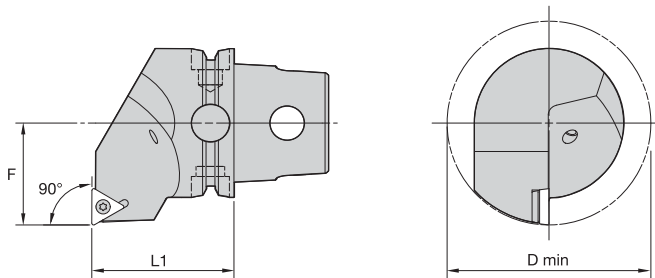
order number	catalog number	L1		F		D min		gage insert	insert screw	shim	shim screw	kg	lbs
		mm	in	mm	in	mm	in						
		right hand											
2414906	KM63TSSCLCR12	60	2.362	43	1.693	86	3.386	CC..120408/CC..432	MS1158	SKCP453	SRS4	1,14	2.52
		left hand											
2414907	KM63TSSCLCL12	60	2.362	43	1.693	86	3.386	CC..120408/CC..432	MS1158	SKCP453	SRS4	1,14	2.52



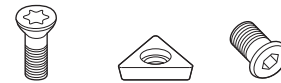
■ SRDC 0°



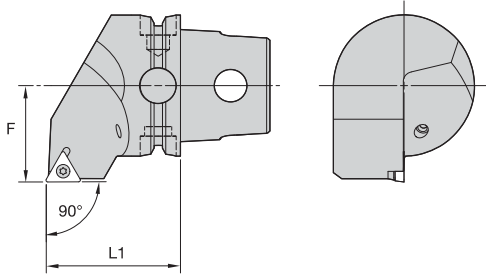
order number	catalog number	L1		F		CD		gage insert	insert screw	shim	shim screw	kg	lbs
		mm	in	mm	in	mm	in						
2414896	KM63TSSRDCN16	60	2.362	8	.315	33	1.299	RC..1605M0	MS1160	SKRN160400	SRS5	0,84	1.84



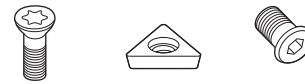
■ STFC 90°



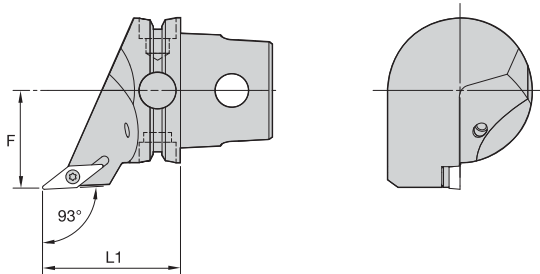
order number	catalog number	L1		F		D min		gage insert	insert screw	shim	shim screw	kg	lbs
		mm	in	mm	in	mm	in						
2414899	right hand KM63TSSSTFCR16	60	2.362	43	1.693	86	3.386	TC..16T308/TC..3252	MS1156	SKTP343	SRS3	1,23	2.72
2414900	left hand KM63TSSSTFCL16	60	2.362	43	1.693	86	3.386	TC..16T308/TC..3252	MS1156	SKTP343	SRS3	1,23	2.72



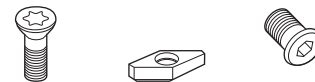
■ STGC 90°



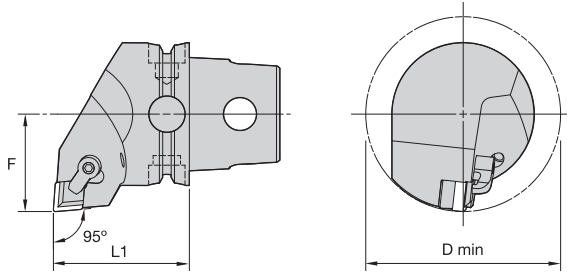
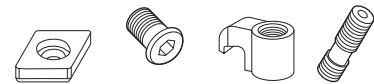
order number	catalog number	L1		F		gage insert	insert screw	shim	shim screw	kg	lbs
		mm	in	mm	in						
2414903	right hand	60	2.362	43	1.693	TC..16T308/TC..3252	MS1156	SKTP343	SRS3	1,22	2.69
	KM63TSSSTGCR16										
2414904	left hand	60	2.362	43	1.693	TC..16T308/TC..3252	MS1156	SKTP343	SRS3	1,22	2.69
	KM63TSSSTGCL16										



■ SVJB 93°

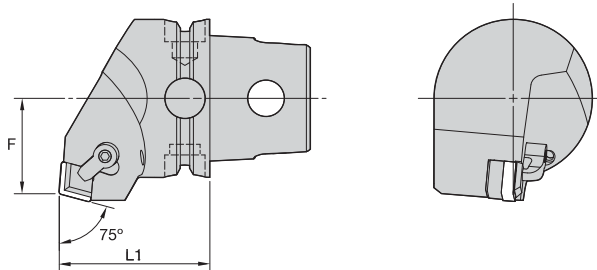


order number	catalog number	L1		F		gage insert	insert screw	shim	shim screw	kg	lbs
		mm	in	mm	in						
2414905	right hand	60	2.362	43	1.693	VB..160408/VB..332	MS1156	SKVN343	SRS3	0,92	2.02
	KM63TSSVJBR16										
2257151	left hand	60	2.362	43	1.693	VB..160408/VB..332	MS1156	SKVN343	SRS3	0,92	2.02
	KM63TSSVJBL16										


■ CCLN 95°


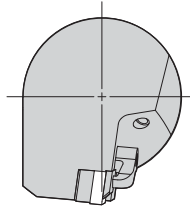
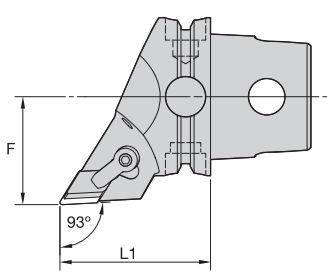
order number	catalog number	L1		F		D min		gage insert	shim	shim screw	clamp	clamp screw	kg	lbs	
		mm	in	mm	in	mm	in								
		right hand													
3065821	KM63TSCCLNR12	60	2.362	43	1.693	86	3.386	CN..120408/CN.432	ICSN442	KMS4	CKM20	STCM11	1,23	2.70	
3065883	KM63TSCCLNR16	60	2.362	43	1.693	86	3.386	CN..160612/CN.543	ICSN533	KMS5	CKM20	STCM11	1,21	2.68	
		left hand													
3065820	KM63TSCCLNL12	60	2.362	43	1.693	86	3.386	CN..120408/CN.432	ICSN442	KMS4	CKM20	STCM11	1,23	2.71	
3065822	KM63TSCCLNL16	60	2.362	43	1.693	86	3.386	CN..160612/CN.543	ICSN533	KMS5	CKM20	STCM11	1,21	2.68	

NOTE: Chipbreakers must be ordered separately. See the Kennametal Innovations Master Catalog Cutting Tools 2013.


■ CCRN 75°


order number	catalog number	L1		F		gage insert	shim	shim screw	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
		right hand										
3065884	KM63TSCCRNR12	60	2.362	38	1.496	CN..120408/CN.432	ICSN442	KMS4	CKM20	STCM11	1,22	2.70
		left hand										
3065885	KM63TSCCRNL12	60	2.362	38	1.496	CN..120408/CN.432	ICSN442	KMS4	CKM20	STCM11	1,22	2.70
3065886	KM63TSCCRNL16	60	2.362	38	1.496	CN..160612/CN.543	ICSN533	KMS5	CKM20	STCM11	1,22	2.69

NOTE: Chipbreakers must be ordered separately. See the Kennametal Innovations Master Catalog Cutting Tools 2013.

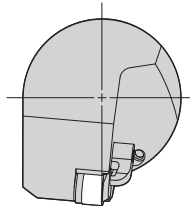
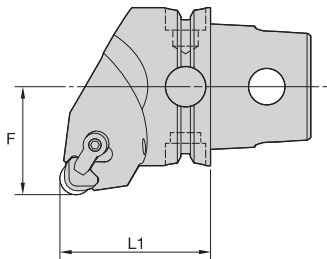


■ CDJN 93°

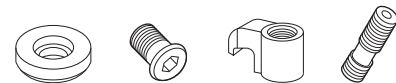


order number	catalog number	L1		F		gage insert	shim	shim screw	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
	right hand											
3065887	KM63TSCDJNR1504	60	2.362	43	1.693	DN..150408/DN.432	IDSN442	KMS4	CKM23	STCM11	1,01	2.22
	left hand											
3065888	KM63TSCDJNLR1504	60	2.362	43	1.693	DN..150408/DN.432	IDSN442	KMS4	CKM23	STCM11	1,01	2.22

NOTE: Chipbreakers must be ordered separately. See the Kennametal Innovations Master Catalog Cutting Tools 2013.

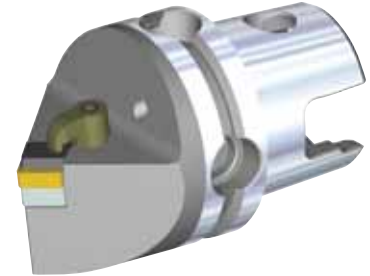
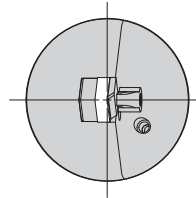
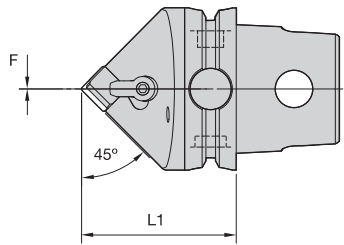


■ CRGN 0°

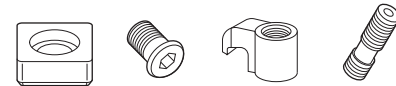


order number	catalog number	L1		F		gage insert	shim	shim screw	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
	right hand											
3065900	KM63TSCRGNR12	60	2.362	43	1.693	RN..1207/RN.45	IRSN42	KMS4	CKM20	STCM11	1,23	2.72
	left hand											
3065899	KM63TSCRGNL12	60	2.362	43	1.693	RN..1207/RN.45	IRSN42	KMS4	CKM20	STCM11	1,23	2.72

NOTE: Chipbreakers must be ordered separately. See the Kennametal Innovations Master Catalog Cutting Tools 2013.

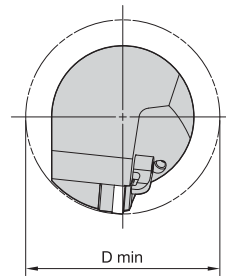
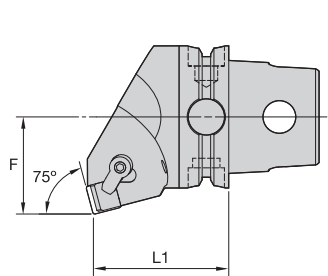


■ CSDN 45°

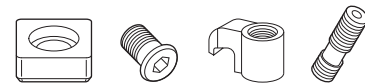


order number	catalog number	L1		F		gage insert	shim	shim screw	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
		left hand										
3065889	KM63TSCSDNN12	60	2.362	0	.000	SN..120408/SN.432	ISSN442	KMS4	CKM20	STCM11	1,01	2.23
3065890	KM63TSCSDNN15	60	2.362	0	.000	SN..150612/SN.543	ISSN533	KMS5	CKM20	STCM11	1,01	2.22

NOTE: Chipbreakers must be ordered separately. See the Kennametal Innovations Master Catalog Cutting Tools 2013.

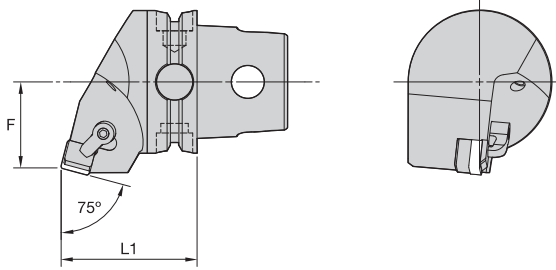


■ CSKN 75°



order number	catalog number	L1		F		D min		gage insert	shim	shim screw	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
		right hand												
3065895	KM63TSCSKNR12	60	2.362	43	1.693	86	3.386	SN..120408/SN.432	ISSN442	KMS4	CKM20	STCM11	1,32	2.91
		left hand												
3065896	KM63TSCSKNL12	60	2.362	43	1.693	86	3.386	SN..120408/SN.432	ISSN442	KMS4	CKM20	STCM11	1,32	2.91

NOTE: Chipbreakers must be ordered separately. See the Kennametal Innovations Master Catalog Cutting Tools 2013.

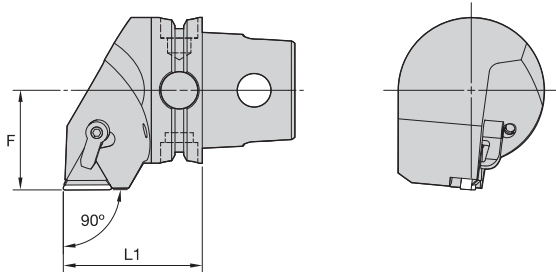


■ CSRN 75°



order number	catalog number	L1		F		gage insert	shim	shim screw	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
		right hand										
3065891	KM63TSCSRNR12	60	2.362	38	1.496	SN..120408/SN.432	ISSN442	KMS4	CKM20	STCM11	1,20	2.64
3065893	KM63TSCSRNR15	60	2.362	38	1.496	SN..150612/SN.543	ISSN533	KMS5	CKM20	STCM11	1,19	2.63
		left hand										
3065892	KM63TSCSRNL12	60	2.362	38	1.496	SN..120408/SN.432	ISSN442	KMS4	CKM20	STCM11	1,20	2.64
3065894	KM63TSCSRNL15	60	2.362	38	1.496	SN..150612/SN.543	ISSN533	KMS5	CKM20	STCM11	1,19	2.63

NOTE: Chipbreakers must be ordered separately. See the Kennametal Innovations Master Catalog Cutting Tools 2013.

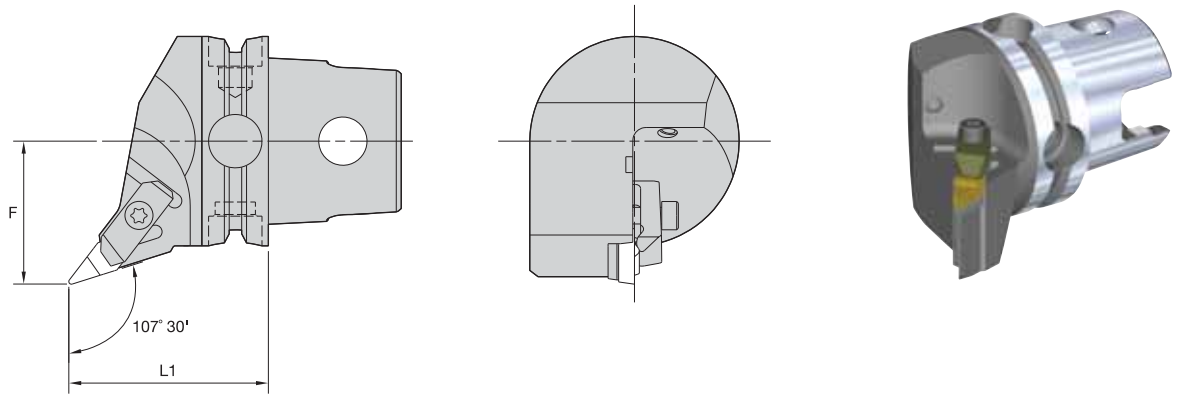


■ CTGN 90°



order number	catalog number	L1		F		gage insert	shim	shim screw	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
		right hand										
3065897	KM63TCTGNR22	60	2.362	43	1.693	TN..220408/TN.432	ITSN433	KMS4	CKM23	STCM11	1,25	2.75
		left hand										
3065898	KM63TCTGNL22	60	2.362	43	1.693	TN..220408/TN.432	ITSN433	KMS4	CKM23	STCM11	1,24	2.73

NOTE: Chipbreakers must be ordered separately. See the Kennametal Innovations Master Catalog Cutting Tools 2013.

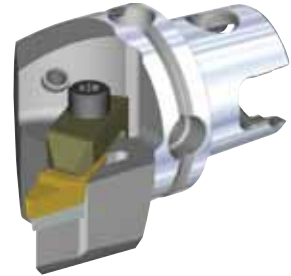
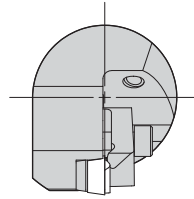
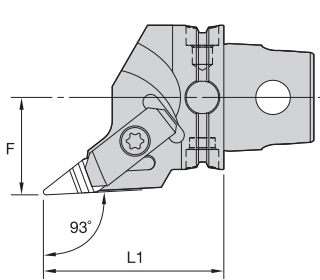


■ NVHC 107° 30' Metric

order number	catalog number	F		L1		gage insert	kg	lbs
		mm	in	mm	in			
2265319	right hand KM63TSNVHCR16	43	1.693	60	2.362	VCGR160408/VPGR332	1,05	2.31
2265320	left hand KM63TSNVHCL16	43	1.693	60	2.362	VCGR160408/VPGR332	1,05	2.31

■ Spare Parts





catalog number				
	shim	shim screw	clamp	clamp screw
right hand KM63TSNVHCR16	SM812	MS959	CM113	MS1489
left hand KM63TSNVHCL16	SM812	MS959	CM114	MS1489



■ NVJC 93°

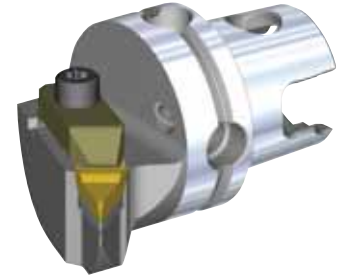
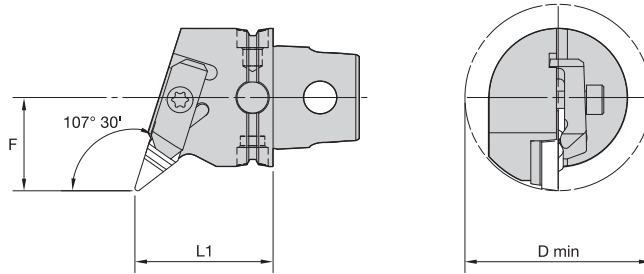
order number	catalog number	F		L1		gage insert	kg	lbs
		mm	in	mm	in			
2265321	right hand	43	1.693	60	2.362	VCGR160408/VPGR332	0,94	2.07
	KM63TSNVJCR16							
2265322	left hand	43	1.693	60	2.362	VCGR160408/VPGR332	0,94	2.07
	KM63TSNVJCL16							

■ Spare Parts

catalog number	 shim	 shim screw	 clamp	 clamp screw
right hand KM63TSNVJCR16	SM812	MS959	CM113	MS1489
left hand KM63TSNVJCL16	SM812	MS959	CM114	MS1489



KM63TS Internal Cutting Units

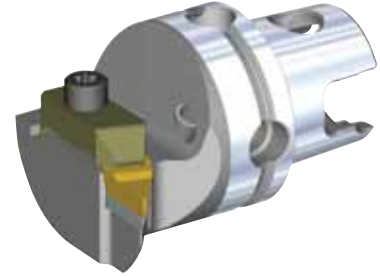
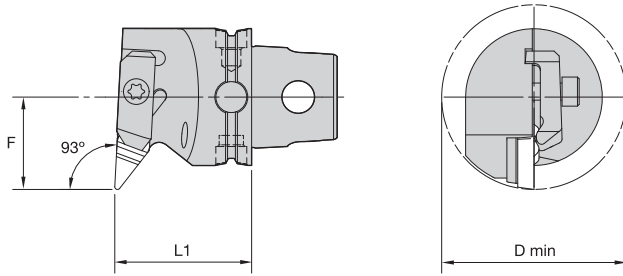


■ NVQC 107° 30'

order number	catalog number	D min		F		L1		gage insert	kg	lbs
		mm	in	mm	in	mm	in			
2265323	right hand	86	3.39	43	1.693	60	2.362	VCGR160408/VPGR332	1,10	2.42
	KM63TSNVQCR16									
2265324	left hand	86	3.39	43	1.693	60	2.362	VCGR160408/VPGR332	1,10	2.42
	KM63TSNVQCL16									

■ Spare Parts





catalog number	shim	shim screw	clamp	clamp screw
KM63TSNVQCR16	SM812	MS959	CM113	MS1489
KM63TSNVQCL16	SM812	MS959	CM114	MS1489

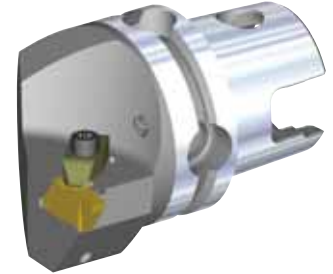
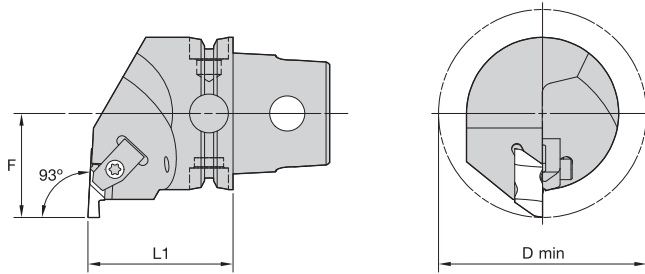


■ NVUC 93°

order number	catalog number	D min		F		L1		gage insert	kg	lbs
		mm	in	mm	in	mm	in			
		right hand								
2265325	KM63TSNVUCR16	86	3.39	43	1.693	60	2.362	VCGR160408/VPGR332	1,28	2.83
		left hand								
2265326	KM63TSNVUCL16	86	3.39	43	1.693	60	2.362	VCGR160408/VPGR332	1,28	2.83

■ Spare Parts

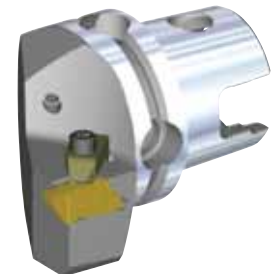
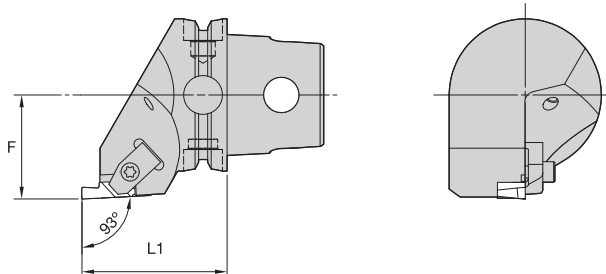
catalog number				
	shim	shim screw	clamp	clamp screw
	right hand			
KM63TSNVUCR16	SM812	MS959	CM113	MS1489
	left hand			
KM63TSNVUCL16	SM812	MS959	CM114	MS1489



■ NE 93°



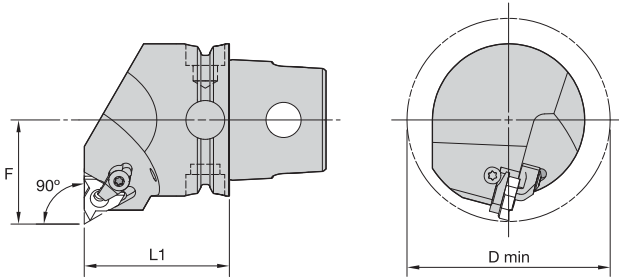
order number	catalog number	L1		F		D min		gage insert	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in					
right hand												
2265406	KM63TSNER3	60	2.362	43	1.693	86	3.386	NG3L	CM73	MS1489	1,19	2.63
2265408	KM63TSNER4	60	2.362	43	1.693	86	3.386	NG4L	CM73	MS1489	1,21	2.66
2265410	KM63TSNER5	60	2.362	43	1.693	86	3.386	NG5L	CM81	MS1490	1,15	2.55
left hand												
2265407	KM63TSNEL3	60	2.362	43	1.693	86	3.386	NG3R	CM72	MS1489	1,19	2.63
2265409	KM63TSNEL4	60	2.362	43	1.693	86	3.386	NG4R	CM72	MS1489	1,21	2.66
2265411	KM63TSNEL5	60	2.362	43	1.693	86	3.386	NG5R	CM80	MS1490	1,18	2.60



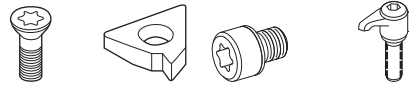
■ NS 93°



order number	catalog number	L1		F		gage insert	clamp	clamp screw	kg	lbs
		mm	in	mm	in					
right hand										
2265412	KM63TSNSR3	60	2.362	43	1.693	NG3R	CM72	MS1489	1,02	2.26
2265414	KM63TSNSR4	60	2.362	43	1.693	NG4R	CM72	MS1489	1,06	2.34
left hand										
2265413	KM63TSNSL3	60	2.362	43	1.693	NG3L	CM73	MS1489	1,02	2.26
2265415	KM63TSNSL4	60	2.362	43	1.693	NG4L	CM73	MS1489	1,06	2.34

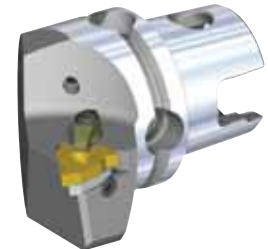
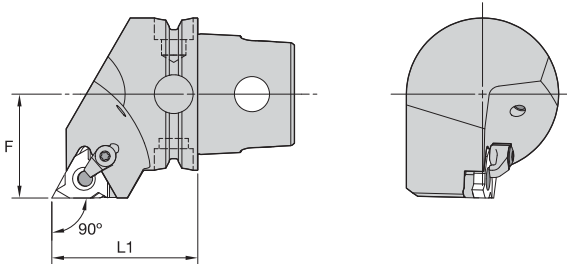


■ LSE-N 90° • Internal Only

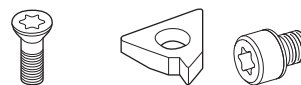


order number	catalog number	L1		F		D min		gage insert	insert screw	shim	shim screw	clamp assembly	kg	lbs
		mm	in	mm	in	mm	in							
right hand														
2265416	KM63TSLSER16N	60	2.362	43	1.693	86	3.386	LT16NR	SSA3T	SMYI3	SSY3T	CKC3	1,34	2.96
2265418	KM63TSLSER22N	60	2.362	43	1.693	86	3.386	LT22NR	SSA4T	SMYI4	SSY4T	CKC4	1,32	2.92
3959387	KM63TSLSER27N	60	2.362	43	1.693	86	3.386	LT27NR	SSA5T	SMYI5	SSY5T	CKC5	1,38	3.05
left hand														
2265417	KM63TSLSEL16N	60	2.362	43	1.693	86	3.386	LT16NL	SSA3T	SMYE3	SSY3T	CKC3	1,34	2.96
2265419	KM63TSLSEL22N	60	2.362	43	1.693	86	3.386	LT22NL	SSA4T	SMYE4	SSY4T	CKC4	1,32	2.92
3959386	KM63TSLSEL27N	60	2.362	43	1.693	86	3.386	LT27NL	SSA5T	SMYE5	SSY5T	CKC5	1,36	3.00

NOTE: Cutting units are supplied with insert screw and clamp assembly. However, tools are designed to use either the insert screw or the clamp assembly, not both.

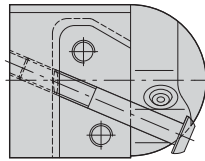
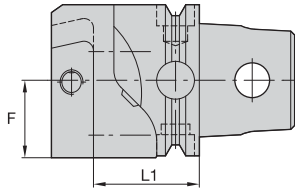


■ LSS 90°



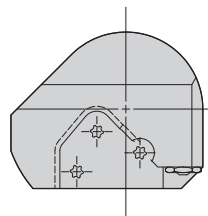
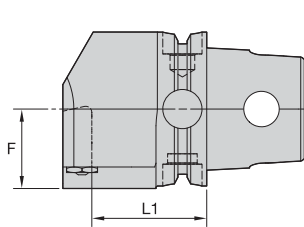
order number	catalog number	L1		F		gage insert	insert screw	shim	shim screw	clamp assembly	kg	lbs
		mm	in	mm	in							
right hand												
2265420	KM63TSLSSR16	60	2.362	43	1.693	LT16ER	SSA3T	SMYE3	SSY3T	CKC3	1,21	2.68
2265422	KM63TSLSSR22	60	2.362	43	1.693	LT22ER	SSA4T	SMYE4	SSY4T	CKC4	1,20	2.64
3959389	KM63TSLSSR27	60	2.362	43	1.693	LT27ER	SSA5T	SMYE5	SSY5T	CKC5	1,19	2.61
left hand												
2265421	KM63TSLSSL16	60	2.362	43	1.693	LT16EL	SSA3T	SMYI3	SSY3T	CKC3	1,21	2.66
2265423	KM63TSLSSL22	60	2.362	43	1.693	LT22EL	SSA4T	SMYI4	SSY4T	CKC4	1,20	2.64
3959388	KM63TSLSSL27	60	2.362	43	1.693	LT27EL	SSA5T	SMYI5	SSY5T	CKC5	1,19	2.62

NOTE: Cutting units are supplied with insert screw and clamp assembly. However, tools are designed to use either the insert screw or the clamp assembly, not both.


■ KGME • End Mount

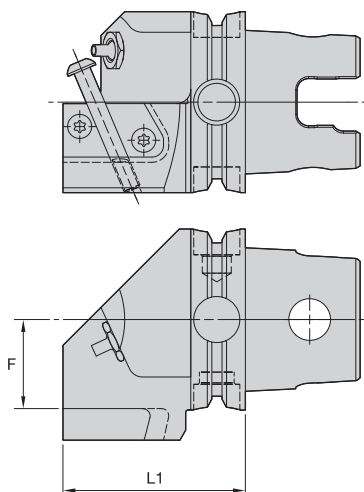
order number	catalog number	L1		F		cartridge size	blade screw	clamp screw	nozzle	kg
		mm	in	mm	in					
2265404	right hand	48	1.89	32,5	1.280	50	MS1162	MS2002	—	1,21
	left hand									
2265405	KM63TSKGMEL50	48	1.89	32,5	1.280	50	MS1162	MS2002	—	1,21

NOTE: For A3/A4 modular blades, see the Kennametal Innovations Master Catalog Cutting Tools 2013.
 Right-hand cutting units use left-hand blades.


■ KGME • End Mount

order number	catalog number	L1		F		cartridge size	blade screw	nozzle	kg
		mm	in	mm	in				
3590205	right hand	47	1.85	32,5	1.280	65	MS1163	PMT04525	1,68
	left hand								
3590206	KM63TSKGMEL65	47	1.85	32,5	1.280	65	MS1163	PMT04525	1,68

NOTE: For A3/A4 modular blades, see the Kennametal Innovations Master Catalog Cutting Tools 2013.
 Right-hand cutting units use left-hand blades.

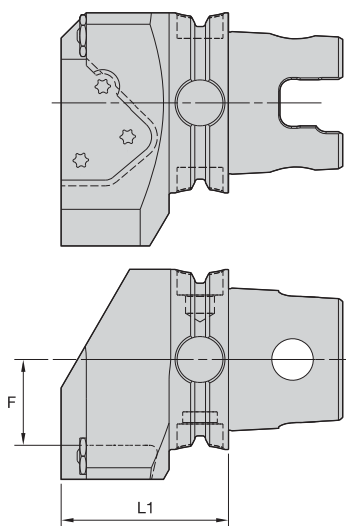


■ **KGMS • Side Mount**



order number	catalog number	L1		F		cartridge size	blade screw	nozzle	clamp screw	kg
		mm	in	mm	in					
	right hand									
2255824	KM63TSKGMSR50	63,5	2.500	31	1.221	50	MS1162	PMT04510	MS2002	1,34
	left hand									
2255543	KM63TSKGMSL50	63,5	2.500	31	1.221	50	MS1162	PMT04510	MS2002	1,34

NOTE: For A3/A4 modular blades, see the Kennametal Innovations Master Catalog Cutting Tools 2013.
Right-hand cutting units use right-hand blades.



■ **KGMS • Side Mount**

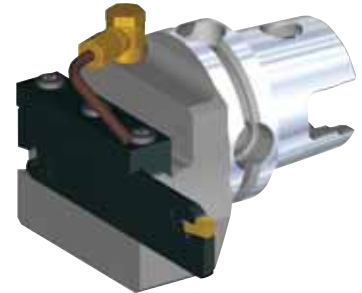
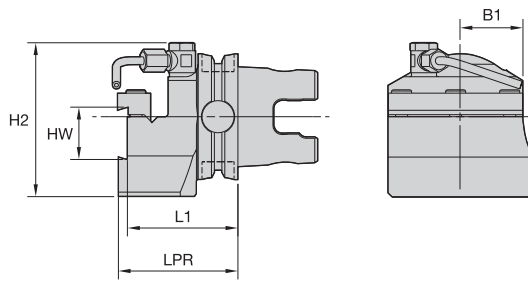


order number	catalog number	L1		F		cartridge size	blade screw	nozzle	kg
		mm	in	mm	in				
	right hand								
3590203	KM63TSKGMSR65	58,5	2.303	30	1.181	65	MS1163	PMT04525	1,74
	left hand								
3590204	KM63TSKGMSL65	58,5	2.303	30	1.181	65	MS1163	PMT04525	1,74

NOTE: For A3/A4 modular blades, see the Kennametal Innovations Master Catalog Cutting Tools 2013.
Right-hand cutting units use right-hand blades.



KM63TS Cutting Units

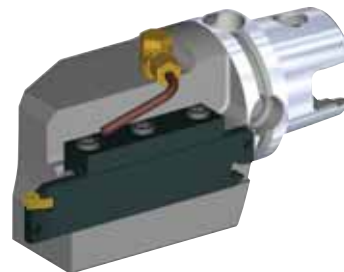
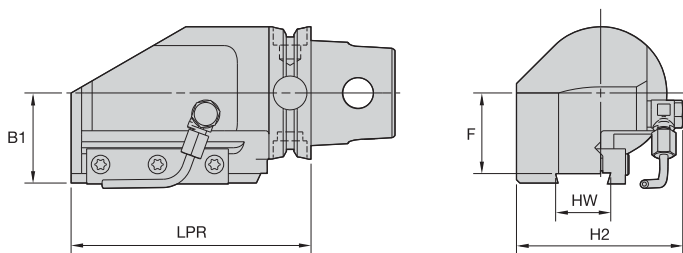

■ BE • End Mount

order number	catalog number	L1		LPR		H2		HW		B1		cartridge size	cartridge 1	kg
		mm	in	mm	in	mm	in	mm	in	mm	in			
	right hand													
2265372	KM63TSBER4	55,3	2.177	59,8	2.354	63	2.48	26	1.024	31,5	1.240	26	A2BN..26...	1,68
	left hand													
2265393	KM63TSBEL4	55,3	2.177	59,8	2.354	63	2.48	26	1.024	31,5	1.240	26	A2BNSN26...	1,68

■ Spare Parts

catalog number				
	clamp	clamp screw	coolant tube	coolant swivel base
right hand KM63TSBER4	CGS4	MS1595	12649910900	12649910800
left hand KM63TSBEL4	CGS4	MS1595	12649910900	12649910800





NOTE: Blades are ordered separately. See the Kennametal Innovations Master Catalog Cutting Tools 2013.



■ **BS • Side Mount**

order number	catalog number	B1		LPR		F		H2		HW		cartridge size	cartridge 1	kg
		mm	in	mm	in	mm	in	mm	in	mm	in			
	right hand													
2265394	KM63TSBSR4	42,80	1.685	114,00	4.488	38,30	1.508	79,00	3.110	26,00	1.024	26	A2BNSN26...	3,00
2265396	KM63TSBSR5	42,80	1.685	134,55	5.297	37,30	1.469	84,00	3.307	32,00	1.260	32	A2BNSN32...	3,73
	left hand													
2265395	KM63TSBSL4	42,80	1.685	114,00	4.488	38,30	1.508	79,00	3.110	26,00	1.024	26	A2BNSN26...	3,00
2265397	KM63TSBSL5	42,80	1.685	134,55	5.299	37,30	1.469	84,00	3.307	32,00	1.260	32	A2BNSN32...	3,73

■ **Spare Parts**

catalog number	 clamp	 clamp screw	 coolant tube	 coolant swivel base
right hand				
KM63TSBSR4	CGS4	MS1595	12649910900	12649910800
KM63TSBSR5	CGS5	MS1595	12649910900	12649910800
left hand				
KM63TSBSL4	CGS4	MS1595	12649910900	12649910800
KM63TSBSL5	CGS5	MS1595	12649910900	12649910800

NOTE: Blades are ordered separately. See the Kennametal Innovations Master Catalog Cutting Tools 2013.



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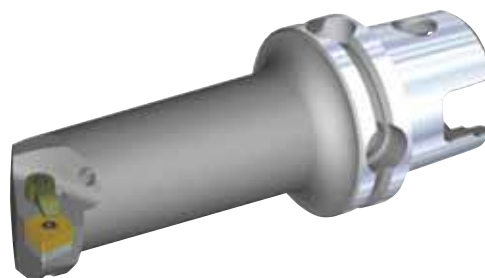
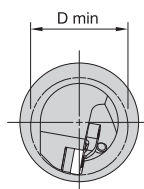
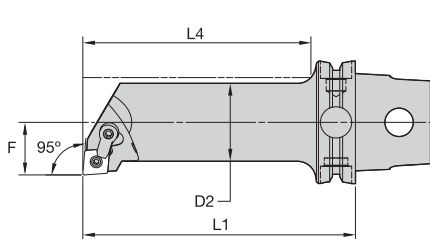
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KM63TS Internal Cutting Units





■ MCLN 95°

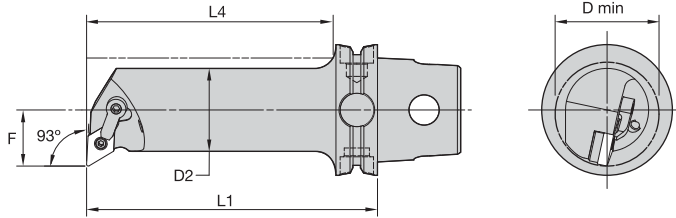
order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs
		mm	in	mm	in	mm	in	mm	in	mm	in			
right hand														
2265329	KM63TSS25FMCLNR12	25	.98	32	1.26	17	.669	50	1.99	80	3.150	CN..120408/CN..432	0,90	1.99
2265327	KM63TSS25KMCLNR12	25	.98	32	1.26	17	.669	88	3.47	125	4.921	CN..120408/CN..432	1,14	2.52
2265343	KM63TSS32GMCLNR12	32	1.26	40	1.57	22	.866	62	2.44	90	3.543	CN..120408/CN..432	1,05	2.32
2265331	KM63TSS32LMCLNR12	32	1.26	40	1.57	22	.866	112	4.41	140	5.512	CN..120408/CN..432	1,37	3.01
2265347	KM63TSS40HMCLNR12	40	1.57	50	1.97	27	1.063	77	3.04	100	3.937	CN..120408/CN..432	1,30	2.87
2265345	KM63TSS40LMCLNR12	40	1.57	50	1.97	27	1.063	117	4.61	140	5.512	CN..120408/CN..432	1,69	3.72
2265351	KM63TSS50KMCLNR12	50	1.97	63	2.48	35	1.378	104	4.11	125	4.921	CN..120408/CN..432	1,99	4.40
2265349	KM63TSS50PMCLNR12	50	1.97	63	2.48	35	1.378	149	5.88	170	6.693	CN..120408/CN..432	2,68	5.91
left hand														
2265330	KM63TSS25FMCLNL12	25	.98	32	1.26	17	.669	50	1.99	80	3.150	CN..120408/CN..432	0,90	1.99
2265328	KM63TSS25KMCLNL12	25	.98	32	1.26	17	.669	88	3.47	125	4.921	CN..120408/CN..432	1,14	2.52
2265344	KM63TSS32GMCLNL12	32	1.26	40	1.57	22	.866	62	2.44	90	3.543	CN..120408/CN..432	1,06	2.34
2265332	KM63TSS32LMCLNL12	32	1.26	40	1.57	22	.866	112	4.41	140	5.512	CN..120408/CN..432	1,37	3.01
2265348	KM63TSS40HMCLNL12	40	1.57	50	1.97	27	1.063	77	3.04	100	3.937	CN..120408/CN..432	1,33	2.93
2265346	KM63TSS40LMCLNL12	40	1.57	50	1.97	27	1.063	117	4.61	140	5.512	CN..120408/CN..432	1,69	3.72
2265352	KM63TSS50KMCLNL12	50	1.97	63	2.48	35	1.378	104	4.11	125	4.921	CN..120408/CN..432	2,01	4.43
2265350	KM63TSS50PMCLNL12	50	1.97	63	2.48	35	1.378	149	5.88	170	6.693	CN..120408/CN..432	2,68	5.91

(continued)

(MCLN 95° continued)

Spare Parts

				
catalog number	shim	lock pin	clamp	clamp screw
right hand				
KM63TSS25FMCLNR12	—	KLM43	CKM20LP	STCM11
KM63TSS25KMCLNR12	—	KLM43	CKM20LP	STCM11
KM63TSS32GMCLNR12	ICSN432	KLM46	CKM20LP	STCM11
KM63TSS32LMCLNR12	ICSN432	KLM46	CKM20LP	STCM11
KM63TSS40HMCLNR12	ICSN432	KLM46	CKM20LP	STCM11
KM63TSS40LMCLNR12	ICSN432	KLM46	CKM20LP	STCM11
KM63TSS50KMCLNR12	ICSN432	KLM46	CKM20LP	STCM11
KM63TSS50PMCLNR12	ICSN432	KLM46	CKM20LP	STCM11
left hand				
KM63TSS25FMCLNL12	—	KLM43	CKM20LP	STCM11
KM63TSS25KMCLNL12	—	KLM43	CKM20LP	STCM11
KM63TSS32GMCLNL12	ICSN432	KLM46	CKM20LP	STCM11
KM63TSS32LMCLNL12	ICSN432	KLM46	CKM20LP	STCM11
KM63TSS40HMCLNL12	ICSN432	KLM46	CKM20LP	STCM11
KM63TSS40LMCLNL12	ICSN432	KLM46	CKM20LP	STCM11
KM63TSS50KMCLNL12	ICSN432	KLM46	CKM20LP	STCM11
KM63TSS50PMCLNL12	ICSN432	KLM46	CKM20LP	STCM11







■ MDUN 93°

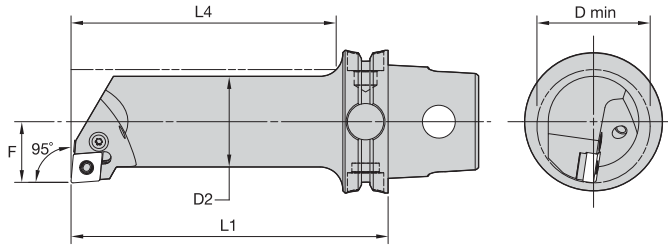
order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs
		mm	in	mm	in	mm	in	mm	in	mm	in			
right hand														
2265355	KM63TSS25FMDUNR15	25	.98	32	1.26	17	.669	45	1.99	80	3.150	DN..150408/DN..432	0,95	2.09
2265353	KM63TSS25KMDUNR15	25	.98	32	1.26	17	.669	88	3.47	125	4.921	DN..150408/DN..432	1,13	2.50
2265359	KM63TSS32GMDUNR15	32	1.26	40	1.57	22	.866	62	2.44	90	3.543	DN..150408/DN..432	1,05	2.30
2265357	KM63TSS32LMDUNR15	32	1.26	40	1.57	22	.866	112	4.41	140	5.512	DN..150408/DN..432	1,36	2.99
2265363	KM63TSS40HMDUNR15	40	1.57	50	1.97	27	1.063	77	3.04	100	3.937	DN..150408/DN..432	1,31	2.89
2265361	KM63TSS40LMDUNR15	40	1.57	50	1.97	27	1.063	117	4.61	140	5.512	DN..150408/DN..432	1,69	3.73
2265367	KM63TSS50KMDUNR15	50	1.97	63	2.48	35	1.378	104	4.11	125	4.921	DN..150408/DN..432	1,97	4.34
2265365	KM63TSS50PMDUNR15	50	1.97	63	2.48	35	1.378	149	5.88	170	6.693	DN..150408/DN..432	2,63	5.80
left hand														
2265356	KM63TSS25FMDUNL15	25	.98	32	1.26	17	.669	45	1.99	80	3.150	DN..150408/DN..432	0,94	2.08
2265354	KM63TSS25KMDUNL15	25	.98	32	1.26	17	.669	88	3.47	125	4.921	DN..150408/DN..432	1,13	2.50
2265360	KM63TSS32GMDUNL15	32	1.26	40	1.57	22	.866	62	2.44	90	3.543	DN..150408/DN..432	1,05	2.30
2265358	KM63TSS32LMDUNL15	32	1.26	40	1.57	22	.866	112	4.41	140	5.512	DN..150408/DN..432	1,36	2.99
2265364	KM63TSS40HMDUNL15	40	1.57	50	1.97	27	1.063	77	3.04	100	3.937	DN..150408/DN..432	1,32	2.90
2265362	KM63TSS40LMDUNL15	40	1.57	50	1.97	27	1.063	117	4.61	140	5.512	DN..150408/DN..432	1,70	3.74
2265368	KM63TSS50KMDUNL15	50	1.97	63	2.48	35	1.378	104	4.11	125	4.921	DN..150408/DN..432	1,97	4.34
2265366	KM63TSS50PMDUNL15	50	1.97	63	2.48	35	1.378	149	5.88	170	6.693	DN..150408/DN..432	2,63	5.80

(continued)

(MDUN 93° continued)

■ Spare Parts

catalog number	 shim	 lock pin	 clamp	 clamp screw
right hand				
KM63TSS25FMDUNR15	—	KLM43	CKM20LP	STCM11
KM63TSS25KMDUNR15	—	KLM43	CKM20LP	STCM11
KM63TSS32GMDUNR15	IDSN432	KLM46	CKM23LP	STCM11
KM63TSS32LMDUNR15	IDSN432	KLM46	CKM23LP	STCM11
KM63TSS40HMDUNR15	IDSN432	KLM46	CKM23LP	STCM11
KM63TSS40LMDUNR15	IDSN432	KLM46	CKM23LP	STCM11
KM63TSS50KMDUNR15	IDSN432	KLM46	CKM23LP	STCM11
KM63TSS50PMDUNR15	IDSN432	KLM46	CKM23LP	STCM11
left hand				
KM63TSS25FMDUNL15	—	KLM43	CKM20LP	STCM11
KM63TSS25KMDUNL15	—	KLM43	CKM20LP	STCM11
KM63TSS32GMDUNL15	IDSN432	KLM46	CKM23LP	STCM11
KM63TSS32LMDUNL15	IDSN432	KLM46	CKM23LP	STCM11
KM63TSS40HMDUNL15	IDSN432	KLM46	CKM23LP	STCM11
KM63TSS40LMDUNL15	IDSN432	KLM46	CKM23LP	STCM11
KM63TSS50KMDUNL15	IDSN432	KLM46	CKM23LP	STCM11
KM63TSS50PMDUNL15	IDSN432	KLM46	CKM23LP	STCM11

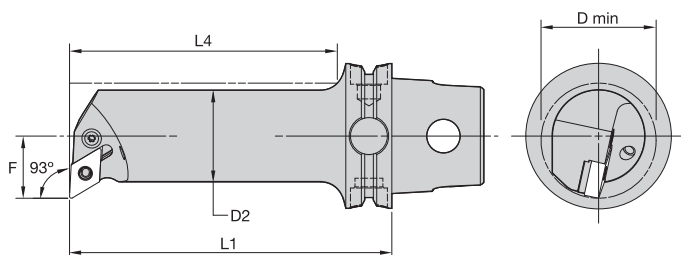


■ PCLN 95°

order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs
		mm	in	mm	in	mm	in	mm	in	mm	in			
right hand														
2407961	KM63TSS25KPDUNR11	25	.98	32	1.26	17	.669	88	3.47	125	4.921	CN..120408/CN..432	1,11	2.45
2407963	KM63TSS32LPCLNR12	32	1.26	40	1.57	22	.866	112	4.41	140	5.512	CN..120408/CN..432	1,36	3.00
2407965	KM63TSS40LPCLNR12	40	1.57	50	1.97	27	1.063	117	4.61	140	5.512	CN..120408/CN..432	1,68	3.70
2407967	KM63TSS50PPCLNR12	50	1.97	63	2.48	35	1.378	149	5.88	170	6.693	CN..120408/CN..432	2,67	5.89
left hand														
2407962	KM63TSS25KPDUNL11	25	.98	32	1.26	17	.669	88	3.47	125	4.921	CN..120408/CN..432	1,13	2.50
2407964	KM63TSS32LPCLNL12	32	1.26	40	1.57	22	.866	112	4.41	140	5.512	CN..120408/CN..432	1,36	3.00
2407966	KM63TSS32LPDUNR15	40	1.57	50	1.97	27	1.063	117	4.61	140	5.512	CN..120408/CN..432	1,68	3.70
2407968	KM63TSS32LPDUNL15	50	1.97	63	2.48	35	1.378	149	5.88	170	6.693	CN..120408/CN..432	2,67	5.89

■ Spare Parts

catalog number	shim lever screw shim pin toggle lever punch				
	shim	lever screw	shim pin	toggle lever	punch
right hand					
KM63TSS32LPCLNR12	512.112	514.123	513.023	511.023	515.018
KM63TSS50PPCLNR12	512.112	514.123	513.023	511.023	515.018
KM63TSS25KPDUNR11	—	514.122	—	511.022	—
KM63TSS40LPCLNR12	512.112	514.123	513.023	511.023	515.018
left hand					
KM63TSS32LPCLNL12	512.112	514.123	513.023	511.023	515.018
KM63TSS25KPDUNL11	—	514.122	—	511.022	—
KM63TSS32LPDUNR15	512.112	514.123	513.023	511.023	515.018
KM63TSS32LPDUNL15	512.112	514.123	513.023	511.023	515.018



KM63TS Internal Cutting Units

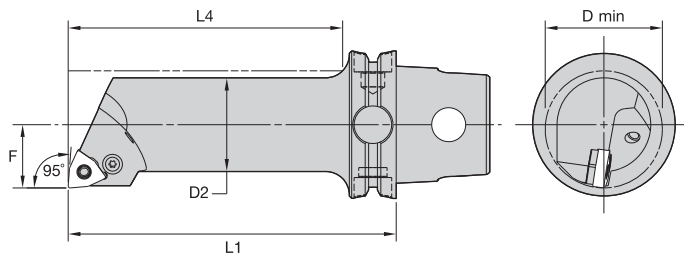


■ PDUN 93°

order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs	
		mm	in	mm	in	mm	in	mm	in	mm	in				
		right hand													
2407985	KM63TSS25KPDUNR11	25	.98	32	1.26	17	.669	89	3.49	125	4.921	DN..110408/DN..332	1,06	2.340	
2407986	KM63TSS32LPDUNR15	32	1.26	40	1.57	22	.866	112	4.41	140	5.512	DN..150608/DN..442	1,35	2.980	
2407988	KM63TSS40LPDUNR15	40	1.57	50	1.97	27	1.063	117	4.62	140	5.512	DN..150608/DN..442	1,70	3.750	
2407990	KM63TSS50PPDUNR15	50	1.97	63	2.48	35	1.378	149	5.87	170	6.693	DN..150608/DN..442	2,73	6.030	
		left hand													
2257147	KM63TSS25KPDUNL11	25	.98	32	1.26	17	.669	89	3.49	125	4.921	DN..110408/DN..332	1,06	2.340	
2407987	KM63TSS32LPDUNL15	32	1.26	40	1.57	22	.866	112	4.41	140	5.512	DN..150608/DN..442	1,35	2.970	
2407989	KM63TSS40LPDUNL15	40	1.57	50	1.97	27	1.063	113	4.46	140	5.512	DN..150608/DN..442	1,70	3.750	
2407991	KM63TSS50PPDUNL15	50	1.97	63	2.48	35	1.378	149	5.88	170	6.693	DN..150608/DN..442	2,73	6.030	

■ Spare Parts

catalog number	shim	lever screw	shim pin	toggle lever	punch
	right hand				
KM63TSS25KPDUNR11	—	514.112	—	511.015	—
KM63TSS32LPDUNR15	512.153	514.128	513.023	511.024	515.018
KM63TSS40LPDUNR15	512.153	514.128	513.023	511.024	515.018
KM63TSS50PPDUNR15	512.153	514.128	513.023	511.024	515.018
	left hand				
KM63TSS25KPDUNL11	—	514.112	—	511.015	—
KM63TSS32LPDUNL15	512.153	514.128	513.023	511.024	515.018
KM63TSS40LPDUNL15	512.153	514.128	513.023	511.024	515.018
KM63TSS50PPDUNL15	512.153	514.128	513.023	511.024	515.018



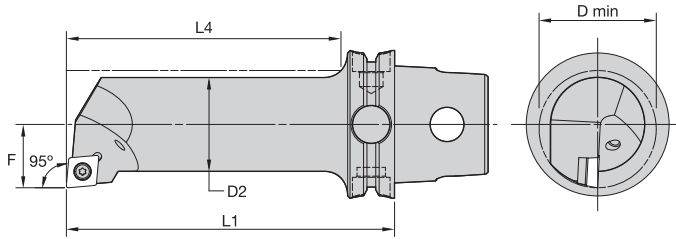
■ PWLN 95°

order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs
		mm	in	mm	in	mm	in	mm	in	mm	in			
right hand														
2408039	KM63TSS25KPWLN08	25	.98	32	1.26	17	.669	88	3.47	125	4.921	WN..080408/WN..432	1,14	2.52
2408041	KM63TSS32LPWLN08	32	1.26	40	1.57	22	.866	112	4.41	140	5.512	WN..080408/WN..432	1,36	2.99
2408043	KM63TSS40LPWLN08	40	1.57	50	1.97	27	1.063	117	4.61	140	5.512	WN..080408/WN..432	1,67	3.67
2408045	KM63TSS50PPWLN08	50	1.97	63	2.48	35	1.378	149	5.88	170	6.693	WN..080408/WN..432	2,62	5.77
left hand														
2408040	KM63TSS25KPWLN08	25	.98	32	1.26	17	.669	88	3.47	125	4.921	WN..080408/WN..432	1,13	2.48
2408042	KM63TSS32LPWLN08	32	1.26	40	1.57	22	.866	112	4.41	140	5.512	WN..080408/WN..432	1,36	2.99
2408044	KM63TSS40LPWLN08	40	1.57	50	1.97	27	1.063	117	4.61	140	5.512	WN..080408/WN..432	1,67	3.67
2408046	KM63TSS50PPWLN08	50	1.97	63	2.48	35	1.378	149	5.88	170	6.693	WN..080408/WN..432	2,61	5.75

■ Spare Parts



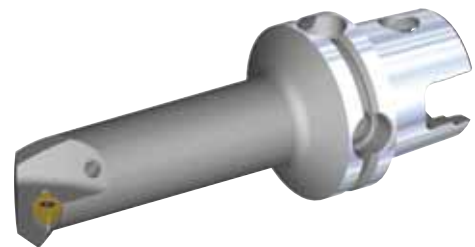
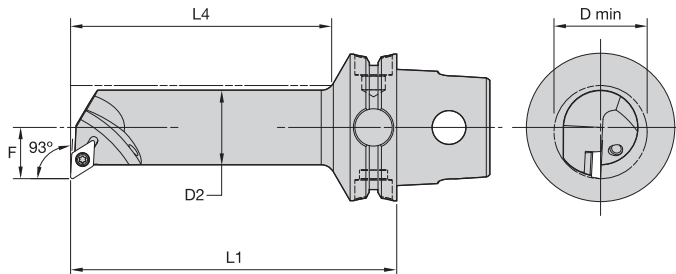
catalog number	shim	lever lock screw	shim pin	toggle lever	punch
right hand					
KM63TSS25KPWLN08	—	514.122	—	511.022	—
KM63TSS32LPWLN08	512.135	514.123	513.023	511.023	515.018
KM63TSS40LPWLN08	512.135	514.123	513.023	511.023	515.018
KM63TSS50PPWLN08	512.135	514.123	513.023	511.023	515.018
left hand					
KM63TSS25KPWLN08	—	514.122	—	511.022	—
KM63TSS32LPWLN08	512.135	514.123	513.023	511.023	515.018
KM63TSS40LPWLN08	512.135	514.123	513.023	511.023	515.018
KM63TSS50PPWLN08	512.135	514.123	513.023	511.023	515.018



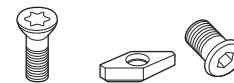
■ SCLC 95°



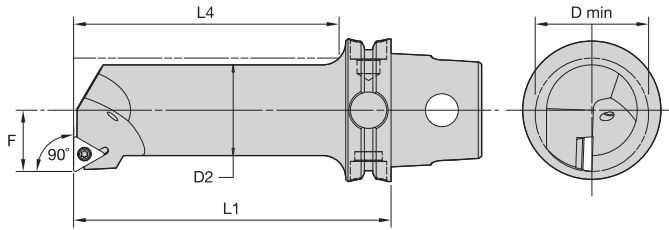
order number	catalog number	D2		D min		F		L4		L1		gage insert	insert screw	shim	shim screw	kg	lbs
		mm	in	mm	in	mm	in	mm	in	mm	in						
		right hand															
2414908	KM63TSS40LSCLCR12	40	1.57	50	1.97	27	1.063	117	4.612	140	5.512	CC..120408/CC..432	MS1158	SKCP453	SRS4	1,71	3.76
		left hand															
2414909	KM63TSS40LSCLCL12	40	1.57	50	1.97	27	1.063	117	4.612	140	5.512	CC..120408/CC..432	MS1158	SKCP453	SRS4	1,70	3.76



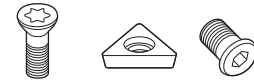
■ SDUC 93°



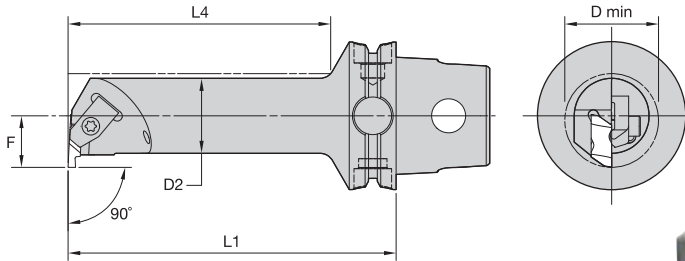
order number	catalog number	D2		D min		F		L4		L1		gage insert	insert screw	shim	shim screw	kg	lbs
		mm	in	mm	in	mm	in	mm	in	mm	in						
		right hand															
2414894	KM63TSS32LSDUCR11	32	1.26	40	1.57	22	.866	112	4.418	140	5.512	DC..11T308/DC..3252	MS1156	SKDP343	SRS3	1,35	2.98
		left hand															
2414895	KM63TSS32LSDUCL11	32	1.26	40	1.57	22	.866	112	4.418	140	5.512	DC..11T308/DC..3252	MS1156	SKDP343	SRS3	1,35	2.98



■ STFC 90°



order number	catalog number	D2		D min		F		L4		L1		gage insert	insert screw	shim	shim screw	kg	lbs
		mm	in	mm	in	mm	in	mm	in	mm	in						
		right hand															
2414901	KM63TSS40LSTFCR16	40	1.57	50	1.97	27	1.063	117	4.612	140	5.512	TC..16T308/TC..3252	MS1156	SKTP343	SRS3	1,71	3.77
		left hand															
2414902	KM63TSS40LSTFCL16	40	1.57	50	1.97	27	1.063	117	4.612	140	5.512	TC..16T308/TC..3252	MS1156	SKTP343	SRS3	1,71	3.77



■ NE 90° • Steel

order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs	
		mm	in	mm	in	mm	in	mm	in	mm	in				
		right hand													
2265369	KM63TSS32LNER3	32	1.26	40	1.57	22	.866	112	4.412	140	5.512	NG3L	1,34	2.95	
		left hand													
2265370	KM63TSS32LNEL3	32	1.26	40	1.57	22	.866	112	4.412	140	5.512	NG3R	1,34	2.95	

■ Spare Parts



catalog number	clamp	clamp screw
right hand KM63TSS32LNER3	CM73	MS1489
left hand KM63TSS32LNEL3	CM72	MS1489

Common Challenges in Internal Machining

Internal machining operations are very sensitive to chatter and vibrations.

Common challenges include:

- Unfavorable geometric circumstances.
- Machining at extended length-to-diameter ratios.

Additionally, internal machining offers little space for a stable tool and has restrictions for coolant supply and chip removal. These factors can lead to chattering, poor surface finish, noisy vibrations, and workpieces that are out of tolerance. Kennametal solves these problems with our portfolio of Tunable Boring Bars.

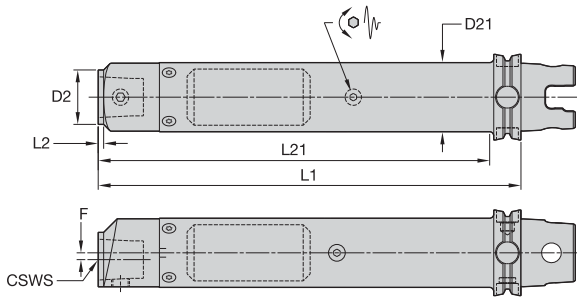
Kennametal Tunable Tooling

The Kennametal Tunable Boring Bars are manufactured with an internal dampening package designed to eliminate chatter in deep-hole boring applications. We manufacture standard tunable bars and have extensive capabilities to design and produce almost any style of tunable product, including boring bars, extensions, holders, rotating adapters, and modular sections.

Advantages of Kennametal Tunable Tooling

The features of the Kennametal proprietary Tunable Boring Bar system provide significant advantages:

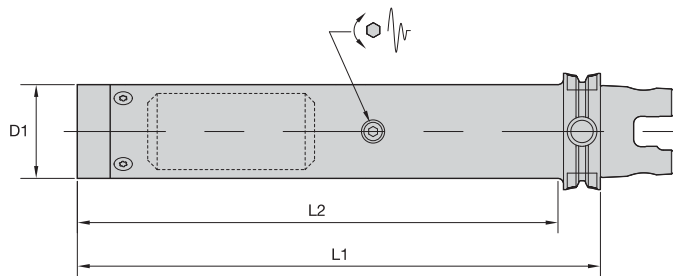
- **Optimal rigidity**
Improved surface quality and close tolerances due to vibration-free machining.
- **Increased productivity**
Larger depth of cut and better chip removal by up to 10:1 (steel) and 15:1 (carbide) length-to-diameter ratio.
- **Machining without chatter or vibration**
Less noise exposure and improved machining results.
- **Tunable damping mechanism**
Bar can be tuned on the machine and tool can be adjusted to account for different vibration behavior.



■ TTB • KM Tunable Bar

order number	catalog number	CSWS system size	D2		D21		F		L1		L2		L21	
			mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
3901267	KM63TSD40TTB15KM40	KM40	40,00	1.575	63,50	2.500	11,75	.463	386,92	15.233	4,00	.157	386,92	15.233
3901269	KM63TSD32TTB16KM40	KM40	40,00	1.575	50,00	1.969	5,00	.197	412,32	16.233	4,00	.157	392,32	15.446
3901268	KM63TSD28TTB14KM40	KM40	40,00	1.575	44,45	1.750	0,00	.000	361,52	14.233	4,00	.157	341,52	13.446
3901270	KM63TSD40TTB20KM40	KM40	40,00	1.575	63,50	2.500	11,75	.463	513,92	20.233	4,00	.157	513,92	20.233
3901266	KM63TSD32TTB12KM40	KM40	40,00	1.575	50,00	1.969	5,00	.197	310,71	12.233	4,00	.157	290,71	11.445
3901265	KM63TSD24TTB9KM40	KM40	40,00	1.575	38,10	1.500	0,00	.000	234,55	9.234	214,55	8.447	—	—

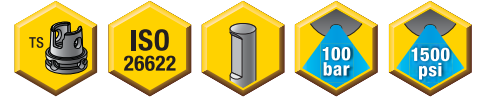
NOTE: For technical information, refer to page M90.



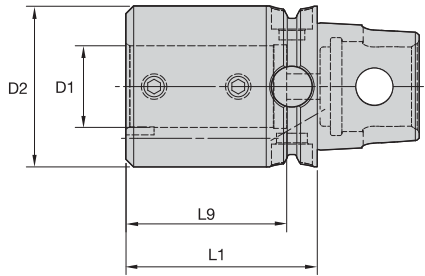
■ TTB • KM Tunable Bar • Bolt-On Head

order number	catalog number	D1		L1		L2		SHCS 3 required	SHCS 1 required
		mm	in	mm	in	mm	in		
3768909	KM63TSD32TTB6	50,80	2.000	134,3	5.29	111,1	4.37	—	S339
3768910	KM63TSD24TTB9	38,10	1.500	207,3	8.16	187,3	7.38	S327	S330
3768911	KM63TSD32TTB12	50,80	2.000	283,5	11.16	263,5	10.38	S337	S340
3768933	KM63TSD28TTB14	44,45	1.750	334,3	13.16	314,3	12.38	S337	S340
3768912	KM63TSD40TTB15	63,50	2.500	359,7	14.16	359,7	14.16	S350	S353
3768934	KM63TSD32TTB16	50,80	2.000	385,1	15.16	365,1	14.37	S337	S340
3768935	KM63TSD40TTB20	63,50	2.500	486,7	19.16	466,7	18.38	S350	S353

NOTE: For technical information, refer to page M90.



KM63TS Shank Tools


■ BA • Boring Bar Adapter • Internal and External Coolant • Metric


order number	catalog number	D1	D2	L1	L9	clamp screw	wrench size clamp screw	Nm	kg
2269898	KM63TSBA10055M	10	40	55	48	MS1211	4mm	15	0,98
2269899	KM63TSBA12060M	12	40	60	52	MS1211	4mm	15	1,01
2269900	KM63TSBA16065M	16	40	65	55	MS1212	5mm	25	1,02
2269901	KM63TSBA20070M	20	40	70	58	MS1212	5mm	25	0,99
2269902	KM63TSBA25070M	25	50	70	58	MS1212	5mm	25	1,17
2269903	KM63TSBA32075M	32	63	75	63	MS1205	5mm	25	1,60
2255549	KM63TSBA40105M	40	70	105	75	MS1935	6mm	45	2,43

■ BA • Boring Bar Adapter • Internal and External Coolant • Inch


order number	catalog number	D1	D2	L1	L9	clamp screw	wrench size clamp screw	ft. lbs.	lbs
2269893	KM63TSBA10256	5/8	1.58	2.559	2.17	S862	3/16	25	2.22
2269895	KM63TSBA16276	1	1.97	2.756	2.28	S862	3/16	25	2.54
2269891	KM63TSBA06217	3/8	1.58	2.165	1.89	S843	1/8	8	2.15
2269892	KM63TSBA08236	1/2	1.58	2.362	2.05	S852	5/32	15	2.21
2269894	KM63TSBA12276	3/4	1.58	2.756	2.28	S862	3/16	25	2.23
2269896	KM63TSBA20295	1 1/4	2.48	2.953	2.48	S863	3/16	25	3.41
2269897	KM63TSBA24413	1 1/2	2.76	4.134	2.95	S884	1/4	60	5.45

NOTE: Do not overtighten clamp screw; use torque recommendations above.
 Supplied with clamp screw.
 Clamp screw wrench not included.

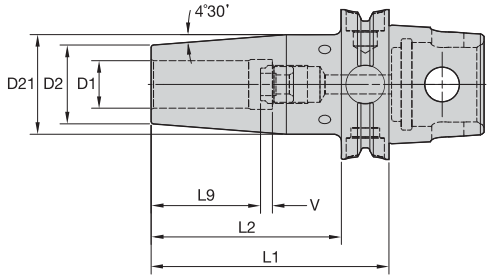
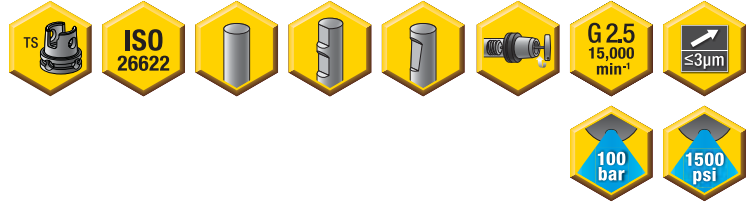
KM63TS™ Shank Tools

Shrink Fit Toolholders General Purpose (GP)



KM63TS Shank Tools

- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide and HSS cutting tools (requirements below).



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
6	h6	0,000/-0,008
8 & 10	h6	0,000/-0,009
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016



■ HPV TT • Metric



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	kg
3869194	KM63TSHPVTT06080M	6	21	27	80	60	26	10	TTSS05014M	2,5mm	0,83
3869195	KM63TSHPVTT08080M	8	21	27	80	60	26	10	TTSS06014M	3mm	0,83
3869196	KM63TSHPVTT10090M	10	24	32	90	70	31	10	TTSS08014M	4mm	0,95
3869197	KM63TSHPVTT12090M	12	24	32	90	70	36	10	TTSS10014M	5mm	0,93
3869198	KM63TSHPVTT14100M	14	27	34	100	80	36	10	TTSS10014M	5mm	1,05
3869199	KM63TSHPVTT16100M	16	27	34	100	80	39	10	TTSS12014M	6mm	1,03
3869200	KM63TSHPVTT18100M	18	33	42	100	80	39	10	TTSS12014M	6mm	1,24
3869201	KM63TSHPVTT20100M	20	33	42	100	80	41	10	TTSS16014M	8mm	1,21
3869202	KM63TSHPVTT25120M	25	44	53	120	100	47	10	TTSS16014M	8mm	1,92
3869203	KM63TSHPVTT32120M	32	44	53	120	100	51	10	TTSS16014M	8mm	1,76

(continued)

(HPV TT continued)

Cutting Tool Shank Requirements
inch (industry standard)

cutting tool shank diameter	tolerance
1/4, 5/16, & 3/8	-.0001/- .0004
7/16, 1/2, 9/16, 5/8, & 11/16	.0000/- .0004
3/4, 7/8, 1, & 1-1/4	.0000/- .0005

■ HPV TT • Inch



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	lbs
3869253	KM63TSHPVTT025315	1/4	.827	1.059	3.150	2.362	1.024	.394	TTSS05014M	2,5mm	1.84
3869254	KM63TSHPVTT031315	5/16	.827	1.059	3.150	2.362	1.024	.394	TTSS06014M	3mm	1.82
3869255	KM63TSHPVTT038335	3/8	.945	1.256	3.347	2.559	1.221	.394	TTSS08014M	4mm	2.02
3869256	KM63TSHPVTT044354	7/16	.945	1.256	3.543	2.756	1.417	.394	TTSS10014M	5mm	2.06
3869257	KM63TSHPVTT050354	1/2	.945	1.256	3.543	2.756	1.417	.394	TTSS10014M	5mm	2.04
3869258	KM63TSHPVTT056354	9/16	1.063	1.335	3.543	2.756	1.417	.394	TTSS10014M	5mm	2.16
3869259	KM63TSHPVTT062374	5/8	1.063	1.335	3.740	2.953	1.535	.394	TTSS12014M	6mm	2.19
3869260	KM63TSHPVTT068374	11/16	1.299	1.650	3.740	2.953	1.535	.394	TTSS12014M	6mm	2.63
3869261	KM63TSHPVTT075394	3/4	1.299	1.650	3.937	3.150	1.614	.394	TTSS16014M	8mm	2.68
3869262	KM63TSHPVTT088394	7/8	1.299	1.650	3.937	3.150	1.614	.394	TTSS16014M	8mm	2.59
3869263	KM63TSHPVTT100453	1	1.732	2.083	4.528	3.740	1.850	.394	TTSS16014M	8mm	4.03
3869264	KM63TSHPVTT125472	1 1/4	1.732	2.083	4.724	3.937	2.008	.394	TTSS16014M	8mm	3.88

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.
Shrink Fit technical section, see page M78.
Supplied with stop screw.
Adjusting stop screw gage, see page M81.
Shrink Fit accessories, see page L12-L13.
Optional M6~1.0P x 5 lg fine-balancing screw set (10 pieces) is available.
Order number is MS1276PKG and must be ordered separately.

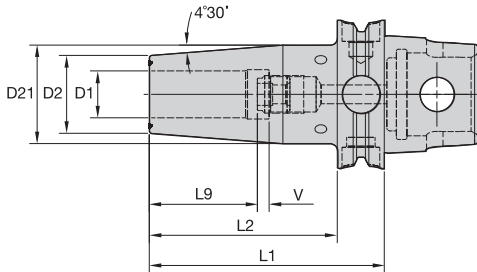
KM63TS™ Shank Tools

Shrink Fit Toolholders High Torque (HT)



KM63TS Shank Tools

- 30–50% higher clamping torque compared to GP line.
- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide only, designated by groove in front face (requirements below).
- 10 kW power or greater Shrink Fit device must be used.



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000 -0,016

■ HPV TT HT • Metric



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	kg
3869209	KM63TSHPVTTHT12090M	12	24	1	90	70	36	10	TTSS10014M	5mm	0,93
3869210	KM63TSHPVTTHT14100M	14	27	1	100	80	36	10	TTSS10014M	5mm	1,05
3869211	KM63TSHPVTTHT16100M	16	27	1	100	80	39	10	TTSS12014M	6mm	1,03
3869212	KM63TSHPVTTHT18100M	18	33	2	100	80	39	10	TTSS12014M	6mm	1,24
3869213	KM63TSHPVTTHT20100M	20	33	2	100	80	41	10	TTSS16014M	8mm	1,21
3869214	KM63TSHPVTTHT25120M	25	44	2	120	100	47	10	TTSS16014M	8mm	1,92
3869215	KM63TSHPVTTHT32120M	32	44	2	120	100	51	10	TTSS16014M	8mm	1,76

(continued)

(HPV TT HT continued)

Cutting Tool Shank Requirements
inch (industry standard)

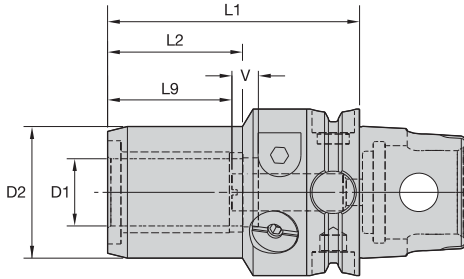
cutting tool shank diameter	tolerance
1/2, 9/16, 5/8, & 11/16	.0000/- .0004
3/4, 7/8, 1, & 1-1/4	.0000/- .0005

■ HPV TT HT • Inch



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	lbs
3869234	KM63TSHPVTTHT050354	1/2	.945	1.256	3.543	2.756	1.417	.394	TTSS10014M	5mm	2.04
3869235	KM63TSHPVTTHT056354	9/16	1.063	1.335	3.543	2.756	1.417	.394	TTSS10014M	5mm	2.16
3869236	KM63TSHPVTTHT062374	5/8	1.063	1.335	3.740	2.953	1.535	.394	TTSS12014M	6mm	2.19
3869237	KM63TSHPVTTHT068374	11/16	1.299	1.650	3.740	2.953	1.535	.394	TTSS12014M	6mm	2.63
3869238	KM63TSHPVTTHT075394	3/4	1.299	1.650	3.937	3.150	1.614	.394	TTSS16014M	8mm	2.68
3869239	KM63TSHPVTTHT088394	7/8	1.299	1.650	3.937	3.150	1.614	.394	TTSS16014M	8mm	2.59
3869240	KM63TSHPVTTHT100453	1	1.732	2.083	4.528	3.740	1.850	.394	TTSS16014M	8mm	4.03
3869241	KM63TSHPVTTHT125472	1 1/4	1.732	2.083	4.724	3.937	2.008	.394	TTSS16014M	8mm	3.88

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.
Shrink Fit technical section, see page M78.
Supplied with stop screw.
Adjusting stop screw gage, see page M81.
Shrink Fit accessories, see page L12–L13.
Optional M6~1.0P x 5 lg fine-balancing screw set (10 pieces) is available.
Order number is MS1276PKG and must be ordered separately.



■ HC • Metric



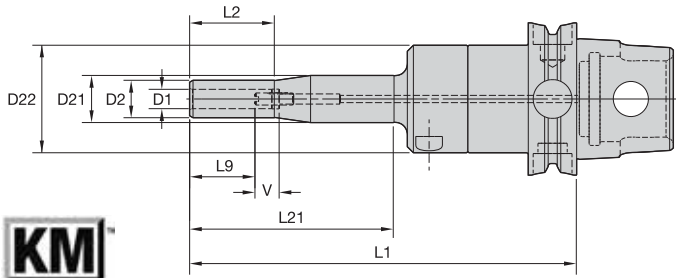
order number	catalog number	D1	D2	L1	L2	L9	V	actuation wrench	wrench size actuation screw	length adjustment wrench	wrench size stop screw	kg
2388650	KM63TSHC06070M	6	26	70	33	27	10	170.135	5mm	170.002	2,5mm	1,08
2388651	KM63TSHC08070M	8	28	70	33	27	10	170.135	5mm	170.002	2,5mm	1,10
2388652	KM63TSHC10075M	10	30	75	36	31	10	170.135	5mm	170.002	2,5mm	1,17
2388653	KM63TSHC12080M	12	32	80	41	36	10	170.135	5mm	170.002	2,5mm	1,21
2388654	KM63TSHC14080M	14	34	80	43	36	10	170.135	5mm	170.003	2,5mm	1,18
2388655	KM63TSHC16080M	16	38	80	48	39	10	170.135	5mm	170.003	3mm	1,17
2388656	KM63TSHC18080M	18	40	80	47	39	10	170.135	5mm	170.003	3mm	1,19
2388657	KM63TSHC20085M	20	42	85	48	41	10	170.135	5mm	170.003	3mm	1,32
2388658	KM63TSHC25095M	25	50	95	51	47	10	170.136	6mm	170.004	4mm	1,64
2388659	KM63TSHC32100M	32	60	100	59	51	10	170.136	6mm	170.004	4mm	1,92

■ HC • Inch



order number	catalog number	D1	D2	L1	L2	L9	V	actuation wrench	wrench size actuation screw	length adjustment wrench	wrench size stop screw	lbs
2388643	KM63TSHC025288	1/4	1.01	2.875	1.30	1.06	.39	170.135	5mm	170.002	2,5mm	2.53
2388644	KM63TSHC038300	3/8	1.17	3.000	1.42	1.22	.39	170.135	5mm	170.002	2,5mm	2.64
2388645	KM63TSHC050325	1/2	1.24	3.250	1.61	1.42	.39	170.135	5mm	170.002	2,5mm	2.79
2388646	KM63TSHC062325	5/8	1.48	3.250	1.87	1.54	.39	170.135	5mm	170.003	3mm	2.71
2388647	KM63TSHC075338	3/4	1.64	3.375	1.89	1.61	.39	170.135	5mm	170.003	3mm	2.97
2388648	KM63TSHC100375	1	1.96	3.750	2.01	1.85	.39	170.136	6mm	170.004	4mm	3.61
2388649	KM63TSHC125400	1 1/4	2.35	4.000	2.32	2.01	.39	170.136	6mm	170.004	4mm	4.33

NOTE: Do not overtorque clamp screw. Tighten by hand until stop is felt.
Hydraulic chuck technical section, see page M84.
Supplied with stop screw.
Reduction sleeves are available and must be ordered separately; see page J2.

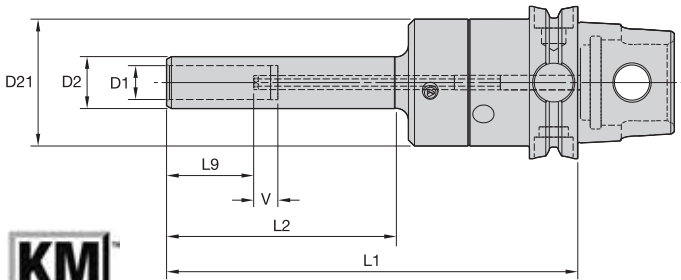


KM63TS Shank Tools

■ HCSLT • Metric



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	actuation wrench	wrench size actuation screw	length adjustment wrench	wrench size stop screw	kg
3055503	KM63TSHCSLT06160M	6	14	20	44	160	35	85	27	10	170.135	5mm	170.002	2,5mm	1,36
3055504	KM63TSHCSLT08160M	8	16	20	44	160	35	85	27	10	170.135	5mm	170.002	2,5mm	1,37
3055505	KM63TSHCSLT10160M	10	18	44	—	160	85	140	31	10	170.135	5mm	170.003	3mm	1,35



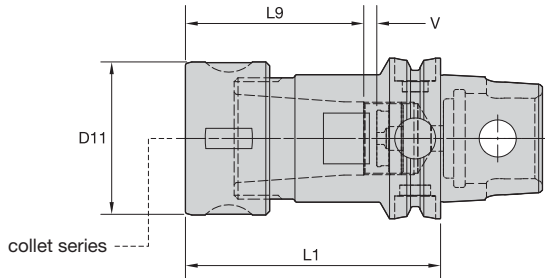
■ HCSL • Metric



order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	length adjustment wrench	wrench size stop screw	kg
3055506	KM63TSHCSL12170M	12	20	44	170	95	36	10	170.135	5mm	170.002	2,5mm	1,40
3055507	KM63TSHCSL14170M	14	22	52	170	95	36	10	170.135	5mm	170.002	2,5mm	1,66
3055508	KM63TSHCSL16170M	16	24	52	170	95	39	10	170.135	5mm	170.002	2,5mm	1,67
3055509	KM63TSHCSL18170M	18	26	52	170	95	39	10	170.135	5mm	170.002	2,5mm	1,71
3055510	KM63TSHCSL20170M	20	28	52	170	95	41	10	170.135	5mm	170.002	2,5mm	1,75

NOTE: Do not overtorque clamp screw. Use supplied wrench and tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Reduction sleeves are available and must be ordered separately; see page J2.
 Supplied with stop screw.

- Tremendous Grip (3:1 advantage).



TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG100	2,6	25,5	5/64	1

■ Collet Chuck • Round Nut

order number	catalog number	collet series	D11		L1		L9		V		kg	lbs
			mm	in	mm	in	mm	in	mm	in		
2384711	KM63TSTG100100M	TG100	60	2.36	100	3.937	69,0	2.72	9	.36	1,54	3.40

■ Spare Parts



catalog number	locknut	wrench	Nm	ft. lbs.	stop screw	wrench size stop screw
KM63TSTG100100M	LNA100M	HSW58M	203	150	SS112041G	4mm & 5/32

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
Collet chuck technical section, see page M98.
Supplied with locknut and stop screw.
Locknut wrench must be ordered separately.
Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16–L17.
Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.
TG standard straight-bore collets, see page J10.
TG tap collets, see page J10.



KM[™] The ISO 26622 QUICK CHANGE Standard

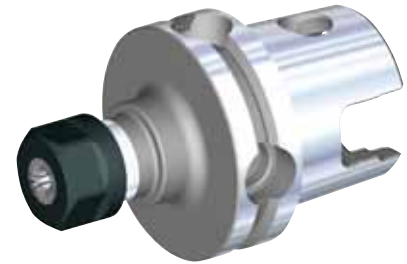
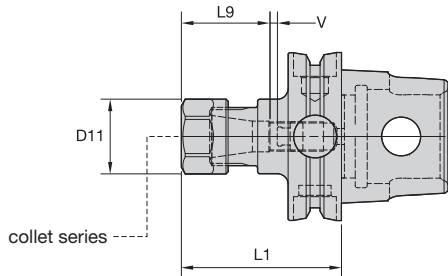
KM[™] Quick-Change Tooling — the ISO 26622 Standard.

- Our unique three-surface taper contact design makes this the most rigid and accurate modular quick-change tooling system available.
- It's highly versatile, too: can be fully and easily employed on your lathe, machining center, multi-spindle, or mill-turn machine — significantly reducing your tool-change and part setup downtime!

www.kennametal.com

 **KENNAMETAL[®]**

- Grip (2:1 advantage).



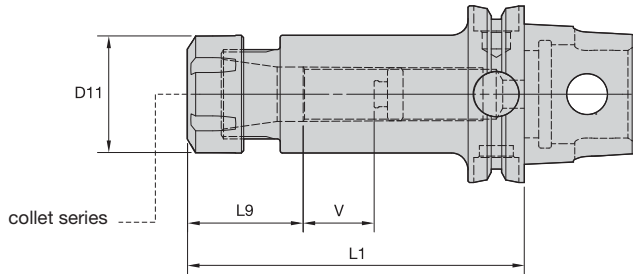
ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER16	0,5	10,0	.02	.41

■ Collet Chuck • Hex Nut

order number	catalog number	collet series	D11		L1		L9		V		locknut	OEW	stop screw	counterbore collet torque		straight collet torque		kg	lbs
			mm	in	mm	in	mm	in	mm	in				Nm	ft. lbs.	Nm	ft. lbs.		
2255039	KM63TSER16060M	ER16	28	1.10	60	2.362	32	1.26	13	.51	LNHSER16M	OEW25M	SS044038G	40	30	56	42	0,73	1.61
2255041	KM63TSER16120M	ER16	28	1.10	120	4.724	32	1.26	48	1.89	LNHSER16M	OEW25M	SS044038G	40	30	56	42	0,98	2.17

(continued)

(Collet Chuck continued)



KM63TS Shank Tools

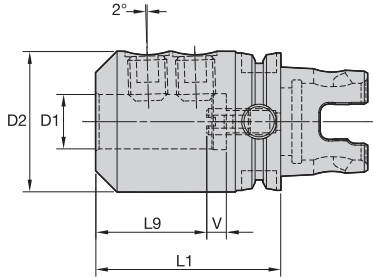


ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER25	1,0	16,0	.04	.63
ER32	2,0	20,0	.08	.81
ER40	3,0	26,0	.12	1.00

■ Collet Chuck • Round Nut

order number	catalog number	collet series	D11		L1		L9		V		locknut	wrench	stop screw	Nm ft. lbs. kg lbs			
			mm	in	mm	in	mm	in	mm	in							
2255042	KM63TSER25065M	ER25	42	1.65	65	2.559	40,0	1.57	—	—	LNSER25M	ER25WM	—	104	77	0,88	1.93
2255053	KM63TSER25120M	ER25	42	1.65	120	4.724	40,0	1.57	47	1.85	LNSER25M	ER25WM	SS075041G	104	77	1,37	3.03
2255551	KM63TSER32065M	ER32	50	1.97	65	2.559	46,0	1.81	—	—	LNSER32M	ER32WM	—	136	100	0,94	2.08
2253812	KM63TSER32120M	ER32	50	1.97	120	4.724	46,0	1.81	34	1.34	LNSER32M	ER32WM	SS094041G	136	100	1,64	3.62
2255056	KM63TSER40065M	ER40	63	2.48	65	2.559	52,0	2.05	—	—	LNSER40M	ER40WM	—	176	130	1,04	2.30

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Interchangeable coolant-style locknuts and coolant disks are available and must be ordered separately; see page L19.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.

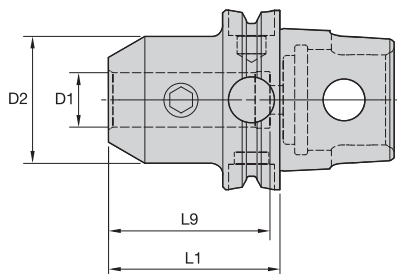
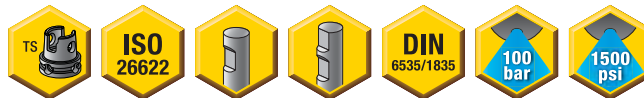


■ WN • Whistle Notch Adapter



order number	catalog number	D1	D2	L1	L9	V	lock screw	wrench size lock screw	Nm	stop screw	wrench size stop screw	kg
2253809	KM63TSWN20080M	20	52	80	45	10	SS03M026	8mm	95	571.063	5mm	1,41
2253810	KM63TSWN25085M	25	65	85	50	10	SS03M027	10mm	135	571.069	6mm	1,95
2253905	KM63TSWN32095M	32	72	95	54	10	SS03M029	10mm	160	571.069	6mm	2,46

NOTE: Do not overtighten lock screw; use torque recommendations above.
Supplied with lock screw and stop screw.
Lock screw and stop screw wrenches are not included.


EM • Metric


order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	Nm	kg
2253910	KM63TSEM12055M	12	42	55	50	SS03M023	6mm	35	0,91
2253676	KM63TSEM16060M	16	48	60	53	SS03M025	6mm	50	1,05
2269911	KM63TSEM20060M	20	52	60	55	SS03M026	8mm	95	1,10
2258495	KM63TSEM25080M	25	65	80	60	SS03M027	10mm	135	1,82
2255038	KM63TSEM32090M	32	72	90	65	SS03M029	10mm	160	2,31
2269912	KM63TSEM40095M	40	80	95	75	SS03M029	10mm	160	2,74

EM • Inch


order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
2269904	KM63TSEM050216	1/2	1.38	2.165	1.97	ELS044038PKG	7/32	20	1.76
2269905	KM63TSEM062236	5/8	1.63	2.362	2.09	ELS056050PKG	1/4	40	2.04
2269906	KM63TSEM075236	3/4	1.75	2.362	2.22	ELS062050PKG	5/16	70	2.07
2269907	KM63TSEM088236	7/8	2.00	2.362	2.22	ELS062050PKG	5/16	70	2.28
2269908	KM63TSEM100315	1	2.00	3.150	2.46	ELS075056PKG	3/8	110	2.80
2269909	KM63TSEM125354	1 1/4	2.50	3.543	2.51	ELS075062PKG	3/8	110	4.13
2269910	KM63TSEM150374	1 1/2	2.75	3.740	2.93	ELS075069PKG	3/8	110	4.68

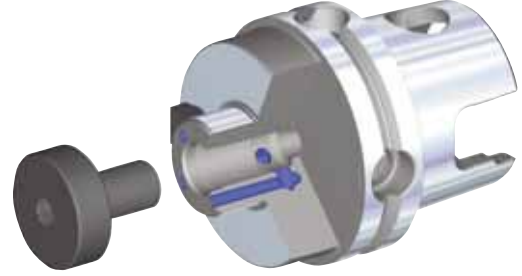
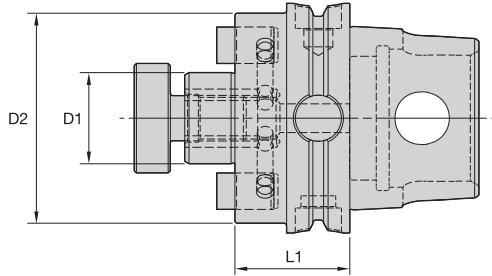
NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw.
 Lock screw wrench not included.

KM63TS™ Shank Tools

SMC Shell Mill Adapters with Through Coolant

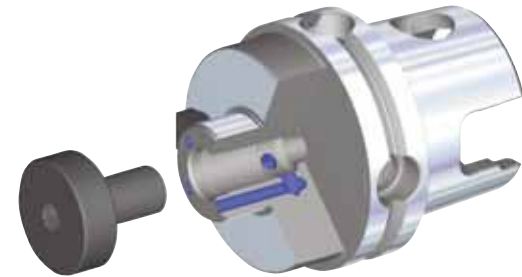
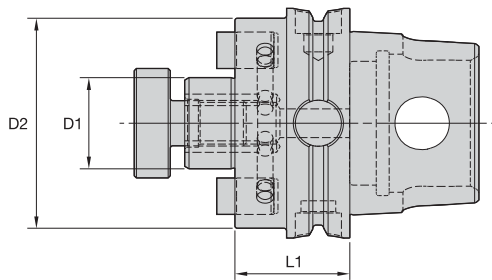


KM63TS Shank Tools



■ SMC • Metric

order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size lock screw	kg
3950894	KM63TSSMC22028M	22	49	28	MS1234	KDK22M	8mm	0,81
3950895	KM63TSSMC27032M	27	60	32	KLSS27M	KDK27M	10mm	1,02
3950896	KM63TSSMC32040M	32	78	40	KLSS32M	KDK32M	14mm	1,56
3950897	KM63TSSMC40045M	40	89	45	KLSS40M	KDK40M	17mm	2,10



■ SMC • Inch

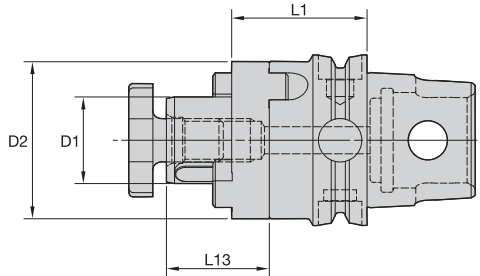
order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size lock screw	lbs
3950864	KM63TSSMC050102	1/2	1.44	1.024	KLS05	KDK04	3/16	1.53
3950866	KM63TSSM2C075126	3/4	1.46	1.260	KLS07	—	1/4	1.77
3950865	KM63TSSMC075126	3/4	1.75	1.260	KLS07	KDK05	1/4	1.84
3950868	KM63TSSM2C100126	1	2.19	1.260	KLS10	KDK06	5/16	2.10
3950867	KM63TSSMC100126	1	2.75	1.260	KLS10	KDK06	5/16	2.35
3950869	KM63TSSMC125157	1 1/4	2.88	1.575	KLS12	KDK08	5/16	3.19
3950870	KM63TSSMC150177	1 1/2	3.81	1.772	KLS15	KDK10	3/8	4.86



NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive keys.
 Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
 Lock screw wrench not included.



KM63TS Shank Tools

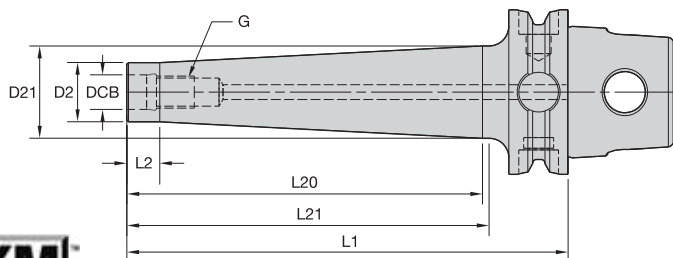


■ CS • Metric



order number	catalog number	D1	D2	L1	L13	lock screw	combi driver	combi drive key	kg
2384735	KM63TSCS27040M	27	48	40	21	KLS27MPKG	CDR27M	CDK27M	1,03
2384736	KM63TSCS32050M	32	58	50	24	KLS32M	CDR32M	CDK32M	1,43
2384737	KM63TSCS40050M	40	70	50	27	KLS40M	CDR40M	CDK40M	1,87

NOTE: Do not overtighten lock screw.
 Supplied with lock screw, drive ring, and key.
 Lock screw wrench not included.



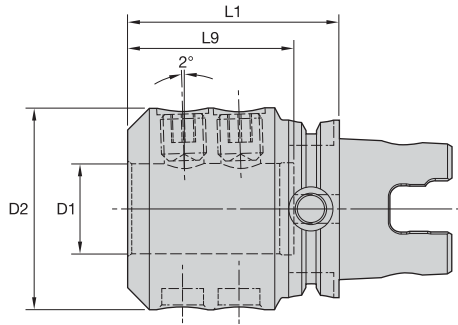
■ STC

order number	catalog number	DCB	G	D2	D21	L1	L2	L20	L21	kg
4137620	KM63TSSTC06059M	6,5	M6	10	11	59	10	33	33	0,64
4137621	KM63TSSTC06084M	6,5	M6	10	12	84	10	58	58	0,66
4137622	KM63TSSTC06109M	6,5	M6	10	14	109	10	83	83	0,69
4137853	KM63TSSTC08059M	8,5	M8	13	15	59	10	31	33	0,66
4137854	KM63TSSTC08084M	8,5	M8	13	18	84	10	56	58	0,71
4137855	KM63TSSTC08109M	8,5	M8	13	23	109	10	81	83	0,79
4137856	KM63TSSTC08134M	8,5	M8	13	23	134	10	106	108	0,84
4137857	KM63TSSTC10059M	10,5	M10	18	20	59	10	31	33	0,69
4137858	KM63TSSTC10084M	10,5	M10	18	25	84	10	56	58	0,79
4137859	KM63TSSTC10109M	10,5	M10	18	25	109	10	81	83	0,86
4137860	KM63TSSTC10134M	10,5	M10	18	28	134	10	106	108	0,98
4137861	KM63TSSTC12059M	12,5	M12	21	24	59	10	31	33	0,72
4137862	KM63TSSTC12084M	12,5	M12	21	24	84	10	56	58	0,80
4137873	KM63TSSTC12109M	12,5	M12	21	28	109	10	81	83	0,93
4137874	KM63TSSTC12134M	12,5	M12	21	31	134	10	106	108	1,07
4137875	KM63TSSTC16059M	17,0	M16	29	33	59	10	31	33	0,81
4137876	KM63TSSTC16084M	17,0	M16	29	33	84	10	56	58	0,95
4137877	KM63TSSTC16109M	17,0	M16	29	33	109	10	81	83	1,10
4137878	KM63TSSTC16134M	17,0	M16	29	33	134	10	106	108	1,24

NOTE: For technical information, see page M96–M97.



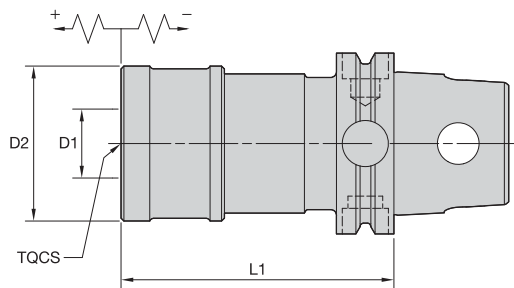
KM63TS Shank Tools



■ DAI



order number	catalog number	D1	D2	L1	L9	clamp screw	wrench size actuation screw	Nm	kg
2256001	KM63TSDAI40100M	40	90	100	75	SS03M029	10 mm	160	3,54



■ TC • Tension and Compression

order number	catalog number	TQCS adapter size	D1		D2		L1		kg	lbs
			mm	in	mm	in	mm	in		
1126271	KM63TSTC2095M	2	31	1.220	53	2.090	95	3.740	0,96	2.12
1126272	KM63TSTC3147M	3	48	1.890	78	3.070	147	5.790	1,97	4.34

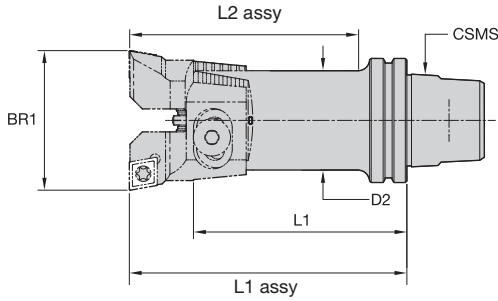
NOTE: Quick-change tap adapters available and must be ordered separately; see page J76.



- Preset on tool setter.
- Blade set included.



KM63TS Adapters



■ RBHT • KM™ Rough-Boring Twin Cutters

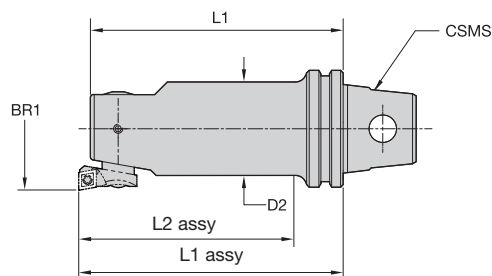
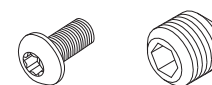


order number	catalog number	BR1 bore range		CSMS system size	D2		L1		L1 assy		L2 assy		blade screw	washer	pin
		mm	in		mm	in	mm	in	mm	in	mm	in			
3586545	KM63UTRBHT87	86,500-115,500	3.4055-4.5472	KM63UT	72,0	2.83	70,5	2.78	120,0	4.72	120,0	4.72	840.142.720	841.142.720	841.342.420
3586546	KM63UTRBHT115	114,500-153,000	4.5079-6.0236	KM63UT	94,0	3.70	83,2	3.28	150,0	5.91	150,0	5.91	840.142.940	841.142.940	841.342.420

- 0,01mm (.0004") diameter adjustment.
- Insert holder included.



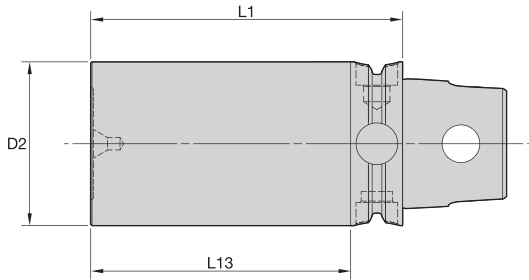
KMM63TS Adapters


■ FBHS • KM™ Fine-Boring Single Cutter


order number	catalog number	BR1 bore range		CSMS system size	D2		L1		L1 assy		L2 assy		cartridge mounting screw	lock screw
		mm	in		mm	in	mm	in	mm	in	mm	in		
3586578	KM63UTFBHS87	86,900-154,100	3.4213-6.0669	KM63UT	72,0	2.83	115,0	4.53	120,0	4.72	120,0	4.72	880.252.550	881.252.720
3586579	KM63UTFBHS116	115,900-191,100	4.5630-7.5236	KM63UT	96,0	3.70	145,0	5.71	150,0	5.91	150,0	5.91	880.252.550	881.252.940

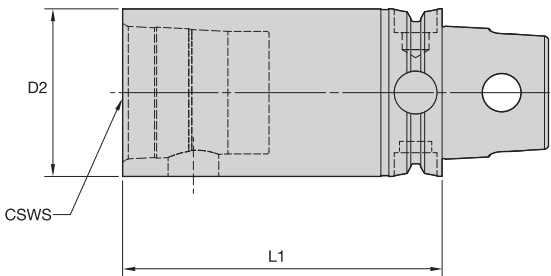
■ Reference Insert Cartridges

BR1		insert cartridges			
in	mm	90° lead		95° lead	
.9409 - 1.2244	23,900 - 31,100	R24FBHS06	—	R24FBHS06LF	—
1.1772 - 1.4606	29,900 - 37,100	R30FBHS06	—	—	—
1.2165 - 1.5787	30,900 - 40,100	R31FBHS06	—	R31FBHS06LF	—
1.4921 - 1.8543	37,900 - 47,100	F38FBHS06	—	—	—
1.5709 - 2.0118	39,900 - 51,100	R40FBHS06	—	R40FBHS06LF	—
1.8858 - 2.3268	47,900 - 59,100	R48FBHS06	—	—	—
2.0039 - 2.6417	50,900 - 67,100	R51FBHS06	—	R51FBHS06LF	—
2.5551 - 3.1929	64,900 - 81,100	R65FBHS06	—	—	—
2.6339 - 3.4291	66,900 - 87,100	R67FBHS06	R67FBHS09	—	R67FBHS09LF
3.3425 - 4.1378	84,900 - 105,100	R85FBHS06	R85FBHS09	—	—
3.4213 - 4.5709	86,900 - 116,100	R67FBHS06	R67FBHS09	—	R67FBHS09LF
4.1299 - 5.2795	104,900 - 134,100	R85FBHS06	R85FBHS09	—	—
4.5630 - 6.0669	115,900 - 154,100	R67FBHS06	R67FBHS09	—	R67FBHS09LF
5.2717 - 6.7362	133,900 - 171,100	R85FBHS06	R85FBHS09	—	—
6.0591 - 7.5236	153,900 - 191,100	—	R125FBHS09	—	—



■ GB • Gage Bar

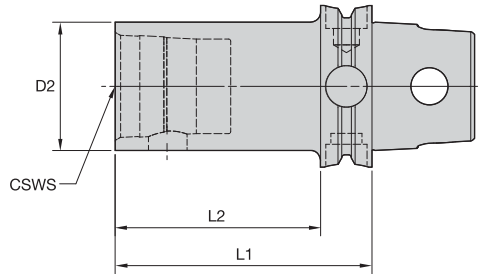
order number	catalog number	D2		L1		L13		kg	lbs
		mm	in	mm	in	mm	in		
1895373	KM63TSGB50350M	50	1.97	340	13.39	312	12.28	4,64	10.22
1144562	KM63TSGB63120M	63	2.48	120	4.72	100	3.94	3,05	6.72



■ S • KM™ Extension



order number	catalog number	CSWS system size	D2		L1		wrench size actuation screw	Nm	ft. lbs.	spare parts package	kg	lbs
			mm	in	mm	in						
2253808	KM63TSS63080M	KM63	63	2.480	80	3.150	12mm	47-54	35-40	KM63PKG3S	1,69	3.73
2397720	KM63TSS63120M	KM63	63	2.480	120	4.724	12mm	47-54	35-40	KM63PKG3S	2,63	5.81

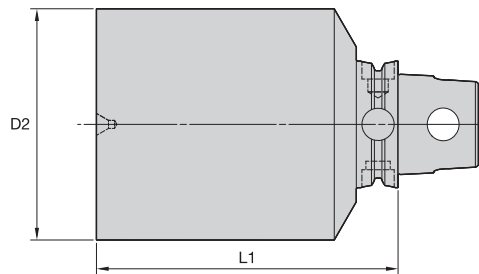

■ S • KM Reducer


order number	catalog number	CSWS system size	D2		L1		L2		wrench size actuation screw			spare parts package		
			mm	in	mm	in	mm	in	Nm	ft. lbs.	kg	lbs		
2397719	KM63TSS32070M	KM32	32	1.258	70	2.756	50	1.969	5mm	8-11	6-8	KM32PKG3S	0,90	1.97
2253907	KM63TSS40080M	KM40	40	1.573	80	3.150	60	2.362	6mm	12-16	9-12	KM40PKG3S	1,12	2.47
2253906	KM63TSS50100M	KM50	50	1.967	100	3.937	80	3.150	10mm	27-34	20-25	KM50PKG3S	1,63	3.58

■ S • KM Reducer • Centerline


order number	catalog number	CSWS system size	D2		L1		wrench size actuation screw			spare parts package		
			mm	in	mm	in	Nm	ft. lbs.	kg	lbs		
3503748	KM63TSS50065M	KM50	50	1.967	65	2.559	10 mm	27-34	20-25	KM50PKG3L	1,37	3.02

NOTE: Designed for centerline KM cutting units.


■ BN • Blank

order number	catalog number	D2		L1		hardness range	kg	lbs
		mm	in	mm	in			
2397722	KM63TSBN65200M	65	2.559	200	7.874	32-38 HRC	5,30	11.68
2397721	KM63TSBN115150M	115	4.528	150	5.906	32-38 HRC	10,89	24.01

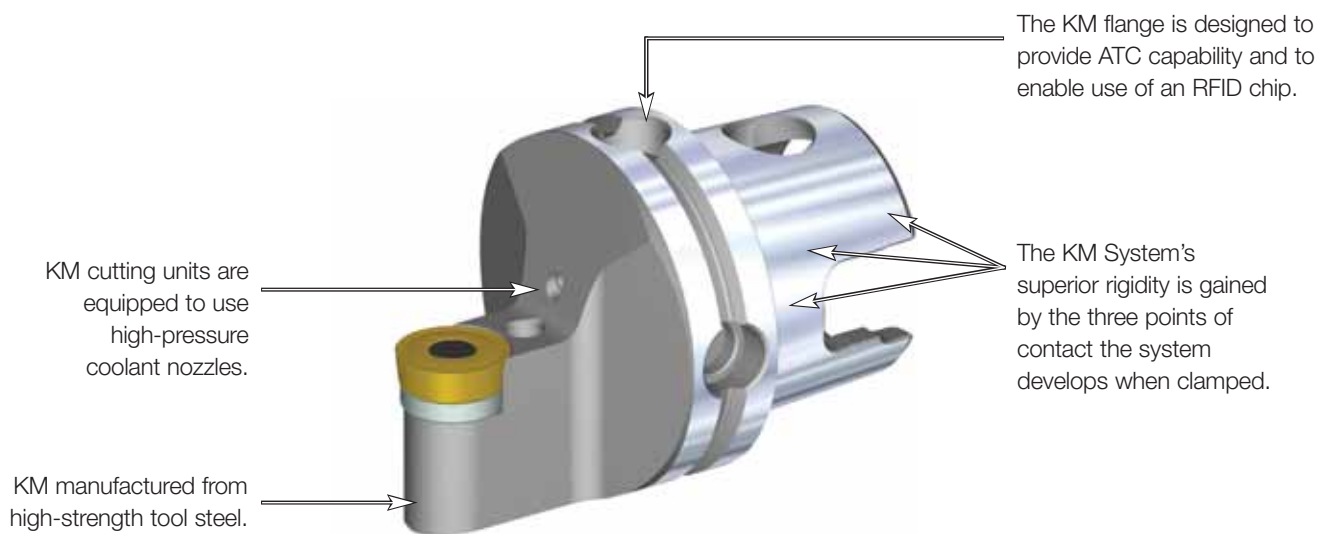
KM™ Quick Change Clamping System • KM80TS™ Series

Primary Application

The KM Quick Change Clamping System is the best system on the market suitable for static, rotating, and multitasking operations. With its industry-leading design, the KM Quick Change System provides greater clamping forces than other quick-change systems. The KM Quick Change System gives you the flexibility to use KM on any application within your shop.

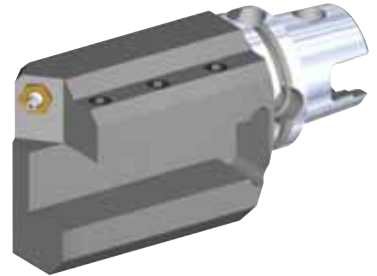
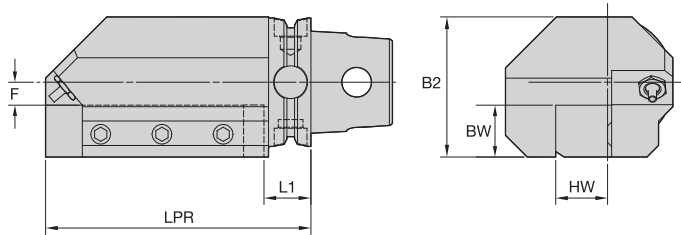
Features and Benefits

- KM is an ISO standard (ISO 26622).
- KM clamping units provide a 4:1 mechanical advantage.
- KM cutting units are capable of 100 bar (1,500 psi) coolant pressure.





KM80TS Adapters



■ STA • Metric

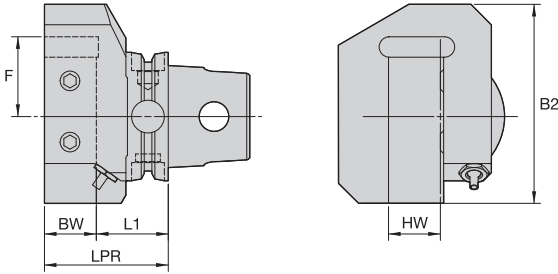


order number	catalog number	B2	BW	F	HW	L1	LPR	cup point socket set screw	nozzle	Nm	kg
	right hand										
3670073	KM80TSSTAR2525M	99	25	33	25	45	150	MS1430	PMT04526 COOLANT NOZZLE SPRAY	55	9,48
3670074	KM80TSSTAR3232M	98	32	25	32	45	150	MS1430	PMT04526 COOLANT NOZZLE SPRAY	55	8,95
	left hand										
3670059	KM80TSSTAL2525M	99	25	33	25	45	150	MS1430	PMT04526 COOLANT NOZZLE SPRAY	55	9,48
3670060	KM80TSSTAL3232M	98	32	25	32	45	150	MS1430	PMT04526 COOLANT NOZZLE SPRAY	55	8,95

■ STA • Inch



order number	catalog number	B2	BW	F	HW	L1	LPR	cup point socket set screw	nozzle	ft. lbs.	lbs
	right hand										
3670061	KM80TSSTAR20	3.904	1.250	1.059	1.250	1.693	5.906	MS1430	PMT04526 COOLANT NOZZLE SPRAY	40	20.70
3670062	KM80TSSTAR24	3.654	1.500	.559	1.500	1.480	6.693	MS1430	PMT04526 COOLANT NOZZLE SPRAY	40	21.37
	left hand										
3670057	KM80TSSTAL20	3.904	1.250	1.059	1.250	1.693	5.906	MS1430	PMT04526 COOLANT NOZZLE SPRAY	40	20.70
3670058	KM80TSSTAL24	3.654	1.500	.559	1.500	1.480	6.693	MS1430	PMT04526 COOLANT NOZZLE SPRAY	40	21.37



■ **ETA • Metric**

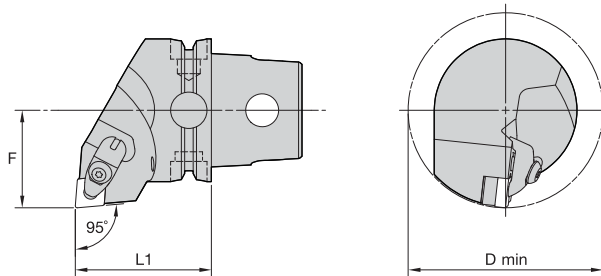


order number	catalog number	B2	BW	F	HW	L1	LPR	cup point socket set screw	nozzle	Nm	kg
right hand											
3670108	KM80TSETAR2525M	96	25	-37,5	25	48	73	MS1430	PMT04526 COOLANT NOZZLE SPRAY	55	3,51
3670109	KM80TSETAR3232M	111	32	-55,0	32	45	77	MS1430	PMT04526 COOLANT NOZZLE SPRAY	55	4,53
left hand											
3670103	KM80TSETAL2525M	96	25	-37,5	25	48	73	MS1430	PMT04526 COOLANT NOZZLE SPRAY	55	3,51
3670104	KM80TSETAL3232M	111	32	-55,0	32	45	77	MS1430	PMT04526 COOLANT NOZZLE SPRAY	55	4,53

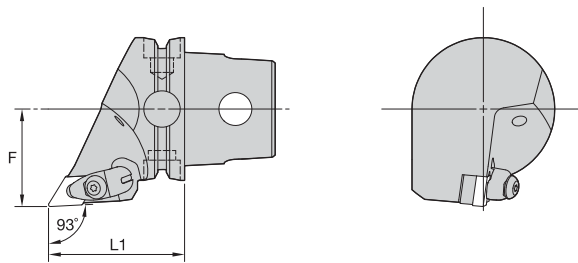
■ **ETA • Inch**



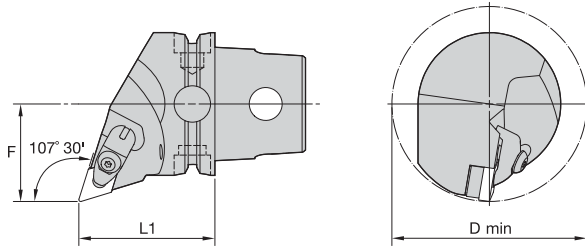
order number	catalog number	B2	BW	F	HW	L1	LPR	cup point socket set screw	nozzle	ft. lbs.	lbs
right hand											
3670105	KM80TSETAR16	3.780	1.000	-1.539	1.000	1.900	2.900	MS1430	PMT04526 COOLANT NOZZLE SPRAY	40	7.78
3670106	KM80TSETAR20	4.370	1.250	-2.244	1.250	1.846	3.096	MS1430	PMT04526 COOLANT NOZZLE SPRAY	40	10.28
3670107	KM80TSETAR24	4.370	1.500	-2.244	1.500	1.937	3.437	MS1430	PMT04526 COOLANT NOZZLE SPRAY	40	10.82
left hand											
3670078	KM80TSETAL16	3.780	1.000	-1.539	1.000	1.900	2.900	MS1430	PMT04526 COOLANT NOZZLE SPRAY	40	7.78
3670080	KM80TSETAL20	4.370	1.250	-2.244	1.250	1.846	3.096	MS1430	PMT04526 COOLANT NOZZLE SPRAY	40	10.28
3670082	KM80TSETAL24	4.370	1.500	-2.244	1.500	1.937	3.437	MS1430	PMT04526 COOLANT NOZZLE SPRAY	40	10.83


■ DCLN 95°


order number	catalog number	L1		F		D min		gage insert	shim	shim screw	pin	clamp assembly	kg
		mm	in	mm	in	mm	in						
right hand													
3636438	KM80TSDCLNR12KC04	70	2.756	53	2.087	106	4.173	CN..120408/CN..432	ICSN443	KMSP415IP	SSP025016M	CM234R ASSY	2,16
3636440	KM80TSDCLNR16KC06	70	2.756	53	2.087	106	4.173	CN..160612/CN..543	ICSN543	KMSP515IP	SSP025018M	CM209R ASSY	2,21
left hand													
3636439	KM80TSDCLNL12KC04	70	2.756	53	2.087	106	4.173	CN..120408/CN..432	ICSN443	KMSP415IP	SSP025016M	CM234R ASSY	2,16
3636441	KM80TSDCLNL16KC06	70	2.756	53	2.087	106	4.173	CN..160612/CN..543	ICSN543	KMSP515IP	SSP025018M	CM209R ASSY	2,21


■ DDJN 93°

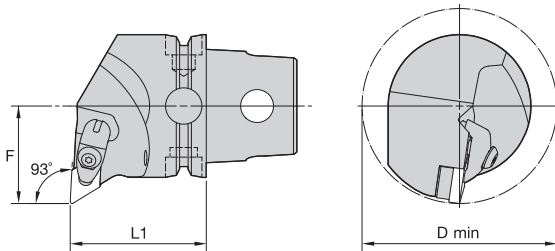

order number	catalog number	L1		F		gage insert	shim	shim screw	pin	clamp assembly	kg
		mm	in	mm	in						
right hand											
3636525	KM80TSDDJNR15KC04	70	2.756	53	2.087	DN..150408/DN..432	IDSN443	KMSP415IP	SSP025016M	CM234R ASSY	1,92
3636442	KM80TSDDJNR15KC06	70	2.756	53	2.087	DN..150608/DN..442	IDSN433	KMSP415IP	SSP025016M	CM234R ASSY	1,92
left hand											
3636526	KM80TSDDJNL15KC04	70	2.756	53	2.087	DN..150408/DN..432	IDSN443	KMSP415IP	SSP025016M	CM234R ASSY	1,92
3636523	KM80TSDDJNL15KC06	70	2.756	53	2.087	DN..150608/DN..442	IDSN433	KMSP415IP	SSP025016M	CM234R ASSY	1,92



■ DDQN 107° 30'



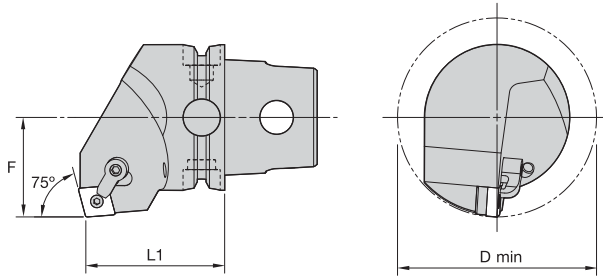
order number	catalog number	L1		F		D min		gage insert	shim	shim screw	pin	clamp assembly	kg
		mm	in	mm	in	mm	in						
right hand													
3636527	KM80TSDQNR15KC04	70	2.756	53	2.087	106	4.173	DN..150408/DN..432	IDSN443	KMSP415IP	SSP025016M	CM234R ASSY	1,94
3636530	KM80TSDQNR15KC06	70	2.756	53	2.087	106	4.173	DN..150608/DN..442	IDSN433	KMSP415IP	SSP025016M	CM234R ASSY	1,94
left hand													
3636528	KM80TSDQNL15KC04	70	2.756	53	2.087	106	4.173	DN..150408/DN..432	IDSN443	KMSP415IP	SSP025016M	CM234R ASSY	1,94
3636531	KM80TSDQNL15KC06	70	2.756	53	2.087	106	4.173	DN..150608/DN..442	IDSN433	KMSP415IP	SSP025016M	CM234R ASSY	1,94



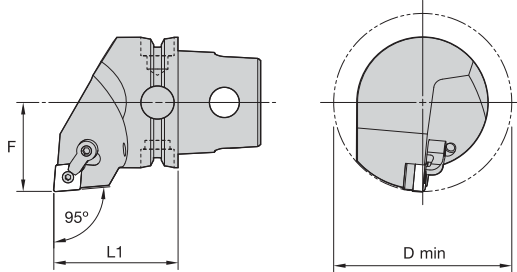
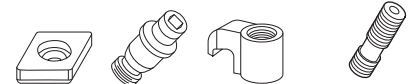
■ DDUN 93°



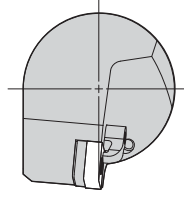
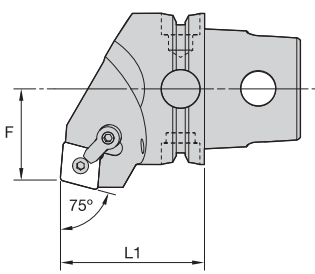
order number	catalog number	L1		F		D min		gage insert	shim	shim screw	pin	clamp assembly	kg
		mm	in	mm	in	mm	in						
right hand													
3636533	KM80TSDDUNR15KC04	70	2.756	53	2.087	106	4.173	DN..150408/DN..432	IDSN443	KMSP415IP	SSP025016M	CM234R ASSY	2,08
3636537	KM80TSDDUNR15KC06	70	2.756	53	2.087	106	4.173	DN..150608/DN..442	IDSN433	KMSP415IP	SSP025016M	CM234R ASSY	2,08
left hand													
3636535	KM80TSDDUNL15KC04	70	2.756	53	2.087	106	4.173	DN..150408/DN..432	IDSN443	KMSP415IP	SSP025016M	CM234R ASSY	2,08
3636538	KM80TSDDUNL15KC06	70	2.756	53	2.087	106	4.173	DN..150608/DN..442	IDSN433	KMSP415IP	SSP025016M	CM234R ASSY	2,08


MCKN 75°


order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs	
		mm	in	mm	in	mm	in								
		right hand													
3662524	KM80TSMCKNR19	70	2.756	53	2.087	106	4.173	CN..190612/CN..643	ICSN633	KLM68	CKM12	STCM4	2,39	5.28	
		left hand													
3662523	KM80TSMCKNL19	70	2.756	53	2.087	106	4.173	CN..190612/CN..643	ICSN633	KLM68	CKM12	STCM4	2,39	5.28	


MCLN 95°


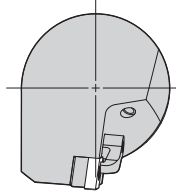
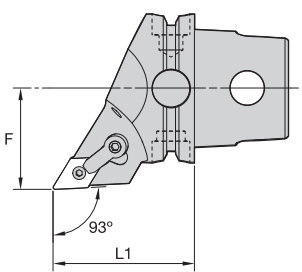
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs	
		mm	in	mm	in	mm	in								
		right hand													
3662529	KM80TSMCLNR12	70	2.756	53	2.087	106	4.173	CN..120408/CN..432	ICSN432	KLM46	CKM20	STCM11	2,21	4.87	
3662530	KM80TSMCLNR16	70	2.756	53	2.087	106	4.173	CN..160612/CN..543	ICSN533	KLM58	CKM20	STCM11	2,20	4.86	
3662531	KM80TSMCLNR19	70	2.756	53	2.087	106	4.173	CN..190612/CN..643	ICSN633	KLM68	CKM12	STCM4	2,20	4.85	
3662532	KM80TSMCLNR25	70	2.756	53	2.087	106	4.173	CN..250924/CN..866	ICSN846	KLM810	CKM24	STCM19	2,21	4.86	
		left hand													
3662525	KM80TSMCLNL12	70	2.756	53	2.087	106	4.173	CN..120408/CN..432	ICSN432	KLM46	CKM20	STCM11	2,21	4.87	
3662526	KM80TSMCLNL16	70	2.756	53	2.087	106	4.173	CN..160612/CN..543	ICSN533	KLM58	CKM20	STCM11	2,20	4.86	
3662527	KM80TSMCLNL19	70	2.756	53	2.087	106	4.173	CN..190612/CN..643	ICSN633	KLM68	CKM12	STCM4	2,20	4.85	
3662528	KM80TSMCLNL25	70	2.756	53	2.087	106	4.173	CN..250924/CN..866	ICSN846	KLM810	CKM24	STCM19	2,21	4.86	



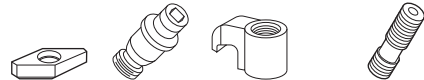
■ MCRN 75°



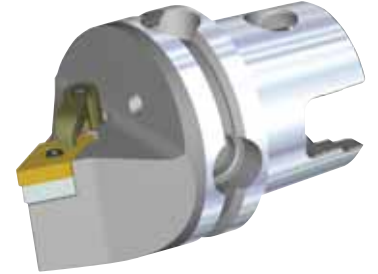
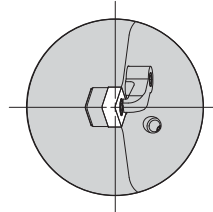
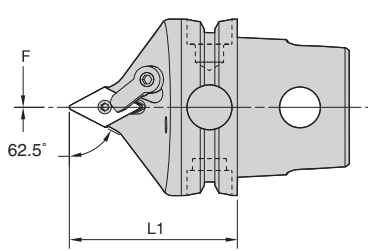
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
right hand												
3662536	KM80TSMCRNR16	70	2.756	48	1.890	CN..160612/CN..543	ICSN533	KLM58	CKM20	STCM11	2,27	5.00
3662537	KM80TSMCRNR19	70	2.756	48	1.890	CN..190612/CN..643	ICSN633	KLM68	CKM12	STCM4	2,26	4.99
3662538	KM80TSMCRNR25	70	2.756	48	1.890	CN..250924/CN..866	ICSN846	KLM810	CKM24	STCM19	2,25	4.97
left hand												
3662533	KM80TSMCRNL16	70	2.756	48	1.890	CN..160612/CN..543	ICSN533	KLM58	CKM20	STCM11	2,27	5.00
3662534	KM80TSMCRNL19	70	2.756	48	1.890	CN..190612/CN..643	ICSN633	KLM68	CKM12	STCM4	2,26	4.99
3662535	KM80TSMCRNL25	70	2.756	48	1.890	CN..250924/CN..866	ICSN846	KLM810	CKM24	STCM19	2,25	4.97



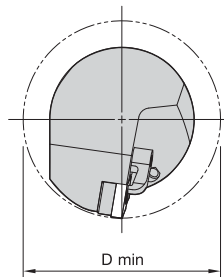
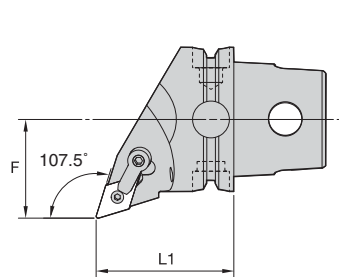
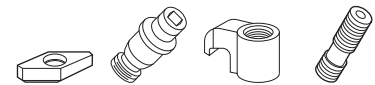
■ MDJN 93°



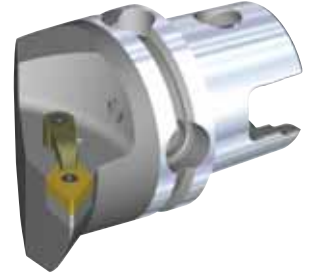
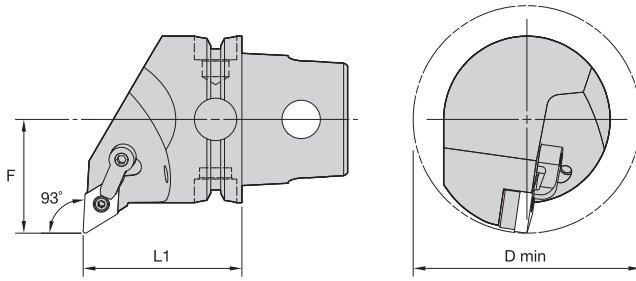
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
right hand												
3662542	KM80TSMDJNR1504	70	2.756	53	2.087	DN..150408/DN.432	IDSN442	KLM46L	CKM23	STCM11	1,85	4.07
3662564	KM80TSMDJNR1506	70	2.756	53	2.087	DN..150608/DN.442	IDSN432	KLM46L	CKM23	STCM11	1,84	4.06
left hand												
3662541	KM80TSMDJNL1504	70	2.756	53	2.087	DN..150408/DN.432	IDSN442	KLM46L	CKM23	STCM11	1,85	4.07
3662563	KM80TSMDJNL1506	70	2.756	53	2.087	DN..150608/DN.442	IDSN432	KLM46L	CKM23	STCM11	1,84	4.06


MDPN 62.5°

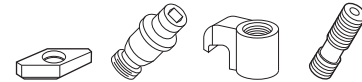

order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
3662565	KM80TSMDPNN1504	70	2.756	0	.000	DN..150408/DN.432	IDSN442	KLM46L	CKM23	STCM11	1,73	3.81
3662566	KM80TSMDPNN1506	70	2.756	0	.000	DN..150608/DN.442	IDSN432	KLM46L	CKM23	STCM11	1,72	3.80


MDQN 107.5°


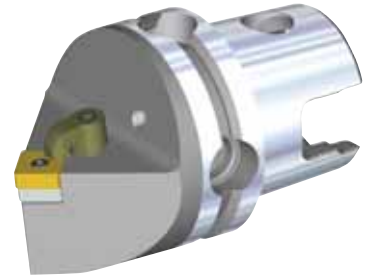
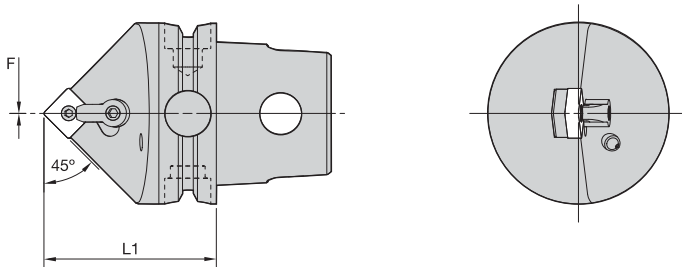
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
		right hand												
3662568	KM80TSMDQNR1504	70	2.756	53	2.087	106	4.173	DN..150408/DN.432	IDSN442	KLM46L	CKM23	STCM11	2,01	4.44
3662570	KM80TSMDQNR1506	70	2.756	53	2.087	106	4.173	DN..150608/DN.442	IDSN432	KLM46L	CKM23	STCM11	2,01	4.43
		left hand												
3662567	KM80TSMDQNL1504	70	2.756	53	2.087	106	4.173	DN..150408/DN.432	IDSN442	KLM46L	CKM23	STCM11	2,01	4.44
3662569	KM80TSMDQNL1506	70	2.756	53	2.087	106	4.173	DN..150608/DN.442	IDSN432	KLM46L	CKM23	STCM11	2,01	4.43



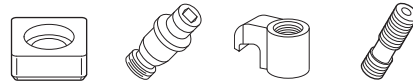
■ MDUN 93°



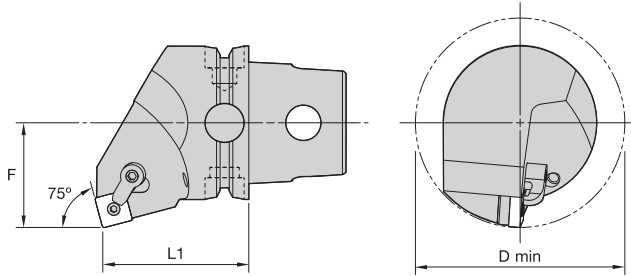
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
right hand														
3662572	KM80TSM DUNR1504	70	2.756	53	2.087	106	4.173	DN..150408/DN.432	IDSN442	KLM46L	CKM23	STCM11	2,28	5.02
left hand														
3662574	KM80TSM DUNR1506	70	2.756	53	2.087	106	4.173	DN..150608/DN.442	IDSN432	KLM46L	CKM23	STCM11	2,27	5.01
3662571	KM80TSM DUNL1504	70	2.756	53	2.087	106	4.173	DN..150408/DN.432	IDSN442	KLM46L	CKM23	STCM11	2,27	5.02
3662573	KM80TSM DUNL1506	70	2.756	53	2.087	106	4.173	DN..150608/DN.442	IDSN432	KLM46L	CKM23	STCM11	2,27	5.01



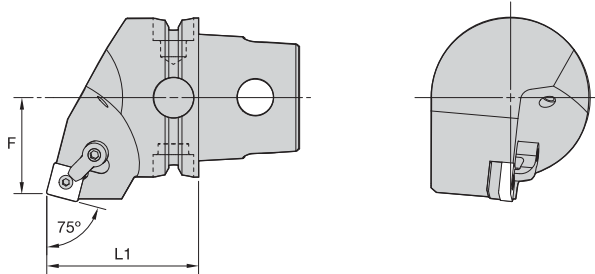
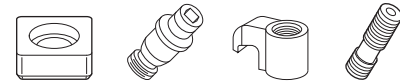
■ MSDN 45°



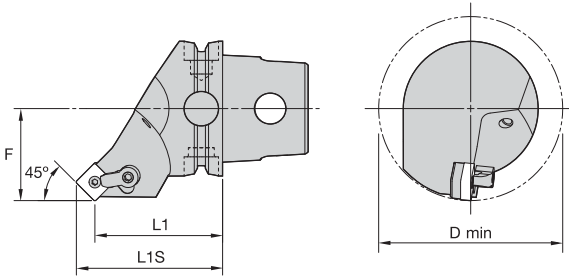
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
3662577	KM80TSM SDNN19	70	2.756	0	.000	SN..190512/SN.643	ISSN633	KLM68	CKM12	STCM4	1,85	4.08
3662578	KM80TSM SDNN25	70	2.756	0	.000	SN..250924/SN.866	ISSN846	KLM810	CKM24	STCM19	1,76	3.88


MSKN 75°

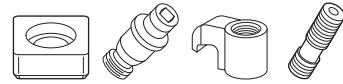

order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs	
		mm	in	mm	in	mm	in								
		right hand													
3662581	KM80TSMSKNR19	70	2.756	53	2.087	106	4.17	SN..190512/SN.643	ISSN633	KLM68	CKM12	STCM4	2,37	5.23	
3662582	KM80TSMSKNR25	70	2.756	53	2.087	106	4.17	SN..250924/SN..866	ISSN846	KLM810	CKM24	STCM19	2,47	5.45	
		left hand													
3662579	KM80TSMSKNL19	70	2.756	53	2.087	106	4.17	SN..190512/SN.643	ISSN633	KLM68	CKM12	STCM4	2,37	5.23	
3662580	KM80TSMSKNL25	70	2.756	53	2.087	106	4.17	SN..250924/SN..866	ISSN846	KLM810	CKM24	STCM19	2,47	5.45	


MSRN 75°


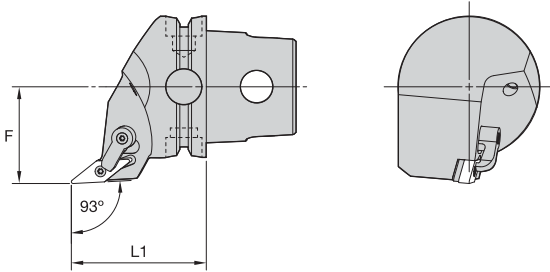
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
		right hand										
3662585	KM80TSMSRNR19	70	2.756	48	1.890	SN..190512/SN.643	ISSN633	KLM68	CKM12	STCM4	2,12	4.67
3662586	KM80TSMSRNR25	70	2.756	48	1.890	SN..250924/SN.866	ISSN846	KLM810	CKM24	STCM19	2,19	4.82
		left hand										
3662583	KM80TSMSRNL19	70	2.756	48	1.890	SN..190512/SN.643	ISSN633	KLM68	CKM12	STCM4	2,12	4.67
3662584	KM80TSMSRNL25	70	2.756	48	1.890	SN..250924/SN.866	ISSN846	KLM810	CKM24	STCM19	2,19	4.82



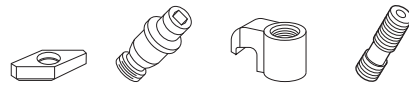
■ MSSN 45°



order number	catalog number	L1		L1S		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in	mm	in							
	right hand															
3662588	KM80TSMSSNR25	70	2.756	86	3.386	53	2.09	150	5.906	SN..250924/SN.866	ISSN846	KLM810	CKM24	STCM19	2,18	4.81
	left hand															
3662587	KM80TSMSSNL25	70	2.756	86	3.386	53	2.09	150	5.906	SN..250924/SN.866	ISSN846	KLM810	CKM24	STCM19	2,18	4.81



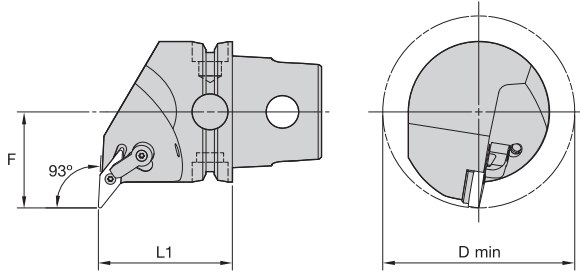
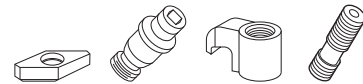
■ MVJN 93°



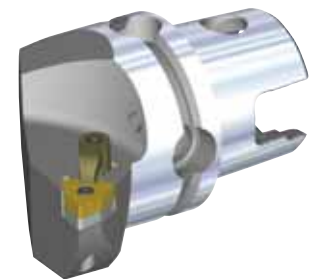
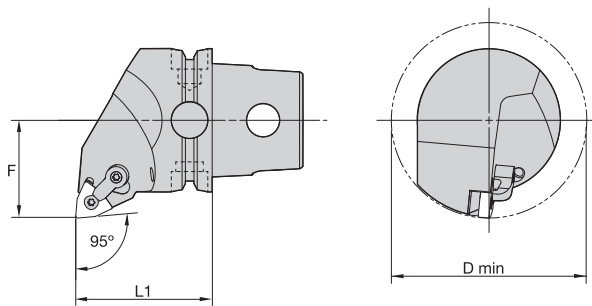
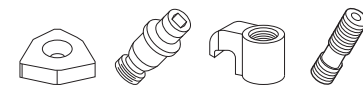
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
	right hand											
3662562	KM80TSMVJNR16	70	2.756	53	2.087	VN..160408/VN.332	IVSN322	KLM34L	CKM23	STCM11	1,79	3.94
	left hand											
3662561	KM80TSMVJNL16	70	2.756	53	2.087	VN..160408/VN.332	IVSN322	KLM34L	CKM23	STCM11	1,79	3.94



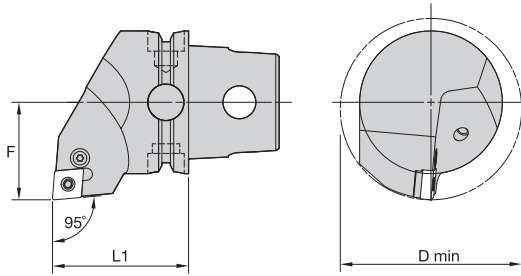
KM80TS Cutting Units


MVUN 93°


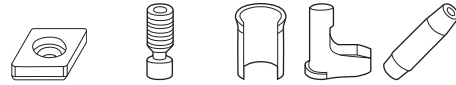
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
3662594	right hand	70	2.756	53	2.087	106	4.173	VN..160408/VN.332	IVSN322	KLM34L	CKM23	STCM11	2,11	4.64
	KM80TSMVUNR16													
3662593	left hand	70	2.756	53	2.087	106	4.173	VN..160408/VN.332	IVSN322	KLM34L	CKM23	STCM11	2,11	4.64
	KM80TSMVUNL16													


MWLN 95°


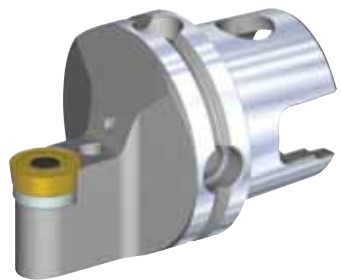
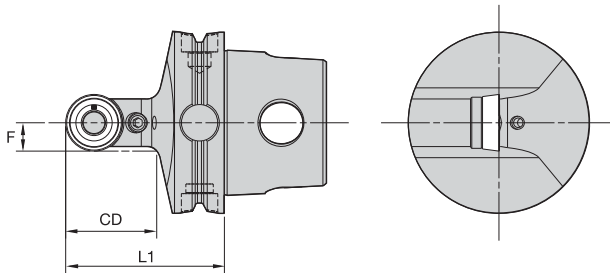
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
3662596	right hand	70	2.756	53	2.087	106	4.173	WN..080408/WN.432	IWSN433	KLM46	CKM20	STCM11	2,15	4.74
	KM80TSMWLNRO8													
3662595	left hand	70	2.756	53	2.087	106	4.173	WN..080408/WN.432	IWSN433	KLM46	CKM20	STCM11	2,15	4.74
	KM80TSMWLNLO8													



■ PCLN 95°



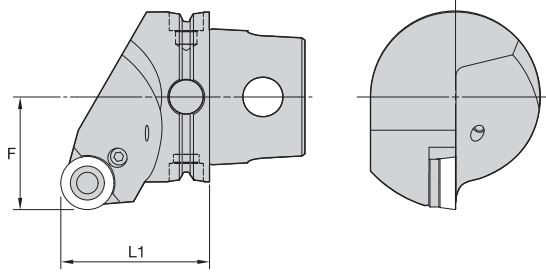
order number	catalog number	L1		F		D min		gage insert	shim	lever lock screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in	mm	in								
right hand															
3662602	KM80TSPCLNR12	70	2.756	53	2.087	100	3.937	CN..120408/CN..432	512.112	514.123	513.023	511.023	515.018	2,19	4.82
3662603	KM80TSPCLNR16	70	2.756	53	2.087	100	3.937	CN..160612/CN..543	512.117	514.125	513.025	511.025	515.022	2,18	4.81
3662604	KM80TSPCLNR19	70	2.756	53	2.087	100	3.937	CN..190612/CN..643	512.123	514.133	513.033	511.033	515.022	2,17	4.79
3662605	KM80TSPCLNR25	70	2.756	53	2.087	100	3.937	CN..250924/CN..866	512.024	12148562500	513.038	511.038	515.028	2,15	4.74
left hand															
3662598	KM80TSPCLNL12	70	2.756	53	2.087	100	3.937	CN..120408/CN..432	512.112	514.123	513.023	511.023	515.018	2,19	4.82
3662599	KM80TSPCLNL16	70	2.756	53	2.087	100	3.937	CN..160612/CN..543	512.117	514.125	513.025	511.025	515.022	2,18	4.81
3662600	KM80TSPCLNL19	70	2.756	53	2.087	100	3.937	CN..190612/CN..643	512.123	514.133	513.033	511.033	515.022	2,17	4.79
3662601	KM80TSPCLNL25	70	2.756	53	2.087	100	3.937	CN..250924/CN..866	512.024	12148562500	513.038	511.038	515.028	2,15	4.74



■ PRDC 90°



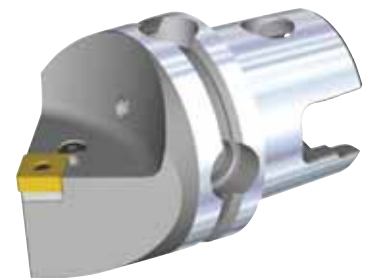
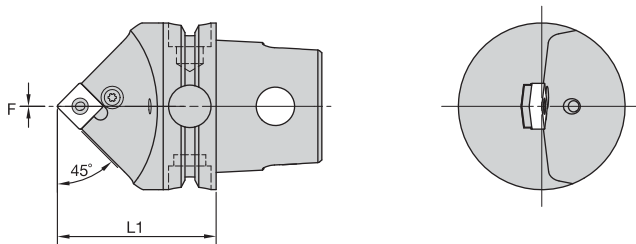
order number	catalog number	L1		F		CD		gage insert	shim	clamp screw	clamp stud	kg	lbs
		mm	in	mm	in	mm	in						
left hand													
3662606	KM80TSPRDCN20	70	2.756	10	.394	40	1.581	RCMT2006M0	169.333	121.820	119.073	1,48	3.26
3662607	KM80TSPRDCN25	70	2.756	13	.492	40	1.581	RCMX2507M0RP	169.337	121.820	118.404	1,55	3.42



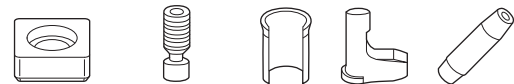
■ PRGC 0°



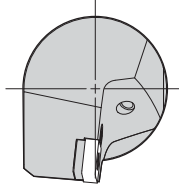
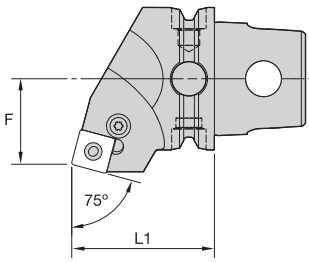
order number	catalog number	L1		F		gage insert	shim	clamp screw	clamp stud	kg	lbs
		mm	in	mm	in						
right hand											
3662625	KM80TSPRGCR25	70	2.756	53	2.087	RC..2507M0	169.337	121.820	118.404	2,02	4.46
3662626	KM80TSPRGCR32	80	3.150	53	2.087	RC..320900	169.339	121.030	118.604	2,63	5.79
left hand											
3662623	KM80TSPRGCL25	70	2.756	53	2.087	RC..2507M0	169.337	121.820	118.404	2,02	4.45
3662624	KM80TSPRGCL32	80	3.150	53	2.087	RC..320900	169.339	121.030	118.604	2,63	5.79



■ PSDN 45°



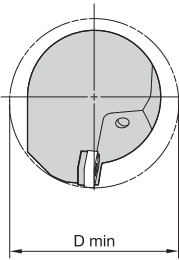
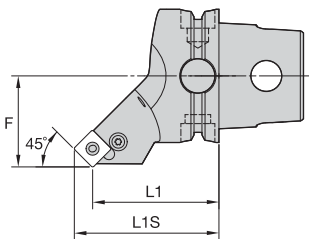
order number	catalog number	L1		F		gage insert	shim	lever lock screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in								
left hand													
3662627	KM80TSPSDNN19	70	2.756	0	.000	SN..190612/SN..643	512.083	514.133	513.033	511.033	515.022	1,76	3.87
3662628	KM80TSPSDNN25	70	2.756	0	.000	SN..250724/SN..856	512.092	514.138	513.038	511.038	515.028	1,75	3.85



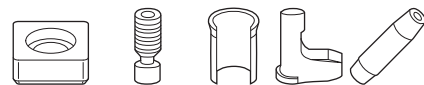
PSRN 75°



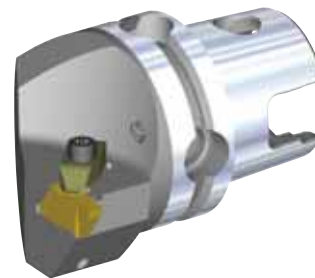
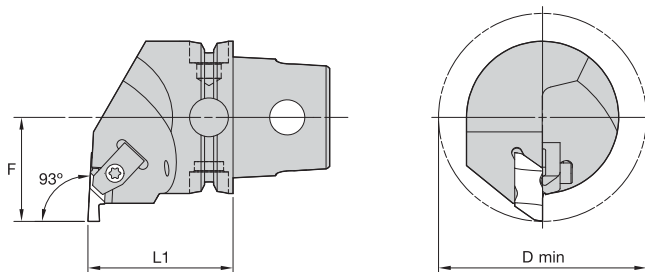
order number	catalog number	L1		F		gage insert	shim	lever lock screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in								
right hand													
3662631	KM80TSPSRNR19	70	2.756	48	1.890	SN..190612/SN..643	512.083	514.133	513.033	511.033	515.022	2,11	4.66
3662632	KM80TSPSRNR25	70	2.756	48	1.890	SN..250724/SN..-856	512.092	514.138	513.038	511.038	515.028	2,13	4.69
left hand													
3662629	KM80TSPSRNL19	70	2.756	48	1.890	SN..190612/SN..643	512.083	514.133	513.033	511.033	515.022	2,07	4.56
3662630	KM80TSPSRNL25	70	2.756	48	1.890	SN..250724/SN..-856	512.092	514.138	513.038	511.038	515.028	2,13	4.69



PSSN 45°



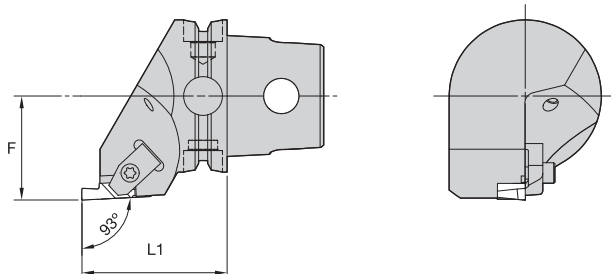
order number	catalog number	L1		L1S		F		D min		gage insert	shim	lever lock screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in	mm	in	mm	in								
right hand																	
3662636	KM80TSPSSNR19	70	2.756	82,49	3.248	53	2.087	100	3.94	SN..190612/SN..643	512.083	514.133	513.033	511.033	515.022	2,00	4.41
3662637	KM80TSPSSNR25	70	2.756	85,98	3.385	53	2.087	150	5.91	SN..250724/SN..856	512.092	514.138	513.038	511.038	515.028	2,13	4.70
left hand																	
3662633	KM80TSPSSNL19	70	2.756	82,49	3.248	53	2.087	100	3.94	SN..190612/SN..643	512.083	514.133	513.033	511.033	515.022	1,94	4.29
3662634	KM80TSPSSNL25	70	2.756	86,00	3.386	53	2.087	150	5.91	SN..250724/SN..856	512.092	514.138	513.038	511.038	515.028	2,09	4.61



■ NE 93° • Metric



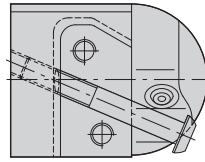
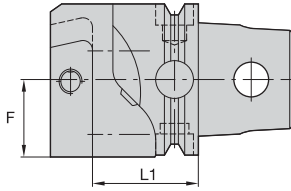
order number	catalog number	L1		F		D min		gage insert	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in					
right hand												
3665054	KM80TSNER3	70	2.756	53	2.087	106	4.173	NG3L	CM73	MS1489	2,14	4.72
3665056	KM80TSNER4	70	2.756	53	2.087	106	4.173	NG4L	CM73	MS1489	2,18	4.81
3665058	KM80TSNER5	70	2.756	53	2.087	106	4.173	NG5L	CM81	MS1490	2,28	5.02
3665060	KM80TSNER6	70	2.756	53	2.087	106	4.173	NG6L	CM121	MS1489	2,28	5.02
left hand												
3665053	KM80TSNEL3	70	2.756	53	2.087	106	4.173	NG3R	CM72	MS1489	2,14	4.72
3665055	KM80TSNEL4	70	2.756	53	2.087	106	4.173	NG4R	CM72	MS1489	2,18	4.81
3665057	KM80TSNEL5	70	2.756	53	2.087	106	4.173	NG5R	CM80	MS1490	2,28	5.02
3665059	KM80TSNEL6	70	2.756	53	2.087	106	4.173	NG6R	CM120	MS1489	2,18	4.80



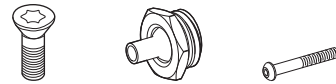
■ NS 93° • Metric



order number	catalog number	L1		F		gage insert	clamp	clamp screw	kg	lbs
		mm	in	mm	in					
right hand										
3668864	KM80TSNSR3	70	2.756	53	2.087	NG3R	CM72	MS1489	1,96	4.32
3668866	KM80TSNSR4	70	2.756	53	2.087	NG4R	CM72	MS1489	1,94	4.28
3668868	KM80TSNSR5	80	3.150	53	2.087	NG5R	CM80	MS1490	2,25	4.95
left hand										
3668863	KM80TSNSL3	70	2.756	53	2.086	NG3L	CM73	MS1489	1,96	4.32
3668865	KM80TSNSL4	70	2.756	53	2.087	NG4L	CM73	MS1489	1,97	4.35
3668867	KM80TSNSL5	80	3.150	53	2.087	NG5L	CM81	MS1490	2,27	5.01

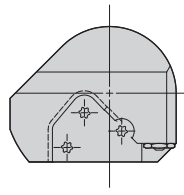
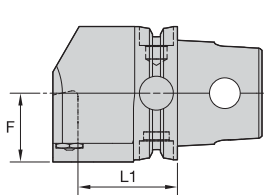


■ **KGME • End Mount**



order number	catalog number	L1		F		cartridge size	blade screw	nozzle	clamp screw	kg
		mm	in	mm	in					
	right hand									
3670369	KM80TSKGMER50	58	2.28	40,5	1.594	50	MS1162	PMT04525	MS2002	2,51
	left hand									
3670367	KM80TSKGMEL50	58	2.28	40,5	1.594	50	MS1162	PMT04525	MS2002	2,49

NOTE: For A3/A4 modular blades, see the Kennametal Innovations Master Catalog Cutting Tools 2013.
Right-hand cutting units use left-hand blades.



■ **KGME • End Mount**



order number	catalog number	L1		F		cartridge size	blade screw	nozzle	kg
		mm	in	mm	in				
	right hand								
3670370	KM80TSKGMER65	57	2.24	40,5	1.594	65	MS1163	PMT04525	3,17
	left hand								
3670368	KM80TSKGMEL65	57	2.24	40,5	1.594	65	MS1163	PMT04525	3,17

NOTE: For A3/A4 modular blades, see the Kennametal Innovations Master Catalog Cutting Tools 2013.
Right-hand cutting units use left-hand blades.



Increased Efficiency

Automatic adjustment with Romicon™ Closed Loop Boring (CLB)

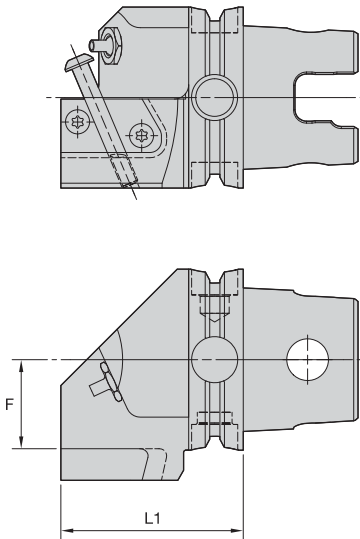
- Reduce scrap rates and setup time due to backlash-free adjustment.
- Make use of the entire tool life of used inserts as diameter adjustment can be done inside of the machine, avoiding routine insert changes in the setup room.
- Avoid time-consuming control cuts or sister tooling.
- No additional training or experience needed, resulting in less stress during adjustments.



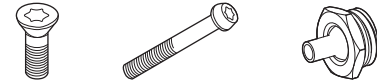
Visit www.kennametal.com or contact your local Authorized Kennametal Distributor.

www.kennametal.com





■ KGMS • Side Mount

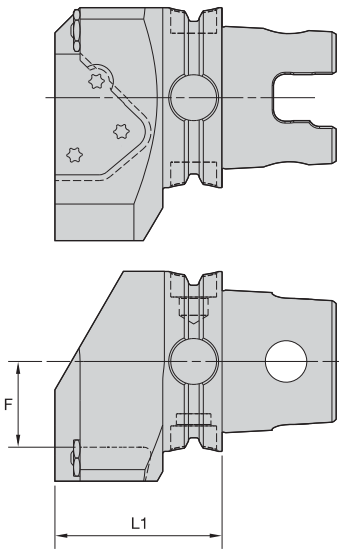


order number	catalog number	L1		F		cartridge size	blade screw	clamp screw	nozzle	kg
		mm	in	mm	in					
3670383	right hand	66,5	2.618	41	1.614	50	MS1162	MS2002	PMT04525	2,43
	KM80TSKGMSR50									
3670371	left hand	66,5	2.618	41	1.614	50	MS1162	MS2002	PMT04525	2,18
	KM80TSKGMSL50									

NOTE: For A3/A4 modular blades, see the Kennametal Innovations Master Catalog Cutting Tools 2013.
Right-hand cutting units use right-hand blades.

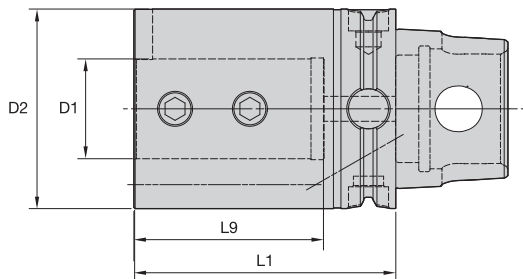
(continued)

(KGMS • Side Mount continued)


■ KGMS • Side Mount


order number	catalog number	L1		F		cartridge size	blade screw	nozzle	kg
		mm	in	mm	in				
3670384	right hand	63,5	2.500	40	1.575	65	MS1163	PMT04525	2,88
	KM80TSKGMSR65								
3670372	left hand	63,5	2.500	40	1.575	65	MS1163	PMT04525	2,88
	KM80TSKGMSL65								

NOTE: For A3/A4 modular blades, see the Kennametal Innovations Master Catalog Cutting Tools 2013.
 Right-hand cutting units use right-hand blades.



■ BA • Metric



order number	catalog number	D1	D2	L1	L9	clamp screw	nozzle	wrench size clamp screw	Nm	kg
3670392	KM80TSBA25075M	25	65	75	58	MS1561	PWZ1012	5mm	35	2,23
3670423	KM80TSBA32075M	32	72	75	63	190.228	PWZ1012	—	55	2,36
3670424	KM80TSBA40105M	40	80	105	76	MS1947	PWZ1012	8mm	125	3,55

■ BA • Inch



order number	catalog number	D1	D2	L1	L9	clamp screw	nozzle	wrench size clamp screw	ft. lbs.	lbs
3670350	KM80TSBA100276	1	2.559	2.756	2.244	MS1561	PWZ1012	5mm	25	4.63
3670351	KM80TSBA125295	1 1/4	2.835	2.953	2.480	MS1561	PWZ1012	5mm	25	5.21
3670352	KM80TSBA150413	1 1/2	3.150	4.134	2.953	MS1947	PWZ1012	8mm	90	7.99
3670363	KM80TSBA200512	2	3.543	5.118	3.976	MS1947	PWZ1012	8mm	90	10.56

NOTE: Do not overtighten clamp screw; use torque recommendations above.
Supplied with clamp screw.
Clamp screw wrench not included.
For boring bar reducers, see page A570.



RomiconTM Boring System

Fast

Adjustments can be made in less than 5 seconds, while still holding 0,002mm (.0001") on the diameter!

Accurate

Each click of the dial is 0,001mm (.000040") on the radius and can be done in less than 5 seconds.

This high-performance boring system will give you:

- More uptime.
- Less scrap.
- Longer tool life.
- CPKs greater than 1.33.
- Less stress during adjustments.

NOTE: For Romicon boring systems, see the Kennametal Innovations Master Catalog Cutting Tools 2013.

Experience the advantages at your Authorized Kennametal Distributor or at www.kennametal.com.

www.kennametal.com

 **KENNAMETAL[®]**

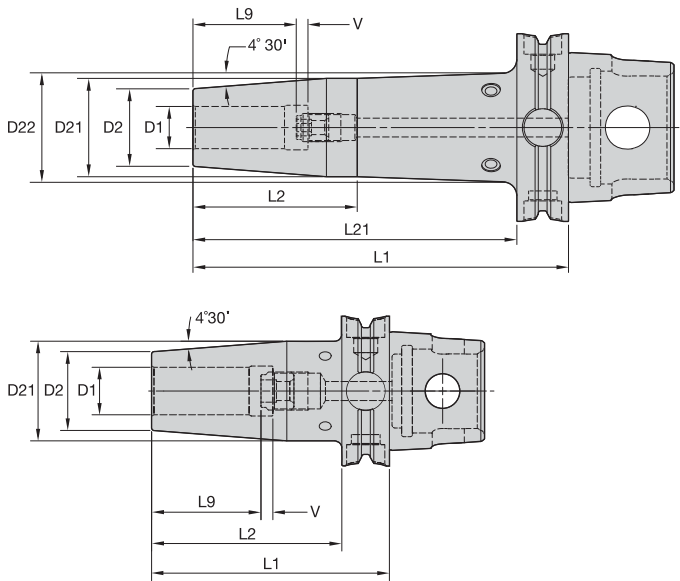
KM80TS™ Shank Tools

Shrink Fit Toolholders General Purpose (GP)



KM80TS Shank Tools

- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide and HSS cutting tools (requirements below).



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
10	h6	0,000/-0,009
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32, 40, & 50	h6	0,000/-0,016

■ HPV TT • Metric



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	kg	lbs
3681408	KM80TSHPVTT10090M	10	24	32	—	90	68	—	31	10	TTSS08014M	4mm	1,44	3.16
3681409	KM80TSHPVTT10170M	10	24	32	38	170	63	148	31	10	TTSS08014M	4mm	2,03	4.48
3681410	KM80TSHPVTT12095M	12	24	32	—	95	73	—	36	10	TTSS10014M	5mm	1,45	3.19
3681411	KM80TSHPVTT12160M	12	24	32	37	160	63	138	36	10	TTSS10014M	5mm	1,93	4.26
3681412	KM80TSHPVTT14095M	14	27	34	—	95	73	—	36	10	TTSS10014M	5mm	1,51	3.32
3682733	KM80TSHPVTT16100M	16	27	34	—	100	78	—	39	10	TTSS12014M	6mm	1,51	3.34
3682734	KM80TSHPVTT18100M	18	33	42	—	100	78	—	39	10	TTSS12014M	6mm	1,72	3.80
3682735	KM80TSHPVTT18160M	18	33	42	47	160	70	138	39	10	TTSS12014M	6mm	2,44	5.37
3682736	KM80TSHPVTT20105M	20	33	42	—	105	83	—	41	10	TTSS16014M	8mm	1,74	3.83
3682737	KM80TSHPVTT25115M	25	44	53	—	115	93	—	47	10	TTSS16014M	8mm	2,31	5.09
3682738	KM80TSHPVTT32120M	32	44	53	—	120	98	—	51	10	TTSS16014M	8mm	2,23	4.91
3682739	KM80TSHPVTT40130M	40	60	70	—	130	108	—	51	10	TTSS20014M	10mm	3,42	7.55
3682740	KM80TSHPVTT50140M	50	69	79	—	140	118	—	56	10	TTSS20014M	10mm	4,23	9.34

(continued)

(HPV TT continued)

**Cutting Tool Shank Requirements
inch (industry standard)**

cutting tool shank diameter	tolerance
5/16 & 3/8	-.0001/-.0004
7/16, 1/2, 9/16, & 5/8	.0000/-.0004
3/4, 7/8, 1, 1-1/4, 1-1/2, & 2	.0000/-.0005

■ HPV TT • Inch



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	kg	lbs
3683469	KM80TSHPVTT031335	5/16	.827	1.059	—	3.346	2.480	—	1.024	.394	TTSS06014M	3mm	1,34	2.96
3683470	KM80TSHPVTT038630	3/8	.945	1.256	1.462	6.299	2.480	5.433	1.220	.394	TTSS08014M	4mm	1,95	4.30
3683471	KM80TSHPVTT044374	7/16	.945	1.256	—	3.740	2.874	—	1.417	.394	TTSS10014M	5mm	1,45	3.21
3683038	KM80TSHPVTT050374	1/2	.945	1.256	—	3.740	2.874	—	1.417	.394	TTSS10014M	5mm	1,44	3.18
3683039	KM80TSHPVTT056374	9/16	1.063	1.335	—	3.740	2.874	—	1.417	.394	TTSS10014M	5mm	1,50	3.31
3683040	KM80TSHPVTT062394	5/8	1.063	1.335	—	3.937	3.071	—	1.535	.394	TTSS12014M	6mm	1,52	3.34
3683041	KM80TSHPVTT062850	5/8	1.063	1.335	1.695	8.500	2.480	7.638	1.535	.394	TTSS12014M	6mm	2,56	5.65
3683042	KM80TSHPVTT075413	3/4	1.299	1.650	—	4.134	3.267	—	1.614	.394	TTSS16014M	8mm	1,75	3.86
3683463	KM80TSHPVTT075630	3/4	1.299	1.650	1.837	6.299	2.756	5.433	1.614	.394	TTSS16014M	8mm	2,40	5.28
3683464	KM80TSHPVTT088413	7/8	1.299	1.650	—	4.134	3.268	—	1.614	.394	TTSS16014M	8mm	1,71	3.77
3683465	KM80TSHPVTT100453	1	1.732	2.083	—	4.528	3.662	—	1.850	.394	TTSS16014M	8mm	2,30	5.07
3683466	KM80TSHPVTT125472	1 1/4	1.732	2.083	—	4.724	3.858	—	2.008	.394	TTSS16014M	8mm	2,23	4.92
3683467	KM80TSHPVTT150512	1 1/2	2.362	2.752	—	5.118	4.252	—	2.008	.394	TTSS20014M	10mm	3,49	7.70
3683468	KM80TSHPVTT200551	2	2.717	3.106	—	5.512	4.646	—	2.205	.394	TTSS20014M	10mm	4,22	9.30

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Shrink Fit technical section, see page M78.

Supplied with stop screw.

Adjusting stop screw gage, see page M81.

Shrink Fit accessories, see page L12–L13.

Optional M6~1.0P x 5 lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.

HSK coolant unit and wrench are available and must be ordered separately; see page L44.

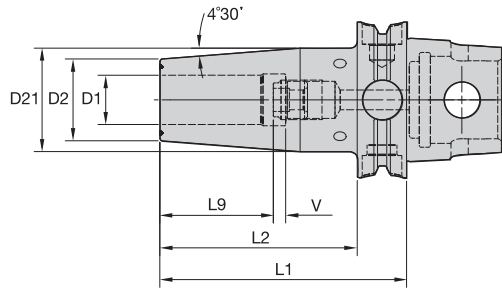
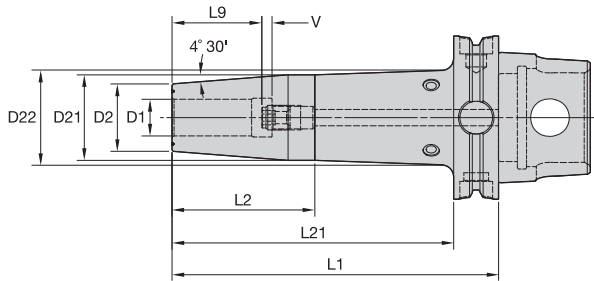
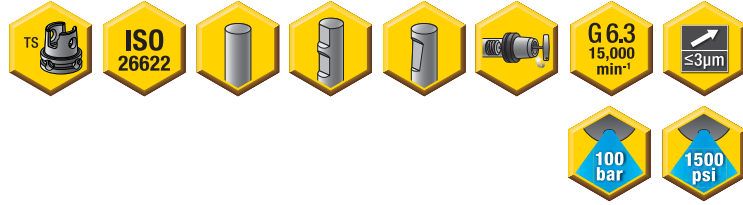
KM80TS™ Shank Tools

Shrink Fit Toolholders High Torque (HT)



KM80TS Shank Tools

- 30–50% higher clamping torque compared to GP line.
- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide only, designated by groove in front face (requirements below).
- 10 kW power or greater Shrink Fit device must be used.



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
12, 14, 16, & 18	h6	0,000/ -0,011
20 & 25	h6	0,000/ -0,013
32	h6	0,000/ -0,016

■ HPV TT HT • Metric



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	kg	lbs
3682747	KM80TSHPVTTHT12095M	12	24	32	—	95	73	—	36	10	TTSS10014M	5mm	1,45	3.19
3682748	KM80TSHPVTTHT12160M	12	24	32	37	160	63	138	36	10	TTSS10014M	5mm	1,92	4.22
3682749	KM80TSHPVTTHT14095M	14	27	34	—	95	73	—	36	10	TTSS10014M	5mm	1,51	3.32
3682750	KM80TSHPVTTHT16100M	16	27	34	—	100	78	—	39	10	TTSS12014M	6mm	1,51	3.34
3682751	KM80TSHPVTTHT18100M	18	33	42	—	100	78	—	39	10	TTSS12014M	6mm	1,72	3.80
3682752	KM80TSHPVTTHT18160M	18	33	42	47	160	70	138	39	10	TTSS12014M	6mm	2,44	5.37
3682773	KM80TSHPVTTHT20105M	20	33	42	—	105	83	—	41	10	TTSS16014M	8mm	1,74	3.83
3682774	KM80TSHPVTTHT25115M	25	44	53	—	115	93	—	47	10	TTSS16014M	8mm	2,31	5.09
3682775	KM80TSHPVTTHT32120M	32	44	53	—	120	98	—	51	10	TTSS16014M	8mm	2,23	4.91

(continued)

(HPV TT HT continued)

Cutting Tool Shank Requirements
 inch (industry standard)

cutting tool shank diameter	tolerance
1/2, 9/16, 5/8, & 11/16	.0000/- .0004
3/4, 7/8, 1, & 1-1/4	.0000/- .0005

■ HPV TT HT • Inch



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	kg	lbs
3684074	KM80TSHPVTTHT050374	1/2	.945	1.256	—	3.740	2.874	—	1.417	.394	TTSS10014M	5mm	1,44	3.18
3684075	KM80TSHPVTTHT056374	9/16	1.063	1.335	—	3.740	2.874	—	1.417	.394	TTSS10014M	5mm	1,50	3.31
3684076	KM80TSHPVTTHT062394	5/8	1.063	1.335	—	3.937	3.071	—	1.535	.394	TTSS12014M	6mm	1,52	3.34
3684077	KM80TSHPVTTHT062850	5/8	1.063	1.335	1.695	8.500	2.480	7.638	1.535	.394	TTSS12014M	6mm	2,56	5.65
3684078	KM80TSHPVTTHT075413	3/4	1.299	1.650	—	4.134	3.268	—	1.614	.394	TTSS16014M	8mm	1,75	3.86
3684079	KM80TSHPVTTHT075630	3/4	1.299	1.650	1.837	6.299	2.756	5.433	1.614	.394	TTSS16014M	8mm	2,41	5.32
3684080	KM80TSHPVTTHT088413	7/8	1.299	1.650	—	4.134	3.268	—	1.614	.394	TTSS16014M	8mm	1,71	3.77
3684081	KM80TSHPVTTHT100453	1	1.732	2.083	—	4.528	3.662	—	1.850	.394	TTSS16014M	8mm	2,30	5.07
3684082	KM80TSHPVTTHT125472	1 1/4	1.732	2.083	—	4.724	3.858	—	2.008	.394	TTSS16014M	8mm	2,23	4.92

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Shrink Fit technical section, see page M78.

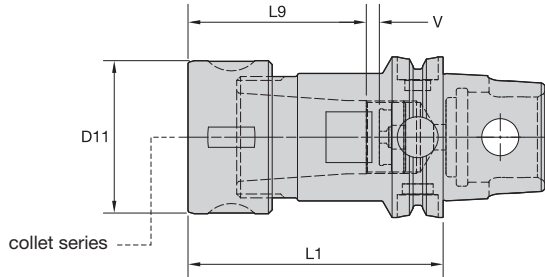
Supplied with stop screw.

Adjusting stop screw gage, see page M81.

Shrink Fit accessories, see page L12–L13.

Optional M6–1.0P x 5 lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.

- Tremendous Grip (3:1 advantage).



TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG75	2,6	20,0	3/64	3/4
TG100	2,6	25,5	5/64	1
TG150	11,6	40,0	23/64	1-1/2

■ TG

order number	catalog number	collet series	D11		L1		L9		V		kg	lbs
			mm	in	mm	in	mm	in	mm	in		
3670114	KM80TSTG075160M	TG75	50	1.969	160	6.299	53	2.087	47	1.850	2,89	6.37
3670115	KM80TSTG100100M	TG100	60	2.362	100	3.937	71	2.795	—	—	2,29	5.04
3670116	KM80TSTG150125M	TG150	85	3.346	125	4.921	83	3.268	—	—	4,28	9.43

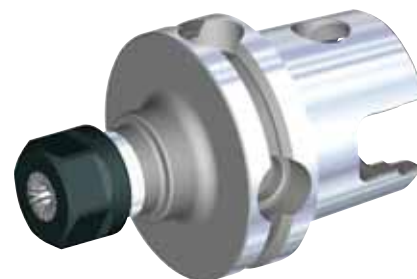
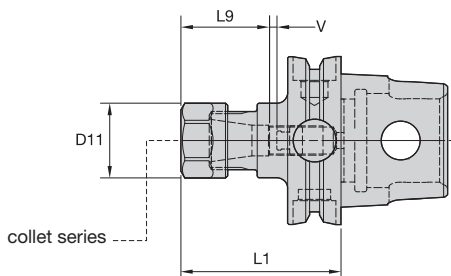
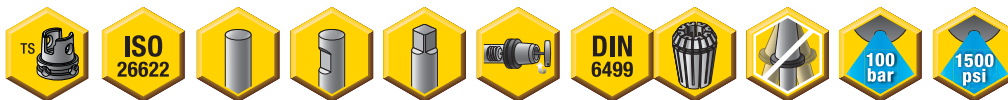
■ Spare Parts



catalog number	locknut	wrench	Nm	ft. lbs.	stop screw	wrench size stop screw	Nm	ft. lbs.
KM80TSTG075160M	LNA075M	HSW45M	108	80	SS081041G	4mm & 5/32	108 - 136	80 - 100
KM80TSTG100100M	LNA100M	HSW58M	163	120	—	—	163 - 203	120 - 150
KM80TSTG150125M	LNA150M	HSW80M	217	160	—	—	217 - 271	160 - 200

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see page L16–L17.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.
 TG standard straight-bore collets, see page J10.
 TG tap collets, see page J10.

- Grip (2:1 advantage).



KM80TS Shank Tools



ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER20	0,5	13,0	.02	.50

■ ER • Hex Nut

order number	catalog number	collet series	D11		L1		L9		V		kg	lbs
			mm	in	mm	in	mm	in	mm	in		
3683339	KM80TSER20100M	ER20	34	1.339	100	3.937	36	1.417	43	1.693	1,49	3.29

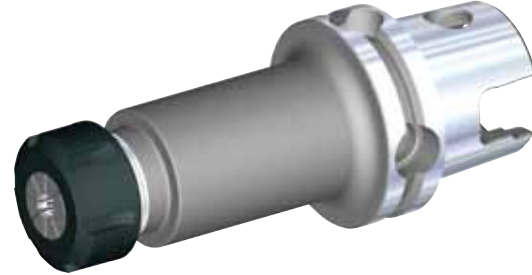
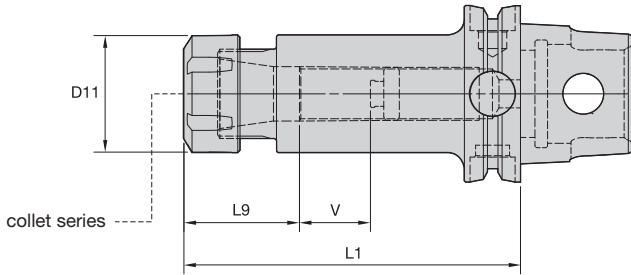
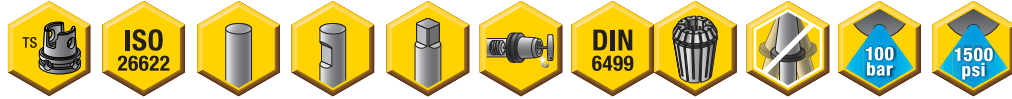
■ Spare Parts

catalog number	hex locknut	OEW	stop screw	counterbore collet torque		straight collet torque	
				Nm	ft. lbs.	Nm	ft. lbs.
KM80TSER20100M	LNHSER20M	OEW30M	SS056041G	32	24	80	59

(continued)

(ER continued)

- Grip (2:1 advantage).



ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER25	1,0	16,0	.04	.63
ER32	2,0	20,0	.08	.81
ER40	3,0	26,0	.12	1.00

■ ER • Round Nut

order number	catalog number	collet series	D11		L1		L9		V		kg	lbs
			mm	in	mm	in	mm	in	mm	in		
3683341	KM80TSER25100M	ER25	42	1.654	100	3.937	40	1.575	37	1.457	1,67	3.67
3683342	KM80TSER32065M	ER32	50	1.969	65	2.559	47	1.862	—	—	1,42	3.13
3683354	KM80TSER32100M	ER32	50	1.969	100	3.937	46	1.811	28	1.102	1,85	4.08
3683353	KM80TSER40090M	ER40	63	2.480	90	3.543	70	2.768	—	—	2,06	4.53
3683355	KM80TSER40140M	ER40	63	2.480	140	5.512	52	2.047	48	1.890	3,12	6.87

■ Spare Parts

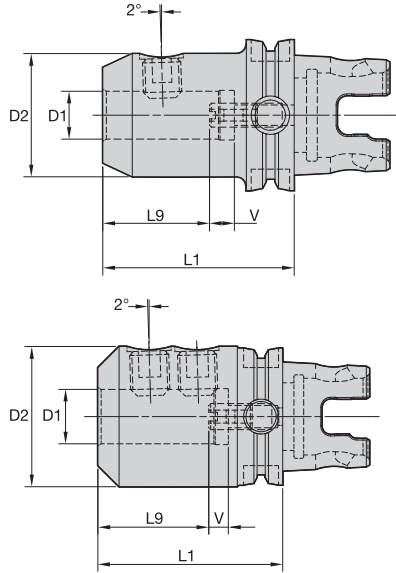


catalog number	locknut	wrench	stop screw	Nm	ft. lbs.
KM80TSER25100M	LNSER25M	ER25WM	SS075041G	104	77
KM80TSER32065M	LNSER32M	ER32WM	—	136	100
KM80TSER32100M	LNSER32M	ER32WM	SS094041G	136	100
KM80TSER40090M	LNSER40M	ER40WM	—	176	130
KM80TSER40140M	LNSER40M	ER40WM	SS112041G	176	130

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Interchangeable coolant-style locknuts and coolant disks are available and must be ordered separately; see page L22.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.



KM80TS Shank Tools

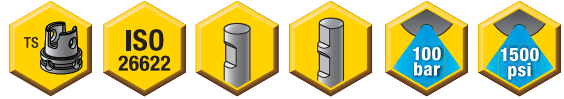
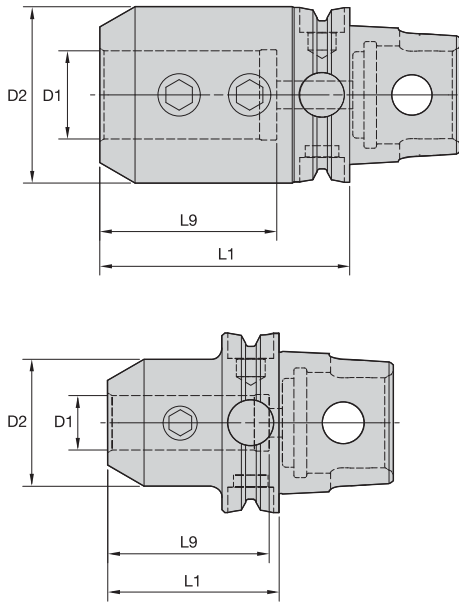


■ WN • Metric



order number	catalog number	D1	D2	L1	L9	V	lock screw	wrench size lock screw	Nm	stop screw	wrench size stop screw	kg
3670133	KM80TSWN12075M	12	42	75	40	10	SS03M023	6mm	35	571.074	5mm	1,61
3670134	KM80TSWN20085M	20	52	85	45	10	SS03M026	8mm	95	571.076	6mm	1,96
3670135	KM80TSWN25100M	25	65	100	50	10	SS03M027	10mm	135	571.077	6mm	2,78
3670136	KM80TSWN32105M	32	72	105	54	10	SS03M029	10mm	160	571.077	6mm	3,22

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw and stop screw.
 Lock screw and stop screw wrenches are not included.



■ EM • Metric



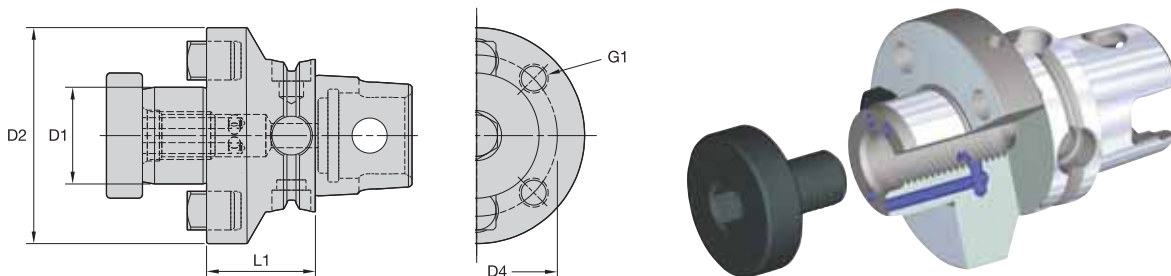
order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	Nm	kg
3683878	KM80TSEM12070M	12	42	70	50	SS03M023	6mm	35	1,55
3683879	KM80TSEM14070M	14	44	70	50	SS03M023	6mm	35	1,59
3683880	KM80TSEM16070M	16	48	70	53	SS03M025	6mm	50	1,67
3683881	KM80TSEM18070M	18	50	70	53	SS03M025	6mm	50	1,70
3683882	KM80TSEM20070M	20	52	70	55	SS03M026	8mm	95	1,73
3683903	KM80TSEM25090M	25	65	90	60	SS03M027	10mm	135	2,53
3683904	KM80TSEM32090M	32	72	90	65	SS03M029	10mm	160	2,76
3683905	KM80TSEM40100M	40	90	100	75	SS03M032	10mm	160	4,09

■ EM • Inch

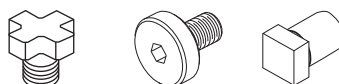


order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
3670301	KM80TSEM050354	1/2	1.375	3.543	1.974	ELS044038PKG	7/32	20	3.39
3670343	KM80TSEM062354	5/8	1.625	3.543	2.094	ELS056050PKG	1/4	40	3.76
3670344	KM80TSEM075354	3/4	1.750	3.543	2.224	ELS062050PKG	5/16	70	3.90
3670345	KM80TSEM088354	7/8	2.000	3.543	2.224	ELS062050PKG	5/16	70	4.34
3670346	KM80TSEM100354	1	2.000	3.543	2.559	ELS075056PKG	3/8	110	4.13
3670347	KM80TSEM125354	1 1/4	2.500	3.543	2.509	ELS075056PKG	3/8	110	5.10
3670348	KM80TSEM150382	1 1/2	2.750	3.819	2.931	ELS075056PKG	3/8	110	5.74
3670349	KM80TSEM200492	2	3.750	4.921	3.533	ELS100088PKG	1/2	150	11.57

NOTE: Do not overtighten lock screw; use torque recommendations above.
Supplied with lock screw.
Lock screw wrench not included.

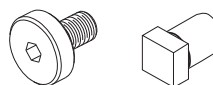


■ SMC • Metric



order number	catalog number	D1	D2	D4	G1	L1	lock screw	lock screw	drive key	wrench size lock screw	kg
3683472	KM80TSSMC27050M	27	60	—	—	50	—	KLSS27M	KDK27M	10mm	1,86
3683483	KM80TSSMC32060M	32	78	—	—	60	—	KLSS32M	KDK32M	14mm	2,62
3683484	KM80TSSMC32100M	32	78	—	—	100	—	KLSS32M	KDK32M	14mm	3,79
3683485	KM80TSSMC40060M	40	89	67	M12X1.75	60	—	KLSS40M	KDK40M	17mm	3,21
3683486	KM80TSSMC40100M	40	89	67	M12X1.75	100	—	KLSS40M	KDK40M	17mm	4,56
3683487	KM80TSSMC50070M	50	98	—	—	70	KLS50M	—	KDK40M	—	4,26
3683488	KM80TSSMC60070M	60	129	102	M16X2.0	70	—	—	KDK60M	—	5,81

■ SMC • Inch



order number	catalog number	D1	D2	D4	G1	L1	lock screw	drive key	wrench size lock screw	lbs
3670508	KM80TSSMC100158	1	2.752	—	—	1.575	KLS10	KDK06	5/16	3.88
3670509	KM80TSSMC125158	1 1/4	2.878	—	—	1.575	KLS12	KDK08	5/16	4.19
3670510	KM80TSSMC125394	1 1/4	2.878	—	—	3.937	KLS12	KDK08	5/16	8.45
3670511	KM80TSSMC150158	1 1/2	3.386	—	—	1.575	KLS15	KDK10	3/8	5.00
3670512	KM80TSSMC200216	2	4.882	4.000	5/8 - 11	2.165	KLS20	KDK12	9/16	9.48
3670533	KM80TSSMC250225	2 1/2	4.882	4.000	5/8 - 11	2.250	—	KDK16	—	10.74
3670534	KM80TSSMC250450	2 1/2	4.882	4.000	5/8 - 11	4.500	—	KDK16	—	22.55

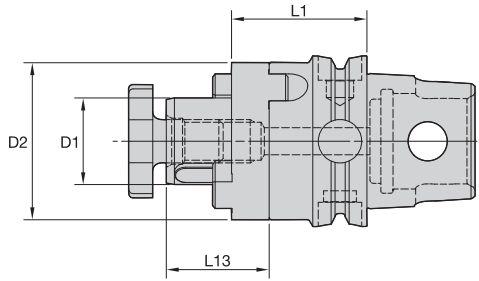
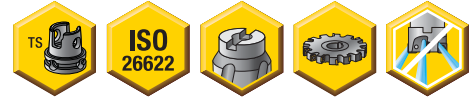
NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive keys.
 Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
 Lock screw wrench not included.

KM80TS™ Shank Tools

CS Combi-Type Shell Mill Adapters • Screw-On Adapters for Modular Milling Cutters



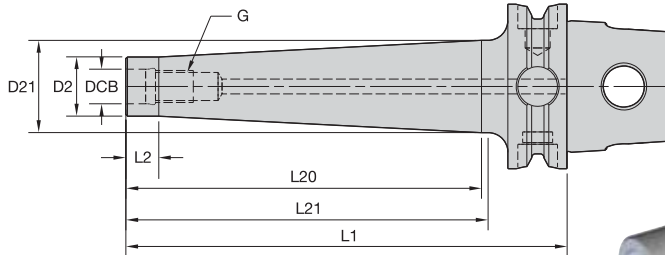
KM80TS Shank Tools



■ CS • Metric



order number	catalog number	D1	D2	L1	L13	lock screw	Nm	combi driver	combi drive key	kg
3735656	KM80TSCS32050M	32	58	50	38	KLS32M	95	CDR32M	CDK32M	1,89
3735658	KM80TSCS40060M	40	70	60	41	KLS40M	100	CDR40M	CDK40M	2,62



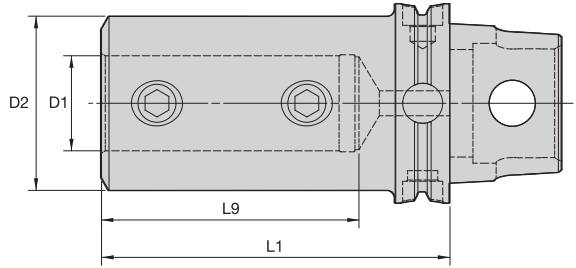
■ STC

order number	catalog number	DCB	G	D2	D21	L1	L2	L20	L21	kg
4137836	KM80TSSTC12087M	12,5	M12	21	24	87	10	57	59	1,29
4137837	KM80TSSTC12137M	12,5	M12	21	28	137	10	107	109	1,50
4137838	KM80TSSTC12187M	12,5	M12	21	30	187	10	157	159	1,73
4137839	KM80TSSTC12237M	12,5	M12	21	32	237	10	207	209	1,99
4137840	KM80TSSTC16087M	17,0	M16	29	33	87	10	57	59	1,45
4137841	KM80TSSTC16137M	17,0	M16	29	35	137	10	107	109	1,78
4137842	KM80TSSTC16187M	17,0	M16	29	38	187	10	157	159	2,19
4137883	KM80TSSTC16237M	17,0	M16	29	40	237	10	207	209	2,62

NOTE: For technical information, see page M96–M97.



KM80TS Shank Tools

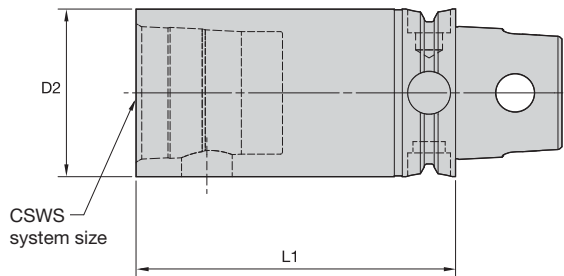


■ SSF • Inch

order number	catalog number	D1	D2	L1	L9	flat point socket set screw	ft. lbs.	lbs
3683935	KM80TSSSF075350	3/4	1.750	3.500	2.311	ELS062050PKG	70	3.94
3683936	KM80TSSSF100450	1	2.000	4.500	3.307	—	110	4.91
3683937	KM80TSSSF125500	1 1/4	2.500	5.000	3.563	ELS075056PKG	110	6.88
3683938	KM80TSSSF150550	1 1/2	2.750	5.500	4.063	ELS075056PKG	110	8.08
3683939	KM80TSSSF200650	2	3.750	6.500	4.311	ELS100088PKG	150	15.88



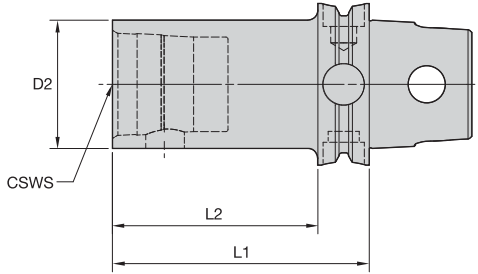
WARNING
 During through-hole operations, a slug or disk is produced as the tool breaks through the workpiece. When the drill is stationary and the workpiece is rotating, this slug may be hurled from the chuck by centrifugal force. Provide adequate shielding to protect bystanders.



■ S • KM™ Extension

order number	catalog number	CSWS system size	D2		L1		spare parts package	Nm	ft. lbs.	kg	lbs
			mm	in	mm	in					
3668965	KM80TSS80120M	KM80	80	3.150	120	4.724	KM80PKG3S	78-84	58-64	4,23	9.32
3668967	KM80TSS80160M	KM80	80	3.150	160	6.299	KM80PKG3S	78-84	58-64	5,76	12.71

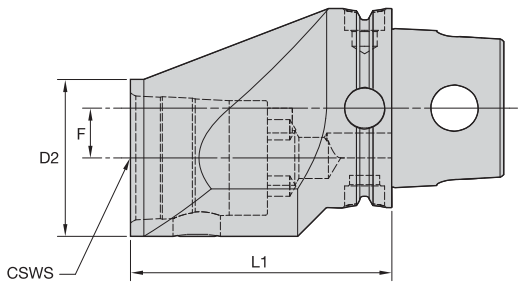




■ S • KM Reducer



order number	catalog number	CSWS system size	D2		L1		L2		spare parts package	Nm	ft. lbs.	kg	lbs
			mm	in	mm	in	mm	in					
3668961	KM80TSS40060M	KM40	40	1.575	60	2.362	38	1.496	KM40PKG3S	12-16	9-12	1,41	3.10
3668963	KM80TSS50080M	KM50	50	1.969	80	3.150	58	2.283	KM50PKG3S	27-34	20-25	1,81	3.99
3668964	KM80TSS63080M	KM63	63	2.480	80	3.150	58	2.283	KM63PKG3S	47-54	35-40	2,14	4.71

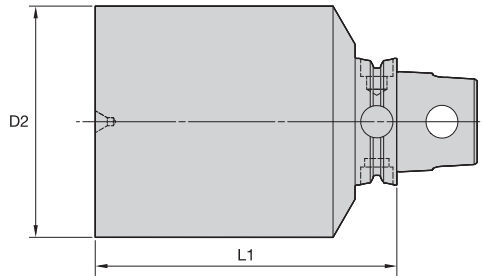


■ ES • KM Offset Reducer



order number	catalog number	CSWS system size	D2		L1		F		spare parts package	wrench size actuation screw	Nm	ft. lbs.	kg	lbs
			mm	in	mm	in	mm	in						
3734754	right hand	KM63	63	2.4803	105	4.134	20	.787	KM63PKG3S	12mm	47-54	35-40	3,81	8.40
	KM80TSESR63105M													
3734753	left hand	KM63	63	2.4803	105	4.134	20	.787	KM63PKG3S	12mm	47-54	35-40	3,81	8.40
	KM80TSESL63105M													

- Machinable front 32–38 HRC.


 KENNAMETAL
KM80TS Shank Tools


■ BN

order number	catalog number	D2		L1		hardness range	kg	lbs
		mm	in	mm	in			
3653264	KM80TSBN125075M	125	4.921	75	2.953	32–38 HRC	6,17	13.60
3653265	KM80TSBN140130M	140	5.512	130	5.118	32–38 HRC	14,08	31.04
3653266	KM80TSBN150160M	150	5.906	160	6.299	32–38 HRC	20,13	44.39
3653267	KM80TSBN150250M	150	5.906	250	9.843	32–38 HRC	32,59	71.85
3653268	KM80TSBN175175M	175	6.890	175	6.890	32–38 HRC	29,56	65.17

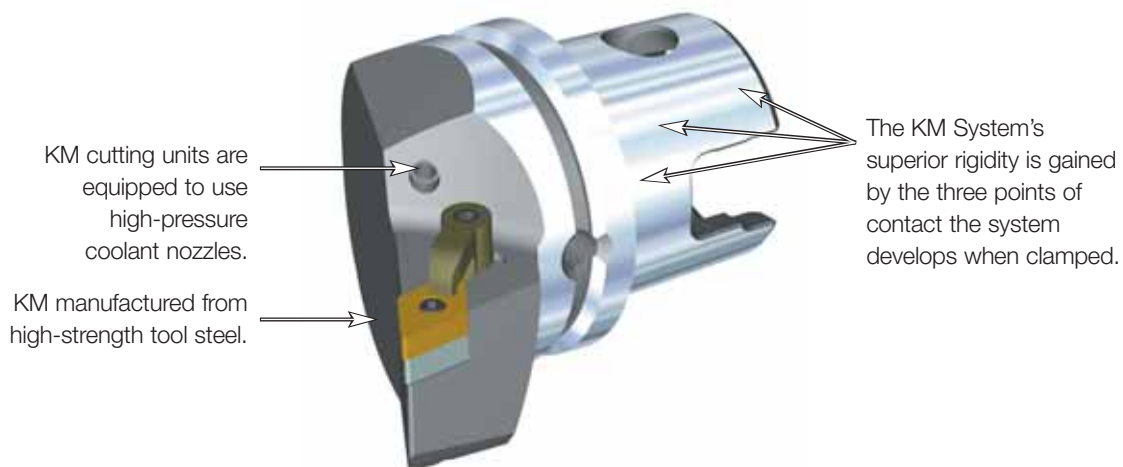
KM™ Quick Change Tooling System • KM63XMZ™ Series

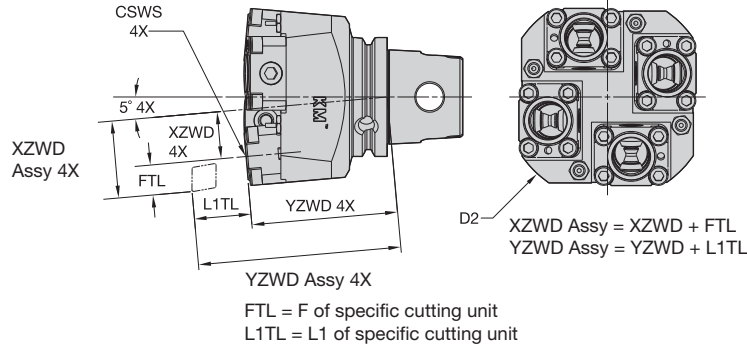
Primary Application

The KM Quick Change Clamping System is the best system on the market suitable for static, rotating, and multitasking operations. With its industry-leading design, the KM Quick Change System provides greater clamping forces than other quick-change systems. The KM Quick Change System gives you the flexibility to use KM on any application within your shop.

Features and Benefits

- KM63XMZ is designed to be used on Mazak® Mark IV Series and I- and J-Series INTEGREX® Machines.
- KM63XMZ is your solution for multitasking.





Left-Hand Tool

■ 4xSTAL • KM25

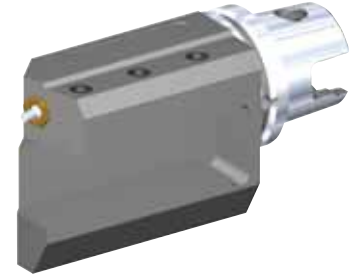
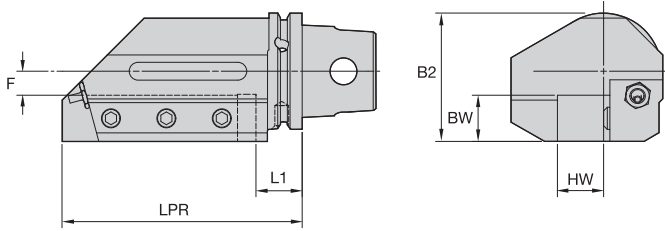
order number	catalog number	CSWS system size	XZWD		YZWD		Nm	kg
			D2	mm	in	mm			in
2614687	KM63XMZ4XSTALFKM25Y	KM25	110	24	.945	80	34	3,11

■ Spare Parts



catalog number	nozzle	flange clamping unit	KM spare parts package
KM63XMZ4XSTALFKM25Y	PMT08420 COOLANT NOZZLE SPRAY	KM25NCMSF3140MST	KM25NRPKG

NOTE: For torque wrench, see pages L52–L53.



■ STA • Straight Side Mount • Metric



order number	catalog number	L1	LPR	F	HW	BW	B2	cup point socket set screw	nozzle	Nm	kg
1855652	KM63XMZSTALF2020Y	25	100	10	20	20	62	MS2049	PMT04526 COOLANT NOZZLE SPRAY	35	2,46
1506498	KM63XMZSTALF2525Y	25	130	13	25	25	70	MS1430	PMT04526 COOLANT NOZZLE SPRAY	55	3,54
1850241	KM63XMZSTAR2020Y	25	100	10	20	20	62	MS2049	PMT04526 COOLANT NOZZLE SPRAY	35	2,43
1514567	KM63XMZSTAR2525Y	25	130	13	25	25	70	MS1430	PMT04526 COOLANT NOZZLE SPRAY	55	3,58

■ STA • Straight Side Mount • Inch

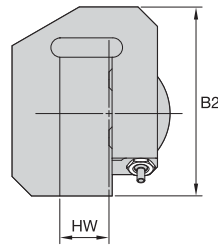
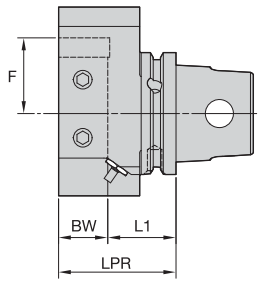


order number	catalog number	L1	LPR	F	HW	BW	B2	cup point socket set screw	nozzle	ft. lbs.	lbs
1855684	KM63XMZSTALF12Y	.921	3.937	.378	.750	.750	2.421	MS2049	PMT04526 COOLANT NOZZLE SPRAY	26	5.38
1516687	KM63XMZSTALF16Y	.906	5.118	.522	1.000	1.000	2.762	MS1430	PMT04526 COOLANT NOZZLE SPRAY	40	7.83
1855683	KM63XMZSTAR12Y	.921	3.937	.378	.750	.750	2.421	MS2049	PMT04526 COOLANT NOZZLE SPRAY	26	5.32
1516683	KM63XMZSTAR16Y	.906	5.118	.522	1.000	1.000	2.762	MS1430	PMT04526 COOLANT NOZZLE SPRAY	40	7.92

NOTE: Do not overtighten clamp screw; use torque recommendations above.
Supplied with clamp screw.
Clamp screw wrench not included.



KM63XMZ Cutting Units



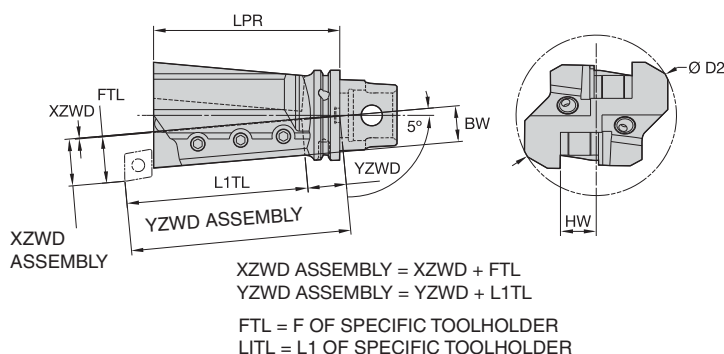
■ **ETA • Straight End Mount • Inch**

order number	catalog number	L1	LPR	F	HW	BW	B2	ft. lbs.	lbs
3103491	right hand KM63XMZETAR16Y	1.388	2.388	-1.539	1.000	1.000	3.839	40	4.97
3103492	left hand KM63XMZETALF16Y	1.388	2.388	-1.539	1.000	1.000	3.839	40	4.85

■ **Spare Parts**

catalog number	cup point socket set screw	nozzle
right hand KM63XMZETAR16Y	DWG 249618-23R05	PMT04526 COOLANT NOZZLE SPRAY
left hand KM63XMZETALF16Y	DWG 249618-23R05	PMT04526 COOLANT NOZZLE SPRAY

NOTE: Do not overtighten clamp screw; use torque recommendations above.
Supplied with clamp screw.
Clamp screw wrench not included.

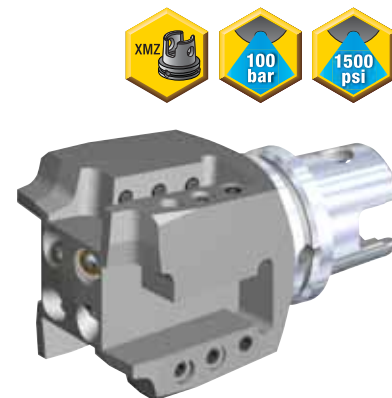
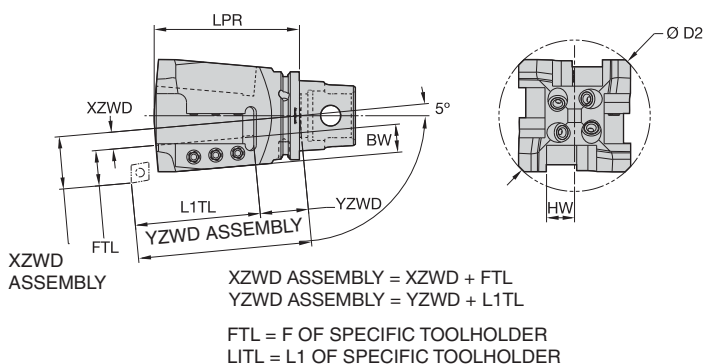


■ STA • 2x Straight Side Mount • Metric



order number	catalog number	D2	LPR	XZWD	YZWD	HW	BW	cup point socket set screw	Nm	nozzle	kg
1847363	right hand KM63XMZ2XSTAR2525Y	112	130	1	28	25	25	MS1430	55	PWZ1012	3,85
1868533	left hand KM63XMZ2XSTALF2525Y	112	130	1	28	25	25	MS1430	55	PWZ1012	3,85

NOTE: Do not overtighten clamp screw; use torque recommendations above.
Supplied with clamp screw.
Clamp screw wrench not included.

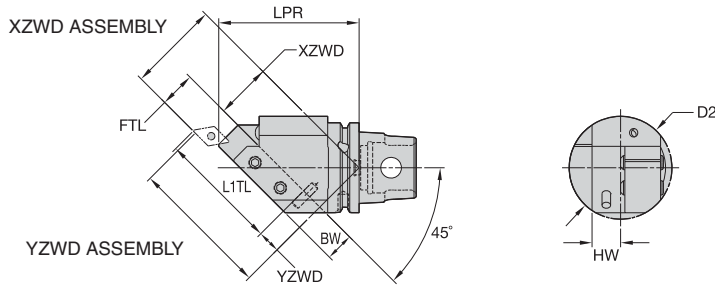


■ STA • 4x Straight Side Mount • Metric

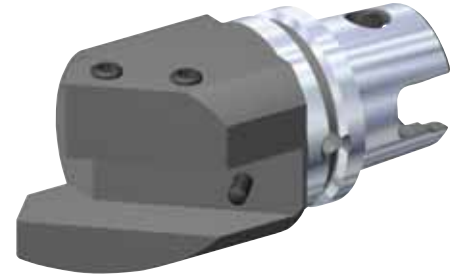


order number	catalog number	D2	LPR	XZWD	YZWD	HW	BW	cup point socket set screw	Nm	nozzle	kg
1725301	KM63XMZ4XSTAR2020Y	108	104	12	34	20	20	121.830	18	PWZ1008	2,92

NOTE: Do not overtighten clamp screw; use torque recommendations above.
Supplied with clamp screw.
Clamp screw wrench not included.



XZWD ASSEMBLY = XZWD + FTL
 YZWD ASSEMBLY = YZWD + L1TL
 FTL = F OF SPECIFIC TOOLHOLDER
 L1TL = L1 OF SPECIFIC TOOLHOLDER



■ TA 45 • 45° Mount • Metric



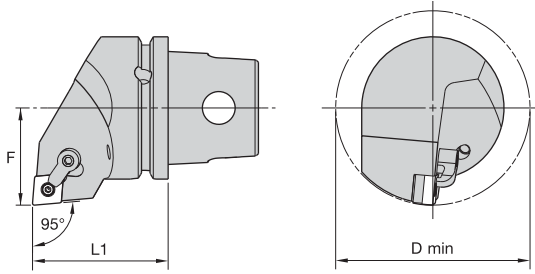
order number	catalog number	D2	LPR	XZWD	YZWD	HW	BW	cup point socket set screw	nozzle	Nm	kg
	right hand										
1855665	KM63XMZ45TAR2020Y	72	99	39	16	20	20	MS2049	PWZ1012	25	2,01
	left hand										
1855669	KM63XMZ45TALF2020Y	72	99	39	16	20	20	MS2049	PWZ1012	25	2,01

■ TA 45 • 45° Mount • Inch



order number	catalog number	D2	LPR	XZWD	YZWD	HW	BW	cup point socket set screw	nozzle	ft. lbs.	lbs
	right hand										
1855685	KM63XMZ45TAR12Y	2.835	3.887	1.518	.451	.750	.750	MS2049	PWZ1012	18	4.38
	left hand										
1855686	KM63XMZ45TALF12Y	2.835	3.887	1.518	.451	.750	.750	MS2049	PWZ1012	18	4.38

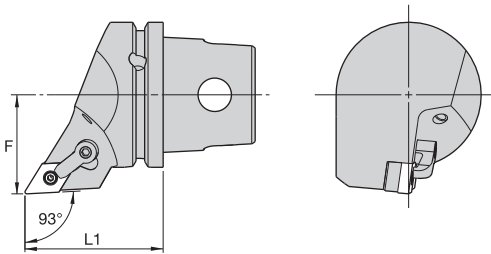
NOTE: Do not overtighten clamp screw; use torque recommendations above.
 Supplied with clamp screw.
 Clamp screw wrench not included.



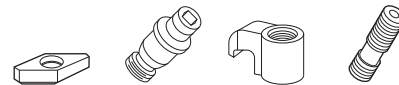
■ MCLN 95°



order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
	right hand													
1551813	KM63XMZMCLNR12Y	60	2.362	43	1.693	86	3.386	CN..120408/CN..432	ICSN432	KLM46	CKM20	STCM11	1,24	2.73
1603738	KM63XMZMCLNR16Y	60	2.362	43	1.693	86	3.386	CN..160612/CN..543	ICSN533	KLM58	CKM20	STCM11	1,24	2.74
	left hand													
3103485	KM63XMZMCLNLF12Y	60	2.362	43	1.693	86	3.386	CN..120408/CN..432	ICSN432	KLM46	CKM20	STCM11	1,24	2.73
3103486	KM63XMZMCLNLF16Y	60	2.362	43	1.693	86	3.386	CN..160612/CN..543	ICSN533	KLM58	CKM20	STCM11	1,24	2.74



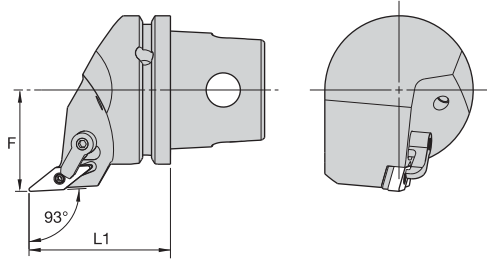
■ MDJN 93°



order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
	right hand											
3103487	KM63XMZMDJNR1504Y	60	2.362	43	1.693	DN..150408/DN..432	IDSN442	KLM46L	CKM23	STCM11	1,07	2.360
	left hand											
3103488	KM63XMZMDJNLF1504Y	60	2.362	43	1.693	DN..150408/DN..432	IDSN442	KLM46L	CKM23	STCM11	1,07	2.360



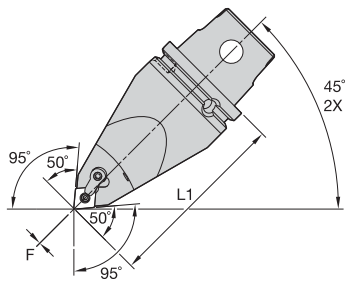
KM63XMZ Cutting Units



■ MVJN 93°



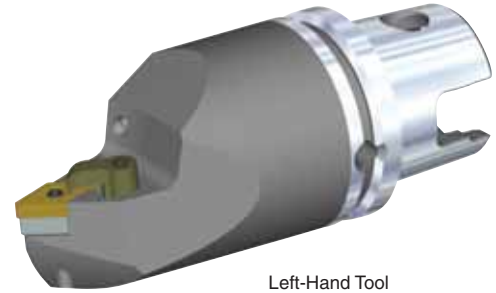
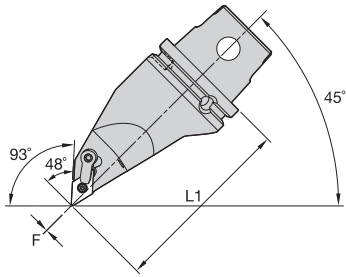
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
3103489	KM63XMZMVJNR16Y	60	2.362	43	1.693	VN..160408/VN..332	IVSN322	KLM34L	CKM23	STCM11	1,05	2.32
3103490	KM63XMZMVJNLF16Y	60	2.362	43	1.693	VN..160408/VN..332	IVSN322	KLM34L	CKM23	STCM11	1,05	2.32



■ MCMN 50° • 95° Application • Centerline

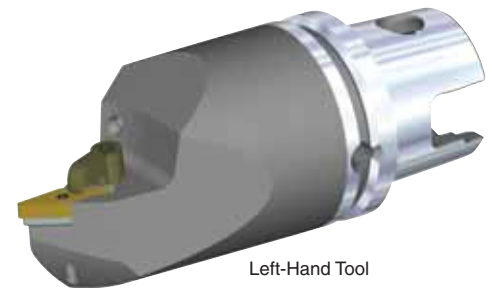
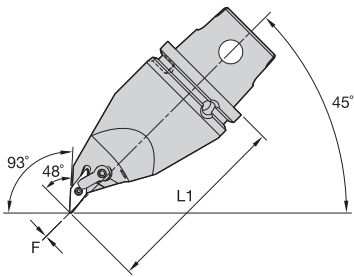
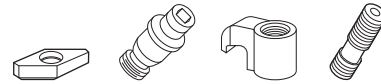


order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
3180556	KM63XMZMCMNNF12115Y	115	4.528	0	.000	CN..120408/CN..432	ICSN432	KLM46	CKM20	STCM11	2,07	4.57



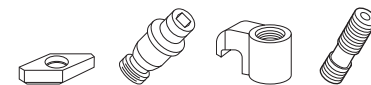
■ MDMN 48° • 93° Application • Centerline

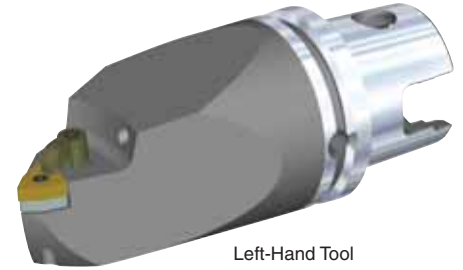
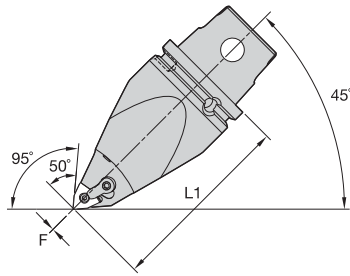
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
right hand												
3487461	KM63XMZMDMNR1504115Y	115	4.528	0	.000	DN..150408/DN..432	IDSN442	KLM46L	CKM23	STCM11	1,88	4.14
3487462	KM63XMZMDMNR1506115Y	115	4.528	0	.000	DN..150608/DN..442	IDSN432	KLM46L	CKM23	STCM11	1,88	4.13
left hand												
3487458	KM63XMZMDMNLF1504115Y	115	4.528	0	.000	DN..150408/DN..432	IDSN442	KLM46L	CKM23	STCM11	1,87	4.11
3487459	KM63XMZMDMNLF1506115Y	115	4.528	0	.000	DN..150608/DN..442	IDSN432	KLM46L	CKM23	STCM11	1,86	4.10



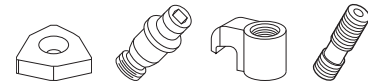
■ MVMN 48° • 93° Application • Centerline

order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
right hand												
3487473	KM63XMZMVMNR16115Y	115	4.528	0	.000	VN..160408/VN..332	IVSN322	KLM34L	CKM23	STCM11	1,97	4.35
left hand												
3487460	KM63XMZMVMNLF16115Y	115	4.528	0	.000	VN..160408/VN..332	IVSN322	KLM34L	CKM23	STCM11	1,97	4.35

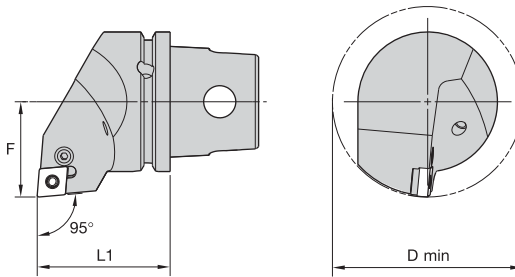




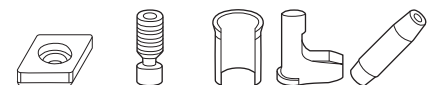
■ MWMN 50° • 95° Application • Centerline



order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
3487572	right hand	115	4.528	0	.000	WN..080408/WN..432	IWSN433	KLM46	CKM20	STCM11	2,03	4.47
	KM63XMZMWMNR08115Y											
3487571	left hand	115	4.528	0	.000	WN..080408/WN..432	IWSN433	KLM46	CKM20	STCM11	2,02	4.46
	KM63XMZMWMNLF08115Y											



■ PCLN 95°



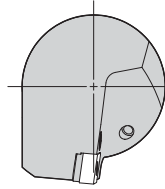
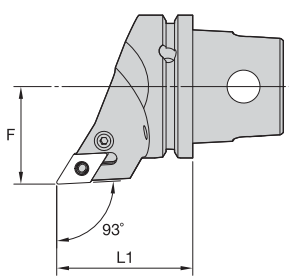
order number	catalog number	L1		F		D min	gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs	
		mm	in	mm	in										mm	in
2231263	right hand	60	2.362	43	1.693	86	3.386	CN..120408/CN..432	512.112	514.023	513.023	511.023	515.018	1,23	2.71
	KM63XMZPCLNR12Y														
2231264	left hand	60	2.362	43	1.693	86	3.386	CN..120408/CN..432	512.112	514.023	513.023	511.023	515.018	1,23	2.71
	KM63XMZPCLNLF12Y														

KM63XMZ™ Cutting Units

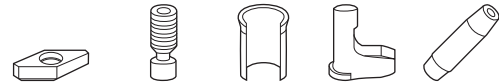
P-Clamping • S-Clamping



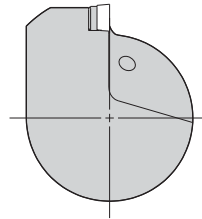
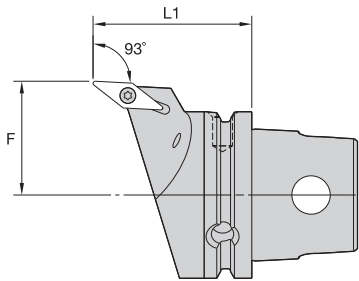
KM63XMZ Cutting Units



■ PDJN 93°



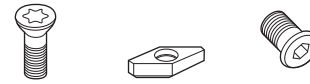
order number	catalog number	L1		F		gage insert	shim	lever screw	shim pin	toggle lever	punch	kg	lbs
		mm	in	mm	in								
2231265	KM63XMZPDJNR15Y	60	2.362	43	1.693	DN..150608/DN..442	512.153	514.028	513.023	511.024	515.018	1,04	2.29



Left-Hand Tool



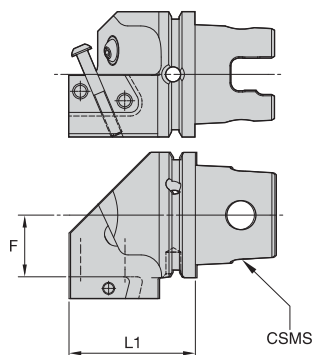
■ SVJB 93°



order number	catalog number	L1		F		gage insert	insert screw	shim	shim screw	kg	lbs
		mm	in	mm	in						
2231270	KM63XMZSVJBLF16Y	60	2.362	43	1.693	VB..160408/VB..332	MS1156	SKVN343	SRS3	1,07	2.35

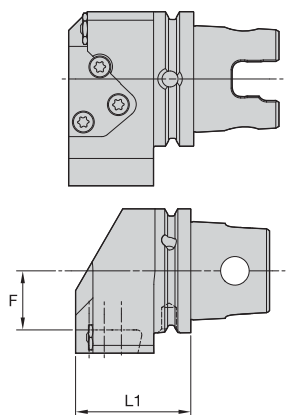


KM63XMZ Cutting Units


■ KGMS • Side Mount

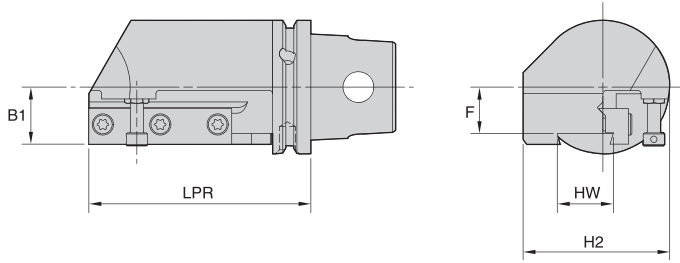

order number	catalog number	L1		F		cartridge size	blade screw	clamp screw	nozzle	kg
		mm	in	mm	in					
	right hand									
1756550	KM63XMZKGMSR50Y	63,5	2.500	31	1.220	50	MS1162	MS2002	SB09530PWZ1012	1,40
	left hand									
1756574	KM63XMZKGMSLF50Y	63,5	2.500	31	1.220	50	MS1162	MS2002	SB09530PWZ1012	1,40

NOTE: For A3/A4 modular blades, see the Kennametal Innovations Master Catalog Cutting Tools 2013.
 Right-hand cutting units use right-hand blades.

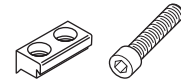

■ KGMS • Side Mount


order number	catalog number	L1		F		cartridge size	blade screw	nozzle	kg
		mm	in	mm	in				
	left hand								
3588680	KM63XMZKGMSLF65Y	58,5	2.303	30	1.181	65	MS1163	PMT04525	1,74

NOTE: For A3/A4 modular blades, see the Kennametal Innovations Master Catalog Cutting Tools 2013.
 Right-hand cutting units use right-hand blades.



■ BS • Side Mount

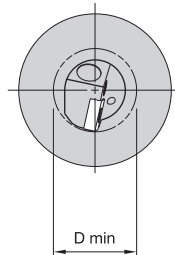
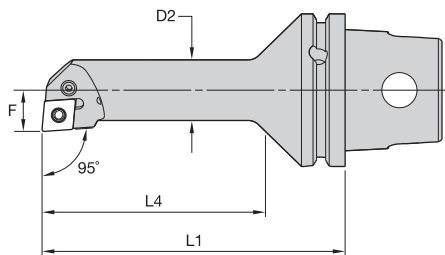


order number	catalog number	B1		LPR		F		H2		HW		cartridge size	cartridge 1	clamp	clamp screw	kg
		mm	in	mm	in	mm	in	mm	in	mm	in					
		right hand														
1982386	KM63XMZBSR4Y	37,6	1.480	104,6	4.118	21,92	.863	69,1	2.720	26,0	1.024	26	A2BNSN26...	CGS4	MS1595	2,27
1831638	KM63XMZBSR5Y	40,0	1.575	123,8	4.874	39,92	1.572	71,5	2.814	32,0	1.260	32	A2BNSN32...	CGS5	MS1595	3,64
		left hand														
1982387	KM63XMZBSLF4Y	37,6	1.480	104,6	4.118	21,92	.863	69,1	2.720	26,0	1.024	26	A2BNSN26...	CGS4	MS1595	2,31
1831634	KM63XMZBSLF5Y	40,0	1.575	123,8	4.874	39,92	1.572	71,5	2.814	32,0	1.260	32	A2BNSN32...	CGS5	MS1595	3,63

NOTE: Blades are ordered separately. See the Kennametal Innovations Master Catalog Cutting Tools 2013.





KM63XMZ Internal Cutting Units

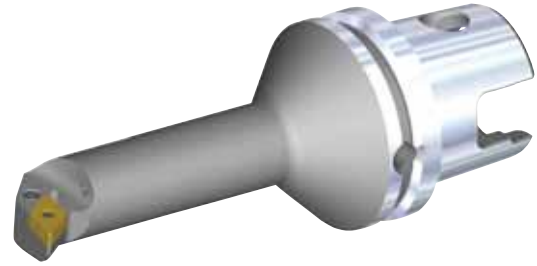
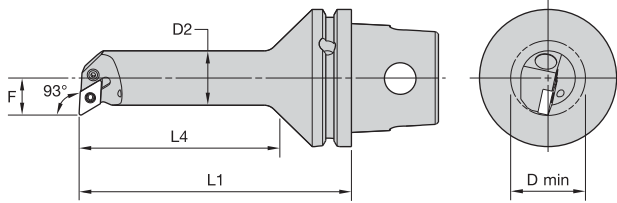


■ PCLN 95°

order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs	
		mm	in	mm	in	mm	in	mm	in	mm	in				
		right hand													
2231271	KM63XMZS25KPCLNR12Y	25	.98	32	1.26	17	.669	88	3.45	125	4.921	CN..120408/CN..432	1,17	2.57	
		left hand													
2231272	KM63XMZS25KPCLNLF12Y	25	.98	32	1.26	17	.669	88	3.45	125	4.921	CN..120408/CN..432	1,17	2.57	

■ Spare Parts



catalog number	 lever screw	 toggle lever
	right hand	
KM63XMZS25KPCLNR12Y	514.022	511.022
	left hand	
KM63XMZS25KPCLNLF12Y	514.022	511.022



■ PDUN 93°

order number	catalog number	D2		D min		F		L4		L1		gage insert	kg	lbs
		mm	in	mm	in	mm	in	mm	in	mm	in			
2231273	right hand	25	.98	32	1.26	17	.669	88	3.45	125	4.921	DN..110408/DN..332	1,15	2.530
	KM63XMZS25KPDUNR11Y													
2231274	left hand	25	.98	32	1.26	17	.669	88	3.45	125	4.921	DN..110408/DN..332	1,15	2.530
	KM63XMZS25KPDUNLF11Y													

■ Spare Parts

catalog number	 lever screw	 toggle lever
right hand KM63XMZS25KPDUNR11Y	514.012	511.015
left hand KM63XMZS25KPDUNLF11Y	514.012	511.015



KSRM™

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Specially developed for machining titanium and stainless steel. KSRM platform enables you to pocket, profile, ramp, and plunge with up to 1mm (.039") fz with consistent performance, providing outstanding metal removal rates with the lowest cutting forces in roughing applications.

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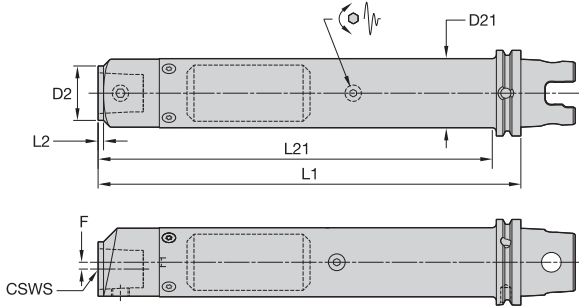
 **KENNAMETAL®**

KM63XMZ Shank Tools

Tunable Bars with KM™ Quick Change Connection



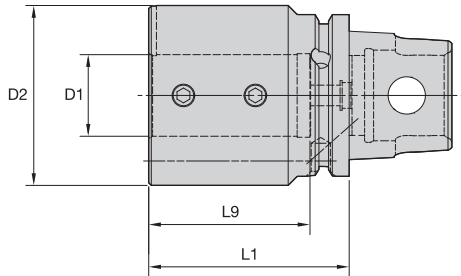
KM63XMZ Shank Tools



■ TTB • KM Tunable Bar • KM

order number	catalog number	CSWS system size	D2		D21		F		L1		L2		L21	
			mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
3901271	KM63XMZD24TTB9KM40	KM40	38,10	1.500	—	—	0,00	.000	234,55	9.234	216,55	8.526	—	—
3901274	KM63XMZD28TTB14KM40	KM40	44,45	1.750	—	—	0,00	.000	361,52	14.233	4,00	.157	341,52	13.446
3901272	KM63XMZD32TTB12KM40	KM40	50,00	1.969	—	—	5,00	.197	310,71	12.233	4,00	.157	290,71	11.445
3901275	KM63XMZD32TTB16KM40	KM40	50,00	1.969	—	—	5,00	.197	412,32	16.233	4,00	.157	392,32	15.446
3901273	KM63XMZD40TTB15KM40	KM40	63,50	2.500	—	—	11,75	.463	386,92	15.233	4,00	.157	368,92	14.524
3901276	KM63XMZD40TTB20KM40	KM40	63,50	2.500	—	—	11,75	.463	513,92	20.233	4,00	.157	495,92	19.524

NOTE: Tunable technical section, see page M90.



■ BA • Boring Bar Adapter • Internal and External Coolant • Metric



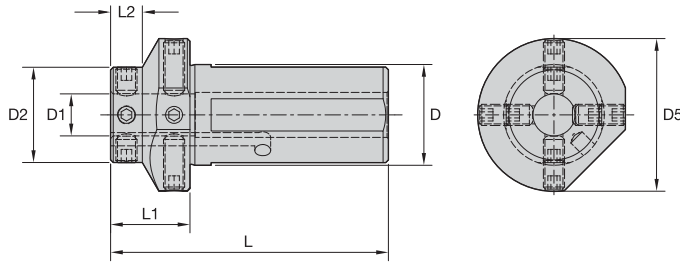
order number	catalog number	D1	D2	L1	L9	clamp screw	nozzle	wrench size clamp screw	Nm	kg
1855688	KM63XMZBA3278Y	32	70	78	63	MS1561	PWZ1012	5mm	25	2
1510611	KM63XMZBA40105Y	40	80	105	76	MS1858	PWZ1012	6mm	45	3

■ BA • Boring Bar Adapter • Internal and External Coolant • Inch



order number	catalog number	D1	D2	L1	L9	clamp screw	nozzle	wrench size clamp screw	ft. lbs.	lbs
1855692	KM63XMZBA125307Y	1 1/4	2.76	3.071	2.48	MS1561	PWZ1012	5mm	18	4
1516678	KM63XMZBA150413Y	1 1/2	3.15	4.134	2.99	MS1858	PWZ1012	6mm	33	7
1831641	KM63XMZBA200512Y	2	3.54	5.118	3.98	MS1858	PWZ1012	6mm	33	9

NOTE: Do not overtighten clamp screw; use torque recommendations above.
 Supplied with clamp screw.
 Clamp screw wrench not included.
 For boring bar reducers, see page A570.



■ BR • Boring Bar Reducer • Metric



order number	catalog number	D	D1	D2	D5	L	L1	L2	flat point socket set screw	wrench size clamp screw	Nm	kg
1521853	KM63XMZBR4008Y	40	8	36	58	105	30	12	—	3mm	7	1,07
1521854	KM63XMZBR4010Y	40	10	36	58	105	30	12	—	3mm	7	1,04
1521857	KM63XMZBR4012Y	40	12	36	58	105	30	12	MS1109	4mm	15	0,93
1521859	KM63XMZBR4016Y	40	16	36	58	105	30	12	MS1109	4mm	15	0,85
1521860	KM63XMZBR4020Y	40	20	58	58	105	30	30	MS1878	4mm	15	0,62
1521858	KM63XMZBR4025Y	40	25	54	54	105	30	30	MS1878	4mm	15	1,03
1521856	KM63XMZBR4032Y	40	32	54	54	105	30	30	MS1878	4mm	15	0,99

■ BR • Boring Bar Reducer • Inch



order number	catalog number	D	D1	D2	D5	L	L1	L2	flat point socket set screw	wrench size clamp screw	ft. lbs.	lbs
1566093	KM63XMZBR150031Y	1.50	5/16	1.42	2.27	4.13	1.181	.472	—	3mm	5	2.21
1566078	KM63XMZBR150038Y	1.50	3/8	1.42	2.27	4.13	1.181	.472	—	3mm	5	2.14
1566079	KM63XMZBR150050Y	1.50	1/2	1.42	2.27	4.13	1.181	.472	MS1109	4mm	11	2.03
1566080	KM63XMZBR150062Y	1.50	5/8	1.42	2.27	4.13	1.181	.472	MS1109	4mm	11	1.90
1566211	KM63XMZBR150075Y	1.50	3/4	2.27	2.27	4.13	1.181	1.181	MS1878	4mm	11	2.13
1566212	KM63XMZBR150100Y	1.50	1	2.27	2.27	4.13	1.181	1.181	MS1878	4mm	11	1.73
1566213	KM63XMZBR150125Y	1.50	1 1/4	2.27	2.27	4.13	1.181	1.181	MS-1879	4mm	11	1.21

NOTE: Do not overtighten clamp screw; use torque recommendations above.
Supplied with clamp screw.
Clamp screw wrench not included.

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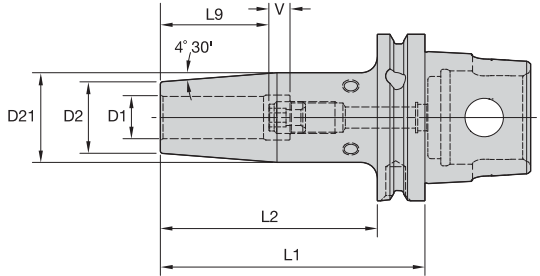
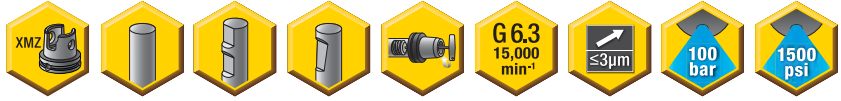
KM63XMZ™ Shank Tools

Shrink Fit Toolholders General Purpose (GP)



KM63XMZ Shank Tools

- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide and HSS cutting tools (requirements below).



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
4	h4	0,000/-0,004
6	h6	0,000/-0,008
8 & 10	h6	0,000/-0,009
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016



■ HPV TT • Metric



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	kg
3661833	KM63XMZHPVTT04080MY	4	9		80	52	15	10	TTSS05014M	2,5mm	0,74
3661823	KM63XMZHPVTT06080MY	6	21	1	80	62	26	10	TTSS05014M	2,5mm	0,85
3661824	KM63XMZHPVTT08080MY	8	21	1	80	62	26	10	TTSS06014M	3mm	0,84
3661825	KM63XMZHPVTT10090MY	10	24	1	90	72	31	10	TTSS08014M	4mm	0,97
3661826	KM63XMZHPVTT12090MY	12	24	1	90	72	36	10	TTSS10014M	5mm	0,95
3661827	KM63XMZHPVTT14100MY	14	27	1	100	82	36	10	TTSS10014M	5mm	1,08
3661828	KM63XMZHPVTT16100MY	16	27	1	100	82	39	10	TTSS12014M	6mm	1,05
3661829	KM63XMZHPVTT18100MY	18	33	2	100	82	39	10	TTSS12014M	6mm	1,27
3661830	KM63XMZHPVTT20100MY	20	33	2	100	82	41	10	TTSS16014M	8mm	1,24
3661831	KM63XMZHPVTT25120MY	25	44	2	120	102	47	10	TTSS16014M	8mm	1,96
3661832	KM63XMZHPVTT32120MY	32	44	2	120	102	51	10	TTSS16014M	8mm	1,79

(continued)



(HPV TT continued)

Cutting Tool Shank Requirements
 inch (industry standard)

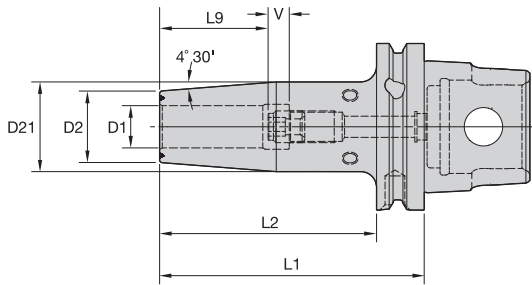
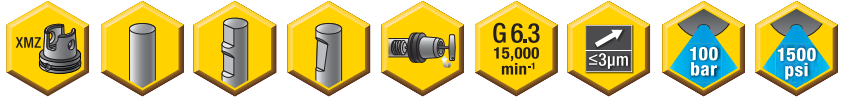
cutting tool shank diameter	tolerance
1/4, 5/16, & 3/8	-.0001/- .0004
7/16, 1/2, 9/16, 5/8, & 11/16	.0000/- .0004
3/4, 7/8, 1, & 1-1/4	.0000/- .0005

■ HPV TT • Inch


order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	lbs
3858932	KM63XMZHPVTT025315Y	1/4	.827	1.059	3.150	2.441	1.024	.394	TTSS05014M	2,5mm	1.85
3858943	KM63XMZHPVTT031315Y	5/16	.827	1.059	3.150	2.441	1.024	.394	TTSS06014M	3mm	1.84
3858944	KM63XMZHPVTT038335Y	3/8	.945	1.256	3.347	2.638	1.221	.394	TTSS08014M	4mm	2.05
3858945	KM63XMZHPVTT044354Y	7/16	.945	1.256	3.543	2.835	1.417	.394	TTSS10014M	5mm	2.09
3858946	KM63XMZHPVTT050354Y	1/2	.945	1.256	3.543	2.835	1.417	.394	TTSS10014M	5mm	2.06
3858947	KM63XMZHPVTT056354Y	9/16	1.063	1.335	3.543	2.835	1.417	.394	TTSS10014M	5mm	2.19
3858948	KM63XMZHPVTT062374Y	5/8	1.063	1.335	3.740	3.032	1.535	.394	TTSS12014M	6mm	2.22
3858949	KM63XMZHPVTT068374Y	11/16	1.299	1.650	3.740	3.032	1.535	.394	TTSS12014M	6mm	2.68
3858950	KM63XMZHPVTT075394Y	3/4	1.299	1.650	3.937	3.228	1.614	.394	TTSS16014M	8mm	2.73
3858951	KM63XMZHPVTT088394Y	7/8	1.299	1.650	3.937	3.228	1.614	.394	TTSS16014M	8mm	2.64
3858952	KM63XMZHPVTT100453Y	1	1.732	2.083	4.528	3.819	1.850	.394	TTSS16014M	8mm	4.10
3858953	KM63XMZHPVTT125472Y	1 1/4	1.732	2.083	4.724	4.016	2.008	.394	TTSS16014M	8mm	3.96

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.
 Shrink Fit technical section, see page M78.
 Supplied with stop screw.
 Adjusting stop screw gage, see page M81.
 Shrink Fit accessories, see page L12-L13.
 Optional M6~1.0P x 5 lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.

- 30–50% higher clamping torque compared to GP line.
- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide only, designated by groove in front face (requirements below).
- 10 kW power or greater Shrink Fit device must be used.



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

■ HPV TT HT • Metric



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	kg
3661834	KM63XMZHPVTTHT12090MY	12	24	1	90	72	36	10	TTSS10014M	5mm	0,95
3661835	KM63XMZHPVTTHT14100MY	14	27	1	100	82	36	10	TTSS10014M	5mm	1,08
3661836	KM63XMZHPVTTHT16100MY	16	27	1	100	82	39	10	TTSS12014M	6mm	1,05
3661837	KM63XMZHPVTTHT18100MY	18	33	2	100	82	39	10	TTSS12014M	6mm	1,27
3661838	KM63XMZHPVTTHT20100MY	20	33	2	100	82	41	10	TTSS16014M	8mm	1,24
3661839	KM63XMZHPVTTHT25120MY	25	44	2	120	102	47	10	TTSS16014M	8mm	1,96
3661840	KM63XMZHPVTTHT32120MY	32	44	2	120	102	51	10	TTSS16014M	8mm	1,79

(continued)

(HPV TT HT continued)

Cutting Tool Shank Requirements
inch (industry standard)

cutting tool shank diameter	tolerance
1/2, 9/16, 5/8, & 11/16	.0000/- .0004
3/4, 7/8, 1, & 1-1/4	.0000/- .0005

■ HPV TT HT • Inch



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	lbs
3858954	KM63XMZHPVTTHT050354Y	1/2	.94	1.26	3.543	2.83	1.42	.39	TTSS10014M	5mm	2.06
3858955	KM63XMZHPVTTHT056354Y	9/16	1.06	1.33	3.543	2.83	1.42	.39	TTSS10014M	5mm	2.19
3858956	KM63XMZHPVTTHT062374Y	5/8	1.06	1.33	3.740	3.03	1.54	.39	TTSS12014M	6mm	2.22
3858957	KM63XMZHPVTTHT068374Y	11/16	1.30	1.65	3.740	3.03	1.54	.39	TTSS12014M	6mm	2.68
3858958	KM63XMZHPVTTHT075394Y	3/4	1.30	1.65	3.937	3.23	1.61	.39	TTSS16014M	8mm	2.73
3858959	KM63XMZHPVTTHT088394Y	7/8	1.30	1.65	3.937	3.23	1.61	.39	TTSS16014M	8mm	2.64
3858960	KM63XMZHPVTTHT100453Y	1	1.73	2.08	4.528	3.82	1.85	.39	TTSS16014M	8mm	4.10
3858961	KM63XMZHPVTTHT125472Y	1 1/4	1.73	2.08	4.724	4.02	2.01	.39	TTSS16014M	8mm	3.96

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

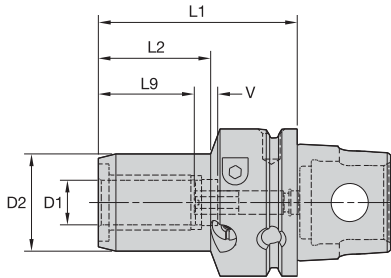
Shrink Fit technical section, see page M78.

Supplied with stop screw.

Adjusting stop screw gage, see page M81.

Shrink Fit accessories, see page L12-L13.

Optional M6-1.0P x 5 lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.



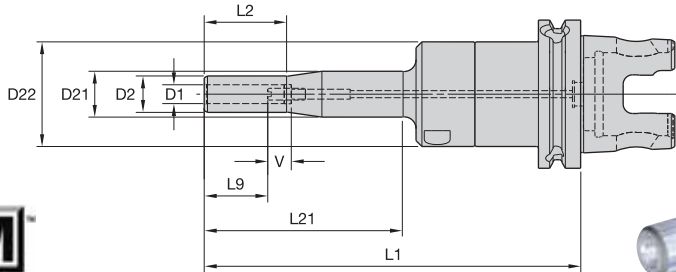
■ HC • Metric

order number	catalog number	D1	D2	L1	L2	L9	V	actuation wrench	wrench size actuation screw	length adjustment wrench	wrench size stop screw	kg
1514516	KM63XMZHC2085Y	20	42	85	48	41	10	170.135	5mm	170.003	3mm	1,36
1514517	KM63XMZHC32100Y	32	60	100	59	51	10	170.136	6mm	170.004	4mm	1,97

■ HC • Inch

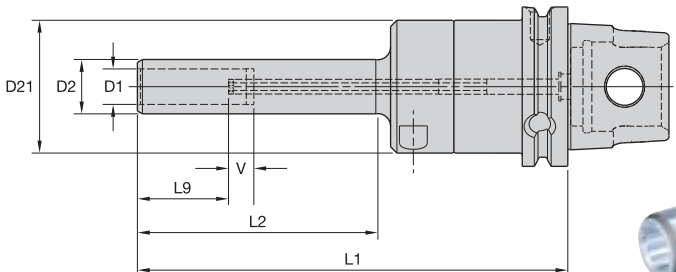
order number	catalog number	D1	D2	L1	L2	L9	V	actuation wrench	wrench size actuation screw	length adjustment wrench	wrench size stop screw	lbs
1514514	KM63XMZHC075335Y	3/4	1.64	3.347	1.89	1.61	.39	170.135	5mm	170.003	3mm	3.04
1514515	KM63XMZHC125394Y	1 1/4	2.35	3.937	2.32	2.01	.39	170.136	6mm	170.004	4mm	4.39

NOTE: Do not overtorque clamp screw. Use supplied wrench and tighten by hand until stop is felt.
Hydraulic chuck technical section, see page M84.
Supplied with stop screw.
Reduction sleeves are available and must be ordered separately; see page J2.


■ HCSLT • Metric

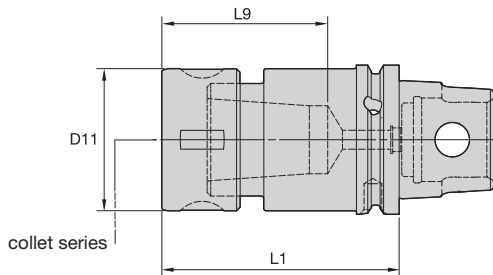
order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	actuation wrench	wrench size actuation screw	length adjustment wrench	wrench size stop screw	kg
3055511	KM63XMZHCSLT06160MY	6	14	20	44	160	35	85	27	10	170.135	5mm	170.002	2,5mm	1,38
3055512	KM63XMZHCSLT08160MY	8	16	20	44	160	35	85	27	10	170.135	5mm	170.002	2,5mm	1,39
3055513	KM63XMZHCSLT10160MY	10	18	44	—	160	85	142	31	10	170.135	5mm	170.003	3mm	1,37

NOTE: Do not overtorque clamp screw. Use supplied wrench and tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw.
 Reduction sleeves are available and must be ordered separately; see page J2.


■ HCSL • Metric

order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	length adjustment wrench	wrench size stop screw	kg
3055514	KM63XMZHCSL12170MY	12	20	44	170	95	36	10	170.135	5mm	170.002	2,5mm	1,41
3055515	KM63XMZHCSL14170MY	14	22	52	170	95	36	10	170.135	5mm	170.002	2,5mm	1,69
3055516	KM63XMZHCSL16170MY	16	24	52	170	95	39	10	170.135	5mm	170.002	2,5mm	1,70
3055517	KM63XMZHCSL18170MY	18	26	52	170	95	39	10	170.135	5mm	170.002	2,5mm	1,75
3055518	KM63XMZHCSL20170MY	20	28	52	170	95	41	10	170.135	5mm	170.002	2,5mm	1,78

- Tremendous grip (3:1 advantage).



TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG50	1,1	13,5	1/32	17/32
TG75	2,6	20,0	3/64	3/4
TG100	2,6	25,5	5/64	1

■ TG Collet Chuck • Round Nut

order number	catalog number	collet series	D11		L1		L9		kg	lbs
			mm	in	mm	in	mm	in		
1566225	KM63XMZTG05050Y	TG50	38	1.50	50	1.969	42,0	1.65	0,74	1.63
1516675	KM63XMZTG07575Y	TG75	50	1.97	75	2.953	54,0	2.13	1,30	2.88
1516677	KM63XMZTG100100Y	TG100	60	2.36	100	3.937	70,0	2.72	1,87	4.12

■ Spare Parts

catalog number	locknut	wrench	Nm		ft. lbs.
			min	max	
KM63XMZTG05050Y	LNA050M	HSW34M	55	68	40 - 50
KM63XMZTG07575Y	LNA075M	HSW45M	108	136	80 - 100
KM63XMZTG100100Y	LNA100M	HSW58M	163	203	120 - 150

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut.
 Locknut wrench must be ordered separately.
 Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16–L17.
 Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.
 TG standard straight-bore collets, see page J10.
 TG tap collets, see page J10.



KM MicroTM and KMTM Mini

The most economical modular quick-change tooling system available.

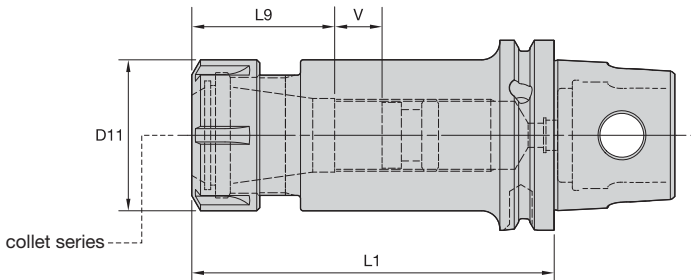
The KM Micro and KM Mini couplings offer a very rigid joint with a high degree of repeatability while maintaining a very compact envelope. This permits a high degree of versatility without sacrificing cutting performance.

- Reduce downtime, increase productivity.
- Replaces conventional square-shank tooling.
- No machine modifications required.
- KM Mini is ideal for machines up to 30 hp (22kW).

Experience the advantages at your Authorized Kennametal Distributor or at www.kennametal.com.

www.kennametal.com





ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER11	0,5	7,0	.02	.28
ER25	1,0	16,0	.04	.63
ER32	2,0	20,0	.08	.81
ER40	3,0	26,0	.12	1.00

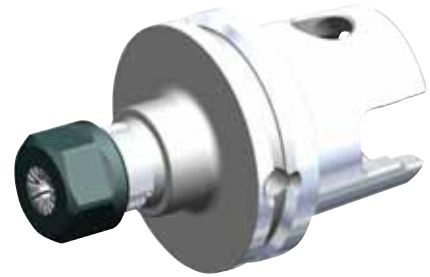
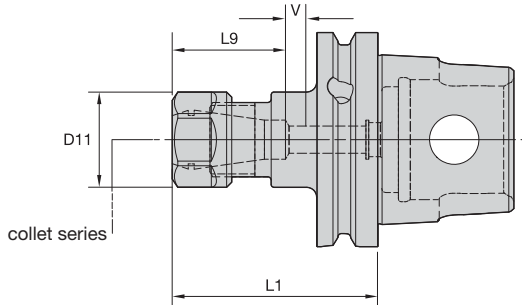
■ ER Collet Chuck • Round Nut



order number	catalog number	collet series	D11		L1		L9		V		locknut	wrench	stop screw	Nm ft. lbs. kg lbs			
			mm	in	mm	in	mm	in	mm	in				Nm	ft. lbs.	kg	lbs
1826965	KM63XMZER1160Y	ER11	16	.63	60	2.362	24,0	.94	—	—	LER11M	ER11WEM	—	16	12	0,71	1.56
1822413	KM63XMZER1190Y	ER11	16	.63	90	3.543	24,0	.94	—	—	LER11M	ER11WEM	—	16	12	0,82	1.81
1504983	KM63XMZER2560Y	ER25	42	1.65	60	2.362	40,0	1.57	—	—	LNSER25M	ER25WM	—	104	77	0,85	1.88
1714892	KM63XMZER25120Y	ER25	42	1.65	120	4.724	40,0	1.57	40	1.57	LNSER25M	ER25WM	SS075041G	104	77	1,41	3.11
1516809	KM63XMZER3260Y	ER32	50	1.97	60	2.362	47,0	1.83	—	—	LNSER32M	ER32WM	—	136	100	0,91	2.00
1798651	KM63XMZER32120Y	ER32	50	1.97	120	4.724	46,0	1.81	34	1.34	LNSER32M	ER32WM	SS094041G	136	100	1,69	3.72
1714893	KM63XMZER4090Y	ER40	63	2.48	90	3.543	70,3	2.77	—	—	LNSER40M	ER40WM	—	176	130	1,65	3.64

(continued)

(ER Collet Chuck continued)



KM63XMZ Shank Tools

ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER16	0,5	10,0	.02	.41



■ ER Collet Chuck • Hex Nut



order number	catalog number	collet series	D11		L1		L9		V		locknut	wrench	stop screw	Nm	ft. lbs.	kg	lbs
			mm	in	mm	in	mm	in	mm	in							
1532048	KM63XMZER16120Y	ER16	28	1.10	120	4.724	32	1.26	48	1.89	LNHSER16M	OEW25M	SS044038G	56	42	1,00	2.21
1516808	KM63XMZER1660Y	ER16	28	1.10	60	2.362	32	1.26	9	.35	LNHSER16M	OEW25M	SS044038G	56	42	0,74	1.63

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.

Collet chuck technical section, see page M98.

Supplied with locknut and stop screw.

Locknut wrench must be ordered separately.

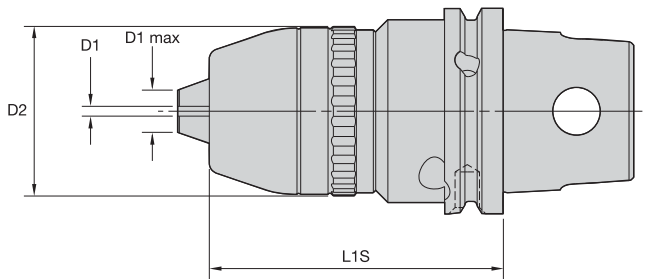
Interchangeable coolant-style locknuts and coolant disks are available and must be ordered separately; see page L19.

Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.

ER standard straight-bore collets, see page J50.

ER tap collets, see pages J58–J59.

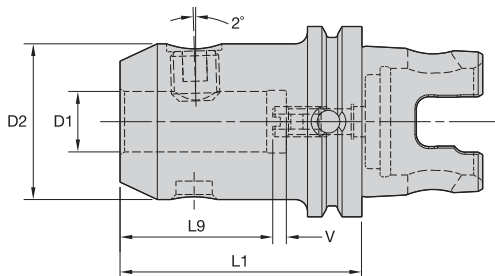
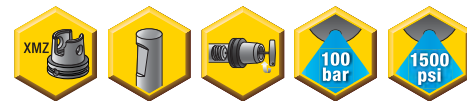
ER TCT tension-only tap collets, see page J60.



■ RDC • Drill Chuck

order number	catalog number	D1		D1 max		D2		L1S	
		mm	in	mm	in	mm	in	mm	in
1921511	KM63XMZRDC1390Y	1	.031	13	.500	50	1.949	90,0	3.543
3049855	KM63XMZRDC1690Y	3	.125	16	.625	52	2.047	90,0	3.543

NOTE: Activation size is 6mm.
 Activation wrench included.
 Wrench reorder number is 170.136.

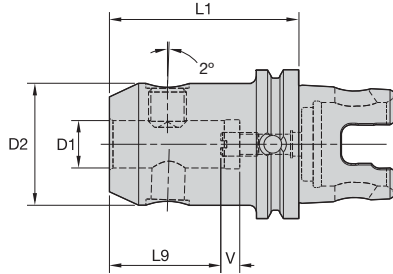


■ WN • Whistle Notch Adapter



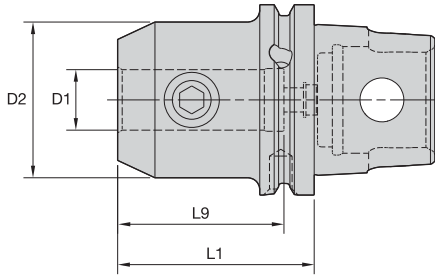
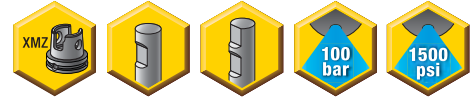
order number	catalog number	D1	D2	L1	L9	V	lock screw	wrench size lock screw	Nm	stop screw	wrench size stop screw	kg
1982384	KM63XMZWN0660Y	6	25	60	30	8	SS03M012	3mm	7	571.060	2,5mm	0,76
1831642	KM63XMZWN0865Y	8	28	65	30	8	SS03M014	4mm	15	571.067	3mm	0,82
1831703	KM63XMZWN1070Y	10	35	70	35	7	SS03M018	5mm	25	571.068	4mm	0,96
1831704	KM63XMZWN1275Y	12	42	75	40	7	SS03M023	6mm	35	571.074	5mm	1,15
1831705	KM63XMZWN1475Y	14	44	75	40	7	SS03M023	6mm	35	571.074	5mm	1,19
1831706	KM63XMZWN1680Y	16	48	80	43	7	SS03M025	6mm	50	571.074	5mm	1,37
1982385	KM63XMZWN1880Y	18	50	80	43	7	SS03M025	6mm	50	571.074	5mm	1,41
1714887	KM63XMZWN2080Y	20	52	80	45	7	SS03M026	8mm	95	571.074	5mm	1,45
1714888	KM63XMZWN2585Y	25	65	85	50	8	SS03M027	10mm	135	571.074	5mm	2,01
1714889	KM63XMZWN3295Y	32	72	95	54	10	SS03M029	10mm	160	571.075	6mm	2,54

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw and stop screw.
 Lock screw and stop screw wrenches are not included.


■ WN/EM • Whistle Notch and End Mill Adapter

order number	catalog number	D1	D2	L1	L9	V	lock screw		stop screw		kg	
							wrench size	Nm	wrench size	Nm		
2231550	KM63XMZWNE0680Y	6	25	80	32	8	SS03M012	3mm	7	571.060	2,5mm	0,88
2231551	KM63XMZWNE0880Y	8	28	80	32	8	SS03M014	4mm	15	571.067	3mm	0,94
2231552	KM63XMZWNE1080Y	10	35	80	37	8	SS03M018	5mm	25	571.068	4mm	1,07
2231593	KM63XMZWNE1280Y	12	42	80	42	8	SS03M023	6mm	35	571.074	5mm	1,24
2231594	KM63XMZWNE1480Y	14	44	80	42	8	SS03M023	6mm	35	571.074	5mm	1,29
2231595	KM63XMZWNE1680Y	16	48	80	45	8	SS03M025	6mm	50	571.074	5mm	1,39
2231596	KM63XMZWNE1880Y	18	50	80	45	8	SS03M025	6mm	50	571.074	5mm	1,44
2231597	KM63XMZWNE2080Y	20	52	80	47	8	SS03M026	8mm	95	571.074	5mm	1,49
2231598	KM63XMZWNE2580Y	25	65	80	52	8	SS03M027	10mm	135	571.074	5mm	1,85
2231599	KM63XMZWNE3280Y	32	72	80	56	8	SS03M029	10mm	160	571.074	5mm	2,10
2231600	KM63XMZWNE4095Y	40	80	95	67	8	SS03M029	10mm	160	571.074	5mm	2,75

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw and stop screw.
 Lock screw and stop screw wrenches are not included.



■ EM • Metric



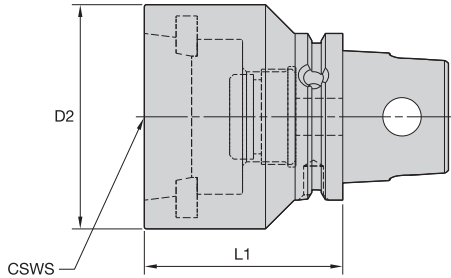
order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	Nm	kg
1621006	KM63XMZEM06100Y	6	25	100	40	SS03M012	3mm	7	0,98
1621010	KM63XMZEM08100Y	8	28	100	40	SS03M014	4mm	15	1,05
1621054	KM63XMZEM10100Y	10	35	100	45	SS03M018	5mm	25	1,22
1510191	KM63XMZEM1255Y	12	42	55	50	SS03M023	6mm	35	0,94
1511879	KM63XMZEM1660Y	16	48	60	53	SS03M025	6mm	50	1,09
1844636	KM63XMZEM1860Y	18	50	60	53	SS03M025	6mm	50	1,12
1511880	KM63XMZEM2065Y	20	52	65	55	SS03M026	8mm	95	1,21
1512091	KM63XMZEM2580Y	25	65	80	60	SS03M027	10mm	135	1,88
1714890	KM63XMZEM3290Y	32	72	90	65	SS03M029	10mm	160	2,38

■ EM • Inch



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
1723304	KM63XMZEM050216Y	1/2	1.38	2.165	1.97	ELS044038PKG	7/32	20	1.80
1516667	KM63XMZEM062236Y	5/8	1.63	2.362	2.09	ELS056050PKG	1/4	40	2.07
1516669	KM63XMZEM075256Y	3/4	1.75	2.559	2.22	ELS062050PKG	5/16	70	2.25
1516672	KM63XMZEM100315Y	1	2.00	3.150	2.46	ELS075056PKG	3/8	110	2.87
1516673	KM63XMZEM125335Y	1 1/4	2.50	3.346	2.51	ELS075062PKG	3/8	110	3.97
1831838	KM63XMZEM200492Y	2	3.75	4.921	3.53	ELS100088PKG	1/2	150	10.47

NOTE: Do not overtighten lock screw; use torque recommendations above.
Supplied with lock screw.
Lock screw wrench not included.



■ **KR • Romicon Boring Head Adapter**

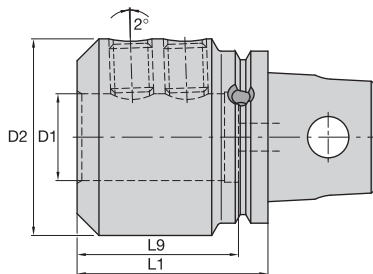
order number	catalog number	CSWS system size	D2	L1	kg
1831590	KM63XMZKR5060Y	KR50	65	60	1,40
1831589	KM63XMZKR6375Y	KR63	85	75	2,20

NOTE: Do not overtighten lock screw; use torque recommendations above.

Supplied with lock screw.

Lock screw wrench not included.

For a complete listing of Romicon boring adapters, see the Kennametal Innovations Master Catalog Cutting Tools 2013.



■ **DAI**



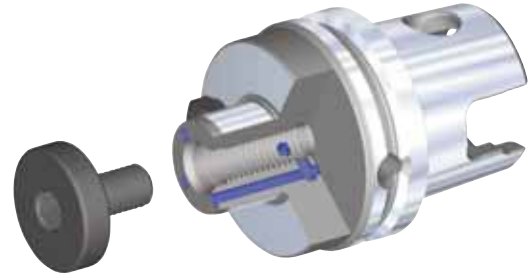
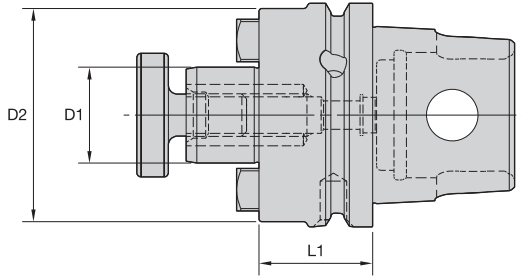
order number	catalog number	D1	D2	L1	L9	clamp screw	wrench size clamp screw	Nm	kg
1516811	KM63XMZDAI3270Y	32	72	70	59	SS03M026	8 mm	95	1,81
1516812	KM63XMZDAI40100Y	40	90	100	75	SS03M029	10 mm	160	4,30

KM63XMZ™ Shank Tools

SMC Shell Mill Adapters with Through Coolant



KM63XMZ Shank Tools



■ SMC • Metric



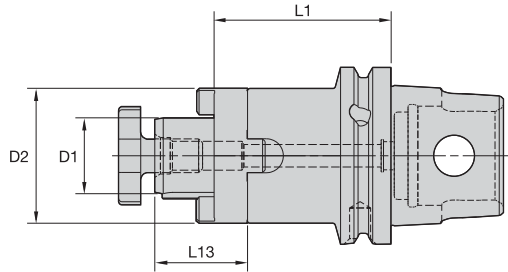
order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size lock screw	kg
3950758	KM63XMZSMC16028MY	16	44	28	MS1294	KDK16M	6mm	0,78
3950759	KM63XMZSMC22028MY	22	49	28	MS1234	KDK22M	8mm	0,84
3950760	KM63XMZSMC27032MY	27	60	32	KLSS27M	KDK27M	10mm	1,05
3950761	KM63XMZSMC32040MY	32	78	40	KLSS32M	KDK32M	14mm	1,60

■ SMC/SM2C • Inch



order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size lock screw	lbs
3950898	KM63XMZSMC050102Y	1/2	1.44	1.024	KLS05	KDK04	3/16	1.56
3950900	KM63XMZSM2C075102Y	3/4	1.46	1.024	KLS07	—	1/4	1.63
3950899	KM63XMZSMC075102Y	3/4	1.75	1.024	KLS07	KDK05	3/16	1.70
3950902	KM63XMZSM2C100126Y	1	2.19	1.260	KLS10	KDK06	5/16	2.19
3950901	KM63XMZSMC100126Y	1	2.75	1.260	KLS10	KDK06	5/16	2.49
3950903	KM63XMZSMC125157Y	1 1/4	2.88	1.575	KLS12	KDK08	5/16	3.35
3950904	KM63XMZSMC150177Y	1 1/2	3.69	1.770	KLS15	KDK10	3/8	5.11

NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive keys.
 Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
 Lock screw wrench not included.

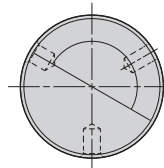
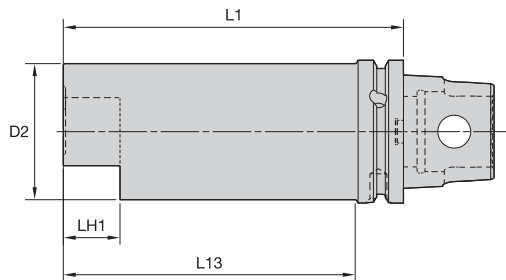


■ CS • Metric



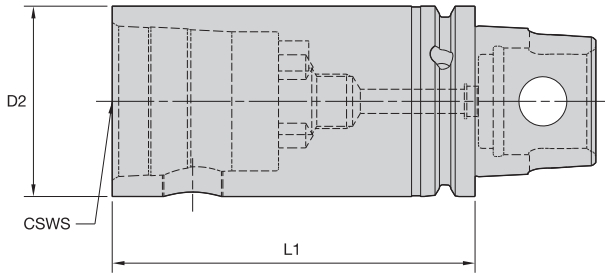
order number	catalog number	D1	D2	L1	L13	lock screw	lock screw	wrench size lock screw	wrench	kg
2231604	KM63XMZCS1663Y	16	32	63	17	MS1294	—	6mm	—	0,98
2231606	KM63XMZCS22110Y	22	50	110	19	MS1234	—	8mm	—	2,29
2231601	KM63XMZCS2228Y	22	50	28	19	MS1234	—	8mm	—	1,87
2231605	KM63XMZCS2263Y	22	50	63	19	MS1234	—	8mm	—	0,88
2231608	KM63XMZCS27110Y	27	63	110	21	—	KLS27M	—	SMW27M	1,70
2231602	KM63XMZCS2732Y	27	63	32	21	—	KLS27M	—	SMW27M	2,98
2231607	KM63XMZCS2763Y	27	63	63	21	—	KLS27M	—	SMW27M	3,46
2231610	KM63XMZCS32110Y	32	78	110	24	—	KLS32M	—	SMW32M	2,20
2231603	KM63XMZCS3240Y	32	78	40	24	—	KLS32M	—	SMW32M	1,10
2231609	KM63XMZCS3263Y	32	78	63	24	—	KLS32M	—	SMW32M	1,42

NOTE: Do not overtighten lock screw.
Supplied with lock screw, drive ring, and key.
Lock screw wrench not included.



■ GB • Gage Bar

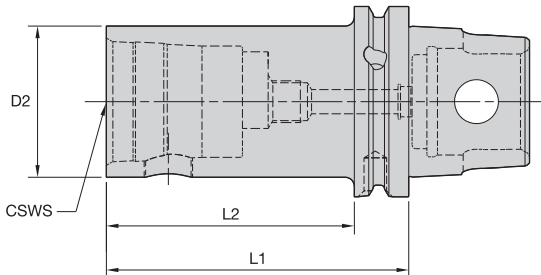
order number	catalog number	D2		L1		L13		LH1		kg	lbs
		mm	in	mm	in	mm	in	mm	in		
1797483	KM63XMZGB50200Y	50	1.97	200	7.87	178	7.00	20	.79	3,28	7.22
1661912	KM63XMZGB60150Y	60	2.36	150	5.91	129	5.07	25	.98	3,26	7.20



■ S • KM Extensions



order number	catalog number	CSWS system size	D2		L1		wrench size actuation screw			spare parts package	kg lbs	
			mm	in	mm	in	Nm	ft. lbs.	kg		lbs	
1319536	KM63XMZS6380Y	KM63	63	2.480	80	3.150	12mm	47-54	35-40	KM63PKG3S	1,73	3.81
1511923	KM63XMZS63120Y	KM63	63	2.480	120	4.724	12mm	47-54	35-40	KM63PKG3S	2,68	5.92



■ S • KM Reducer



order number	catalog number	CSWS system size	D2		L1		L2		wrench size actuation screw			spare parts package	kg lbs	
			mm	in	mm	in	mm	in	Nm	ft. lbs.	kg		lbs	
1512243	KM63XMZS3270Y	KM32	32	1.260	70	2.756	46	1.811	5mm	8-11	6-8	KM32PKG3S	0,91	2.00
1511925	KM63XMZS4080Y	KM40	40	1.575	80	3.150	59	2.323	6mm	12-16	9-12	KM40PKG3S	1,14	2.51
1831639	KM63XMZS5058Y	KM50	50	1.969	58	2.299	36	1.417	10mm	27-34	20-25	KM50PKG3S	0,87	1.91
1509861	KM63XMZS50100Y	KM50	50	1.969	100	3.937	79	3.110	10mm	27-34	20-25	KM50PKG3S	1,67	3.68

■ S • KM Reducer • Centerline

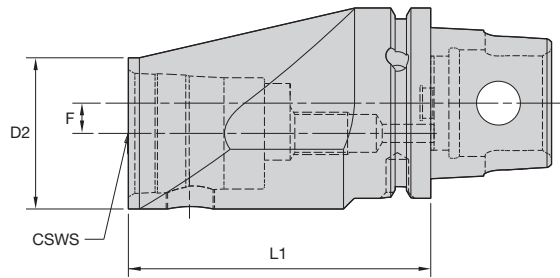


order number	catalog number	CSWS system size	D2		L1		wrench size actuation screw			spare parts package	kg lbs	
			mm	in	mm	in	Nm	ft. lbs.	kg		lbs	
3306139	KM63XMZS5065Y	KM50	50	1.969	65	2.559	10 mm	27-34	20-25	KM50PKG3L	1,42	3.13

NOTE: Designed for centerline KM cutting units.



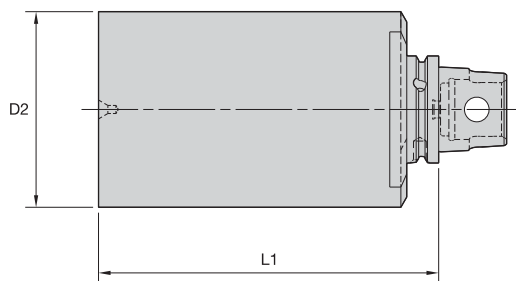
KM63XMZ Adapters



■ ES • KM Offset Reducer



order number	catalog number	CSWS system size	D2		L1		F		wrench size actuation screw	Nm	ft. lbs.	spare parts package	kg	lbs
			mm	in	mm	in	mm	in						
1831587	KM63XMZES40110Y	KM40	40	1.575	110	4.331	18	.709	6mm	12-16	9-12	KM40PKG3S	2,38	5.25
1516814	KM63XMZES50100Y	KM50	50	1.969	100	3.937	10	.394	10mm	27-34	20-25	KM50PKG3S	2,21	4.87



■ BN • Blank

order number	catalog number	D2		L1		hardness range	kg	lbs
		mm	in	mm	in			
1831586	KM63XMZBN115200Y	115	4.528	200	7.874	32-38 RW C	15,21	33.54

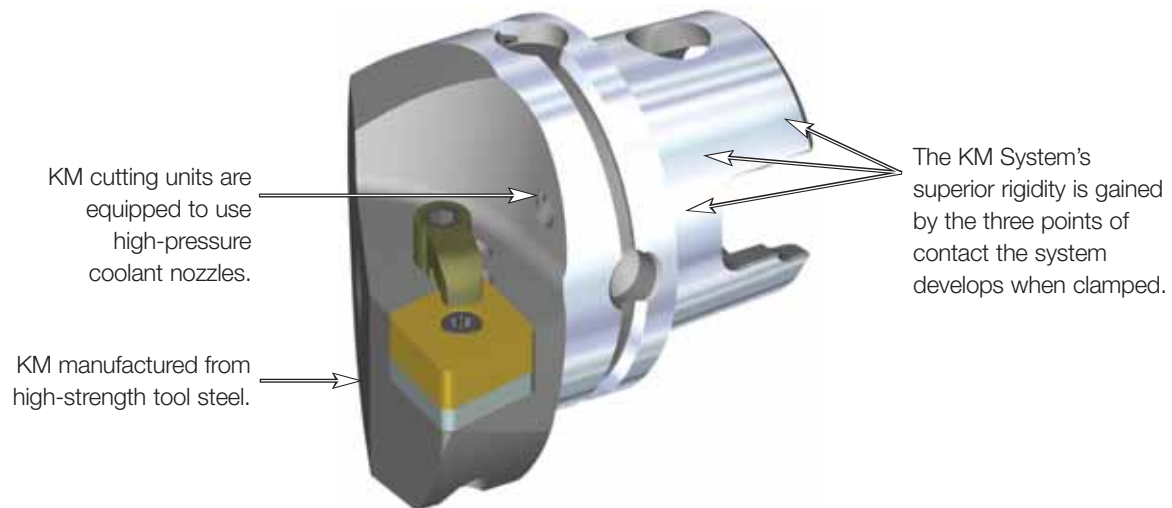
KM™ Quick Change Clamping System • KM80ATC™ Series

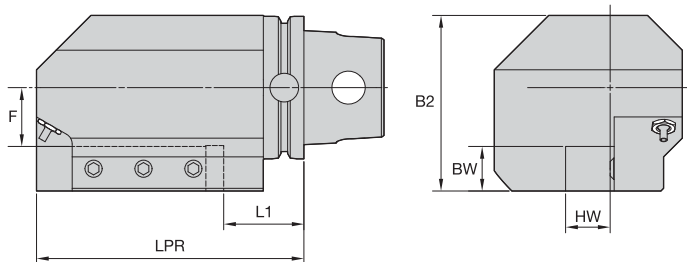
Primary Application

The KM Quick Change Clamping System is the best system on the market suitable for static, rotating, and multitasking operations. With its industry-leading design, the KM Quick Change System provides greater clamping forces than other quick-change systems. The KM Quick Change System gives you the flexibility to use KM on any application within your shop.

Features and Benefits

- KM80ATC is designed to be used on MAG Corporation VTL machines.
- KM80ATC is your solution for multitasking.





■ STA • Straight Side Mount • Metric

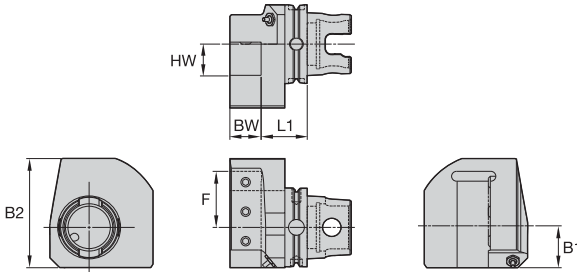
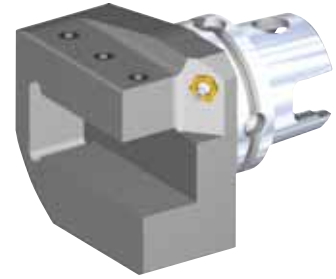


order number	catalog number	L1	LPR	F	HW	BW	B2	cup point socket set screw	nozzle	Nm	kg
right hand											
3545087	KM80ATCSTAR2525	45	150	33	25	25	99	MS1430	PMT04526 COOLANT NOZZLE SPRAY	55	9,51
3545089	KM80ATCSTAR3232	45	150	25	32	32	98	MS1430	PMT04526 COOLANT NOZZLE SPRAY	55	8,98
left hand											
3545088	KM80ATCSTAL2525	45	150	33	25	25	99	MS1430	PMT04526 COOLANT NOZZLE SPRAY	55	9,51
3545090	KM80ATCSTAL3232	45	150	25	32	32	98	MS1430	PMT04526 COOLANT NOZZLE SPRAY	55	8,98

■ STA • Straight Side Mount • Inch



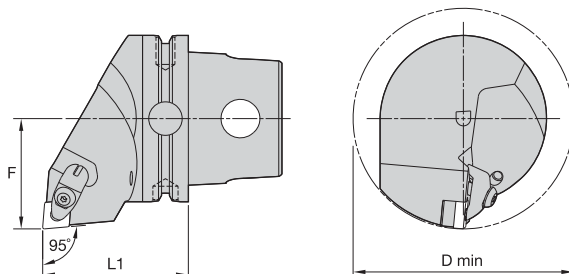
order number	catalog number	L1	LPR	F	HW	BW	B2	cup point socket set screw	nozzle	ft. lbs.	lbs
right hand											
3480215	KM80ATCSTAR20	1.693	5.906	1.059	1.250	1.250	3.904	MS1430	PMT04526 COOLANT NOZZLE SPRAY	40	20.17
2601528	KM80ATCSTAR24	1.480	6.693	.559	1.500	1.500	3.654	MS1954	PMT04526 COOLANT NOZZLE SPRAY	90	21.44
left hand											
2628561	KM80ATCSTAL20	1.693	5.906	1.059	1.250	1.250	3.904	MS1430	PMT04526 COOLANT NOZZLE SPRAY	40	20.14
2601530	KM80ATCSTAL24	1.480	6.693	.559	1.500	1.500	3.654	MS1954	PMT04526 COOLANT NOZZLE SPRAY	90	21.44



■ ETA • Straight End Mount • Inch



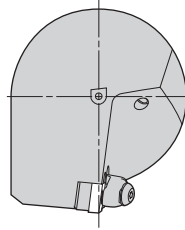
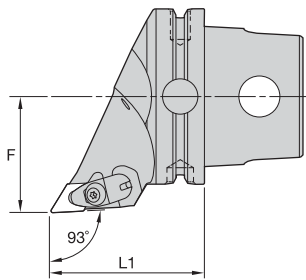
order number	catalog number	L1	B1	F	HW	BW	B2	cup point socket set screw	nozzle	ft. lbs.	lbs
2203618	KM80ATCETAR20 right hand	1.846	1.614	2.244	1.25	1.25	4	DWG MS1430	PMT04526 COOLANT NOZZLE SPRAY	40	10.32
2203619	KM80ATCETAL20 left hand	1.846	1.614	2.244	1.25	1.25	4	DWG MS1430	PMT04526 COOLANT NOZZLE SPRAY	40	10.32


■ DCLN 95°

order number	catalog number	L1		F		D min		gage insert	kg
		mm	in	mm	in	mm	in		
		right hand							
2036330	KM80ATCDCLNR12KC04	70	2.756	53	2.087	106	4.17	CN..120408/CN..432	2,13
2036332	KM80ATCDCLNR16KC06	70	2.756	53	2.086	106	4.17	CN..160612/CN..543	2,24
		left hand							
2036331	KM80ATCDCLNL12KC04	70	2.756	53	2.087	106	4.17	CN..120408/CN..432	2,13
2036406	KM80ATCDCLNL16KC06	70	2.756	53	2.086	106	4.17	CN..160612/CN..543	2,24

■ Spare Parts






catalog number	shim	shim screw	clamp assembly	pin

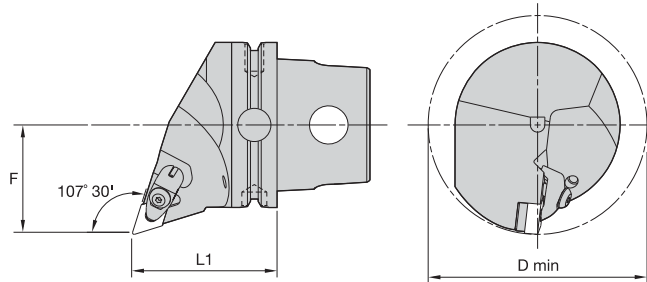


■ DDJN 93°

order number	catalog number	L1		F		gage insert	kg
		mm	in	mm	in		
		right hand					
2220270	KM80ATCDDJNR15KC04	70	2.7560	53	2.087	DN..150408/DN..432	1,90
2036377	KM80ATCDDJNR15KC06	70	2.7560	53	2.087	DN..150608/DN..442	1,90
		left hand					
2220271	KM80ATCDDJNL15KC04	70	2.7560	53	2.087	DN..150408/DN..432	1,90
2036378	KM80ATCDDJNL15KC06	70	2.7560	53	2.087	DN..150608/DN..442	1,90

■ Spare Parts

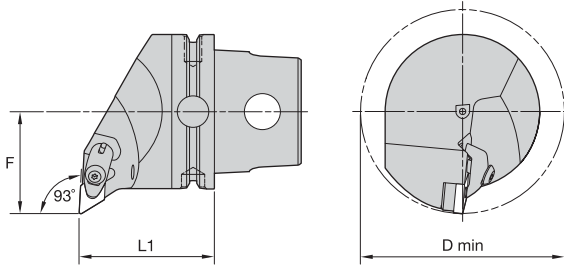
catalog number	 shim	 shim screw	 clamp assembly	 pin


KM80ATC Cutting Units

■ DDQN 107° 30'

order number	catalog number	L1		F		D min		gage insert	kg
		mm	in	mm	in	mm	in		
		right hand							
2220278	KM80ATCDDQNR15KC04	70	2.756	53	2.087	106	4.17	DN..150408/DN..432	2,07
2036379	KM80ATCDDQNR15KC06	70	2.756	53	2.087	106	4.17	DN..150608/DN..442	2,06
		left hand							
2220279	KM80ATCDDQNL15KC04	70	2.756	53	2.087	106	4.17	DN..150408/DN..432	2,07
2036380	KM80ATCDDQNL15KC06	70	2.756	53	2.087	106	4.17	DN..150608/DN..442	2,06

■ Spare Parts

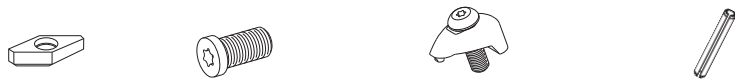
catalog number	shim	shim screw	clamp assembly	pin



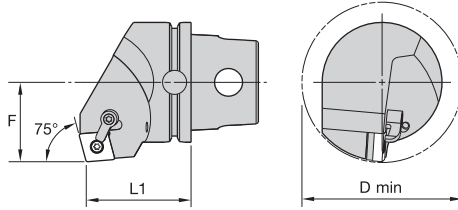
■ DDUN 93°

order number	catalog number	L1		F		D min		gage insert	kg
		mm	in	mm	in	mm	in		
right hand									
2220286	KM80ATCDDUNR15KC04	70	2.756	53	2.087	106	4.17	DN..150408/DN..432	2,23
2036381	KM80ATCDDUNR15KC06	70	2.756	53	2.087	106	4.17	DN..150608/DN..442	2,23
left hand									
2220287	KM80ATCDDUNL15KC04	70	2.756	53	2.087	106	4.17	DN..150408/DN..432	2,23
2036382	KM80ATCDDUNL15KC06	70	2.756	53	2.087	106	4.17	DN..150608/DN..442	2,23

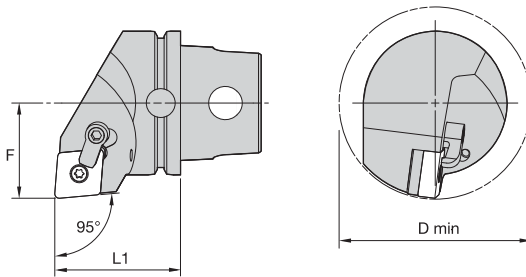
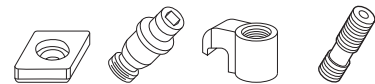
■ Spare Parts



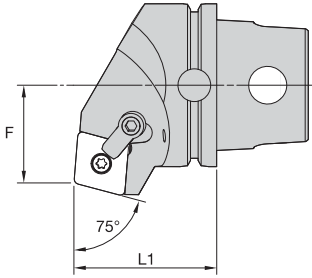
catalog number	shim	shim screw	clamp assembly	pin
right hand				
KM80ATCDDUNR15KC04	IDSN443	KMSP415IP	CM234R ASSY	SSP025016M
KM80ATCDDUNR15KC06	IDSN433	KMSP415IP	CM234R ASSY	SSP025016M
left hand				
KM80ATCDDUNL15KC04	IDSN443	KMSP415IP	CM234R ASSY	SSP025016M
KM80ATCDDUNL15KC06	IDSN433	KMSP415IP	CM234R ASSY	SSP025016M


KM80ATC Cutting Units

MCKN 75°

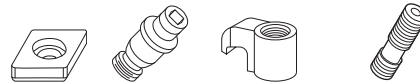

order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
right hand														
2036393	KM80ATCMCKNR19	70	2.756	53	2.087	106	4.173	CN..190612/CN..643	ICSN633	KLM68	CKM12	STCM4	2,40	5.30
3758113	KM80ATCMCKNR25	70	2.756	53	2.087	106	4.173	CN..250924/CN..866	ICSN846	KLM810	CKM24	STCM19	2,54	5.61
left hand														
1961291	KM80ATCMCKNL19	70	2.756	53	2.087	106	4.173	CN..190612/CN..643	ICSN633	KLM68	CKM12	STCM4	2,41	5.30
3684524	KM80ATCMCKNL25	70	2.756	53	2.087	106	4.173	CN..250924/CN..866	ICSN846	KLM810	CKM24	STCM19	2,54	5.61


MCLN 95°


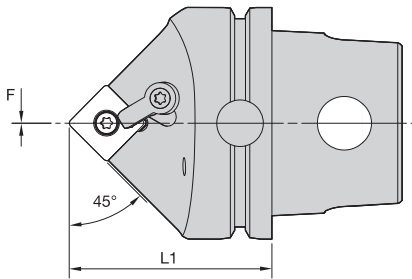
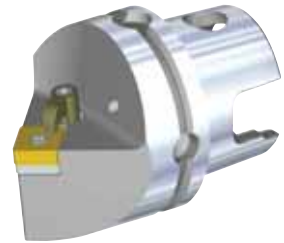
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in							
right hand														
2036373	KM80ATCMCLNR19	70	2.756	53	2.087	106	4.173	CN..190612/CN..643	ICSN633	KLM68	CKM12	STCM4	2,19	4.83
2036374	KM80ATCMCLNR25	70	2.756	53	2.087	106	4.173	CN..250924/CN..866	ICSN846	KLM810	CKM24	STCM19	2,20	4.84
left hand														
1958408	KM80ATCMCLNL19	70	2.756	53	2.087	106	4.173	CN..190612/CN..643	ICSN633	KLM68	CKM12	STCM4	2,19	4.83
1958411	KM80ATCMCLNL25	70	2.756	53	2.087	106	4.173	CN..250924/CN..866	ICSN846	KLM810	CKM24	STCM19	2,20	4.84



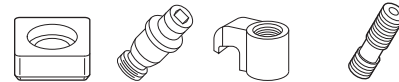
■ MCRN 75°



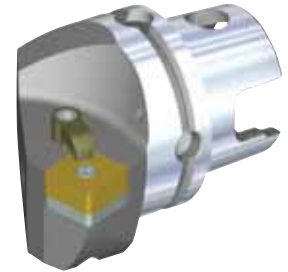
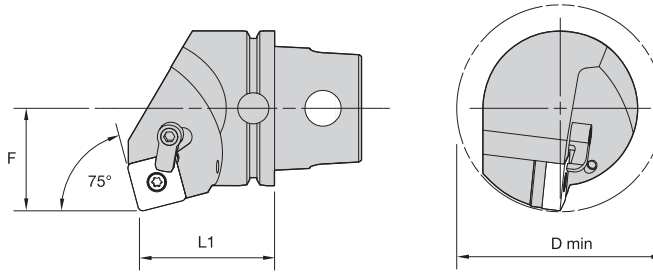
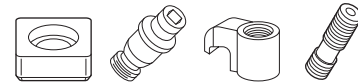
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
		right hand										
2036375	KM80ATCMCRNR19	70	2.756	48	1.890	CN..190612/CN..643	ICSN633	KLM68	CKM12	STCM4	2,29	5.06
2036376	KM80ATCMCRNR25	70	2.756	48	1.890	CN..250924/CN..866	ICSN846	KLM810	CKM24	STCM19	2,31	5.09
		left hand										
1960916	KM80ATCMCRNL19	70	2.756	48	1.890	CN..190612/CN..643	ICSN633	KLM68	CKM12	STCM4	2,29	5.06
2033887	KM80ATCMCRNL25	70	2.756	48	1.890	CN..250924/CN..866	ICSN846	KLM810	CKM24	STCM19	2,31	5.09



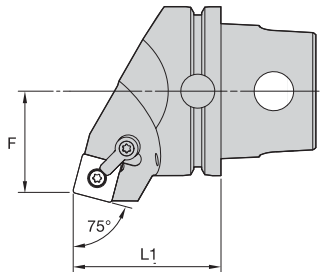
■ MSDN 45°



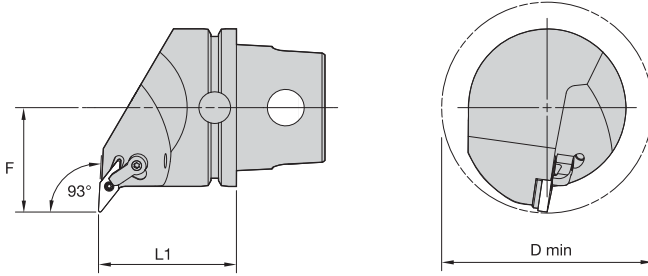
order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
2036383	KM80ATCMSDNN19	70	2.756	0	.000	SN..190612/SN..643	ISSN633	KLM68	CKM12	STCM4	1,88	4.14
2036384	KM80ATCMSDNN25	70	2.756	0	.000	SN..250924/SN..866	ISSN846	KLM810	CKM24	STCM19	1,79	3.95


KM80ATC Cutting Units

■ MSKN 75°


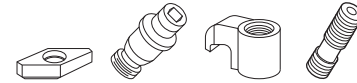
order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs	
		mm	in	mm	in	mm	in								
		right hand													
2036385	KM80ATCMSKNR19	70	2.756	53	2.087	106	4.173	SN..190612/SN..643	ISSN633	KLM68	CKM12	STCM4	2,52	5.55	
2036387	KM80ATCMSKNR25	70	2.756	53	2.087	106	4.173	SN..250924/SN..866	ISSN846	KLM810	CKM24	STCM19	2,47	5.44	
		left hand													
2036386	KM80ATCMSKNL19	70	2.756	53	2.087	106	4.173	SN..190612/SN..643	ISSN633	KLM68	CKM12	STCM4	2,52	5.55	
1960917	KM80ATCMSKNL25	70	2.756	53	2.087	106	4.173	SN..250924/SN..866	ISSN846	KLM810	CKM24	STCM19	2,53	5.57	


■ MSRN 75°

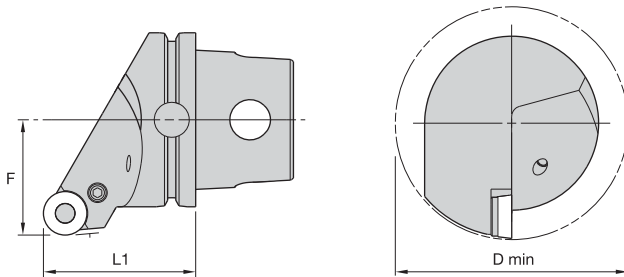

order number	catalog number	L1		F		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs
		mm	in	mm	in							
		right hand										
2036388	KM80ATCMSRNR19	70	2.756	48	1.890	SN..190612/SN..643	ISSN633	KLM68	CKM12	STCM4	2,11	4.66
2036390	KM80ATCMSRNR25	70	2.756	48	1.890	SN..250924/SN..866	ISSN846	KLM810	CKM24	STCM19	2,08	4.59
		left hand										
2036389	KM80ATCMSRNL19	70	2.756	48	1.890	SN..190612/SN..643	ISSN633	KLM68	CKM12	STCM4	2,11	4.66
1961718	KM80ATCMSRNL25	70	2.756	48	1.890	SN..250924/SN..866	ISSN846	KLM810	CKM24	STCM19	2,08	4.59



■ MVUN 93°



order number	catalog number	L1		F		D min		gage insert	shim	lock pin	clamp	clamp screw	kg	lbs	
		mm	in	mm	in	mm	in								
		right hand													
2036391	KM80ATCMVUNR16	70	2.756	53	2.087	106	4.173	VN..160408/VN..332	IVSN322	KLM34L	CKM22	STCM20	2,23	4.92	
		left hand													
1961335	KM80ATCMVUNL16	70	2.756	53	2.087	106	4.173	VN..160408/VN..332	IVSN322	KLM34L	CKM22	STCM20	2,23	4.92	



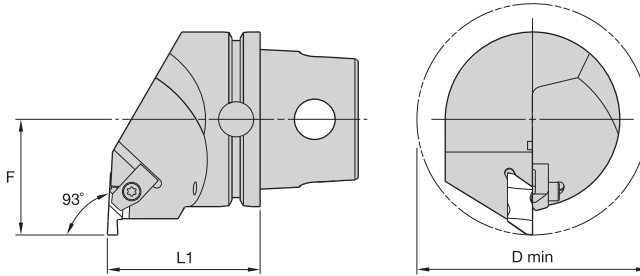
■ PRGC 0°



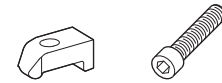
order number	catalog number	L1		F		D min		gage insert	shim	clamp screw	clamp stud	kg	lbs
		mm	in	mm	in	mm	in						
1961340	KM80ATCPRGCL20	70	2.756	53	2.087	106	4.173	RC..2006M0	169.333	121.820	119.073	1,87	4.12
3897198	KM80ATCPRGCL25	70	2.756	53	2.087	—	—	RC..2507M0..	169.337	121.820	118.404	2,08	4.58
3897200	KM80ATCPRGCL32	80	3.150	53	2.087	—	—	RC..3209M0..	169.339	121.030	118.604	2,66	5.86
2203621	KM80ATCPRGCR20	70	2.756	53	2.087	106	4.173	RC..2006M0	169.333	121.820	119.073	1,87	4.12
3897199	KM80ATCPRGCR25	70	2.756	53	2.087	—	—	RC..2507M0..	169.337	121.820	118.404	2,08	4.58
3897201	KM80ATCPRGCR32	80	3.150	53	2.087	—	—	RC..3209M0..	169.339	121.030	118.604	2,66	5.86



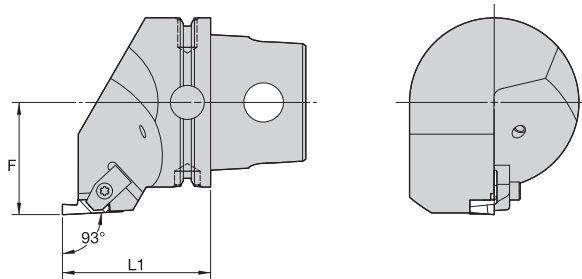
KM80ATC Cutting Units



■ NE 93°



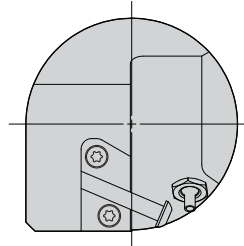
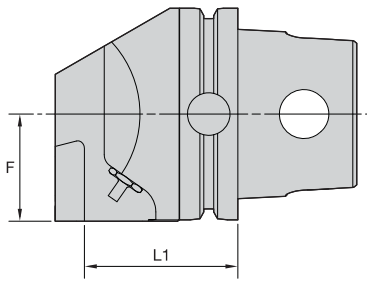
order number	catalog number	L1		F		D min		gage insert	clamp	clamp screw	kg	lbs
		mm	in	mm	in	mm	in					
right hand												
2036394	KM80ATCNER3	70	2.756	53	2.087	106	4.173	NG3L	CM73	MS2091	2,12	4.67
2036395	KM80ATCNER4	70	2.756	53	2.087	106	4.173	NG4L	CM73	MS2091	2,19	4.83
2036396	KM80ATCNER5	70	2.756	53	2.087	106	4.173	NG5L	CM81	MS1490	2,26	4.99
2036397	KM80ATCNER6	70	2.756	53	2.087	106	4.173	NG6L	CM121	MS2091	2,15	4.74
left hand												
1961333	KM80ATCNEL3	70	2.756	53	2.087	106	4.173	NG3R	CM72	MS2091	2,12	4.67
1960915	KM80ATCNEL4	70	2.756	53	2.087	106	4.173	NG4R	CM72	MS2091	2,19	4.83
2036400	KM80ATCNEL5	70	2.756	53	2.087	106	4.173	NG5R	CM80	MS1490	2,26	4.99
2036398	KM80ATCNEL6	70	2.756	53	2.087	106	4.173	NG6R	CM120	MS2091	2,15	4.74



■ NS 93°



order number	catalog number	L1		F		gage insert	clamp	clamp screw	kg	lbs
		mm	in	mm	in					
right hand										
3330949	KM80ATCNSR3	70	2.756	53	2.087	NG3R	CM72	MS1489	2,16	4.77
2203622	KM80ATCNSR4	70	2.756	53	2.087	NG4R	CM72	MS2091	2,17	4.77
left hand										
2398753	KM80ATCNLS3	70	2.756	53	2.087	NG3L	CM73	MS1489	2,16	4.77
2044321	KM80ATCNLS4	70	2.756	53	2.087	NG4L	CM73	MS2091	2,17	4.77

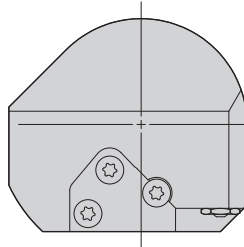
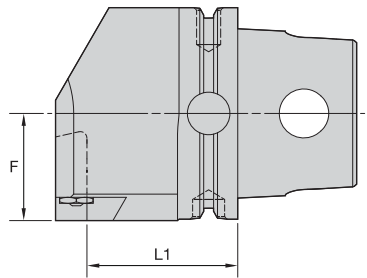


■ **KGME • End Mount**



order number	catalog number	L1		F		cartridge size	insert screw	button-head cap screw	nozzle	kg	lbs
		mm	in	mm	in						
		right hand									
2036392	KM80ATCKGMER50	58	2.283	41	1.594	50	MS1162	MS2002	PMT04526 COOLANT NOZZLE SPRAY	2,45	5.39
		left hand									
1961339	KM80ATCKGMEL50	58	2.283	41	1.594	50	MS1162	MS2002	PMT04526 COOLANT NOZZLE SPRAY	2,45	5.39

NOTE: For A3/A4 modular blades, see the Kennametal Innovations Master Catalog Cutting Tools 2013.
Right-hand cutting units use left-hand blades.

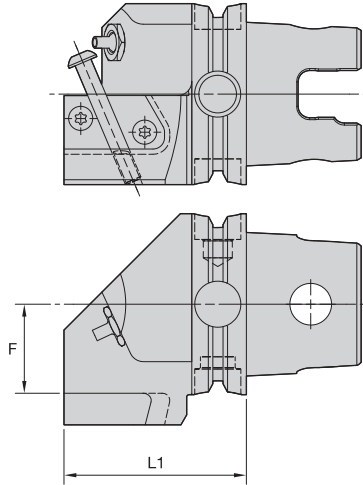


■ **KGME • End Mount**



order number	catalog number	L1		F		cartridge size	blade screw	nozzle	kg	lbs	
		mm	in	mm	in						
		right hand									
3588800	KM80ATCKGMER65	57	2.24	40,5	1.595	65	MS1163	PMT04525	3,11	6.86	
		left hand									
3588804	KM80ATCKGMEL65	57	2.24	40,5	1.595	65	MS1163	PMT04525	3,11	6.86	

NOTE: For A3/A4 modular blades, see the Kennametal Innovations Master Catalog Cutting Tools 2013.
Right-hand cutting units use left-hand blades.

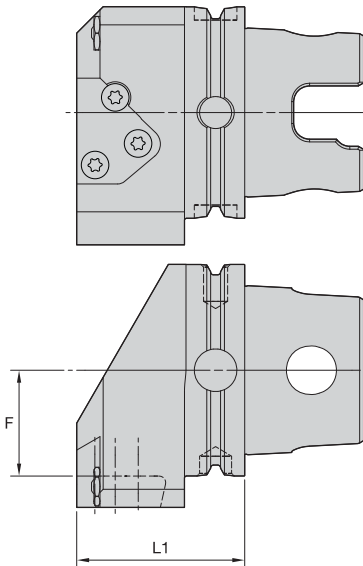


■ **KGMS • Side Mount**



order number	catalog number	L1		F		cartridge size	blade screw	nozzle	clamp screw	kg	lbs
		mm	in	mm	in						
3138942	KM80ATCKGMSR50	66,5	2.618	41	1.614	50	MS1162	PMT04526 COOLANT NOZZLE SPRAY	MS2002	2,43	5.36
3138941	KM80ATCKGMSL50	66,5	2.618	41	1.614	50	MS1162	PMT04526 COOLANT NOZZLE SPRAY	MS2002	2,43	5.36

NOTE: For A3/A4 modular blades, see the Kennametal Innovations Master Catalog Cutting Tools 2013.
Right-hand cutting units use right-hand blades.

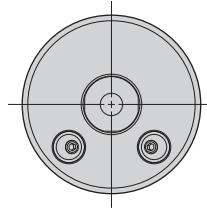
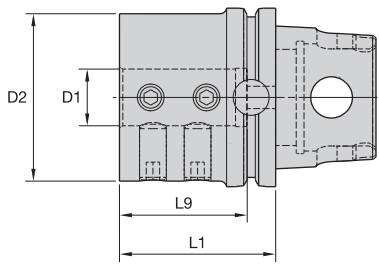


■ **KGMS • Side Mount**

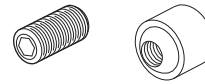


order number	catalog number	L1		F		cartridge size	blade screw	nozzle	kg	lbs
		mm	in	mm	in					
3588790	KM80ATCKGMSR65	63,5	2.500	40	1.575	65	MS1163	PMT04525	2,81	6.20
3588795	KM80ATCKGMSL65	63,5	2.500	40	1.575	65	MS1163	PMT04525	2,81	6.20

NOTE: For A3/A4 modular blades, see the Kennametal Innovations Master Catalog Cutting Tools 2013.
Right-hand cutting units use right-hand blades.

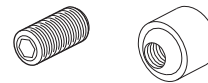


■ BA • Boring Bar Adapter • Internal and External Coolant • Metric



order number	catalog number	D1	D2	L1	L9	lock screw	nozzle	wrench size clamp screw	Nm	kg
3896952	KM80ATCBA40105M	40	80	105	76	MS1947	PWZ1012	8mm	125	3,58
3897203	KM80ATCBA50130M	50	90	130	95	MS1947	PWZ1012	8mm	125	4,96

■ BA • Boring Bar Adapter • Internal and External Coolant • Inch



order number	catalog number	D1	D2	L1	L9	lock screw	nozzle	wrench size clamp screw	ft. lbs.	lbs
2024399	KM80ATCBA100276	1	2.95	2.756	2.24	—	PWZ1012	6mm	30	5.57
2024400	KM80ATCBA125295	1 1/4	3.15	2.953	2.48	—	PWZ1012	6mm	30	6.11
2024401	KM80ATCBA150413	1 1/2	3.15	4.134	2.99	MS1947	PWZ1012	8mm	90	8.04
2024402	KM80ATCBA200512	2	3.54	5.118	3.98	MS1947	PWZ1012	8mm	90	10.57

NOTE: Do not overtighten clamp screw; use torque recommendations above.
Supplied with clamp screw.
Clamp screw wrench not included.
For boring bar reducers, see page A570.



More than just the right tool • the ultimate solution.

That's **Beyond BLAST™**



That's **Different Thinking.**

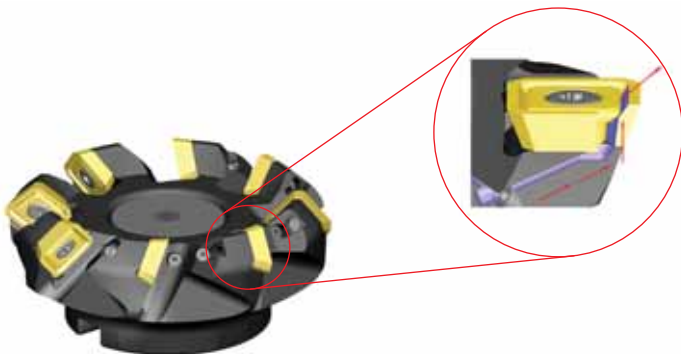
At Kennametal, innovation follows vision. Our revolutionary products and services are inspired by asking “what if?” The solutions that follow — like our Beyond BLAST through-coolant inserts — deliver remarkable results in the world’s most demanding machining environments.

A cutting-edge insert that delivers coolant precisely at the cutting edge. Now that’s Different Thinking. That’s Kennametal.

To learn more about your productivity gains using Beyond BLAST technology, visit www.kennametal.com.

Milling

- Beyond BLAST technology uses low-pressure conditions to offer many of the high-pressure performance benefits.
- Delivers superior performance on titanium, using either high- or low-pressure coolant systems.
- Effective thermal management results in reduced cutting temperatures, improved lubricity, superior chip control, and longer tool life.
- Beyond BLAST for milling increases tool life by up to 300% compared with conventional coolant delivery systems.



beyond™ BLAST™

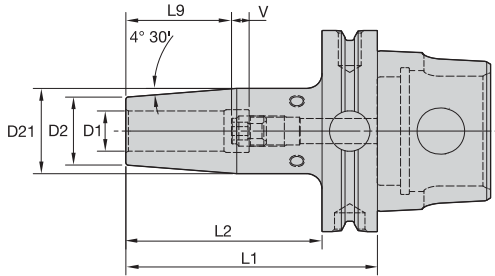
KM80ATC™ Shank Tools

Shrink Fit Toolholders General Purpose (GP)



KM80ATC Shank Tools

- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide and HSS cutting tools (requirements below).



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
10	h6	0,000/-0,009
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32, 40, & 50	h6	0,000/-0,016



■ HPV TT • Metric



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	kg
3661841	KM80ATCHPVTT10090M	10	24	32	90	68	31	10	TTSS08014M	4mm	1,47
3661842	KM80ATCHPVTT10170M	10	24	32	170	63	31	10	TTSS08014M	4mm	2,02
3662743	KM80ATCHPVTT12095M	12	24	32	95	73	36	10	TTSS10014M	5mm	1,48
3662744	KM80ATCHPVTT12160M	12	24	32	160	63	36	10	TTSS10014M	5mm	1,93
3662745	KM80ATCHPVTT14095M	14	27	34	95	73	36	10	TTSS10014M	5mm	1,54
3662746	KM80ATCHPVTT16100M	16	27	34	100	78	39	10	TTSS12014M	6mm	1,55
3662747	KM80ATCHPVTT18100M	18	33	42	100	78	39	10	TTSS12014M	6mm	1,75
3662748	KM80ATCHPVTT18160M	18	33	42	160	70	39	10	TTSS12014M	6mm	2,45
3662749	KM80ATCHPVTT20105M	20	33	42	105	83	41	10	TTSS16014M	8mm	1,77
3662750	KM80ATCHPVTT25115M	25	44	53	115	93	47	10	TTSS16014M	8mm	2,34
3662751	KM80ATCHPVTT32120M	32	44	53	120	98	51	10	TTSS16014M	8mm	2,26
3662752	KM80ATCHPVTT40130M	40	60	61	130	108	51	10	TTSS20014M	10mm	3,47
3662753	KM80ATCHPVTT50140M	50	69	79	140	118	56	10	TTSS20014M	10mm	4,28

(continued)

(HPV TT continued)

**Cutting Tool Shank Requirements
inch (industry standard)**

cutting tool shank diameter	tolerance
5/16 & 3/8	-.0001/-.0004
7/16, 1/2, 9/16, & 5/8	.0000/-.0004
3/4, 7/8, 1, 1-1/4, 1-1/2, & 2	.0000/-.0005

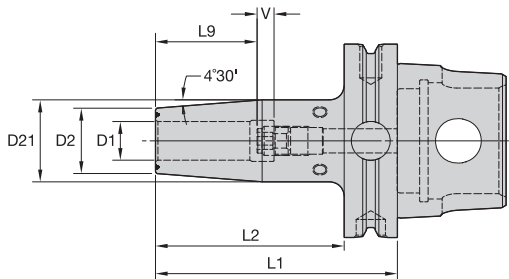
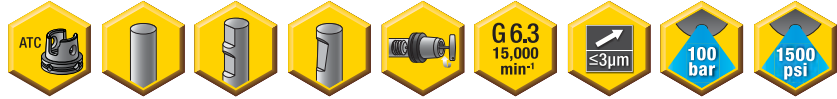
■ HPV TT • Inch



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	lbs
3599309	KM80ATCHPVTT031335	5/16	.83	1.06	3.347	2.48	1.02	.39	TTSS06014M	3mm	3.03
3599310	KM80ATCHPVTT038630	3/8	.95	1.26	6.299	2.48	1.22	.39	TTSS08014M	4mm	4.29
3599311	KM80ATCHPVTT044374	7/16	.95	1.26	3.740	2.87	1.42	.39	TTSS10014M	5mm	3.28
3599304	KM80ATCHPVTT050374	1/2	.95	1.26	3.740	2.87	1.42	.39	TTSS10014M	5mm	3.25
3594191	KM80ATCHPVTT056374	9/16	1.06	1.34	3.740	2.87	1.42	.39	TTSS10014M	5mm	3.38
3599305	KM80ATCHPVTT062394	5/8	1.06	1.34	3.937	3.07	1.54	.39	TTSS12014M	6mm	3.41
3594317	KM80ATCHPVTT062850	5/8	1.06	1.34	8.500	2.48	1.54	.39	TTSS12014M	6mm	5.65
3594316	KM80ATCHPVTT075413	3/4	1.30	1.65	4.134	3.27	1.61	.39	TTSS16014M	6mm	3.93
3599306	KM80ATCHPVTT075630	3/4	1.30	1.65	6.299	2.76	1.61	.39	TTSS16014M	8mm	5.35
3599307	KM80ATCHPVTT088413	7/8	1.30	1.65	4.134	3.27	1.61	.39	TTSS16014M	8mm	3.84
3594315	KM80ATCHPVTT100453	1	1.73	2.08	4.528	3.66	1.85	.39	TTSS16014M	8mm	5.14
3594313	KM80ATCHPVTT125472	1 1/4	1.73	2.08	4.724	3.86	2.01	.39	TTSS16014M	8mm	4.99
3594314	KM80ATCHPVTT150512	1 1/2	2.36	2.75	5.118	4.25	2.01	.39	TTSS20014M	10mm	7.78
3599308	KM80ATCHPVTT200551	2	2.72	3.11	5.512	4.65	2.20	.39	TTSS20014M	10mm	9.37

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.
Shrink Fit technical section, see page M78.
Supplied with stop screw.
Adjusting stop screw gage, see page M81.
Shrink Fit accessories, see page L12-L13.
Optional M6~1.0P x 5 lg fine balancing screw set (10 pieces) is available.
Order number is MS1276PKG and must be ordered separately.

- 30–50% higher clamping torque compared to GP line.
- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide only, designated by groove in front face (requirements below).
- 10 kW power or greater Shrink Fit device must be used.



■ HPV TT HT • Metric



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	kg
3662754	KM80ATCHPVTTHT12095M	12	24	32	95	73	36	10	TTSS10014M	5mm	1,48
3662755	KM80ATCHPVTTHT12160M	12	24	32	160	63	36	10	TTSS10014M	5mm	1,96
3662756	KM80ATCHPVTTHT14095M	14	27	34	95	73	36	10	TTSS10014M	5mm	1,54
3662757	KM80ATCHPVTTHT16100M	16	27	34	100	78	39	10	TTSS12014M	6mm	1,55
3662758	KM80ATCHPVTTHT18100M	18	33	42	100	78	39	10	TTSS12014M	6mm	1,75
3662759	KM80ATCHPVTTHT18160M	18	33	42	160	70	39	10	TTSS12014M	6mm	2,45
3662760	KM80ATCHPVTTHT20105M	20	33	42	105	83	41	10	TTSS16014M	8mm	1,77
3662761	KM80ATCHPVTTHT25115M	25	44	53	115	93	47	10	TTSS16014M	8mm	2,34
3662762	KM80ATCHPVTTHT32120M	32	44	53	120	98	51	10	TTSS16014M	8mm	2,26

(continued)

(HPV TT HT continued)

Cutting Tool Shank Requirements
inch (industry standard)

cutting tool shank diameter	tolerance
1/2, 9/16, 5/8, & 11/16	.0000/- .0004
3/4, 7/8, 1, & 1-1/4	.0000/- .0005

■ HPV TT HT • Inch



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	lbs
3598813	KM80ATCHPVTTHT050374	1/2	.95	1.26	3.740	2.87	1.42	.39	TTSS10014M	5mm	3.25
3598814	KM80ATCHPVTTHT056374	9/16	1.06	1.34	3.740	2.87	1.42	.39	TTSS10014M	5mm	3.38
3598815	KM80ATCHPVTTHT062394	5/8	1.06	1.34	3.937	3.07	1.54	.39	TTSS12014M	6mm	3.41
3598816	KM80ATCHPVTTHT062850	5/8	1.06	1.34	8.500	2.48	1.54	.39	TTSS12014M	6mm	5.65
3598817	KM80ATCHPVTTHT075413	3/4	1.30	1.65	4.134	3.27	1.61	.39	TTSS16014M	8mm	3.93
3598818	KM80ATCHPVTTHT075630	3/4	1.30	1.65	6.299	2.76	1.61	.39	TTSS16014M	8mm	5.35
3598819	KM80ATCHPVTTHT088413	7/8	1.30	1.65	4.134	3.27	1.61	.39	TTSS16014M	8mm	3.84
3598820	KM80ATCHPVTTHT100453	1	1.73	2.08	4.528	3.66	1.85	.39	TTSS16014M	8mm	5.14
3598821	KM80ATCHPVTTHT125472	1 1/4	1.73	2.08	4.724	3.86	2.01	.39	TTSS16014M	8mm	4.99

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Shrink Fit technical section, see page M78.

Supplied with stop screw.

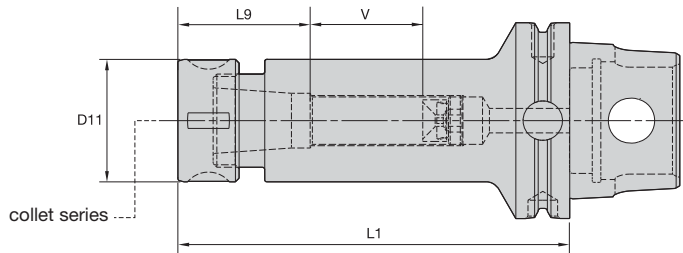
Adjusting stop screw gage, see page M81.

Shrink Fit accessories, see page L12–L13.

Optional M6~1.0P x 5 lg fine-balancing screw set (10 pieces) is available.

Order number is MS1276PKG and must be ordered separately.

- Tremendous Grip (3:1 advantage).



TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG75	2,6	20,0	3/64	3/4
TG100	2,6	25,5	5/64	1
TG150	11,6	40,0	23/64	1-1/2

■ TG • Single-Angle Collet Chucks

order number	catalog number	collet series	D11		L1		L9		V		kg	lbs
			mm	in	mm	in	mm	in	mm	in		
3138953	KM80ATCTG075160	TG75	50	1.97	160	6.299	53	2.09	47	1.85	2,96	6.52
2022194	KM80ATCTG100394	TG100	60	2.36	100	3.937	70	2.75	—	—	2,32	5.11
2022195	KM80ATCTG150492	TG150	85	3.35	125	4.921	83	3.27	—	—	4,31	9.50

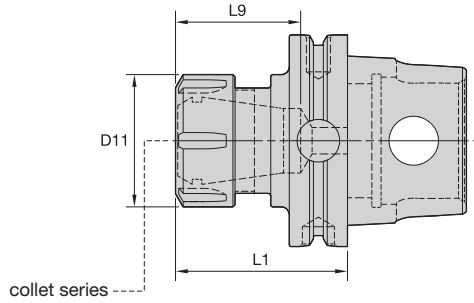
■ Spare Parts



catalog number	locknut	wrench	stop screw	wrench size stop screw	coolant cap	Nm	ft. lbs.
KM80ATCTG075160	LNA075M	HSW45M	SS081041G	4mm & 5/32	SSCC081	108-136	80-100
KM80ATCTG100394	LNA100M	HSW58M	—	—	—	163-203	120-150
KM80ATCTG150492	LNA150M	HSW80M	—	—	—	217-271	160-200

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16–L17.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.
 TG standard straight-bore collets, see page J10.
 TG tap collets, see page J10.

- Grip (2:1 advantage).



KM80ATC Shank Tools



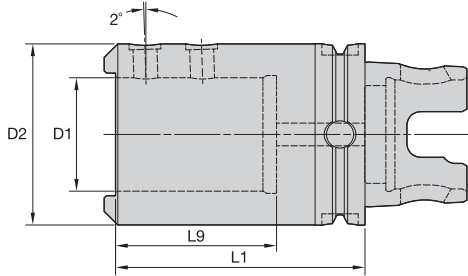
ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER32	2,0	20,0	.08	.81
ER40	3,0	26,0	.12	1.00

■ ER • Single-Angle Collet Chucks



order number	catalog number	collet series	D11		L1		L9		locknut	wrench	Nm		ft. lbs.		kg	lbs
			mm	in	mm	in	mm	in								
1953471	KM80ATCER3265	ER32	50	1.97	65	2.559	46,0	1.81	LNSER32M	ER32WM	136	100	1,45	3.20		
2022196	KM80ATCER4090	ER40	50	1.97	90	3.543	70,3	2.77	LNSER40M	ER40WM	176	130	2,09	4.61		

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut.
 Locknut wrench must be ordered separately.
 Interchangeable coolant-style locknuts and coolant disks are available and must be ordered separately; see page L19.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.



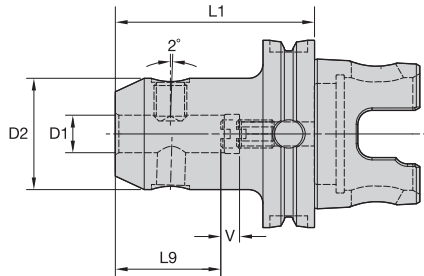
■ WD • Drill Adapters with Drive



order number	catalog number	D1		L9		D2		L1		cup point socket set screw	wrench size stop screw	kg	lbs
		mm	in	mm	in	mm	in	mm	in				
3891593	KM80ATCWD32090M	32	1.260	61	2.400	62	2.435	90,0	3.543	SS03M023	6 mm	2,37	5.23
3891594	KM80ATCWD40100M	40	1.575	71	2.800	70	2.750	100,0	3.937	SS03M023	6 mm	2,80	6.18
3138896	KM80ATCWD50110M	50	1.969	71	2.795	80	3.144	110,0	4.331	SS03M023	6 mm	3,51	7.73



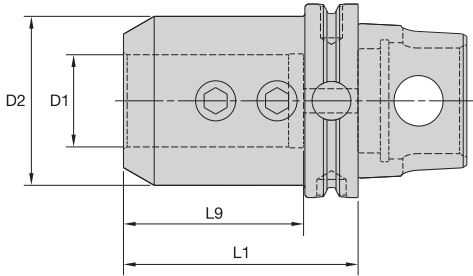
KM80ATC Shank Tools



■ WN/EM • Whistle Notch/End Mill Combination Adapter

order number	catalog number	D1	D2	L1	L9	V	lock screw	wrench size lock screw	stop screw	stop screw wrench size	Nm	kg
3901247	KM80ATCWNE06065M	6	25	65	30	10	SS03M012	3mm	571.060	2,5mm	7	1,29
3901248	KM80ATCWNE08065M	8	28	65	30	10	SS03M014	4mm	571.067	3mm	15	1,33
3901249	KM80ATCWNE10075M	10	35	75	35	10	SS03M018	5mm	571.068	4mm	25	1,49
3901250	KM80ATCWNE12080M	12	42	80	40	10	SS03M023	6mm	571.074	5mm	35	1,68
3901251	KM80ATCWNE14080M	14	44	80	41	8	SS03M023	6mm	571.074	5mm	35	1,72
3901252	KM80ATCWNE16085M	16	48	85	44	8	SS03M025	6mm	571.075	6mm	50	1,89
3901283	KM80ATCWNE18085M	18	50	85	43	10	SS03M025	6mm	571.075	6mm	50	1,94
3901284	KM80ATCWNE20085M	20	52	85	45	10	SS03M026	8mm	571.076	6mm	95	1,98
3901285	KM80ATCWNE25100M	25	65	100	50	10	SS03M027	10mm	571.077	6mm	135	2,76
3901286	KM80ATCWNE32105M	32	72	105	55	10	SS03M029	10mm	571.077	6mm	160	3,18
3901287	KM80ATCWNE40115M	40	90	115	65	10	SS03M029	10mm	571.077	6mm	160	4,71

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw and stop screw.
 Lock screw and stop screw wrenches are not included.

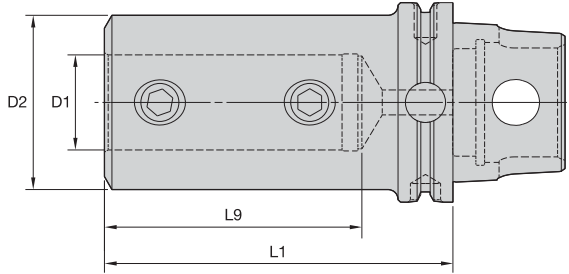


EM • Inch



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
2022197	KM80ATCEM100354	1	2.00	3.543	2.46	ELS075056PKG	3/8	110	4.26
2022198	KM80ATCEM125354	1 1/4	2.50	3.543	2.51	ELS075062PKG	3/8	110	5.21
1961336	KM80ATCEM150382	1 1/2	2.75	3.819	2.93	ELS075069PKG	3/8	110	5.88
2022199	KM80ATCEM200492	2	3.74	4.921	3.53	ELS100088PKG	1/2	150	11.61

NOTE: Do not overtighten lock screw; use torque recommendations above.
Supplied with lock screw.
Lock screw wrench not included.



■ SSF • Straight Shank Adapter for Drill Shanks with Flats



order number	catalog number	D1	L1	D2	L9	lock screw	wrench size stop screw	ft. lbs.	lbs
2024413	KM80ATCSSF075350	.750	3.500	3.150	2.250	ELS062050PKG	5/16	70	4.02
2024414	KM80ATCSSF100450	1.000	4.500	3.150	3.250	—	3/8	110	4.99
2024415	KM80ATCSSF125500	1.250	5.000	3.150	3.500	ELS075056PKG	3/8	110	6.96
2024416	KM80ATCSSF150550	1.500	5.500	3.150	4.000	ELS075056PKG	3/8	110	8.18
2024417	KM80ATCSSF200650	2.000	6.500	3.150	4.250	ELS100088PKG	1/8	150	15.93



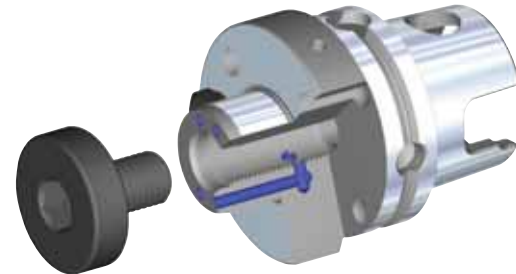
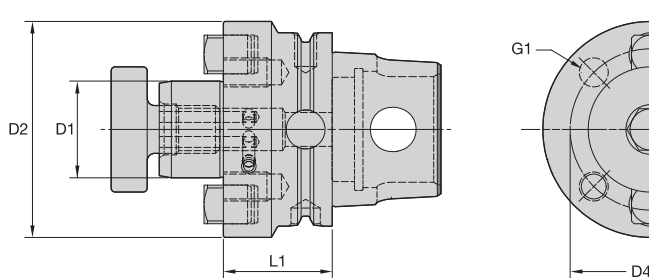
WARNING
 During through-hole operations, a slug or disk is produced as the tool breaks through the workpiece. When the drill is stationary and the workpiece is rotating, this slug may be hurled from the chuck by centrifugal force. Provide adequate shielding to protect bystanders.

KM80ATC™ Shank Tools

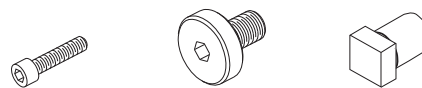
SMC Shell Mill Adapters Through Coolant



KM80ATC Shank Tools

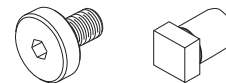


■ SMC • Metric



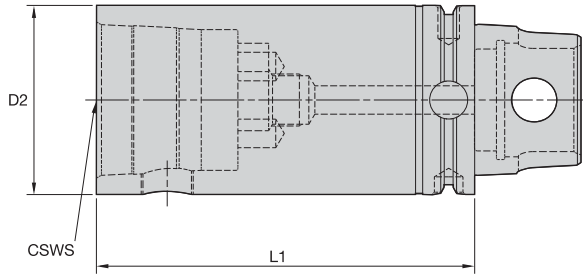
order number	catalog number	D1	D2	D4	G1	L1	socket-head cap screw	lock screw	drive key	wrench size lock screw	kg
3897160	KM80ATCSMC22040M	22	49	—	—	40	MS1234	—	KDK22M	8mm	1,52
3897161	KM80ATCSMC27040M	27	60	—	—	40	—	KLSS27M	KDK27M	10mm	1,70
3897162	KM80ATCSMC32040M	32	78	—	—	40	—	KLSS32M	KDK32M	12mm	2,02
3897193	KM80ATCSMC40045M	40	89	67	M12 X 1.75	45	—	KLSS40M	KDK40M	12mm	2,55
3897194	KM80ATCSMC50055M	50	98	—	—	55	—	KLS50M	—	—	3,60
3897195	KM80ATCSMC60060M	60	129	102	M16 X 2.0	60	—	—	KDK60M	—	5,28

■ SMC • Inch



order number	catalog number	D1	D2	D4	G1	L1	lock screw	drive key	wrench size lock screw	lbs
3955375	KM80ATCSMC2C100158	1	2.19	—	—	1.575	KLS10	KDK06	5/16	3.52
3955376	KM80ATCSMC125158	1 1/4	2.88	—	—	1.575	KLS12	KDK08	5/16	4.26
3955377	KM80ATCSMC125394	1 1/4	2.88	—	—	3.937	KLS12	KDK08	5/16	8.49
3955378	KM80ATCSMC150158	1 1/2	3.81	—	—	1.575	KLS15	KDK10	3/8	5.46
3955379	KM80ATCSMC200216	2	4.88	4.000	.625-11 UNC	2.165	KLS20	KDK12	9/16	9.55
3955380	KM80ATCSMC250225	2 1/2	4.88	4.000	.625-11 UNC	2.250	—	KDK16	9/16	10.82
3955381	KM80ATCSMC250450	2 1/2	4.88	4.000	.625-11 UNC	4.500	—	KDK16	9/16	14.77

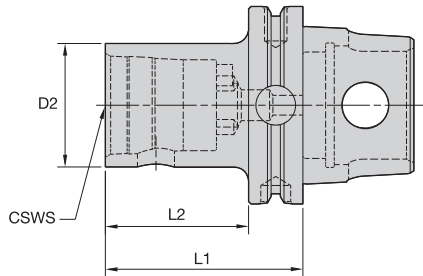
NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive keys.
 Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
 Lock screw wrench not included.



■ S • KM Extension



order number	catalog number	CSWS system size	D2		L1		wrench size			spare parts package	kg	lbs
			mm	in	mm	in	actuation screw	Nm	ft. lbs.			
2024394	KM80ATCS80120	KM80	80	3.150	120	4.724	14mm	78-84	58-64	KM80PKG3S	4,28	9.43
2024395	KM80ATCS80160	KM80	80	3.150	160	6.299	14mm	78-84	58-64	KM80PKG3S	5,82	12.82

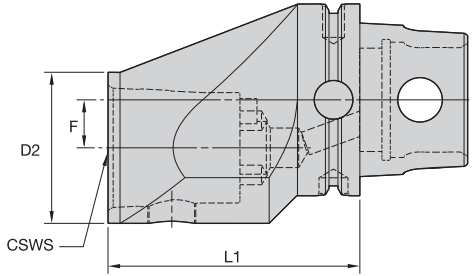


■ S • KM Reducer



order number	catalog number	CSWS system size	D2		L1		L2		wrench size			spare parts package	kg	lbs
			mm	in	mm	in	mm	in	actuation screw	Nm	ft. lbs.			
2024396	KM80ATCS4060	KM40	40	1.575	60	2.362	38	1.496	6mm	12-16	9-12	KM40PKG3S	1,45	3.20
2024397	KM80ATCS5080	KM50	50	1.969	80	3.150	58	2.284	10mm	27-34	20-25	KM50PKG3S	1,86	4.09
2024398	KM80ATCS6380	KM63	63	2.480	80	3.150	58	2.284	12mm	47-54	35-40	KM63PKG3S	2,18	4.81

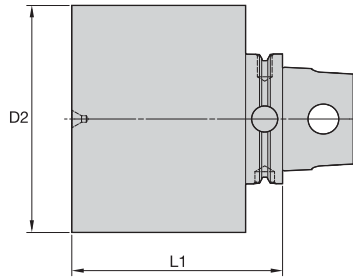
NOTE: Designed for centerline KM cutting units.



■ ES • KM Offset Reducer

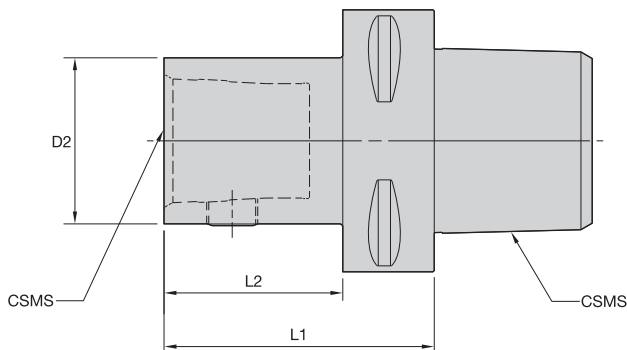


order number	catalog number	CSWS system size	D2		F		L1		wrench size actuation screw			spare parts package	kg	lbs
			mm	in	mm	in	mm	in	mm	Nm	ft. lbs.			
2203620	KM80ATCESL63105	KM63	80	3.150	20	.787	105	4.134	12mm	47-54	35-40	KM63PKG3S	3,87	8.50
2048377	KM80ATCESR63105	KM63	80	3.150	20	.787	105	4.134	12mm	47-54	35-40	KM63PKG3S	3,87	8.50



■ BN • Blank

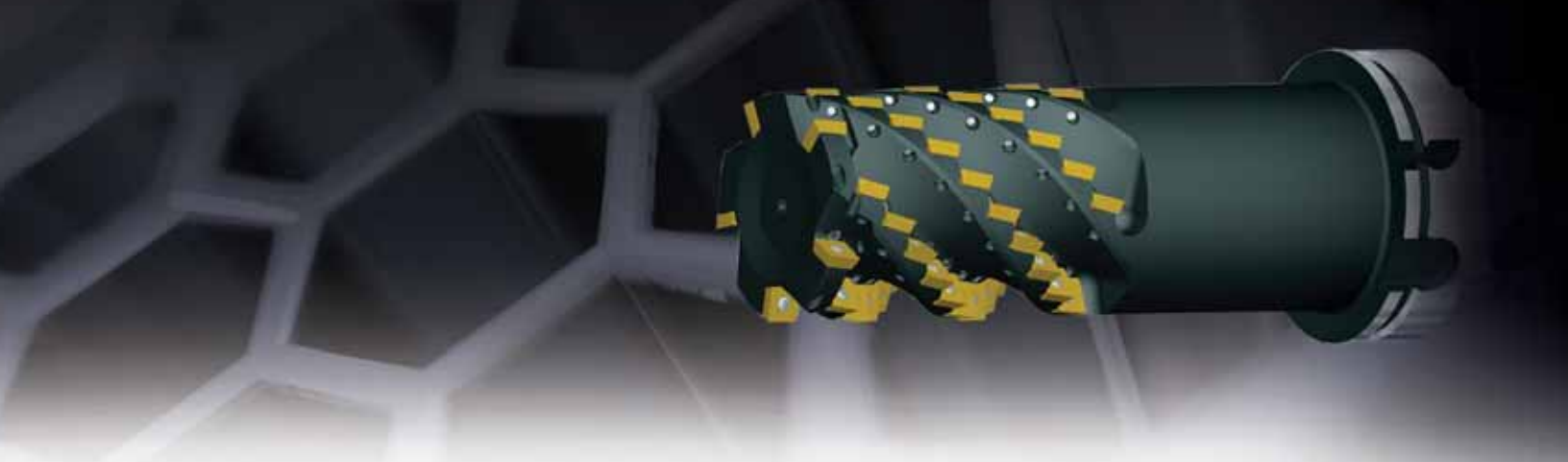
order number	catalog number	D2		L1		hardness range	kg	lbs
		mm	in	mm	in			
2873209	KM80ATCBN125075M	125	4.921	75	2.953	32-38 HRC	6,20	13.68
2879350	KM80ATCBN140130M	140	5.512	130	5.118	32-38 HRC	14,11	31.11



■ PSC-KM



order number	catalog number	CSMS system size	CSWS system size	D2	L1	L2	wrench size actuation screw	Nm	ft. lbs.	KM spare parts package	kg	lbs
3852030	PSC63KM40TS065M	PSC63	KM40TS	40	65	43	6 mm	12	9	KM40PKG3S	1,09	2.41
3852063	PSC63KM40TS090M	PSC63	KM40TS	40	90	68	6 mm	12	9	KM40PKG3S	1,32	2.91
3874895	PSC80KM50TS070M	PSC80	KM50TS	50	70	40	10 mm	27	20	KM50PKG3S	2,16	4.77
3852064	PSC63KM50TS090M	PSC63	KM50TS	50	90	68	10 mm	27	20	KM50PKG3S	1,59	3.50
3852031	PSC63KM50TS075M	PSC63	KM50TS	50	75	53	10 mm	27	20	KM50PKG3S	1,37	3.03
3874897	PSC80KM50TS100M	PSC80	KM50TS	50	100	70	10 mm	27	20	KM50PKG3S	2,61	5.76
3864845	PSC80KM63TS155M	PSC80	KM63TS	63	155	125	12 mm	47	35	KM63PKG3S	4,35	9.59
3852065	PSC63KM63TS105M	PSC63	KM63TS	63	105	105	12 mm	47	35	KM63PKG3S	2,34	5.17
3864844	PSC80KM63TS080M	PSC80	KM63TS	63	80	50	12 mm	47	35	KM63PKG3S	2,57	5.67
3852032	PSC63KM63TS090M	PSC63	KM63TS	63	90	90	12 mm	47	35	KM63PKG3S	2,00	4.42
3874898	PSC80KM80TS155M	PSC80	KM80TS	80	155	155	14 mm	79	58	KM80PKG3S	5,89	12.99
3874896	PSC80KM80TS090M	PSC80	KM80TS	80	90	90	14 mm	79	58	KM80PKG3S	3,40	7.49



KM4X™ • The New Choice for Heavy-Duty Milling

Primary Application

The KM4X 4-ball spindle interface provides up to 3x more bending capacity than HSK. The greater bending capacity enables customers to fully utilize the capabilities of their machine and cutting tools when working with tough materials like titanium or during heavy machining. Increased metal removal rates optimize machine production and decrease overall manufacturing cost.

- Heavy-duty, rigid configuration.
- 3x more bending capacity than HSK.
- Increased metal removal rates.
- Full utilization of machine tools.
- Decreased manufacturing costs.
- Balanced-by-design for higher spindle speeds.
- Highest maximum speed capability.

Features and Benefits

The Latest Innovation in Spindle Interface Technology

- KM4X offers the most rigid connection able to withstand extremely high bending due to a combination of high interference and high clamping forces.
- KM™ is the only connection that maintains stiffness at elevated rotational speeds and is suitable for a range of applications from low speeds with high torque to very high spindle speeds.
- KM4X is better balanced between bending and torsion capabilities.

To learn more, [scan here](#).

For instructions on how to scan, please see page xxxiii.



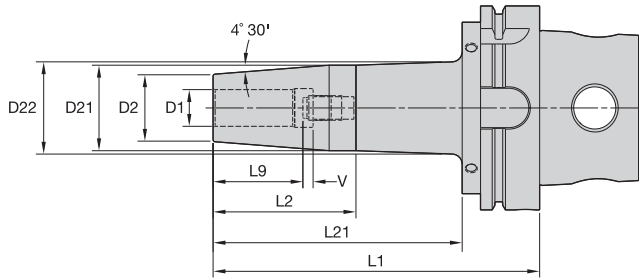


Four locking elements for power, drive, and uniform rigid locking. Provides even distribution of forces.

Systems secondary drive/location and orientation feature.

Standardized HSK V-flange and features for automatic tool-change arms.

The KM™ System's superior rigidity and accuracy is gained by optimized interference levels. Three surface areas of contact develop when clamped, resulting in superior performance.



- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide and HSS cutting tools.

Cutting Tool Shank Requirements
metric (ISO standard)

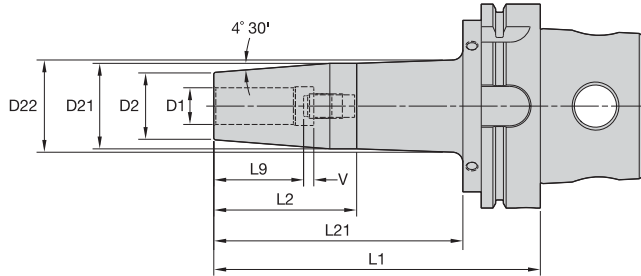
cutting tool shank diameter	tolerance	
6	h6	0,000/-0,008
8 & 10	h6	0,000/-0,009
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32, 40, & 50	h6	0,000/-0,016

■ TT GP HPV MM-KM4X • Metric



order number	catalog number	D1	D2	D21	D22	L1	L2	L9	L21	V	stop screw	wrench size stop screw
4156046	KM4X100HPVTT06085M	6	21	27	—	85	56	26	—	10	TTSS05014M	2,5mm
4156047	KM4X100HPVTT06160M	6	21	27	32	160	50	26	122	10	TTSS05014M	2,5mm
4156048	KM4X100HPVTT08085M	8	21	27	—	85	56	26	—	10	TTSS06014M	3mm
4156049	KM4X100HPVTT08160M	8	21	27	32	160	50	26	122	10	TTSS06014M	3mm
4156050	KM4X100HPVTT10090M	10	24	32	—	90	61	31	—	10	TTSS08014M	4mm
4156051	KM4X100HPVTT10160M	10	24	32	36	160	63	31	122	10	TTSS08014M	4mm
4156052	KM4X100HPVTT12095M	12	24	32	—	95	66	36	—	10	TTSS10014M	5mm
4156113	KM4X100HPVTT12160M	12	24	32	36	160	63	36	122	10	TTSS10014M	5mm
4156114	KM4X100HPVTT14095M	14	27	34	—	95	66	36	—	10	TTSS10014M	5mm
4156115	KM4X100HPVTT14160M	14	27	34	38	160	57	36	122	10	TTSS10014M	5mm
4156116	KM4X100HPVTT16100M	16	27	34	—	100	71	39	—	10	TTSS12014M	6mm
4156117	KM4X100HPVTT16160M	16	27	34	38	160	57	39	122	10	TTSS12014M	6mm
4156118	KM4X100HPVTT18100M	18	33	42	—	100	71	39	—	10	TTSS12014M	6mm
4156119	KM4X100HPVTT18160M	18	33	42	46	160	69	39	122	10	TTSS12014M	6mm
4156120	KM4X100HPVTT20105M	20	33	42	—	105	76	41	—	10	TTSS16014M	8mm
4156121	KM4X100HPVTT20160M	20	33	42	46	160	69	41	122	10	TTSS16014M	8mm
4156122	KM4X100HPVTT25115M	25	44	53	—	115	86	47	—	10	TTSS16014M	8mm
4156123	KM4X100HPVTT25160M	25	44	53	57	160	69	47	122	10	TTSS16014M	8mm
4156124	KM4X100HPVTT32120M	32	44	53	—	120	91	51	—	10	TTSS16014M	8mm
4156125	KM4X100HPVTT32160M	32	44	53	57	160	69	51	122	10	TTSS16014M	8mm

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.
Supplied with stop screw.
Optional M6~1.0P x 5 lg fine-balancing screw set (10 pieces) available. Order number: MS1276PKG. Must be ordered separately.



KM4X 100 Shank Tools

- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide and HSS cutting tools.

Cutting Tool Shank Requirements
inch (industry standard)

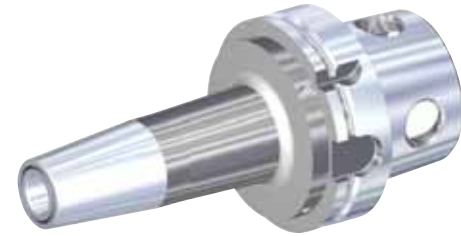
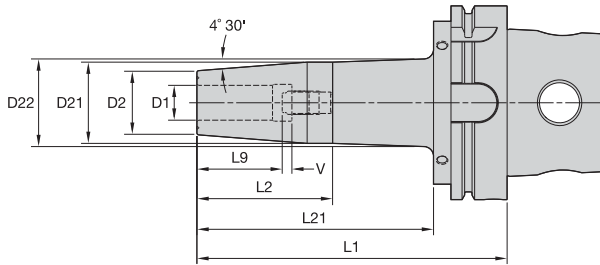
cutting tool shank diameter	tolerance
1/4, 5/16, & 3/8	-.0001/- .0004
7/16, 1/2, 9/16, 5/8, & 11/16	.0000/- .0004
3/4, 7/8, 1, 1-1/4, 1-1/2, & 2	.0000/- .0005

■ TT GP HPV IN-KM4X • Inch



order number	catalog number	D1	D2	D21	D22	L1	L2	L9	L21	V	stop screw	wrench size stop screw
4155746	KM4X100HPVTT025335	1/4	0.83	1.06	—	3.35	2.21	1.02	—	0.39	TTSS05014M	2,5mm
4155747	KM4X100HPVTT025630	1/4	0.83	1.06	1.26	6.30	1.97	1.02	4.81	0.39	TTSS05014M	2,5mm
4155748	KM4X100HPVTT031335	5/16	0.83	1.06	—	3.35	2.21	1.02	—	0.39	TTSS06014M	3mm
4155749	KM4X100HPVTT031630	5/16	0.83	1.06	1.26	6.30	1.97	1.02	4.81	0.39	TTSS06014M	3mm
4155750	KM4X100HPVTT038354	3/8	0.95	1.24	—	3.54	2.40	1.22	—	0.39	TTSS08014M	4mm
4155751	KM4X100HPVTT038630	3/8	0.95	1.26	1.42	6.30	2.48	1.22	4.81	0.39	TTSS08014M	4mm
4155752	KM4X100HPVTT050374	1/2	0.95	1.26	—	3.74	2.60	1.42	—	0.39	TTSS10014M	5mm
4156153	KM4X100HPVTT050630	1/2	0.95	1.26	1.42	6.30	2.48	1.42	4.81	0.39	TTSS10014M	5mm
4156154	KM4X100HPVTT062394	5/8	1.06	1.34	—	3.94	2.80	1.54	—	0.39	TTSS12014M	6mm
4156155	KM4X100HPVTT062630	5/8	1.06	1.34	1.51	6.30	2.24	1.54	4.81	0.39	TTSS12014M	6mm
4156156	KM4X100HPVTT075413	3/4	1.30	1.65	—	4.13	2.99	1.61	—	0.39	TTSS16014M	8mm
4156157	KM4X100HPVTT075630	3/4	1.30	1.65	1.8	6.30	2.72	1.61	4.81	0.39	TTSS16014M	8mm
4156158	KM4X100HPVTT088413	7/8	1.30	1.65	—	4.13	2.99	1.61	—	0.39	TTSS16014M	8mm
4156159	KM4X100HPVTT088630	7/8	1.30	1.65	1.8	6.30	2.72	1.61	4.81	0.39	TTSS16014M	8mm
4156160	KM4X100HPVTT100453	1	1.73	2.08	—	4.53	3.39	1.85	—	0.39	TTSS16014M	8mm
4156161	KM4X100HPVTT100630	1	1.73	2.08	2.23	6.30	2.72	1.85	4.81	0.39	TTSS16014M	8mm
4156162	KM4X100HPVTT125472	1 1/4	1.73	2.08	—	4.72	3.59	2.01	—	0.39	TTSS16014M	8mm
4156163	KM4X100HPVTT125630	1 1/4	1.73	2.08	2.23	6.30	2.72	2.01	4.81	0.39	TTSS16014M	8mm
4156164	KM4X100HPVTT150531	1 1/2	2.36	2.75	—	5.31	4.18	2.01	—	0.39	TTSS20014M	10mm

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.
 Supplied with stop screw.
 Optional M6-1.0P x 5 lg fine-balancing screw set (10 pieces) available. Order number: MS1276PKG. Must be ordered separately.



- 30–50% higher clamping torque compared to GP line.
- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide only, designated by groove in front face.
- 10 kW power or greater Shrink Fit device must be used.

**Cutting Tool Shank Requirements
inch (industry standard)**

cutting tool shank diameter	tolerance
1/2 & 5/8	.0000/-0.0004
3/4, 7/8, 1, 1-1/4, & 1-1/2	.0000/-0.0005

**Cutting Tool Shank Requirements
metric (ISO standard)**

cutting tool shank diameter	tolerance	
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32, 40, & 50	h6	0,000/-0,016

■ TT HT HPV MM-KM4X • Metric

order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw
4156182	KM4X100HPVTHT12095M	12	24	31,9	95	66	36	10	TTSS10014M	5mm
4156193	KM4X100HPVTHT14095M	14	27	33,9	95	66	36	10	TTSS10014M	5mm
4156194	KM4X100HPVTHT16100M	16	27	33,9	100	71	39	10	TTSS12014M	6mm
4156195	KM4X100HPVTHT18100M	18	33	41,9	100	71	39	10	TTSS12014M	6mm
4156196	KM4X100HPVTHT20105M	20	33	41,9	105	76	41	10	TTSS16014M	8mm
4156197	KM4X100HPVTHT25115M	25	44	52,9	115	86	47	10	TTSS16014M	8mm
4156198	KM4X100HPVTHT32120M	32	44	52,9	120	91	51	10	TTSS16014M	8mm



(continued)

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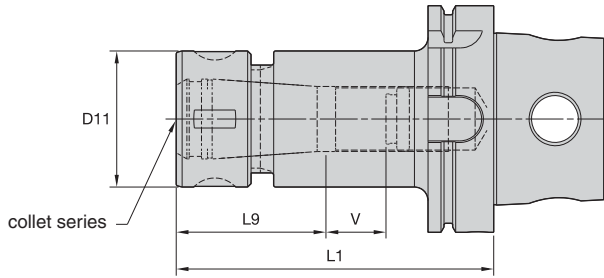
■ TT HT HPV IN-KM4X • Inch


order number	catalog number	D1	D2	D21	D22	L1	L2	L9	L21	V	stop screw	wrench size stop screw
4156166	KM4X100HPVTHT050374	1/2	0.95	1.26	—	3.74	2.60	1.42	—	0.39	TTSS10014M	5mm
4156167	KM4X100HPVTHT050630	1/2	0.95	1.26	1.42	6.30	2.48	1.42	4.81	0.39	TTSS10014M	5mm
4156168	KM4X100HPVTHT062394	5/8	1.06	1.34	—	3.94	2.80	1.54	—	0.39	TTSS12014M	6mm
4156169	KM4X100HPVTHT062630	5/8	1.06	1.34	1.51	6.30	2.24	1.54	4.81	0.39	TTSS12014M	6mm
4156170	KM4X100HPVTHT075413	3/4	1.30	1.65	—	4.13	2.99	1.61	—	0.39	TTSS16014M	8mm
4156171	KM4X100HPVTHT075630	3/4	1.30	1.65	1.8	6.30	2.72	1.61	4.81	0.39	TTSS16014M	8mm
4156172	KM4X100HPVTHT088413	7/8	1.30	1.65	—	4.13	2.99	1.61	—	0.39	TTSS16014M	8mm
4156203	KM4X100HPVTHT088630	7/8	1.30	1.65	1.8	6.30	2.72	1.61	4.81	0.39	TTSS16014M	8mm
4156204	KM4X100HPVTHT100453	1	1.73	2.08	—	4.53	3.39	1.85	—	0.39	TTSS16014M	8mm
4156205	KM4X100HPVTHT100630	1	1.73	2.08	2.23	6.30	2.72	1.85	4.81	0.39	TTSS16014M	8mm
4156206	KM4X100HPVTHT125472	1 1/4	1.73	2.08	—	4.72	3.59	2.01	—	0.39	TTSS16014M	8mm
4156207	KM4X100HPVTHT125630	1 1/4	1.73	2.08	2.23	6.30	2.72	2.01	4.81	0.39	TTSS16014M	8mm
4156208	KM4X100HPVTHT150531	1 1/2	2.36	2.75	—	5.31	4.18	2.01	—	0.39	TTSS20014M	10mm

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Supplied with stop screw.

Optional M6~1.0P x 5 lg fine-balancing screw set (10 pieces) available. Order number: MS1276PKG. Must be ordered separately.



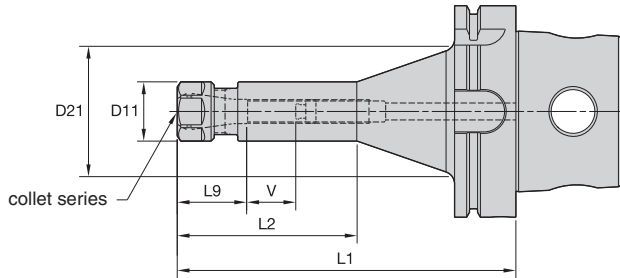
- Tremendous Grip (3:1 advantage).

TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG50	1,1	13,5	1/32	17/32
TG75	2,6	20,0	3/64	3/4
TG100	2,6	25,5	5/64	1
TG150	11,6	40,0	23/64	1-1/2

■ TG Round-KM4X

order number	catalog number	collet series	D11	L1	L9	V	locknut	locknut wrench	Nm	stop screw	wrench size stop screw
4156445	KM4X100TG050105M	TG50	38	105	42	40	LNA050M	HSW34M	68	SS056041G	4mm & 5/32
4156446	KM4X100TG050160M	TG50	38	160	42	58	LNA050M	HSW34M	68	SS056041G	4mm & 5/32
4156447	KM4X100TG075120M	TG75	50	120	54	46	LNA075M	HSW45M	136	SS081041G	4mm & 5/32
4156448	KM4X100TG100140M	TG100	60	140	70	45	LNA100M	HSW58M	203	SS112041G	4mm & 5/32
4156449	KM4X100TG150165M	TG150	85	165	84	46	LNA150M	HSW80M	271	SS162062G	4mm & 5/32

NOTE: First, load collet into locknut. Before loading into the chuck body, insert cutting tool, then tighten to recommended tightening torque.
Supplied with locknut and stop screw.
Locknut wrench must be ordered separately.



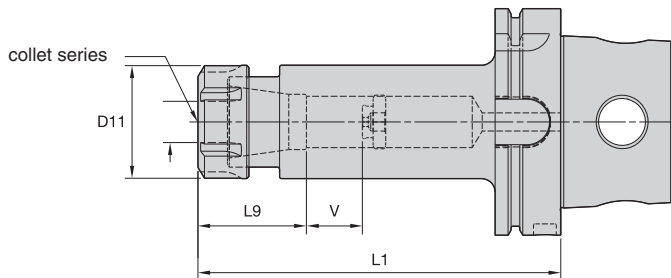
KM4X 100 Shank Tools

- Grip (2:1 advantage).

ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER16	0,5	10,0	.02	.41
ER20	0,5	13,0	.02	.50
ER25	1,0	16,0	.04	.63
ER32	2,0	20,0	.08	.81
ER40	3,0	26,0	.12	1.00

■ ER Hex-KM4X

order number	catalog number	collet series	D11	D21	L1	L2	L9	V	locknut	locknut wrench	Nm	stop screw	wrench size stop screw
4159999	KM4X100ER16100M	ER16	28	—	100	—	32	53	LNHSER16M	OEW25M	56	SS044038G	4mm & 5/32
4160000	KM4X100ER16160M	ER16	28	60	160	85	32	68	LNHSER16M	OEW25M	56	SS044038G	4mm & 5/32
4160001	KM4X100ER20100M	ER20	34	—	100	—	36	35	LNHSER20M	OEW30M	80	SS056041G	4mm & 5/32

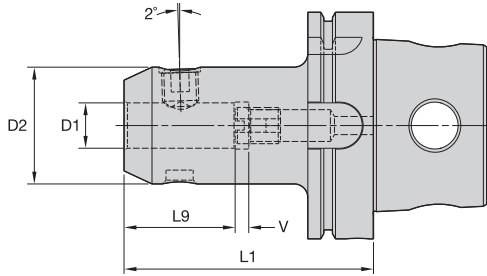


■ ER Round-KM4X

order number	catalog number	collet series	D11	L1	L9	V	locknut	locknut wrench	Nm	stop screw	wrench size stop screw
4160002	KM4X100ER25100M	ER25	42	100	40	33	LNSER25M	ER25WM	104	SS075041G	4mm & 5/32
4160043	KM4X100ER32100M	ER32	50	100	45	32	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32
4160044	KM4X100ER32160M	ER32	50	160	45	92	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32
4160045	KM4X100ER40120M	ER40	63	120	52	38	LNSER40M	ER40WM	175	SS112041G	4mm & 5/32



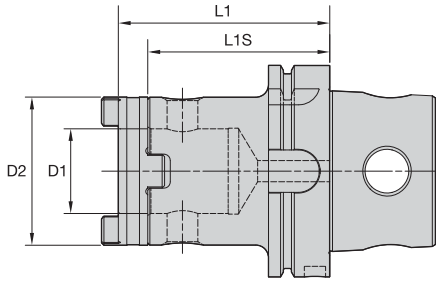
NOTE: First, load collet into locknut. Before loading into the chuck body, insert cutting tool, then tighten to recommended tightening torque.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.



■ WN MM-KM4X • Metric

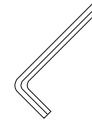
order number	catalog number	D1	D2	L1	L9	V	clamp screw		stop screw			
							wrench size clamp screw	Nm	wrench size stop screw	Nm		
4160047	KM4X100WN06090M	6	24,5	90	30	10	SS03M012	3mm	7	571.060	2,5mm	2,5mm
4160048	KM4X100WN08090M	8	27,5	90	30	10	SS03M014	4mm	15	571.067	3mm	3mm
4160049	KM4X100WN10090M	10	34,5	90	35	10	SS03M018	5mm	25	571.068	4mm	4mm
4160050	KM4X100WN12100M	12	41,5	100	40	10	SS03M023	6mm	35	571.074	5mm	5mm
4160051	KM4X100WN14100M	14	43,5	100	40	10	SS03M023	6mm	35	571.074	5mm	5mm
4160052	KM4X100WN16100M	16	47,5	100	43	10	SS03M025	6mm	50	571.069	6mm	6mm
4160073	KM4X100WN18100M	18	49,5	100	43	10	SS03M025	6mm	50	571.069	6mm	6mm
4160074	KM4X100WN20110M	20	51,5	110	45	10	SS03M026	8mm	95	571.076	6mm	6mm
4160075	KM4X100WN25120M	25	64,5	120	50	10	SS03M027	10mm	135	571.077	6mm	6mm
4160076	KM4X100WN32120M	32	71,5	120	54	10	SS03M029	10mm	160	571.077	6mm	6mm

NOTE: Do not overtighten clamp screw; use torque recommendations above.
Supplied with clamp screw and stop screw.
Clamp screw and stop screw wrenches not included.



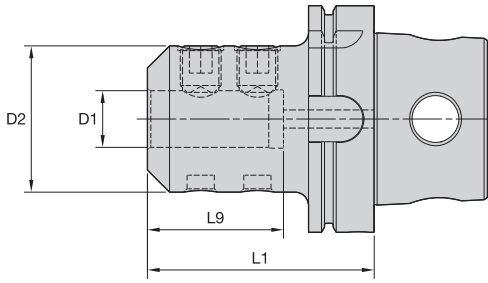
KM4X 100 Shank Tools

■ HTS-KM4X



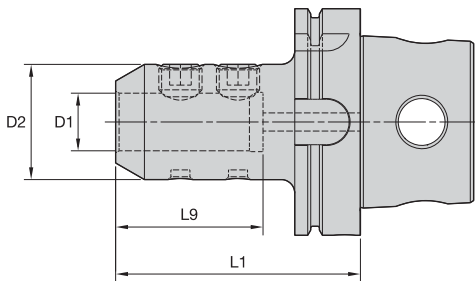
order number	catalog number	D1	D2	L1	L1S	clamp screw	hex wrench	drive ring	ft. lbs.	kg
4159439	KM4X100HTS40085M	40	70	99	85	191.728	170.008	192.424	26	3.80
4159440	KM4X100HTS50090M	50	80	106	90	191.728	170.008	192.425	26	4.27

NOTE: Shipped with drive ring and clamping screw.
Assemble components using recommended torque values.



■ EM MM-KM4X • Metric

order number	catalog number	D1	D2	L1	L9	clamp screw	wrench size clamp screw	Nm
4160510	KM4X100EM06080M	6	24,5	80	52	SS03M012	3mm	7
4160511	KM4X100EM08080M	8	27,5	80	52	SS03M014	4mm	15
4160512	KM4X100EM10080M	10	34,5	80	52	SS03M018	5mm	25
4160533	KM4X100EM12080M	12	41,5	80	49	SS03M023	6mm	35
4160534	KM4X100EM14080M	14	43,5	80	49	SS03M023	6mm	35
4160535	KM4X100EM16100M	16	47,5	100	53	SS03M025	6mm	50
4160536	KM4X100EM18100M	18	49,5	100	53	SS03M025	6mm	50
4160537	KM4X100EM20100M	20	51,5	100	55	SS03M026	8mm	95
4160538	KM4X100EM25100M	25	64,5	100	60	SS03M027	10mm	135
4160539	KM4X100EM32100M	32	71,5	100	65	SS03M029	10mm	160
4160540	KM4X100EM40120M	40	89,5	120	75	SS03M032	10mm	160
4160541	KM4X100EM50130M	50	99,5	130	85	SS03M030	12mm	200



■ EM IN-KM4X • Inch

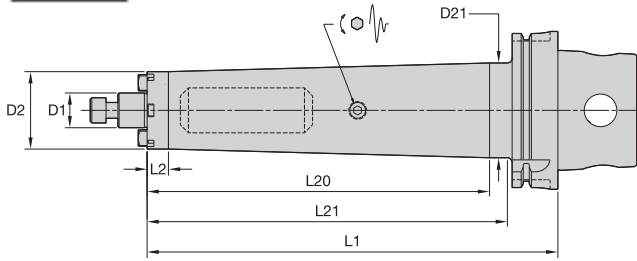
order number	catalog number	D1	D2	L1	L9	clamp screw	wrench size clamp screw	ft. lbs.
4160518	KM4X100EM025300	1/4	1.000	3.000	1.89	ELS025025	1/8	8
4160519	KM4X100EM038300	3/8	1.000	3.000	1.89	ELS038031	3/16	15
4160520	KM4X100EM050325	1/2	1.375	3.250	1.97	ELS044038	7/32	20
4160521	KM4X100EM062375	5/8	1.625	3.750	2.09	ELS056050	1/4	40
4160522	KM4X100EM075375	3/4	1.750	3.750	2.22	ELS062050	5/16	70
4160573	KM4X100EM100425	1	2.000	4.250	2.46	ELS075056	3/8	110
4160574	KM4X100EM125425	1 1/4	2.500	4.250	2.51	ELS075062	3/8	110
4160575	KM4X100EM150450	1 1/2	2.750	4.500	2.93	ELS075069	3/8	110
4160576	KM4X100EM200550	2	3.750	5.500	3.53	ELS100088	1/2	150
4160577	KM4X100EM250575	2 1/2	4.188	5.750	3.63	ELS100088	1/2	150



NOTE: Do not overtighten clamp screw; use torque recommendations above.
Supplied with clamp screw.
Clamp screw wrench not included.

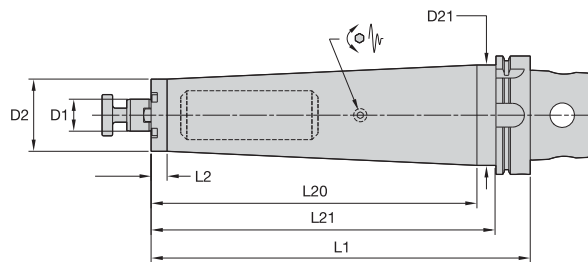


KM4X 100 Shank Tools



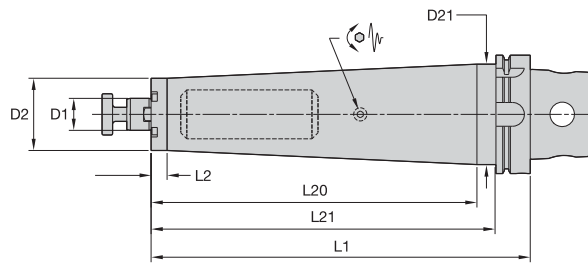
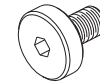
■ SMC TD CAP MM-KM4X • Metric

order number	catalog number	D1	D2	D21	L1	L2	L20	L21	lock screw	wrench size lock screw
4169583	KM4X100TDSMC22260M	22	49	65	260	13,5	215	231	MS-1234	8mm



■ SMC TD Lock MM-KM4X • Metric

order number	catalog number	D1	D2	D21	L1	L2	L20	L21	lock screw	wrench size lock screw
4169584	KM4X100TDSMC27320M	27	61	85	320	13,5	275	291	KLSS27M	10mm
4169585	KM4X100TDSMC32330M	32	78	—	330	299	—	—	KLSS32M	14mm

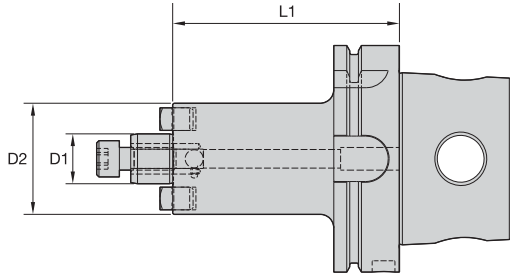


■ SMC TD Lock IN-KM4X • Inch

order number	catalog number	D1	D2	D21	L1	L2	L20	L21	clamp screw	wrench size clamp screw
4169586	KM4X100TDSMC0751050	3/4	1.75	2.56	10.5	.53	8.73	9.24	KLS07	1/4
4169587	KM4X100TDSMC1001250	1	2.75	3.33	12.5	.53	10.73	11.36	KLS10	5/16
4169588	KM4X100TDSMC1251300	1 1/4	2.88	3.33	13	.63	11.23	11.86	KLS12	5/16



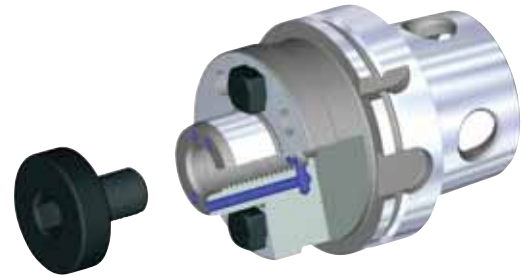
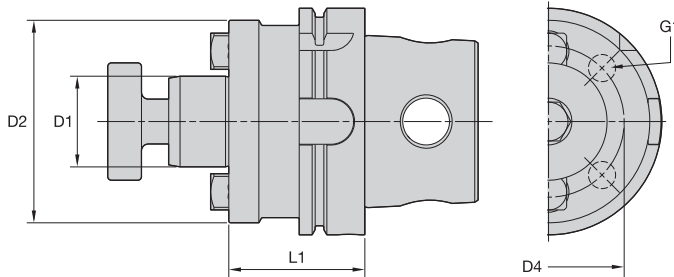
NOTE: Do not overtighten lock screw; use torque recommendations above.
Supplied with lock screw and drive keys.
Lock screw wrench not included.



■ SMC CAP MM-KM4X • Metric



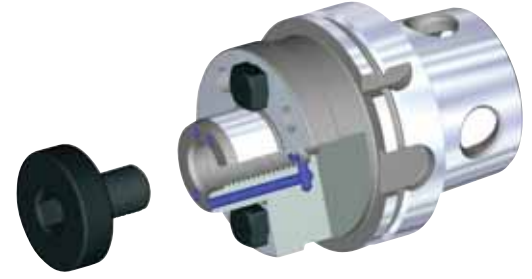
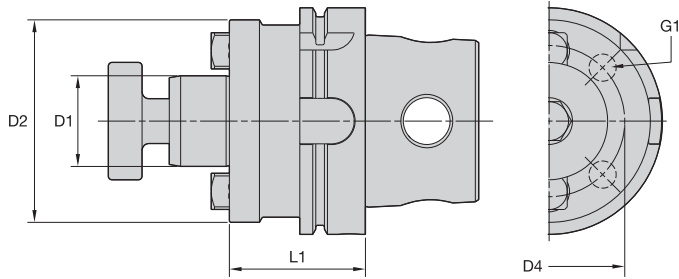
order number	catalog number	D1	D2	L1	lock screw	wrench size lock screw
4160335	KM4X100SMC22050M	22	49	50	MS1234	8mm
4160337	KM4X100SMC22100M	22	49	100	MS1234	8mm
4160338	KM4X100SMC22160M	22	49	160	MS1234	8mm



■ SMC Lock MM-KM4X • Metric



order number	catalog number	D1	D2	D4	G1	L1	lock screw	wrench size lock screw
4160340	KM4X100SMC27050M	27	60	—	—	50	KLSS27M	10mm
4160341	KM4X100SMC27100M	27	60	—	—	100	KLSS27M	10mm
4160342	KM4X100SMC27160M	27	60	—	—	160	KLSS27M	10mm
4160343	KM4X100SMC32050M	32	78	—	—	50	KLSS32M	14mm
4160344	KM4X100SMC32100M	32	78	—	—	100	KLSS32M	14mm
4160345	KM4X100SMC32160M	32	78	—	—	160	KLSS32M	14mm
4160346	KM4X100SMC40060M	40	89	67	M12x1,75	60	KLSS40M	17mm
4160347	KM4X100SMC40100M	40	89	67	M12x1,75	100	KLSS40M	17mm
4160348	KM4X100SMC40160M	40	89	67	M12x1,75	160	KLSS40M	17mm
4160350	KM4X100SMC50070M	50	98	—	—	70	KLSS50M	SMW50M
4160351	KM4X100SMC50100M	50	98	—	—	100	KLSS50M	SMW50M
4160352	KM4X100SMC50160M	50	98	—	—	160	KLSS50M	SMW50M
4160353	KM4X100SMC60070M	60	129	102	M16x2,0	70	—	—
4160354	KM4X100SMC60100M	60	129	102	M16x2,0	100	—	—
4160355	KM4X100SMC60160M	60	129	102	M16x2,0	160	—	—



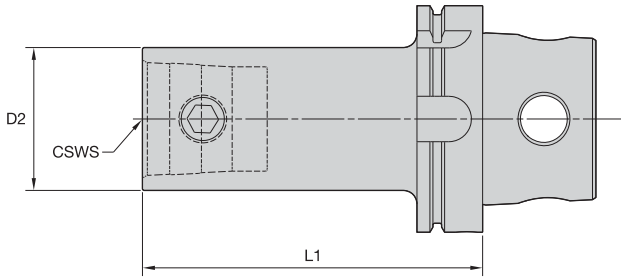
KM4X 100 Shank Tools

■ SMC Lock IN-KM4X • Inch



order number	catalog number	D1	D2	D4	G1	L1	lock screw	wrench size lock screw
4160286	KM4X100SMC075400	3/4	1.75	—	—	4.00	KLS07	1/4
4160287	KM4X100SM2C075400	3/4	1.46	—	—	4.00	KLS07	1/4
4160289	KM4X100SMC075600	3/4	1.75	—	—	6.00	KLS07	1/4
4160290	KM4X100SM2C075600	3/4	1.46	—	—	6.00	KLS07	1/4
4160291	KM4X100SMC100400	1	2.75	—	—	4.00	KLS10	5/16
4160292	KM4X100SM2C100400	1	2.19	—	—	4.00	KLS10	5/16
4160313	KM4X100SMC100600	1	2.75	—	—	6.00	KLS10	5/16
4160314	KM4X100SM2C100600	1	2.19	—	—	6.00	KLS10	5/16
4160315	KM4X100SMC125400	1 1/4	2.88	—	—	4.00	KLS12	5/16
4160316	KM4X100SMC125600	1 1/4	2.88	—	—	6.00	KLS12	5/16
4160317	KM4X100SMC150400	1 1/2	3.81	—	—	4.00	KLS15	3/8
4160318	KM4X100SMC150600	1 1/2	3.81	—	—	6.00	KLS15	3/8
4160319	KM4X100SMC200400	2	4.88	4.00	5/8 - 11	4.00	KLS20	9/16
4160320	KM4X100SMC200600	2	4.88	4.00	5/8 - 11	6.00	KLS20	9/16
4160321	KM4X100SMC250400	2 1/2	4.88	4.00	5/8 - 11	4.00	—	1/2
4160322	KM4X100SMC250600	2 1/2	4.88	4.00	5/8 - 11	6.00	—	1/2

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw and drive keys.
 Lock screw wrench not included.



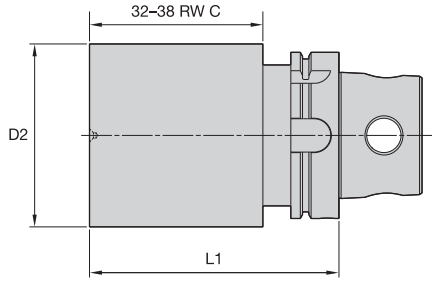
■ **KM-KM4X**

order number	catalog number	CSWS	D2	L1	spare parts package	wrench size actuation screw	Nm
4161856	KM4X100KM32075M	32	32	75	KM32PKGS	5mm	8 - 11
4161858	KM4X100KM40080M	40	40	80	KM40PKGS	6mm	12 - 16
4161859	KM4X100KM40100M	40	40	100	KM40PKGS	6mm	12 - 16
4161860	KM4X100KM40150M	40	40	150	KM40PKGS	6mm	12 - 16
4161861	KM4X100KM50100M	50	50	100	KM50PKGS	10mm	27 - 34
4161862	KM4X100KM50150M	50	50	150	KM50PKGS	10mm	27 - 34
4161863	KM4X100KM50200M	50	50	200	KM50PKGS	10mm	27 - 34
4161864	KM4X100KM63100M	63	63	100	KM63PKGS	12mm	47 - 54
4161865	KM4X100KM63150M	63	63	150	KM63PKGS	12mm	47 - 54
4161866	KM4X100KM63200M	63	63	200	KM63PKGS	12mm	47 - 54
4161867	KM4X100KM80100M	80	80	100	KM80PKGS	14mm	79 - 85
4161868	KM4X100KM80150M	80	80	150	KM80PKGS	14mm	79 - 85
4161869	KM4X100KM80200M	80	80	200	KM80PKGS	14mm	79 - 85

NOTE: Do not overtorque actuation screw; use torque recommendations above.
 Supplied with KM actuation mechanism.



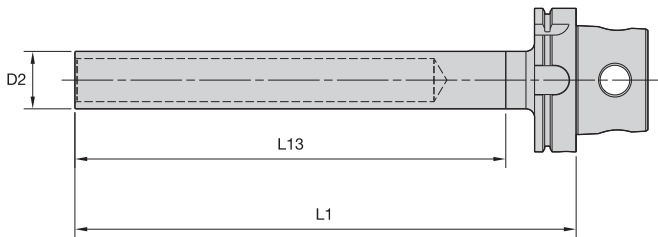
KM4X 100 Shank Tools



- Machinable front 32–38 RW C.

■ **BB-KM4X**

order number	catalog number	D2	L1
4160571	KM4X100BN080150M	80	150
4160572	KM4X100BN110150M	110	150
4160613	KM4X100BN130200M	130	200



- For acceptance testing on machine tool spindles.
- 0,003mm (.0001") maximum TIR.
- Precision ground.

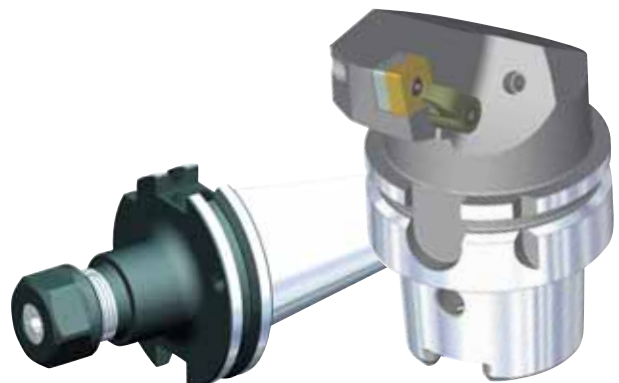
■ **GB-KM4X**

order number	catalog number	D2	L1	L13
4160529	KM4X100GB40349M	40	349	330



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TappingB16–B18
BoringB18–B19
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CV Shank ToolsF1–F83
DV Shank ToolsG1–G77
QC Shank ToolsH1–H22
R8 Shank ToolsH24–H27
Straight Shank ToolsI1–I27



The power of the Kennametal enterprise

Tooling Systems

Kennametal proudly offers premium quality ERICKSON™ toolholder products, so you can be sure that you're buying the best the industry has to offer. The entire portfolio — including steep taper, HSK, straight shank extensions, collets, sleeves, and accompanying products — offers high productivity, increased accuracy, and application flexibility.

Designed for both manual and automatic tool changing, ERICKSON interfaces are ideally suited for most machine tools and feature a compact and rigid construction guaranteed to handle high torque and deliver optimal metal removal rates.

Machinists have relied on the ERICKSON name for more than 60 years. With one of the broadest product offerings in the industry, ERICKSON tools may be used on all types of machine tools and in applications ranging from low-speed, heavy-milling jobs to high-speed operations greater than 20,000 RPMs.

Kennametal Shrink Fit Technology

Heat shrinking is not new technology in the tooling industry, but only recently has it been applied to quick-change toolholding systems. Shrink fitting works by having toolholders with an internal bore that is slightly smaller than the connecting end of a cutting shank.

When the toolholder is heated, the bore expands and the shank is able to slip inside the bore. As the toolholder cools, it shrinks, clamping the two pieces together. This creates evenly distributed pressure with minimal vibration between the toolholder and shank that resembles a monoblock tool.



Advantages of Shrink Fit Tooling

- Evenly distributed pressure 360° along the length of the cutting tool.
- Slim and short toolholder designs can be achieved due to the lack of moveable parts.
- Absolute symmetry of the grip provides the best possible balance for high-speed operations.
- Stronger clamping force than collet or hydraulic chucks.
- Can be repeated thousands of times.
- Capable of greater speeds and feeds.
- Adapts to various shank types.
- Increased productivity.



Kennametal Hydraulic Chucks

Kennametal Hydraulic Chucks provide optimum performance when clamping full-cylindrical straight shanks such as solid carbide drills and end mills. Turning a piston pressurizes hydraulic fluid, which expands a thin-walled membrane along the length of the clamping bore. This creates a secure grip that reduces vibration and eliminates microcracking on cutting tools.

All chucks are capable of utilizing reducer sleeves to maximize their versatility. Hydraulic chucks require virtually no maintenance, aside from routinely cleaning the bore and removing any grease.


Slim Line

Slim-shaped hydraulic chucks for universal use with maximum precision.


Standard/HP Line

Prebalanced chucks with an external screw for radial adjustments. This eliminates the need for removing cutting tools to make fine adjustments.


Trend Line

Similar to the Standard Line chucks but with 3/8" radial adjustment of the cutting tool length by use of an axial back-up screw through the chuck bore.


Basic Line

Similar to the Trend Line but with larger body diameters that translate to higher stability and increased torque transmission.

Kennametal Collet Chucks
TG Collet Series

A single-angle collet that grips 1:3 tightening torque versus grip torque without a stop screw.

ER Collet Series

An international standard-style collet that can be used in machining applications such as milling, reaming, tapping, and grinding.

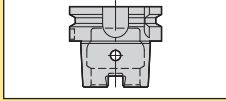
Kennametal Shell Mill Adapters

All units come standard with a new coolant to the cutting edge capability. This improves tool life and chip control. Shell mill adapters are available in extended lengths and a range of small mounting diameters.

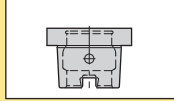


ERICKSON Toolholder Options

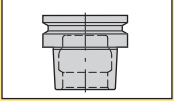
HSK40A • HSK50A • HSK63T
HSK63A • HSK80A • HSK100A



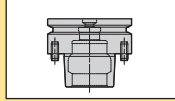
HSK32C • HSK40C
HSK50C • HSK63C



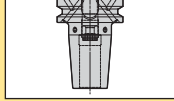
HSK40E • HSK50E



HSK63FP • HSK80FP



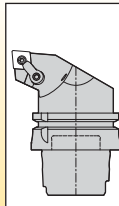
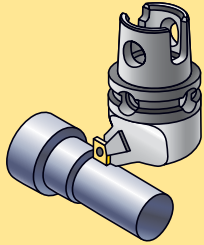
BTKV40 • BTKV50



CVKV40 • CVKV50



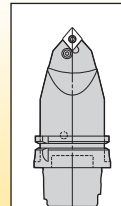
External Turning



M-Clamping

HSK63T

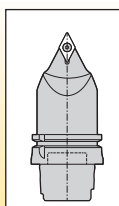
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**P-Clamping
(Centerline)**

HSK63T

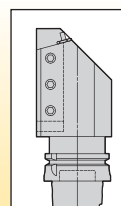
Pages: C35–C36



**S-Clamping
(Centerline)**

HSK63T

Page: C37

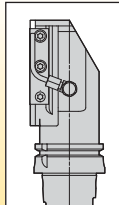
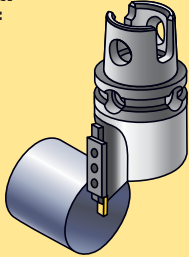


**STA and ETA
Square Shank
Adapters**

HSK63T

Pages: C33–C34

External Cut-Off

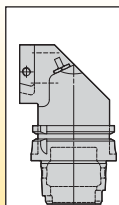
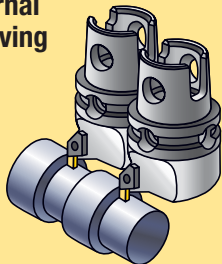


A2™

HSK63T

Page: C39

External Grooving



**A3™/A4™
Modular**

HSK63T

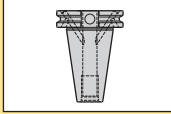
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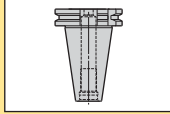
BT30 • BT40 • BT50



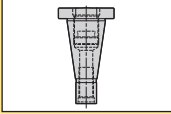
CV40 • CV50



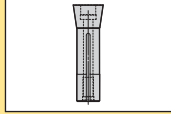
DV40 • DV50



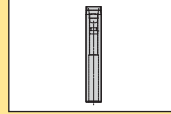
QC30 • QC40 • QC50



R8

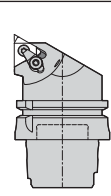
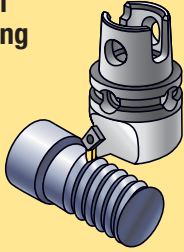


SS



**ERICKSON
Toolholder
Options**

**External
Threading**

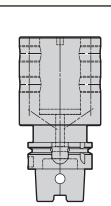
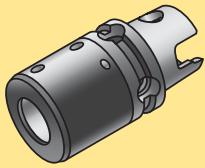


LT Threading

HSK63T

Page: C40

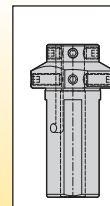
Turning Adapters



**Boring Bar
Adapters**

HSK63T

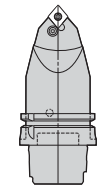
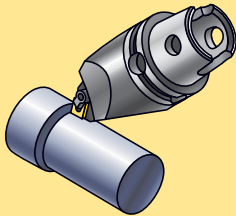
Pages: C41–C42



**Boring Bar
Sleeves**

Page: A570

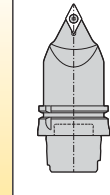
**External
Centerline**



P-Clamping

HSK63T

Pages: C35–C36



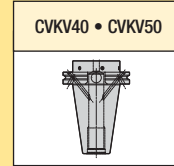
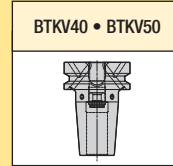
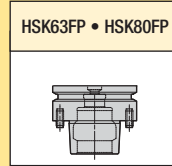
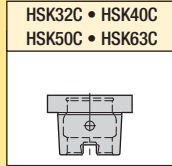
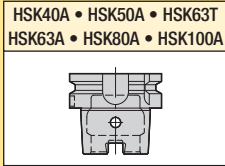
S-Clamping

HSK63T

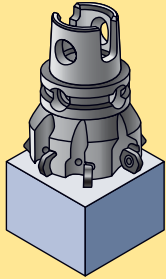
Page: C37

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ERICKSON Toolholder Options



Milling



Shrink Fit

	HSK40A	Pages: C8–C11	HSK40E	Pages: C147–C149	BT50	Pages: E66–E69
	HSK50A	Pages: C24–C25	HSK50E	Page: C155	CV40	Pages: F6–F9
	HSK63T		HSK63F	Page: C159	CV50	Pages: F44–F47
	HSK63A	Pages: C46–C50	HSK80F	Page: C163	DV40	Pages: G6–G9
	HSK80A	Pages: C76–C79	BTKV40	Pages: D4–D7	DV50	Pages: G46–G49
	HSK100A	Pages: C96–C99	BTKV50	Pages: D22–D25	QC30	
	HSK32C		CVKV40	Pages: D40–D43	QC40	
	HSK40C		CVKV50	Pages: D54–D57	QC50	
	HSK50C		BT30	Pages: E24–E27	R8	
	HSK63C		BT40	Page: E4–E6	Straight Shanks		Pages: I4–I5

Shrink Fit SAFE-LOCK

SAFE-LOCK™
by HAIMER

	HSK40A		HSK40E		BT50	Page: E64	
	HSK50A		HSK50E		CV40	Page: F5	
	HSK63T		HSK63F		CV50	Pages: F42–F43	
	HSK63A		Page: C45		HSK80F	DV40	Page: G5
	HSK80A				BTKV40	DV50	Page: G44
	HSK100A	Pages: C94–C95	BTKV50	QC30			
	HSK32C		CVKV40	QC40			
	HSK40C		CVKV50	QC50			
	HSK50C		BT30	R8			
	HSK63C		BT40	Page: E23		Straight Shanks	

Milling Chucks

	HSK40A		HSK40E		BT50	Page: E75	
	HSK50A		HSK50E		CV40	Page: F17	
	HSK63T		HSK63F		CV50	Page: F55	
	HSK63A		Page: C56		HSK80F	DV40	Page: G15
	HSK80A				BTKV40	DV50	Page: G54
	HSK100A	Page: C104	BTKV50	QC30			
	HSK32C		CVKV40	QC40			
	HSK40C		CVKV50	QC50			
	HSK50C		BT30	Page: E8		R8	
	HSK63C		BT40	Page: E33		Straight Shanks	

TG Collet Chucks

	HSK40A	Page: C16	HSK40E		BT50	Page: E76
	HSK50A	Page: C27	HSK50E		CV40	Pages: F18–F20
	HSK63T		HSK63F		CV50	Pages: F56–F60
	HSK63A	Page: C57	HSK80F		DV40	Pages: G16–G17
	HSK80A	Page: C82	BTKV40		Page: D8	DV50	Pages: G55–G56
	HSK100A	Page: C105	BTKV50	Page: D26	QC30	Page: H4
	HSK32C		CVKV40	Page: D45	QC40	Page: H11
	HSK40C		CVKV50	Page: D58	QC50	Page: H19
	HSK50C		BT30	Page: E9	R8	
	HSK63C		BT40	Page: E34	Straight Shanks	Pages: I6–I7

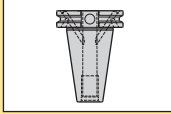
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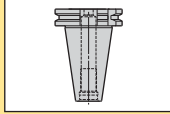
BT30 • BT40 • BT50



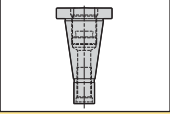
CV40 • CV50



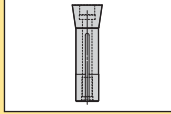
DV40 • DV50



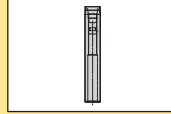
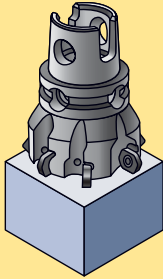
QC30 • QC40 • QC50



R8



SS


**ERICKSON
Toolholder
Options**
Milling (continued)

Hydraulic Chucks

	HSK40A	Pages: C12–C15	HSK40E	Page: C150	BT50	Pages: E70–E74
	HSK50A	Page: C26	HSK50E	Page: C156	CV40	Pages: F10–F16
	HSK63T		HSK63F		CV50	Pages: F48–F54
	HSK63A	Pages: C52–C55	HSK80F		DV40	Pages: G10–G14
	HSK80A	Pages: C80–C81	BTKV40		DV50	Pages: G50–G53
	HSK100A	Pages: C100–C103	BTKV50		QC30	
	HSK32C	Page: C124	CVKV40		QC40	
	HSK40C	Pages: C128–C130	CVKV50		QC50	
	HSK50C	Pages: C136–C137	BT30	R8		
	HSK63C	Pages: C141–C142	BT40	Pages: E28–E32	Straight Shanks	

ER Collet Chucks

	HSK40A	Page: C17	HSK40E	Page: C151	BT50	Pages: E77–E79
	HSK50A	Pages: C28–C29	HSK50E		CV40	Pages: F21–F23
	HSK63T		HSK63F	Page: C160	CV50	Pages: F61–F63
	HSK63A	Pages: C58–C59	HSK80F	Page: C164	DV40	Pages: G18–G21
	HSK80A	Pages: C83–C84	BTKV40	Pages: D10–D11	DV50	Pages: G57–G59
	HSK100A	Pages: C106–C107	BTKV50	Pages: D28–D29	QC30	
	HSK32C	Page: C125	CVKV40	Pages: D46–D47	QC40	
	HSK40C	Page: C131	CVKV50	Pages: D60–D61	QC50	
	HSK50C	Page: C138	BT30	Pages: E10–E11	R8	
	HSK63C	Page: C143	BT40	Pages: E35–E37	Straight Shanks	Pages: I8–I11

DA Collet Chucks

	HSK40A		HSK40E		BT50	Page: E80
	HSK50A		HSK50E		CV40	Page: F24
	HSK63T		HSK63F		CV50	Page: F64
	HSK63A		HSK80F		DV40	Pages: G22–G25
	HSK80A		BTKV40		DV50	Pages: G60–G61
	HSK100A		BTKV50		QC30	Page: H5
	HSK32C		CVKV40		QC40	Page: H12
	HSK40C		CVKV50		QC50	
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Whistle Notch™ Adapters

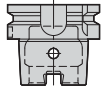
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	HSK63T		HSK63F		CV50	Pages: F66–F68
	HSK63A	Pages: C60–C61	HSK80F		DV40	Pages: G27–G28
	HSK80A	Page: C85	BTKV40		DV50	Pages: G63–G64
	HSK100A	Pages: C108–C109	BTKV50		QC30	
	HSK32C		CVKV40		QC40	
	HSK40C	Page: C132	CVKV50		QC50	
	HSK50C	Page: C139	BT30		R8	
	HSK63C	Page: C144	BT40		Page: E14	Straight Shanks

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(continued)

**ERICKSON
Toolholder
Options**

HSK40A • HSK50A • HSK63T
HSK63A • HSK80A • HSK100A



HSK32C • HSK40C
HSK50C • HSK63C



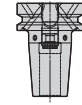
HSK40E • HSK50E



HSK63FP • HSK80FP



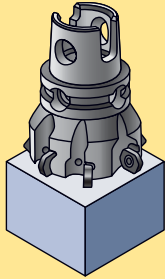
BTKV40 • BTKV50



CVKV40 • CVKV50



Milling (continued)



End Mill Adapters

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	HSK50A		HSK50E		CV40	Pages: F28–F29	
	HSK63T		HSK63F		CV50	Pages: F70–F72	
	HSK63A		Page: C62		HSK80F	DV40	Pages: G29–G30
	HSK80A	Page: C86	BTKV40		Pages: D12–D13	DV50	Pages: G65–G66
	HSK100A	Page: C110	BTKV50		Pages: D30–D31	QC30	Page: H6
	HSK32C		CVKV40		Page: D48	QC40	Page: H14
	HSK40C		CVKV50		Page: D63	QC50	Page: H20
	HSK50C		BT30		Page: E15	R8	Page: H27
	HSK63C		BT40		Pages: E43–E45	Straight Shanks	

Shell Mill Adapters

	HSK40A	Page: C20	HSK40E	Page: C152	BT50	Pages: E86–E88
	HSK50A	Page: C30	HSK50E		CV40	Page: F32
	HSK63T		HSK63F		CV50	Pages: F76–F77
	HSK63A		Pages: C65–C66		HSK80F	Page: C165	DV40	Pages: G32–G33
	HSK80A	Pages: C87–C88	BTKV40	Pages: D16–D17	DV50	Pages: G68–G69
	HSK100A	Pages: C114–C115	BTKV50	Pages: D34–D35	QC30	Page: H7
	HSK32C		CVKV40	Page: D50	QC40	Page: H15
	HSK40C		CVKV50	Page: D65	QC50	Page: H21
	HSK50C		BT30	Pages: E16–E17	R8	Page: H27
	HSK63C		BT40	Pages: E50–E52	Straight Shanks	

Tunable Shell Mill Adapters

	HSK40A		HSK40E		BT50	Pages: E84–E85
	HSK50A		HSK50E		CV40	Page: F31
	HSK63T		HSK63F		CV50	Page: F75
	HSK63A	Page: C64	HSK80F		DV40	Page: G31
	HSK80A		BTKV40	Pages: D14–D15	DV50	Page: G67
	HSK100A	Pages: C112–C113	BTKV50	Pages: D32–D33	QC30	
	HSK32C		CVKV40	Page: D49	QC40	
	HSK40C		CVKV50	Page: D64	QC50	
	HSK50C		BT30		R8	
	HSK63C		BT40	Pages: E48–E49	Straight Shanks	

Combi Shell Adapters

	HSK40A		HSK40E		BT50	Page: E89
	HSK50A		HSK50E		CV40	
	HSK63T		HSK63F		CV50	
	HSK63A	Page: C67	HSK80F		DV40		Page: G34
	HSK80A	Page: C89	BTKV40		DV50	Page: G70
	HSK100A	Page: C116	BTKV50		QC30	
	HSK32C		CVKV40		QC40	
	HSK40C		CVKV50		QC50	
	HSK50C		BT30		R8	
	HSK63C		BT40		Page: E53	

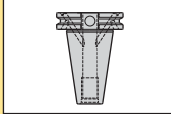
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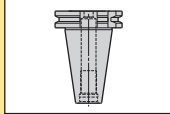
BT30 • BT40 • BT50



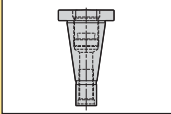
CV40 • CV50



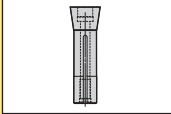
DV40 • DV50



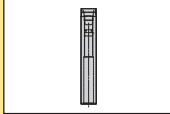
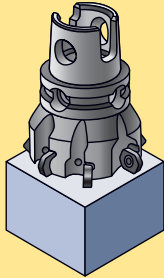
QC30 • QC40 • QC50



R8



SS


**ERICKSON
Toolholder
Options**
Milling *(continued)*

Slotting Cutter Adapters

	HSK40A		HSK40E		BT50	Page: E90	
	HSK50A		HSK50E		CV40	Page: F33	
	HSK63T		HSK63F		CV50	Page: F77	
	HSK63A	Page: C68	HSK80F		DV40		
	HSK80A		BTKV40		DV50		
	HSK100A	Page: C117	BTKV50		QC30		
	HSK32C		CVKV40		QC40		
	HSK40C		CVKV50		QC50		Page: H22
	HSK50C		BT30		R8		
	HSK63C		BT40		Page: E54		Straight Shanks	Page: I27

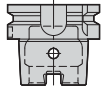
Screw-On Adapters

	HSK40A	Page: C21	HSK40E	Page: C153	BT50	Page: E90
	HSK50A	Page: C31	HSK50E	Page: C157	CV40	Page: F34
	HSK63T		HSK63F		CV50	Page: F78
	HSK63A	Page: C69	HSK80F		DV40	Page: G35
	HSK80A		BTKV40		DV50	Page: G71
	HSK100A	Page: C117	BTKV50		QC30	
	HSK32C		CVKV40		QC40	
	HSK40C		CVKV50		QC50	
	HSK50C		BT30		Page: E18		R8
	HSK63C		Page: E55		BT40	Page: E55	Straight Shanks	Pages: I23–I26

Indicates "Not Available".

ERICKSON Toolholder Options

HSK40A • HSK50A • HSK63T
HSK63A • HSK80A • HSK100A



HSK32C • HSK40C
HSK50C • HSK63C



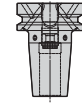
HSK40E • HSK50E



HSK63FP • HSK80FP



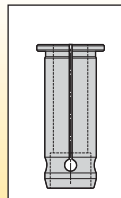
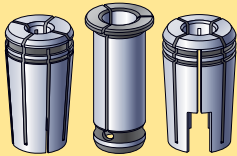
BTKV40 • BTKV50



CVKV40 • CVKV50

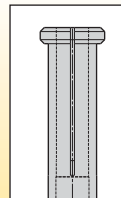


Milling Collets and Sleeves



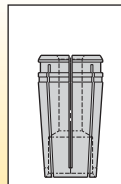
Milling Sleeves

Pages: J6–J9



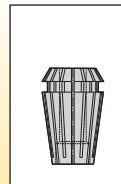
Hydraulic Sleeves

Pages: J2–J5



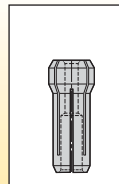
TG Collets

Pages: J14–J19, J22–J27, J30–J38, J42–J47



ER Collets

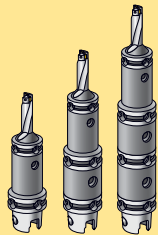
Pages: J54–J57



DA Collets

Pages: J65–J69

Modular



KM™ Modular

	HSK40A		HSK40E		BT50	Page: E94
	HSK50A		HSK50E		CV40	Page: F38
	HSK63T		Page: C41		HSK63F	CV50	Page: F82
	HSK63A	Page: C72	HSK80F		DV40	Page: G39
	HSK80A		BTKV40		Page: D18	DV50	Page: G75
	HSK100A	Page: C120	BTKV50	Page: D36	QC30	
	HSK32C		CVKV40	Page: D51	QC40	
	HSK40C		CVKV50	Page: D66	QC50	
	HSK50C		BT30	Page: E18	R8	
	HSK63C		BT40	Page: E59	Straight Shanks	

HSK Modular

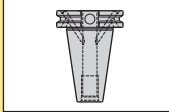
	HSK40A		HSK40E		BT50	Page: E95
	HSK50A		HSK50E		CV40	Page: F39
	HSK63T		Page: C72		HSK63F	CV50	Page: F83
	HSK63A	Page: C72	HSK80F		DV40	Page: G40
	HSK80A		BTKV40		Page: D18	DV50	Page: G76
	HSK100A	Page: C120	BTKV50	Page: D36	QC30	
	HSK32C		CVKV40	Page: D51	QC40	
	HSK40C		CVKV50	Page: D66	QC50	
	HSK50C		BT30	Page: E18	R8	
	HSK63C		BT40	Page: E59	Straight Shanks	

Indicates "Not Available".

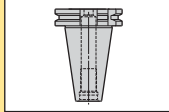
BT30 • BT40 • BT50



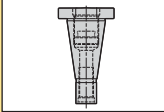
CV40 • CV50



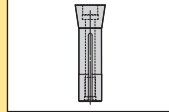
DV40 • DV50



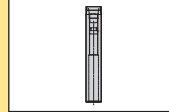
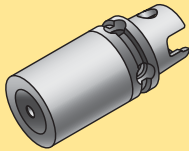
QC30 • QC40 • QC50



R8



SS


**ERICKSON
Toolholder
Options**
Auxilliary

Blanks

	HSK40A	Page: C21	HSK40E	Page: C153	BT50	Page: E95
	HSK50A	Page: C31	HSK50E		CV40	Page: F39
	HSK63T	Page: C40	HSK63F		CV50	Page: F83
	HSK63A	Page: C73	HSK80F		DV40	Page: G41
	HSK80A	Page: C90	BTKV40	Page: D19	DV50	Page: G77
	HSK100A	Page: C121	BTKV50	Page: D37	QC30	
	HSK32C	Page: C125	CVKV40	Page: D51	QC40	
	HSK40C	Page: C133	CVKV50	Page: D67	QC50	
	HSK50C	Page: C139	BT30		R8	
	HSK63C	Page: C145	BT40	Page: E60	Straight Shanks	

Plugs

	HSK40A		HSK40E		BT50	
	HSK50A		HSK50E		CV40	
	HSK63T		HSK63F		CV50	
	HSK63A	Page: L54	HSK80F		DV40	
	HSK80A		BTKV40		DV50	
	HSK100A	Page: L54	BTKV50		QC30	
	HSK32C		CVKV40		QC40	
	HSK40C		CVKV50		QC50	
	HSK50C		BT30		R8	
	HSK63C		BT40		Straight Shanks	

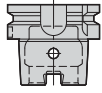
Gage Bars

	HSK40A		HSK40E		BT50	
	HSK50A		HSK50E		CV40	
	HSK63T		HSK63F		CV50	
	HSK63A	Page: C73	HSK80F		DV40	
	HSK80A		BTKV40		DV50	
	HSK100A	Page: C121	BTKV50		QC30	
	HSK32C		CVKV40		QC40	
	HSK40C		CVKV50		QC50	
	HSK50C		BT30		R8	
	HSK63C		BT40		Straight Shanks	

Indicates "Not Available".

ERICKSON Toolholder Options

HSK40A • HSK50A • HSK63T
HSK63A • HSK80A • HSK100A



HSK32C • HSK40C
HSK50C • HSK63C



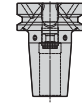
HSK40E • HSK50E



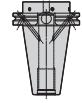
HSK63FP • HSK80FP



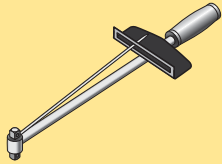
BTKV40 • BTKV50



CVKV40 • CVKV50



Accessories



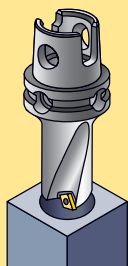
Coolant Units

	HSK40A	Page: L56	HSK40E	Page: L56	BT50	
	HSK50A	Page: L56	HSK50E	Page: L56	CV40	
	HSK63T	Page: L56	HSK63F	Page: L56	CV50	
	HSK63A	Page: L56	HSK80F	Page: L56	DV40	
	HSK80A	Page: L56	BTKV40		DV50	
	HSK100A	Page: L56	BTKV50		QC30	
	HSK32C		CVKV40		QC40	
	HSK40C		CVKV50		QC50	
	HSK50C		BT30		R8	
	HSK63C		BT40		Straight Shanks	

Retention Knobs

	HSK40A		HSK40E		BT50	Pages: L57–L62
	HSK50A		HSK50E		CV40	Pages: L57–L62
	HSK63T		HSK63F		CV50	Pages: L57–L62
	HSK63A		HSK80F		DV40	Pages: L57–L62
	HSK80A		BTKV40		DV50	Pages: L57–L62
	HSK100A		BTKV50		QC30	
	HSK32C		CVKV40		QC40	
	HSK40C		CVKV50		QC50	
	HSK50C		BT30		R8	
	HSK63C		BT40		Straight Shanks	

Drilling



Shrink Fit

	HSK40A	Pages: C8–C11	HSK40E	Pages: C147–C149	BT50	Pages: E66–E69	
	HSK50A	Pages: C24–C25	HSK50E	Page: C155	CV40	Pages: F6–F9	
	HSK63T		HSK63F	Page: C159	CV50	Pages: F44–F47	
	HSK63A		Pages: C46–C50	HSK80F	Page: C163	DV40	Pages: G6–G9
	HSK80A		Pages: C76–C79	BTKV40	Pages: D4–D7	DV50	Pages: G46–G49
	HSK100A		Pages: C96–C99	BTKV50	Pages: D22–D25	QC30	
	HSK32C			CVKV40	Pages: D40–D43	QC40	
	HSK40C			CVKV50	Pages: D54–D57	QC50	
	HSK50C			BT30	Pages: E4–E6	R8	
	HSK63C			BT40	Pages: E24–E27	Straight Shanks		Pages: I4–I5

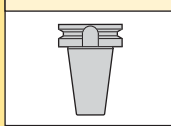
Slim Line Hydraulic

	HSK40A	Pages: C12–C13	HSK40E		BT50	Pages: E70–E71	
	HSK50A		HSK50E		CV40	Pages: F10–F11	
	HSK63T		HSK63F		CV50	Pages: F48–F49	
	HSK63A	Pages: C52–C53	HSK80F		BTKV40	DV40	Pages: G10–G11
	HSK80A		BTKV50		DV50	Pages: G50–G51	
	HSK100A		Pages: C100–C101		BTKV50	QC30	
	HSK32C		CVKV40		QC40		
	HSK40C		Pages: C128–C129		CVKV50	QC50	
	HSK50C				BT30	R8	
	HSK63C				BT40	Pages: E28–E29	

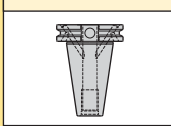
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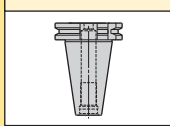
BT30 • BT40 • BT50



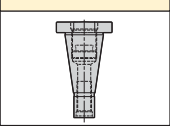
CV40 • CV50



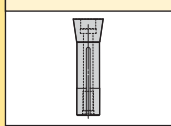
DV40 • DV50



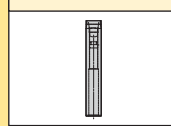
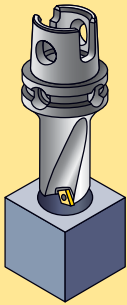
QC30 • QC40 • QC50



R8



SS


**ERICKSON
Toolholder
Options**
Drilling (continued)

Hydraulic Chucks

	HSK40A	Pages: C12–C15	HSK40E	Page: C150	BT50	Pages: E70–E74
	HSK50A	Page: C26	HSK50E	Page: C156	CV40	Pages: F10–F16
	HSK63T		HSK63F		CV50	Pages: F48–F54
	HSK63A	Pages: C52–C55	HSK80F		DV40	Pages: G10–G14
	HSK80A	Pages: C80–C81	BTKV40		DV50	Pages: F50–F53
	HSK100A	Pages: C100–C103	BTKV50		QC30	
	HSK32C	Page: C124	CVKV40		QC40	
	HSK40C	Pages: C128–C130	CVKV50		QC50	
	HSK50C	Pages: C136–C137	BT30		R8	
	HSK63C	Pages: C141–C142	BT40		Pages: E28–E32		Straight Shanks

Milling Chucks

	HSK40A		HSK40E		BT50	Page: E75
	HSK50A		HSK50E		CV40	Page: F17
	HSK63T		HSK63F		CV50	Page: F55
	HSK63A	Page: C56	HSK80F		DV40	Page: G15
	HSK80A		BTKV40		DV50	Page: G54
	HSK100A	Page: C104	BTKV50		QC30	
	HSK32C		CVKV40		QC40	
	HSK40C		CVKV50		QC50	
	HSK50C		BT30		R8	
	HSK63C		BT40		Page: E33		Straight Shanks

TG Collet Chucks

	HSK40A	Page: C16	HSK40E		BT50	Page: E76
	HSK50A	Page: C27	HSK50E		CV40	Pages: F18–F20
	HSK63T		HSK63F		CV50	Pages: F56–F60
	HSK63A	Page: C57	HSK80F		DV40	Pages: G16–G17
	HSK80A	Page: C82	BTKV40		DV50	Pages: G55–G56
	HSK100A	Page: C105	BTKV50		QC30	Page: H4
	HSK32C		CVKV40		QC40	Page: H11
	HSK40C		CVKV50		QC50	Page: H19
	HSK50C		BT30		R8	
	HSK63C		BT40		Page: E34	Straight Shanks	Pages: I6–I7

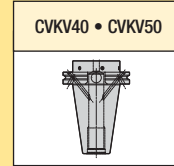
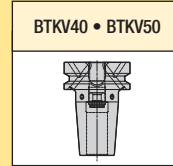
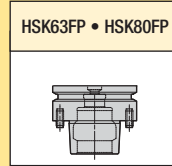
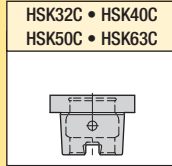
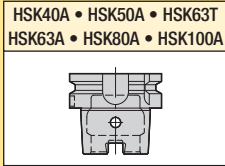
ER Collet Chucks

	HSK40A	Page: C17	HSK40E	Page: C151	BT50	Pages: E77–E79
	HSK50A	Pages: C28–C29	HSK50E		CV40	Pages: F21–F23
	HSK63T		HSK63F	Page: C160	CV50	Pages: F61–F63
	HSK63A	Pages: C58–C59	HSK80F	Page: C164	DV40	Pages: G18–G21
	HSK80A	Pages: C83–C84	BTKV40	Pages: D10–D11	DV50	Pages: G57–G59
	HSK100A	Pages: C106–C107	BTKV50	Pages: D28–D29	QC30	
	HSK32C	Page: C125	CVKV40	Pages: D46–D47	QC40	
	HSK40C	Page: C131	CVKV50	Pages: D60–D61	QC50	
	HSK50C	Page: C138	BT30	Pages: E10–E11	R8	
	HSK63C	Page: C143	BT40	Pages: E35–E37	Straight Shanks	

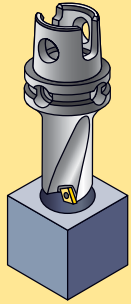
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ERICKSON Toolholder Options



Drilling (continued)



DA Collet Chucks

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	HSK50A		HSK50E		CV40	Page: F24	
	HSK63T		HSK63F		CV50	Page: F64	
	HSK63A		HSK80F		DV40	Pages: G22–G25	
	HSK80A		BTKV40		DV50	Pages: G60–G61	
	HSK100A		BTKV50		QC30	Page: H5	
	HSK32C		CVKV40		QC40	Page: H12	
	HSK40C		CVKV50		QC50		
	HSK50C		BT30		Pages: E12–E13	R8	Page: H26
	HSK63C		BT40		Pages: E38–E39	Straight Shanks	Pages: I12–I22

Drill Chucks

	HSK40A		HSK40E		BT50	Page: E80	
	HSK50A		HSK50E		CV40	Page: F25	
	HSK63T		HSK63F		CV50	Page: F65	
	HSK63A		Page: C60		HSK80F	DV40	Page: G26
	HSK80A				BTKV40	DV50	Page: G62
	HSK100A		Page: C108		BTKV50	QC30	
	HSK32C				CVKV40	QC40	
	HSK40C				CVKV50	QC50	
	HSK50C				BT30	Page: E14		R8
	HSK63C				BT40	Page: E40	Straight Shanks

Whistle Notch™ Adapters

	HSK40A	Page: C18	HSK40E		BT50	Pages: E81–E82	
	HSK50A		HSK50E		CV40	Pages: F26–F27	
	HSK63T		HSK63F		CV50	Pages: F66–F68	
	HSK63A		Pages: C60–C61		HSK80F	DV40	Pages: G27–G28
	HSK80A		Page: C85		BTKV40	DV50	Pages: G63–G64
	HSK100A		Pages: C108–C109		BTKV50	QC30	
	HSK32C				CVKV40	QC40	
	HSK40C		Page: C132		CVKV50	QC50	
	HSK50C		Page: C139		BT30	Page: E14		R8
	HSK63C		Page: C144		BT40	Pages: E41–E42	Straight Shanks

Straight Shanks

	HSK40A		HSK40E		BT50		
	HSK50A		HSK50E		CV40	Page: F30	
	HSK63T		HSK63F		CV50	Pages: F73–F74	
	HSK63A		Page: C63		HSK80F	DV40	
	HSK80A				BTKV40	DV50	
	HSK100A				BTKV50	QC30	
	HSK32C				CVKV40	QC40	
	HSK40C					CVKV50	QC50
	HSK50C		BT30		R8		
	HSK63C		BT40		Page: E46	Straight Shanks	

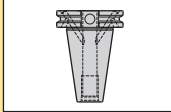
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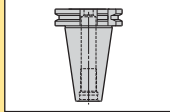
BT30 • BT40 • BT50



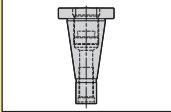
CV40 • CV50



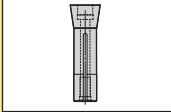
DV40 • DV50



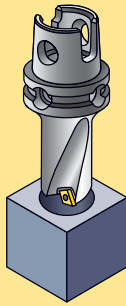
QC30 • QC40 • QC50



R8



SS


**ERICKSON
Toolholder
Options**
Drilling *(continued)*

Morse Tapers

	HSK40A		HSK40E		BT50	Page: E92
	HSK50A		HSK50E		CV40	Page: F36
	HSK63T		HSK63F		CV50	Page: F80
	HSK63A	Page: C70	HSK80F		DV40	Page: G37
	HSK80A		BTKV40		DV50	Page: G73
	HSK100A	Page: C118	BTKV50		QC30	Page: H8
	HSK32C		CVKV40		QC40	Page: H16
	HSK40C		CVKV50		QC50	Page: H22
	HSK50C		BT30		R8	
	HSK63C		BT40		Straight Shanks	
					Page: E57	

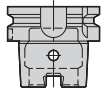
Jacobs/DIN

	HSK40A		HSK40E		BT50	Page: E92
	HSK50A		HSK50E		CV40	Page: F37
	HSK63T		HSK63F		CV50	Page: F81
	HSK63A		HSK80F		DV40	
	HSK80A		BTKV40		DV50	
	HSK100A		BTKV50		QC30	Page: H9
	HSK32C		CVKV40		QC40	Page: H17
	HSK40C		CVKV50		QC50	
	HSK50C		BT30		R8	
	HSK63C		BT40		Straight Shanks	
					Page: E57	

Indicates "Not Available".

ERICKSON Toolholder Options

HSK40A • HSK50A • HSK63T
HSK63A • HSK80A • HSK100A



HSK32C • HSK40C
HSK50C • HSK63C



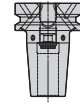
HSK40E • HSK50E



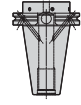
HSK63FP • HSK80FP



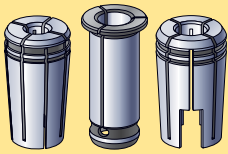
BTKV40 • BTKV50



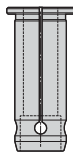
CVKV40 • CVKV50



Drilling Collets and Sleeves

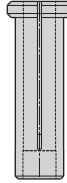


Milling Sleeves



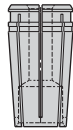
Pages: J6–J9

Hydraulic Sleeves



Pages: J2–J5

TG Collets



Pages: J14–J19, J22–J27, J30–J38, J42–J47

ER Collets



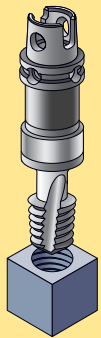
Pages: J54–J57

DA Collets



Pages: J65–J69

Tapping



RC Rapid Change • Tension and Compression

	HSK40A		HSK40E		BT50	Page: E91	
	HSK50A		HSK50E		CV40	Page: F35	
	HSK63T		HSK63F		CV50	Page: F79	
	HSK63A		Page: C70		HSK80F	DV40	Page: G36
	HSK80A				BTKV40	DV50	Page: G72
	HSK100A		Page: C118		BTKV50	QC30	
	HSK32C				CVKV40	QC40	
	HSK40C				CVKV50	QC50	
	HSK50C				BT30	R8	
	HSK63C				BT40	Straight Shanks	
	Page: E56						

RC Rapid Change • Solid

	HSK40A		HSK40E		BT50	Page: E91	
	HSK50A		HSK50E		CV40	Page: F36	
	HSK63T		HSK63F		CV50	Page: F80	
	HSK63A		HSK80F		DV40	Page: G36	
	HSK80A		BTKV40		DV50	Page: G73	
	HSK100A				BTKV50	QC30	
	HSK32C				CVKV40	QC40	
	HSK40C				CVKV50	QC50	
	HSK50C				BT30	R8	
	HSK63C				BT40	Straight Shanks	
	Page: E56						

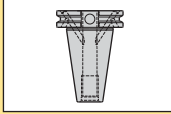
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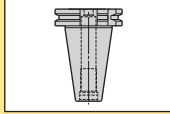
BT30 • BT40 • BT50



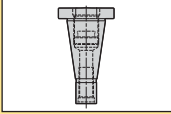
CV40 • CV50



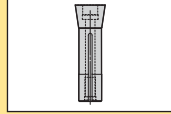
DV40 • DV50



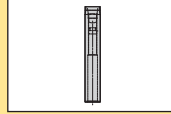
QC30 • QC40 • QC50



R8

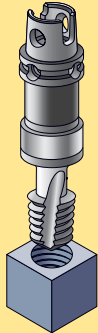


SS



**ERICKSON
Toolholder
Options**

Tapping *(continued)*



TG Collet Chucks

	HSK40A	Page: C16	HSK40E		BT50	Page: E76
	HSK50A	Page: C27	HSK50E		CV40	Pages: F18–F20
	HSK63T		HSK63F		CV50	Pages: F56–F60
	HSK63A	Page: C57	HSK80F		DV40	Pages: G16–G17
	HSK80A	Page: C82	BTKV40		DV50	Pages: G55–G56
	HSK100A	Page: C105	BTKV50		QC30	Page: H4
	HSK32C		CVKV40		QC40	Page: H11
	HSK40C		CVKV50		QC50	Page: H19
	HSK50C		BT30		R8	
	HSK63C		BT40		Straight Shanks	Pages: I6–I7

ER Collet Chucks

	HSK40A	Page: C17	HSK40E	Page: C151	BT50	Pages: E77–E79
	HSK50A	Pages: C28–C29	HSK50E		CV40	Pages: F21–F23
	HSK63T		HSK63F	Page: C160	CV50	Pages: F61–F63
	HSK63A	Pages: C58–C59	HSK80F	Page: C164	DV40	Pages: G18–G21
	HSK80A	Pages: C83–C84	BTKV40	Pages: D10–D11	DV50	Pages: G57–G59
	HSK100A	Pages: C106–C107	BTKV50	Pages: D28–D29	QC30	
	HSK32C	Page: C125	CVKV40	Pages: D46–D47	QC40	
	HSK40C	Page: C131	CVKV50	Pages: D60–D61	QC50	
	HSK50C	Page: C138	BT30	Pages: E10–E11	R8	
	HSK63C	Page: C143	BT40	Pages: E35–E37	Straight Shanks	Pages: I8–I11

DA Collet Chucks

	HSK40A		HSK40E		BT50	Page: E80
	HSK50A		HSK50E		CV40	Page: F24
	HSK63T		HSK63F		CV50	Page: F64
	HSK63A		HSK80F		DV40	Pages: G22–G25
	HSK80A		BTKV40		DV50	Pages: G60–G61
	HSK100A		BTKV50		QC30	Page: H5
	HSK32C		CVKV40		QC40	Page: H12
	HSK40C		CVKV50		QC50	
	HSK50C		BT30		R8	Page: H26
	HSK63C		BT40		Straight Shanks	Pages: I12–I22

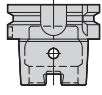
TA Adapters

	HSK40A		HSK40E		BT50	Page: E82
	HSK50A		HSK50E		CV40	Page: F27
	HSK63T		HSK63F		CV50	
	HSK63A		HSK80F		DV40	
	HSK80A		BTKV40		DV50	
	HSK100A		BTKV50		QC30	
	HSK32C		CVKV40		QC40	
	HSK40C		CVKV50		QC50	
	HSK50C		BT30		R8	
	HSK63C		BT40		Straight Shanks	

Indicates "Not Available".

ERICKSON Toolholder Options

HSK40A • HSK50A • HSK63T
HSK63A • HSK80A • HSK100A



HSK32C • HSK40C
HSK50C • HSK63C



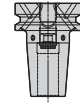
HSK40E • HSK50E



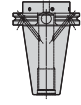
HSK63FP • HSK80FP



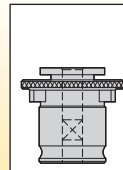
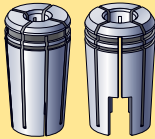
BTKV40 • BTKV50



CVKV40 • CVKV50

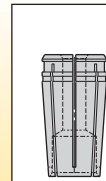


Tapping Collets and Adapters



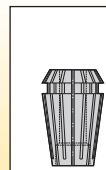
RC Rapid Change Adapters

Pages: J76–J81



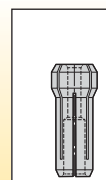
TG Collets

Pages: J20–J21, J28–J29, J40–J41, J48



ER Collets

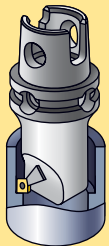
Pages: J58–J60



DA Collets

Pages: J71–J75

Boring



Indicates "Not Available".

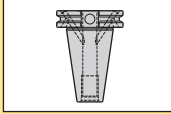
Romicron™

	HSK40A		HSK40E		BT50	Page: E93
	HSK50A		HSK50E		CV40	Page: F37
	HSK63T		HSK63F		CV50	Page: F81
	HSK63A	Page: C71	HSK80F		DV40	Page: G38
	HSK80A		BTKV40		DV50	Page: G74
	HSK100A	Page: C119	BTKV50		QC30	
	HSK32C		CVKV40		QC40	
	HSK40C		CVKV50		QC50	
	HSK50C		BT30		R8	
	HSK63C		BT40		Straight Shanks	
			Page: E58			

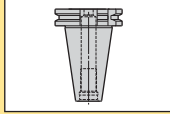
BT30 • BT40 • BT50



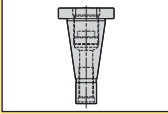
CV40 • CV50



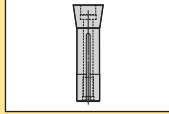
DV40 • DV50



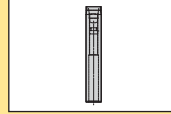
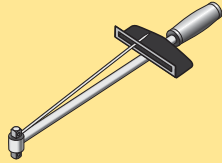
QC30 • QC40 • QC50



R8



SS

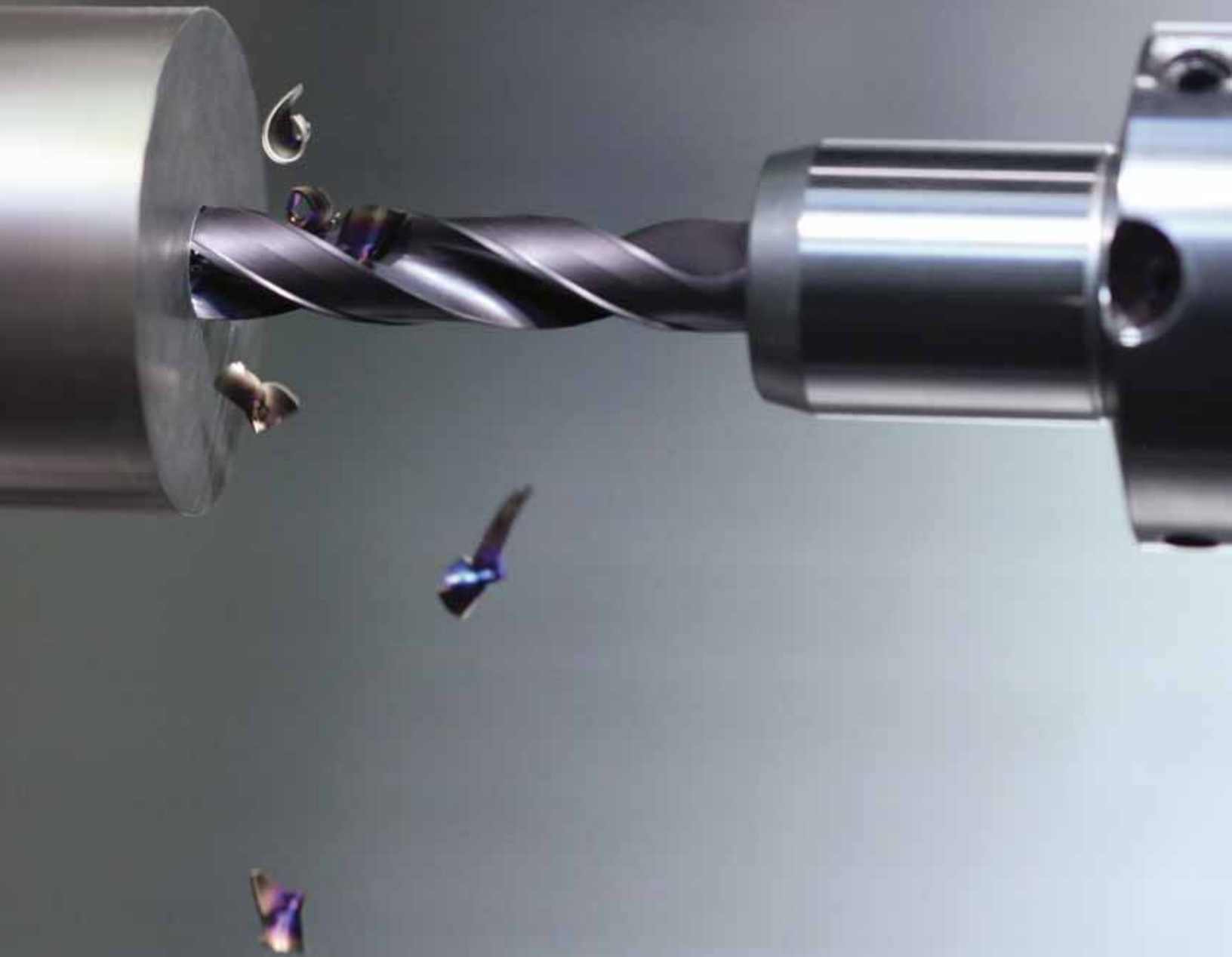

**ERICKSON
Toolholder
Options**
Accessories

Coolant Units

	HSK40A	Page: L44	HSK40E	Page: L44	BT50	
	HSK50A	Page: L44	HSK50E	Page: L44	CV40	
	HSK63T	Page: L44	HSK63F	Page: L44	CV50	
	HSK63A	Page: L44	HSK80F	Page: L44	DV40	
	HSK80A	Page: L44	BTKV40		DV50	
	HSK100A	Page: L44	BTKV50		QC30	
	HSK32C		CVKV40		QC40	
	HSK40C		CVKV50		QC50	
	HSK50C		BT30		R8	
	HSK63C		BT40		Straight Shanks	

Retention Knobs

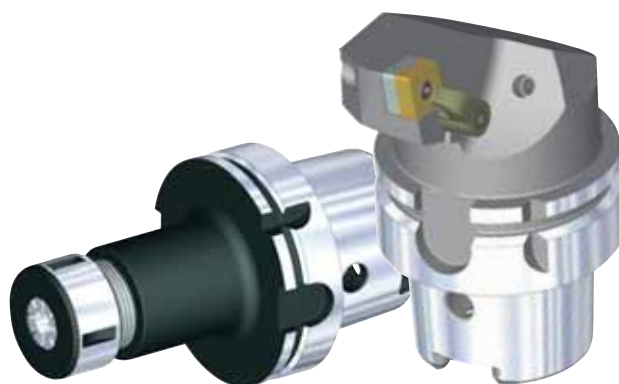
	HSK40A		HSK40E		BT50	Pages: L46–L50
	HSK50A		HSK50E		CV40	Pages: L46–L50
	HSK63T		HSK63F		CV50	Pages: L46–L50
	HSK63A		HSK80F		DV40	Pages: L46–L50
	HSK80A		BTKV40		DV50	Pages: L46–L50
	HSK100A		BTKV50	QC30		
	HSK32C		CVKV40	QC40		
	HSK40C		CVKV50	QC50		
	HSK50C		BT30	R8		
	HSK63C		BT40	Straight Shanks		

Indicates "Not Available".



HSK Shank Tools

Catalog Numbering System	C2–C5
HSK40A Shank Tools	C6–C21
HSK50A Shank Tools	C22–C31
HSK63T Adapters and Cutting Units	C32–C42
HSK63A Shank Tools	C44–C73
HSK80A Shank Tools	C74–C90
HSK100A Shank Tools	C92–C121
HSK32C Shank Tools	C122–C125
HSK40C Shank Tools	C126–C133
HSK50C Shank Tools	C134–C139
HSK63C Shank Tools	C140–C145
HSK40E Shank Tools	C146–C153
HSK50E Shank Tools	C154–C157
HSK63F (Pin) Shank Tools	C158–C160
HSK80F (Pin) Shank Tools	C162–C165

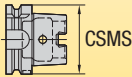
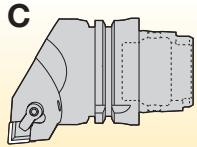








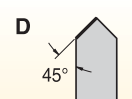
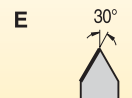
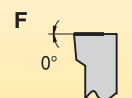

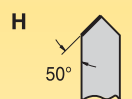

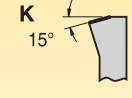

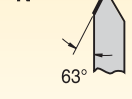
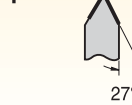
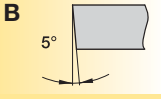
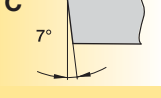


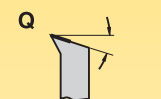
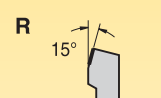
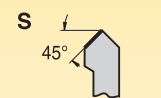
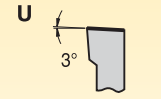

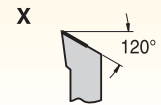
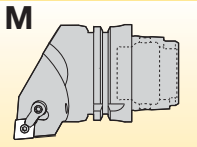
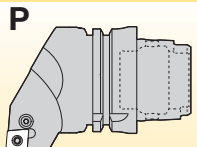
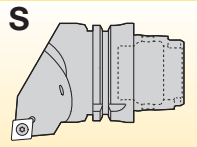


How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



HSK63TPCLNR1204

HSK	63	T	P	C	L	N
Shank Style	System Size	Form	Insert Holding Method	Insert Shape	Toolholder Style	Insert Clearance Angle
	<p>40 = 40mm 50 = 50mm 63 = 63mm 80 = 80mm 100 = 100mm</p> 		<p>C</p>  <p>Top clamping by clamping finger for inserts without hole</p>	<p>C </p> <p>D </p> <p>K </p> <p>R </p> <p>S </p> <p>T </p> <p>V </p> <p>W </p>	<p>D </p> <p>E </p> <p>F </p> <p>G </p> <p>H </p> <p>J </p> <p>K </p> <p>L </p> <p>N </p> <p>P </p>	<p>B </p> <p>C </p> <p>N </p> <p>P </p> <p>Q </p> <p>R </p> <p>S </p> <p>U </p> <p>V </p> <p>X </p>
	<p>A = Form A B = Form B C = Form C D = Form D E = Form E F = Form F T = Form T</p>		<p>M</p>  <p>Top and hole clamping for inserts with hole</p>			
			<p>P</p>  <p>Insert clamping by toggle lever for insert with hole</p>			
			<p>S</p>  <p>Center clamping by screw for inserts with hole</p>			

By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



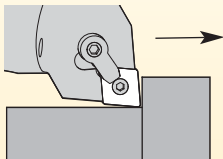
HSK63TPCLNR1204

R

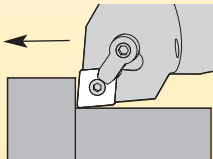
Hand of Tool

- R = Right hand
- L = Left hand
- N = Neutral

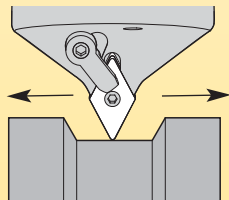
R



L



N



12

Insert Size
Cutting Edge
Length L10

Additional
Information

MX =
Ceramic
Inserts

04

Insert
Thickness

- 03 = .125"
- 04 = .188"
- 06 = .250"
- 07 = .312"

Gage
Length

- 30 = 30mm
- 45 = 45mm
- 120 = 120mm

Special
Features

- Y** = Mazak®
INTEGREX®
- M** = Metric

Metric

IC	C	D	K	R	S	T	V	W
3,97		04		03	03	06		
4,76	04	05		04	04	08	08	S3
5,56	05	06	03	05	05	09	09	03
6,00				06				
6,35	06	07	04	06	06	11	11	04
7,94	08	09	05	07	07	13	13	05
8,00				08			11	
9,52	09	11	06	09	09	16	16	06
10,00								
11,11	11	13	07	11	11	19	19	07
12,00				12				
12,70	12	15	08	12	12	22	22	08
14,29	14	17	09	14	14	24	24	09
15,88	16	19	10	15	15	27	27	10
16,00				16				
17,46	17	21	11	17	17	30	30	11
19,05	19	23	13	19	19	33	33	13
20,00				20				
22,22	22	27	15	22	22	38	38	15
25,00				25				
25,40	25	31	17	25	25	44	44	17
31,75	32	38	21	31	31	54	54	21
32,00				32				

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



HSK63ACHTG50100M

HSK

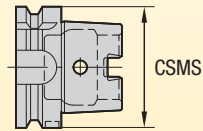
Shank
Style

JIS 6339

63

System
Size

- 25 = 25
- 32 = 32
- 40 = 40
- 50 = 50
- 63 = 63
- 80 = 80
- 100 = 100
- 125 = 125
- 160 = 160



A

Form

DIN Form

- A = Form A
- B = Form B
- C = Form C
- D = Form D
- E = Form E
- F = Form F

CH

Special Feature
(optional)

- CH = Coolant, high pressure
- HPV = High performance and balanceable
- TD = Tunable
- P = Pin style

By referencing this easy-to-use guide, you can identify the correct product to meet your needs.



HSK63ACHTG50100M

TG

Toolholder Style

50

Toolholder Size

100

Gage Length

M

Identification Values

TG =
Collet series xx (50), xxx (100)

EM =
I.D. size: metric — xx = xx, (20);
inch — xxx = x.xx, (075)

SM =
O.D. size: metric — xx = xx, (20);
inch — xxx = x.xx, (075)

(Taper gage line to front of tool)

metric
xxx = xxx

inch
xxx = x.xx

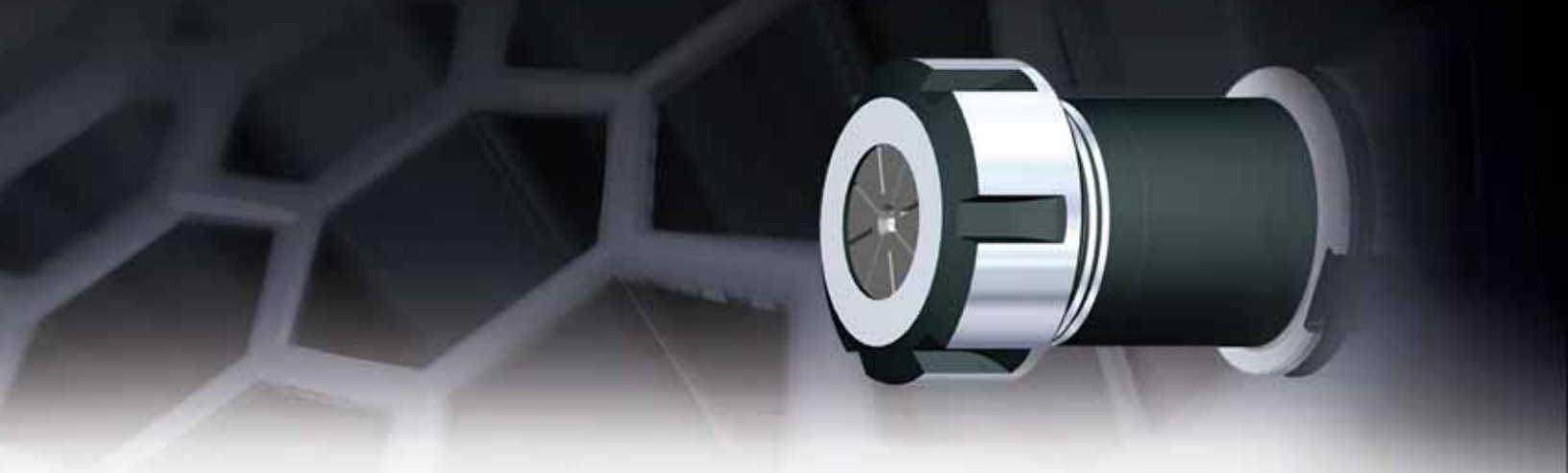
(blank) =
Tool built to inch values

M =
Tool built to metric values

BB = Bar blank
CS = Combination shell mill and slotting cutter adapter
DA = Double-angle collet chuck
DC = Drill chuck
EM = End mill adapter
ER = DIN 6499 single-angle collet chuck
GB = Gage bar
HC = Hydraulic chuck — Standard Line
HCB = Hydraulic chuck — Basic Line
HCSL = Hydraulic chuck — Slim Line
HCSLT = Hydraulic chuck — Slim Line — Trend
HCT = Hydraulic chuck — Trend Line
HPMC = Bearing milling chuck — high performance

HSK = HSK modular adapter
JT = Jacobs modular taper adapter
KM = KM™ adapter
KR = Romicon™ Boring Adapters
MT = Morse taper adapter
RC = Rapid Change — T&C tapping adapter chuck
SA = Slotting cutter adapter
SFHDTT = **SAFE-LOCK™** heavy-duty Shrink Fit thermo toolholder
SFTT = **SAFE-LOCK™** Shrink Fit thermo toolholder
SM2C = Shell mill adapter with coolant and small diameter
SMC = Shell mill adapter with coolant
SS = Adapter for straight shanks (drills)

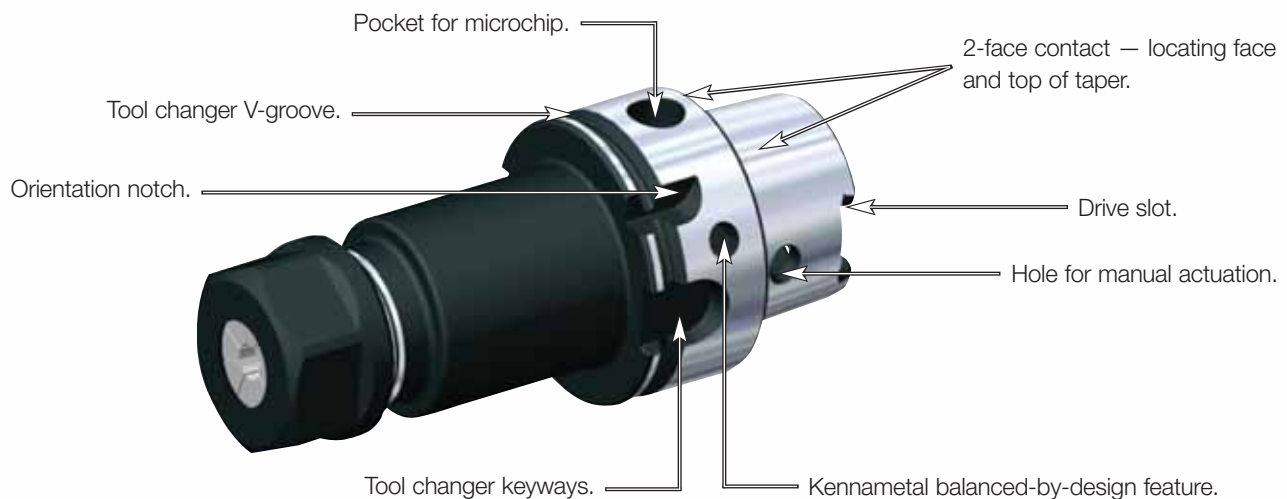
SSF = Adapter for straight shanks with flat (drills)
ST = Screw-on adapters
STRC = Rapid Change — solid tapping adapter chuck
SWN = Whistle Notch™ 2° — short — (not to DIN standard)
TA = Tap chuck adapter
TG = Tremendous Grip single-angle collet chuck
TT = Shrink Fit thermo toolholder
TTHT = Shrink Fit thermo toolholder — high torque
WD = Whistle Notch with drive
WN = Whistle Notch (2° metric; 5° inch)

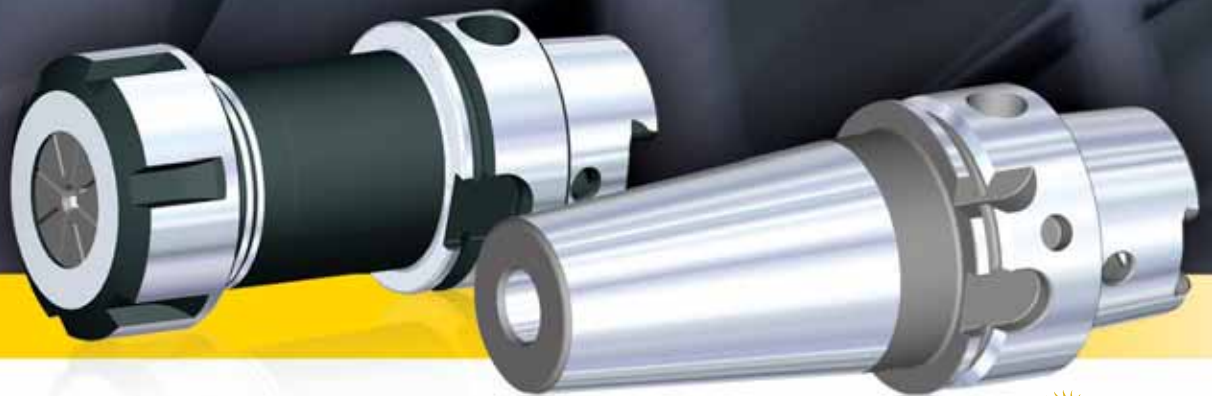


ERICKSON™ HSK Shank Tooling System • HSK40A Series

Primary Application

ERICKSON HSK Face Contact Short Taper Tooling is manufactured from premium materials and to the latest DIN/ISO specification standards. Form A versions generally used in machining centers and milling machines with automatic tool changers. The HSK40A tools are either pre-balanced to a high specification or balanced-by-design. For high speed applications Kennametal recommends that the complete toolholder assembly (toolholder, coolant tubes, collets, hardware, and cutting tools) be balanced as one entity. Exact RPM limits can only be determined by considering machine and spindle configurations in conjunction with tooling design and safety limits factored as a complete system.





Features and Benefits

- ISO 12164-1/DIN 69893-1 Form A 1:10 short taper.
- High axial and radial repeatability compared to CAT, BT, and DV V-flange 7/24 taper tooling.
- Maximum 100 bar (1,500 psi) coolant pressure.

HSK40A Shank Tools

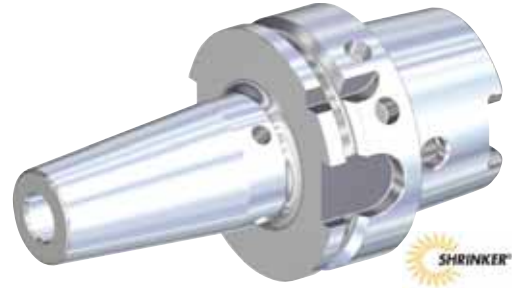
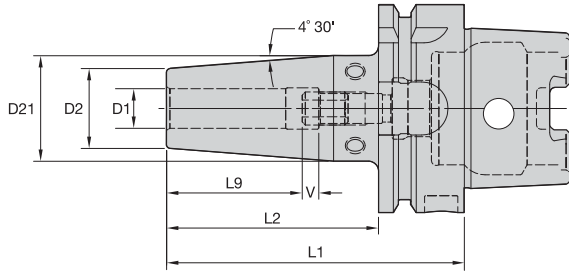
Shrink Fit Toolholders General Purpose (GP)



- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide and HSS cutting tools (requirements below).



HSK40A Shank Tools



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
3	h4	0,000/-0,003
4	h4	0,000/-0,004
5	h5	0,000/-0,005
6	h6	0,000/-0,008
8 & 10	h6	0,000/-0,009
12, 14, 16, & 18	h6	0,000/-0,011
20	h6	0,000/-0,013

ERICKSON™

■ TT GP HPV MM-HSK Form A



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	kg
3866456	HSK40AHPVTT03060M	3	9	13	60	32	14	10	TTSS05014M	2,5mm	0,26
3866457	HSK40AHPVTT04060M	4	9	13	60	32	15	10	TTSS05014M	2,5mm	0,26
3866458	HSK40AHPVTT05060M	5	9	13	60	32	15	10	TTSS06014M	3mm	0,26
3866459	HSK40AHPVTT06080M	6	21	27	80	60	26	10	TTSS05014M	2,5mm	0,40
3866460	HSK40AHPVTT08080M	8	21	27	80	60	26	10	TTSS06014M	3mm	0,40
3866461	HSK40AHPVTT10080M	10	24	32	80	60	31	10	TTSS08014M	4mm	0,46
3866462	HSK40AHPVTT12090M	12	24	32	90	70	36	10	TTSS10014M	5mm	0,50
3866563	HSK40AHPVTT14090M	14	27	34	90	70	36	10	TTSS10014M	5mm	0,55
3866564	HSK40AHPVTT16090M	16	27	34	90	70	39	10	TTSS12014M	6mm	0,52
3866565	HSK40AHPVTT18095M	18	33	41	95	95	39	10	TTSS12014M	6mm	0,70
3866566	HSK40AHPVTT20095M	20	33	41	95	95	41	10	TTSS16014M	8mm	0,66

(continued)

(TT GP HPV Form A continued)

Cutting Tool Shank Requirements
inch (industry standard)

cutting tool shank diameter	tolerance
1/4, 5/16, & 3/8	.0000/- .0004
1/2, 9/16, & 5/8	.0000/- .0004
3/4	.0000/- .0005

HSK40A Shank Tools

■ TT GP HPV IN-HSK Form A



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	lbs
3864029	HSK40AHPVTT025315	1/4	.83	1.06	3.15	2.36	1.02	.39	TTSS05014M	2,5mm	.89
3864031	HSK40AHPVTT031315	5/16	.83	1.06	3.15	2.36	1.02	.39	TTSS06014M	3mm	.87
3864032	HSK40AHPVTT038315	3/8	.94	1.26	3.15	2.36	1.22	.39	TTSS08014M	4mm	1.01
3864073	HSK40AHPVTT050354	1/2	.94	1.26	3.54	2.76	1.42	.39	TTSS10014M	5mm	1.09
3864074	HSK40AHPVTT056354	9/16	1.06	1.32	3.54	2.76	1.42	.39	TTSS10014M	5mm	1.21
3864075	HSK40AHPVTT062354	5/8	1.06	1.32	3.54	2.76	1.54	.39	TTSS12014M	6mm	1.16
3864076	HSK40AHPVTT075374	3/4	1.30	1.61	3.74	3.74	1.61	.39	TTSS16014M	8mm	1.49

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Shrink Fit technical section, see page M78.

Supplied with stop screw.

Adjusting stop screw gage, see page M81.

Shrink Fit accessories, see pages L12–L13.

Optional M6~1.0P x 5 lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.

HSK coolant unit and wrench are available and must be ordered separately; see page L44.

HSK40A Shank Tools

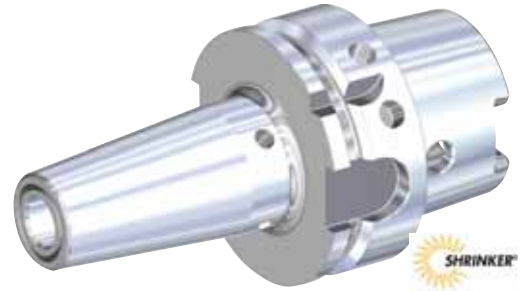
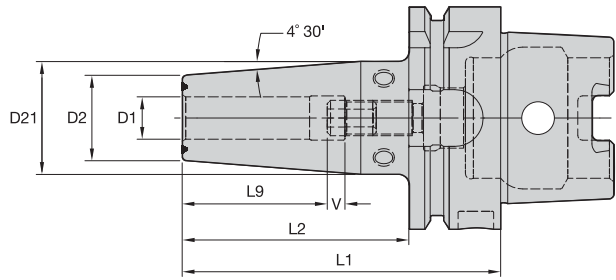
Shrink Fit Toolholders High Torque (HT)



- 30–50% higher clamping torque compared to GP line.
- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide only, designated by groove in front face (requirements below).
- 10 kW power or greater Shrink Fit device must be used.



HSK40A Shank Tools



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
12, 14, 16, & 18	h6	0,000/-0,011
20	h6	0,000/-0,013

ERICKSON

TT HT HPV MM-HSK Form A



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	kg
3866982	HSK40AHPVTHT12090M	12	24	32	90	71	36	10	TTSS10014M	5mm	0,50
3867174	HSK40AHPVTHT14090M	14	27	34	90	71	36	10	TTSS10014M	5mm	0,55
3867175	HSK40AHPVTHT16090M	16	27	34	90	71	39	10	TTSS12014M	6mm	0,52
3867176	HSK40AHPVTHT18095M	18	33	41	95	95	39	10	TTSS12014M	6mm	0,70
3867177	HSK40AHPVTHT20095M	20	33	41	95	95	41	10	TTSS16014M	8mm	0,66

(continued)

(TT HT HPV Form A continued)

**Cutting Tool Shank Requirements
inch (industry standard)**

cutting tool shank diameter	tolerance
1/2, 9/16, & 5/8	.0000/-0.0004
3/4	.0000/-0.0005

HSK40A Shank Tools

■ TT HT HPV IN-HSK Form A



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	lbs
3872696	HSK40AHPVTHT050354	1/2	.94	1.26	3.54	2.76	1.42	.39	TTSS10014M	5mm	1.09
3872697	HSK40AHPVTHT056354	9/16	1.06	1.32	3.54	2.76	1.42	.39	TTSS10014M	5mm	1.21
3872698	HSK40AHPVTHT062354	5/8	1.06	1.32	3.54	2.76	1.54	.39	TTSS12014M	6mm	1.16
3872699	HSK40AHPVTHT075374	3/4	1.30	1.61	3.74	3.74	1.61	.39	TTSS16014M	8mm	1.49

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Shrink Fit technical section, see page M78.

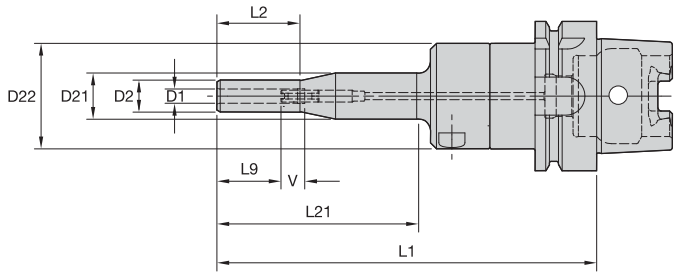
Supplied with stop screw.

Adjusting stop screw gage, see page M81.

Shrink Fit accessories, see pages L12–L13.

Optional M6~1.0P x 5 lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.

HSK coolant unit and wrench are available and must be ordered separately; see page L44.



HSK40A Shank Tools

ERICKSON™

■ HC Slim-T MM-HSK Form A

order number	catalog number	D1	D2	D21	D22	L1	L2	L9	L21	V	kg
3061264	HSK40AHCSLT06160M	6	13,5	19,5	44	160	35	27	85	10	0,81
3061265	HSK40AHCSLT08160M	8	15,5	19,5	44	160	35	27	85	10	0,82

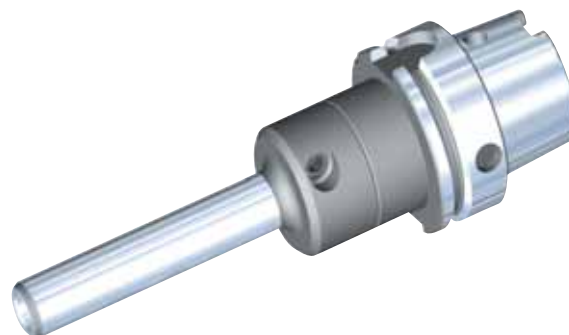
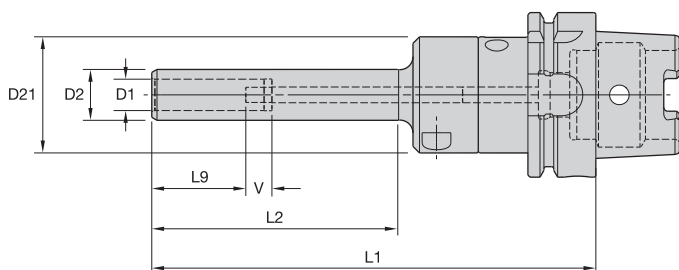
■ Spare Parts



catalog number	actuation wrench	wrench size actuation screw	stop screw wrench	wrench size stop screw
HSK40AHCSLT06160M	170.135	5mm	170.002	2,5mm
HSK40AHCSLT08160M	170.135	5mm	170.002	2,5mm

(continued)

(HC Slim HSK Form A continued)



HSK40A Shank Tools

■ HC Slim MM-HSK Form A

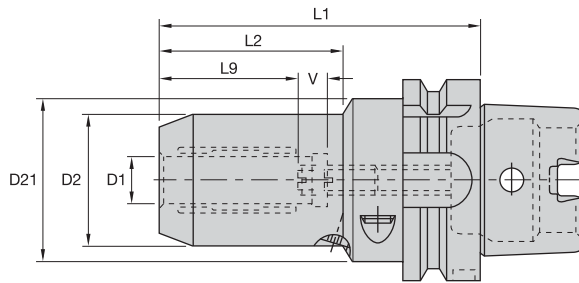
order number	catalog number	D1	D2	D21	L1	L2	L9	V	kg
3061266	HSK40AHCSLT10160M	10	17,5	44,5	160	85	31	10	0,81
3061267	HSK40AHCSLT12170M	12	19,5	44,5	170	95	36	10	0,86
3061268	HSK40AHCSLT14170M	14	21,5	52,5	170	95	36	10	1,02
3061269	HSK40AHCSLT16170M	16	23,5	52,5	170	95	39	10	1,05
3061270	HSK40AHCSLT18170M	18	25,5	52,5	170	95	39	10	1,09
3061271	HSK40AHCSLT20170M	20	27,5	52,5	170	95	41	10	1,13

■ Spare Parts



catalog number	actuation wrench	wrench size actuation screw	stop screw wrench	wrench size stop screw
HSK40AHCSLT10160M	170.135	5mm	170.003	3mm
HSK40AHCSLT12170M	170.135	5mm	170.003	3mm
HSK40AHCSLT14170M	170.135	5mm	170.003	3mm
HSK40AHCSLT16170M	170.135	5mm	170.005	5mm
HSK40AHCSLT18170M	170.135	5mm	170.005	5mm
HSK40AHCSLT20170M	170.135	5mm	170.005	5mm

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw.
 Actuation wrenches must be ordered separately.
 Reduction sleeves are available and must be ordered separately; see page J2.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.



HSK40A Shank Tools

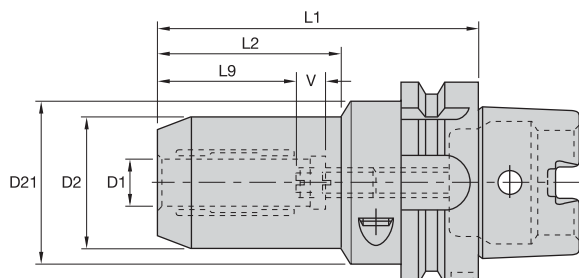
ERICKSON™

■ HC MM-HSK Form A



order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw	kg
1960118	HSK40AHC06080M	6	25,7	32	80	35	27	10	170.135	5mm	170.002	2,5mm	0,45
1960119	HSK40AHC08080M	8	27,7	32	80	36	27	10	170.254	4mm	170.002	2,5mm	0,47
1960120	HSK40AHC10085M	10	29,7	32	85	40	31	10	170.254	4mm	170.002	2,5mm	0,51
1960121	HSK40AHC12090M	12	31,6	32	90	43	36	10	170.254	4mm	170.002	2,5mm	0,55

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw.
 Actuation wrench must be ordered separately.
 Reduction sleeves are available and must be ordered separately; see page J2.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.



HSK40A Shank Tools

ERICKSON

■ HC Trend MM-HSK Form A



order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	stop screw	wrench size stop screw	kg
2386931	HSK40AHCT14100M	14	33,6	50	100	42	36	10	170.135	5mm	571.063	5mm	0,79
2386932	HSK40AHCT16100M	16	37,6	50	100	47	39	10	170.135	5mm	571.063	5mm	0,84
2387463	HSK40AHCT18100M	18	39,6	50	100	47	39	10	170.135	5mm	571.063	5mm	0,86
2387464	HSK40AHCT20100M	20	41,6	50	100	48	41	10	170.135	5mm	571.063	5mm	0,87

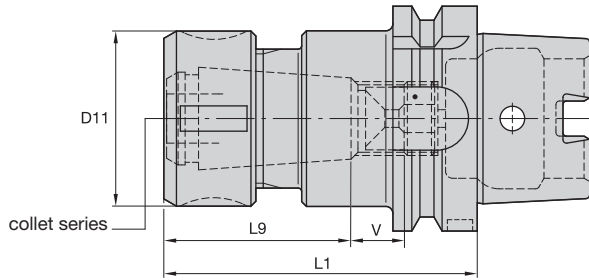
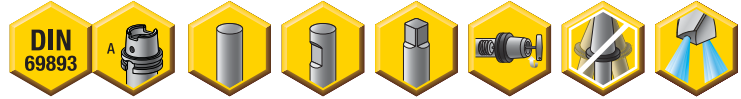
■ HC Trend IN-HSK Form A



order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw	lbs
2233132	HSK40AHCT025315	1/4	1.01	1.25	3.15	1.38	1.46	.39	170.135	5mm	170.003	3mm	.99
2233273	HSK40AHCT038335	3/8	1.17	1.25	3.35	1.57	1.61	.39	170.135	5mm	170.003	3mm	1.13
2233274	HSK40AHCT050354	1/2	1.24	1.25	3.54	1.69	1.81	.39	170.135	5mm	170.003	3mm	1.21
2387465	HSK40AHCT062394	5/8	1.48	1.96	3.94	1.83	1.54	.39	170.135	5mm	—	5mm	1.85
2387466	HSK40AHCT075394	3/4	1.64	1.96	3.94	1.89	1.61	.39	170.135	5mm	—	5mm	1.98

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw.
 Actuation wrench must be ordered separately.
 Reduction sleeves are available and must be ordered separately; see page J2.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.

- Tremendous Grip (3:1 advantage).



HSK40A Shank Tools

TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG50	1,1	13,5	1/32	17/32
TG75	2,6	20,0	3/64	3/4

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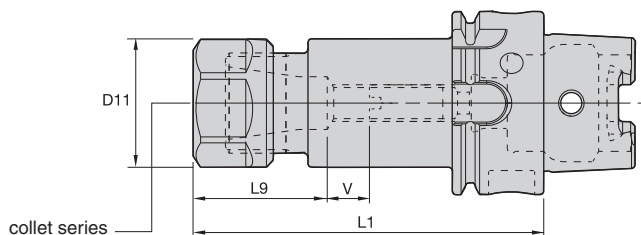
■ TG Round-HSK Form A



order number	catalog number	collet series	D11	L1	L9	V	locknut	wrench	Nm	stop screw	wrench size stop screw	kg
2455912	HSK40ATG050080M	TG50	38	80	42,0	5	LNA050M	HSW34M	68	SS056041G	4mm & 5/32	0,45
2455993	HSK40ATG075090M	TG75	50	90	54,0	7	LNA075M	HSW45M	136	SS081041G	4mm & 5/32	0,69

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M84.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see page L38.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.
 TG standard straight-bore collets, see page J10.
 TG tap collets, see page J10.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.

- Grip (2:1 advantage).



HSK40A Shank Tools

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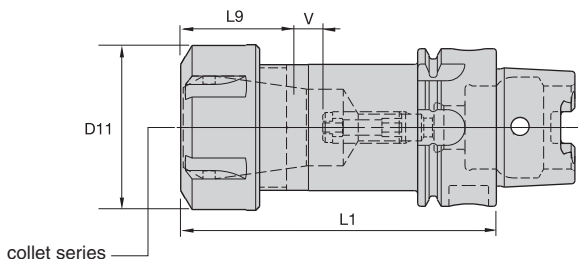
ER Hex-HSK Form A

ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER16	0,5	10,0	.02	.41
ER25	1,0	16,0	.04	.63
ER32	2,0	20,0	.08	.81

order number	catalog number	collet series	D11	L1	L9	V	kg
2260343	HSK40AER16080M	ER16	28	80	27,0	5	0,40

Spare Parts

catalog number	locknut	wrench	counterbore collet torque (Nm)	straight collet torque (Nm)	stop screw	wrench size stop screw
HSK40AER16080M	LNHSER16M	OEW25M	40	56	571.068	4mm & 5/32



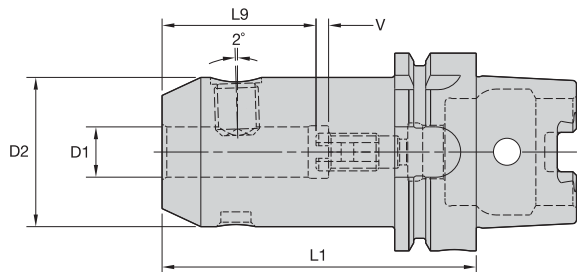
ER Round-HSK Form A

order number	catalog number	collet series	D11	L1	L9	V	kg
1833498	HSK40AER25080M	ER25	42	80	31,0	5	0,50
2260344	HSK40AER32090M	ER32	50	90	46,0	5	0,56
2386935	HSK40AER32100M	ER32	50	100	40,0	10	0,69

Spare Parts

catalog number	round locknut	wrench	Nm	stop screw	wrench size stop screw
HSK40AER25080M	LN SER25M	ER25WM	104	571.062	4mm & 5/32
HSK40AER32090M	LN SER32M	ER32WM	136	571.062	4mm & 5/32
HSK40AER32100M	LN ER32M	ER32WM	136	571.062	4mm

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.



HSK40A Shank Tools

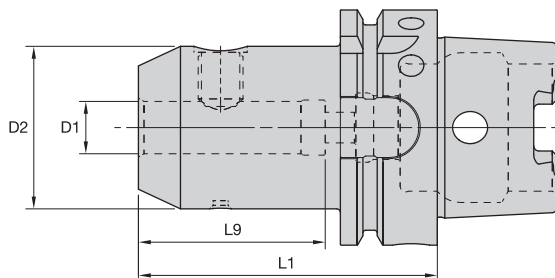
ERICKSON™

■ WN MM-HSK Form A



order number	catalog number	D1	D2	L1	L9	V	lock screw	wrench size lock screw	Nm	stop screw	wrench size stop screw	kg
2260348	HSK40AWN06080M	6	25	80	30	10	SS03M012	3mm	7	571.060	2,5mm	0,39
2260349	HSK40AWN08080M	8	28	80	30	10	SS03M014	4mm	15	571.067	3mm	0,44
2260350	HSK40AWN10080M	10	34	80	35	10	SS03M018	5mm	25	571.068	4mm	0,56
2260351	HSK40AWN12090M	12	42	90	40	10	SS03M023	6mm	35	571.074	5mm	0,71
2260352	HSK40AWN14090M	14	44	90	40	10	SS03M023	6mm	35	571.074	5mm	0,73
2260353	HSK40AWN16090M	16	48	90	43	10	SS03M025	6mm	50	571.075	6mm	0,79

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with clamp screw and stop screw.
 Lock screw or stop screw wrenches are not included.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.



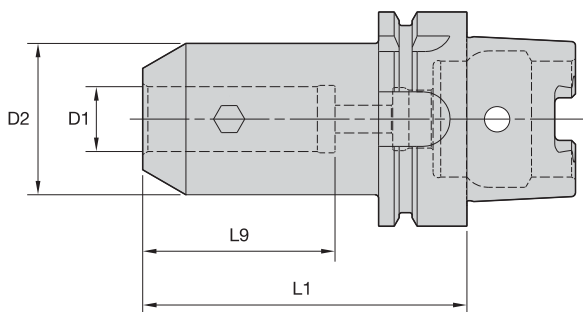
HSK40A Shank Tools

ERICKSON

■ EM MM-HSK Form A



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	Nm	kg
2260357	HSK40AEM06060M	6	25	60	40	SS03M012	3mm	7	0,31
2260358	HSK40AEM08060M	8	28	60	40	SS03M014	4mm	15	0,35
2260359	HSK40AEM10060M	10	34	60	42	SS03M018	5mm	25	0,42
2260360	HSK40AEM12070M	12	42	70	50	SS03M023	6mm	35	0,57
2260361	HSK40AEM14075M	14	44	75	50	SS03M023	6mm	35	0,63
1852320	HSK40AEM16075M	16	48	75	53	SS03M025	6mm	50	0,69

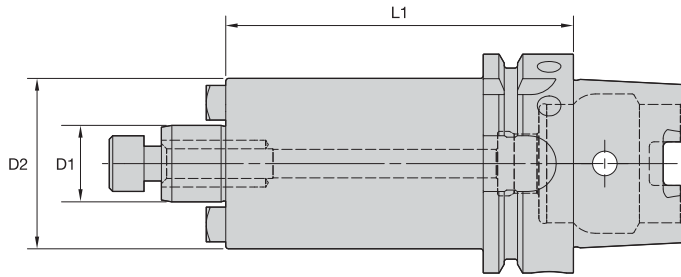


■ EM IN-HSK Form A



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
2249258	HSK40AEM025250	1/4	1.00	2.50	1.70	ELS025025PKG	1/8	8	.74
2249259	HSK40AEM038250	3/8	1.00	2.50	1.73	ELS038031PKG	3/16	15	.71
2249260	HSK40AEM050275	1/2	1.33	2.75	1.97	ELS044038PKG	7/32	20	.99
2249261	HSK40AEM062300	5/8	1.63	3.00	2.09	ELS056050PKG	1/4	40	1.27

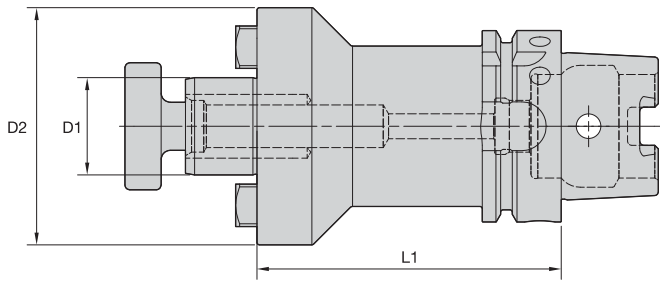
NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw.
 Lock screw wrench not included.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.



ERICKSON™

■ SMC Cap MM-HSK Form A

order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size lock screw	kg
3872589	HSK40ASM2C16050M	16	38	50	MS1294	KDK16M	6mm	0,44
3872588	HSK40ASM2C16050M	16	44	50	MS1294	KDK16M	6mm	0,49
3872591	HSK40ASM2C22050M	22	42	50	MS1234	—	8mm	0,50
3872590	HSK40ASM2C22050M	22	49	50	MS1234	KDK22M	8mm	0,55



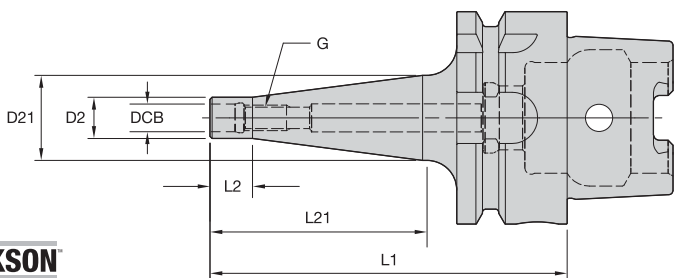
■ SMC Lock MM-HSK Form A

order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size lock screw	kg
3872592	HSK40ASMC27075M	27	60	75	KLSS27M	KDK27M	10mm	1,01

■ SMC Lock IN-HSK Form A

order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size lock screw	lbs
3762350	HSK40ASM2C050200	1/2	1.20	2.00	KLS05	KDK04	3/16	.85
3762349	HSK40ASMC050200	1/2	1.44	2.00	KLS05	KDK04	3/16	.95
3762352	HSK40ASM2C075200	3/4	1.46	2.00	KLS07	—	1/4	1.03
3762351	HSK40ASMC075200	3/4	1.75	2.00	KLS07	KDK05	1/4	1.14
3762404	HSK40ASM2C100200	1	2.19	2.00	KLS10	KDK06	5/16	1.45
3762403	HSK40ASMC100200	1	2.75	2.00	KLS10	KDK06	5/16	1.73

NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive keys.
 Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
 Lock screw wrench not included.
 For HSK coolant unit and wrench, see page L44.



HSK40A Shank Tools

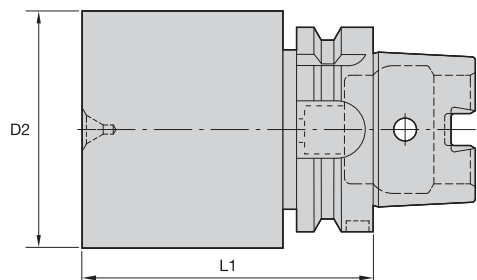
ERICKSON

■ ST-HSK Form A

order number	catalog number	DCB	G	D2	D21	L1	L2	L21	kg
4061374	HSK40AST06053M	6,5	M6	10	—	53	27	—	0,20
4061375	HSK40AST06078M	6,5	M6	10	20	78	10	50	0,26
4061376	HSK40AST06103M	6,5	M6	10	23	103	10	75	0,32
4061377	HSK40AST08053M	8,5	M8	13	15	53	10	25	0,22
4061378	HSK40AST08078M	8,5	M8	13	23	78	10	50	0,30
4061379	HSK40AST08103M	8,5	M8	13	23	103	10	75	0,34
4061380	HSK40AST08128M	8,5	M8	13	25	128	10	100	0,42
4061381	HSK40AST10053M	10,5	M10	18	20	53	10	25	0,25
4061382	HSK40AST10078M	10,5	M10	18	25	78	10	50	0,33
4061423	HSK40AST10103M	10,5	M10	18	28	103	10	75	0,44
4061424	HSK40AST10128M	10,5	M10	18	30	128	10	100	0,55
4061425	HSK40AST12053M	12,5	M12	21	24	53	10	25	0,27
4061426	HSK40AST12078M	12,5	M12	21	24	78	10	50	0,34
4061427	HSK40AST12103M	12,5	M12	21	31	103	10	75	0,50
4061428	HSK40AST12128M	12,5	M12	21	31	128	10	100	0,61

NOTE: HSK coolant unit and wrench are available and must be ordered separately; see page L44.

- Machinable front 32–38 RW C.



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■ BB-HSK Form A

order number	catalog number	D2	L1	kg
2260649	HSK40ABB040120M	40,8	120	1,16

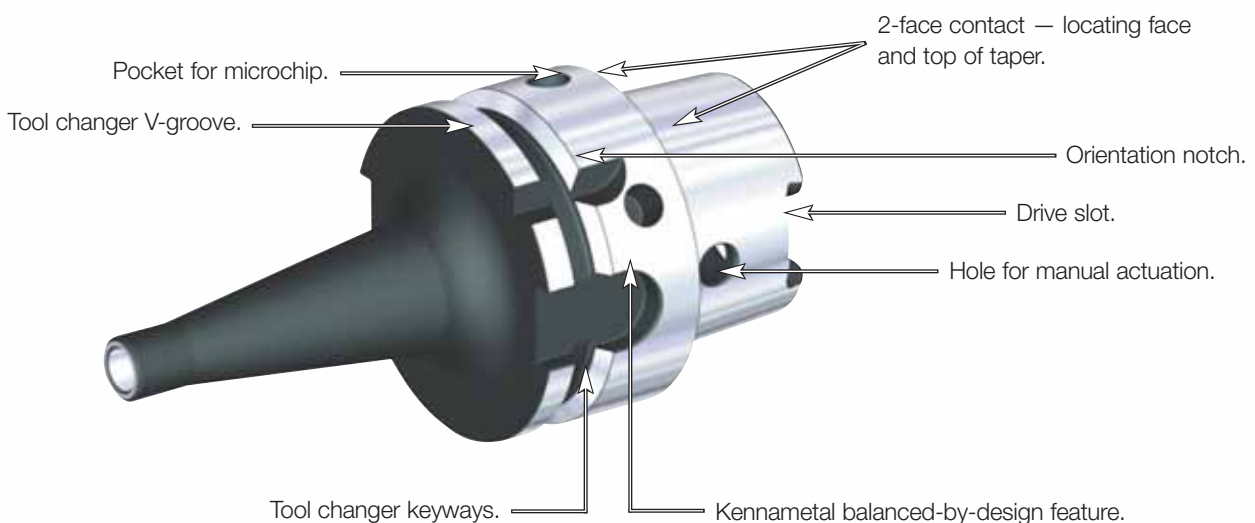
NOTE: HSK coolant unit and wrench are available and must be ordered separately; see page L44.



ERICKSON™ HSK Shank Tooling System • HSK50A Series

Primary Application

ERICKSON HSK Face Contact Short Taper Tooling is manufactured from premium materials and to the latest DIN/ISO specification standards. Form A versions are generally used in machining centers and milling machines with automatic tool changers. The HSK50A tools are either pre-balanced to a high specification or balanced-by-design. For high speed applications Kennametal recommends that the complete toolholder assembly (toolholder, coolant tubes, collets, hardware, and cutting tools) be balanced as one entity. Exact RPM limits can only be determined by considering machine and spindle configurations in conjunction with tooling design and safety limits factored as a complete system.





Features and Benefits

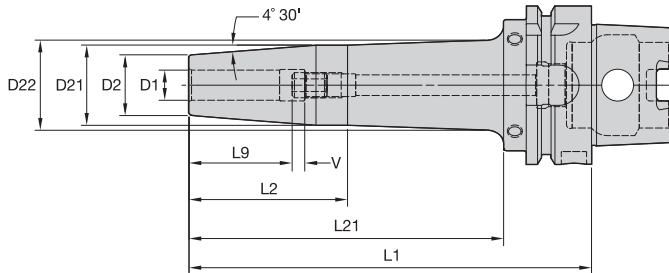
- ISO 12164-1/DIN 69893-1 Form A 1:10 short taper.
- High axial and radial repeatability compared to CAT, BT, and DV V-flange 7/24 taper tooling.
- Maximum 100 bar (1,500 psi) coolant pressure.

HSK50A Shank Tools

Shrink Fit Toolholders General Purpose (GP)



- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide and HSS cutting tools (requirements below).



HSK50A Shank Tools

ERICKSON

■ TT GP HPV MM-HSK Form A



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	kg
3874888	HSK50AHPVTT03080M	3	9	15	—	80	45	54	14	10,0	TTSS05014M	2,5mm	0,50
3874889	HSK50AHPVTT04080M	4	9	15	—	80	45	54	15	10,0	TTSS05014M	2,5mm	0,50
3874890	HSK50AHPVTT05080M	5	9	15	—	80	45	54	15	10,0	TTSS06014M	3mm	0,50
3874891	HSK50AHPVTT06080M	6	21	27	—	80	54	—	26	10,0	TTSS05014M	2,5mm	0,57
3874989	HSK50AHPVTT06120M	6	21	27	—	120	85	94	26	10,0	TTSS05014M	2,5mm	0,79
3874997	HSK50AHPVTT06160M	6	21	27	32	160	50	125	26	10,0	TTSS05014M	2,5mm	1,03
3874892	HSK50AHPVTT08080M	8	21	27	—	80	45	54	26	10,0	TTSS06014M	3mm	0,62
3874990	HSK50AHPVTT08120M	8	21	27	—	120	85	94	26	10,0	TTSS06014M	3mm	0,78
3874998	HSK50AHPVTT08160M	8	21	27	32	160	50	125	26	10,0	TTSS06014M	3mm	1,02
3874983	HSK50AHPVTT10085M	10	24	32	—	85	59	—	31	10,0	TTSS08014M	4mm	0,64
3874991	HSK50AHPVTT10120M	10	24	32	—	120	85	94	31	10,0	TTSS08014M	4mm	0,89
3874999	HSK50AHPVTT10160M	10	24	32	36	160	63	125	31	10,0	TTSS08014M	4mm	1,18
3874984	HSK50AHPVTT12090M	12	24	32	—	90	64	—	36	10,0	TTSS10014M	5mm	0,66
3874992	HSK50AHPVTT12120M	12	24	32	—	120	85	94	36	10,0	TTSS10014M	5mm	0,87
3875000	HSK50AHPVTT12160M	12	24	32	36	160	63	125	36	10,0	TTSS10014M	5mm	1,16
3874985	HSK50AHPVTT14090M	14	27	34	—	90	64	—	36	10,0	TTSS10014M	5mm	0,71
3874993	HSK50AHPVTT14120M	14	27	34	—	120	85	94	36	10,0	TTSS10014M	5mm	0,94
3875001	HSK50AHPVTT14160M	14	27	34	39	160	57	125	36	10,0	TTSS10014M	5mm	1,28
3874986	HSK50AHPVTT16095M	16	27	34	—	95	69	—	39	10,0	TTSS12014M	6mm	0,71
3874994	HSK50AHPVTT16120M	16	27	34	—	120	85	94	39	10,0	TTSS12014M	6mm	0,91
3875002	HSK50AHPVTT16160M	16	27	34	39	160	57	125	39	10,0	TTSS12014M	6mm	1,26
3874987	HSK50AHPVTT18095M	18	33	41	—	95	69	—	39	10,0	TTSS12014M	6mm	0,88
3874995	HSK50AHPVTT18120M	18	33	41	—	120	94	—	39	10,0	TTSS12014M	6mm	1,13
3875003	HSK50AHPVTT18160M	18	33	41	—	160	134	—	39	10,0	TTSS12014M	6mm	1,53
3874988	HSK50AHPVTT20100M	20	33	41	—	100	74	—	41	10,0	TTSS16014M	3mm	0,90
3874996	HSK50AHPVTT20120M	20	33	41	—	120	94	—	41	10,0	TTSS16014M	8mm	1,10
3875004	HSK50AHPVTT20160M	20	33	41	—	160	134	—	41	10,0	TTSS16014M	8mm	1,50

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.
 Shrink Fit technical section, see page M78.
 Supplied with stop screw.
 Adjusting stop screw gage, see page M81.
 Shrink Fit accessories, see pages L12–L13.
 Optional M6~1.0P x 5mm lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.

(continued)

(TT GP HPV continued)

**Cutting Tool Shank Requirements
metric (ISO standard)**

cutting tool shank diameter	tolerance	
3	h4	0,000/-0,003
4	h4	0,000/-0,004
5	h5	0,000/-0,005
6	h6	0,000/-0,008
8 & 10	h6	0,000/-0,009
12, 14, 16, & 18	h6	0,000/-0,011
20	h6	0,000/-0,013

**Cutting Tool Shank Requirements
inch (industry standard)**

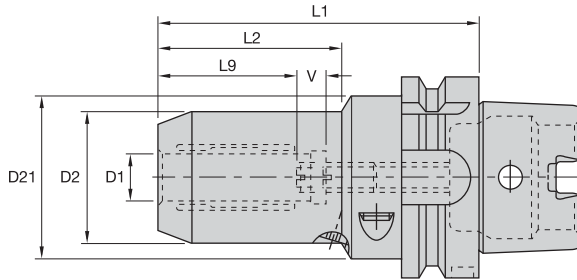
cutting tool shank diameter	tolerance
1/8 & 3/16	.0000/-0.0003
1/4 & 3/8	.0000/-0.0004
1/2 & 5/8	.0000/-0.0004
3/4	.0000/-0.0005

■ TT GP HPV IN-HSK Form A



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	lbs
3863678	HSK50AHPVTT012315	1/8	.35	.59	—	3.15	1.77	—	.63	.39	TTSS05014M	2,5mm	1.10
3863705	HSK50AHPVTT012472	1/8	.35	.59	.68	4.72	1.97	3.35	.63	.39	TTSS05014M	2,5mm	1.22
3863711	HSK50AHPVTT012630	1/8	.35	.59	.79	6.30	1.97	4.92	.63	.39	TTSS05014M	2,5mm	1.40
3863679	HSK50AHPVTT018315	3/16	.35	.59	—	3.15	1.77	—	.59	.39	TTSS06014M	3mm	1.10
3863712	HSK50AHPVTT018630	3/16	.35	.59	.79	6.30	1.97	4.92	.59	.39	TTSS06014M	3mm	1.40
3863680	HSK50AHPVTT025315	1/4	.83	1.06	—	3.15	2.13	—	1.02	.39	TTSS05014M	2,5mm	1.26
3863706	HSK50AHPVTT025472	1/4	.83	1.06	—	4.72	3.35	—	1.02	.39	TTSS05014M	2,5mm	1.74
3863713	HSK50AHPVTT025630	1/4	.83	1.06	1.27	6.30	1.97	4.92	1.02	.39	TTSS05014M	2,5mm	2.26
3863681	HSK50AHPVTT038335	3/8	.94	1.26	—	3.35	2.32	—	1.22	.39	TTSS08014M	4mm	1.42
3863707	HSK50AHPVTT038472	3/8	.94	1.26	—	4.72	3.35	—	1.22	.39	TTSS08014M	4mm	1.96
3863714	HSK50AHPVTT038630	3/8	.94	1.26	1.43	6.30	2.48	4.92	1.22	.39	TTSS08014M	4mm	2.61
3863682	HSK50AHPVTT050354	1/2	.94	1.26	—	3.54	2.52	—	1.42	.39	TTSS10014M	5mm	1.43
3863708	HSK50AHPVTT050472	1/2	.94	1.26	—	4.72	3.35	—	1.42	.39	TTSS10014M	5mm	1.91
3863715	HSK50AHPVTT050630	1/2	.94	1.26	1.43	6.30	2.48	4.92	1.42	.39	TTSS10014M	5mm	2.55
3863703	HSK50AHPVTT062374	5/8	1.06	1.33	—	3.74	2.72	—	1.54	.39	TTSS12014M	6mm	1.58
3863709	HSK50AHPVTT062472	5/8	1.06	1.33	—	4.72	3.35	—	1.54	.39	TTSS12014M	6mm	2.01
3863716	HSK50AHPVTT062630	5/8	1.06	1.33	1.52	6.30	2.24	4.92	1.54	.39	TTSS12014M	6mm	2.77
3863704	HSK50AHPVTT075394	3/4	1.30	1.61	—	3.94	2.92	—	1.61	.39	TTSS16014M	8mm	2.00
3863710	HSK50AHPVTT075472	3/4	1.30	1.61	—	4.72	3.70	—	1.61	.39	TTSS16014M	8mm	2.44
3863717	HSK50AHPVTT075630	3/4	1.30	1.61	—	6.30	5.28	—	1.61	.39	TTSS16014M	8mm	3.33

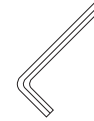
NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.
 Shrink Fit technical section, see page M78.
 Supplied with stop screw.
 Adjusting stop screw gage, see page M81.
 Shrink Fit accessories, see pages L12–L13.
 Optional M6~1.0P x 5mm lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.



HSK50A Shank Tools

ERICKSON™

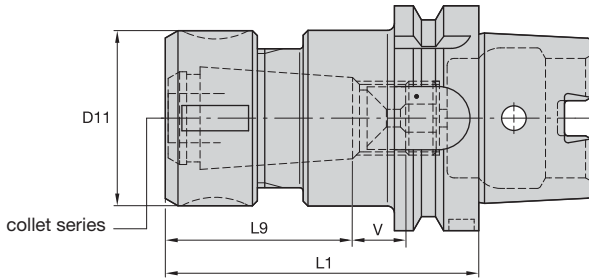
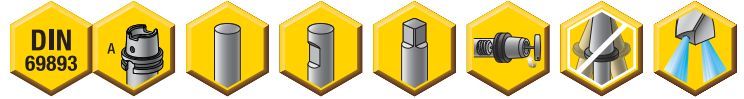
■ **HC MM-HSK Form A**



order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	stop screw wrench	wrench size stop screw	kg
1245473	HSK50AHC06080M	6	25,7	40	80	35	27	10	170.135	5mm	170.002	2,5mm	0,80
1245474	HSK50AHC08080M	8	27,7	40	80	36	27	10	170.135	5mm	170.002	2,5mm	0,90
1245475	HSK50AHC10085M	10	29,7	40	85	41	31	10	170.135	5mm	170.002	2,5mm	0,90
1245476	HSK50AHC12090M	12	31,6	40	90	47	36	10	170.135	5mm	170.002	2,5mm	1,30

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 For hydraulic chuck technical section, see page M84.
 Chucks supplied with stop screw.
 Wrenches must be ordered separately.
 Actuation wrench must be ordered separately.
 Reduction sleeves are available and must be ordered separately; see page J63.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.

- Tremendous Grip (3:1 advantage).



HSK50A Shank Tools

ERICKSON

TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG50	1,1	13,5	1/32	17/32
TG75	2,6	20,0	3/64	3/4

■ TG Round-HSK Form A • Metric



order number	catalog number	collet series	D11	L1	L9	V	locknut	wrench	Nm	stop screw	wrench size stop screw	stop screw cone cap	kg
1307819	HSK50ATG050100M	TG50	38	100	42	12	LNA050M	HSW34M	68	SS056041G	4mm & 5/32	SSCC056	0,86
1307821	HSK50ATG075115M	TG75	50	115	54	11	LNA075M	HSW45M	136	SS081041G	4mm & 5/32	SSCC081	0,79

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.

Collet chuck technical section, see page M98.

Supplied with locknut and stop screw.

Locknut wrench must be ordered separately.

Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16–L17.

Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.

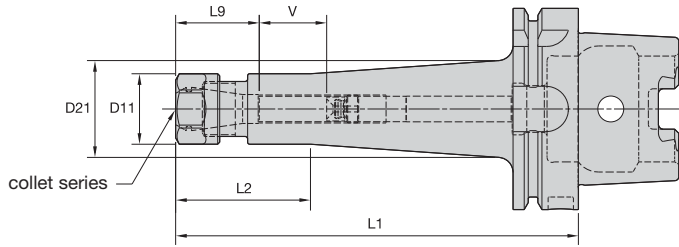
Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.

TG standard straight-bore collets, see page J10.

TG tap collets, see page J10.

HSK coolant unit and wrench are available and must be ordered separately; see page L44.

- Grip (2:1 advantage).



HSK50A Shank Tools

ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER16	0,5	10,0	.02	.41
ER20	0,5	13,0	.02	.50
ER25	1,0	16,0	.04	.63
ER32	2,0	20,0	.08	.81

ERICKSON™

■ ER HEX-HSK Form A

order number	catalog number	collet series	D11	D21	L2	L1	L9	V	kg
1307789	HSK50AER16100M	ER16	28	—	71	100	32	24	0,64
1307790	HSK50AER16160M	ER16	28	40	71	160	32	48	1,05
1307791	HSK50AER20100M	ER20	34	—	73	100	36	17	0,72

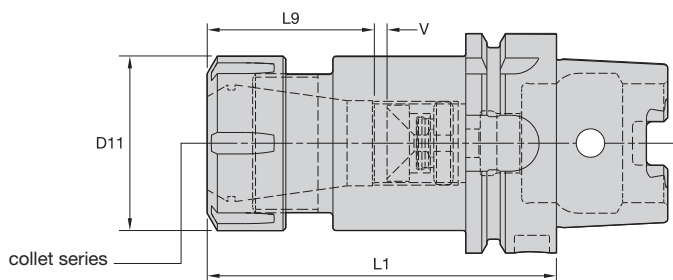
■ Spare Parts



catalog number	locknut	wrench	counterbore collet torque (Nm)	straight collet torque (Nm)	stop screw	wrench size stop screw	stop screw cone cap
HSK50AER16100M	LNHSER16M	OEW25M	40	56	SS044038G	4mm & 5/32	SSCC044
HSK50AER16160M	LNHSER16M	OEW25M	40	56	SS044038G	4mm & 5/32	SSCC044
HSK50AER20100M	LNHSER20M	OEW30M	32	80	SS056041G	4mm & 5/32	SSCC056

(continued)

(ER-HSK continued)



HSK50A Shank Tools

ER Round-HSK Form A

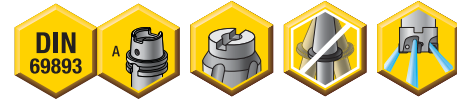
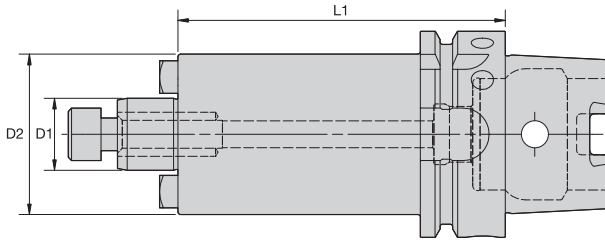
order number	catalog number	collet series	D11	L1	L9	V	kg
1307792	HSK50AER25100M	ER25	42	100	40	11	0,91
1134534	HSK50AER32100M	ER32	50	100	45	4	0,90

Spare Parts



catalog number	locknut	wrench	Nm	stop screw	wrench size stop screw	stop screw cone cap
HSK50AER25100M	LNSER25M	ER25WM	104	SS075041G	4mm & 5/32	SSCC075
HSK50AER32100M	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32	SSCC094

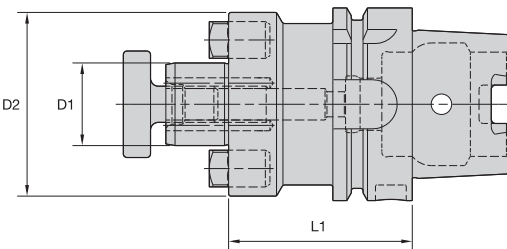
NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.



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■ SMC Cap MM-HSK Form A

order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size lock screw	kg
4144667	HSK50ASM2C16050M	16	38	50	MS1294	KDK16M	6mm	0,62
3872678	HSK50ASMC16050M	16	44	50	MS1294	KDK16M	6mm	0,67
4144668	HSK50ASM2C22060M	22	42	60	MS1234	—	8mm	0,80
3872679	HSK50ASMC22060M	22	49	60	MS1234	KDK22M	8mm	0,86



■ SMC Lock MM-HSK Form A

order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size lock screw	kg
3872680	HSK50ASMC27060M	27	60	60	KLSS27M	KDK27M	10mm	1,07

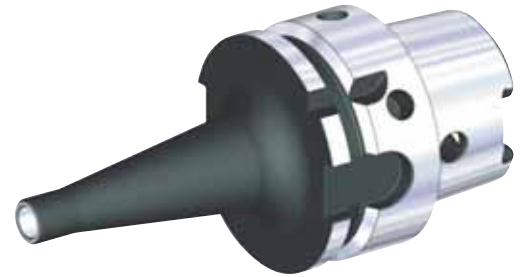
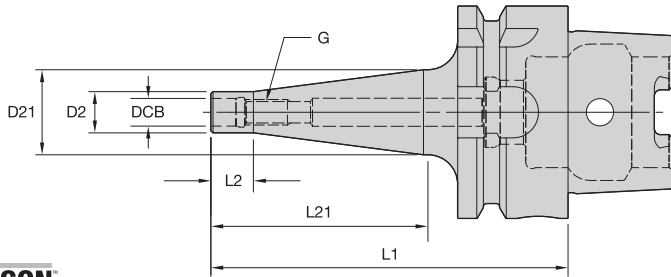


■ SMC Lock IN-HSK Form A

order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size lock screw	lbs
3762406	HSK50ASM2C050200	1/2	1.20	2	KLS05	KDK04	3/16	1.20
3762405	HSK50ASMC050200	1/2	1.44	2	KLS05	KDK04	3/16	1.33
3872517	HSK50ASMC100225	1	2.75	2	KLS10	KDK06	5/16	2.31



NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw and drive keys.
 Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
 Lock screw wrench not included.
 For HSK coolant unit and wrench, see page L44.



HSK50A Shank Tools

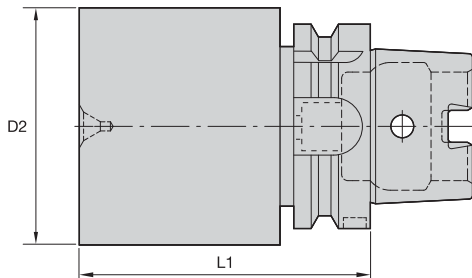
ERICKSON

■ ST-HSK Form A

order number	catalog number	DCB	G	D2	D21	L1	L2	L21	kg
4061440	HSK50AST06059M	6,5	M6	10	10	59	10	25	0,39
4061441	HSK50AST06084M	6,5	M6	10	20	84	10	50	0,45
4061442	HSK50AST06109M	6,5	M6	10	23	109	10	75	0,51
4061443	HSK50AST08059M	8,5	M8	13	15	59	10	25	0,41
4061444	HSK50AST08084M	8,5	M8	13	23	84	10	50	0,48
4061445	HSK50AST08109M	8,5	M8	13	23	109	10	75	0,53
4061446	HSK50AST08134M	8,5	M8	13	25	134	10	100	0,60
4061447	HSK50AST10059M	10,5	M10	18	20	59	10	25	0,44
4061448	HSK50AST10084M	10,5	M10	18	25	84	10	50	0,53
4061449	HSK50AST10109M	10,5	M10	18	28	109	10	75	0,63
4061450	HSK50AST10134M	10,5	M10	18	30	134	10	100	0,74
4061451	HSK50AST12059M	12,5	M12	21	24	59	10	25	0,46
4061452	HSK50AST12084M	12,5	M12	21	24	84	10	50	0,53
4061453	HSK50AST12109M	12,5	M12	21	31	109	10	75	0,69
4061454	HSK50AST12134M	12,5	M12	21	31	134	10	100	0,79

NOTE: HSK coolant unit and wrench are available and must be ordered separately; see page L44.

- Machinable front 32–38 RWC.



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■ BB-HSK Form A • Metric

order number	catalog number	D2	L1	kg
1256059	HSK50ABB063200M	63,8	200	4,49
1256060	HSK50ABB100125M	100,8	125	5,69

NOTE: HSK coolant unit and wrench are available and must be ordered separately; see page L44.

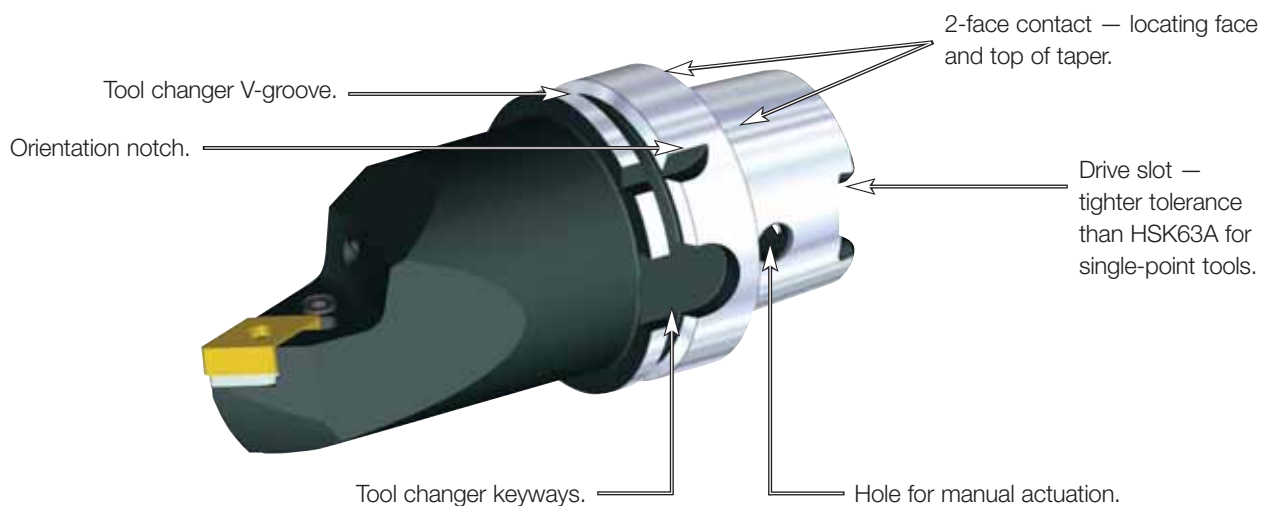
ERICKSON™ HSK Shank Tooling System • HSK63T Series

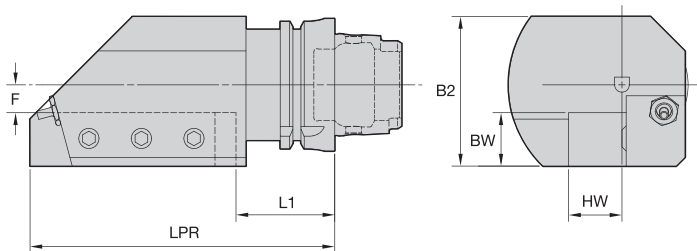
Primary Application

ERICKSON HSK Face Contact Short Taper Tooling is manufactured from premium materials and to the latest DIN/ISO specification standards. Form T versions are generally used in static and multitasking operations. The HSK63T has qualified drive slot widths for single-point cutting.

Features and Benefits

- ISO 12164-1/DIN 69893-1 Form A 1:10 short taper.
- High axial and radial repeatability.
- Maximum 100 bar (1,500 psi) coolant pressure.





HSK63T Adapters

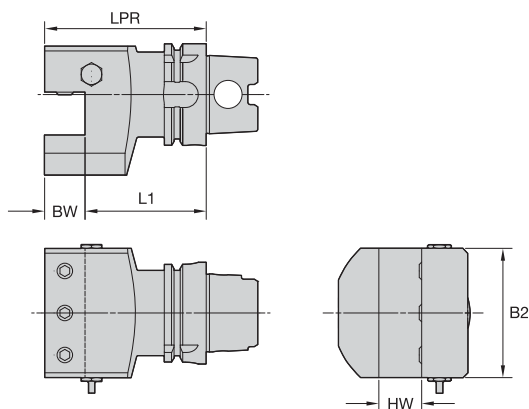
ERICKSON

■ STAR/L • Metric



order number	catalog number	B2	BW	F	HW	L1	LPR	cup point socket set screw	nozzle	kg
3377242	HSK63TSTAR2525M	70	25	13	25	49	145	MS1430	PMT04526 COOLANT NOZZLE SPRAY	3,97
3377313	HSK63TSTAL2525M	70	25	13	25	49	145	MS1430	PMT04526 COOLANT NOZZLE SPRAY	3,96

NOTE: HSK coolant unit and wrench are available and must be ordered separately; see page L44.



ERICKSON

■ ETAN • Metric

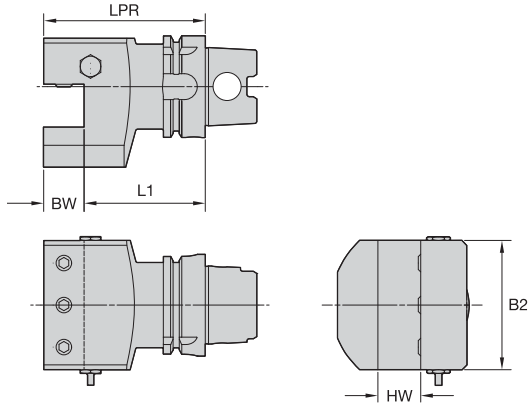


order number	catalog number	B2	BW	HW	L1	LPR	cup point socket set screw	nozzle	plug	kg
3897805	HSK63TETAN2525M	80	25	25	75	100	MS1430	PMT04526 COOLANT NOZZLE SPRAY	PMP08350	3,14

NOTE: HSK coolant unit and wrench are available and must be ordered separately; see page L44.

HSK63T Adapters

ETA End Mount Square Shank Adapters • HSK-T Cutting Units M-Clamping



HSK63T Adapters

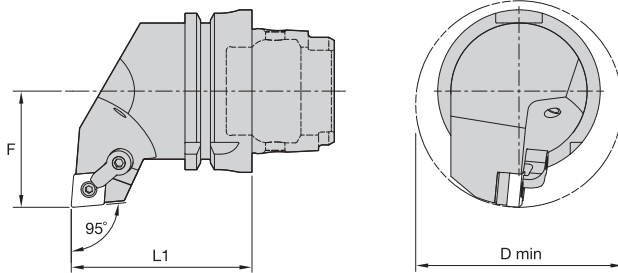
ERICKSON™

■ ETAN • Inch



order number	catalog number	B2	BW	HW	L1	LPR	cup point socket set screw	nozzle	plug	kg
3897806	HSK63TETAN16	3.150	1.000	1.000	2.963	3.963	MS1430	PMT04526 COOLANT NOZZLE SPRAY	PMP08350	3,20

NOTE: HSK coolant unit and wrench are available and must be ordered separately; see page L44.



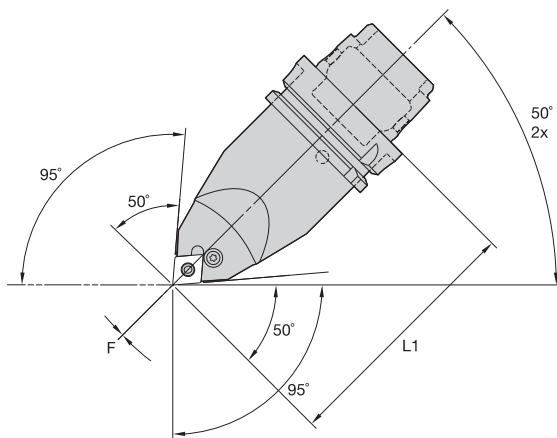
ERICKSON™

■ MCLN 95°



order number	catalog number	D min	F	L1	gage insert	shim	lock pin	clamp	clamp screw	kg
3897467	right hand HSK63TMCLNR12070	80	45	70	CN..120408/CN..432	ICSN432	KLM46	CKM20	STCM11	1,20
3897468	left hand HSK63TMCLNL12070	80	45	70	CN..120408/CN..432	ICSN432	KLM46	CKM20	STCM11	1,20

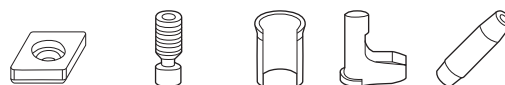
NOTE: HSK coolant unit and wrench are available and must be ordered separately; see page L44.



HSK63T Cutting Units

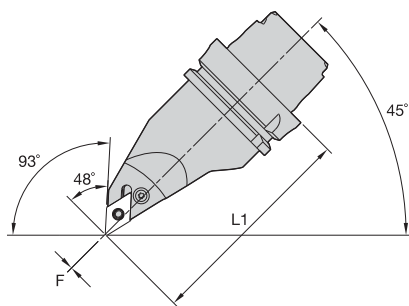
ERICKSON

■ PCMN 50° • 95° Application • Centerline



order number	catalog number	F	L1	gage insert	shim	lever lock screw	shim pin	toggle lever	punch	kg
3575690	HSK63TPCMN12115	0	115	CN..120408/CN..432	512.112	514.123	513.023	511.023	515.018	1,64

NOTE: HSK coolant unit and wrench are available and must be ordered separately; see page L44.



Left-Hand Tool

ERICKSON

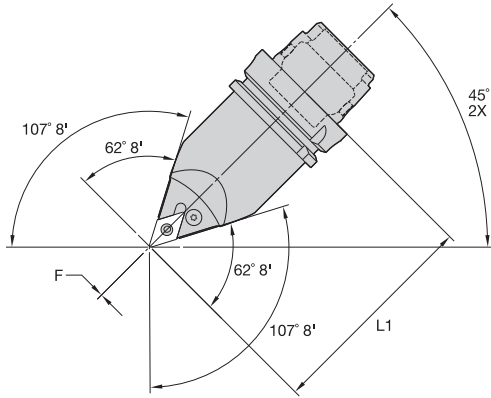
■ PDMN 48° • 93° Application • Centerline



order number	catalog number	F	L1	gage insert	shim	lever lock screw	shim pin	toggle lever	punch	kg
3897470	right hand HSK63TPDMNR15115	0	115	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	1,46
3575691	left hand HSK63TPDMNL15115	0	115	DN..150608/DN..442	512.153	514.128	513.023	511.024	515.018	1,62

NOTE: HSK coolant unit and wrench are available and must be ordered separately; see page L44.

HSK63T Cutting Units



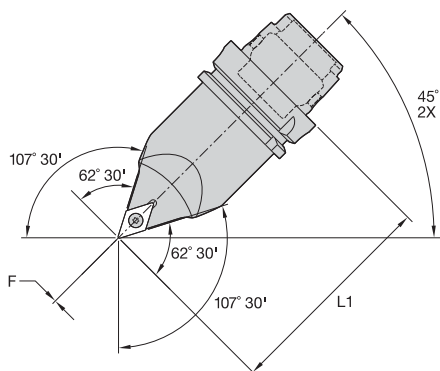
ERICKSON™

■ PDNN 45° • Centerline



order number	catalog number	F L1	gage insert	lever lock screw	shim	shim pin	toggle lever	punch	kg
3897469	HSK63TPDNNN15115	0 115	DN..150608/DN..442	514.128	512.153	513.023	511.024	515.018	1,61

NOTE: HSK coolant unit and wrench are available and must be ordered separately; see page L44.



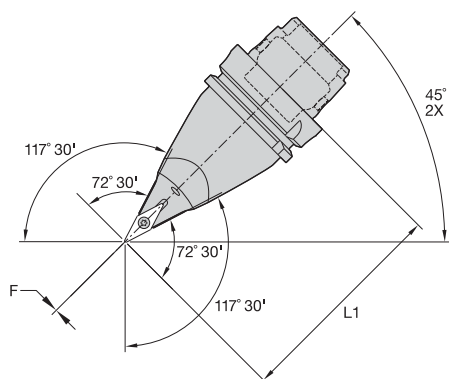
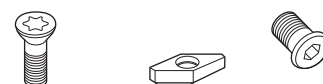
HSK63T Cutting Units

ERICKSON

■ SDNC 45° • Centerline

order number	catalog number	F	L1	gage insert	insert screw	shim	shim screw	kg
3897553	HSK63TSDNCN11115	0	115	DC..11T308DC..3252	MS1156	SKDP343	SRS3	1,59
3897554	HSK63TSDNCN15115	0	115	DC..150408/DC..432	MS1158	SKDP453	SRS4	1,59

NOTE: HSK coolant unit and wrench are available and must be ordered separately, see page L44.

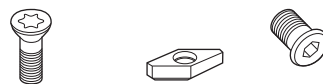


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■ SVWB 45° • Centerline

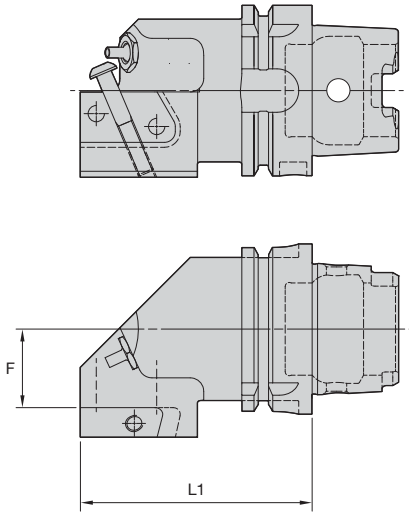
order number	catalog number	F	L1	gage insert	insert screw	shim	shim screw	kg
3897472	HSK63TSVBN11115	0	115	VB..110304/VB..221	MS1153	—	—	1,41
3897471	HSK63TSVBN16115	0	115	VB..160408/VB..332	MS1156	SKVN343	SRS3	1,41

NOTE: HSK coolant unit and wrench are available and must be ordered separately; see page L44.





HSK63T Cutting Units



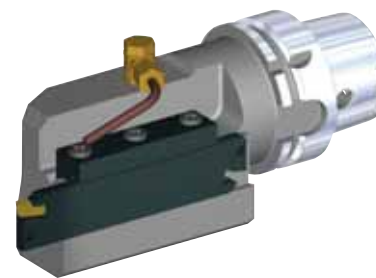
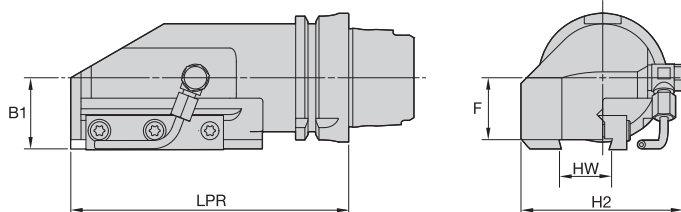
ERICKSON™

■ **KGMS • Side Mount**



order number	catalog number	F		L1		cartridge size	blade screw	nozzle	clamp screw	kg
		mm	in	mm	in					
3897561	right hand	29,00	1.142	85,50	3.366	50	MS1162	PMT04526	MS2002	1,49
	HSK63TKGMSR50									
3897562	left hand	29,00	1.142	85,50	3.366	50	MS1162	PMT04526	MS2002	1,49
	HSK63TKGMSL50									

NOTE: HSK coolant unit and wrench are available and must be ordered separately; see page L44.
 For A3/A4 modular blades, see the Kennametal Innovations Master Catalog Cutting 2013.
 Right-hand cutting units use right hand blades.



HSK63T Cutting Units

ERICKSON

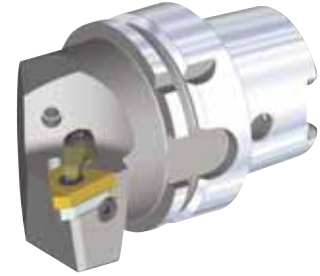
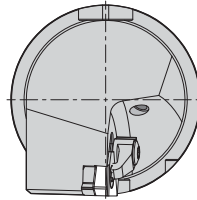
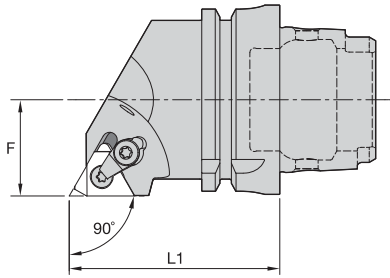
■ BS • Side Mount

order number	catalog number	B1	F	H2	HW	LPR	cartridge size	cartridge 1	kg
	right hand								
3897571	HSK63TBSR4	35	30	79	26	136	26	A2BNSN26...	2,74
3897573	HSK63TBSR5	45	39	84	32	157	32	A2BNSN32...	3,86
	left hand								
3897572	HSK63TBSL4	35	30	79	26	136	26	A2BNSN26...	2,74
3897574	HSK63TBSL5	45	39	84	32	157	32	A2BNSN32...	3,86

■ Spare Parts

catalog number	clamp	clamp screw	coolant tube	coolant swivel base
right hand				
HSK63TBSR4	CGS4	MS1595	12649910900	12649910800
HSK63TBSR5	CGS5	MS1595	12649910900	12649910800
left hand				
HSK63TBSL4	CGS4	MS1595	12649910900	12649910800
HSK63TBSL5	CGS5	MS1595	12649910900	12649910800

NOTE: HSK coolant unit and wrench are available and must be ordered separately; see page L44.
For A2 blades, see the Kennametal Innovations Master Catalog Cutting Tools 2013.



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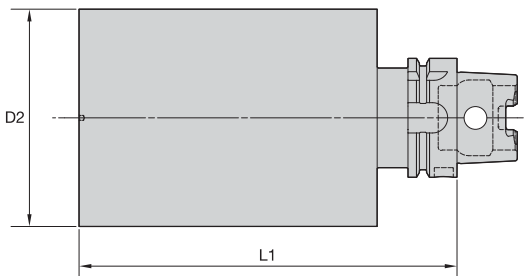
■ LSS 90°



order number	catalog number	F	L1	gage insert	insert screw	shim screw	shim	clamp assembly	kg
	right hand								
3897556	HSK63TLSSR16	32	70	LT16ER	SSA3T	SSY3T	SMYE3	CKC3	1,12
3897558	HSK63TLSSR22	32	70	LT22ER	SSA4T	SSY4T	SMYE4	CKC4	1,11
	left hand								
3897557	HSK63TLSSL16	32	70	LT16EL	SSA3T	SSY3T	SMYI3	CKC3	1,12
3897559	HSK63TLSSL22	32	70	LT22EL	SSA4T	SSY4T	SMYI4	CKC4	1,11

NOTE: Cutting units are supplied with insert screw and clamp assembly. However, tools are designed to use either the insert screw or the clamp assembly, not both.
HSK coolant unit and wrench are available and must be ordered separately; see page L44.

- Machinable front 32–38 RW C.

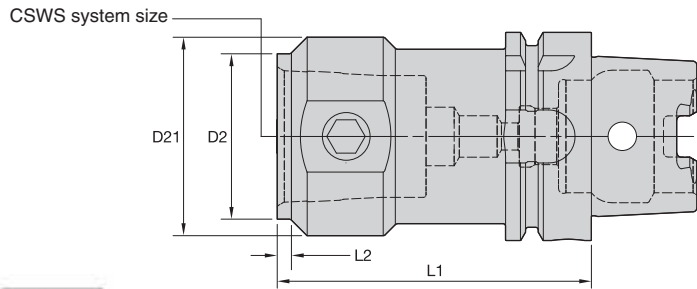


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■ BN

order number	catalog number	D2		L1		kg
		mm	in	mm	in	
3897546	HSK63TBN115200M	115,00	4.528	200,00	7.874	13,74

NOTE: HSK coolant unit and wrench are available and must be ordered separately; see page L44.



HSK63T Adapters

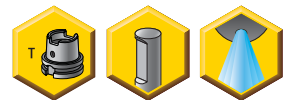
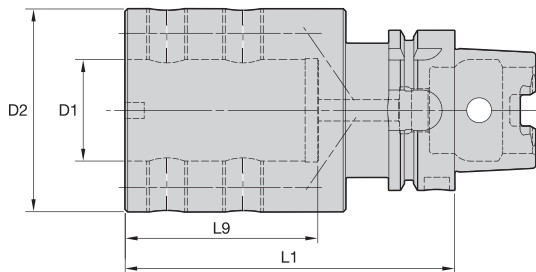


■ HSK63T to KM



order number	catalog number	CSWS system size	D2	D21	L1	L2	Nm	KM spare parts package	kg
3387620	HSK63TKM40070M	KM40	40	48	70	4,000	12-16	KM40PKG3L	1,13
3895298	HSK63TKM50095M	KM50	50	60	95	4,000	27-37	KM50PKG3L	1,74
3892899	HSK63TKM63105M	KM63	63	76	105	4,000	47-54	KM63PKG3L	2,54

NOTE: HSK coolant unit and wrench are available and must be ordered separately; see page L44.
For torque wrench, see page L52–L53.

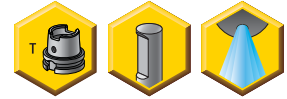
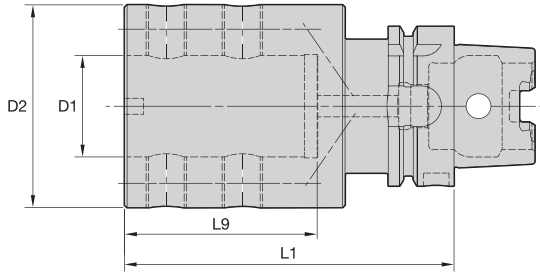


■ BA Boring Bar Adapter • Internal and External Coolant • Metric



order number	catalog number	D1	D2	L1	L9	nozzle	Nm	clamp screw	kg
3892897	HSK63TBA40130M	40	80	130	76	PWZ1012	125	MS1947	3,52

NOTE: Do not overtighten clamp screw; use torque recommendations above.
Supplied with clamp screw.
Clamp screw wrench not included.
HSK coolant unit and wrench are available and must be ordered separately; see page L44.
For bushings, see page A570.



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■ BA Boring Bar Adapter • Internal and External Coolant • Inch



order number	catalog number	D1	D2	L1	L9	nozzle	ft. lbs.	clamp screw	kg
3892898	HSK63TBA150512	1.500	3.150	5.118	2.992	PWZ1012	90	MS1947	3,58

NOTE: Do not overtighten clamp screw; use torque recommendations above.
 Supplied with clamp screw.
 Clamp screw wrench not included.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.
 For bushings, see page A570.

TG&C • The Latest Metalcutting Innovations

Our latest metalcutting innovations are designed to deliver higher productivity, longer tool life, and increased application versatility.

A2™ — Cut-Off

- The cutting edge has a molded-in chipbreaker ramp to direct chips away from the blade, extending blade life.
- Fixed insert stop ensures solid seating with every index and delivers up to 30% longer life.

A3™ — Deep Grooving

- Designed for deep grooving.
- Reach deeper depths while maintaining chip control and tool rigidity.

A4™ — Grooving

- One tool for turning, facing, grooving, face-grooving, and cut-off in O.D. and I.D. applications — that means exceptionally fast cycle times, no turret indexes!
- Precise insert positioning is ensured — for accurate cuts!

Top Notch™

- Rigid clamping securely locks insert in place through the toughest cuts.
- Chip control inserts provide excellent chip evacuation in grooving and offer better chip control in multi-directional turning.



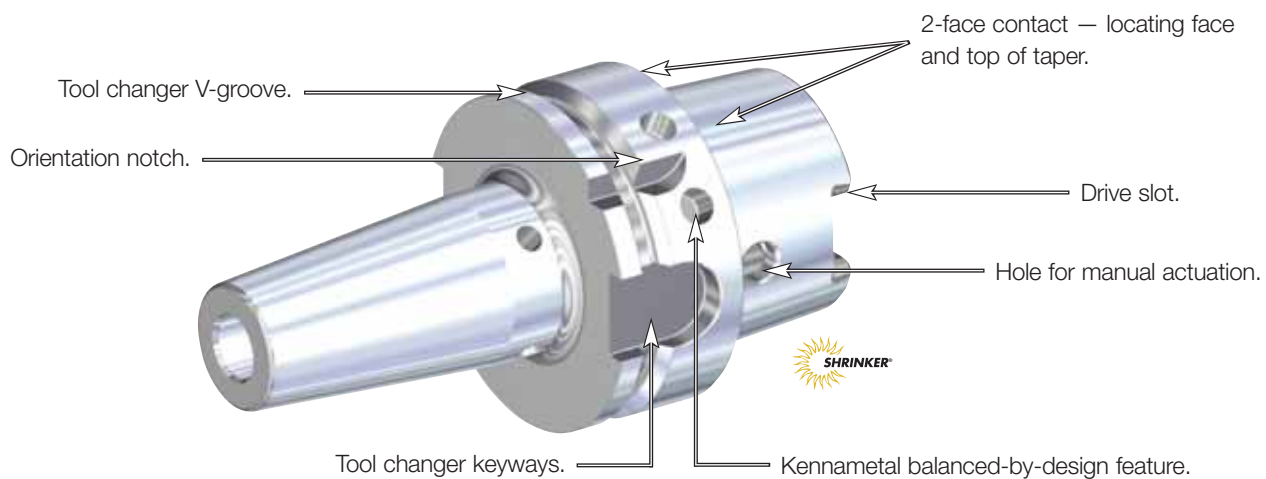
ERICKSON™ HSK Shank Tooling System • HSK63A Series

Primary Application

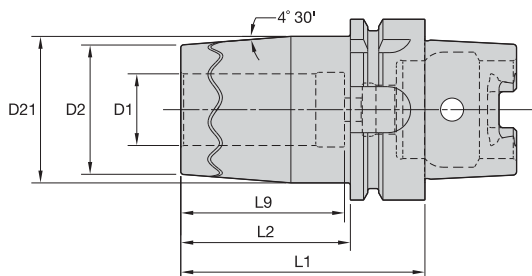
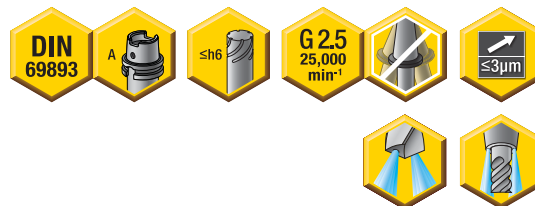
ERICKSON HSK Face Contact Short Taper Tooling is manufactured from premium materials and to the latest DIN/ISO specification standards. Form A versions are generally used in machining centers and milling machines with automatic tool changers. The HSK63A tools are either pre-balanced to a high specification or balanced-by-design. For high speed applications Kennametal recommends that the complete toolholder assembly (toolholder, coolant tubes, collets, hardware, and cutting tools) be balanced as one entity. Exact RPM limits can only be determined by considering machine and spindle configurations in conjunction with tooling design and safety limits factored as a complete system.

Features and Benefits

- ISO 12164-1/DIN 69893-1 Form A 1:10 short taper.
- High axial and radial repeatability compared to CAT, BT, and DV V-flange 7/24 taper tooling.
- Maximum 100 bar (1,500 psi) coolant pressure.



- SAFE-LOCK™, innovative and unique non-slip system.
- Suitable for carbide and HSS cutting tools.
- Need ≥ 10 kW shrink unit.



HSK63A Shank Tools

**Cutting Tool Shank Requirements
metric (ISO standard)**

cutting tool shank diameter	tolerance	
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

**Cutting Tool Shank Requirements
inch (industry standard)**

cutting tool shank diameter	tolerance
7/16, 1/2, 9/16, & 5/8	.0000/-0.0004
3/4, 7/8, 1, & 1-1/4	.0000/-0.0005

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■ TT SF MM-HSK Form A

order number	catalog number	D1	D2	D21	L1	L2	L9	kg
5090218	HSK63ASFTT12070M	12	27	33	70	44	46	0,84
5090219	HSK63ASFTT14075M	14	30	37	75	49	48	0,91
5090220	HSK63ASFTT16075M	16	30	37	75	49	49	0,89
5090221	HSK63ASFTT18075M	18	36	43	75	49	49	1,00
5090222	HSK63ASFTT20075M	20	36	43	75	49	49	0,97
5090223	HSK63ASFTT25085M	25	45	51	85	59	57	1,27
5090224	HSK63ASFTT32085M	32	45	51	85	59	59	1,12

■ TT SF IN-HSK Form A

order number	catalog number	D1	D2	D21	L1	L2	L9	lbs
5090233	HSK63ASFTT050276	1/2	1.04	1.32	2.76	1.73	1.81	1.84
5090234	HSK63ASFTT062295	5/8	1.16	1.47	2.95	1.93	1.93	1.96
5090235	HSK63ASFTT075295	3/4	1.40	1.70	2.95	1.93	1.93	2.16
5090236	HSK63ASFTT100335	1	1.77	2.01	3.35	2.32	2.24	2.78
5090237	HSK63ASFTT125335	1 1/4	1.77	2.01	3.35	2.32	2.32	2.49

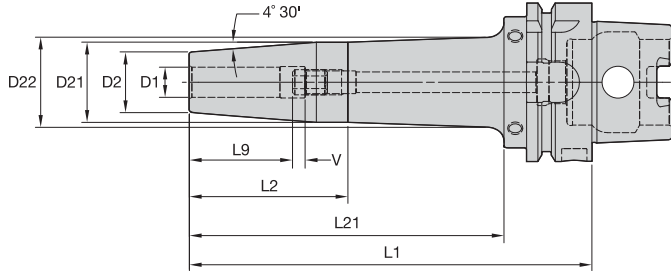
NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.
 Shrink Fit technical section, see page M78.
 Shrink Fit accessories, see pages L12–L13.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.

HSK63A Shank Tools

Shrink Fit Toolholders General Purpose (GP)



- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide and HSS cutting tools (requirements below).



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
3	h4	0,000/-0,003
4	h4	0,000/-0,004
5	h5	0,000/-0,005
6	h6	0,000/-0,008
8 & 10	h6	0,000/-0,009
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

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■ TT GP HPV MM-HSK Form A



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	kg
3866567	HSK63AHPVTT03080M	3	9	15	—	80	45	—	14	10,0	TTSS05014M	2,5mm	0,81
3866576	HSK63AHPVTT04080M	4	9	15	—	80	45	—	15	10,0	TTSS05014M	2,5mm	0,81
3866577	HSK63AHPVTT05080M	5	9	15	—	80	45	—	15	10,0	TTSS06014M	3mm	0,81
3866568	HSK63AHPVTT06080M	6	21	27	—	80	54	—	26	10,0	TTSS05014M	2,5mm	0,83
3866569	HSK63AHPVTT06120M	6	21	27	—	120	85	—	26	10,0	TTSS05014M	2,5mm	1,09
3866570	HSK63AHPVTT06160M	6	21	27	32	160	50	125	26	10,0	TTSS05014M	2,5mm	1,33
3866571	HSK63AHPVTT08080M	8	21	27	—	80	54	—	26	10,0	TTSS06014M	3mm	0,82
3866572	HSK63AHPVTT08120M	8	21	27	—	120	85	—	26	10,0	TTSS06014M	3mm	1,09
3866573	HSK63AHPVTT08160M	8	21	27	32	160	50	125	26	10,0	TTSS06014M	3mm	1,32
3866574	HSK63AHPVTT10085M	10	24	32	—	85	59	—	31	10,0	TTSS08014M	4mm	0,90
3866575	HSK63AHPVTT10120M	10	24	32	—	120	85	—	31	10,0	TTSS08014M	4mm	1,19
3866581	HSK63AHPVTT10160M	10	24	32	36	160	63	125	31	10,0	TTSS08014M	4mm	1,48
3866582	HSK63AHPVTT12090M	12	24	32	—	90	64	—	36	10,0	TTSS10014M	5mm	0,91
3866683	HSK63AHPVTT12120M	12	24	32	—	120	85	—	36	10,0	TTSS10014M	5mm	1,18
3866684	HSK63AHPVTT12160M	12	24	32	36	160	63	125	36	10,0	TTSS10014M	5mm	1,47
3866685	HSK63AHPVTT14090M	14	27	34	—	90	64	—	36	10,0	TTSS10014M	5mm	0,96
3866686	HSK63AHPVTT14120M	14	27	34	—	120	85	—	36	10,0	TTSS10014M	5mm	1,25
3866687	HSK63AHPVTT14160M	14	27	34	39	160	57	125	36	10,0	TTSS10014M	5mm	1,58
3866688	HSK63AHPVTT16095M	16	27	34	—	95	69	—	39	10,0	TTSS12014M	6mm	0,97
3866689	HSK63AHPVTT16120M	16	27	34	—	120	85	—	39	10,0	TTSS12014M	6mm	1,22
3866690	HSK63AHPVTT16160M	16	27	34	39	160	57	125	39	10,0	TTSS12014M	6mm	1,56
3866691	HSK63AHPVTT18095M	18	33	42	—	95	69	—	39	10,0	TTSS12014M	6mm	1,14
3866692	HSK63AHPVTT18120M	18	33	42	—	120	85	—	39	10,0	TTSS12014M	6mm	1,45
3866693	HSK63AHPVTT18160M	18	33	42	46	160	69	125	39	10,0	TTSS12014M	6mm	1,92
3866694	HSK63AHPVTT20100M	20	33	42	—	100	74	—	41	10,0	TTSS16014M	8mm	1,16
3866695	HSK63AHPVTT20120M	20	33	42	—	120	85	—	41	10,0	TTSS16014M	8mm	1,42
3866696	HSK63AHPVTT20160M	20	33	42	46	160	69	125	41	10,0	TTSS16014M	8mm	1,89
3866697	HSK63AHPVTT25115M	25	44	53	—	115	89	—	47	10,0	TTSS16014M	8mm	1,74
3866698	HSK63AHPVTT25160M	25	44	53	—	160	134	—	47	10,0	TTSS16014M	8mm	2,49
3866699	HSK63AHPVTT32120M	32	44	53	—	120	94	—	51	10,0	TTSS16014M	8mm	1,66
3866700	HSK63AHPVTT32160M	32	44	53	—	160	134	—	51	10,0	TTSS16014M	8mm	2,32

(continued)

(TT GP HPV continued)

Cutting Tool Shank Requirements
inch (industry standard)

cutting tool shank diameter	tolerance
1/4, 5/16, & 3/8	.0000/- .0004
7/16, 1/2, 9/16, & 5/8	.0000/- .0004
3/4, 7/8, 1, & 1-1/4	.0000/- .0005

HSK63A Shank Tools

■ TT GP HPV IN-HSK Form A



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	lbs
3864077	HSK63AHPVTT025315	1/4	.83	1.06	—	3.15	2.13	—	1.02	.39	TTSS05014M	2,5mm	1.82
3864078	HSK63AHPVTT025472	1/4	.83	1.06	—	4.72	3.35	—	1.02	.39	TTSS05014M	2,5mm	2.41
3864079	HSK63AHPVTT025630	1/4	.83	1.06	1.27	6.30	1.97	4.92	1.02	.39	TTSS05014M	2,5mm	2.92
3864080	HSK63AHPVTT031315	5/16	.83	1.06	—	3.15	2.13	—	1.02	.39	TTSS06014M	3mm	1.81
3864081	HSK63AHPVTT031472	5/16	.83	1.06	—	4.72	3.35	—	1.02	.39	TTSS06014M	3mm	2.40
3864082	HSK63AHPVTT031630	5/16	.83	1.06	1.27	6.30	1.97	4.92	1.02	.39	TTSS06014M	3mm	2.91
3864083	HSK63AHPVTT038335	3/8	.94	1.24	—	3.35	2.32	—	1.22	.39	TTSS08014M	4mm	1.98
3864084	HSK63AHPVTT038472	3/8	.94	1.26	—	4.72	3.35	—	1.22	.39	TTSS08014M	4mm	2.64
3864085	HSK63AHPVTT038630	3/8	.94	1.26	1.43	6.30	2.48	4.92	1.22	.39	TTSS08014M	4mm	3.28
3864086	HSK63AHPVTT044354	7/16	.94	1.26	—	3.54	2.52	—	1.42	.39	TTSS10014M	5mm	2.02
3864087	HSK63AHPVTT044472	7/16	.94	1.26	—	4.72	3.35	—	1.42	.39	TTSS10014M	5mm	2.61
3864088	HSK63AHPVTT050354	1/2	.94	1.26	—	3.54	2.52	—	1.42	.39	TTSS10014M	5mm	2.00
3864089	HSK63AHPVTT050472	1/2	.94	1.26	—	4.72	3.35	—	1.42	.39	TTSS10014M	5mm	2.59
3864090	HSK63AHPVTT050630	1/2	.94	1.26	1.43	6.30	2.48	4.92	1.42	.39	TTSS10014M	5mm	3.23
3864091	HSK63AHPVTT056354	9/16	1.06	1.33	—	3.54	2.52	—	1.42	.39	TTSS10014M	5mm	2.11
3864092	HSK63AHPVTT062374	5/8	1.06	1.33	—	3.74	2.72	—	1.54	.39	TTSS12014M	6mm	2.14
3864093	HSK63AHPVTT062472	5/8	1.06	1.33	—	4.72	3.35	—	1.54	.39	TTSS12014M	6mm	2.70
3864094	HSK63AHPVTT062630	5/8	1.06	1.33	1.52	6.30	2.24	4.92	1.54	.39	TTSS12014M	6mm	3.44
3864095	HSK63AHPVTT075394	3/4	1.30	1.65	—	3.94	2.92	—	1.61	.39	TTSS16014M	8mm	2.59
3864096	HSK63AHPVTT075630	3/4	1.30	1.65	1.80	6.30	2.72	4.92	1.61	.39	TTSS16014M	8mm	4.19
3864097	HSK63AHPVTT088394	7/8	1.30	1.65	—	3.94	2.92	—	1.61	.39	TTSS16014M	8mm	2.50
3864098	HSK63AHPVTT088630	7/8	1.30	1.65	1.80	6.30	2.72	4.92	1.61	.39	TTSS16014M	8mm	4.10
3864099	HSK63AHPVTT100453	1	1.73	2.07	—	4.53	3.51	—	1.85	.39	TTSS16014M	8mm	3.82
3864100	HSK63AHPVTT100630	1	1.73	2.07	—	6.30	5.28	—	1.85	.39	TTSS16014M	8mm	5.46
3864101	HSK63AHPVTT125472	1 1/4	1.73	2.07	—	4.72	3.70	—	2.01	.39	TTSS16014M	8mm	3.67
3864102	HSK63AHPVTT125630	1 1/4	1.73	2.07	—	6.30	5.28	—	2.01	.39	TTSS16014M	8mm	5.13

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Shrink Fit technical section, see page M78.

Supplied with stop screw.

Adjusting stop screw gage, see page M81.

Shrink Fit accessories, see pages L12–L13.

Optional M6~1.0P x 5mm lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.

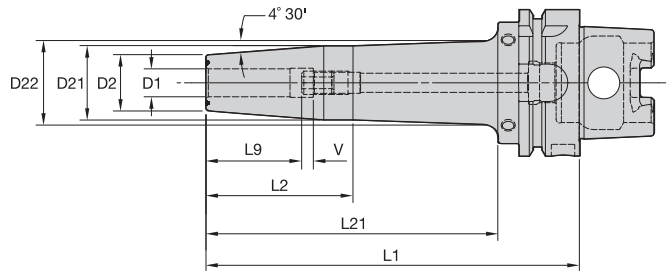
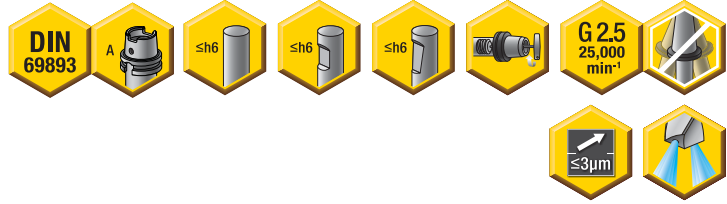
HSK coolant unit and wrench are available and must be ordered separately; see page L44.

HSK63A Shank Tools

Shrink Fit Toolholders High Torque (HT)



- 30–50% higher clamping torque compared to GP line.
- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide only, designated by groove in front face (requirements below).
- 10 kW power or greater Shrink Fit device must be used.



Cutting Tool Shank Requirements metric (ISO standard)

cutting tool shank diameter	tolerance	
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

ERICKSON

■ TT HT HPV MM-HSK Form A



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	kg
3867178	HSK63AHPVTHT12090M	12	24	32	—	90	64	—	36	10,00	TTSS10014M	5mm	0,91
3867179	HSK63AHPVTHT12120M	12	24	32	—	120	85	—	36	10,00	TTSS10014M	5mm	1,18
3867180	HSK63AHPVTHT12160M	12	24	32	36	160	63	125	36	10,00	TTSS10014M	5mm	1,47
3867181	HSK63AHPVTHT14090M	14	27	34	—	90	64	—	36	10,00	TTSS10014M	5mm	0,96
3867182	HSK63AHPVTHT14120M	14	27	34	—	120	85	—	36	10,00	TTSS10014M	5mm	1,25
3867193	HSK63AHPVTHT14160M	14	27	34	36	160	57	125	36	10,00	TTSS10014M	5mm	1,58
3867194	HSK63AHPVTHT16095M	16	27	34	—	95	69	—	39	10,00	TTSS12014M	6mm	0,97
3867195	HSK63AHPVTHT16120M	16	27	34	—	120	85	—	39	10,00	TTSS12014M	6mm	1,22
3867196	HSK63AHPVTHT16160M	16	27	34	39	160	57	125	39	10,00	TTSS12014M	6mm	1,56
3867197	HSK63AHPVTHT18095M	18	33	42	—	95	69	—	39	10,00	TTSS12014M	6mm	1,14
3867198	HSK63AHPVTHT18120M	18	33	42	—	120	85	—	39	10,00	TTSS12014M	6mm	1,45
3867199	HSK63AHPVTHT18160M	18	33	42	46	160	69	125	39	10,00	TTSS12014M	6mm	1,92
3867200	HSK63AHPVTHT20100M	20	33	42	—	100	74	—	41	10,00	TTSS16014M	8mm	1,16
3867201	HSK63AHPVTHT20120M	20	33	42	—	120	85	—	41	10,00	TTSS16014M	8mm	1,42
3867202	HSK63AHPVTHT20160M	20	33	42	46	160	69	125	41	10,00	TTSS16014M	8mm	1,89
3867206	HSK63AHPVTHT25115M	25	44	53	—	115	89	—	47	10,00	TTSS16014M	8mm	1,74
3867207	HSK63AHPVTHT25160M	25	44	53	—	160	134	—	47	10,00	TTSS16014M	8mm	2,49
3867208	HSK63AHPVTHT32120M	32	44	53	—	120	94	—	51	10,00	TTSS16014M	8mm	1,66
3867209	HSK63AHPVTHT32160M	32	44	53	—	160	134	—	51	10,00	TTSS16014M	8mm	2,32

(continued)

(TT HT HPV continued)

Cutting Tool Shank Requirements
inch (industry standard)

cutting tool shank diameter	tolerance
1/2, 9/16, & 5/8	.0000/- .0004
3/4, 7/8, 1, & 1-1/4	.0000/- .0005

HSK63A Shank Tools

■ TT HT HPV IN-HSK Form A



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	lbs
3872700	HSK63AHPVTTHT050354	1/2	.94	1.26	—	3.54	2.52	—	1.42	.39	TTSS10014M	5mm	2.00
3872701	HSK63AHPVTTHT050472	1/2	.94	1.26	—	4.72	3.35	—	1.42	.39	TTSS10014M	5mm	2.59
3872702	HSK63AHPVTTHT050630	1/2	.94	1.26	1.43	6.30	2.48	4.92	1.42	.39	TTSS10014M	5mm	3.23
3872703	HSK63AHPVTTHT056354	9/16	1.06	1.33	—	3.54	2.52	—	1.42	.39	TTSS10014M	5mm	2.11
3872704	HSK63AHPVTTHT062374	5/8	1.06	1.33	—	3.74	2.72	—	1.54	.39	TTSS12014M	6mm	2.14
3872705	HSK63AHPVTTHT062472	5/8	1.06	1.33	—	4.72	3.35	—	1.54	.39	TTSS12014M	6mm	2.70
3872706	HSK63AHPVTTHT062630	5/8	1.06	1.33	1.52	6.30	2.24	4.92	1.54	.39	TTSS12014M	6mm	3.44
3872707	HSK63AHPVTTHT075394	3/4	1.30	1.65	—	3.94	2.92	—	1.61	.39	TTSS16014M	8mm	2.59
3872708	HSK63AHPVTTHT075630	3/4	1.30	1.65	1.80	6.30	2.72	4.92	1.61	.39	TTSS16014M	8mm	4.19
3872709	HSK63AHPVTTHT088394	7/8	1.30	1.65	—	3.94	2.92	—	1.61	.39	TTSS16014M	8mm	2.50
3872710	HSK63AHPVTTHT088630	7/8	1.30	1.65	1.80	6.30	2.72	4.92	1.61	.39	TTSS16014M	8mm	4.10
3872711	HSK63AHPVTTHT100453	1	1.73	2.07	—	4.53	3.51	—	1.85	.39	TTSS16014M	8mm	3.82
3872712	HSK63AHPVTTHT100630	1	1.73	2.07	—	6.30	5.28	—	1.85	.39	TTSS16014M	8mm	5.46
3872713	HSK63AHPVTTHT125472	1 1/4	1.73	2.07	—	4.72	3.70	—	2.01	.39	TTSS16014M	8mm	3.67
3872714	HSK63AHPVTTHT125630	1 1/4	1.73	2.07	—	6.30	5.28	—	2.01	.39	TTSS16014M	8mm	5.13

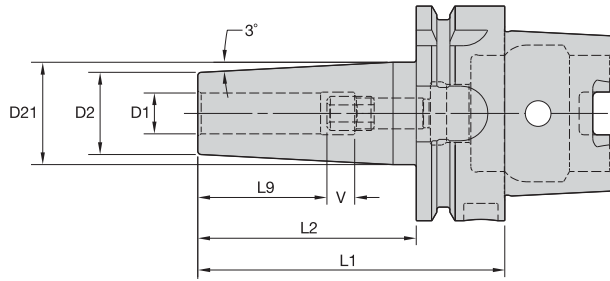
NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.
 Shrink Fit technical section, see page M78.
 Supplied with stop screw.
 Adjusting stop screw gage, see page M81.
 Shrink Fit accessories, see pages L12–L13.
 Optional M6~1.0P x 5mm lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.
 HSK coolant unit and wrench are available and must be ordered separately, see page L44.

HSK63A Shank Tools

Shrink Fit Toolholders, Die and Mold



- Suitable for carbide and HSS cutting tools (requirements below).
- Die and mold.



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
5	h5	0,000/-0,005
6	h6	0,000/-0,008
8 & 10	h6	0,000/-0,009
12 & 16	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013

ERICKSON™

■ TT MD MM-HSK Form A



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw
1926291	HSK63ATTMD05080M	5	10	14,4	80	54	14	10	TTSS06014M	3mm
1926292	HSK63ATTMD06080M	6	12	16,4	80	54	26	10	TTSS05014M	2,5mm
1926293	HSK63ATTMD08080M	8	16	20,4	80	54	26	10	TTSS06014M	3mm
1926294	HSK63ATTMD10085M	10	20	24,9	85	59	31	10	TTSS08014M	4mm
1926295	HSK63ATTMD12090M	12	24	29,9	90	64	36	10	TTSS10014M	5mm
1926296	HSK63ATTMD16095M	16	28	33,9	95	69	39	10	TTSS12014M	6mm
1926297	HSK63ATTMD20100M	20	34	40,9	100	74	41	10	TTSS16014M	8mm
1926298	HSK63ATTMD25115M	25	39	46,9	115	89	47	10	TTSS16014M	8mm

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.
 Shrink Fit technical section, see page M78.
 Supplied with stop screw.
 Adjusting stop screw gage, see page M81.
 Shrink Fit accessories, see pages L12-L13.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.

HSK63A Shank Tools



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Superior Gripping

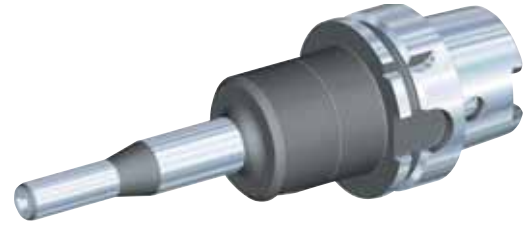
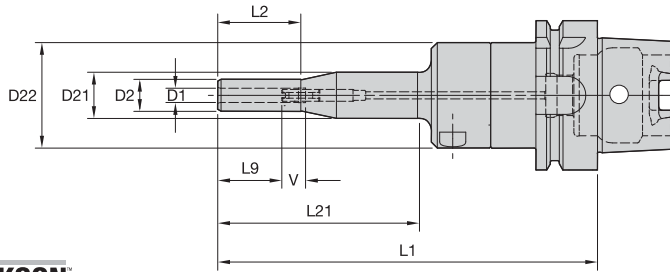
For bearing milling chucks when grip counts. ERICKSON — the industry name you can trust.

- Heavy and fine milling applications.
- Great accuracy $\leq 5\mu\text{m}$ (.0002") at 3 x D and best gripping system.
- Pre-balanced to high specifications.
- Versatile as a collet chuck with the use of reduction sleeves.

Visit www.kennametal.com or contact your local Authorized Kennametal Distributor.

www.kennametal.com





HSK63A Shank Tools

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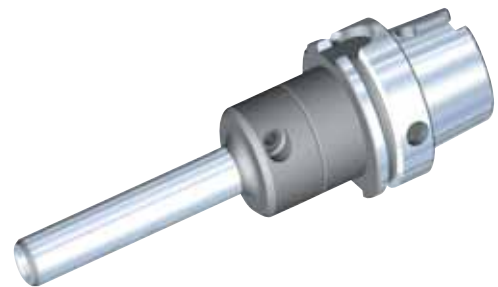
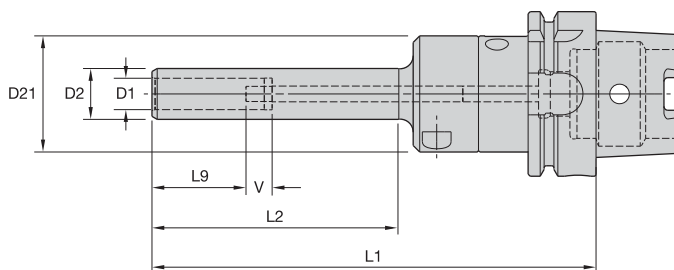
■ **HC Slim-T MM-HSK Form A**

order number	catalog number	D1	D2	D21	D22	L1	L2	L9	L21	V	kg
2639015	HSK63AHCSLT06160M	6	13,5	19,5	44	160	35	27	85	10	1,29
2868501	HSK63AHCSLT08160M	8	15,5	19,5	44	160	35	27	85	10	1,30
2638477	HSK63AHCSLT10160M	10	17,5	44,5	—	160	85	31	—	10	1,29

■ **Spare Parts**



catalog number	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw
HSK63AHCSLT06160M	170.135	5mm	170.002	2,5mm
HSK63AHCSLT08160M	170.135	5mm	170.002	2,5mm
HSK63AHCSLT10160M	170.135	5mm	170.003	3mm



■ **HC Slim MM-HSK Form A**

order number	catalog number	D1	D2	D21	L1	L2	L9	V	kg
2458200	HSK63AHCSL12170M	12	19,5	44,5	170	95	36	10	1,33
2541833	HSK63AHCSL14170M	14	21,5	52,5	170	95	36	10	1,57
2458202	HSK63AHCSL16170M	16	23,5	52,5	170	95	39	10	1,59
2541834	HSK63AHCSL18170M	18	25,5	52,5	170	95	39	10	1,63
2458203	HSK63AHCSL20170M	20	27,5	52,5	170	95	41	10	1,67

(continued)

(HC Slim continued)

■ Spare Parts

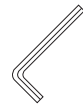


catalog number	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw
HSK63AHCSL12170M	170.135	5mm	170.002	2,5mm
HSK63AHCSL14170M	170.135	5mm	170.002	2,5mm
HSK63AHCSL16170M	170.135	5mm	170.002	2,5mm
HSK63AHCSL18170M	170.135	5mm	170.002	2,5mm
HSK63AHCSL20170M	170.135	5mm	170.002	2,5mm

■ HC Slim IN-HSK Form A

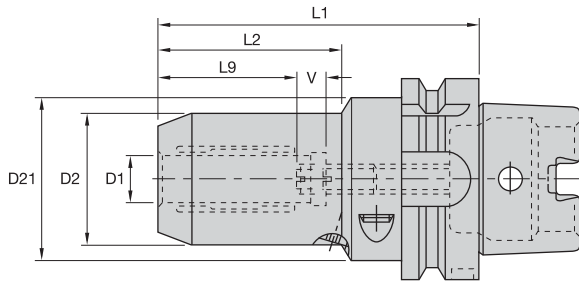
order number	catalog number	D1	D2	D21	L1	L2	L9	V	lbs
2508159	HSK63AHCSL050669	1/2	.81	2.07	6.69	3.74	1.42	.39	3.42
2508160	HSK63AHCSL075669	3/4	1.06	2.07	6.69	3.74	1.61	.39	3.68

■ Spare Parts



catalog number	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw
HSK63AHCSL050669	170.135	5mm	170.002	2,5mm
HSK63AHCSL075669	170.135	5mm	170.002	2,5mm

NOTE: Do not overtighten actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw.
 Actuation wrenches must be ordered separately.
 Reduction sleeves are available and must be ordered separately; see page J2.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.
 Unable to use SEFAS™ chamfering rings on these adapters.



HSK63A Shank Tools

ERICKSON™

■ **HC MM-HSK Form A**



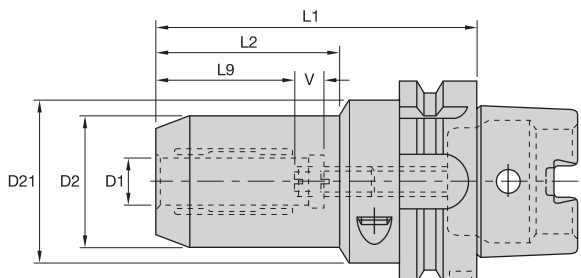
order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw	kg
1245440	HSK63AHC06080M	6	25,7	50	80	33	27	10	170.135	5mm	170.002	2,5mm	1,00
1245441	HSK63AHC08080M	8	27,7	50	80	34	27	10	170.135	5mm	170.002	2,5mm	1,10
1245477	HSK63AHC10085M	10	29,7	50	85	39	31	10	170.135	5mm	170.002	2,5mm	1,10
1245478	HSK63AHC12090M	12	31,6	50	90	45	36	10	170.135	5mm	170.002	2,5mm	2,00
1245479	HSK63AHC14090M	14	33,6	50	90	46	36	10	170.135	5mm	170.003	3mm	2,00
1245480	HSK63AHC16095M	16	37,6	50	95	52	39	10	170.135	5mm	170.003	3mm	2,00
1245481	HSK63AHC18095M	18	39,6	50	95	52	39	10	170.135	5mm	170.003	3mm	2,10
1191019	HSK63AHC20100M	20	41,6	50	100	58	41	10	170.135	5mm	170.003	3mm	2,10
1245482	HSK63AHC25120M	25	49,8	63	120	51	47	10	170.136	6mm	170.004	4mm	2,30
1192226	HSK63AHC32125M	32	59,8	63	125	59	51	10	170.136	6mm	170.004	4mm	2,26

■ **HC IN-HSK Form A**



order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw	lbs
1246521	HSK63AHC025325	1/4	1.01	1.97	3.25	1.30	1.06	-	170.135	5mm	170.002	2,5mm	2.20
1246525	HSK63AHC038338	3/8	1.17	1.97	3.38	1.54	1.22	-	170.135	5mm	170.002	2,5mm	2.40
1246528	HSK63AHC050350	1/2	1.24	1.97	3.50	1.75	1.42	-	170.135	5mm	170.002	2,5mm	4.40
1246532	HSK63AHC062375	5/8	1.48	1.97	3.75	2.03	1.54	-	170.135	5mm	170.003	3mm	4.40
1246534	HSK63AHC075400	3/4	1.64	1.97	4.00	2.28	1.61	-	170.135	5mm	170.003	3mm	4.60
1246536	HSK63AHC100475	1	1.97	2.48	4.75	2.01	1.81	-	170.136	6mm	170.004	4mm	5.10
1246540	HSK63AHC125500	1 1/4	2.35	2.48	5.00	2.32	1.97	-	170.136	6mm	170.004	4mm	5.30

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
Hydraulic chuck technical section, see page M84.
Wrenches must be ordered separately.
Supplied with stop screw.
Reduction sleeves are available and must be ordered separately; see page J2.
HSK coolant unit and wrench are available and must be ordered separately; see page L44.



HSK63A Shank Tools

ERICKSON

■ HC Trend MM-HSK Form A



order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	wrench size stop screw	kg
1724543	HSK63AHCT06080M	6	25,7	50	80	33	27	10	170.135	5mm	3mm	1,01
1724615	HSK63AHCT06150M	6	25,7	50	150	105	27	10	170.135	5mm	3mm	1,27
1724544	HSK63AHCT08080M	8	27,7	50	80	34	27	10	170.135	5mm	3mm	1,03
1724657	HSK63AHCT08150M	8	27,7	50	150	105	27	10	170.135	5mm	3mm	1,33
1724545	HSK63AHCT10085M	10	29,7	50	85	39	31	10	170.135	5mm	3mm	1,07
1724658	HSK63AHCT10150M	10	29,7	50	150	105	31	10	170.135	5mm	3mm	1,40
1724546	HSK63AHCT12090M	12	31,6	50	90	45	36	10	170.135	5mm	3mm	1,10
1724660	HSK63AHCT12150M	12	31,6	50	150	105	36	10	170.135	5mm	3mm	1,46
1724547	HSK63AHCT14090M	14	33,6	50	90	46	36	10	170.135	5mm	5mm	1,12
1724761	HSK63AHCT14150M	14	33,6	50	150	105	36	10	170.135	5mm	5mm	1,51
1724548	HSK63AHCT16095M	16	37,6	50	95	52	39	10	170.135	5mm	5mm	1,22
1724763	HSK63AHCT16150M	16	37,6	50	150	105	39	10	170.135	5mm	5mm	1,68
1724550	HSK63AHCT18095M	18	39,6	50	95	52	39	10	170.135	5mm	5mm	1,25
1724764	HSK63AHCT18150M	18	39,6	50	150	105	39	10	170.135	5mm	5mm	1,76
1724611	HSK63AHCT20100M	20	41,6	50	100	58	41	10	170.135	5mm	5mm	1,32
1724765	HSK63AHCT20150M	20	41,6	50	150	105	41	10	170.135	5mm	5mm	1,84
1724612	HSK63AHCT25120M	25	49,8	63	120	51	47	10	170.136	6mm	5mm	2,00
1724613	HSK63AHCT32125M	32	59,8	63	125	59	51	10	170.136	6mm	5mm	2,59

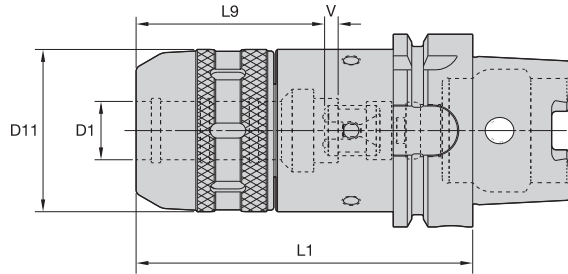
NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Wrenches must be ordered separately.
 Supplied with stop screw.
 Reduction sleeves are available and must be ordered separately; see page J2.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.

HSK63A Shank Tools

HPMC High-Performance Milling Chucks



- Balanceable — fine tune with set screws.
- Heavy and fine capabilities.



HSK63A Shank Tools

ERICKSON

■ HPMC MM-HSK Form A

order number	catalog number	D1	D11	L1	L9	V	locknut wrench	stop screw	wrench size stop screw	kg
3100547	HSK63AHPMC20110M	20	53	110	56	10	PSW52M	MCSS16018M	2,5mm & 5mm	1,77
3100548	HSK63AHPMC32120M	32	70	120	66	10	PSW68M	MCSS16018M	2,5mm & 5mm	2,61

■ HPMC IN-HSK Form A

order number	catalog number	D1	D11	L1	L9	V	locknut wrench	stop screw	wrench size stop screw	lbs
3100544	HSK63AHPMC075433	3/4	2.09	4.33	2.20	.39	PSW52M	MCSS16018M	2,5mm & 5mm	3.90
3100545	HSK63AHPMC100472	1	2.40	4.72	2.60	.39	PSW58M	MCSS16018M	2,5mm & 5mm	5.30
3100546	HSK63AHPMC125472	1 1/4	2.76	4.72	2.56	.39	PSW68M	MCSS16018M	2,5mm & 5mm	5.70

NOTE: Milling chuck technical section, see page M88.

Supplied with locknut and stop screw.

Locknut wrench not included.

Optional M6~1,0P fine-balancing screw set is available (order number HPMCBALSCREWSET) and must be ordered separately; see page L14.

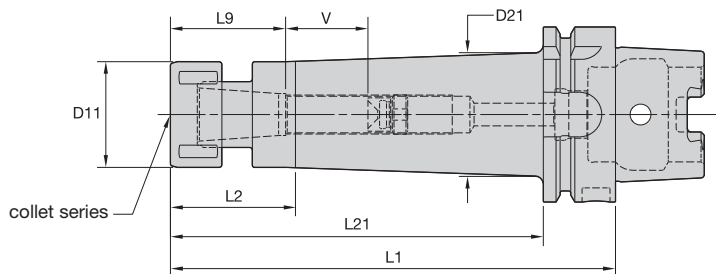
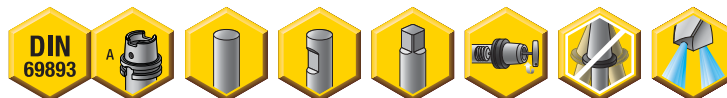
Reduction sleeves are available and must be ordered separately; see page J6.

HSK coolant unit and wrench are available and must be ordered separately; see page L44.

Heavy milling with locknut tightened to face stop.

Fine milling with locknut tightened to face stop then back off a 1/2 turn.

- Tremendous Grip (3:1 advantage).



TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG50	1,1	13,5	1/32	17/32
TG75	2,6	20,0	3/64	3/4
TG100	2,6	25,5	5/64	1

HSK63A Shank Tools

ERICKSON

■ TG Round-HSK Form A



order number	catalog number	collet series	D11	D21	L1	L2	L21	L9	V	locknut	wrench	Nm	stop screw	wrench size	stop screw	stop screw cone cap	kg
													stop screw	stop screw	cone cap		
1119347	HSK63ATG050100M	TG50	38	—	100	74	—	42	12	LNA050M	HSW34M	68	SS056041G	4mm & 5/32	SSCC056	1,14	
1086567	HSK63ATG050160M	TG50	38	44,5	160	41	134	42	58	LNA050M	HSW34M	68	SS056041G	4mm & 5/32	SSCC056	1,75	
1086568	HSK63ATG075115M	TG75	50	—	115	89	—	54	13	LNA075M	HSW45M	136	SS081041G	4mm & 5/32	SSCC081	1,65	
1086559	HSK63ATG100135M	TG100	60	—	135	109	—	70	12	LNA100M	HSW58M	203	SS112041G	4mm & 5/32	SSCC112	2,05	

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.

Collet chuck technical section, see page M98.

Supplied with locknut and stop screw.

Locknut wrench must be ordered separately.

Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16–L17.

Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.

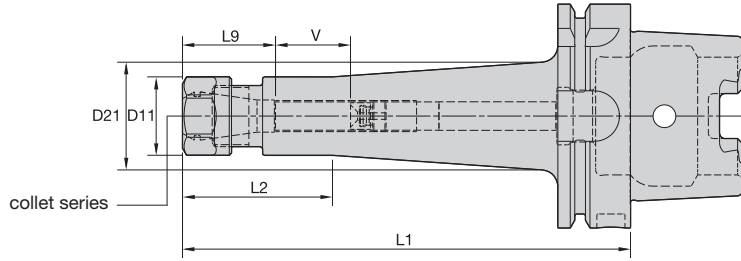
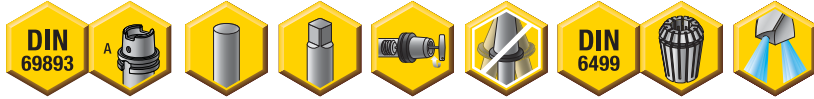
Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.

TG standard straight-bore collets, see page J10.

TG tap collets, see page J10.

HSK coolant unit and wrench are available and must be ordered separately; see page L44.

- Grip (2:1 advantage).



HSK63A Shank Tools

ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER16	0,5	10,0	.02	.41
ER20	0,5	13,0	.02	.50
ER25	1,0	16,0	.04	.63
ER32	2,0	20,0	.08	.81
ER40	3,0	26,0	.12	1.00

ERICKSON™

ER Hex-HSK Form A

order number	catalog number	collet series	D11	D21	L1	L2	L9	V	kg
1086425	HSK63AER16100M	ER16	28	—	100	74	32	24	0,90
1086426	HSK63AER16160M	ER16	28	45	160	85	32	48	1,32
1086427	HSK63AER20100M	ER20	34	—	100	68	36	17	1,03

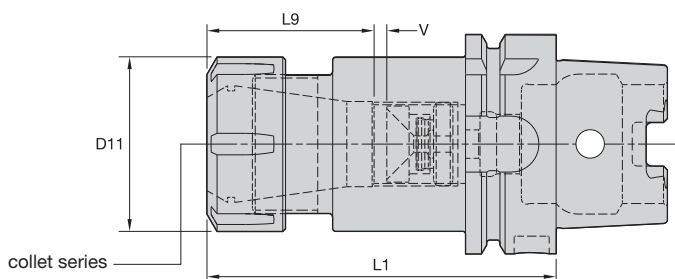
Spare Parts



catalog number	locknut	wrench	counterbore collet torque (Nm)	straight collet torque (Nm)	stop screw	wrench size stop screw	stop screw cone cap
HSK63AER16100M	LNHSER16M	OEW25M	40	56	SS044038G	4mm & 5/32	S SCC044
HSK63AER16160M	LNHSER16M	OEW25M	40	56	SS044038G	4mm & 5/32	S SCC044
HSK63AER20100M	LNHSER20M	OEW30M	32	80	SS056041G	4mm & 5/32	S SCC056

(continued)

(ER continued)



HSK63A Shank Tools

■ ER Round-HSK Form A

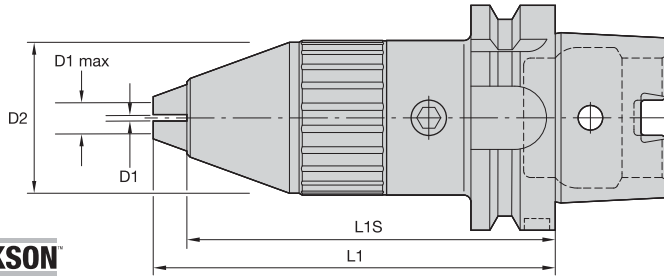
order number	catalog number	collet series	D11	L1	L9	V	kg
1086855	HSK63AER25100M	ER25	42	100	40	12	1,18
1086566	HSK63AER32100M	ER32	50	100	45	4	1,37
1086856	HSK63AER40120M	ER40	63	120	54	15	1,80

■ Spare Parts



catalog number	locknut	wrench	Nm	stop screw	wrench size stop screw	stop screw cone cap
HSK63AER25100M	LNSER25M	ER25WM	104	SS075041G	4mm & 5/32	S SCC075
HSK63AER32100M	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32	S SCC094
HSK63AER40120M	LNSER40M	ER40WM	176	SS112041G	4mm & 5/32	S SCC112

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.

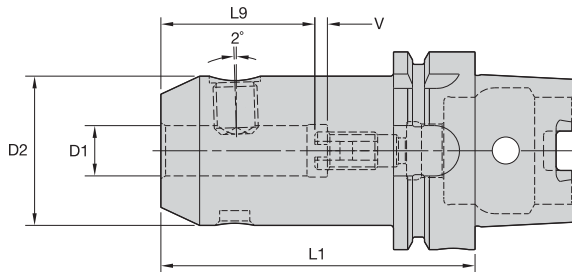


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■ DC-HSK Form A

order number	catalog number	D1		D1 max		D2	L1	L1S
		mm	in	mm	in			
2636451	HSK63ADC13117M	0,5	.020	13,0	.512	50	126	117
2636452	HSK63ADC16117M	3,0	.118	16,0	.630	52	127	117

NOTE: Tighten to the recommended tightening torque.
4mm locking wrench must be ordered separately; order number 170.304.
HSK coolant unit and wrench are available and must be ordered separately; see page L44.

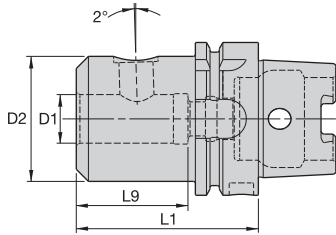


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■ WN MM-HSK Form A

order number	catalog number	D1	D2	L1	L9	V	lock screw	wrench size clamp screw	Nm	stop screw	wrench size stop screw	kg
1126151	HSK63AWN08080M	8	28	80	30	10	SS03M014	4mm	15	571.067	3mm	0,86
1126161	HSK63AWN10080M	10	35	80	35	7	SS03M018	5mm	25	571.068	4mm	1,00
1126168	HSK63AWN12090M	12	42	90	40	7	SS03M023	6mm	35	571.074	5mm	1,23
1126178	HSK63AWN14090M	14	44	90	40	8	SS03M023	6mm	35	571.074	5mm	1,28
1126187	HSK63AWN16100M	16	48	100	43	10	SS03M025	6mm	50	571.069	6mm	1,53
1130396	HSK63AWN18100M	18	50	100	43	10	SS03M025	6mm	50	571.069	6mm	1,59
1126205	HSK63AWN20100M	20	52	100	45	8	SS03M026	8mm	95	571.076	6mm	1,65
1126220	HSK63AWN25110M	25	65	110	50	9	SS03M027	10mm	135	571.077	6mm	2,31
1126230	HSK63AWN32110M	32	72	110	54	9	SS03M029	10mm	160	571.077	6mm	2,55

NOTE: Do not overtighten clamp screw; use torque recommendations above.
Supplied with clamp screw and stop screw.
Clamp screw or stop screw wrenches not included.
HSK coolant unit and wrench are available and must be ordered separately; see page L44.



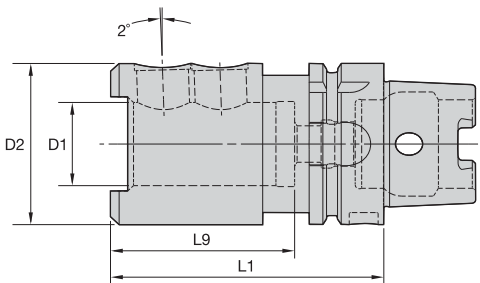
HSK63A Shank Tools

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■ SWN MM-HSK Form A



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	Nm	kg
1254119	HSK63ASWN20075M	20	50	75	48	SS03M026	8mm	95	3,00
1254120	HSK63ASWN25080M	25	55	80	48	SS03M023	6mm	35	2,90

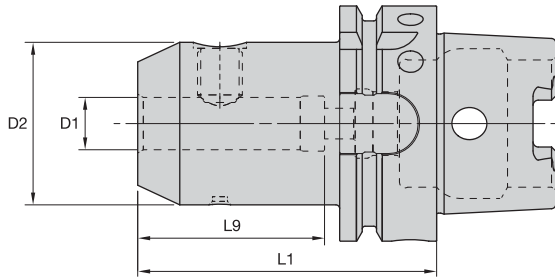


■ SWN MM • With Drive • HSK Form A



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	Nm	kg
1254121	HSK63ASWN32090M	32	62	90	66	SS03M023	6mm	35	1,67

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw.
 Lock screw wrenches not included.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.

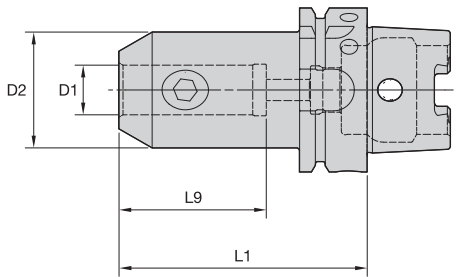


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■ EM MM-HSK Form A



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size clamp screw	Nm	kg
1125914	HSK63AEM06065M	6	25	65	43	SS03M012	3mm	7	0,76
1125924	HSK63AEM08065M	8	28	65	40	SS03M014	4mm	15	0,79
1125931	HSK63AEM10065M	10	35	65	41	SS03M018	5mm	25	0,88
1125940	HSK63AEM12080M	12	42	80	50	SS03M023	6mm	35	1,13
1125951	HSK63AEM14080M	14	44	80	50	SS03M023	6mm	35	1,17
1125958	HSK63AEM16080M	16	48	80	53	SS03M025	6mm	50	1,26
1125987	HSK63AEM18080M	18	50	80	53	SS03M025	6mm	50	1,30
1125997	HSK63AEM20080M	20	52	80	55	SS03M026	8mm	95	1,33
1126005	HSK63AEM25110M	25	65	110	60	SS03M027	10mm	135	2,30
1126012	HSK63AEM32110M	32	72	110	65	SS03M029	10mm	160	2,52



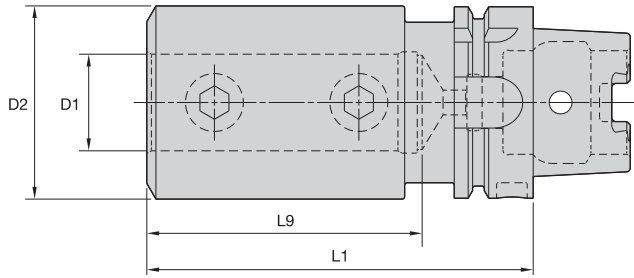
■ EM IN-HSK Form A



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size clamp screw	ft. lbs.	lbs
1015191	HSK63AEM025300	1/4	1.00	3.00	2.14	ELS025025PKG	1/8	8	1.79
1015192	HSK63AEM038300	3/8	1.00	3.00	1.73	ELS038031PKG	3/16	15	1.76
1015193	HSK63AEM050300	1/2	1.38	3.00	1.97	ELS044038PKG	7/32	20	2.05
1015224	HSK63AEM062375	5/8	1.63	3.75	2.09	ELS056050PKG	1/4	40	2.71
1015225	HSK63AEM075375	3/4	1.75	3.75	2.22	ELS062050PKG	5/16	70	2.85
1015226	HSK63AEM100375	1	2.00	3.75	2.46	ELS075056PKG	3/8	110	3.12
1015227	HSK63AEM125425	1 1/4	2.50	4.25	2.51	ELS075062PKG	3/8	110	4.51

NOTE: Do not overtighten clamp screw; use torque recommendations above.
 Supplied with clamp screw.
 Clamp screw wrench not included.
 HSK coolant unit and wrench are available and must be ordered separately, see page L44.

- For drill with flats.



HSK63A Shank Tools

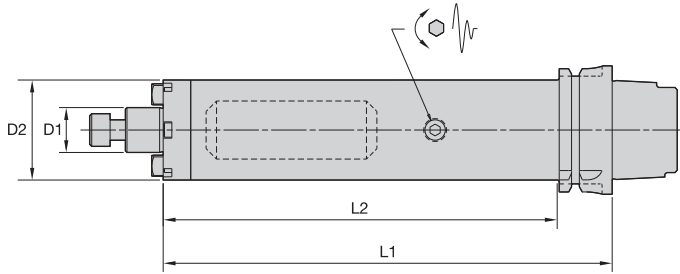
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■ SSF IN-HSK Form A



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
1808884	HSK63ASSF125500	1 1/4	2.50	5.00	3.50	ELS075056PKG	3/8	110	4.99
1809016	HSK63ASSF150550	1 1/2	2.75	5.50	4.00	ELS075056PKG	3/8	110	5.99

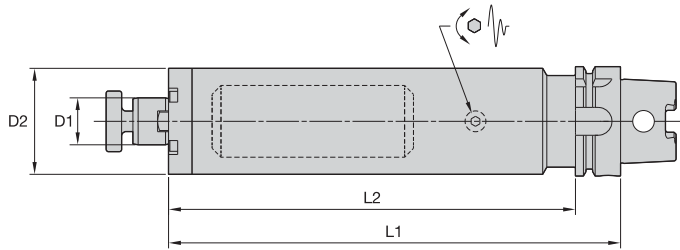
NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw.
 Lock screw wrenches not included.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.



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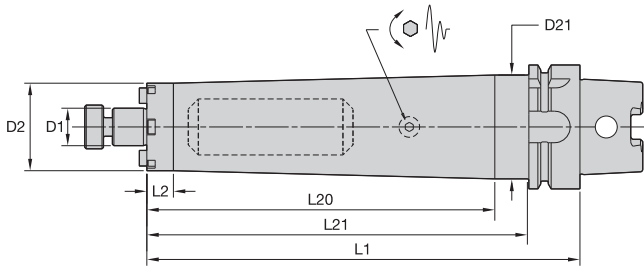
■ SMC TD Cap MM-HSK Form A

order number	catalog number	D1	D2	L1	L2	lock screw	drive key	wrench size lock screw	kg
4136192	HSK63ATDSMC22220M	22	49	220	194	MS1234	KDK22M	8mm	3,34



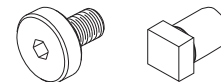
■ SMC TD Lock MM-HSK Form A

order number	catalog number	D1	D2	L1	L2	lock screw	drive key	wrench size lock screw	kg
4135978	HSK63ATDSMC27260M	27	61	260	234	KLSS27M	—	10mm	5,59

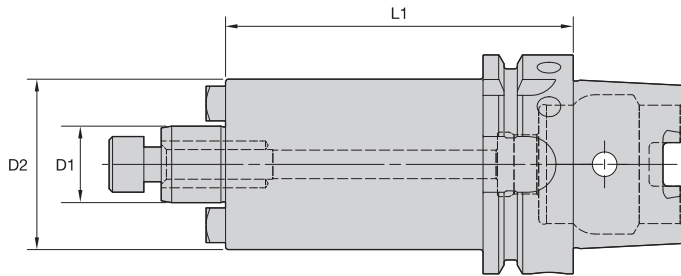


■ SMC TD Lock IN-HSK Form A

order number	catalog number	D1	D2	D21	L1	L2	L20	L21	lock screw	drive key	wrench size lock screw	lbs
4135979	HSK63ATDSMC0750866	3/4	1.75	2.08	8.66	.53	6.96	7.64	KLS07	KDK05	1/4	7.28
4135980	HSK63ATDSMC1001050	1	2.19	—	10.50	9.48	—	—	KLS10	KDK06	5/16	11.06



NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive keys.
 Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
 Lock screw wrench not included.
 For HSK coolant unit and wrench, see page L44.



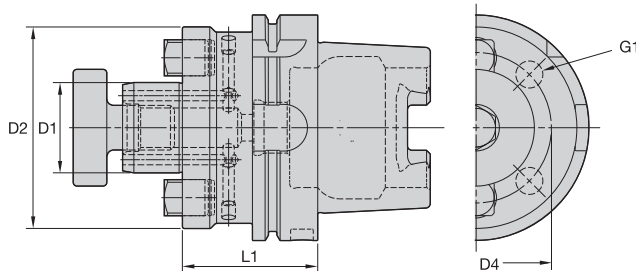
HSK63A Shank Tools

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■ SMC Cap MM-HSK Form A



order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size lock screw	kg
3872682	HSK63ASM2C16050M	16	38	50	MS1294	KDK16M	6mm	0,88
3872681	HSK63ASMC16050M	16	44	50	MS1294	KDK16M	6mm	0,95
3872684	HSK63ASM2C22050M	22	42	50	MS1234	—	8mm	0,96
3872683	HSK63ASMC22050M	22	49	50	MS1234	KDK22M	8mm	1,05
3872685	HSK63ASMC22100M	22	49	100	MS1234	KDK22M	8mm	1,77
3872686	HSK63ASMC22160M	22	49	160	MS1234	KDK22M	8mm	2,63



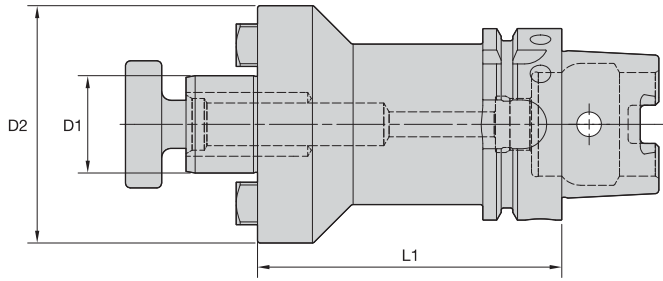
■ SMC Lock MM-HSK Form A



order number	catalog number	D1	D2	D4	G1	L1	lock screw	drive key	wrench size lock screw	kg
3872687	HSK63ASMC27060M	27	60	—	—	60	KLSS27M	KDK27M	10mm	1,42
3872688	HSK63ASMC27100M	27	60	—	—	100	KLSS27M	KDK27M	10mm	2,11
3872689	HSK63ASMC27160M	27	60	—	—	160	KLSS27M	KDK27M	10mm	3,11
3872690	HSK63ASMC32060M	32	78	—	—	60	KLSS32M	KDK32M	14mm	1,77
3872691	HSK63ASMC32100M	32	78	—	—	100	KLSS32M	KDK32M	14mm	2,59
3872692	HSK63ASMC32160M	32	78	—	—	160	KLSS32M	KDK32M	14mm	3,59
3872693	HSK63ASMC40060M	40	89	67	M12X1.75	60	KLSS40M	KDK40M	17mm	2,14
3872694	HSK63ASMC40100M	40	89	67	M12X1.75	100	KLSS40M	KDK40M	17mm	3,18
3872695	HSK63ASMC40160M	40	89	67	M12X1.75	160	KLSS40M	KDK40M	17mm	4,19

(continued)

(SMC continued)



HSK63A Shank Tools

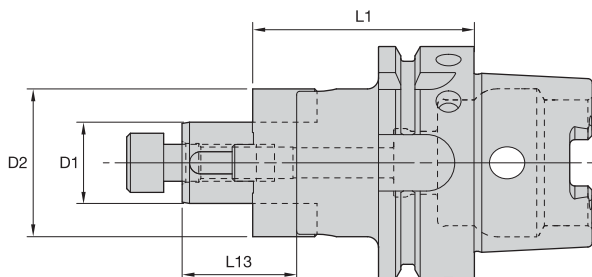
■ SMC Lock IN-HSK Form A



order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size lock screw	lbs
3762410	HSK63ASM2C050200	1/2	1.20	2	KLS05	KDK04	3/16	1.76
3762409	HSK63ASMC050200	1/2	1.44	2	KLS05	KDK04	3/16	1.89
3762412	HSK63ASM2C075200	3/4	1.46	2	KLS07	—	1/4	1.97
3762411	HSK63ASMC075200	3/4	1.75	2	KLS07	KDK05	1/4	2.17
3762414	HSK63ASM2C100225	1	2.19	2	KLS10	KDK06	5/16	2.83
3762413	HSK63ASMC100225	1	2.75	2	KLS10	KDK06	5/16	3.11
3762415	HSK63ASMC125225	1 1/4	2.88	2	KLS12	KDK08	5/16	3.40
3762416	HSK63ASMC150225	1 1/2	3.81	2	KLS15	KDK10	3/8	4.59

NOTE: Do not overtighten lock screw.
Supplied with lock screw and drive keys.
Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
Lock screw wrench not included.
For HSK coolant unit and wrench, see page L44.

- Through-the-toolholder coolant capability.

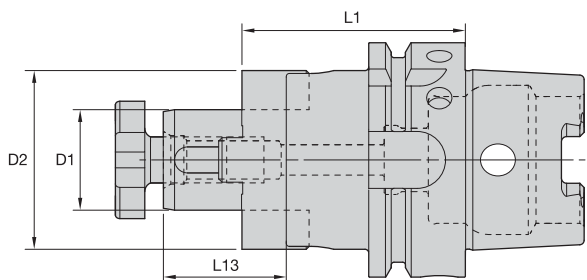


HSK63A Shank Tools

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■ CS MM-HSK Form A

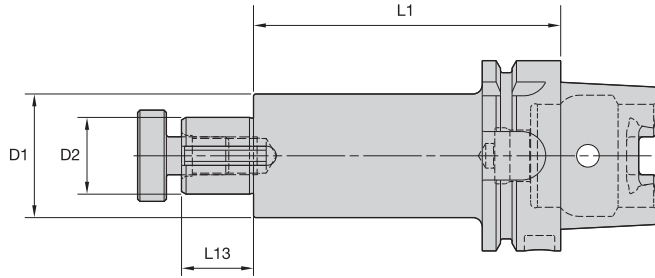
order number	catalog number	D1	D2	L1	L13	lock screw	wrench size lock screw	combi driver ring	combi drive key	kg
1126799	HSK63ACS16060M	16	32	60	27	MS1294	6mm	CDR16M	CDK16M	0,88
1126808	HSK63ACS22060M	22	40	60	31	MS1234	8mm	CDR22M	CDK22M	1,03



■ CS Lock MM-HSK Form A

order number	catalog number	D1	D2	L1	L13	lock screw	locknut wrench	combi driver ring	combi drive key	kg
1126816	HSK63ACS27060M	27	48	60	33	KLS27M	SMW27M	CDR27M	CDK27M	1,23
1126823	HSK63ACS32060M	32	58	60	38	KLS32M	SMW32M	CDR32M	CDK32M	1,48
1126829	HSK63ACS40070M	40	70	70	41	KLS40M	SMW40M	CDR40M	CDK40M	2,08

NOTE: Do not overtighten lock screw.
 Supplied with lock screw, drive ring, and drive keys.
 Lock screw wrench not included.
 For HSK coolant unit and wrench, see page L44.



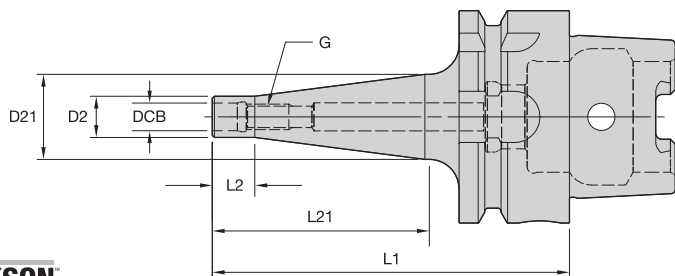
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■ SA IN-HSK Form A



order number	catalog number	D1	D2	L1	L13	lock screw	wrench size lock screw	drive key	lbs
1307823	HSK63ASA062400	5/8	1.25	4.00	.78	KLS07	1/4	DWG SDK062088	2.22
1307824	HSK63ASA100400	1	1.61	4.00	.94	KLS10	5/16	DWG SDK100106	3.09
1307825	HSK63ASA125400	1 1/4	1.86	4.00	1.09	KLS12	5/16	DWG SDK125119	3.97

NOTE: Do not overtighten lock screw.
Supplied with lock screw and drive key.
Lock screw wrench not included.
For HSK coolant unit and wrench, see page L44.



HSK63A Shank Tools

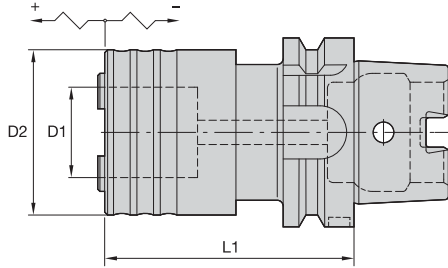
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■ ST-HSK Form A

order number	catalog number	DCB	G	D2	D21	L1	L2	L21	kg
4061564	HSK63AST06059M	6,5	M6	10	10	59	10	25	0,65
4061565	HSK63AST06084M	6,5	M6	10	20	84	10	50	0,71
4061566	HSK63AST06109M	6,5	M6	10	23	109	10	75	0,77
4061567	HSK63AST08059M	8,5	M8	13	15	59	10	25	0,66
4061568	HSK63AST08084M	8,5	M8	13	23	84	10	50	0,74
4061569	HSK63AST08109M	8,5	M8	13	23	109	10	75	0,78
4061570	HSK63AST08134M	8,5	M8	13	25	134	10	100	0,85
4061571	HSK63AST10059M	10,5	M10	18	20	59	10	25	0,70
4061572	HSK63AST10084M	10,5	M10	18	25	84	10	50	0,78
4061573	HSK63AST10109M	10,5	M10	18	28	109	10	75	0,88
4061574	HSK63AST10134M	10,5	M10	18	30	134	10	100	1,00
4061575	HSK63AST12059M	12,5	M12	21	24	59	10	25	0,72
4061576	HSK63AST12084M	12,5	M12	21	24	84	10	50	0,78
4061577	HSK63AST12109M	12,5	M12	21	31	109	10	75	0,95
4061578	HSK63AST12134M	12,5	M12	21	31	134	10	100	1,05
4061579	HSK63AST16059M	17,0	M16	29	34	59	10	25	0,79
4061580	HSK63AST16084M	17,0	M16	29	34	84	10	50	0,94
4061581	HSK63AST16109M	17,0	M16	29	34	109	10	75	1,09
4061582	HSK63AST16134M	17,0	M16	29	39	134	10	100	1,35

NOTE: HSK coolant unit and wrench are available and must be ordered separately; see page L44.
For technical information, see pages M96–M97.

- Rapid Change style.



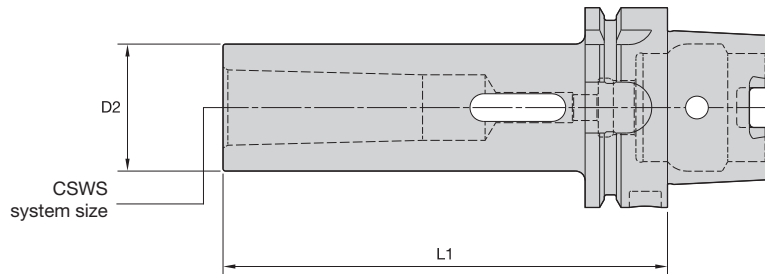
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■ RC-HSK Form A

order number	catalog number	adapter size	tap size		D1	D2	L1	tension	compression	kg
			mm	in						
1520637	HSK63ACHRC1105M	1	M1.0 - M14	#0 - 9/16	19	39	105	7,5	7,5	1,30
1520639	HSK63ACHRC2140M	2	M4.5 - M24	5/16 - 7/8	31	60	140	10,0	10,0	2,20
1520641	HSK63ACHRC3203M	3	M14.0 - M36	13/16 - 1 3/8	48	86	203	17,5	17,5	4,90

NOTE: Quick-change tap adapters are available and must be ordered separately; see page J76.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.
 For HSK adapters to DIN 69893-1.
 Form A or Form C (coolant pipe must be removed).

- Balanced by design.



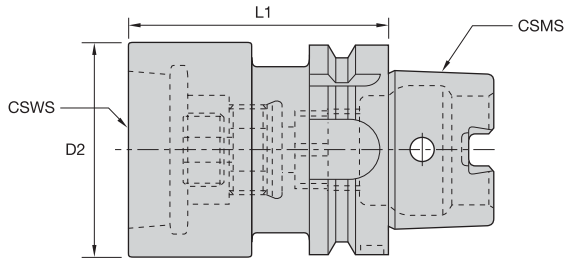
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■ MT-HSK Form A

order number	catalog number	CSWS system size	D2	L1	kg
1125543	HSK63AMT1100M	1	25	100	0,72
1127318	HSK63AMT2120M	2	32	120	0,94
1152347	HSK63AMT3140M	3	40	140	1,29
1230360	HSK63AMT4160M	4	48	160	1,72

NOTE: HSK coolant unit and wrench are available and must be ordered separately; see page L44.

- Differential connector included.



HSK63A Shank Tools

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■ HSK Form A to KR Adapters • Metric



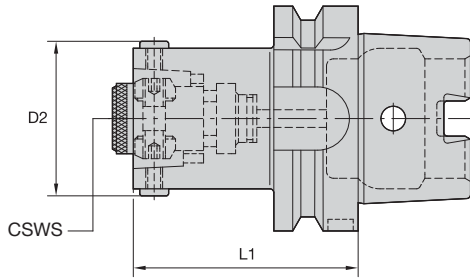
order number	catalog number	CSMS system size	CSWS system size	D2	L1	differential connector	kg	reference head
1153403	HSK63AKR32075M	HSK63A	KR32	50	75	KRDCKR32M	1,20	SVS00B,0B,1B,2B,3B,SVUBB1,BB2
1153604	HSK63AKR50080M	HSK63A	KR50	65	80	KRDCKR50M	1,60	SVS4B,5B,SVU65,SVUBB2

■ HSK Form A to KR Adapters • Inch



order number	catalog number	CSMS system size	CSWS system size	D2	L1	differential connector	lbs	reference head
1153403	HSK63AKR32075M	HSK63A	KR32	1.96	2.953	KRDCKR32M	2.64	SVS00B,0B,1B,2B,3B,SVUBB1,BB2
1153604	HSK63AKR50080M	HSK63A	KR50	2.56	3.150	KRDCKR50M	3.52	SVS4B,5B,SVU65,SVUBB2

NOTE: Plug may need to be removed to access the differential screw drive through the HSK taper.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.

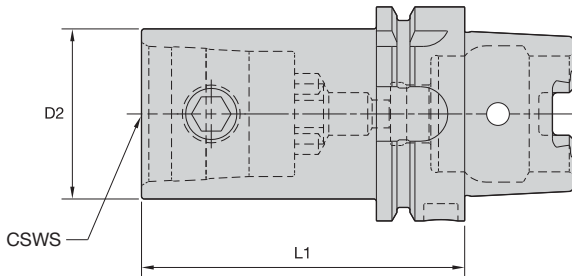


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■ HSK-HSK Form A

order number	catalog number	CSWS system size	D2	L1	wrench size actuation screw	Nm	kg
1520609	HSK63AHSK32070M	HSK32	37	70	3mm	6	1,00
1189415	HSK63AHSK40080M	HSK40	45	80	3mm	8	1,10
1520612	HSK63AHSK50080M	HSK50	55	80	4mm	15	1,20
1188038	HSK63AHSK63080M	HSK63	70	80	5mm	20	1,60
1188027	HSK63AHSK63120M	HSK63	70	120	5mm	20	2,40

NOTE: Do not overtorque actuation screw; use torque recommendations above.
 Supplied with actuation mechanism and sealing ring.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.



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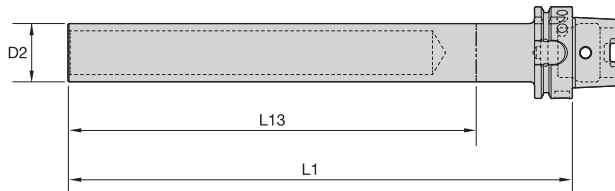
■ KM-HSK Form A



order number	catalog number	CSWS system size	D2	L1	KM spare parts package	wrench size actuation screw	Nm	kg
1307929	HSK63AKM32070M	KM32	32	70	KM32PKG3S	5mm	8-11	0,87
1151763	HSK63AKM40080M	KM40	40	80	KM40PKG3S	6mm	12-16	1,08
1121672	HSK63AKM50095M	KM50	50	95	KM50PKG3S	10mm	27-34	1,49
1148578	HSK63AKM63105M	KM63	63	105	KM63PKG3S	12mm	47-54	2,03

NOTE: Do not overtorque actuation screw; use torque recommendations above.
 Supplied with KM actuation mechanism.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.

- For acceptance testing on machine tool spindles.
- 0,003mm (.0001") maximum TIR.
- Precision ground.



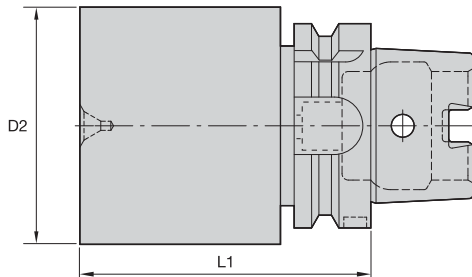
HSK63A Shank Tools

ERICKSON

■ GB-HSK Form A

order number	catalog number	D2		L1		L13		kg
		mm	in	mm	in	mm	in	
1228288	HSK63AGB40346M	40,0	1.57	346	13.62	300	11.81	2,38

- Machinable front 32–38 RW C.

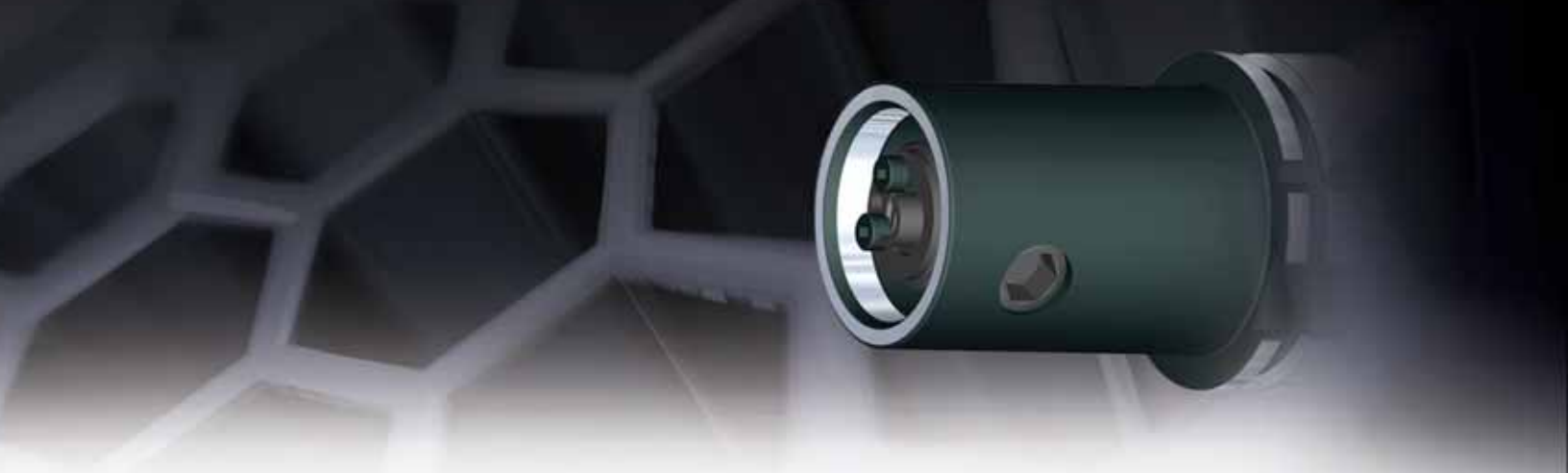


ERICKSON

■ BB-HSK Form A

order number	catalog number	D2		L1		kg
		mm	in	mm	in	
1015288	HSK63ABB080250M	80,8		250		9,09
1015289	HSK63ABB115150M	115,8		150		9,78

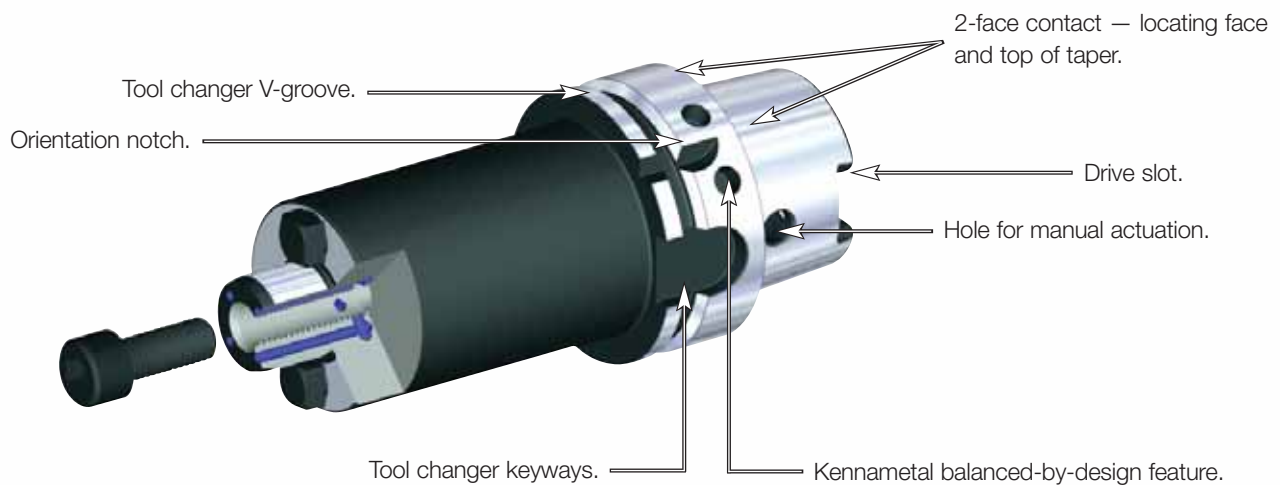
NOTE: HSK coolant unit and wrench are available and must be ordered separately; see page L44.

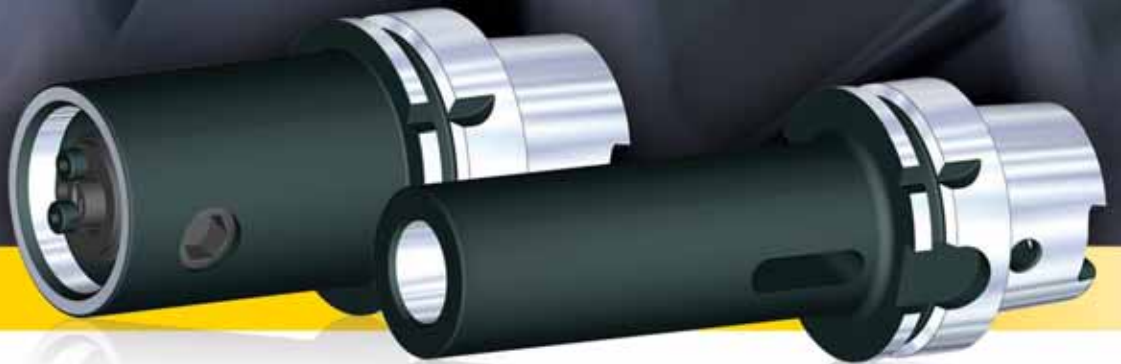


ERICKSON™ HSK Shank Tooling System • HSK80A Series

Primary Application

ERICKSON HSK Face Contact Short Taper Tooling is manufactured from premium materials and to the latest DIN/ISO specification standards. Form A versions are generally used in machining centers and milling machines with automatic tool changers. The HSK80A tools are either pre-balanced to a high specification or balanced-by-design. For high speed applications Kennametal recommends that the complete toolholder assembly (toolholder, coolant tubes, collets, hardware, and cutting tools) be balanced as one entity. Exact RPM limits can only be determined by considering machine and spindle configurations in conjunction with tooling design and safety limits factored as a complete system.





Features and Benefits

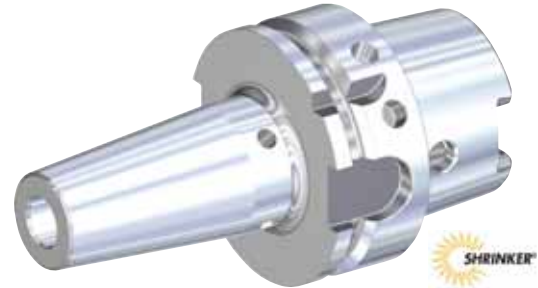
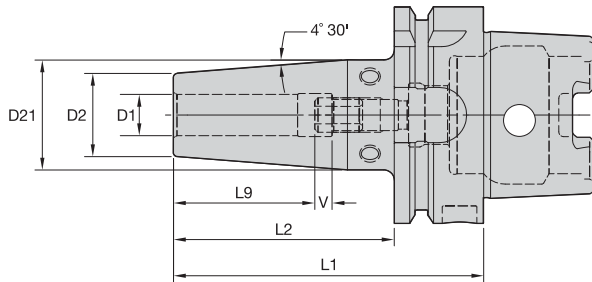
- ISO 12164-1/DIN 69893-1 Form A 1:10 short taper.
- High axial and radial repeatability compared to CAT, BT, and DV V-flange 7/24 taper tooling.
- Maximum 100 bar (1,500 psi) coolant pressure.

HSK80A Shank Tools

Shrink Fit Toolholders General Purpose (GP)



- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide and HSS cutting tools (requirements below).



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
3	h4	0,000/-0,003
4	h4	0,000/-0,004
5	h5	0,000/-0,005
6	h6	0,000/-0,008
8 & 10	h6	0,000/-0,009
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32, 40, & 50	h6	0,000/-0,016

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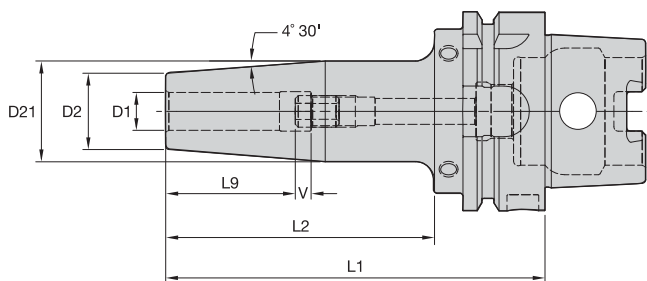
■ TT GP HPV MM-HSK Form A



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	kg
3867270	HSK80AHPVTT06085M	6	21	27	85	59	26	10	TTSS05014M	2,5mm	1,28
3867271	HSK80AHPVTT08085M	8	21	27	85	59	26	10	TTSS06014M	3mm	1,28
3867272	HSK80AHPVTT10090M	10	24	32	90	64	31	10	TTSS08014M	4mm	1,36
3867273	HSK80AHPVTT12095M	12	24	32	95	69	36	10	TTSS10014M	5mm	1,38
3867274	HSK80AHPVTT14095M	14	27	34	95	69	36	10	TTSS10014M	5mm	1,43
3867275	HSK80AHPVTT16100M	16	27	34	100	74	39	10	TTSS12014M	6mm	1,44
3867276	HSK80AHPVTT18100M	18	33	42	100	74	39	10	TTSS12014M	6mm	1,63
3867277	HSK80AHPVTT20105M	20	33	42	105	79	41	10	TTSS16014M	8mm	1,65
3867278	HSK80AHPVTT25115M	25	44	53	115	89	47	10	TTSS16014M	8mm	2,19
3867279	HSK80AHPVTT32120M	32	44	53	120	94	51	10	TTSS16014M	8mm	2,11
3867280	HSK80AHPVTT40130M	40	60	70	130	104	51	10	TTSS20014M	10mm	3,23
3867281	HSK80AHPVTT50140M	50	69	79	140	114	56	10	TTSS20014M	10mm	3,88

(continued)

(TT GP HPV continued)



HSK80A Shank Tools

■ TT GP HPV MM-HSK Form A



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	kg
3867282	HSK80AHPVTT03085M	3	9	15	85	50	14	10	TTSS05014M	2,5mm	1,34
3867283	HSK80AHPVTT04085M	4	9	15	85	50	15	10	TTSS05014M	2,5mm	1,34
3867284	HSK80AHPVTT05085M	5	9	15	85	50	15	10	TTSS06014M	3mm	1,34

Cutting Tool Shank Requirements inch (industry standard)

cutting tool shank diameters	tolerance
1/4, 5/16, & 3/8	.0000/- .0004
7/16, 1/2, 9/16, & 5/8	.0000/- .0004
3/4, 7/8, 1, 1-1/4, 1-1/2, & 2	.0000/- .0005

■ TT GP HPV IN-HSK Form A



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	lbs
3863755	HSK80AHPVTT025335	1/4	.83	1.06	3.35	2.32	1.02	.39	TTSS05014M	2,5mm	2.83
3863756	HSK80AHPVTT031335	5/16	.83	1.06	3.35	2.32	1.02	.39	TTSS06014M	3mm	2.82
3863757	HSK80AHPVTT038354	3/8	.94	1.26	3.54	2.52	1.22	.39	TTSS08014M	4mm	3.01
3863758	HSK80AHPVTT044374	7/16	.94	1.26	3.74	2.72	1.42	.39	TTSS10014M	5mm	3.05
3863759	HSK80AHPVTT050374	1/2	.94	1.26	3.74	2.72	1.42	.39	TTSS10014M	5mm	3.03
3863760	HSK80AHPVTT056374	9/16	1.06	1.33	3.74	2.72	1.42	.39	TTSS10014M	5mm	3.15
3863761	HSK80AHPVTT062394	5/8	1.06	1.33	3.94	2.92	1.54	.39	TTSS12014M	6mm	3.18
3863762	HSK80AHPVTT075413	3/4	1.30	1.65	4.13	3.11	1.61	.39	TTSS16014M	8mm	3.66
3863763	HSK80AHPVTT088413	7/8	1.30	1.65	4.13	3.11	1.61	.39	TTSS16014M	8mm	3.57
3863764	HSK80AHPVTT100453	1	1.73	2.08	4.53	3.51	1.85	.39	TTSS16014M	8mm	4.81
3863765	HSK80AHPVTT125472	1 1/4	1.73	2.08	4.72	3.70	2.01	.39	TTSS16014M	8mm	4.66
3863766	HSK80AHPVTT150512	1 1/2	2.36	2.75	5.12	4.10	2.01	.39	TTSS20014M	10mm	7.25
3863767	HSK80AHPVTT200551	2	2.72	3.11	5.51	4.49	2.20	.39	TTSS20014M	10mm	8.49

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Shrink Fit technical section, see page M78.

Supplied with stop screw.

Adjusting stop screw gage, see page M81.

Shrink Fit accessories, see pages L12-L13.

Optional M6-1.0P x 5mm lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.

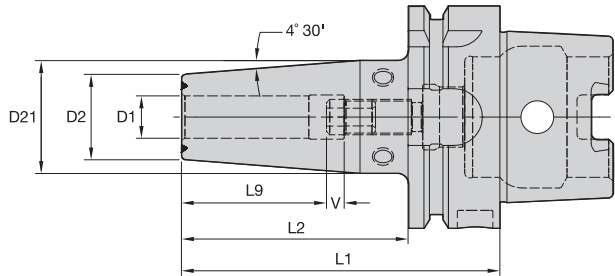
HSK coolant unit and wrench are available and must be ordered separately; see page L44.

HSK80A Shank Tools

Shrink Fit Toolholders High Torque (HT)



- 30–50% higher clamping torque compared to GP line.
- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide only, designated by groove in front face (requirements below).
- 10 kW power or greater Shrink Fit device must be used.



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32, 40, & 50	h6	0,000/-0,016

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■ TT HT HPV MM-HSK Form A



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	kg
3867213	HSK80AHPVTTHT12095M	12	24	32	95	69	36	10	TTSS10014M	5mm	1,38
3867214	HSK80AHPVTTHT14095M	14	27	34	95	69	36	10	TTSS10014M	5mm	1,44
3867215	HSK80AHPVTTHT16100M	16	27	34	100	74	39	10	TTSS12014M	6mm	1,45
3867216	HSK80AHPVTTHT18100M	18	33	42	100	74	39	10	TTSS12014M	6mm	1,64
3867217	HSK80AHPVTTHT20105M	20	33	42	105	79	41	10	TTSS16014M	8mm	1,65
3867218	HSK80AHPVTTHT25115M	25	44	53	115	89	47	10	TTSS16014M	8mm	2,19
3867219	HSK80AHPVTTHT32120M	32	44	53	120	94	51	10	TTSS16014M	8mm	2,12
3867220	HSK80AHPVTTHT40130M	40	60	70	130	104	51	10	TTSS20014M	10mm	3,23
3867221	HSK80AHPVTTHT50140M	50	69	79	140	114	56	10	TTSS20014M	10mm	3,88

(continued)

(TT HT HPV continued)

Cutting Tool Shank Requirements
inch (industry standard)

cutting tool shank diameters	tolerance
1/2, 9/16 & 5/8	.0000/- .0004
3/4, 7/8, 1, 1-1/4, 1-1/2, & 2	.0000/- .0005

HSK80A Shank Tools

■ TT HT HPV IN-HSK Form A



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	lbs
3862011	HSK80AHPVTHT050374	1/2	.94	1.26	3.74	2.72	1.42	.39	TTSS10014M	5mm	3.03
3862012	HSK80AHPVTHT056374	9/16	1.06	1.33	3.74	2.72	1.42	.39	TTSS10014M	5mm	3.15
3862393	HSK80AHPVTHT062394	5/8	1.06	1.33	3.94	2.92	1.54	.39	TTSS12014M	6mm	3.18
3862394	HSK80AHPVTHT075413	3/4	1.30	1.65	4.13	3.11	1.61	.39	TTSS16014M	8mm	3.66
3862395	HSK80AHPVTHT088413	7/8	1.30	1.65	4.13	3.11	1.61	.39	TTSS16014M	8mm	3.57
3862396	HSK80AHPVTHT100453	1	1.73	2.08	4.53	3.51	1.85	.39	TTSS16014M	8mm	4.81
3862397	HSK80AHPVTHT125472	1 1/4	1.73	2.08	4.72	3.70	2.01	.39	TTSS16014M	8mm	4.66
3862398	HSK80AHPVTHT150512	1 1/2	2.36	2.75	5.12	4.10	2.01	.39	TTSS20014M	10mm	7.25
3862399	HSK80AHPVTHT200551	2	2.72	3.11	5.51	4.49	2.20	.39	TTSS20014M	10mm	8.49

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Shrink Fit technical section, see page M78.

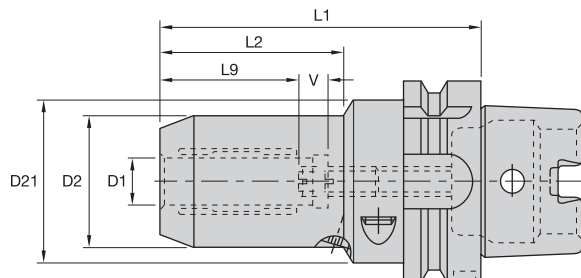
Supplied with stop screw.

Adjusting stop screw gage, see page M81.

Shrink Fit accessories, see pages L12-L13.

Optional M6~1.0P x 5 lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.

HSK coolant unit and wrench are available and must be ordered separately; see page L44.



HSK80A Shank Tools

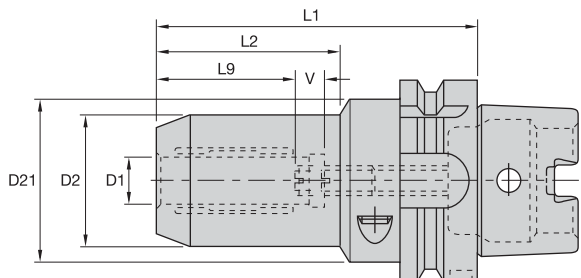
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■ HC MM-HSK Form A



order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	stop screw wrench	wrench size stop screw	kg
1960122	HSK80AHC06085M	6	25,7	50	85	35	27	10	170.135	5mm	170.002	2,5mm	1,5
1960133	HSK80AHC08085M	8	27,7	50	85	36	27	10	170.135	5mm	170.002	2,5mm	1,5
1960134	HSK80AHC10090M	10	29,7	50	90	38	31	10	170.135	5mm	170.002	2,5mm	1,6
1960135	HSK80AHC12095M	12	31,6	50	95	43	36	10	170.135	5mm	170.002	2,5mm	1,6
1960136	HSK80AHC14095M	14	33,6	50	95	43	36	10	170.135	5mm	170.003	3mm	1,6
1960137	HSK80AHC16100M	16	37,6	50	100	46	39	10	170.135	5mm	170.003	3mm	1,7
1960138	HSK80AHC18100M	18	39,6	50	100	48	39	10	170.135	5mm	170.003	3mm	1,8
1960139	HSK80AHC20105M	20	41,6	50	105	54	41	10	170.135	5mm	170.003	3mm	1,8
1960140	HSK80AHC25115M	25	49,8	63	115	51	47	10	170.136	6mm	170.004	4mm	2,4
1960141	HSK80AHC32125M	32	59,8	63	125	59	51	10	170.136	6mm	170.004	4mm	2,8

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw.
 Actuation wrench must be ordered separately.
 Reduction sleeves are available and must be ordered separately; see page J2.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.



HSK80A Shank Tools

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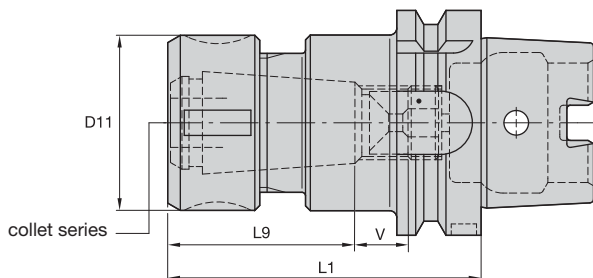
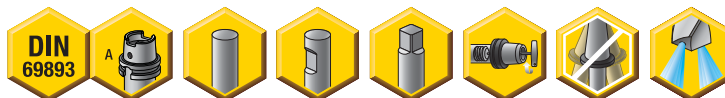
■ HC Trend MM-HSK Form A



order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	kg
1749613	HSK80AHCT06085M	6	25,7	50	85	36	27	10	170.135	5mm	1,51
1749614	HSK80AHCT08085M	8	27,7	50	85	37	27	10	170.135	5mm	1,52
1749615	HSK80AHCT10090M	10	29,7	50	90	39	31	10	170.135	5mm	1,57
1749616	HSK80AHCT12095M	12	31,6	50	95	45	36	10	170.135	5mm	1,61
1749617	HSK80AHCT14095M	14	33,6	50	95	46	36	10	170.135	5mm	1,63
1749618	HSK80AHCT16100M	16	37,6	50	100	52	39	10	170.135	5mm	1,74
1749619	HSK80AHCT18100M	18	39,6	50	100	52	39	10	170.135	5mm	1,79
1749620	HSK80AHCT20105M	20	41,6	50	105	58	41	10	170.135	5mm	1,83
1749621	HSK80AHCT25115M	25	49,8	63	115	51	47	10	170.136	6mm	2,45
1749622	HSK80AHCT32125M	32	59,8	63	125	59	51	10	170.136	6mm	2,85

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw.
 Actuation wrench must be ordered separately.
 Reduction sleeves are available and must be ordered separately; see page J2.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.

- Tremendous Grip (3:1 advantage).



HSK80A Shank Tools

TG collect series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG75	2,6	20,0	3/64	3/4
TG100	2,6	25,5	5/64	1

ERICKSON

■ TG Round-HSK Form A



order number	catalog number	collet series				locknut	wrench	Nm	stop screw	wrench size stop screw	stop screw cone cap	kg	
		D11	L1	L9	V								
1860140	HSK80ATG075120M	TG75	50	120	54	13	LNA075M	HSW45M	136	SS081041G	4mm & 5/32	SSCC081	2,16
1860141	HSK80ATG100140M	TG100	60	140	70	12	LNA100M	HSW58M	203	SS112041G	4mm & 5/32	SSCC112	2,92

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.

Collet chuck technical section, see page M98.
Supplied with locknut and stop screw.

Locknut wrench must be ordered separately.

Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16–L17.

Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.

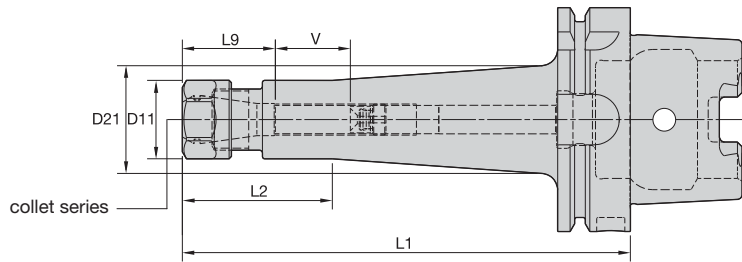
Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.

TG standard straight-bore collets, see page J10.

TG tap collets, see page J10.

HSK coolant unit and wrench are available and must be ordered separately; see page L44.

- Grip (2:1 advantage).



HSK80A Shank Tools

ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER16	0,5	10,0	.02	.41
ER20	0,5	13,0	.02	.50
ER25	1,0	16,0	.04	.63
ER32	2,0	20,0	.08	.81
ER40	3,0	26,0	.12	1.00

ERICKSON

■ ER Hex • HSK Form A

order number	catalog number	collet series	D11	D21	L1	L2	L9	V	kg
1727216	HSK80AER16100M	ER16	28	—	100	74	32	22	1,36
1778237	HSK80AER16160M	ER16	28	39	160	54	32	38	1,77
1885325	HSK80AER20100M	ER20	34	—	100	62	36	14	1,47

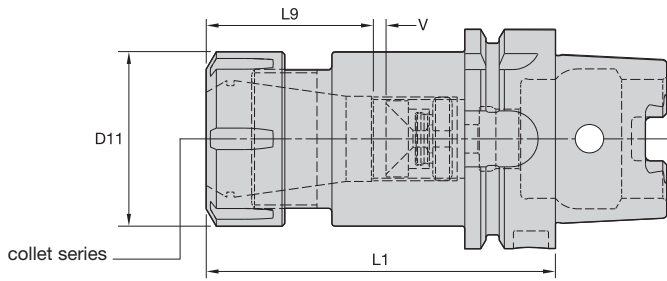
■ Spare Parts



catalog number	locknut	wrench	counterbore collet torque (Nm)	straight collet torque (Nm)	stop screw	wrench size stop screw	stop screw cone cap
HSK80AER16100M	LNHSER16M	OEW25M	40	56	SS044038G	4mm & 5/32	S SCC044
HSK80AER16160M	LNHSER16M	OEW25M	40	56	SS044038G	4mm & 5/32	S SCC044
HSK80AER20100M	LNHSER20M	OEW30M	32	80	SS056041G	4mm & 5/32	S SCC056

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HSK80A Shank Tools

ERICKSON™

ER Round • HSK Form A

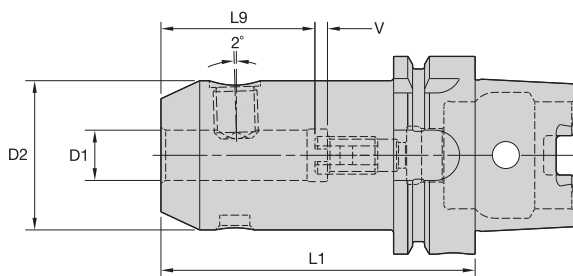
order number	catalog number	collet series	D11	L1	L9	V	kg
1751709	HSK80AER25100M	ER25	42	100	40	7	1,63
1727217	HSK80AER32100M	ER32	50	100	46	6	1,83
1727218	HSK80AER40120M	ER40	63	120	52	6	2,66

Spare Parts



catalog number	round locknut	wrench	Nm	stop screw	wrench size stop screw	stop screw cone cap
HSK80AER25100M	LNSER25M	ER25WM	104	SS075041G	4mm & 5/32	SSCC075
HSK80AER32100M	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32	SSCC094
HSK80AER40120M	LNSER40M	ER40WM	176	SS112041G	4mm & 5/32	SSCC112

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.



HSK80A Shank Tools

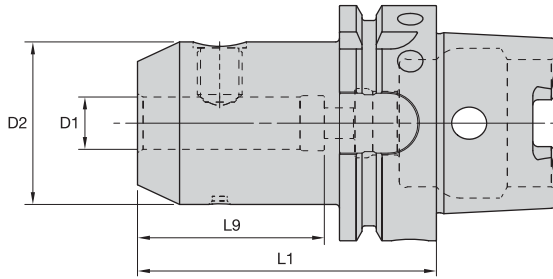
ERICKSON

■ WN MM • HSK Form A



order number	catalog number	D1	D2	L1	L9	V	lock screw	wrench size lock screw	Nm	stop screw	wrench size stop screw	kg
1885322	HSK80AWN06090M	6	25	90	30	10	SS03M012	3mm	7	571.060	2,5mm	1,30
1885443	HSK80AWN08090M	8	28	90	30	10	SS03M014	4mm	15	571.067	3mm	1,36
1750661	HSK80AWN10090M	10	35	90	33	10	SS03M018	5mm	25	571.068	4mm	1,52
1729444	HSK80AWN12100M	12	42	100	40	10	SS03M023	6mm	35	571.074	5mm	1,78
1885444	HSK80AWN14100M	14	44	100	40	10	SS03M023	6mm	35	571.074	5mm	1,84
1885445	HSK80AWN16100M	16	48	100	43	10	SS03M025	6mm	50	571.075	6mm	1,98
1885446	HSK80AWN18100M	18	50	100	43	10	SS03M025	6mm	50	571.075	6mm	2,04
1748577	HSK80AWN20110M	20	52	110	45	10	SS03M026	8mm	95	571.076	6mm	2,26
1730388	HSK80AWN25110M	25	65	110	50	10	SS03M027	10mm	135	571.077	6mm	2,90
1730699	HSK80AWN32120M	32	72	120	54	10	SS03M029	10mm	160	571.077	6mm	3,45

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw and stop screw.
 Lock screw or stop screw wrenches not included.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.

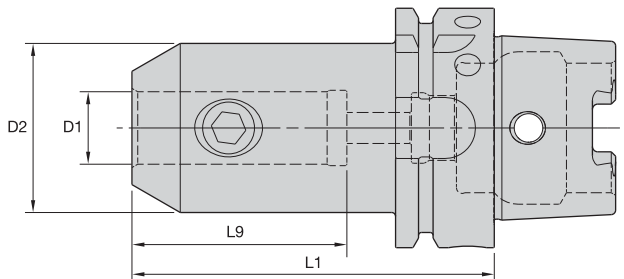


ERICKSON

■ EM MM • HSK Form A



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	Nm	kg
1727202	HSK80AEM06080M	6	25	80	54	SS03M012	3mm	7	1,26
1727203	HSK80AEM08080M	8	28	80	54	SS03M014	4mm	15	1,31
1727204	HSK80AEM10080M	10	35	80	45	SS03M018	5mm	25	1,44
1727205	HSK80AEM12080M	12	42	80	50	SS03M023	6mm	35	1,57
1885447	HSK80AEM14080M	14	44	80	50	SS03M023	6mm	35	1,61
1885448	HSK80AEM16100M	16	48	100	53	SS03M025	6mm	50	1,97
1885449	HSK80AEM18100M	18	50	100	53	SS03M025	6mm	50	2,04
1778182	HSK80AEM20100M	20	52	100	55	SS03M026	8mm	95	2,09
1885450	HSK80AEM25100M	25	65	100	60	SS03M027	10mm	135	2,63
1727209	HSK80AEM32110M	32	72	110	65	SS03M029	10mm	160	3,15



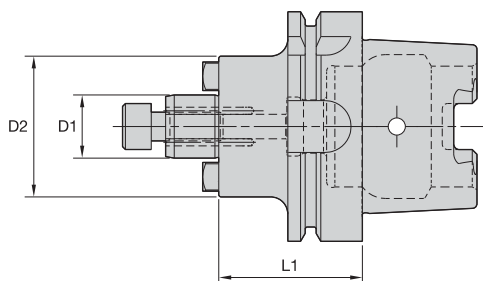
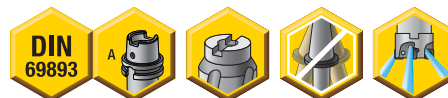
ERICKSON

■ EM IN • HSK Form A



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
1860166	HSK80AEM038300	3/8	1.00	3.00	2	ELS038031PKG	3/16	15	3
1860167	HSK80AEM050325	1/2	1.38	3.25	2	ELS044038PKG	7/32	20	3
1860168	HSK80AEM062375	5/8	1.63	3.75	2	ELS056050PKG	1/4	40	4
1860169	HSK80AEM075375	3/4	1.75	3.75	2	ELS062050PKG	5/16	70	4
1860170	HSK80AEM100425	1	2.00	4.25	2	ELS075056PKG	3/8	110	5
1860171	HSK80AEM125425	1 1/4	2.50	4.25	3	ELS075062PKG	3/8	110	6

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw.
 Lock screw wrench not included.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.



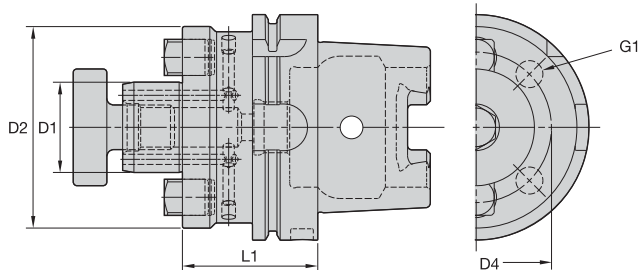
HSK80A Shank Tools

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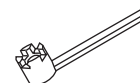
■ SMC Cap MM-HSK Form A



order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size retention screw	kg
3872280	HSK80ASM2C22050M	22	42	50	MS1234	—	8mm	1,40
3872279	HSK80ASMC22050M	22	49	50	MS1234	KDK22M	8mm	1,49



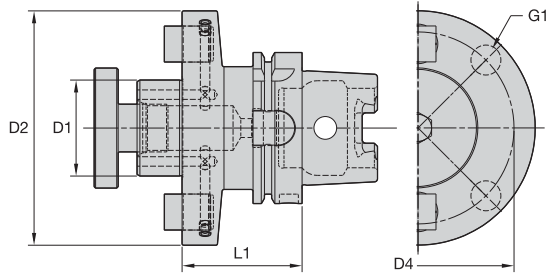
■ SMC Lock MM-HSK Form A



order number	catalog number	D1	D2	D4	G1	L1	lock screw	drive key	wrench size lock screw	locknut wrench	kg
3872281	HSK80ASMC27050M	27	60	—	—	50	KLSS27M	KDK27M	10mm	—	1,73
3872282	HSK80ASMC32060M	32	78	—	—	60	KLSS32M	KDK32M	14mm	—	2,39
3872493	HSK80ASMC40060M	40	89	67	M12X1.75	60	KLSS40M	KDK40M	17mm	—	2,73
3872494	HSK80ASMC50070M	50	98	—	—	70	KLSS50M	—	—	SMW50M	3,42
3872495	HSK80ASMC60070M	60	129	102	M16X2.0	70	—	KDK60M	—	—	4,49

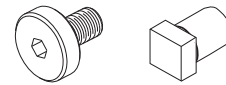
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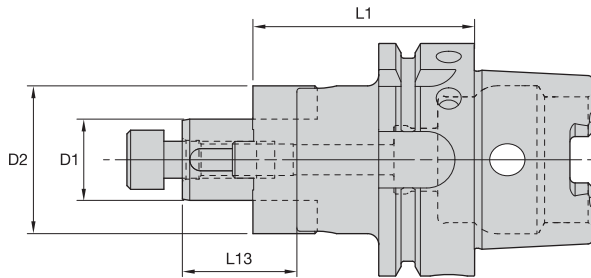
HSK80A Shank Tools

■ SMC Lock IN-HSK Form A



order number	catalog number	D1	D2	D4	G1	L1	lock screw	drive key	wrench size lock screw	lbs
3762772	HSK80ASM2C075225	3/4	1.457	—	—	2.250	KLS07	—	1/4	3.05
3762771	HSK80ASMC075225	3/4	1.752	—	—	2.250	KLS07	KDK05	1/4	3.31
3763064	HSK80ASM2C100225	1	2.189	—	—	2.250	KLS10	KDK06	5/16	3.88
3763063	HSK80ASMC100225	1	2.752	—	—	2.250	KLS10	KDK06	5/16	4.47
3763065	HSK80ASMC125250	1 1/4	2.878	—	—	2.500	KLS12	KDK08	5/16	5.18
3763066	HSK80ASMC150250	1 1/2	3.811	—	—	2.500	KLS15	KDK10	3/8	6.57
3763067	HSK80ASMC200250	2	4.882	.158	.625-11 UNC	2.500	KLS20	KDK12	9/16	8.61
3763068	HSK80ASMC250250	2 1/2	4.882	.158	.625-11 UNC	2.500	KLS25	KDK16	9/16	9.77

NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive keys.
 Interchangeable coolant-style lock screws are available and must be ordered separately, see page L38.
 Lock screw wrench not included.
 For HSK coolant unit and wrench, see page L44.
 HSK80ASMC250250 supplied with four locking bolts (S-388).



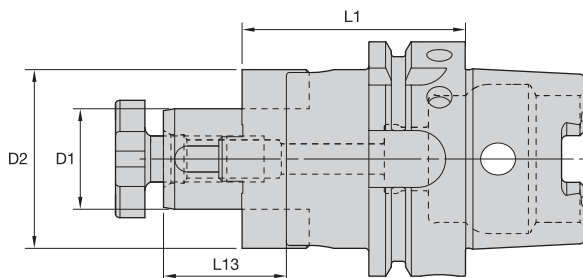
HSK80A Shank Tools

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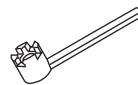
■ CS • Cap Screw Design • HSK Form A



order number	catalog number	D1	D2	L1	L13	lock screw	wrench size lock screw	Nm	combi driver ring	combi drive key	kg
1839882	HSK80ACS16060M	16	32	60	27	MS1294	6mm	40	CDR16M	CDK16M	1,33
1778235	HSK80ACS22060M	22	40	60	31	MS1234	8mm	60	CDR22M	CDK22M	1,49



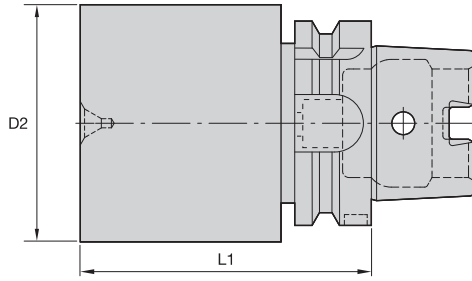
■ CS • Lock Screw Design • HSK Form A



order number	catalog number	D1	D2	L1	L13	lock screw	wrench	combi driver ring	combi drive key	kg
1730386	HSK80ACS27060M	27	48	60	33	KLS27MPKG	SMW27M	CDR27M	CDK27M	1,67
1730387	HSK80ACS32060M	32	58	60	38	KLS32M	SMW32M	CDR32M	CDK32M	1,96
1878181	HSK80ACS40070M	40	70	70	41	KLS40M	SMW40M	CDR40M	CDK40M	2,69
1126837	HSK80ACS50080M	50	90	80	46	KLS50M	SMW50M	CDR50M	CDK50M	4,01

NOTE: Do not overtighten lock screw.
 Supplied with lock screw, drive ring, and drive keys.
 Lock screw wrench not included.
 For HSK coolant unit and wrench, see page L44.

- Machinable front 32–38 RW C.



HSK80A Shank Tools

ERICKSON™

■ BB-HSK Form A

order number	catalog number	D2	L1	kg
1860172	HSK80ABB100250M	100,8	250	14,47
1860203	HSK80ABB150150M	150,8	150	16,51

NOTE: HSK coolant unit and wrench are available and must be ordered separately; see page L44.



Increased Efficiency

Automatic adjustment with Romicon™ Closed Loop Boring (CLB)

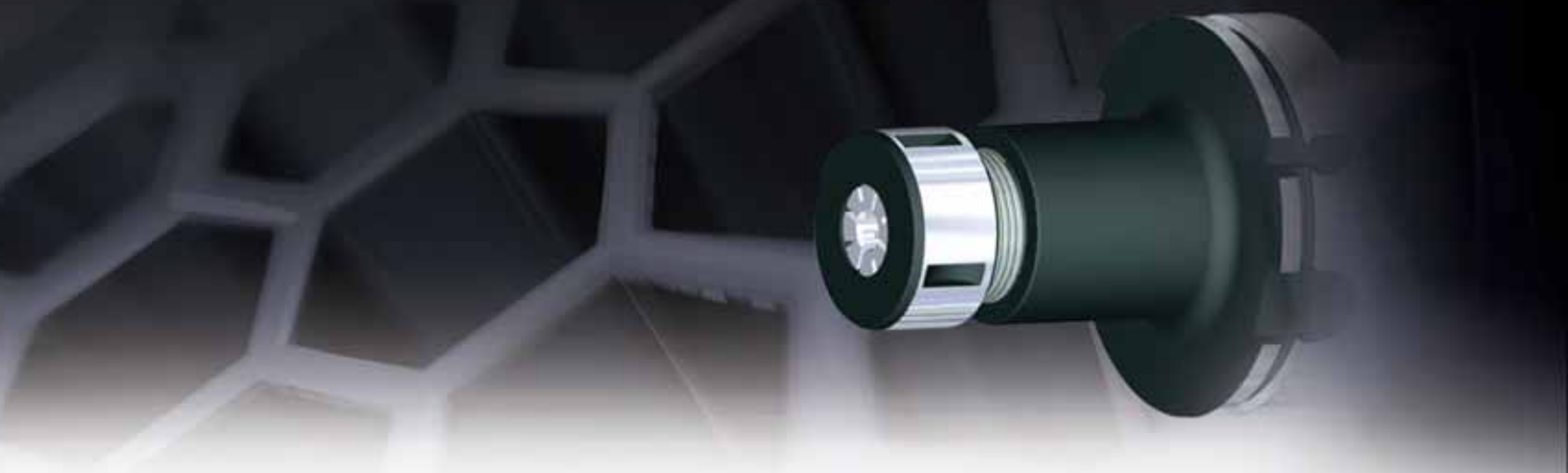
- Reduce scrap rates and setup time due to backlash-free adjustment.
- Make use of the entire tool life of used inserts as diameter adjustment can be done inside of the machine, avoiding routine insert changes in the setup room.
- Avoid time-consuming control cuts or sister tooling.
- No additional training or experience needed, resulting in less stress during adjustments.



Experience the advantages at your Authorized Kennametal Distributor or at www.kennametal.com.

www.kennametal.com

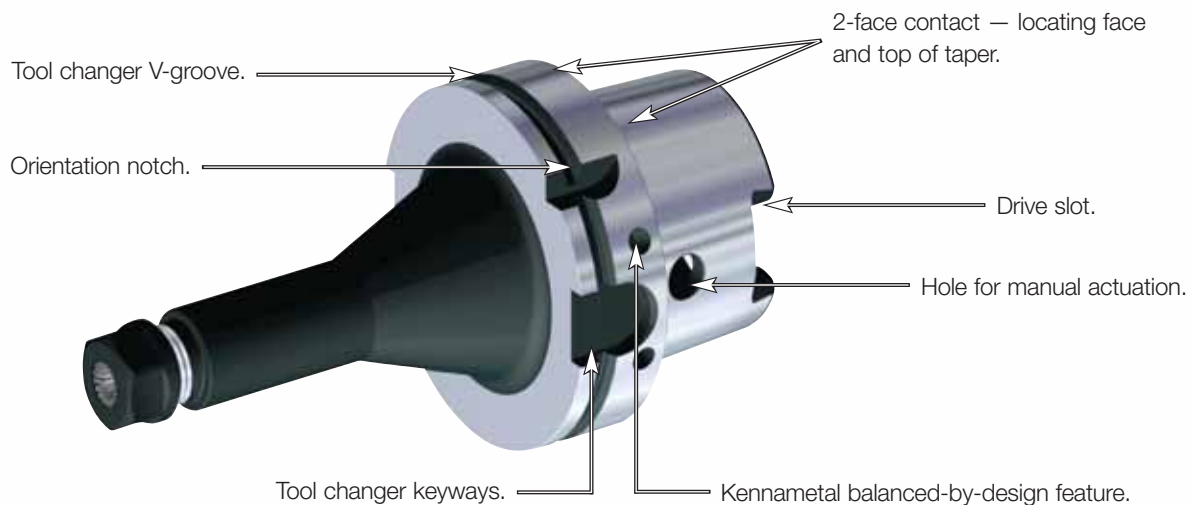
 **KENNAMETAL®**



ERICKSON™ HSK Shank Tooling System • HSK100A Series

Primary Application

ERICKSON HSK Face Contact Short Taper Tooling is manufactured from premium materials and to the latest DIN/ISO specification standards. Form A versions are generally used in machining centers and milling machines with automatic tool changers. The HSK100A tools are either pre-balanced to a high specification or balanced-by-design. For high speed applications Kennametal recommends that the complete toolholder assembly (toolholder, coolant tubes, collets, hardware, and cutting tools) be balanced as one entity. Exact RPM limits can only be determined by considering machine and spindle configurations in conjunction with tooling design and safety limits factored as a complete system.





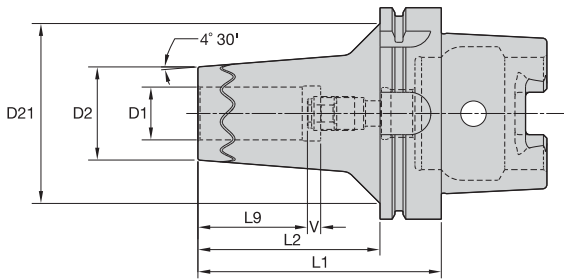
Features and Benefits

- ISO 12164-1/DIN 69893-1 Form A 1:10 short taper.
- High axial and radial repeatability compared to CAT, BT, and DV V-flange 7/24 taper tooling.
- Maximum 100 bar (1,500 psi) coolant pressure.

- SAFE-LOCK™, innovative and unique non-slip system.
- Suitable for carbide and HSS cutting tools.
- Need ≥ 10 kW shrink unit.



HSK100A Shank Tools



SAFE-LOCK™
by HAIMER

Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
6	h6	0,000/-0,008
8 & 10	h6	0,000/-0,009
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

ERICKSON™

■ TT SF MM-HSK Form A

order number	catalog number	D1	D2	D21	L1	L2	L9	V	kg
5090056	HSK100ASFTT12095M	12	27	73	95	66	37	10	2,45
5090057	HSK100ASFTT14095M	14	33	60	95	66	37	10	2,54
5090058	HSK100ASFTT16100M	16	33	78	100	71	40	10	2,60
5090059	HSK100ASFTT18100M	18	44	76	100	71	40	10	2,98
5090210	HSK100ASFTT20105M	20	44	85	105	76	42	10	3,07
5090211	HSK100ASFTT25115M	25	44	85	115	86	48	10	3,16

Cutting Tool Shank Requirements
inch (industry standard)

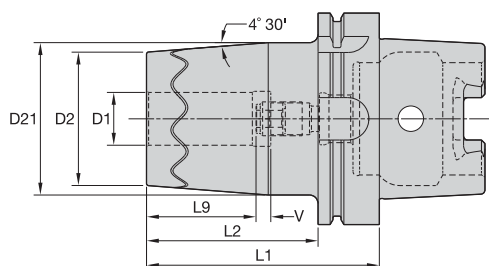
cutting tool shank diameters	tolerance
1/4, 5/16, & 3/8	.0000/- .0004
1/2 & 5/8	.0000/- .0004
3/4, 7/8, 1, 1-1/4, & 1-1/2	.0000/- .0005

■ TT SF IN-HSK Form A

order number	catalog number	D1	D2	D21	L1	L2	L9	V	lbs
5090225	HSK100ASFTT050374	1/2	1.06	2.87	3.74	2.60	1.46	.39	5.40
5090226	HSK100ASFTT062394	5/8	1.30	3.07	3.94	2.80	1.57	.39	5.64
5090227	HSK100ASFTT075413	3/4	1.73	3.35	4.13	2.99	1.65	.39	6.81
5090228	HSK100ASFTT100453	1	1.73	3.35	4.53	3.39	1.89	.39	6.94

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder. Shrink Fit technical section, see page M78. Shrink Fit accessories, see pages L12–L13. HSK coolant unit and wrench are available and must be ordered separately; see page L44.

- SAFE-LOCK™, innovative and unique non-slip system.
- Ultra short and heavy-duty design.
- Suitable for carbide and HSS cutting tools.
- Need ≥ 20 kW shrink unit.



SAFE-LOCK™
by HAIMER

HSK100A Shank Tools

Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
6	h6	0,000/-0,008
8 & 10	h6	0,000/-0,009
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

ERICKSON

■ TT SF HD MM-HSK Form A

order number	catalog number	D1	D2	D21	L1	L2	L9	V	kg
5090212	HSK100ASFHDTT16100M	16	51	62	100	71	40	10	3,27
5090213	HSK100ASFHDTT20100M	20	58	67	100	71	42	10	3,57
5090214	HSK100ASFHDTT25110M	25	63	72	110	81	48	10	4,06
5090215	HSK100ASFHDTT32110M	32	70	78	110	81	52	10	4,37
5090216	HSK100ASFHDTT40140M	40	82	94	140	111	77	10	6,36
5090217	HSK100ASFHDTT50140M	50	82	94	140	111	77	10	5,90

Cutting Tool Shank Requirements
inch (industry standard)

cutting tool shank diameters	tolerance
1/4, 5/16, & 3/8	.0000/-0.0004
1/2 & 5/8	.0000/-0.0004
3/4, 7/8, 1, 1-1/4, & 1-1/2	.0000/-0.0005

■ TT SF HD IN-HSK Form A

order number	catalog number	D1	D2	D21	L1	L2	L9	V	lbs
5090229	HSK100ASFHDTT100433	1	2.48	2.83	4.33	3.19	1.89	.39	8.90
5090230	HSK100ASFHDTT125433	1 1/4	2.76	3.07	4.33	3.19	2.05	.39	9.64
5090231	HSK100ASFHDTT150551	1 1/2	3.23	3.70	5.51	4.37	3.03	.39	14.15
5090232	HSK100ASFHDTT200551	2	3.23	3.70	5.51	4.37	3.03	.39	12.90

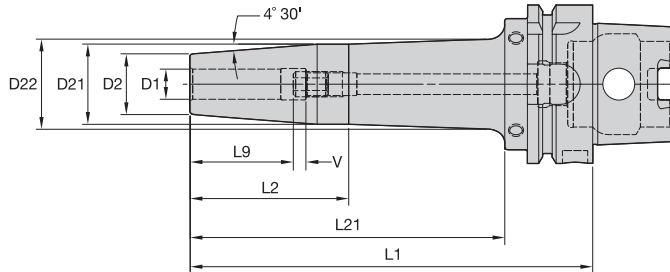
NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.
Shrink Fit technical section, see page M78.
Shrink Fit accessories, see pages L12–L13.
HSK coolant unit and wrench are available and must be ordered separately; see page L44.

HSK100A Shank Tools

Shrink Fit Toolholders General Purpose (GP)



- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide and HSS cutting tools (requirements below).



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
6	h6	0,000/-0,008
8 & 10	h6	0,000/-0,009
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

ERICKSON™

■ TT GP HPV MM-HSK Form A



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	kg
3866701	HSK100AHPVTT06085M	6	21	27	—	85	56	—	26	10	TTSS05014M	2,5mm	2,18
3866711	HSK100AHPVTT06160M	6	21	27	32	160	50	122	26	10	TTSS05014M	2,5mm	2,86
3866702	HSK100AHPVTT08085M	8	21	27	—	85	56	—	26	10	TTSS06014M	3mm	2,18
3866712	HSK100AHPVTT08160M	8	21	27	32	160	50	122	26	10	TTSS06014M	3mm	2,85
3866703	HSK100AHPVTT10090M	10	24	32	—	90	61	—	31	10	TTSS08014M	4mm	2,26
3866713	HSK100AHPVTT10160M	10	24	32	36	160	63	122	31	10	TTSS08014M	4mm	3,02
3866704	HSK100AHPVTT12095M	12	24	32	—	95	66	—	36	10	TTSS10014M	5mm	2,27
3866714	HSK100AHPVTT12160M	12	24	32	36	160	63	122	36	10	TTSS10014M	5mm	3,00
3866705	HSK100AHPVTT14095M	14	27	34	—	95	66	—	36	10	TTSS10014M	5mm	2,33
3866715	HSK100AHPVTT14160M	14	27	34	38	160	57	122	36	10	TTSS10014M	5mm	3,11
3866706	HSK100AHPVTT16100M	16	27	34	—	100	71	—	39	10	TTSS12014M	6mm	2,33
3866716	HSK100AHPVTT16160M	16	27	34	38	160	57	122	39	10	TTSS12014M	6mm	3,09
3866707	HSK100AHPVTT18100M	18	33	42	—	100	71	—	39	10	TTSS12014M	6mm	2,52
3866717	HSK100AHPVTT18160M	18	33	42	46	160	69	122	39	10	TTSS12014M	6mm	3,45
3866708	HSK100AHPVTT20105M	20	33	42	—	105	76	—	41	10	TTSS16014M	8mm	2,53
3866718	HSK100AHPVTT20160M	20	33	42	46	160	69	122	41	10	TTSS16014M	8mm	3,42
3866709	HSK100AHPVTT25115M	25	44	53	—	115	86	—	47	10	TTSS16014M	8mm	3,06
3866719	HSK100AHPVTT25160M	25	44	53	57	160	69	122	47	10	TTSS16014M	8mm	4,09
3866710	HSK100AHPVTT32120M	32	44	53	—	120	91	—	51	10	TTSS16014M	8mm	2,98
3866720	HSK100AHPVTT32160M	32	44	53	57	160	69	122	51	10	TTSS16014M	8mm	3,93

(continued)

(TT GP HPV continued)

Cutting Tool Shank Requirements
inch (industry standard)

cutting tool shank diameters	tolerance
1/4, 5/16, & 3/8	.0000/- .0004
1/2 & 5/8	.0000/- .0004
3/4, 7/8, 1, 1-1/4, & 1-1/2	.0000/- .0005

HSK100A Shank Tools

■ TT GP HPV IN-HSK Form A



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	lbs
3863572	HSK100AHPVTT025335	1/4	.83	1.06	—	3.35	2.21	—	1.02	.39	TTSS05014M	2,5mm	4.81
3863643	HSK100AHPVTT025630	1/4	.83	1.06	1.26	6.30	1.97	4.81	1.02	.39	TTSS05014M	2,5mm	6.31
3863644	HSK100AHPVTT031335	5/16	.83	1.06	—	3.35	2.21	—	1.02	.39	TTSS06014M	3mm	4.80
3863645	HSK100AHPVTT031630	5/16	.83	1.06	1.26	6.30	1.97	4.81	1.02	.39	TTSS06014M	3mm	6.29
3863646	HSK100AHPVTT038354	3/8	.94	1.26	—	3.54	2.40	—	1.22	.39	TTSS08014M	4mm	4.98
3863647	HSK100AHPVTT038630	3/8	.94	1.26	1.42	6.30	2.48	4.81	1.22	.39	TTSS08014M	4mm	6.65
3863648	HSK100AHPVTT050374	1/2	.94	1.26	—	3.74	2.60	—	1.42	.39	TTSS10014M	5mm	5.00
3863649	HSK100AHPVTT050630	1/2	.94	1.26	1.42	6.30	2.48	4.81	1.42	.39	TTSS10014M	5mm	6.61
3863650	HSK100AHPVTT062394	5/8	1.06	1.33	—	3.94	2.80	—	1.54	.39	TTSS12014M	6mm	5.15
3863651	HSK100AHPVTT062630	5/8	1.06	1.33	1.51	6.30	2.24	4.81	1.54	.39	TTSS12014M	6mm	6.82
3863652	HSK100AHPVTT075413	3/4	1.30	1.65	—	4.13	2.99	—	1.61	.39	TTSS16014M	8mm	5.61
3863653	HSK100AHPVTT075630	3/4	1.30	1.65	1.80	6.30	2.72	4.81	1.61	.39	TTSS16014M	8mm	7.56
3863654	HSK100AHPVTT088413	7/8	1.30	1.65	—	4.13	2.99	—	1.61	.39	TTSS16014M	8mm	5.52
3863655	HSK100AHPVTT088630	7/8	1.30	1.65	1.80	6.30	2.72	4.81	1.61	.39	TTSS16014M	8mm	7.47
3863656	HSK100AHPVTT100453	1	1.73	2.08	—	4.53	3.39	—	1.85	.39	TTSS16014M	8mm	6.72
3863657	HSK100AHPVTT100630	1	1.73	2.08	2.23	6.30	2.72	4.81	1.85	.39	TTSS16014M	8mm	9.00
3863658	HSK100AHPVTT125472	1 1/4	1.73	2.08	—	4.72	3.58	—	2.01	.39	TTSS16014M	8mm	6.57
3863659	HSK100AHPVTT125630	1 1/4	1.73	2.08	2.23	6.30	2.72	4.81	2.01	.39	TTSS16014M	8mm	8.67
3863660	HSK100AHPVTT150531	1 1/2	2.36	2.75	—	5.31	4.18	—	2.01	.39	TTSS20014M	10mm	9.50

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.
 Shrink Fit technical section, see page M78.
 Supplied with stop screw.
 Adjusting stop screw gage, see page M81.
 Shrink Fit accessories, see pages L12–L13.
 Optional M6-1.0P x 5mm lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.

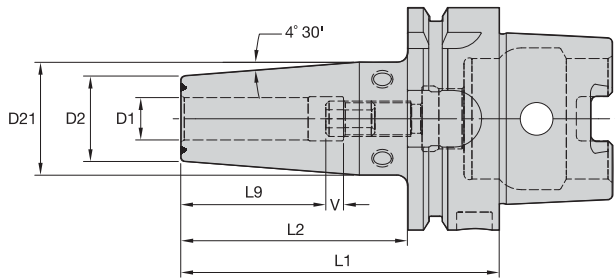
HSK100A Shank Tools

Shrink Fit Toolholders High Torque (HT)



HSK100A Shank Tools

- 30–50% higher clamping torque compared to GP line.
- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide only, designated by groove in front face (requirements below).
- 10 kW power or greater Shrink Fit device must be used.



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

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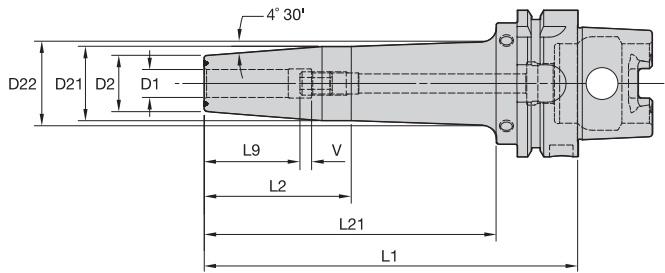
■ TT HT HPV MM-HSK Form A



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	kg
3867222	HSK100AHPVTTH12095M	12	24	32	95	66	36	10	TTSS10014M	5mm	2,28
3867223	HSK100AHPVTTH14095M	14	27	34	95	66	36	10	TTSS10014M	5mm	2,33
3867224	HSK100AHPVTTH16100M	16	27	34	100	71	39	10	TTSS12014M	6mm	2,33
3867225	HSK100AHPVTTH18100M	18	33	42	100	71	39	10	TTSS12014M	6mm	2,52
3867226	HSK100AHPVTTH20105M	20	33	42	105	76	41	10	TTSS16014M	8mm	2,53
3867227	HSK100AHPVTTH25115M	25	44	53	115	86	47	10	TTSS16014M	8mm	3,06
3867228	HSK100AHPVTTH32120M	32	44	53	120	91	51	10	TTSS16014M	8mm	2,98

(continued)

(TT HT HPV continued)



HSK100A Shank Tools

Cutting Tool Shank Requirements
inch (industry standard)

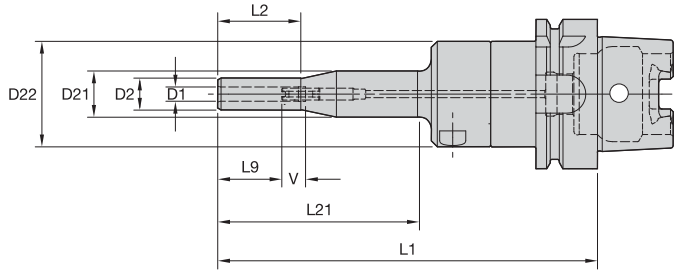
cutting tool shank diameters	tolerance
1/2 & 5/8	.0000/- .0004
3/4, 7/8, 1, 1-1/4, & 1-1/2	.0000/- .0005

■ TT HT HPV IN-HSK Form A



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	lbs
3862400	HSK100AHPVTHT050374	1/2	.94	1.26	—	3.74	2.60	—	1.42	.39	TTSS10014M	5mm	5.00
3862401	HSK100AHPVTHT050630	1/2	.94	1.26	1.42	6.30	2.48	4.81	1.42	.39	TTSS10014M	5mm	6.61
3862402	HSK100AHPVTHT062394	5/8	1.06	1.33	—	3.94	2.80	—	1.54	.39	TTSS12014M	6mm	5.15
3862403	HSK100AHPVTHT062630	5/8	1.06	1.33	1.51	6.30	2.24	4.81	1.54	.39	TTSS12014M	6mm	6.82
3862404	HSK100AHPVTHT075413	3/4	1.30	1.65	—	4.13	2.99	—	1.61	.39	TTSS16014M	8mm	5.61
3862405	HSK100AHPVTHT075630	3/4	1.30	1.65	1.80	6.30	2.72	4.81	1.61	.39	TTSS16014M	8mm	7.56
3862406	HSK100AHPVTHT088413	7/8	1.30	1.65	—	4.13	2.99	—	1.61	.39	TTSS16014M	8mm	5.52
3862407	HSK100AHPVTHT088630	7/8	1.30	1.65	1.80	6.30	2.72	4.81	1.61	.39	TTSS16014M	8mm	7.47
3862408	HSK100AHPVTHT100453	1	1.73	2.08	—	4.53	3.39	—	1.85	.39	TTSS16014M	8mm	6.72
3862409	HSK100AHPVTHT100630	1	1.73	2.08	2.23	6.30	2.72	4.81	1.85	.39	TTSS16014M	8mm	8.99
3862410	HSK100AHPVTHT125472	1 1/4	1.73	2.08	—	4.72	3.58	—	2.01	.39	TTSS16014M	8mm	6.57
3862411	HSK100AHPVTHT125630	1 1/4	1.73	2.08	2.23	6.30	2.72	4.81	2.01	.39	TTSS16014M	8mm	8.66
3862412	HSK100AHPVTHT150531	1 1/2	2.36	2.75	—	5.31	4.18	—	2.01	.39	TTSS20014M	10mm	9.48

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.
 Shrink Fit technical section, see page M78.
 Supplied with stop screw.
 Adjusting stop screw gage, see page M81.
 Shrink Fit accessories, see pages L12–L13.
 Optional M6–1.0P x 5mm lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.



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■ HC Slim-T MM-HSK Form A

order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	kg
3061086	HSK100AHCSLT06200M	6	13,5	19,5	44	200	35	85	27	10	3,08
3061087	HSK100AHCSLT08200M	8	15,5	19,5	44	200	35	85	27	10	3,09
3061088	HSK100AHCSLT10200M	10	17,5	44,5	—	200	85	171	31	10	3,08

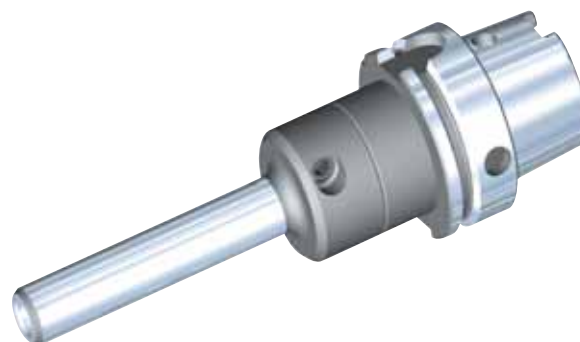
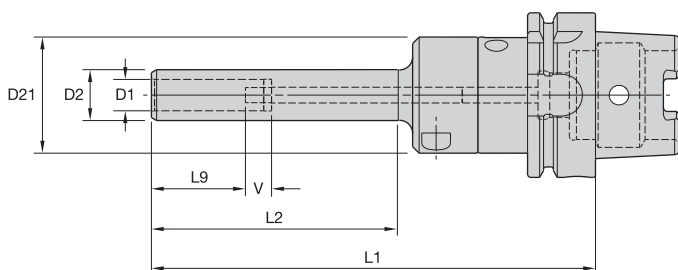
■ Spare Parts



catalog number	actuation wrench	wrench size actuation screw	stop screw wrench	wrench size stop screw
HSK100AHCSLT06200M	170.135	5mm	170.002	2,5mm
HSK100AHCSLT08200M	170.135	5mm	170.002	2,5mm
HSK100AHCSLT10200M	170.135	5mm	170.003	3mm

(continued)

(HC Slim continued)



HSK100A Shank Tools

■ HC Slim MM-HSK Form A

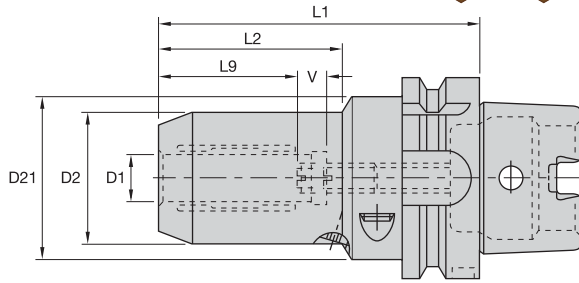
order number	catalog number	D1	D2	D21	L1	L2	L9	V	kg
3061089	HSK100AHCSL12200M	12	19,5	44,5	200	95	36	10	3,00
3061090	HSK100AHCSL14200M	14	21,5	52,5	200	95	36	10	3,37
3061091	HSK100AHCSL16200M	16	23,5	52,5	200	95	39	10	3,38
3061092	HSK100AHCSL18200M	18	25,5	52,5	200	95	39	10	3,42
3061263	HSK100AHCSL20200M	20	27,5	52,5	200	95	41	10	3,46

■ Spare Parts



catalog number	actuation wrench	wrench size actuation screw	stop screw wrench	wrench size stop screw
HSK100AHCSL12200M	170.135	5mm	170.002	2,5mm
HSK100AHCSL14200M	170.135	5mm	170.002	2,5mm
HSK100AHCSL16200M	170.135	5mm	170.002	2,5mm
HSK100AHCSL18200M	170.135	5mm	170.002	2,5mm
HSK100AHCSL20200M	170.135	5mm	170.002	2,5mm

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw.
 Actuation wrench must be ordered separately.
 Unable to use SEFAS™ chamfering rings on this design.
 Reduction sleeves are available and must be ordered separately; see pages J12–J13.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.



HSK100A Shank Tools

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■ **HC MM-HSK Form A**



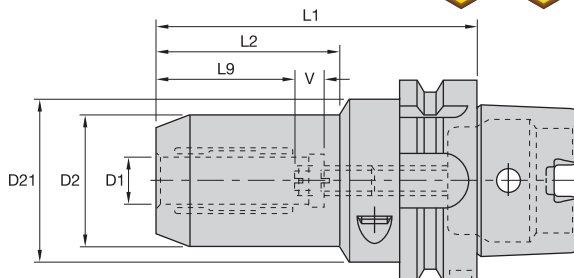
order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	stop screw wrench	wrench size stop screw	kg
1245483	HSK100AHC06085M	6	25,7	63	85	33	27	10	170.135	5mm	170.002	2,5mm	2,57
2229193	HSK100AHC06150M	6	25,7	63	150	90	27	10	170.135	5mm	170.002	2,5mm	2,96
1245484	HSK100AHC08085M	8	27,7	63	85	33	27	10	170.135	5mm	170.002	2,5mm	2,59
2215823	HSK100AHC08150M	8	27,7	63	150	90	27	10	170.135	5mm	170.002	2,5mm	3,00
1245485	HSK100AHC10090M	10	29,7	63	90	38	31	10	170.135	5mm	170.002	2,5mm	2,64
2229194	HSK100AHC10150M	10	29,7	63	150	94	31	10	170.135	5mm	170.002	2,5mm	3,00
1245486	HSK100AHC12095M	12	31,6	63	95	41	36	10	170.135	5mm	170.002	2,5mm	3,80
2229195	HSK100AHC12150M	12	31,6	63	150	100	36	10	170.135	5mm	170.002	2,5mm	2,94
1245487	HSK100AHC14095M	14	33,6	63	95	42	36	10	170.135	5mm	170.003	3mm	4,00
2229196	HSK100AHC14150M	14	33,6	63	150	92	36	10	170.135	5mm	170.003	3mm	3,10
1245488	HSK100AHC16100M	16	37,6	63	100	48	39	10	170.135	5mm	170.003	3mm	4,00
2229197	HSK100AHC16150M	16	37,6	63	150	96	39	10	170.135	5mm	170.003	3mm	3,20
1245489	HSK100AHC18100M	18	39,6	63	100	48	39	10	170.135	5mm	170.003	3mm	2,78
2229198	HSK100AHC18150M	18	39,6	63	150	96	39	10	170.135	5mm	170.003	3mm	3,28
1245490	HSK100AHC20105M	20	41,6	63	105	54	41	10	170.135	5mm	170.003	3mm	4,20
2229199	HSK100AHC20150M	20	41,6	63	150	100	41	10	170.135	5mm	170.003	3mm	3,31
1245491	HSK100AHC25115M	25	49,8	63	115	51	47	10	170.136	6mm	170.004	4mm	3,27
2229200	HSK100AHC25200M	25	49,8	63	200	137	47	10	170.136	6mm	170.004	4mm	4,50
1245492	HSK100AHC32120M	32	59,8	63	120	59	51	10	170.136	6mm	170.004	4mm	3,55
2229201	HSK100AHC32200M	32	59,8	63	200	139	51	10	170.136	6mm	170.004	4mm	5,26

■ **HC IN-HSK Form A**



order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw	lbs
1246557	HSK100AHC038350	3/8	1.17	2.48	3.50	1.38	1.22	.4	170.135	5mm	170.002	2,5mm	5.84
1246560	HSK100AHC050375	1/2	1.24	2.48	3.75	1.59	1.42	.4	170.135	5mm	170.002	2,5mm	5.95
1246563	HSK100AHC062400	5/8	1.48	2.48	4.00	1.87	1.54	.4	170.135	5mm	170.003	3mm	6.17
1246567	HSK100AHC075425	3/4	1.64	2.48	4.25	2.13	1.61	.4	170.135	5mm	170.003	3mm	6.39
1246569	HSK100AHC100475	1	1.95	2.48	4.75	2.01	1.81	.4	170.136	6mm	170.004	4mm	7.28
1246573	HSK100AHC125500	1 1/4	2.36	2.48	5.00	2.32	1.97	.4	170.136	6mm	170.004	4mm	7.94

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw.
 Actuation wrench must be ordered separately.
 Reduction sleeves are available and must be ordered separately; see page J2.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.



HSK100A Shank Tools

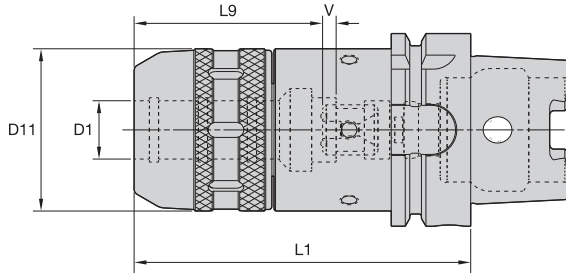
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■ HC Trend MM-HSK Form A





order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	stop screw wrench	wrench size stop screw	kg
1749601	HSK100AHCT06085M	6	25,7	63	85	33	27	10	170.135	5mm	170.003	3mm	2,61
1749602	HSK100AHCT08085M	8	27,7	63	85	33	27	10	170.135	5mm	170.003	3mm	2,63
1749603	HSK100AHCT10090M	10	29,7	63	90	38	31	10	170.135	5mm	170.003	3mm	2,66
1749604	HSK100AHCT12095M	12	31,6	63	95	40	36	10	170.135	5mm	170.003	3mm	2,70
1749605	HSK100AHCT14095M	14	33,6	63	95	42	36	10	170.135	5mm	170.005	5mm	2,70
1749606	HSK100AHCT16100M	16	37,6	63	100	48	39	10	170.135	5mm	170.005	5mm	2,80
1749608	HSK100AHCT18100M	18	39,6	63	100	48	39	10	170.135	5mm	170.005	5mm	2,82
1749609	HSK100AHCT20105M	20	41,6	63	105	54	41	10	170.135	5mm	170.005	5mm	2,89
1749611	HSK100AHCT25115M	25	49,8	63	115	51	47	10	170.136	6mm	170.005	5mm	3,29
1749612	HSK100AHCT32120M	32	59,8	63	120	59	51	10	170.136	6mm	170.005	5mm	3,57

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw.
 Actuation wrench must be ordered separately.
 Reduction sleeves are available and must be ordered separately; see page J2.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.





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■ HPMC MM-HSK Form A

order number	catalog number	D1	D11	L1	L9	V	 locknut wrench	 stop screw	wrench size stop screw	kg
3100542	HSK100AHPMC20115M	20	53	115	54	10	PSW52M	MCSS16018M	2,5mm & 5mm	3,13
3100543	HSK100AHPMC32135M	32	70	135	68	10	PSW68M	MCSS16018M	2,5mm & 5mm	4,13

■ HPMC IN-HSK Form A

order number	catalog number	D1	D11	L1	L9	V	 locknut wrench	 stop screw	wrench size stop screw	lbs
3100539	HSK100AHPMC075453	3/4	2.09	4.53	2.05	.4	PSW52M	MCSS16018M	2,5mm & 5mm	7.00
3100540	HSK100AHPMC100512	1	2.40	5.12	2.56	.4	PSW58M	MCSS16018M	2,5mm & 5mm	8.45
3100541	HSK100AHPMC125531	1 1/4	2.76	5.32	2.68	.4	PSW68M	MCSS16018M	2,5mm & 5mm	9.05

NOTE: Milling chuck technical section, see page M88.

Supplied with locknut and stop screw.

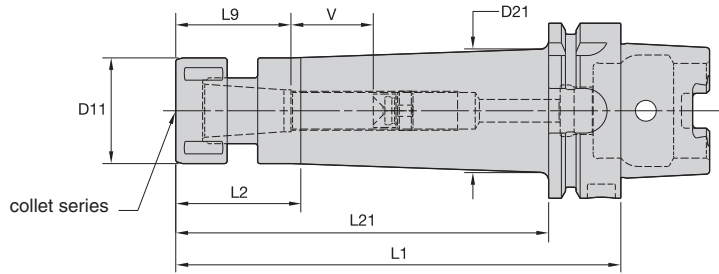
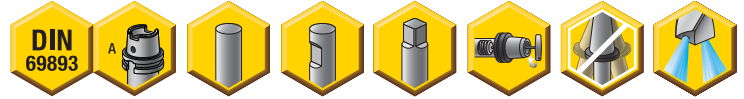
Locknut wrench must be ordered separately.

Optional M6-1,0P fine-balancing screw set is available (order number HPMCBALSCREWSET) and must be ordered separately; see page L14.

Reduction sleeves are available and must be ordered separately; see page J6.

HSK coolant unit and wrench are available and must be ordered separately; see page L44.

- Tremendous Grip (3:1 advantage).



HSK100A Shank Tools

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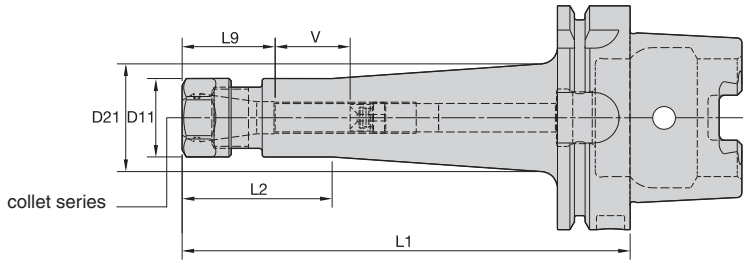
■ TG Round-HSK Form A

TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG50	1,1	13,5	1/32	17/32
TG75	2,6	20,0	3/64	3/4
TG100	2,6	25,5	5/64	1
TG150	11,6	40,0	23/64	1-1/2

order number	catalog number	collet series							locknut	wrench	Nm	stop screw	wrench size stop screw	stop screw cone cap	kg	
		D11	D21	L1	L2	L21	L9	V								
1086586	HSK100ATG050105M	TG50	38	—	105	76	76	42	10	LNA050M	HSW34M	68	SS056041G	4mm & 5/32	S SCC056	2,48
1086587	HSK100ATG050160M	TG50	38	44	160	41	131	42	58	LNA050M	HSW34M	68	SS056041G	4mm & 5/32	S SCC056	3,06
1085040	HSK100ATG075120M	TG75	50	—	120	91	91	54	11	LNA075M	HSW45M	136	SS081041G	4mm & 5/32	S SCC081	3,04
1086588	HSK100ATG100140M	TG100	60	—	140	111	111	70	12	LNA100M	HSW58M	203	SS112041G	4mm & 5/32	S SCC112	3,79
1086589	HSK100ATG150165M	TG150	85	—	165	136	—	84	11	LNA150M	HSW80M	271	SS162062G	4mm & 5/32	S SCC162	6,40

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16–L17.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.
 TG standard straight-bore collets, see page J10.
 TG tap collets, see page J10.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.

- Grip (2:1 advantage).



HSK100A Shank Tools

Collet Capacity

ER collet series	mm		inch	
	min	max	min	max
ER16	0,5	10,0	.02	.41
ER20	0,5	13,0	.02	.50
ER25	1,0	16,0	.04	.63
ER32	2,0	20,0	.08	.81
ER40	3,0	26,0	.12	1.00

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■ ER Hex-HSK Form A

order number	catalog number	collet series	D11	D21	L1	L2	L9	V	kg
1086560	HSK100AER16100M	ER16	28	—	100	71	32	27	2,26
1086561	HSK100AER16160M	ER16	28	60	160	85	32	48	2,83
1086562	HSK100AER20100M	ER20	34	—	100	65	36	7	2,33

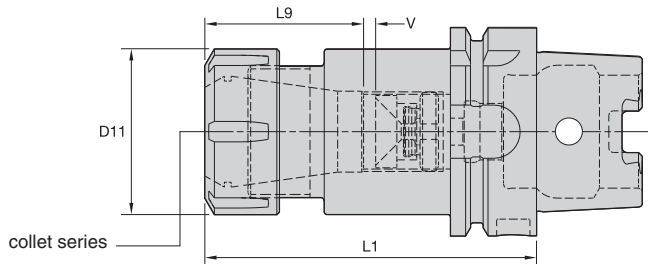
■ Spare Parts



catalog number	locknut	wrench	counterbore collet torque (Nm)	straight collet torque (Nm)	stop screw	wrench size stop screw	stop screw cone cap
HSK100AER16100M	LNHSER16M	OEW25M	40	56	SS044038G	4mm & 5/32	SSCC044
HSK100AER16160M	LNHSER16M	OEW25M	40	56	SS044038G	4mm & 5/32	SSCC044
HSK100AER20100M	LNHSER20M	OEW30M	32	80	SS056041G	4mm & 5/32	SSCC056

(continued)

(ER-HSK Form A continued)



HSK100A Shank Tools

ER Round-HSK Form A

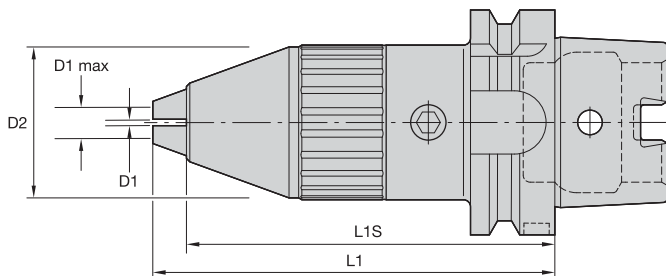
order number	catalog number	collet series	D11	L1	L9	V	kg
1086563	HSK100AER25100M	ER25	42	100	40	5	2,51
1086584	HSK100AER32100M	ER32	50	100	45	4	2,70
1086585	HSK100AER40120M	ER40	63	120	52	8	3,51

Spare Parts



catalog number	locknut	wrench	Nm	stop screw	wrench size stop screw	stop screw cone cap
HSK100AER25100M	LNSER25M	ER25WM	104	SS075041G	4mm & 5/32	SSCC075
HSK100AER32100M	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32	SSCC094
HSK100AER40120M	LNSER40M	ER40WM	176	SS112041G	4mm & 5/32	SSCC112

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58-J59.
 ER TCT tension-only tap collets, see page J60.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.



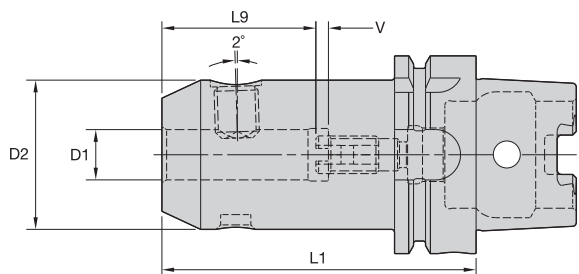
HSK100A Shank Tools

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■ DC-HSK Form A

order number	catalog number	D1		D1 max		D2	L1	L1S
		mm	in	mm	in			
2637153	HSK100ADC13125M	0,5	.020	13,0	.512	50	134	125
2637154	HSK100ADC16125M	3,0	.118	16,0	.630	52	135	125

NOTE: Locking wrench not supplied.
HSK coolant unit and wrench are available and must be ordered separately; see page L44.

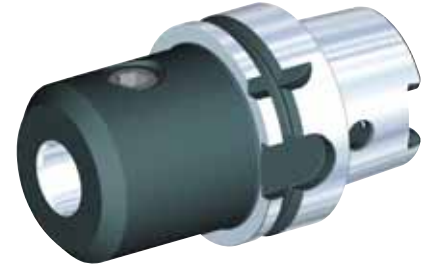
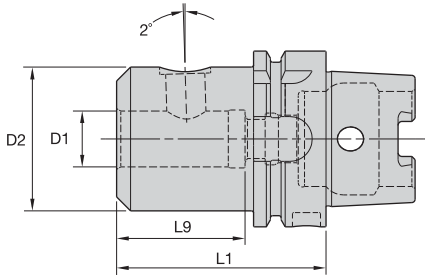


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■ WN MM-HSK Form A

order number	catalog number	D1	D2	L1	L9	V	lock screw	wrench size lock screw	Nm	stop screw	wrench size stop screw	kg
1155903	HSK100AWN08090M	8	28	90	30	10	SS03M014	4mm	15	571.067	3mm	2,26
1155904	HSK100AWN10090M	10	35	90	35	10	SS03M018	5mm	25	571.068	4mm	2,40
1155905	HSK100AWN12100M	12	42	100	40	10	SS03M023	6mm	35	571.074	5mm	2,65
1155906	HSK100AWN14100M	14	44	100	40	10	SS03M023	6mm	35	571.074	5mm	2,71
1155909	HSK100AWN16100M	16	48	100	43	10	SS03M025	6mm	50	571.069	6mm	2,84
1126240	HSK100AWN18100M	18	50	100	43	10	SS03M025	6mm	50	571.069	6mm	2,91
1155911	HSK100AWN20110M	20	52	110	45	10	SS03M026	8mm	95	571.076	6mm	3,11
1188828	HSK100AWN25120M	25	65	120	50	10	SS03M027	10mm	135	571.077	6mm	3,97
1188829	HSK100AWN32120M	32	72	120	54	10	SS03M029	10mm	160	571.077	6mm	4,34

NOTE: Do not overtighten lock screw; use torque recommendations above.
Supplied with lock screw and stop screw.
Lock screw or stop screw wrench not included.
HSK coolant unit and wrench are available and must be ordered separately; see page L44.



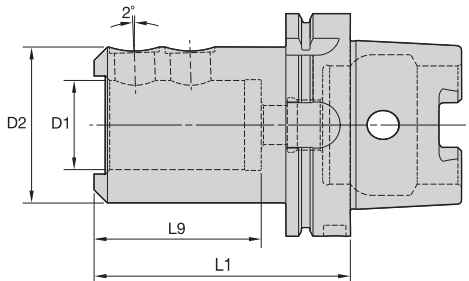
HSK100A Shank Tools

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■ SWN MM-HSK Form A



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	Nm	kg
1254122	HSK100ASWN20085M	20	50	85	48	SS03M026	8mm	95	4,53
1254123	HSK100ASWN25085M	25	55	85	48	SS03M023	6mm	35	4,25

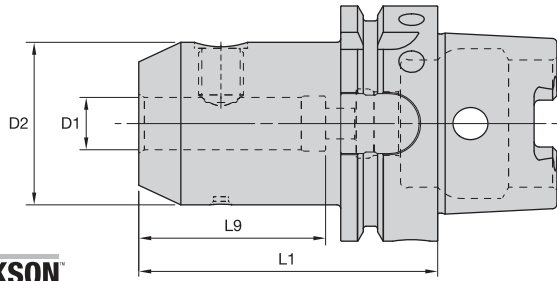


■ SWN MM • With Drive • HSK Form A



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	Nm	kg
1254124	HSK100ASWN32100M	32	62	100	66	SS03M023	6mm	35	3,29
1254125	HSK100ASWN40110M	40	70	110	76	SS03M023	6mm	35	3,72
1254126	HSK100ASWN50110M	50	80	110	76	SS03M023	6mm	35	4,08

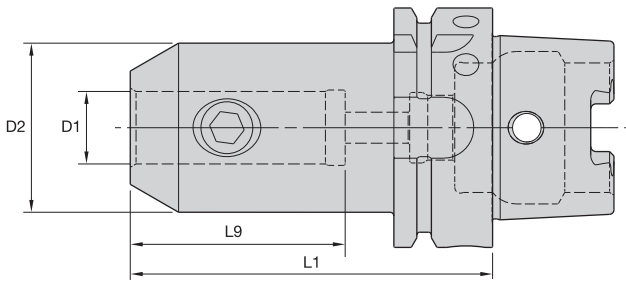
NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw.
 Lock screw wrench not included.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.



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■ EM MM-HSK Form A

order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	Nm	kg
1188810	HSK100AEM06080M	6	25	80	52	SS03M012	3mm	7	2,16
1333701	HSK100AEM08080M	8	28	80	52	SS03M014	4mm	15	2,19
1188811	HSK100AEM10080M	10	35	80	52	SS03M018	5mm	25	2,31
1155899	HSK100AEM12080M	12	42	80	49	SS03M023	6mm	35	2,45
1188812	HSK100AEM14080M	14	44	80	49	SS03M023	6mm	35	2,49
1155900	HSK100AEM16100M	16	48	100	53	SS03M025	6mm	50	2,84
1188813	HSK100AEM18100M	18	50	100	53	SS03M025	6mm	50	2,90
1126421	HSK100AEM20100M	20	52	100	55	SS03M026	8mm	95	2,95
1149696	HSK100AEM25100M	25	65	100	60	SS03M027	10mm	135	3,46
1126304	HSK100AEM32100M	32	72	100	65	SS03M029	10mm	160	3,73
1188814	HSK100AEM40120M	40	90	120	75	SS03M032	10mm	160	5,51
1322096	HSK100AEM50130M	50	100	130	85	—	12mm	200	6,37



■ EM IN-HSK Form A

order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
1015228	HSK100AEM025300	1/4	1.00	3.00	2	ELS025025PKG	1/8	8	4.77
1015229	HSK100AEM038300	3/8	1.00	3.00	2	ELS038031PKG	3/16	15	4.74
1015230	HSK100AEM050325	1/2	1.38	3.25	2	ELS044038PKG	7/32	20	5.06
1015231	HSK100AEM062375	5/8	1.63	3.75	2	ELS056050PKG	1/4	40	5.61
1015232	HSK100AEM075375	3/4	1.75	3.75	2	ELS062050PKG	5/16	70	5.75
1015233	HSK100AEM100425	1	2.00	4.25	2	ELS075056PKG	3/8	110	6.43
1015254	HSK100AEM125425	1 1/4	2.50	4.25	3	ELS075062PKG	3/8	110	7.63
1015255	HSK100AEM150450	1 1/2	2.75	4.50	3	ELS075069PKG	3/8	110	8.35
1015285	HSK100AEM200550	2	3.75	5.50	4	ELS100088PKG	1/2	150	14.05
1015286	HSK100AEM250575	2 1/2	4.19	5.75	4	ELS100088PKG	1/2	150	16.04

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw.
 Lock screw wrench not included.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.



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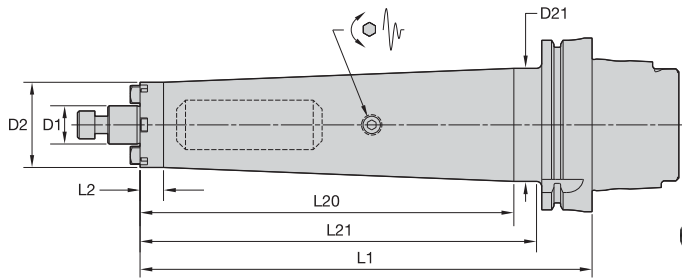
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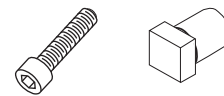
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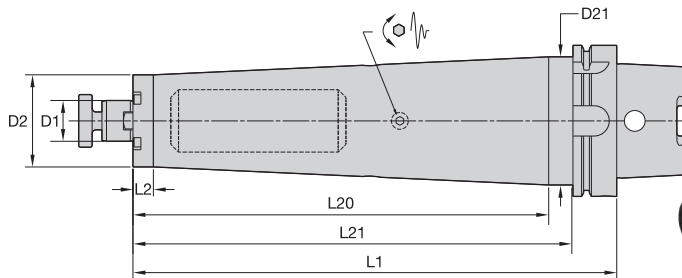


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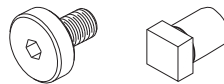
■ Cap MM-HSK Form A



order number	catalog number	D1	D2	D21	L1	L2	L20	L21	lock screw	drive key	wrench size lock screw	kg
4135981	HSK100ATDSMC22260M	22	49	65	260	14	215	231	MS1234	KDK22M	8mm	6,43



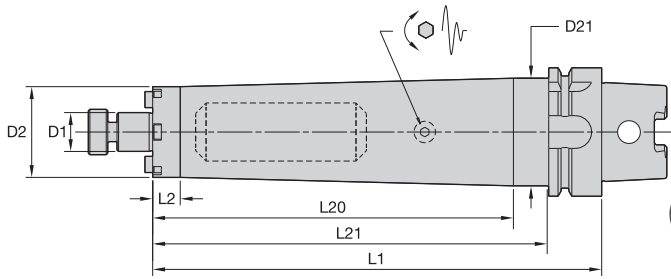
■ SMC Lock MM-HSK Form A



order number	catalog number	D1	D2	D21	L1	L2	L20	L21	lock screw	drive key	wrench size lock screw	kg
4135982	HSK100ATDSMC27320M	27	61	85	320	13,5	275	291	KLSS27M	—	10mm	11,22
4136283	HSK100ATDSMC32330M	32	78	—	330	301,1	—	—	KLSS32M	KDK32M	14mm	14,92

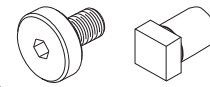
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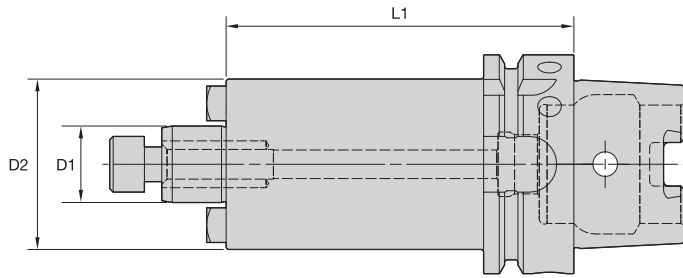
HSK100A Shank Tools

■ SMC Lock IN-HSK Form A



order number	catalog number	D1	D2	D21	L1	L2	L20	L21	lock screw	drive key	wrench size lock screw	lbs
4136284	HSK100ATDSMC0751050	3/4	1.750	2.559	10.500	.532	8.728	9.360	KLS07	KDK05	1/4	13.69
4136285	HSK100ATDSMC1001250	1	2.752	3.337	12.500	.532	10.728	11.360	KLS10	KDK06	5/16	26.94
4136286	HSK100ATDSMC1251300	1 1/4	2.878	3.337	13.000	.630	11.228	11.860	KLS12	KDK08	5/16	33.52

NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive keys.
 Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
 Lock screw wrench not included.
 For HSK coolant unit and wrench; see page L44.

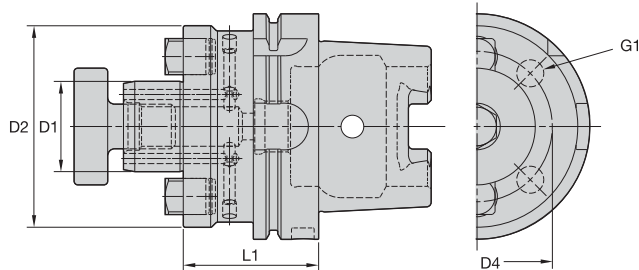


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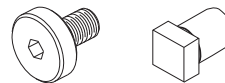
■ SMC Cap MM-HSK Form A



order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size retention screw	kg
4144669	HSK100ASM2C16050M	16	38	50	MS1294	KDK16M	6mm	2,20
4144670	HSK100ASM2C22050M	22	42	50	MS1234	—	8mm	2,28
3872496	HSK100ASMC16050M	16	44	50	MS1294	KDK16M	6mm	2,26
3872497	HSK100ASMC16100M	16	44	100	MS1294	KDK16M	6mm	2,81
3872498	HSK100ASMC16160M	16	44	160	MS1294	KDK16M	6mm	3,48
3872499	HSK100ASMC22050M	22	49	50	MS1234	KDK22M	8mm	2,36
3872500	HSK100ASMC22100M	22	49	100	MS1234	KDK22M	8mm	3,05
3872501	HSK100ASMC22160M	22	49	160	MS1234	KDK22M	8mm	3,89



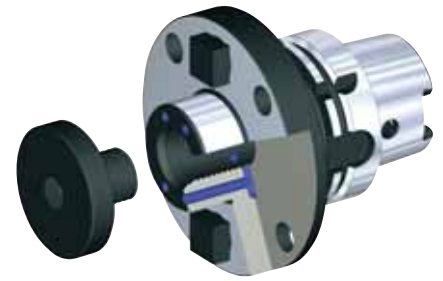
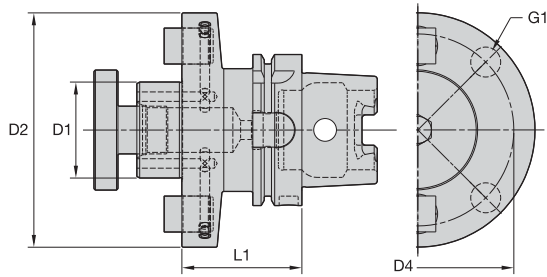
■ SMC Lock MM-HSK Form A



order number	catalog number	D1	D2	D4	G1	L1	lock screw	drive key	wrench size retention screw	kg
3872502	HSK100ASMC27050M	27	60	—	—	50	KLSS27M	KDK27M	10mm	2,59
3872503	HSK100ASMC27100M	27	60	—	—	100	KLSS27M	KDK27M	10mm	3,65
3872504	HSK100ASMC27160M	27	60	—	—	160	KLSS27M	KDK27M	10mm	4,93
3872505	HSK100ASMC32050M	32	78	—	—	50	KLSS32M	KDK32M	14mm	3,00
3872506	HSK100ASMC32100M	32	78	—	—	100	KLSS32M	KDK32M	14mm	4,82
3872507	HSK100ASMC32160M	32	78	—	—	160	KLSS32M	KDK32M	14mm	7,02
3872508	HSK100ASMC40060M	40	89	67	M12X1.75	60	KLSS40M	KDK40M	17mm	3,78
3872509	HSK100ASMC40100M	40	89	67	M12X1.75	100	KLSS40M	KDK40M	17mm	5,54
3872510	HSK100ASMC40160M	40	89	67	M12X1.75	160	KLSS40M	KDK40M	17mm	8,14
3872511	HSK100ASMC50070M	50	98	—	—	70	KLSS50M	—	—	4,67
3872512	HSK100ASMC50100M	50	98	—	—	100	KLSS50M	—	—	6,14
3872513	HSK100ASMC50160M	50	98	—	—	160	KLSS50M	—	—	8,70
3872514	HSK100ASMC60070M	60	129	102	M16X2.0	70	—	KDK60M	—	5,53
3872515	HSK100ASMC60100M	60	129	102	M16X2.0	100	—	KDK60M	—	7,58
3872516	HSK100ASMC60160M	60	129	102	M16X2.0	160	—	KDK60M	—	10,18

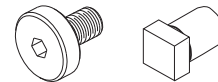
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HSK100A Shank Tools

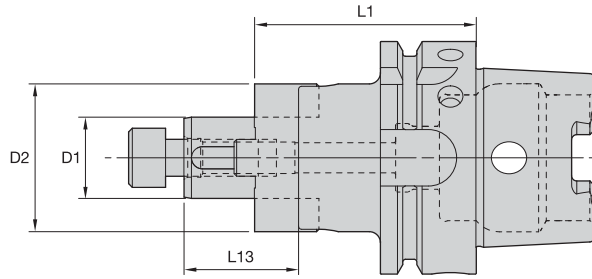
■ SMC Lock IN-HSK Form A



order number	catalog number	D1	D2	D4	G1	L1	lock screw	drive key	wrench size retention screw	lbs
3763072	HSK100ASM2C075225	3/4	1.535	—	—	2.250	KLS07	—	1/4	4.99
3763071	HSK100ASMC075225	3/4	1.752	—	—	2.250	KLS07	KDK05	1/4	5.23
3763074	HSK100ASM2C100225	1	2.189	—	—	2.250	KLS10	KDK06	5/16	5.77
3763073	HSK100ASMC100225	1	2.752	—	—	2.250	KLS10	KDK06	5/16	6.43
3763075	HSK100ASMC125250	1 1/4	2.878	—	—	2.500	KLS12	KDK08	5/16	7.26
3763076	HSK100ASMC150250	1 1/2	3.811	—	—	2.500	KLS15	KDK10	3/8	8.94
3763077	HSK100ASMC200250	2	4.882	4.000	.625-11 UNC	2.500	KLS20	KDK12	9/16	10.87
3763078	HSK100ASMC250250	2 1/2	4.882	4.000	.625-11 UNC	2.500	KLS25	KDK16	9/16	11.83

NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive keys.
 Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
 Lock screw wrench not included.
 For HSK coolant unit and wrench, see page L44.
 Supplied with four locking bolts (S-388).

- Through-the-toolholder coolant capability.



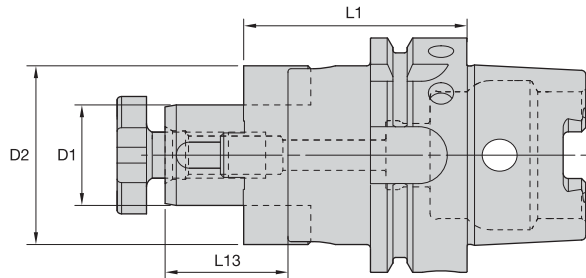
HSK100A Shank Tools

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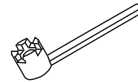
■ CS Cap MM-HSK Form A



order number	catalog number	D1	D2	L1	L13	lock screw	wrench size lock screw	combi driver ring	combi drive key	kg
1125162	HSK100ACS16060M	16	32	60	27	MS1294	6mm	CDR16M	CDK16M	2,22
1151595	HSK100ACS22060M	22	40	60	31	MS1234	8mm	CDR22M	CDK22M	2,34

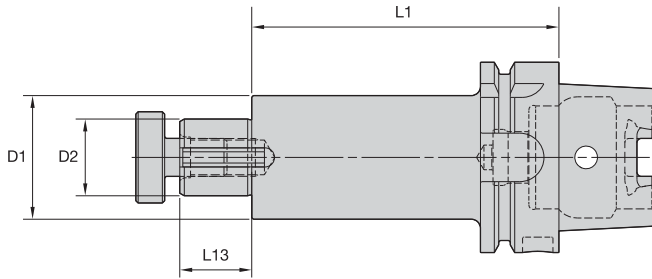


■ CS Lock MM-HSK Form A



order number	catalog number	D1	D2	L1	L13	lock screw	locknut wrench	combi driver ring	combi drive key
1126856	HSK100ACS27060M	27	48	60	33	KLS27MPKG	SMW27M	CDR27M	CDK27M
1126865	HSK100ACS32060M	32	58	60	38	KLS32M	SMW32M	CDR32M	CDK32M
1126873	HSK100ACS40070M	40	70	70	41	KLS40M	SMW40M	CDR40M	CDK40M
1188682	HSK100ACS50080M	50	90	80	46	KLS50M	SMW50M	CDR50M	CDK50M

NOTE: Do not overtighten lock screw.
 Supplied with lock screw, drive ring, and drive keys.
 Lock screw wrench must be ordered separately.
 For HSK coolant unit and wrench, see page L44.



HSK100A Shank Tools

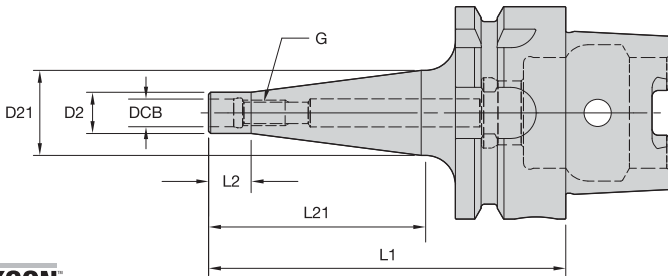
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SA IN-HSK Form A



order number	catalog number	D1	D2	L1	L13	lock screw	wrench size lock screw	drive key	lbs
1256067	HSK100ASA062400	5/8	1.25	4.00	.78	KLS07	1/4	DWG SDK062088	5.46
1256068	HSK100ASA100400	1	1.61	4.00	.94	KLS10	5/16	DWG SDK100106	6.23
1256069	HSK100ASA125600	1 1/4	1.86	6.00	1.09	KLS12	5/16	DWG SDK125119	8.49
1256070	HSK100ASA150600	1 1/2	2.11	6.00	1.70	KLS15	3/8	DWG SDK150175	10.09
1256071	HSK100ASA200600	2	2.75	6.00	1.70	KLS20	9/16	SDK200169	14.19

NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive key.
 Lock screw wrench not included.
 For HSK coolant unit and wrench, see page L44.

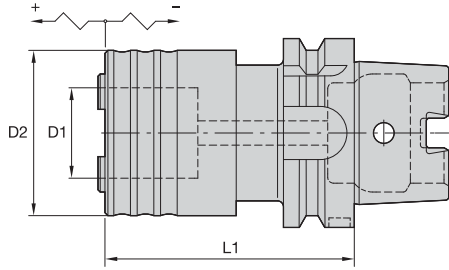


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ST-HSK Form A

order number	catalog number	DCB	G	D2	D21	L1	L2	L21	kg
4061397	HSK100AST12087M	12,5	M12	21	24	87	10	50	2,13
4061398	HSK100AST12137M	12,5	M12	21	31	137	10	100	2,40
4061399	HSK100AST12187M	12,5	M12	21	31	187	10	150	2,57
4061400	HSK100AST12237M	12,5	M12	21	36	237	10	200	2,95
4061401	HSK100AST16087M	17,0	M16	29	31	87	10	50	2,24
4061402	HSK100AST16137M	17,0	M16	29	39	137	10	100	2,69
4061413	HSK100AST16187M	17,0	M16	29	39	187	10	150	3,02
4061414	HSK100AST16237M	17,0	M16	29	39	237	10	200	3,36

NOTE: HSK coolant unit and wrench are available and must be ordered separately; see page L44.



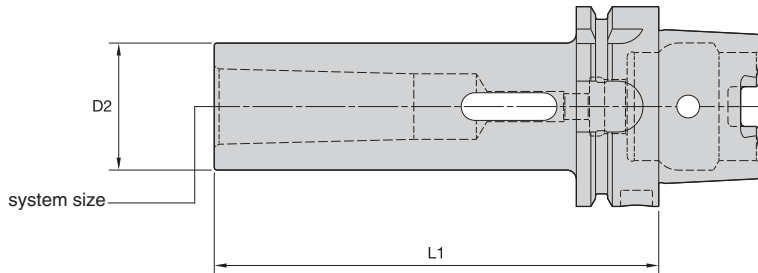
ERICKSON

RC-HSK Form A

order number	catalog number	adapter size	tap size		D1	D2	L1	tension	compression	kg
			mm	in						
1520643	HSK100ACHRC1112M	1	M1.0 - M14	#0 - 9/16	19	39	112	7,5	7,5	3,60
1520644	HSK100ACHRC2144M	2	M4.5 - M24	5/16 - 7/8	31	60	144	10,0	10,0	4,10
1520645	HSK100ACHRC3210M	3	M14.0 - M36	13/16 - 1 3/8	48	86	210	17,5	17,5	6,90

NOTE: Quick-change tap adapters are available and must be ordered separately; see page J76.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.

- Balanced-by-design.



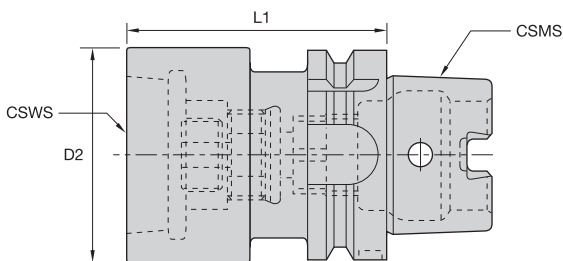
ERICKSON

MT-HSK Form A

order number	catalog number	system size	D2	L1	kg
1323373	HSK100AMT2120M	2	32,00	120	1,89
1323375	HSK100AMT3150M	3	40,00	150	2,31
1507601	HSK100AMT4170M	4	48,00	170	2,78
1518711	HSK100AMT5200M	5	70,00	200	4,92

NOTE: HSK coolant unit and wrench are available and must be ordered separately; see page L44.

- Differential connector included.



HSK100A Shank Tools

ERICKSON

■ HSK Form A to KR Adapters • Metric



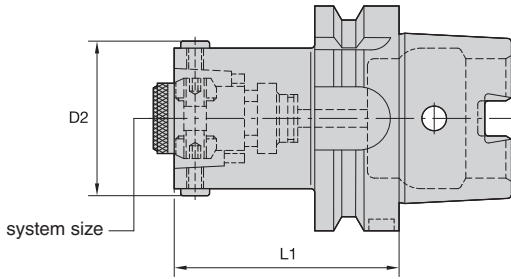
order number	catalog number	CSMS system size	CSWS system size	D2	L1	differential connector	kg	reference head
1153606	HSK100AKR32075M	HSK100A	KR32	50	75	KRDCKR32M	2,56	SVS00B,0B,1B,2B,3B,SVUBB1,BB2
1107188	HSK100AKR50085M	HSK100A	KR50	65	85	KRDCKR50M	3,12	SVS4B,5B,SVU65,SVUBB2
1173988	HSK100AKR63100M	HSK100A	KR63	85	100	KRDCKR63M	4,26	SVS6B,7B,8B
1153612	HSK100AKR80090M	HSK100A	KR80	95	90	KRDCKR80M	4,36	SVU92,120

■ HSK Form A to KR Adapters • Inch



order number	catalog number	CSMS system size	CSWS system size	D2	L1	differential connector	lbs	reference head
1153606	HSK100AKR32075M	HSK100A	KR32	1.96	2.953	KRDCKR32M	5.64	SVS00B,0B,1B,2B,3B,SVUBB1,BB2
1107188	HSK100AKR50085M	HSK100A	KR50	2.56	3.347	KRDCKR50M	6.87	SVS4B,5B,SVU65,SVUBB2
1173988	HSK100AKR63100M	HSK100A	KR63	3.34	3.937	KRDCKR63M	9.40	SVS6B,7B,8B
1153612	HSK100AKR80090M	HSK100A	KR80	3.73	3.543	KRDCKR80M	9.62	SVU92,120

NOTE: Plug may need to be removed to access the differential screw drive through the HSK taper.

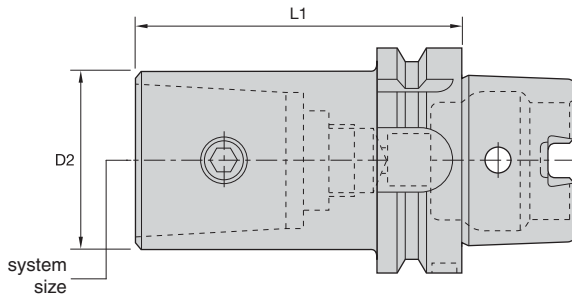


ERICKSON

■ HSK-HSK Form A

order number	catalog number	system size	D2	L1	wrench size actuation screw	Nm	kg
1318870	HSK100AHSK50080M	HSK50	55	80	4mm	15	2
1312947	HSK100AHSK63100M	HSK63	70	100	5mm	20	2
1320682	HSK100AHSK100140M	HSK100	110	140	8mm	40	7
1520596	HSK100AHSK100200M	HSK100	110	200	8mm	40	9

NOTE: Do not overtorque actuation screw; use torque recommendations above.
 Supplied with actuation mechanism and sealing ring.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.
 With HSK adapters to DIN 69893-1 Form A or Form C, coolant pipe must be removed.



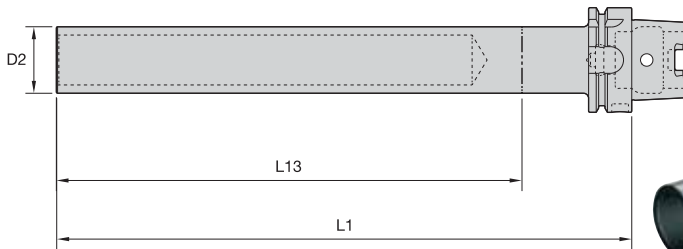
ERICKSON

■ KM-HSK Form A

order number	catalog number	system size	D2	L1	spare parts package	wrench size actuation screw	Nm	kg
1139877	HSK100AKM32075M	KM32	32	75	KM32PKG3S	5mm	8	2,25
1140647	HSK100AKM40080M	KM40	40	80	KM40PKG3S	6mm	12	2,42
1140651	HSK100AKM50100M	KM50	50	100	KM50PKG3S	10mm	27	2,87
1140655	HSK100AKM63115M	KM63	63	115	KM63PKG3S	12mm	47	3,67
1255791	HSK100AKM80125M	KM80	80	125	KM80PKG3S	14mm	79	5,04

NOTE: Do not overtorque actuation screw; use torque recommendations above.
 Supplied with KM actuation mechanism.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.

- For acceptance testing on machine tool spindles.
- 0,003mm (.0001") maximum TIR.
- Precision ground.



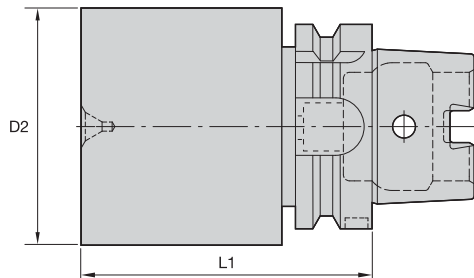
HSK100A Shank Tools

ERICKSON

■ GB-HSK Form A

order number	catalog number	D2		L1		L13		kg
		mm	in	mm	in	mm	in	
1316356	HSK100AGB40349M	40,0	1.57	349,0	13.74	300,0	11.81	3,73

- Machinable front 32–38 RW C.



ERICKSON

■ BB-HSK Form A

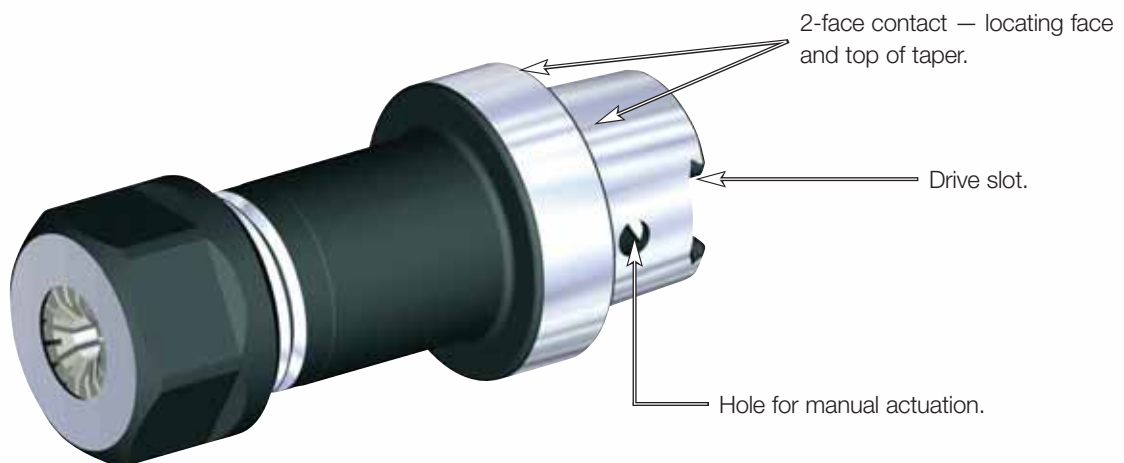
order number	catalog number	D2	L1	kg
1026681	HSK100ABB100300M	100,8	300	18,11
1015290	HSK100ABB200175M	200,8	175	34,36

NOTE: HSK coolant unit and wrench are available and must be ordered separately; see page L44.

ERICKSON™ HSK Shank Tooling System • HSK32C Series

Primary Application

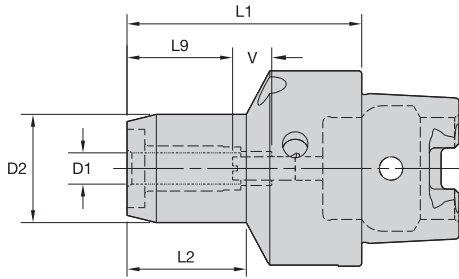
ERICKSON HSK Face Contact Short Taper Tooling is manufactured from premium materials and to the latest DIN/ISO specification standards. Form C versions are generally used in transfer lines, multispindles, and special machines without automatic tool changers.





Features and Benefits

- ISO 12164-1/DIN 69893-1 Form C 1:10 short taper.
- High axial and radial repeatability.
- Maximum 100 bar (1,500 psi) coolant pressure.

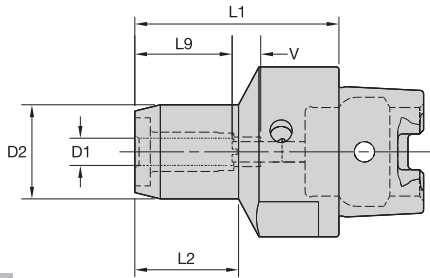


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■ HC MM-HSK Form C

order number	catalog number	D1	D2	L1	L2	L9	V	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw	kg
1245412	HSK32CHC06060M	6	25,7	60	33	26	10	170.254	4mm	170.002	2,5mm	2,77
1245413	HSK32CHC08060M	8	27,7	60	33	26	10	170.254	4mm	170.002	2,5mm	2,92
1245414	HSK32CHC10065M	10	29,7	65	38	31	10	170.254	4mm	170.002	2,5mm	3,30
1245415	HSK32CHC12070M	12	31,6	70	43	36	10	170.254	4mm	170.002	2,5mm	3,67

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw.
 Actuation wrench must be ordered separately.
 Reduction sleeves are available and must be ordered separately; see page J6.



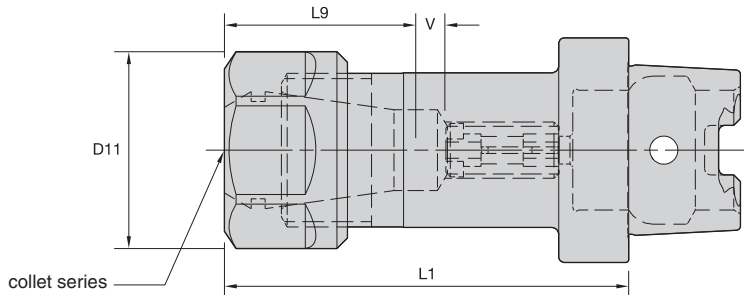
ERICKSON

■ HC Trend MM-HSK Form C

order number	catalog number	D1	D2	L1	L2	L9	V	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw	kg
1809981	HSK32CHCT06060M	6	25,7	60	33	26	10	170.254	4mm	170.003	3mm	0,30
1809982	HSK32CHCT08060M	8	27,7	60	33	26	10	170.254	4mm	170.003	3mm	0,30
1809983	HSK32CHCT10065M	10	29,7	65	38	31	10	170.254	4mm	170.003	3mm	0,40
1809984	HSK32CHCT12070M	12	31,6	70	43	36	10	170.254	4mm	170.003	3mm	0,40

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw.
 Actuation wrench must be ordered separately.
 Reduction sleeves are available and must be ordered separately; see page J6.

- Grip (2:1 advantage).

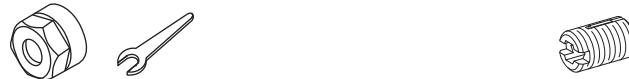


HSK32C Shank Tools

ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER16	0,5	10,0	.02	.41

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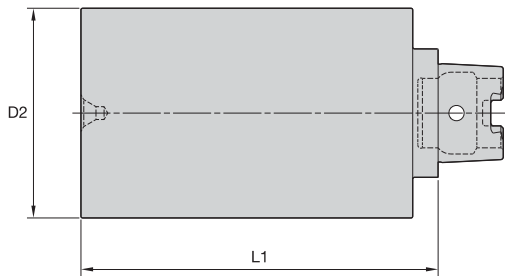
■ ER Hex-HSK Form C



order number	catalog number	collet series	D11	L1	L9	V	locknut	wrench	counterbore collet torque (Nm)	straight collet torque (Nm)	stop screw	wrench size stop screw	kg
1139068	HSK32CER16060M	ER16	28	60	32	2	LNHER16M	OEW25M	40	56	571.068	4mm	0,19

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.

- Machinable front 32–38 RW C.



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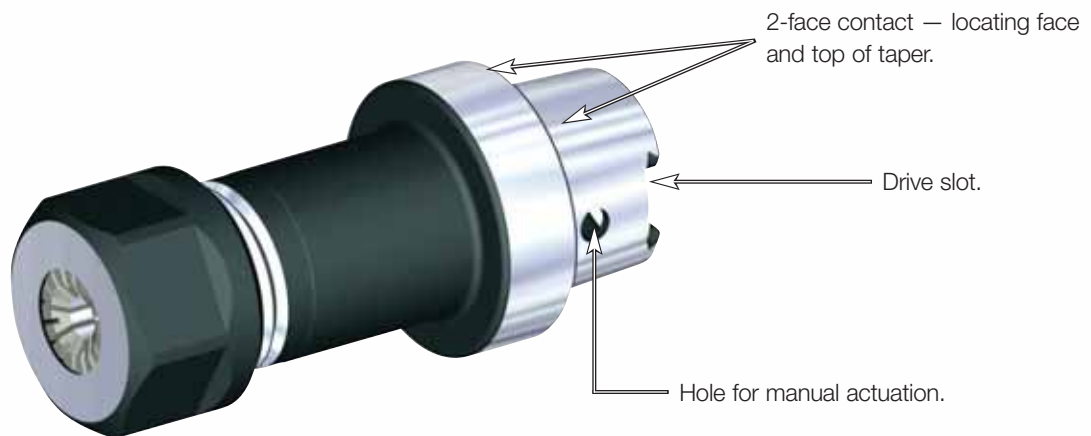
■ BB-HSK Form C

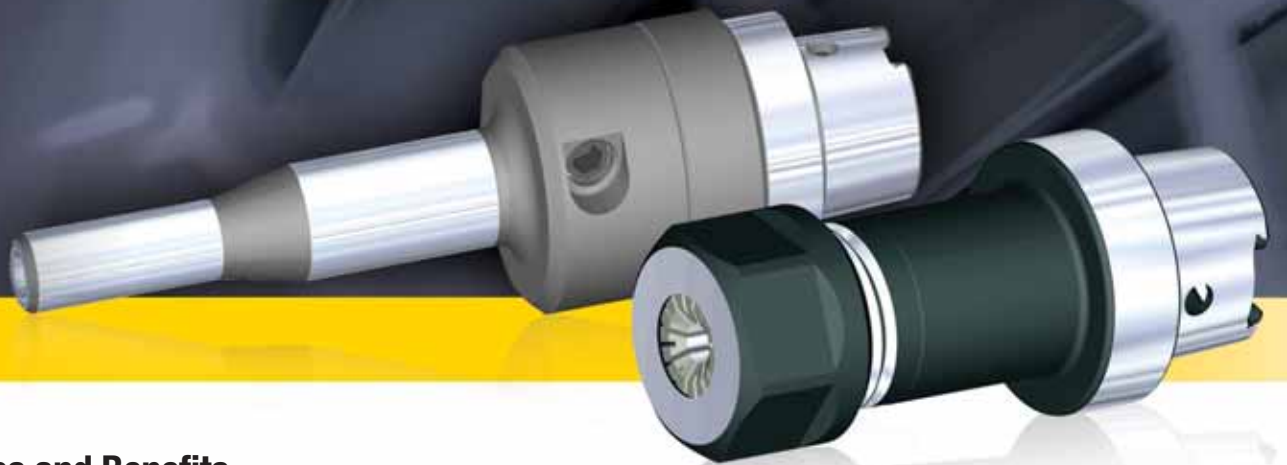
order number	catalog number	D2	L1	kg
1519723	HSK32CBB034100M	34,8	100,0	0,73
1519724	HSK32CBB034200M	34,8	200,0	1,48
1519725	HSK32CBB053150M	53,8	150,0	2,54

ERICKSON™ HSK Shank Tooling System • HSK40C Series

Primary Application

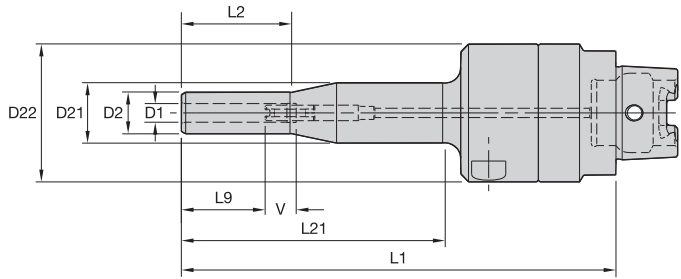
ERICKSON HSK Face Contact Short Taper Tooling is manufactured from premium materials and to the latest DIN/ISO specification standards. Form C versions are generally used in transfer lines, multispindles, and special machines without automatic tool changers.





Features and Benefits

- ISO 12164-1/DIN 69893-1 Form C 1:10 short taper.
- High axial and radial repeatability.
- Maximum 100 bar (1,500 psi) coolant pressure.



HSK40C Shank Tools

ERICKSON

■ HC Slim-T MM-HSK Form C

order number	catalog number	D1	D2	D21	D22	L1	L2	L9	L21	V	kg
3061272	HSK40CHCSLT06140M	6	13,5	19,5	44,5	140	35	27	85	10	0,72
3061273	HSK40CHCSLT08140M	8	15,5	19,5	44,5	140	35	27	85	10	0,73

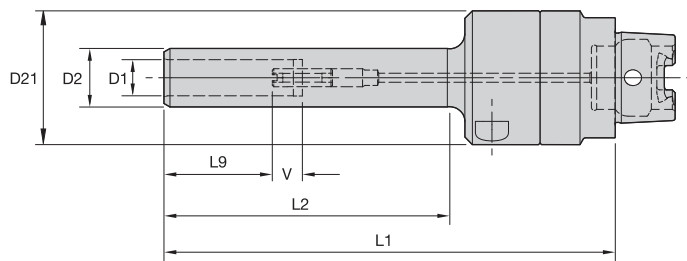
■ Spare Parts



catalog number	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw
HSK40CHCSLT06140M	170.135	5mm	170.002	2,5mm
HSK40CHCSLT08140M	170.135	5mm	170.002	2,5mm

(continued)

(HC Slim HSK Form C continued)



HSK40C Shank Tools

■ HC Slim MM-HSK Form C

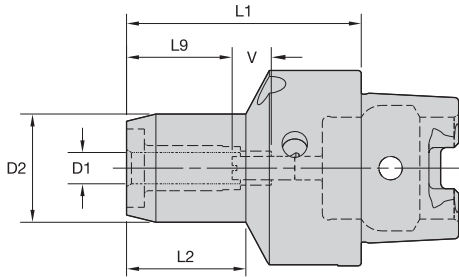
order number	catalog number	D1	D2	D21	L1	L2	L9	V	kg
3061275	HSK40CHCSLT12150M	12	19,5	44,5	150,0	95	36	10	0,76
3061276	HSK40CHCSLT14150M	14	21,5	52,5	150,0	95	36	10	0,96
3061277	HSK40CHCSLT16150M	16	23,5	52,5	150,0	95	39	10	0,98
3061278	HSK40CHCSLT18150M	18	25,5	52,5	150,0	95	39	10	1,02
3061279	HSK40CHCSLT20150M	20	27,5	52,5	150,0	95	41	10	1,06

■ Spare Parts



catalog number	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw
HSK40CHCSLT12150M	170.135	5mm	170.003	3mm
HSK40CHCSLT14150M	170.135	5mm	170.003	3mm
HSK40CHCSLT16150M	170.135	5mm	170.005	5mm
HSK40CHCSLT18150M	170.135	5mm	170.005	5mm
HSK40CHCSLT20150M	170.135	5mm	170.005	5mm

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw.
 Actuation wrenches must be ordered separately.
 Unable to use SEFAS™ chamfering rings on this design.
 Reduction sleeves are available and must be ordered separately; see page J2.

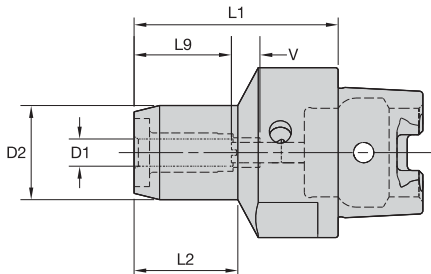


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■ HC MM-HSK Form C

order number	catalog number	D1	D2	L1	L2	L9	V	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw	kg
1245493	HSK40CHC06060M	6	25,7	60	33	26	10	170.135	5mm	170.002	2,5mm	0,30
1245494	HSK40CHC08060M	8	27,7	60	33	26	10	170.135	5mm	170.002	2,5mm	0,30
1245495	HSK40CHC10065M	10	29,7	65	39	30	10	170.135	5mm	170.002	2,5mm	0,50
1245496	HSK40CHC12070M	12	31,6	70	44	36	10	170.135	5mm	170.002	2,5mm	0,60

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw.
 Actuation wrench must be ordered separately.
 Reduction sleeves are available and must be ordered separately; see page J2.



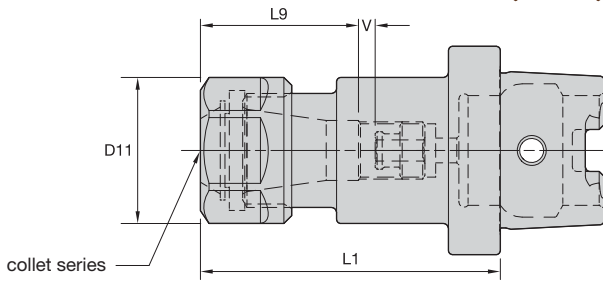
ERICKSON™

■ HC Trend MM-HSK Form C

order number	catalog number	D1	D2	L1	L2	L9	V	actuation wrench	wrench size actuation screw	wrench size stop screw	kg
1809985	HSK40CHCT06060M	6	25,7	60	33	26	10	170.135	5mm	3mm	0,30
1809986	HSK40CHCT08060M	8	27,7	60	33	26	10	170.135	5mm	3mm	0,30
1809987	HSK40CHCT10065M	10	29,7	65	39	30	10	170.135	5mm	3mm	0,50
1809988	HSK40CHCT12070M	12	31,6	70	44	36	10	170.135	5mm	3mm	0,60

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw.
 Actuation wrench must be ordered separately.
 Reduction sleeves are available and must be ordered separately; see page J2.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.

- Grip (2:1 advantage).



HSK40C Shank Tools

ERICKSON

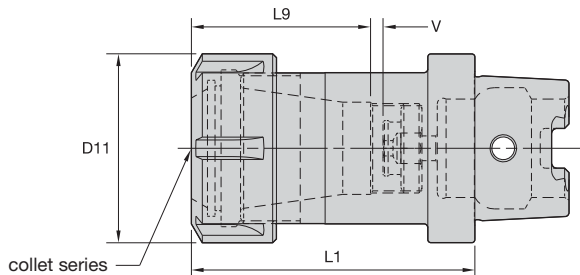
■ ER Hex-HSK Form C

ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER16	0,5	10,0	.02	.41
ER25	1,0	16,0	.04	.63
ER32	2,0	20,0	.08	.81

order number	catalog number	collet series	D11	L1	L9	V	kg
1253864	HSK40CER16060M	ER16	28	60	32	5,00	0,27

■ Spare Parts

catalog number	locknut	wrench	counterbore collet torque (Nm)	straight collet torque (Nm)	stop screw	wrench size stop screw
HSK40CER16060M	LNHSER16M	OEW25M	40	56	SS044038G	4mm & 5/32



■ ER Round-HSK Form C

order number	catalog number	collet series	D11	L1	L9	V	kg
1253866	HSK40CER25070M	ER25	42	70	40	5	0,41
1125645	HSK40CER32075M	ER32	50	75	45	5	0,57

■ Spare Parts

catalog number	round locknut	wrench	Nm	stop screw	wrench size stop screw
HSK40CER25070M	LNSER25M	ER25WM	104	SS075041G	4mm & 5/32
HSK40CER32075M	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32

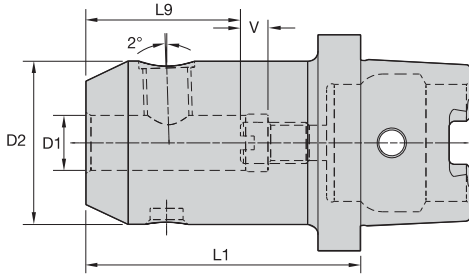
NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.

HSK40C Shank Tools

Whistle Notch™ Adapters • Modular Adapters



HSK40C Shank Tools



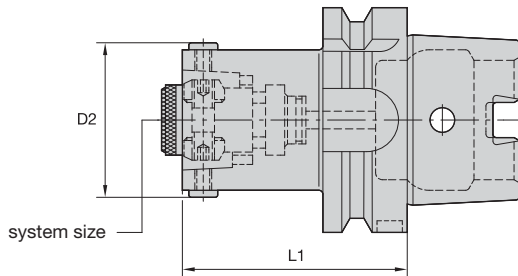
ERICKSON™

■ WN MM-HSK Form C



order number	catalog number	D1	D2	L1	L9	V	lock screw	wrench size lock screw	Nm	stop screw	wrench size stop screw	kg
1123137	HSK40CWN16075M	16	48	75	40	8	—	6mm	24	571.075	6mm	0,86

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw and stop screw.
 Lock screw or stop screw wrenches are not included.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.



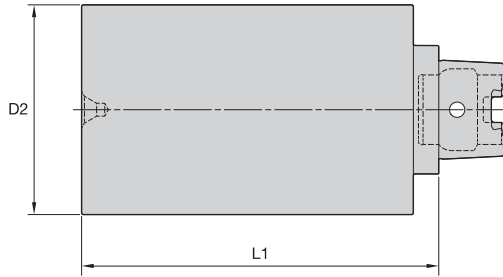
ERICKSON™

■ HSK-HSK Form C

order number	catalog number	system size	D2	L1	wrench size actuation screw	Nm	kg
1520613	HSK40CHSK32050M	HSK32	37	50	3mm	6	0,40

NOTE: Do not overtorque actuation screw; use torque recommendations above.
 Supplied with actuation mechanism and sealing ring.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.

- Machinable front 32–38 RW C.

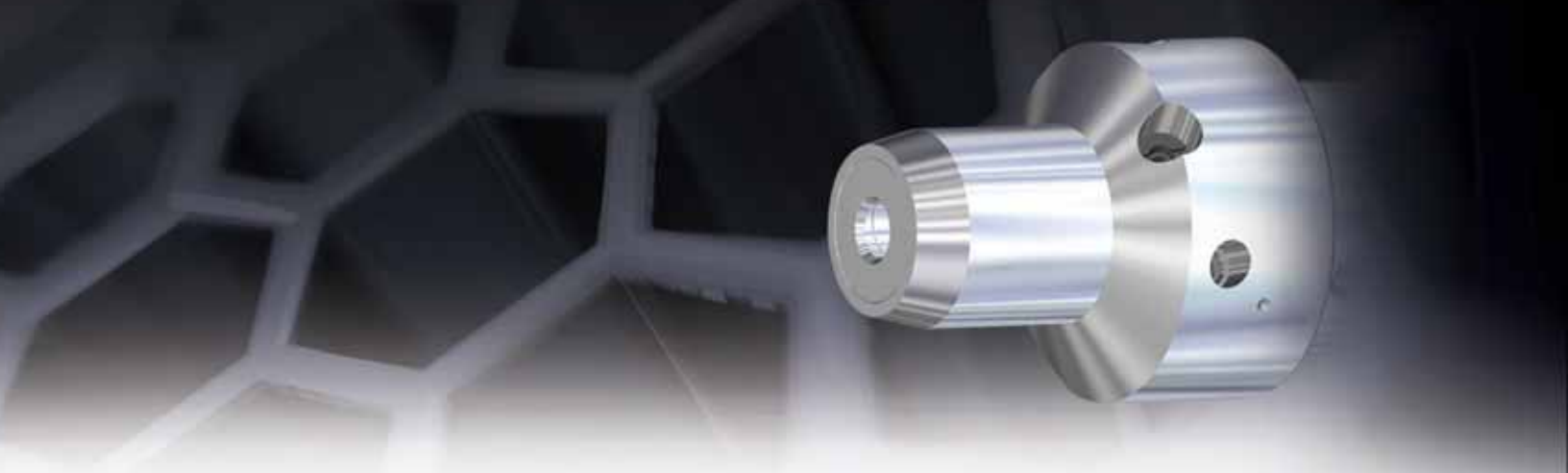


HSK40C Shank Tools

ERICKSON

■ BB-HSK Form C

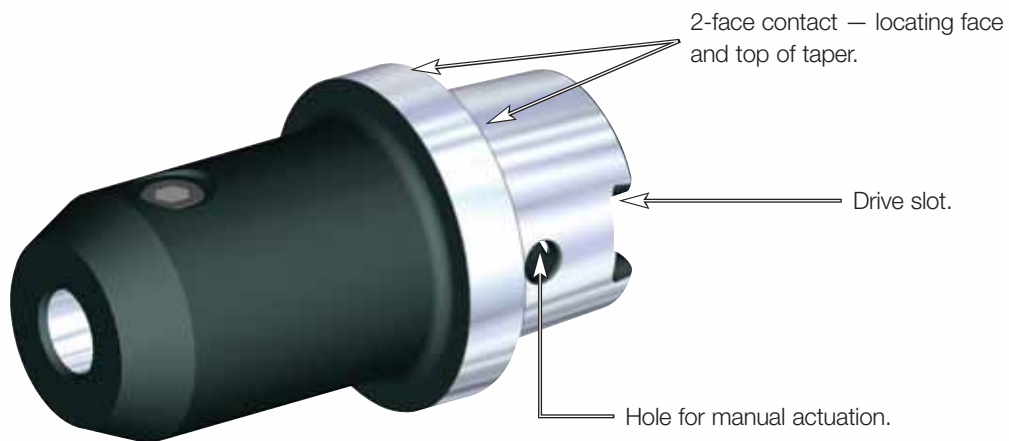
order number	catalog number	D2	L1	kg
1519726	HSK40CBB040100M	40,8	100	0,99
1519727	HSK40CBB040200M	40,8	200	2,02
1519729	HSK40CBB063150M	63,8	150	3,57



ERICKSON™ HSK Shank Tooling System • HSK50C Series

Primary Application

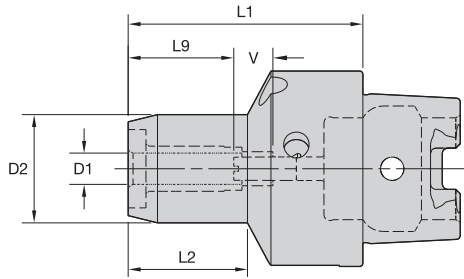
ERICKSON HSK Face Contact Short Taper Tooling is manufactured from premium materials and to the latest DIN/ISO specification standards. Form C versions are generally used in transfer lines, multispindles, and special machines without automatic tool changers.





Features and Benefits

- ISO 12164-1/DIN 69893-1 Form C 1:10 short taper.
- High axial and radial repeatability.
- Maximum 100 bar (1,500 psi) coolant pressure.



HSK50C Shank Tools

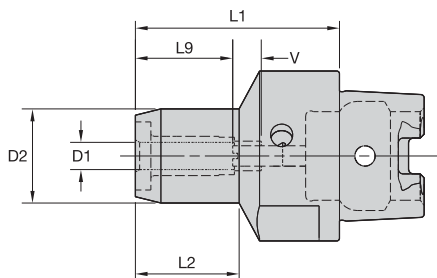
ERICKSON

■ HC MM-HSK Form C



order number	catalog number	D1	D2	L1	L2	L9	V	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw	kg
1245497	HSK50CHC06060M	6	25,7	60	31	27	10	170.135	5mm	170.002	2,5mm	0,53
1245498	HSK50CHC08060M	8	27,7	60	31	27	10	170.135	5mm	170.002	2,5mm	0,55
1245499	HSK50CHC10065M	10	29,7	65	36	30	10	170.135	5mm	170.002	2,5mm	0,60
1245500	HSK50CHC12075M	12	31,6	75	46	36	10	170.135	5mm	170.002	2,5mm	0,80
1245501	HSK50CHC14075M	14	33,6	75	47	36	10	170.135	5mm	170.003	3mm	0,90
1245502	HSK50CHC16080M	16	37,6	80	53	39	10	170.135	5mm	170.003	3mm	1,00
1245503	HSK50CHC18080M	18	39,6	80	54	39	10	170.135	5mm	170.003	3mm	1,00
1245504	HSK50CHC20080M	20	41,6	80	54	40	10	170.135	5mm	170.003	3mm	1,10

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
Hydraulic chuck technical section, see page M84.
Supplied with stop screw.
Actuation wrench must be ordered separately.
Reduction sleeves are available and must be ordered separately; see page L44.



HSK50C Shank Tools

ERICKSON

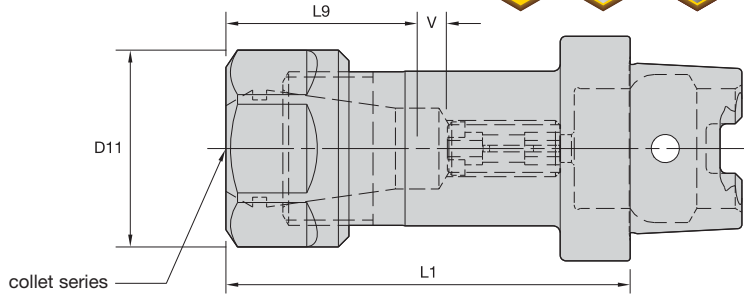
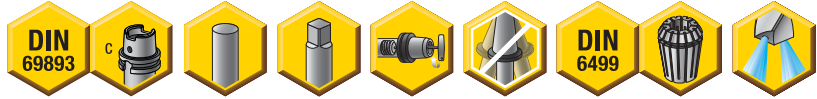
■ HC Trend MM-HSK Form C



order number	catalog number	D1	D2	L1	L2	L9	V	actuation wrench	wrench size actuation screw	stop screw	wrench size stop screw	kg
1809989	HSK50CHCT06060M	6	25,7	60	31	27	10	170.135	5mm	571.071	3mm	0,54
1809990	HSK50CHCT08060M	8	27,7	60	31	27	10	170.135	5mm	571.071	3mm	0,55
1809991	HSK50CHCT10065M	10	29,7	65	36	30	10	170.135	5mm	571.071	3mm	0,60
1809992	HSK50CHCT12075M	12	31,6	75	46	36	10	170.135	5mm	571.071	3mm	0,70
1810013	HSK50CHCT14075M	14	33,6	75	47	36	10	170.135	5mm	571.063	5mm	0,70
1810014	HSK50CHCT16080M	16	37,6	80	53	39	10	170.135	5mm	571.063	5mm	0,80
1810015	HSK50CHCT18080M	18	39,6	80	54	39	10	170.135	5mm	571.063	5mm	0,80
1810016	HSK50CHCT20080M	20	41,6	80	54	40	10	170.135	5mm	571.063	5mm	0,80

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw.
 Wrenches must be ordered separately.
 Actuation wrench must be ordered separately.
 Reduction sleeves are available and must be ordered separately; see page J2.

- Grip (2:1 advantage).



ERICKSON™

ER Hex-HSK Form C

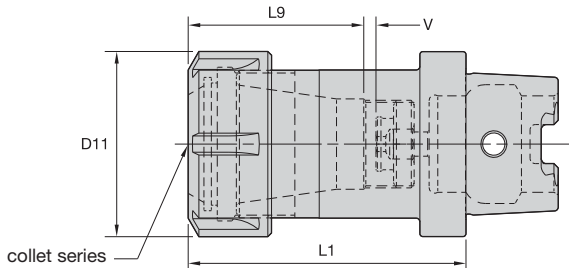
ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER16	0,5	10,0	.02	.41
ER25	1,0	16,0	.04	.63
ER32	2,0	20,0	.08	.81

order number	catalog number	collet series	D11	L1	L9	V	kg
1139074	HSK50CER16060M	ER16	28	60	28	5	0,38

Spare Parts



catalog number	locknut	wrench	counterbore collet torque (Nm)	straight collet torque (Nm)	stop screw	wrench size stop screw
HSK50CER16060M	LNSER16M	OEW25M	40	56	TTSS08014M	4mm



ER Round-HSK Form C

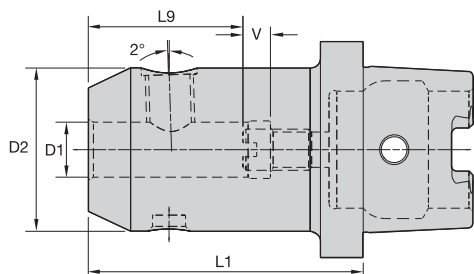
order number	catalog number	collet series	D11	L1	L9	V	kg
1120659	HSK50CER25070M	ER25	42	70	40	5	0,50
1126932	HSK50CER32075M	ER32	50	75	45	5	0,67

Spare Parts



catalog number	round locknut	wrench	counterbore collet torque (Nm)	stop screw	wrench size stop screw
HSK50CER25070M	LNSER25M	ER25WM	104	SS075041G	4mm & 5/32
HSK50CER32075M	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.



HSK50C Shank Tools

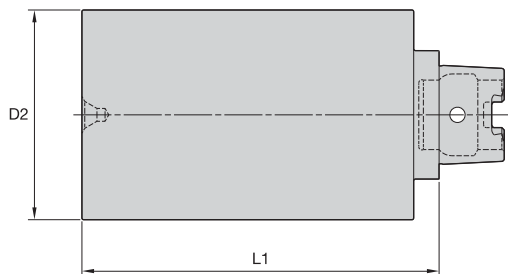
ERICKSON

■ WN MM-HSK Form C

order number	catalog number	D1	D2	L1	L9	V	lock screw	wrench size lock screw	Nm	stop screw	wrench size stop screw	kg
1519772	HSK50CWN06060M	6	25	60	28	6	SS03M012	3mm	7	571.060	2,5mm	0,38
1519774	HSK50CWN08060M	8	28	60	28	6	SS03M014	4mm	15	571.067	3mm	0,42
1131275	HSK50CWN10065M	10	35	65	30	6	SS03M018	5mm	25	571.068	5mm	0,56
1131266	HSK50CWN12075M	12	42	75	38	8	SS03M023	6mm	35	571.074	5mm	0,80
1519777	HSK50CWN14075M	14	44	75	38	8	SS03M023	6mm	35	571.074	5mm	0,85
1519638	HSK50CWN16080M	16	48	80	41	10	SS03M025	6mm	50	571.075	6mm	1,03
1519639	HSK50CWN18080M	18	50	80	41	10	SS03M025	6mm	50	571.075	6mm	1,10
1519791	HSK50CWN20080M	20	52	80	39	8	SS03M026	8mm	95	571.076	6mm	1,15

NOTE: Do not overtighten clamp screw; use torque recommendations above.
 Supplied with clamp screw and stop screw.
 Clamp screw or stop screw wrenches are not included.

• Machinable front 32–38 RW C.



ERICKSON

■ BB-HSK Form C

order number	catalog number	D2	L1	kg
1519733	HSK50CBB053100M	53,8	100	1,77
1519745	HSK50CBB053200M	53,8	200	3,55
1519750	HSK50CBB083175M	83,8	175	7,23

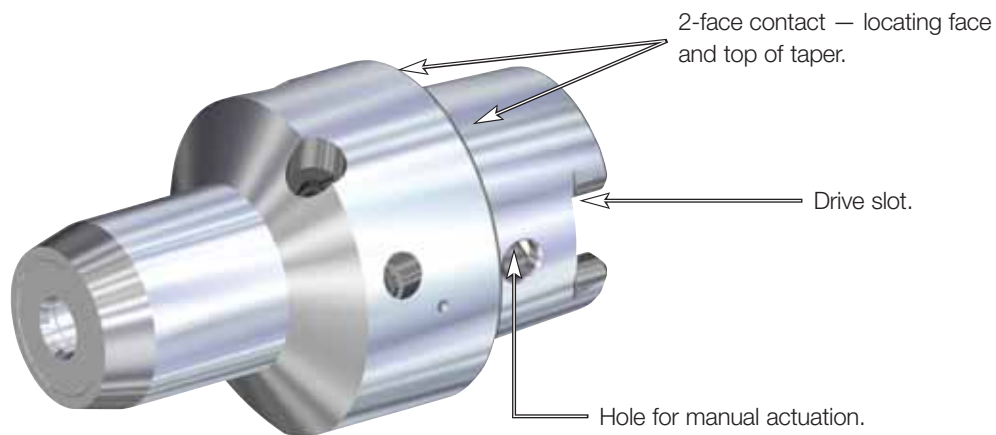
ERICKSON™ HSK Shank Tooling System • HSK63C Series

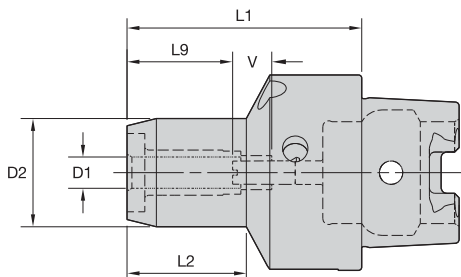
Primary Application

ERICKSON HSK Face Contact Short Taper Tooling is manufactured from premium materials and to the latest DIN/ISO specification standards. Form C versions are generally used in transfer lines, multispindles, and special machines without automatic tool changers.

Features and Benefits

- ISO 12164-1/DIN 69893-1 Form C 1:10 short taper.
- High axial and radial repeatability.
- Maximum 100 bar (1,500 psi) coolant pressure.





HSK63C Shank Tools

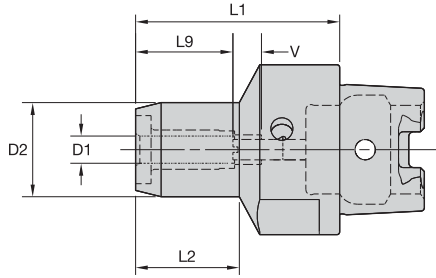
ERICKSON

■ HC MM-HSK Form C



order number	catalog number	D1	D2	L1	L2	L9	V	actuation wrench	wrench size actuation screw	wrench size stop screw	kg
1245505	HSK63CHC06060M	6	25,7	60	26	26	10	170.135	5mm	2,5mm	0,84
1245506	HSK63CHC08060M	8	27,7	60	26	26	10	170.135	5mm	2,5mm	0,86
1245507	HSK63CHC10065M	10	29,7	65	32	30	10	170.135	5mm	2,5mm	0,89
1245508	HSK63CHC12075M	12	31,6	75	43	36	10	170.135	5mm	2,5mm	0,96
1245509	HSK63CHC14075M	14	33,6	75	43	36	10	170.135	5mm	3mm	0,97
1245510	HSK63CHC16080M	16	37,6	80	49	39	10	170.135	5mm	3mm	1,07
1245511	HSK63CHC18080M	18	39,6	80	50	39	10	170.135	5mm	3mm	1,10
1245512	HSK63CHC20080M	20	41,6	80	51	40	10	170.135	5mm	3mm	1,11
1245513	HSK63CHC25095M	25	49,9	95	52	46	10	170.136	6mm	4mm	1,57
1191022	HSK63CHC32100M	32	59,9	100	60	50	10	170.136	6mm	4mm	1,89

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Wrenches must be ordered separately.
 Supplied with stop screw.
 Reduction sleeves are available and must be ordered separately; see page J2.



HSK63C Shank Tools

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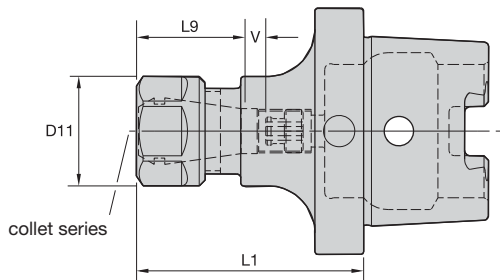
■ HC Trend MM-HSK Form C



order number	catalog number	D1	D2	L1	L2	L9	V	actuation wrench	wrench size actuation screw	wrench size stop screw	kg
1810017	HSK63CHCT06060M	6	25,7	60	26	26	10	170.135	5mm	3mm	0,90
1810018	HSK63CHCT08060M	8	27,7	60	26	26	10	170.135	5mm	3mm	0,90
1810019	HSK63CHCT10065M	10	29,7	65	32	30	10	170.135	5mm	3mm	0,90
1810020	HSK63CHCT12075M	12	31,6	75	43	36	10	170.135	5mm	3mm	1,00
1810021	HSK63CHCT14075M	14	33,6	75	43	36	10	170.135	5mm	5mm	1,00
1810022	HSK63CHCT16080M	16	37,6	80	49	39	10	170.135	5mm	5mm	1,10
1810023	HSK63CHCT18080M	18	39,6	80	50	39	10	170.135	5mm	5mm	1,10
1810024	HSK63CHCT20080M	20	41,6	80	51	40	10	170.135	5mm	5mm	1,10
1810025	HSK63CHCT25095M	25	49,9	95	52	46	10	170.136	6mm	5mm	1,60
1810026	HSK63CHCT32100M	32	59,9	100	60	50	10	170.136	6mm	5mm	1,90

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
Hydraulic chuck technical section, see page M84.
Wrenches must be ordered separately.
Supplied with stop screw.
Reduction sleeves are available and must be ordered separately, see page J2.

- Grip (2:1 advantage).



HSK63C Shank Tools

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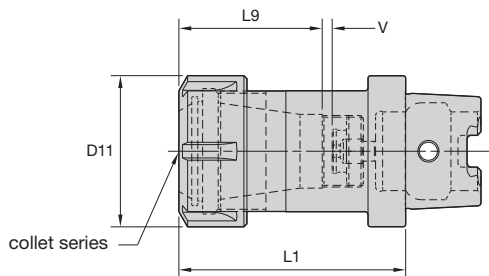
ER Hex-HSK Form C

ER collet series	mm		inch	
	min	max	min	max
ER16	0,5	10,0	.02	.41
ER25	1,0	16,0	.04	.63
ER32	2,0	20,0	.08	.81
ER40	3,0	26,0	.12	1.00

order number	catalog number	collet series	D11	L1	L9	V	kg
1253865	HSK63CER16060M	ER16	28	60	32	5	0,55

Spare Parts

catalog number	locknut	wrench	counterbore collet torque (Nm)	straight collet torque (Nm)	stop screw	wrench size stop screw
HSK63CER16060M	LNHSER16M	OEW25M	40	56	SS044038G	4mm & 5/32



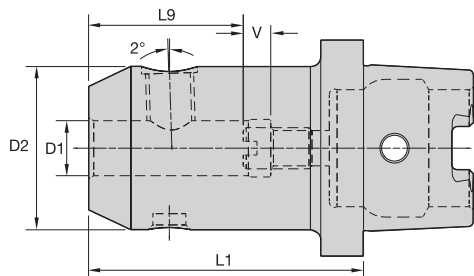
ER Round-HSK Form C

order number	catalog number	collet series	D11	L1	L9	V	kg
1253908	HSK63CER25070M	ER25	42	70	40	5	0,78
1253910	HSK63CER32075M	ER32	50	75	45	5	0,97
1253911	HSK63CER40080M	ER40	63	80	54	3	1,14

Spare Parts

catalog number	round locknut	wrench	Nm	stop screw	wrench size stop screw
HSK63CER25070M	LNSER25M	ER25WM	104	SS075041G	4mm & 5/32
HSK63CER32075M	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32
HSK63CER40080M	LNSER40M	ER40WM	176	SS112041G	4mm & 5/32

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58-J59.
 ER TCT tension-only tap collets, see page J60.



HSK63C Shank Tools

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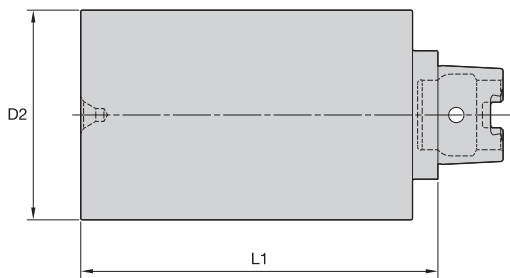
■ WN MM-HSK Form C



order number	catalog number	D1	D2	L1	L9	V	lock screw	wrench size clamp screw	Nm	stop screw	wrench size stop screw	kg
1519797	HSK63CWN12075M	12	42	75	36	10	SS03M023	6mm	24	571.074	6mm	0,97
1519798	HSK63CWN14075M	14	44	75	36	10	SS03M023	6mm	24	571.074	6mm	1,02
1139503	HSK63CWN16080M	16	48	80	40	10	SS03M025	6mm	24	571.075	6mm	1,20
1519800	HSK63CWN18080M	18	50	80	40	10	SS03M025	6mm	24	571.075	6mm	1,25
1120623	HSK63CWN20080M	20	52	80	36	10	SS03M026	8mm	58	571.076	8mm	1,31
1124323	HSK63CWN25095M	25	65	95	50	10	SS03M027	10mm	92	571.077	10mm	2,17

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw and stop screw.
 Lock screw or stop screw wrenches are not included.

- Machinable front 32–38 RW C.



HSK63C Shank Tools

ERICKSON

■ BB-HSK Form C

order number	catalog number	D2	L1	kg
1519755	HSK63CBB063100M	63,8	100	2,56
1519756	HSK63CBB063200M	63,8	200	5,06
1519757	HSK63CBB102175M	102,8	175	10,92

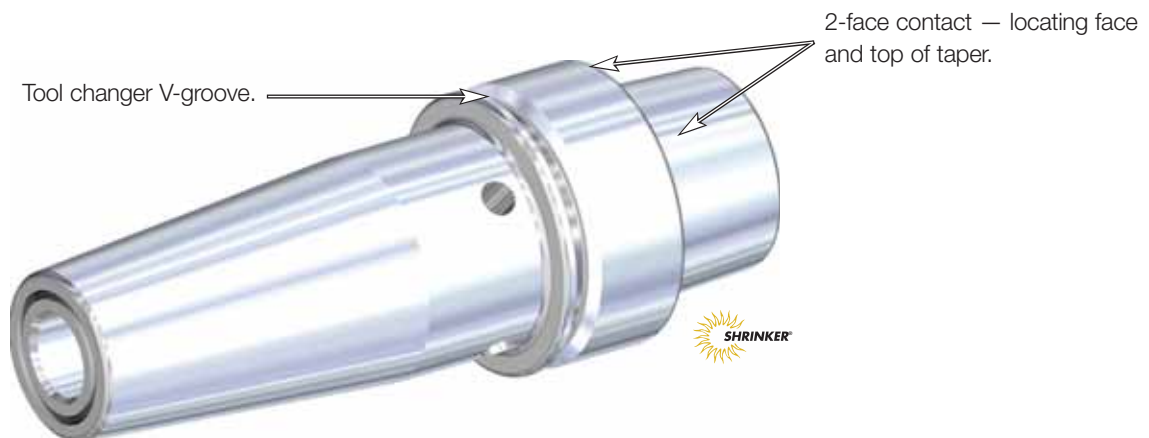
ERICKSON™ HSK Shank Tooling System • HSK40E Series

Primary Application

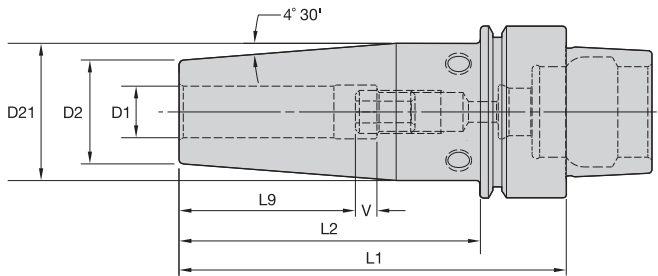
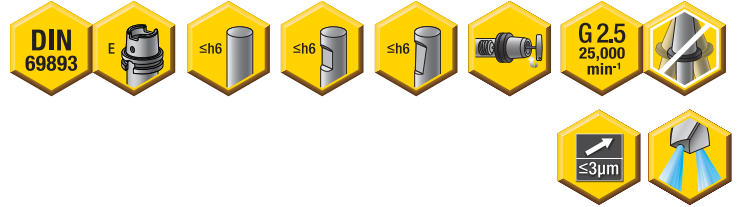
ERICKSON HSK Face Contact Short Taper Tooling is manufactured from premium materials and to the latest DIN/ISO specification standards. Form E versions do not have drive slots or indexing features and are suited for high speeds in machining centers and milling machines with automatic tool changers. Exact RPM limits can only be determined by considering machine and spindle configurations in conjunction with tooling design and safety limits factored as a complete system.

Features and Benefits

- ISO 12164-1/DIN 69893-1 Form E 1:10 short taper.
- High axial and radial repeatability.
- Maximum 100 bar (1,500 psi) coolant pressure.



- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide and HSS cutting tools (requirements below).



HSK40E Shank Tools

Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
3	h4	0,000/-0,003
4	h4	0,000/-0,004
5	h5	0,000/-0,005
6	h6	0,000/-0,008
8 & 10	h6	0,000/-0,009
12, 14, 16, & 18	h6	0,000/-0,011
20	h6	0,000/-0,013

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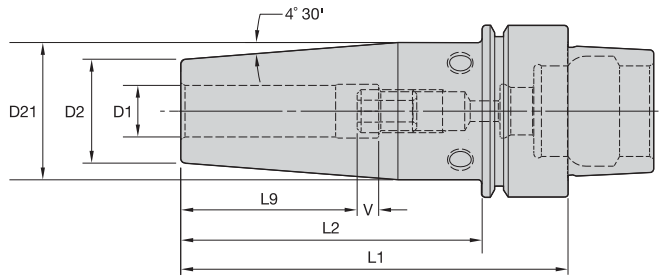
■ TT GP HPV MM-HSK Form E



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	kg
3867169	HSK40EHPVTT03060M	3	9	13	60	32	14	10	TTSS05014M	2,5mm	0,27
3867170	HSK40EHPVTT04060M	4	9	13	60	32	15	10	TTSS05014M	2,5mm	0,27
3867171	HSK40EHPVTT05060M	5	9	13	60	32	15	10	TTSS06014M	3mm	0,27
3867172	HSK40EHPVTT06080M	6	21	27	80	60	26	10	TTSS05014M	2,5mm	0,42
3867263	HSK40EHPVTT08080M	8	21	27	80	60	26	10	TTSS06014M	3mm	0,41
3867264	HSK40EHPVTT10080M	10	24	32	80	60	31	10	TTSS08014M	4mm	0,47
3867265	HSK40EHPVTT12090M	12	24	32	90	70	36	10	TTSS10014M	5mm	0,51
3867266	HSK40EHPVTT14090M	14	27	34	90	70	36	10	TTSS10014M	5mm	0,57
3867267	HSK40EHPVTT16090M	16	27	34	90	70	39	10	TTSS12014M	6mm	0,54
3867268	HSK40EHPVTT18095M	18	33	41	95	95	39	10	TTSS12014M	6mm	0,71
3867269	HSK40EHPVTT20095M	20	33	41	95	95	41	10	TTSS16014M	8mm	0,68

(continued)

(TT GP HPV HSK Form E continued)



Cutting Tool Shank Requirements
inch (industry standard)

cutting tool shank diameters	tolerance
1/4, 5/16, & 3/8	.0000/-0.0004
7/16, 1/2, 9/16, 5/8, & 11/16	.0000/-0.0004
3/4	.0000/-0.0005

HSK40E Shank Tools

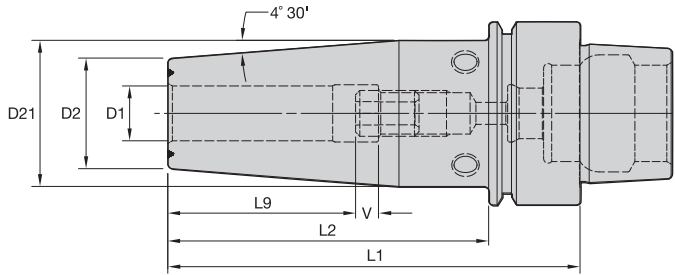
■ TT GP HPV IN-HSK Form E



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	lbs
3863718	HSK40EHPVTT025315	1/4	.83	1.06	3.15	2.36	1.02	.39	TTSS05014M	2,5mm	.92
3863719	HSK40EHPVTT031315	5/16	.83	1.06	3.15	2.36	1.02	.39	TTSS06014M	3mm	.90
3863720	HSK40EHPVTT038315	3/8	.94	1.26	3.15	2.36	1.22	.39	TTSS08014M	4mm	1.04
3863721	HSK40EHPVTT050354	1/2	.94	1.26	3.54	2.76	1.42	.39	TTSS10014M	5mm	1.12
3863722	HSK40EHPVTT056354	9/16	1.06	1.33	3.54	2.76	1.42	.39	TTSS10014M	5mm	1.24
3863753	HSK40EHPVTT062354	5/8	1.06	1.33	3.54	2.76	1.54	.39	TTSS12014M	6mm	1.20
3863754	HSK40EHPVTT075374	3/4	1.30	1.65	3.74	3.74	1.61	.39	TTSS16014M	8mm	1.52

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.
 Shrink Fit technical section, see page M78.
 Supplied with stop screw.
 Adjusting stop screw gage, see page M81.
 Shrink Fit accessories, see pages L12-L13.
 Optional M6~1.0P x 5mm lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.

- 30–50% higher clamping torque compared to GP line.
- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide only, designated by groove in front face (requirements below).
- 10 kW power or greater Shrink Fit device must be used.



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
12, 14, 16, & 18	h6	0,000/-0,011
20	h6	0,000/-0,013

ERICKSON

■ TT-HT-HPV-MM-HSK Form E



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	kg
3867229	HSK40EHPVTTHT12090M	12	24	32	90	70	36	10	TTSS10014M	5mm	0,51
3867230	HSK40EHPVTTHT14090M	14	27	34	90	70	36	10	TTSS10014M	5mm	0,57
3867231	HSK40EHPVTTHT16090M	16	27	34	90	70	39	10	TTSS12014M	6mm	0,54
3867232	HSK40EHPVTTHT18095M	18	33	41	95	95	39	10	TTSS12014M	6mm	0,71
3867233	HSK40EHPVTTHT20095M	20	33	41	95	95	41	10	TTSS16014M	8mm	0,68

Cutting Tool Shank Requirements
inch (industry standard)

cutting tool shank diameters	tolerance
1/2, 9/16, & 5/8	.0000/- .0004
3/4	.0000/- .0005

■ TT-HT-HPV-IN-HSK Form E



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	lbs
3862413	HSK40EHPVTTHT050354	1/2	.94	1.26	3.54	2.76	1.42	.39	TTSS10014M	5mm	1.12
3862414	HSK40EHPVTTHT056354	9/16	1.06	1.33	3.54	2.76	1.42	.39	TTSS10014M	5mm	1.25
3862415	HSK40EHPVTTHT062354	5/8	1.06	1.33	3.54	2.76	1.54	.39	TTSS12014M	6mm	1.20
3862416	HSK40EHPVTTHT075374	3/4	1.30	1.61	3.74	3.74	1.61	.39	TTSS16014M	8mm	1.52

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Shrink Fit technical section, see page M78.

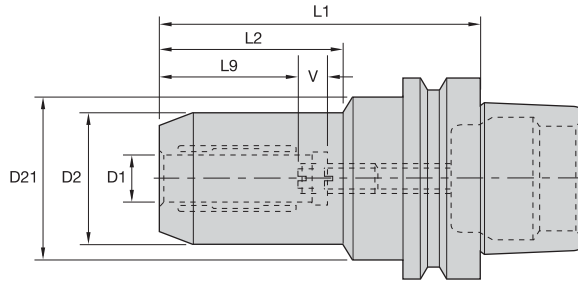
Supplied with stop screw.

Adjusting stop screw gage, see page M81.

Shrink Fit accessories, see pages L12–L13.

Optional M6~1.0P x 5mm lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.

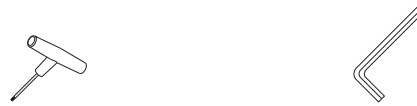
HSK coolant unit and wrench are available and must be ordered separately; see page L44.



HSK40E Shank Tools

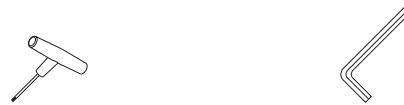
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■ HC Trend MM-HSK Form E



order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	stop screw wrench	wrench size stop screw	kg
2288133	HSK40EHCT06080M	6	25,7	32	80	35	27	10	170.135	5mm	170.003	3mm	0,47
2288134	HSK40EHCT08080M	8	27,7	32	80	36	27	10	170.135	5mm	170.003	3mm	0,49
2288135	HSK40EHCT10085M	10	29,7	32	85	38	31	10	170.135	5mm	170.003	3mm	0,53
2288136	HSK40EHCT12090M	12	31,6	32	90	40	36	10	170.135	5mm	170.003	3mm	0,57
2387467	HSK40EHCT14100M	14	33,6	50	100	42	36	10	170.135	5mm	170.005	5mm	0,80
2387468	HSK40EHCT16100M	16	37,6	50	100	47	39	10	170.135	5mm	170.005	5mm	0,85
2387469	HSK40EHCT18100M	18	39,6	50	100	47	39	10	170.135	5mm	170.005	5mm	0,87
2387470	HSK40EHCT20100M	20	41,6	50	100	48	41	10	170.135	5mm	170.005	5mm	0,89

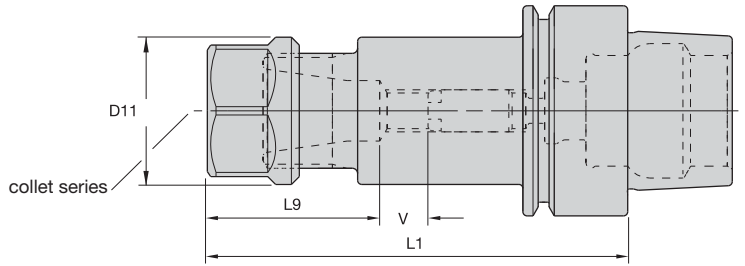
■ HC Trend IN-HSK Form E



order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	stop screw wrench	wrench size stop screw	lbs
2260223	HSK40EHCT025315	1/4	1.01	1.25	3.15	1.38	1.06	.39	170.135	5mm	170.003	3mm	1.03
2260224	HSK40EHCT038335	3/8	1.17	1.25	3.55	1.58	1.22	.39	170.135	5mm	170.003	3mm	1.17
2260225	HSK40EHCT050354	1/2	1.24	1.25	3.54	1.69	1.42	.39	170.135	5mm	170.003	3mm	1.23
2387471	HSK40EHCT062394	5/8	1.48	1.96	3.94	1.83	1.54	.39	170.135	5mm	170.005	5mm	1.87
2387472	HSK40EHCT075394	3/4	1.64	1.96	3.94	1.89	1.61	.39	170.135	5mm	170.005	5mm	1.98

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw.
 Actuation wrench must be ordered separately.
 Reduction sleeves are available and must be ordered separately; see page J2.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.

- Grip (2:1 advantage).



HSK40E Shank Tools

ERICKSON

ER Hex-HSK Form E

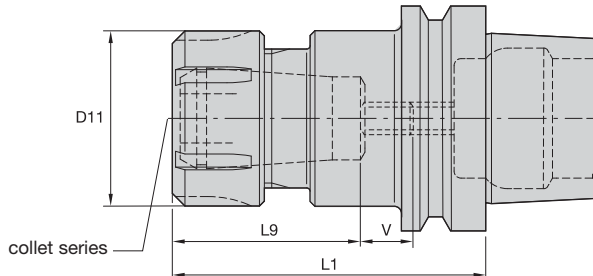
ER collet series	mm		inch	
	min	max	min	max
ER16	0,5	10,0	.02	.41
ER25	1,0	16,0	.04	.63
ER32	2,0	20,0	.08	.81

order number	catalog number	collet series	D11	L1	L9	V	kg
2260355	HSK40EER16080M	ER16	28	80	27	5	0,41

Spare Parts



catalog number	locknut	wrench	counterbore collet torque (Nm)	straight collet torque (Nm)	stop screw	wrench size stop screw
HSK40EER16080M	LNHSER16M	OEW25M	40	56	571.068	4mm & 5/32



ER Round-HSK Form E

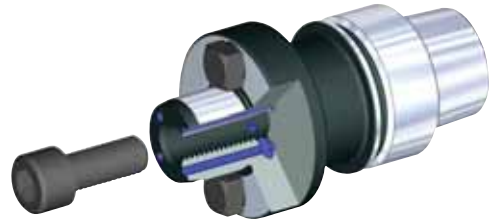
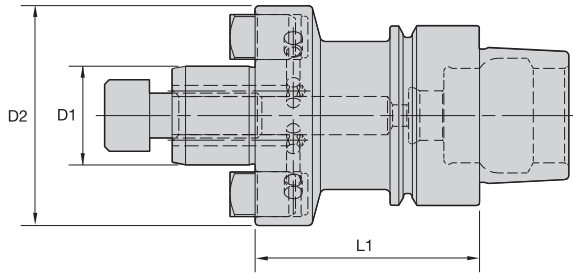
order number	catalog number	collet series	D11	L1	L9	V	kg
1795995	HSK40EER25080M	ER25	42	80	31	5	0,51
2386949	HSK40EER32100M	ER32	50	100	40	5	0,71

Spare Parts



catalog number	round locknut	wrench	Nm	stop screw	wrench size stop screw
HSK40EER25080M	LNSER25M	ER25WM	104	571.062	4mm & 5/32
HSK40EER32100M	LNSER32M	ER32WM	136	571.062	4mm & 5/32

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M84.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.

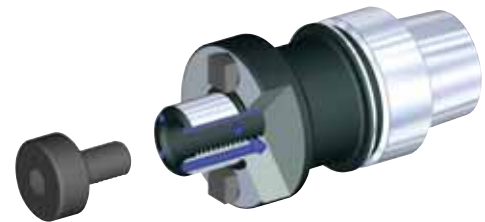
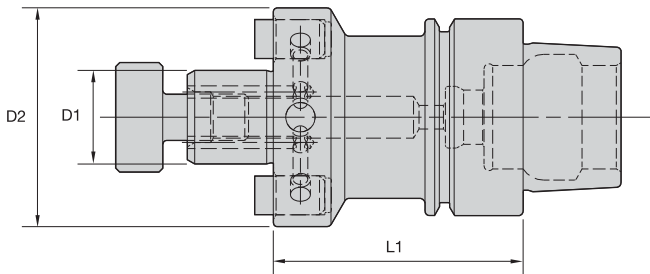


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■ SMC Cap MM-HSK Form E



order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size lock screw	kg
3872675	HSK40ESM2C16050M	16	38	50	MS1294	KDK16M	6mm	0,46
3872677	HSK40ESM2C22050M	22	42	50	MS1234	—	8mm	0,52
3872674	HSK40ESMC16050M	16	44	50	MS1294	KDK16M	6mm	0,50
3872676	HSK40ESMC22050M	22	49	50	MS1234	KDK22M	8mm	0,57

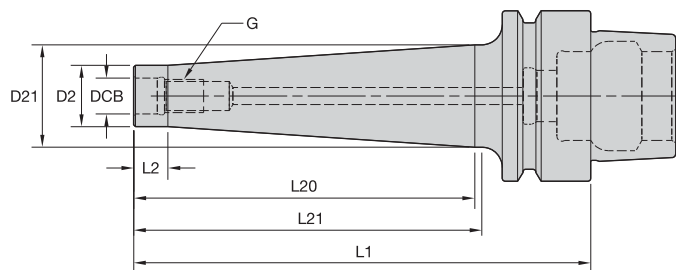


■ SMC Lock IN-HSK Form E



order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size retention screw	lbs
3762420	HSK40ESM2C050200	1/2	1.20	2.00	KLS05	KDK04	3/16	.88
3762422	HSK40ESM2C075200	3/4	1.46	2.00	KLS07	—	1/4	1.05
3762419	HSK40ESMC050200	1/2	1.44	2.00	KLS05	KDK04	3/16	.98
3762421	HSK40ESMC075200	3/4	1.75	2.00	KLS07	KDK05	1/4	1.16

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw and drive keys.
 Interchangeable coolant-style lock screws are available and must be ordered separately, see page L38.
 Lock screw wrench not included.
 For HSK coolant unit and wrench; see page L44.



HSK40E Shank Tools

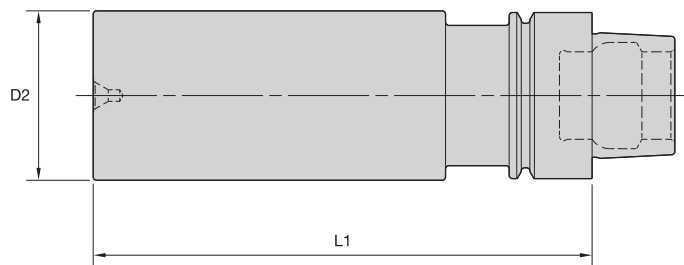
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■ ST-HSK Form E

order number	catalog number	DCB	G	D2	D21	L1	L2	L20	L21	kg
4061429	HSK40EST06053M	6,5	M6	10	—	53	27	—	—	0,22
4061430	HSK40EST06078M	6,5	M6	10	20	78	10	50	52	0,28
4061431	HSK40EST06103M	6,5	M6	10	23	103	10	75	77	0,33
4061432	HSK40EST08053M	8,5	M8	13	15	53	10	25	27	0,23
4061433	HSK40EST08078M	8,5	M8	13	23	78	10	50	52	0,31
4061434	HSK40EST08103M	8,5	M8	13	23	103	10	75	77	0,35
4061435	HSK40EST08128M	8,5	M8	13	25	128	10	100	102	0,42
4061436	HSK40EST10053M	10,5	M10	18	20	53	10	25	27	0,26
4061437	HSK40EST10078M	10,5	M10	18	25	78	10	50	52	0,35
4061438	HSK40EST10103M	10,5	M10	18	28	103	10	75	77	0,44
4061439	HSK40EST10128M	10,5	M10	18	30	128	10	100	102	0,55

NOTE: HSK coolant unit and wrench are available and must be ordered separately; see page L44.

- Machinable front 32–38 RW C.



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■ BB-HSK Form E

order number	catalog number	D2	L1	kg
2260650	HSK40EBB040120M	40,8	120,0	1,17

NOTE: HSK coolant unit and wrench are available and must be ordered separately; see page L44.

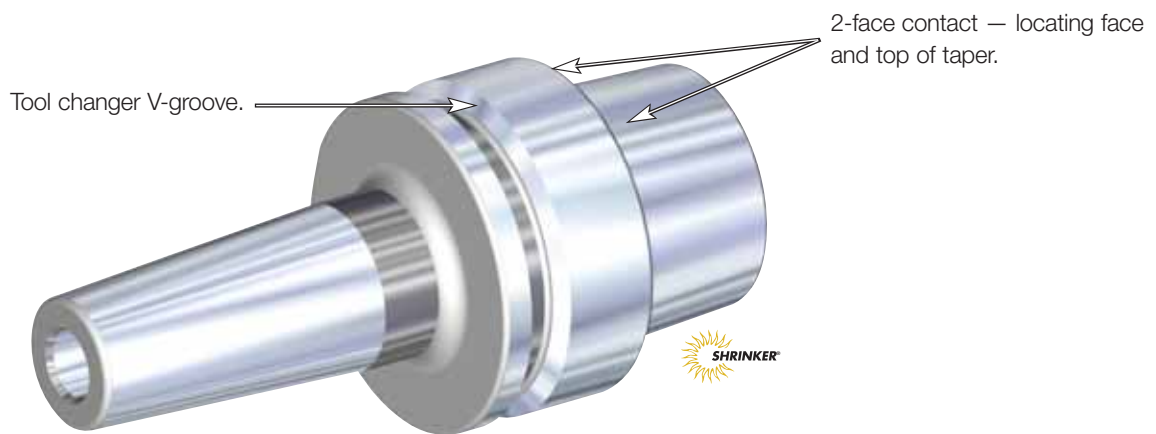
ERICKSON™ HSK Shank Tooling System • HSK50E Series

Primary Application

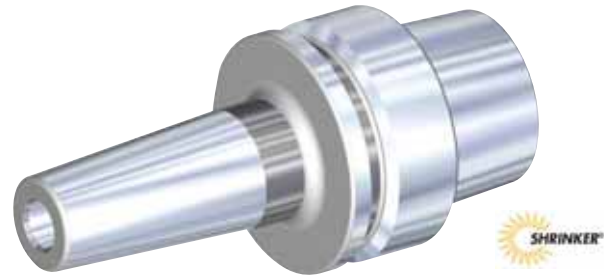
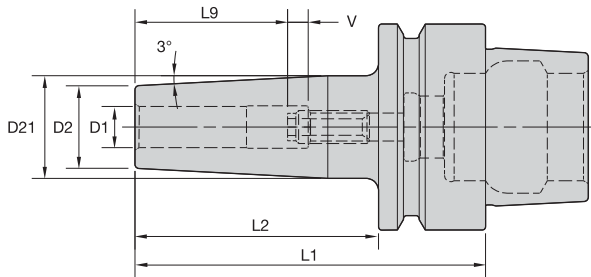
ERICKSON HSK Face Contact Short Taper Tooling is manufactured from premium materials and to the latest DIN/ISO specification standards. Form E versions do not have drive slots or indexing features and are suited for high speeds in machining centers and milling machines with automatic tool changers. Exact RPM limits can only be determined by considering machine and spindle configurations in conjunction with tooling design and safety limits factored as a complete system.

Features and Benefits

- ISO 12164-1/DIN 69893-1 Form E 1:10 short taper.
- High axial and radial repeatability.
- Maximum 100 bar (1,500 psi) coolant pressure.



- Suitable for carbide and HSS cutting tools (requirements below).



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
3	h4	0,000/-0,003
4	h4	0,000/-0,004
5	h5	0,000/-0,005
6	h6	0,000/-0,008
8 & 10	h6	0,000/-0,009
12, 14, 16, & 18	h6	0,000/-0,011
20	h6	0,000/-0,013

HSK50E Shank Tools

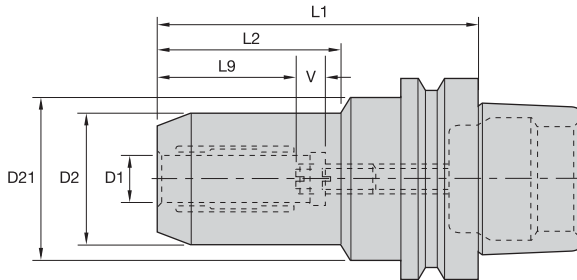
ERICKSON

■ TT MD MM-HSK Form E



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	kg
2386938	HSK50ETTMD03080M	3	9	13	80	54	15	5	TTSS05018M	2,5mm	0,44
2386939	HSK50ETTMD04080M	4	9	13	80	54	15	5	TTSS05018M	2,5mm	0,44
2386940	HSK50ETTMD05080M	5	10	14	80	54	15	5	TTSS06020M	3mm	0,45
2386941	HSK50ETTMD06080M	6	12	16	80	54	26	10	TTSS05018M	2,5mm	0,47
2386942	HSK50ETTMD08080M	8	16	20	80	54	26	10	TTSS06020M	3mm	0,51
2386943	HSK50ETTMD10085M	10	20	25	85	59	32	10	TTSS08020M	4mm	0,57
2386944	HSK50ETTMD12090M	12	24	30	90	64	37	10	TTSS08020M	4mm	0,65
2386945	HSK50ETTMD14090M	14	26	31	90	64	37	10	TTSS08020M	4mm	0,68
2386946	HSK50ETTMD16095M	16	28	34	95	69	40	10	TTSS12020M	6mm	0,74
2386947	HSK50ETTMD18095M	18	30	36	95	69	40	10	TTSS12020M	6mm	0,77
2386948	HSK50ETTMD20100M	20	34	41	100	74	42	10	TTSS16020M	8mm	0,91

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.
 Shrink Fit technical section, see page M78.
 Supplied with stop screw.
 Adjusting stop screw gage, see page M81.
 Shrink Fit accessories, see pages L12–L13.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.



HSK50E Shank Tools

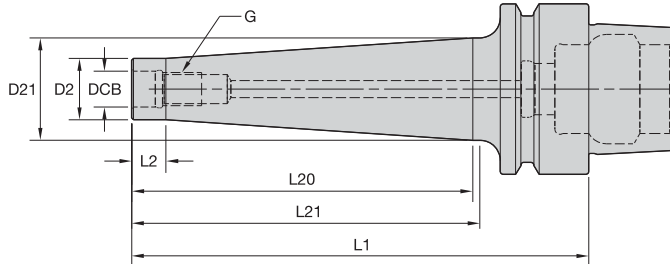
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■ HC Trend MM-HSK Form E



order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	adjusting screw	wrench size adjusting screw	kg
2288137	HSK50EHCT06080M	6	25,7	40	80	35	27	10	170.135	5mm	571.061	3mm	0,69
2288138	HSK50EHCT08080M	8	27,7	40	80	36	27	10	170.135	5mm	571.061	3mm	0,71
2288139	HSK50EHCT10085M	10	29,7	40	85	38	31	10	170.135	5mm	571.061	3mm	0,76
2288140	HSK50EHCT12090M	12	31,6	40	90	40	36	10	170.135	5mm	571.061	3mm	0,80
2288141	HSK50EHCT14105M	14	33,6	50	105	42	36	10	170.135	5mm	571.063	5mm	1,06
2288142	HSK50EHCT16105M	16	37,6	50	105	47	39	10	170.135	5mm	571.063	5mm	1,10
2288143	HSK50EHCT18105M	18	39,6	50	105	47	39	10	170.135	5mm	571.063	5mm	1,12
2288144	HSK50EHCT20105M	20	41,6	50	105	48	41	10	170.135	5mm	571.063	5mm	1,14

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Wrenches must be ordered separately.
 Supplied with stop screw.
 Reduction sleeves are available and must be ordered separately; see page J2.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.



HSK50E Shank Tools

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■ ST-HSK Form E

order number	catalog number	DCB	G	D2	D21	L1	L2	L20	L21	kg
4062449	HSK50EST06059M	6,5	M6	10	—	59	27	—	—	0,42
4062450	HSK50EST06084M	6,5	M6	10	20	84	10	50	52	0,48
4062451	HSK50EST06109M	6,5	M6	10	23	109	10	75	77	0,54
4062452	HSK50EST08059M	8,5	M8	13	15	59	10	25	27	0,44
4062843	HSK50EST08084M	8,5	M8	13	23	84	10	50	52	0,51
4062844	HSK50EST08109M	8,5	M8	13	23	109	10	75	77	0,55
4062845	HSK50EST08134M	8,5	M8	13	25	134	10	100	102	0,63
4062846	HSK50EST10059M	10,5	M10	18	20	59	10	25	27	0,46
4062847	HSK50EST10084M	10,5	M10	18	25	84	10	50	52	0,55
4062848	HSK50EST10109M	10,5	M10	18	28	109	10	75	77	0,65
4062849	HSK50EST10134M	10,5	M10	18	30	134	10	100	102	0,75

NOTE: HSK coolant unit and wrench are available and must be ordered separately; see page L44.

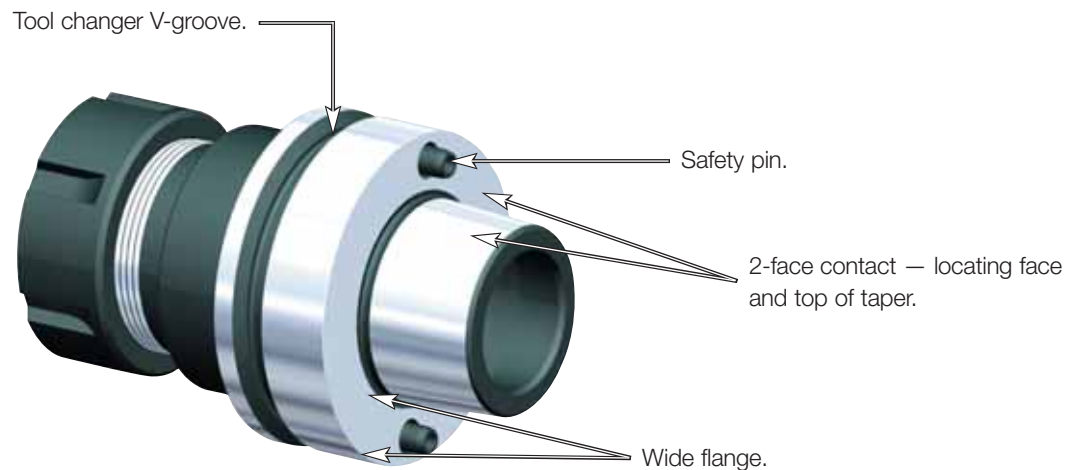
ERICKSON™ HSK Shank Tooling System • HSK63F (Pin) Series

Primary Application

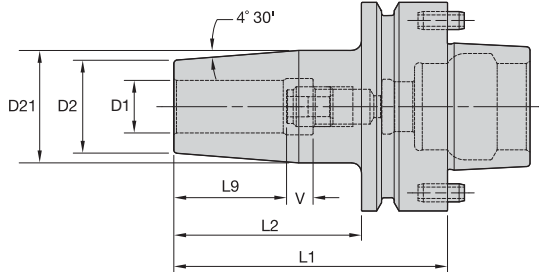
ERICKSON HSK Face Contact Short Taper Tooling is manufactured from premium materials and to the latest DIN/ISO specification standards. Form F versions with pin do not have drive slots or indexing features and with their greater flange surface area support, are suited for high speeds in machining centers and milling machines with automatic tool changers. Exact RPM limits can only be determined by considering machine and spindle configurations in conjunction with tooling design and safety limits factored as a complete system.

Features and Benefits

- ISO 12164-1/DIN 69893-1 Form F (with pin) 1:10 short taper.
- High axial and radial repeatability.
- Maximum 100 bar (1,500 psi) coolant pressure.



- 30–50% higher clamping torque compared to GP line.
- Suitable for carbide only, designated by groove in front face (requirements below).
- 10 kW power or greater Shrink Fit device must be used.



HSK63F (Pin) Shank Tools

Cutting Tool Shank Requirements
inch (industry standard)

cutting tool shank diameters	tolerance
1/4 & 3/8	.0000/-0.0004
1/2 & 5/8	.0000/-0.0004
3/4 & 1	.0000/-0.0005

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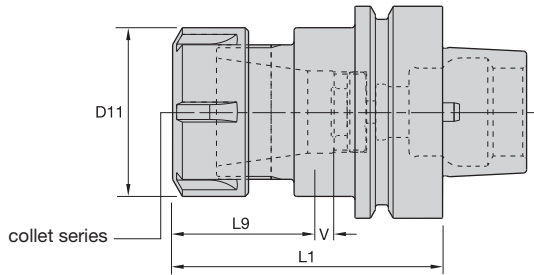
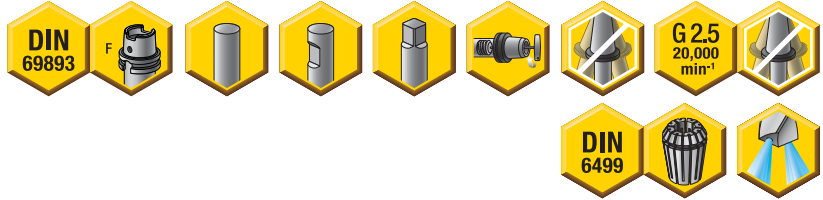
■ TT HT HPV IN-HSK Form F (Pin)



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	lbs
2636755	HSK63FPTTHT025300	1/4	.87	1.06	3.00	1.98	1.02	.39	TTSS05014M	2,5mm	1.81
2636757	HSK63FPTTHT038300	3/8	1.02	1.26	3.00	1.86	1.22	.39	TTSS08014M	4mm	1.94
2636758	HSK63FPTTHT050325	1/2	.98	1.26	3.25	2.11	1.42	.39	TTSS10014M	5mm	1.94
2636759	HSK63FPTTHT062325	5/8	1.10	1.33	3.25	2.11	1.38	.27	TTSS12014M	6mm	2.02
2636761	HSK63FPTTHT075325	3/4	1.34	1.61	3.25	2.11	1.38	.20	TTSS16014M	8mm	2.29
2636762	HSK63FPTTHT100325	1	1.77	2.05	3.25	2.19	1.61	.20	TTSS16014M	8mm	2.83

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.
 Shrink Fit technical section, see page M78.
 Supplied with stop screw.
 Adjusting stop screw gage, see page M81.
 Shrink Fit accessories, see pages L12–L13.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.

- Grip (2:1 advantage).



ER collet series	Collet Capacity		Collet Capacity	
	mm		inch	
	min	max	min	max
ER32	2,0	20,0	.08	.81

HSK63F (Pin) Shank Tools

ER Round-HSK Form F (Pin)

order number	catalog number	collet series	D11	L1	L9	V	kg
2657176	HSK63FPER32080M	ER32	50	80	43	4	1,10

Spare Parts



catalog number	locknut	wrench	Nm	stop screw	wrench size stop screw
HSK63FPER32080M	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.



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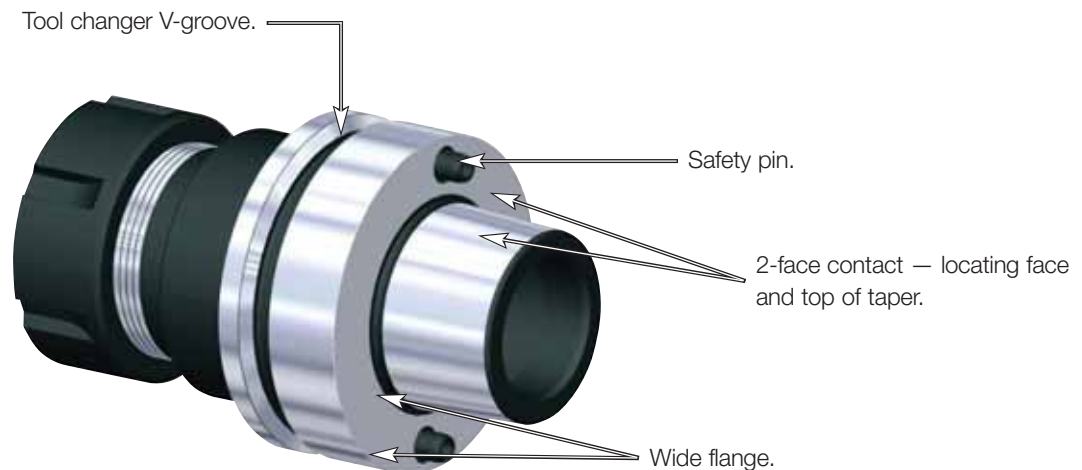
ERICKSON™ HSK Shank Tooling System • HSK80F (Pin) Series

Primary Application

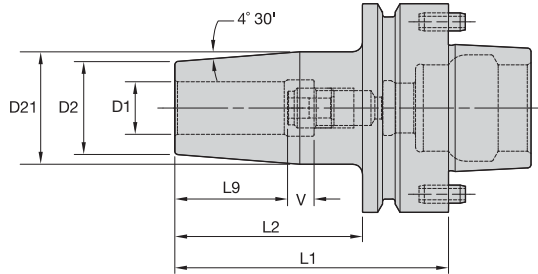
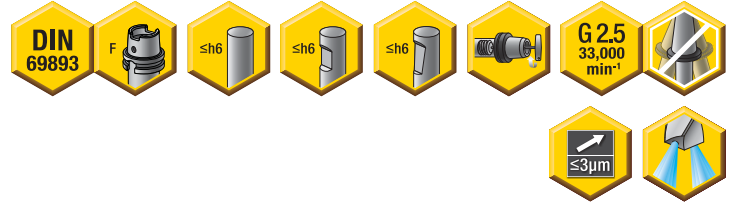
ERICKSON HSK Face Contact Short Taper Tooling is manufactured from premium materials and to the latest DIN/ISO specification standards. Form F versions with pin do not have drive slots or indexing features and with their greater flange surface area support, are suited for high speeds in machining centers and milling machines with automatic tool changers. Exact RPM limits can only be determined by considering machine and spindle configurations in conjunction with tooling design and safety limits factored as a complete system.

Features and Benefits

- ISO 12164-1/DIN 69893-1 Form F (with pin) 1:10 short taper.
- High axial and radial repeatability.
- Maximum 100 bar (1,500 psi) coolant pressure.



- 30–50% higher clamping torque compared to GP line.
- Suitable for carbide only, designated by groove in front face (requirements below).
- 10 kW power or greater Shrink Fit device must be used.



HSK80F (Pin) Shank Tools

Cutting Tool Shank Requirements
inch (industry standard)

cutting tool shank diameter	tolerance
1/4 & 3/8	.0000/- .0004
1/2 & 5/8	.0000/- .0004
3/4, 1, & 1-1/4	.0000/- .0005

ERICKSON

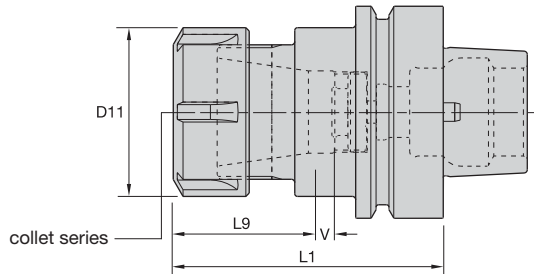
■ TT HT HPV IN-HSK Form F (Pin)



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	lbs
2952218	HSK80FPTTHT025325	1/4	.83	1.06	3.25	2.11	1.02	.39	TTSS05014M	2,5mm	2.76
2952219	HSK80FPTTHT038325	3/8	.98	1.26	3.25	2.11	1.22	.39	TTSS08014M	4mm	2.91
2952220	HSK80FPTTHT050325	1/2	.98	1.26	3.25	2.11	1.42	.28	TTSS10014M	5mm	2.86
2952221	HSK80FPTTHT062325	5/8	1.10	1.33	3.25	2.11	1.38	.31	TTSS12014M	6mm	2.93
2952222	HSK80FPTTHT075325	3/4	1.36	1.65	3.25	2.11	1.38	.31	TTSS16014M	8mm	3.23
2952223	HSK80FPTTHT100350	1	1.77	2.08	3.50	2.36	1.73	.31	TTSS16014M	8mm	3.97
2952224	HSK80FPTTHT125350	1 1/4	1.77	2.08	3.50	2.36	1.73	.20	TTSS16014M	8mm	3.71

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.
 Shrink Fit technical section, see page M78.
 Supplied with stop screw.
 Adjusting stop screw gage, see page M81.
 Shrink Fit accessories, see pages L12–L13.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.

- Grip (2:1 advantage).



HSK80F (Pin) Shank Tools

ERICKSON™

ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER32	2,0	20,0	.08	.81

■ ER Round-HSK Form F (Pin)

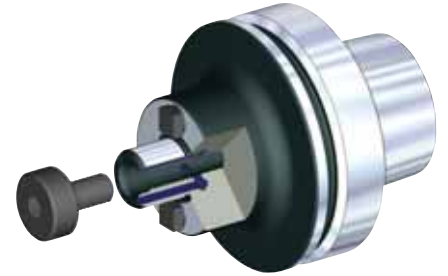
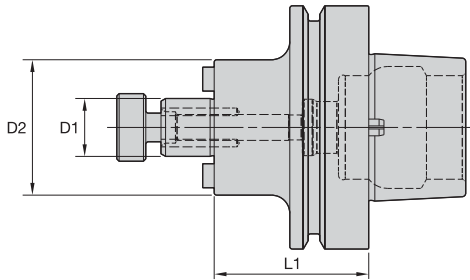
order number	catalog number	collet series	D11	L1	L9	V	kg
2952216	HSK80FPER32085M	ER32	50	85	43	4	1,59

■ Spare Parts



catalog number	locknut	wrench	Nm	stop screw	wrench size stop screw
HSK80FPER32085M	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.



HSK80F (Pin) Shank Tools

ERICKSON

■ SMC Lock IN-HSK Form F (Pin)



order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size lock screw	lbs
3763070	HSK80FPSM2C075200	3/4	1.46	2.00	KLS07	—	1/4	2.89
3763069	HSK80FPSMC075200	3/4	1.75	2.00	KLS07	KDK05	1/4	3.10

NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive keys.
 Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
 Lock screw wrench not included.
 For HSK coolant unit and wrench, see page L44.



BTKV and CVKV Shank Tools

BTKV40	.....	.D2-D19
BTKV50	.....	.D20-D37
CVKV40	.....	.D38-D51
CVKV50	.....	.D52-D67



ERICKSON™ Taper Face Contact Shank Tooling System • BTKV40 Series

Primary Application

ERICKSON Taper Face BT Contact Taper Tooling is manufactured from premium materials and to the latest JIS B 6339 specification standard with an AT3 7/24 Taper per ISO-1974. Controlled, increased flange thickness to the rear of the flange gains face contact between spindle and holder. The BTKV40 tools are prebalanced to a high specification that will perform effectively up to 20,000 RPM. For any applications higher than 20,000 RPM, Kennametal recommends that the complete toolholder assembly (toolholder, retention knobs, collets, hardware, and cutting tools) be balanced as one identity.

Features and Benefits

- JIS B 6339 7/24 taper.
- Standard M16 metric drawbar thread.
- High axial repeatability due to face contact.
- High radial positioning due to controlled, tighter drive key widths.
- All tools set to form AD coolant specification. Many can be converted to form B style.
- Maximum 20,000 RPM.
- Maximum 100 bar (1,500 psi) coolant pressure.



How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



BTKV40BTG50100M

BTKV

Shank Style

JIS B6339
Face Contact

40

Shank Taper Size

40 = 40
50 = 50

B

Special Feature
(optional)

B =
DIN form B coolant feature,
tool shipped to AD
specification
(design allows conversion
to form B style)

(blank) =
(no "B" or "Z") — tool built
to form A/AD coolant style

HPV =
High performance and
balanceable

TD =
Tunable

TG

Toolholder Style

50

Toolholder Size

100

Tool Length

(Gage line
on taper to
front of tool)

inch
xxx = x.xx

M

Identification Value

M =
Tool built to metric values and has
metric retention thread

- BB** = Bar blank
- EM** = End mill adapter
- ER** = DIN 6499 single-angle collet chuck
- KM** = KM™ adapter
- SM2C** = Shell mill adapter with coolant and small diameter
- SMC** = Shell mill adapter with coolant
- TG** = Tremendous Grip single-angle collet chuck
- TT** = Shrink Fit thermo toolholder
- TTHT** = Shrink Fit thermo toolholder — high torque

TG =
Collet series xx (50), xxx (100)

EM =
I.D. size: metric — xx = xx, (20);
inch — xxx = x.xx, (075)

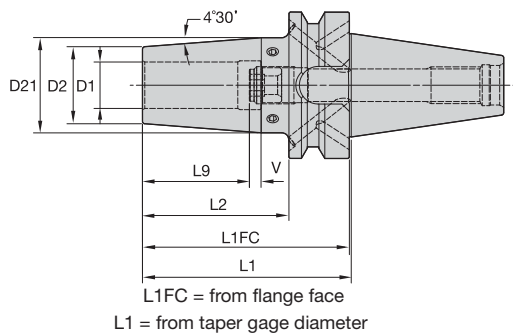
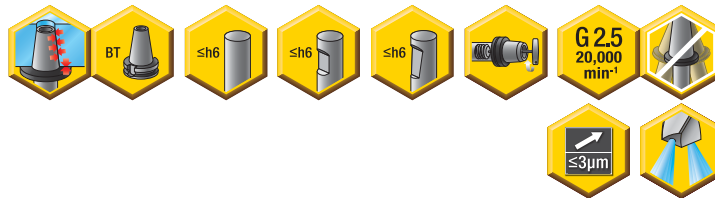
SM =
O.D. size: metric — xx = xx, (20);
inch — xxx = x.xx, (075)

BTKV40 Shank Tools

Shrink Fit Toolholders General Purpose (GP)



- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide and HSS cutting tools (requirements below).



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
6	h6	0,000/-0,008
8 & 10	h6	0,000/-0,009
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

ERICKSON

TT GP HPV MM-BTKV Form B/AD



order number	catalog number	D1	D2	D21	L1	L1FC	L2	L9	V	stop screw	wrench size stop screw	kg
3854807	BTKV40BHPVTT06090M	6	21	27	90	89,0	63,0	26	10	TTSS05014M	2,5mm	1,17
3854808	BTKV40BHPVTT08090M	8	21	27	90	89,0	63,0	26	10	TTSS06014M	3mm	1,16
3854809	BTKV40BHPVTT10090M	10	24	32	90	89,0	63,0	31	10	TTSS08014M	4mm	1,22
3854810	BTKV40BHPVTT12090M	12	24	32	90	89,0	63,0	36	10	TTSS10014M	5mm	1,21
3854811	BTKV40BHPVTT14090M	14	27	34	90	89,0	63,0	36	10	TTSS10014M	5mm	1,26
3854812	BTKV40BHPVTT16090M	16	27	34	90	89,0	63,0	39	10	TTSS12014M	6mm	1,24
3854823	BTKV40BHPVTT18090M	18	33	41	90	89,0	63,0	39	10	TTSS12014M	6mm	1,38
3854824	BTKV40BHPVTT20090M	20	33	41	90	89,0	63,0	41	10	TTSS16014M	8mm	1,35
3854825	BTKV40BHPVTT25100M	25	44	52	100	99,0	73,0	47	10	TTSS16014M	8mm	1,76
3854826	BTKV40BHPVTT32105M	32	44	53	105	104,0	78,0	51	10	TTSS16014M	8mm	1,67

(continued)

(TT GP HPV BTKV Form B/AD continued)

Cutting Tool Shank Requirements
inch (industry standard)

cutting tool shank diameters	tolerance
1/4, 5/16, & 3/8	.0000/- .0004
7/16, 1/2, & 5/8	.0000/- .0004
3/4, 7/8, 1, & 1-1/4	.0000/- .0005

■ TT HPV IN-BTKV Form B/AD



order number	catalog number	D1	D2	D21	L1	L1FC	L2	L9	V	stop screw	wrench size stop screw	lbs
3861327	BTKV40BHPVTT025350	1/4	.83	1.06	3.50	3.46	2.44	1.02	.39	TTSS05014M	2,5mm	2.56
3861328	BTKV40BHPVTT031350	5/16	.83	1.06	3.50	3.46	2.44	1.02	.39	TTSS06014M	3mm	2.55
3861329	BTKV40BHPVTT038350	3/8	.94	1.26	3.50	3.46	2.44	1.22	.39	TTSS08014M	4mm	2.68
3861330	BTKV40BHPVTT044350	7/16	.94	1.26	3.50	3.46	2.44	1.42	.39	TTSS10014M	5mm	2.66
3861331	BTKV40BHPVTT050350	1/2	.94	1.26	3.50	3.46	2.44	1.42	.39	TTSS10014M	5mm	2.64
3861332	BTKV40BHPVTT062350	5/8	1.06	1.33	3.50	3.46	2.44	1.54	.39	TTSS12014M	6mm	2.71
3861343	BTKV40BHPVTT075400	3/4	1.30	1.65	4.00	3.96	2.94	1.61	.39	TTSS16014M	8mm	3.26
3861344	BTKV40BHPVTT088400	7/8	1.30	1.65	4.00	3.96	2.94	1.61	.39	TTSS16014M	8mm	3.18
3861345	BTKV40BHPVTT100400	1	1.73	2.06	4.00	3.96	2.94	1.85	.39	TTSS16014M	8mm	3.91
3861346	BTKV40BHPVTT125425	1 1/4	1.73	2.08	4.25	4.21	3.19	2.01	.39	TTSS16014M	8mm	3.81

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Shrink Fit technical section, see page M78.

Supplied with stop screw.

Adjusting stop screw gage, see page M81.

Optional M6-1.0P x 5mm lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.

For retention knobs, see page L45.

For Shrink Fit machine and accessories, see pages L12-L13.

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

BTKV40 Shank Tools

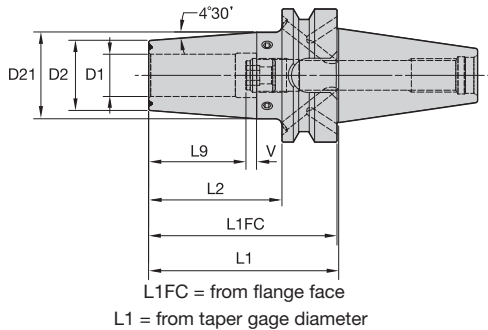
Shrink Fit Toolholders High Torque (HT)



- 30–50% higher clamping torque compared to GP line.
- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide only, designated by groove in front face (requirements below).
- 10 kW power or greater Shrink Fit device must be used.



BTKV40 Shank Tools



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

ERICKSON™

■ TT HT HPV MM-BTKV Form B/AD



order number	catalog number	D1	D2	D21	L1	L1FC	L2	L9	V	stop screw	wrench size stop screw	kg
3854827	BTKV40BHPVTTHT12090M	12	24	32	90,0	89,0	63	36	10	TTSS10014M	5mm	1,21
3854828	BTKV40BHPVTTHT14090M	14	27	34	90,0	89,0	63	36	10	TTSS10014M	5mm	1,26
3854829	BTKV40BHPVTTHT16090M	16	27	34	90,0	89,0	63	39	10	TTSS12014M	6mm	1,24
3854830	BTKV40BHPVTTHT18090M	18	33	41	90,0	89,0	63	39	10	TTSS12014M	6mm	1,38
3854831	BTKV40BHPVTTHT20090M	20	33	41	90,0	89,0	63	41	10	TTSS16014M	8mm	1,35
3854832	BTKV40BHPVTTHT25100M	25	44	52	100,0	99,0	73	47	10	TTSS16014M	8mm	1,76
3854833	BTKV40BHPVTTHT32105M	32	44	53	105,0	104,0	78	51	10	TTSS16014M	8mm	1,67

(continued)

(TT HT HPV BTKV Form B/AD continued)

Cutting Tool Shank Requirements
inch (industry standard)

cutting tool shank diameters	tolerance
1/2 & 5/8	.0000/- .0004
3/4, 7/8, 1, & 1-1/4	.0000/- .0005

■ TT HT HPV IN-BTKV Form B/AD



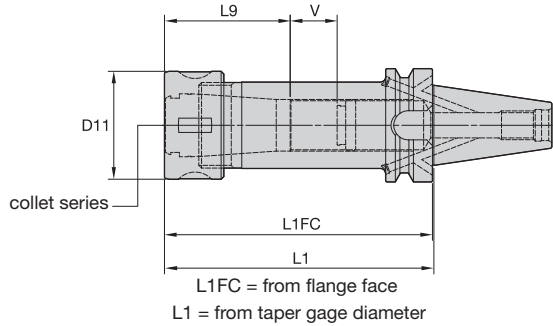
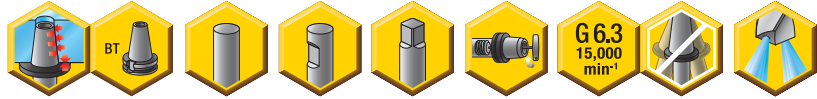
order number	catalog number	D1	D2	D21	L1	L1FC	L2	L9	V	stop screw	wrench size stop screw	lbs
3861347	BTKV40BHPVTTH050350	1/2	.94	1.26	3.50	3.46	2.44	1.42	.39	TTSS10014M	5mm	2.64
3861348	BTKV40BHPVTTH062350	5/8	1.06	1.33	3.50	3.46	2.44	1.54	.39	TTSS12014M	6mm	2.71
3861349	BTKV40BHPVTTH075400	3/4	1.30	1.65	4.00	3.96	2.94	1.61	.39	TTSS16014M	8mm	3.26
3861350	BTKV40BHPVTTH088400	7/8	1.30	1.65	4.00	3.96	2.94	1.61	.39	TTSS16014M	8mm	3.17
3861351	BTKV40BHPVTTH100400	1	1.73	2.06	4.00	3.96	2.94	1.85	.39	TTSS16014M	8mm	3.91
3861352	BTKV40BHPVTTH125425	1 1/4	1.73	2.08	4.25	4.21	3.19	2.01	.39	TTSS16014M	8mm	3.81

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.
 Shrink Fit technical section, see page M78.
 Supplied with stop screw.
 Adjusting stop screw gage, see page M81.
 Optional M6~1.0P x 5mm lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.
 For retention knobs, see page L45.
 For Shrink Fit machine and accessories, see pages L12-L13.

BTKV40 Shank Tools

<p>Form AD</p>					
<p>Form B</p>					
			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

- Tremendous Grip (3:1 advantage).



TG collet series	mm		inch	
	min	max	min	max
TG75	2,6	20,0	3/64	3/4
TG100	2,6	25,5	5/64	1
TG150	11,6	40,0	23/64	1 1/2

BTKV40 Shank Tools

ERICKSON™

■ TG Round-BTKV Form B/AD



order number	catalog number	collet series	D11	L1	L1FC	L9	V	locknut	wrench	Nm	stop screw	wrench size	stop screw	kg
3856650	BTKV40BTG075070M	TG75	50	70,0	69,0	50	10	LNA075M	HSW45M	136	SS081041G	4mm & 5/32		1,24
3856651	BTKV40BTG100080M	TG100	60	80,0	79,0	64	10	LNA100M	HSW58M	203	SS112041G	4mm & 5/32		1,43
3856652	BTKV40BTG100100M	TG100	60	100,0	99,0	64	14	LNA100M	HSW58M	203	SS112041G	4mm & 5/32		1,71
3856663	BTKV40BTG100150M	TG100	60	150,0	149,0	64	64	LNA100M	HSW58M	203	SS112041G	4mm & 5/32		2,19
3856664	BTKV40BTG150110M	TG150	85	110,0	109,0	78	15	LNA150M	HSW80M	271	SS112041G	4mm & 5/32		2,40

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see page L19.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.
 TG standard straight-bore collets, see page J10.
 TG tap collets, see page J10.
 For retention knobs, see page L45.

Form AD					
Form B					
			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



ERICKSON™ & KM™

Names You Can Trust

For hydraulic chucks — ERICKSON and KM — the industry names you can trust.

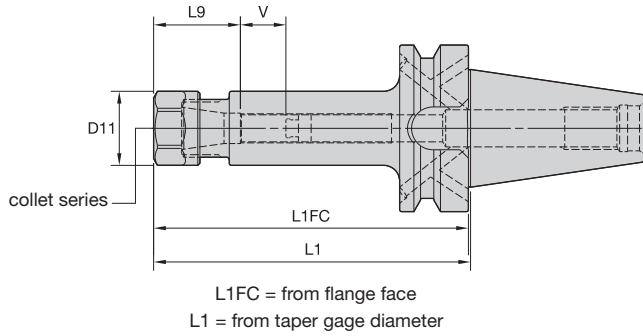
- Most accurate chuck, $\leq 3\mu\text{m}$ (.0001"), achieves maximum performance from your cutting edge.
- Inherent dampening design extends tool life and improves surface finish.
- Pre-balanced to high specifications.
- Versatile as a collet chuck with the use of reduction sleeves.

Experience the advantages at your Authorized Kennametal Distributor or at www.kennametal.com.

www.kennametal.com



- Grip (2:1 advantage).



BTKV40 Shank Tools

Collet Capacity

ER collet series	mm		inch	
	min	max	min	max
ER16	0,5	10,0	.02	.41
ER20	0,5	13,0	.02	.50
ER25	1,0	16,0	.04	.63
ER32	2,0	20,0	.08	.81
ER40	3,0	26,0	.12	1.00

ERICKSON

■ ER Hex-BTKV Form B/AD

order number	catalog number	collet series	D11	L1	L1FC	L9	V	kg
3857088	BTKV40BER16060M	ER16	28	60,0	59,0	32	32	1,04
3857089	BTKV40BER16120M	ER16	28	120,0	119,0	32	48	1,29
3857090	BTKV40BER20060M	ER20	34	60,0	59,0	36	27	1,04
3857091	BTKV40BER20120M	ER20	34	120,0	119,0	36	64	1,42

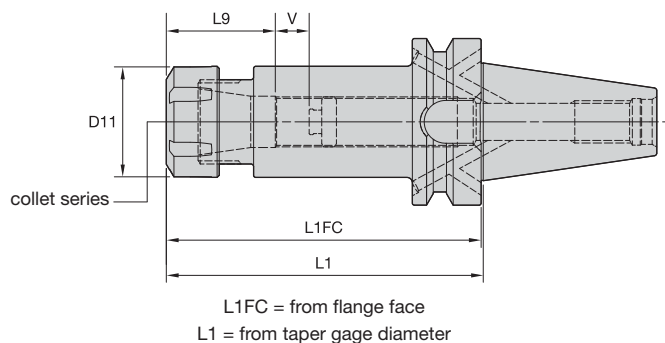
■ Spare Parts



catalog number	locknut	wrench	counterbore collet torque (Nm)	straight collet torque (Nm)	stop screw	wrench size stop screw
BTKV40BER16060M	LNHSER16M	OEW25M	40	56	SS044038G	4mm & 5/32
BTKV40BER16120M	LNHSER16M	OEW25M	40	56	SS044038G	4mm & 5/32
BTKV40BER20060M	LNHSER20M	OEW30M	32	80	SS056041G	4mm & 5/32
BTKV40BER20120M	LNHSER20M	OEW30M	32	80	SS056041G	4mm & 5/32

(continued)

(ER BTKV Form B/AD continued)



BTKV40 Shank Tools

■ ER Round-BTKV Form B/AD

order number	catalog number	collet series	D11	L1	L1FC	L9	V	kg
3857092	BTKV40BER25070M	ER25	42	70,0	69,0	40	22	1,16
3857123	BTKV40BER25120M	ER25	42	120,0	119,0	40	60	1,61
3857124	BTKV40BER32070M	ER32	50	70,0	69,0	46	12	1,22
3857125	BTKV40BER32120M	ER32	50	120,0	119,0	46	54	1,85
3857126	BTKV40BER40080M	ER40	63	80,0	79,0	52	9	1,38
3857127	BTKV40BER40120M	ER40	63	120,0	119,0	52	41	2,26

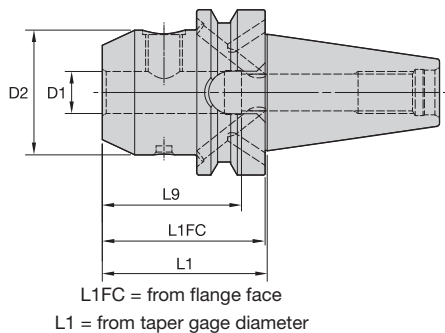
■ Spare Parts



catalog number	locknut	wrench	Nm	stop screw	wrench size stop screw
BTKV40BER25070M	LNSER25M	ER25WM	104	SS075041G	4mm & 5/32
BTKV40BER25120M	LNSER25M	ER25WM	104	SS075041G	4mm & 5/32
BTKV40BER32070M	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32
BTKV40BER32120M	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32
BTKV40BER40080M	LNSER40M	ER40WM	176	SS112041G	4mm & 5/32
BTKV40BER40120M	LNSER40M	ER40WM	176	SS112041G	4mm & 5/32

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.
 For retention knobs, see page L45.

Form AD	✓				
Form B					



BTKV40 Shank Tools

ERICKSON™

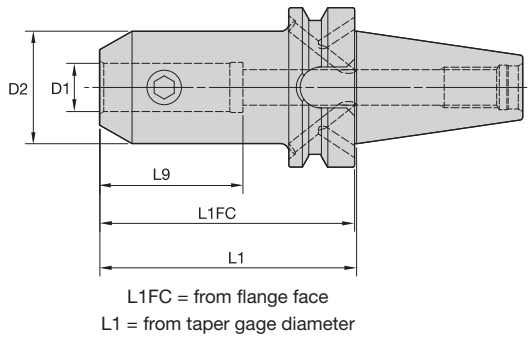
■ EM MM-BTKV Form B/AD



order number	catalog number	D1	D2	L1	L1FC	L9	lock screw	wrench size lock screw	Nm	kg
3856578	BTKV40BEM06050M	6	25	50,0	49,0	84	SS03M012	3mm	7	1,01
3856579	BTKV40BEM08050M	8	28	50,0	49,0	84	SS03M014	4mm	15	1,03
3856580	BTKV40BEM10063M	10	35	63,0	62,0	97	SS03M018	5mm	25	1,16
3856581	BTKV40BEM12063M	12	42	63,0	62,0	97	SS03M023	6mm	35	1,25
3856582	BTKV40BEM14063M	14	44	63,0	62,0	97	SS03M023	6mm	35	1,28
3856583	BTKV40BEM16063M	16	48	63,0	62,0	53	SS03M025	6mm	50	1,33
3856584	BTKV40BEM18063M	18	50	63,0	62,0	53	SS03M025	6mm	50	1,35
3856585	BTKV40BEM20063M	20	52	63,0	62,0	55	SS03M026	8mm	95	1,36
3856586	BTKV40BEM25090M	25	63	90,0	89,0	60	SS03M027	10mm	135	2,16

(continued)

(EM BTKV Form B/AD continued)



BTKV40 Shank Tools

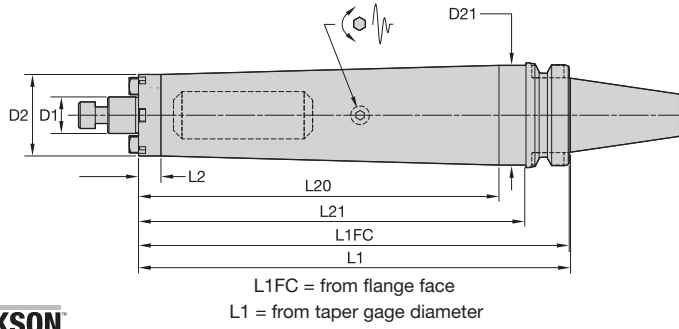
EM IN-BTKV Form B/AD



order number	catalog number	D1	D2	L1	L1FC	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
3856587	BTKV40BEM025250	1/4	1.00	2.50	2.46	3.85	ELS025025PKG	1/8	5	2.35
3856588	BTKV40BEM031250	5/16	1.00	2.50	2.46	3.85	ELS031031PKG	5/32	11	2.31
3856589	BTKV40BEM038250	3/8	1.00	2.50	2.46	3.85	ELS038031PKG	3/16	15	2.32
3856590	BTKV40BEM050300	1/2	1.38	3.00	2.96	4.35	ELS044038PKG	7/32	20	2.69
3856591	BTKV40BEM062300	5/8	1.63	3.00	2.96	2.09	ELS056050PKG	1/4	40	2.93
3856592	BTKV40BEM075400	3/4	1.75	4.00	3.96	2.22	ELS062050PKG	5/16	70	3.62
3856593	BTKV40BEM088400	7/8	2.00	4.00	3.96	2.22	ELS062050PKG	5/16	70	4.11
3856594	BTKV40BEM100400	1	2.00	4.00	3.96	2.56	ELS075056PKG	3/8	110	3.95
3856595	BTKV40BEM125400	1 1/4	2.50	4.00	3.96	2.51	ELS075062PKG	3/8	110	4.81

NOTE: Do not overtighten clamp screw; use torque recommendations above.
Supplied with clamp screw.
Clamp screw wrench not included.
For retention knobs, see page L45.

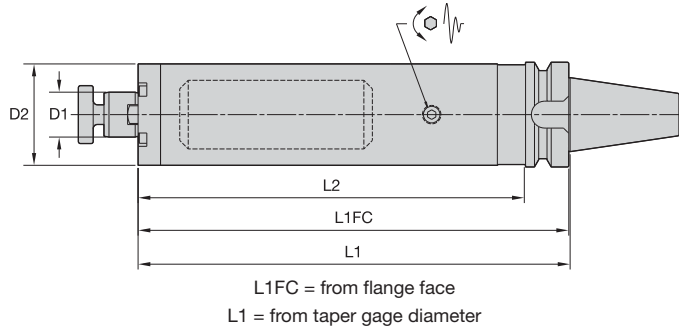
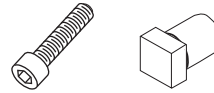
<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



ERICKSON

■ SMC TD Cap MM-BTKV Form B/AD

order number	catalog number	D1	D2	D21	L1	L1FC	L2	L20	L21	lock screw	drive key	wrench size lock screw	kg
4136287	BTKV40BTDSMC22260M	22	49	60	260	259	13,5	216,8	233	MS1234	KDK22M	8mm	5,07



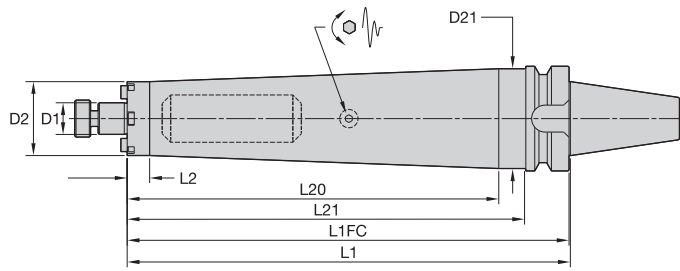
■ SMC TD Lock MM-BTKV Form B/AD

order number	catalog number	D1	D2	L1	L1FC	L2	lock screw	drive key	wrench size lock screw	kg
4136288	BTKV40BTDSMC27260M	27	61	260,0	259,0	233	KLSS27M	—	10mm	5,98



(continued)

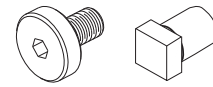
(SMC TD BTKV Form B/AD continued)



L1FC = from flange face
L1 = from taper gage diameter



■ SMC TD Lock IN-BTKV Form B/AD



order number	catalog number	D1	D2	D21	L1	L1FC	L2	L20	L21	lock screw	drive key	wrench size lock screw	lbs
4136289	BTKV40BTDSMC0751050	3/4	1.750	2.362	10.500	10.460	.53	8.797	9.437	KLS07	KDK05	1/4	10.69
4136290	BTKV40BTDSMC1001050	1	2.189	—	10.500	10.460	9.44	—	—	KLS10	KDK06	5/16	11.84

NOTE: Do not overtighten lock screw.
Supplied with lock screw and drive keys.
Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
Lock screw wrench not included.
For retention knob, see page L45.

BTKV40 Shank Tools

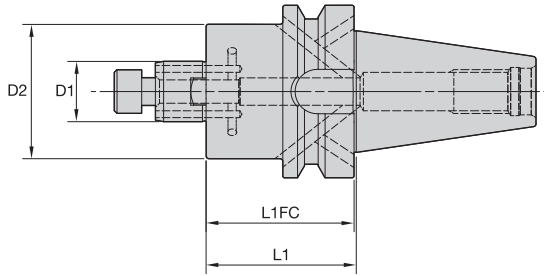
<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

BTKV40 Shank Tools

Shell Mill Adapters with Through Coolant



BTKV40 Shank Tools



L1FC = from flange face
L1 = from taper gage diameter

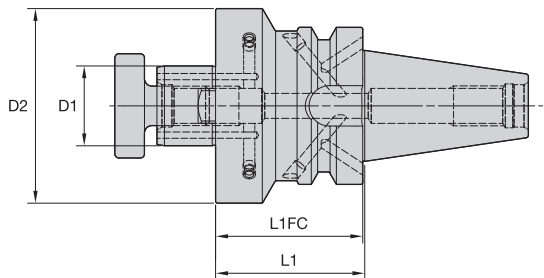


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■ SMC Cap MM-BTKV Form B/AD



order number	catalog number	D1	D2	L1	L1FC	lock screw	drive key	wrench size lock screw	kg
3857109	BTKV40BSM2C16050M	16	38	50,0	49,0	MS1294	KDK16M	6mm	1,17
3857108	BTKV40BSMC16050M	16	44	50,0	49,0	MS1294	KDK16M	6mm	1,24
3857111	BTKV40BSM2C22055M	22	42	55,0	54,0	MS1234	—	8mm	1,31
3857110	BTKV40BSMC22055M	22	49	55,0	54,0	MS1234	KDK22M	8mm	1,42



L1FC = from flange face
L1 = from taper gage diameter



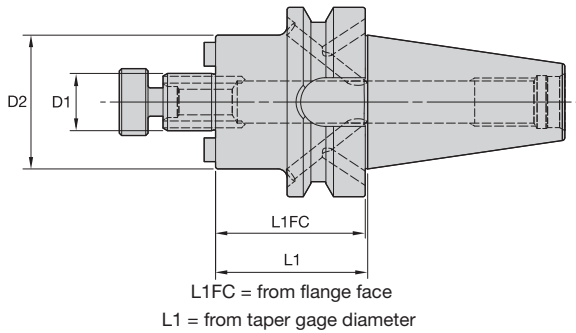
■ SMC Lock MM-BTKV Form B/AD



order number	catalog number	D1	D2	L1	L1FC	lock screw	drive key	wrench size lock screw	kg
3857112	BTKV40BSMC27055M	27	60	55,0	54,0	KLSS27M	KDK27M	10mm	1,68
3857163	BTKV40BSMC32060M	32	78	60,0	59,0	KLSS32M	KDK32M	14mm	2,23

(continued)

(SMC BTKV Form B/AD continued)



BTKV40 Shank Tools

■ SMC TD Lock IN-BTKV Form B/AD



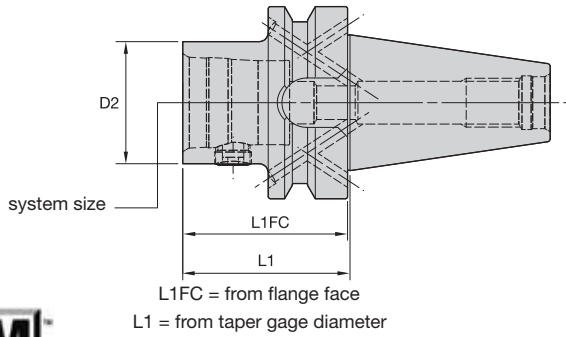
order number	catalog number	D1	D2	L1	L1FC	lock screw	drive key	wrench size lock screw	lbs
3857166	BTKV40BSM2C050175	1/2	1.20	1.75	1.71	KLS05	KDK04	3/16	2.37
3857165	BTKV40BSMC050175	1/2	1.44	1.75	1.71	KLS05	KDK04	3/16	2.42
3857168	BTKV40BSM2C075200	3/4	1.46	2.00	1.96	KLS07	—	1/4	2.59
3857167	BTKV40BSMC075200	3/4	1.75	2.00	1.96	KLS07	KDK05	1/4	2.79
3857170	BTKV40BSM2C100200	1	2.19	2.00	1.96	KLS10	KDK06	5/16	3.25
3857169	BTKV40BSMC100200	1	2.75	2.00	1.96	KLS10	KDK06	5/16	3.71
3857171	BTKV40BSMC125200	1 1/4	2.88	2.00	1.96	KLS12	KDK08	5/16	4.05
3857172	BTKV40BSMC150200	1 1/2	3.81	2.00	1.96	KLS15	KDK10	3/8	5.39

NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive keys.
 Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
 Lock screw wrench not included.
 For retention knobs, see page L45.

	Form AD					
	Form B			40	(2x) MS2221S	2,5mm
				50	(2x) MS1296S	3mm

BTKV40 Shank Tools

KM™ Modular Adapters



BTKV40 Shank Tools



■ KM-BTKV Form B/AD

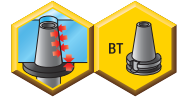
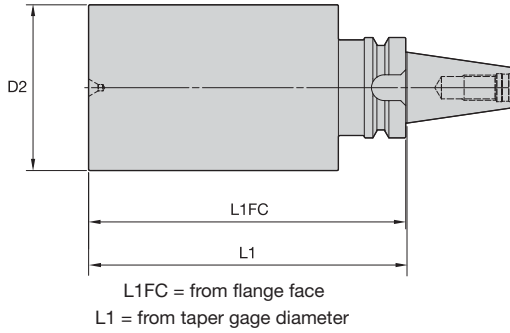


order number	catalog number	system size	D2	L1	L1FC	KM spare parts package	wrench size actuation screw	Nm	kg
3822963	BTKV40BKM32050M	KM32	32	50,0	49,0	KM32PKG3S	5mm	8-11	1,06
3822964	BTKV40BKM32090M	KM32	32	90,0	89,0	KM32PKG3S	5mm	8-11	1,28
3822965	BTKV40BKM40055M	KM40	40	55,0	54,0	KM40PKG3S	6mm	12-16	1,15
3822966	BTKV40BKM40100M	KM40	40	100,0	99,0	KM40PKG3S	6mm	12-16	1,54
3822967	BTKV40BKM50065M	KM50	50	65,0	64,0	KM50PKG3S	10mm	27-34	1,34
3822968	BTKV40BKM50120M	KM50	50	120,0	119,0	KM50PKG3S	10mm	27-34	2,13

NOTE: Do not overtorque actuation screw; use torque recommendations above.
Supplied with KM actuation mechanism.
For retention knobs, see page L45.

	Form AD						
	Form B						

- Machinable front 20–30 RW C.



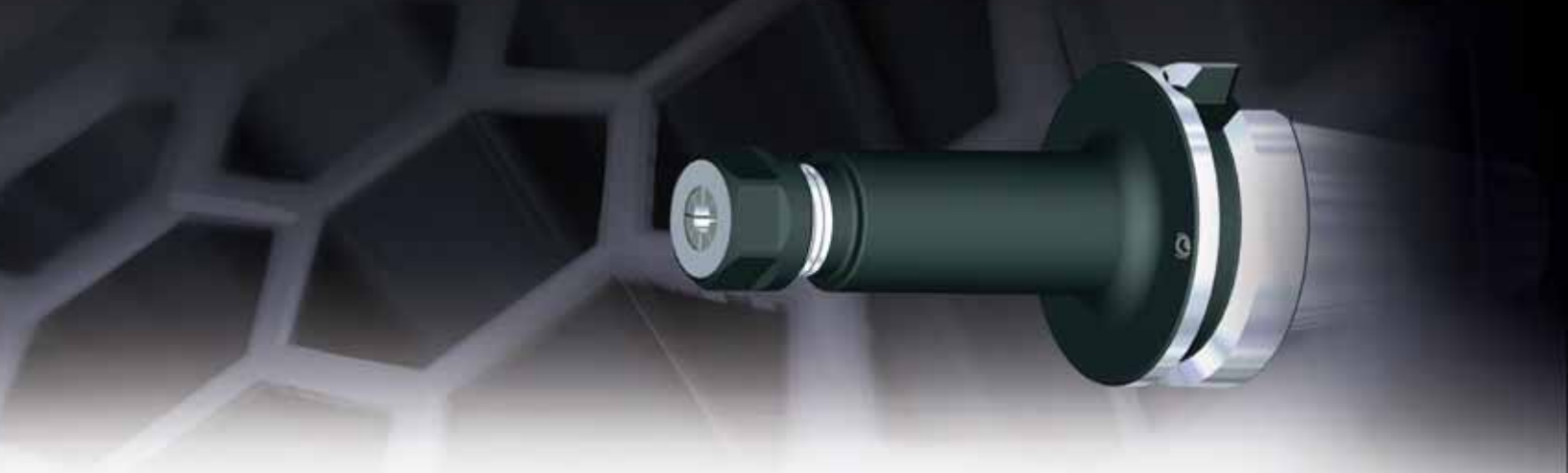
BTKV40 Shank Tools

ERICKSON

■ BB-BTKV Form A

order number	catalog number	D2	L1	L1FC	kg
3815352	BTKV40BB063280M	63,0	280,0	279,0	7,13
3815363	BTKV40BB104200M	104,0	200,0	199,0	11,78

NOTE: For retention knobs, see page L45.



ERICKSON™ Taper Face Contact Shank Tooling System • BTKV50 Series

Primary Application

ERICKSON Taper Face BT Contact Taper Tooling is manufactured from premium materials and to the latest JIS B 6339 specification standard. Controlled, increased flange thickness to the rear of the flange gains face contact between spindle and holder. The BTKV50 tools are prebalanced to a high specification that will perform effectively up to 20,000 RPM. For any applications higher than 20,000 RPM, Kennametal recommends that the complete toolholder assembly (toolholder, retention knobs, collets, hardware, and cutting tools) be balanced as one identity.





Features and Benefits

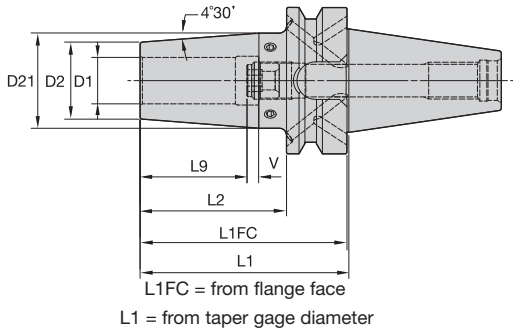
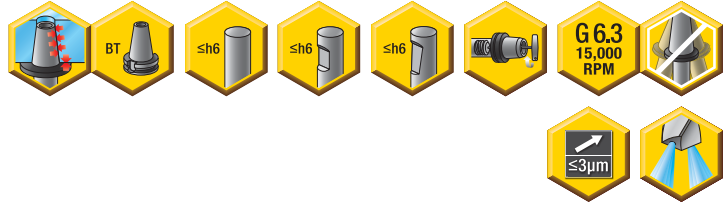
- JIS B 6339 7/24 taper.
- Standard M24 metric drawbar thread.
- High axial repeatability due to face contact.
- High radial positioning due to controlled, tighter drive key widths.
- All tools set to form AD coolant specification. Many can be converted to form B style.
- Maximum 20,000 RPM.
- Maximum 100 bar (1,500 psi) coolant pressure.

BTKV50 Shank Tools

Shrink Fit Toolholders General Purpose (GP)



- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide and HSS cutting tools (requirements below).



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
6	h6	0,000/-0,008
8 & 10	h6	0,000/-0,009
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

ERICKSON™

■ TT GP HPV MM-BTKV Form B/AD



order number	catalog number	D1	D2	D21	L1	L1FC	L2	L9	V	stop screw	wrench size stop screw	kg
3856633	BTKV50BHPVTT06100M	6	21	27	100	98,5	62,0	26	10	TTSS05014M	2,5mm	3,72
3856634	BTKV50BHPVTT08100M	8	21	27	100	98,5	62,0	26	10	TTSS06014M	3mm	3,72
3856635	BTKV50BHPVTT10100M	10	24	32	100	98,5	62,0	31	10	TTSS08014M	4mm	3,78
3856636	BTKV50BHPVTT12100M	12	24	32	100	98,5	62,0	36	10	TTSS10014M	5mm	3,76
3856637	BTKV50BHPVTT14100M	14	27	34	100	98,5	62,0	36	10	TTSS10014M	5mm	3,81
3856638	BTKV50BHPVTT16100M	16	27	34	100	98,5	62,0	39	10	TTSS12014M	6mm	3,79
3856639	BTKV50BHPVTT18100M	18	33	41	100	98,5	62,0	39	10	TTSS12014M	6mm	3,93
3856640	BTKV50BHPVTT20100M	20	33	41	100	98,5	62,0	41	10	TTSS16014M	8mm	3,90
3856641	BTKV50BHPVTT25100M	25	44	52	100	98,5	62,0	47	10	TTSS16014M	8mm	4,19
3856642	BTKV50BHPVTT32100M	32	44	52	100	98,5	62,0	51	10	TTSS16014M	8mm	4,03

(continued)

(TT GP HPV BTKV Form B/AD continued)

Cutting Tool Shank Requirements inch (industry standard)

cutting tool shank diameters	tolerance
1/4, 5/16, & 3/8	.0000/- .0004
7/16, 1/2, & 5/8	.0000/- .0004
3/4, 7/8, 1, & 1-1/4	.0000/- .0005



BTKV50 Shank Tools

■ TT GP HPV In-BTKV Form B/AD



order number	catalog number	D1	D2	D21	L1	L1FC	L2	L9	V	stop screw	wrench size stop screw	lbs
3859981	BTKV50BHPVTT025400	1/4	.83	1.06	4.00	3.94	2.50	1.02	.39	TTSS05014M	2,5mm	8.23
3859982	BTKV50BHPVTT031400	5/16	.83	1.06	4.00	3.94	2.50	1.02	.39	TTSS06014M	3mm	8.21
3860033	BTKV50BHPVTT038400	3/8	.94	1.26	4.00	3.94	2.50	1.22	.39	TTSS08014M	4mm	8.36
3860034	BTKV50BHPVTT044400	7/16	.94	1.26	4.00	3.94	2.50	1.42	.39	TTSS10014M	5mm	8.33
3860035	BTKV50BHPVTT050400	1/2	.94	1.26	4.00	3.94	2.50	1.42	.39	TTSS10014M	5mm	8.31
3860036	BTKV50BHPVTT062400	5/8	1.06	1.33	4.00	3.94	2.50	1.54	.39	TTSS12014M	6mm	8.38
3860037	BTKV50BHPVTT075400	3/4	1.30	1.61	4.00	3.94	2.50	1.61	.39	TTSS16014M	8mm	8.66
3860038	BTKV50BHPVTT088400	7/8	1.30	1.61	4.00	3.94	2.50	1.61	.39	TTSS16014M	8mm	8.60
3860039	BTKV50BHPVTT100400	1	1.73	2.05	4.00	3.94	2.50	1.85	.39	TTSS16014M	8mm	9.27
3860040	BTKV50BHPVTT125400	1 1/4	1.73	2.05	4.00	3.94	2.50	2.01	.39	TTSS16014M	8mm	8.95

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Supplied with stop screw.

Adjusting stop screw gage, see page M81.

Optional M6~1.0P x 5mm lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.

For retention knobs, see page L45.

For Shrink Fit machine and accessories, see page L12-L13.

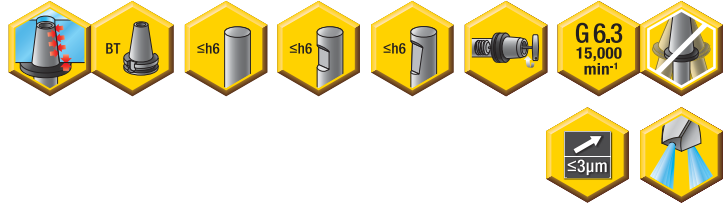
<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

BTKV50 Shank Tools

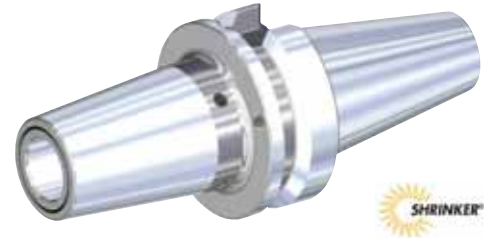
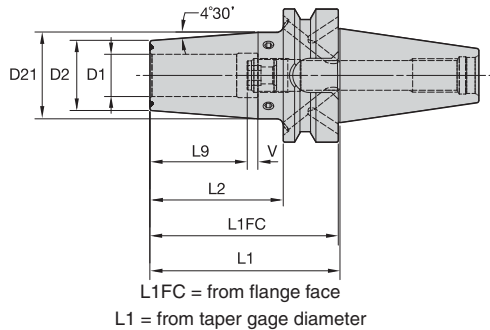
Shrink Fit Toolholders High Torque (HT)



- 30–50% higher clamping torque compared to GP line.
- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide only, designated by groove in front face (requirements below).
- 10 kW power or greater Shrink Fit device must be used.



BTKV50 Shank Tools



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

ERICKSON™

■ TT HT HPV MM-BTKV Form B/AD



order number	catalog number	D1	D2	D21	L1	L1FC	L2	L9	V	stop screw	wrench size stop screw	kg
3856643	BTKV50BHPVTTHT12100M	12	24	32	100	98,5	62,0	36	10	TTSS10014M	5mm	3,76
3856644	BTKV50BHPVTTHT14100M	14	27	34	100	98,5	62,0	36	10	TTSS10014M	5mm	3,81
3856645	BTKV50BHPVTTHT16100M	16	27	34	100	98,5	62,0	39	10	TTSS12014M	6mm	3,79
3856646	BTKV50BHPVTTHT18100M	18	33	41	100	98,5	62,0	39	10	TTSS12014M	6mm	3,93
3856647	BTKV50BHPVTTHT20100M	20	33	41	100	98,5	62,0	41	10	TTSS16014M	8mm	3,90
3856648	BTKV50BHPVTTHT25100M	25	44	52	100	98,5	62,0	47	10	TTSS16014M	8mm	4,90
3856649	BTKV50BHPVTTHT32100M	32	44	52	100	98,5	62,0	51	10	TTSS16014M	8mm	4,03

(continued)

(TT HT HPV BTKV Form B/AD continued)

Cutting Tool Shank Requirements inch (industry standard)

cutting tool shank diameters	tolerance
1/2 & 5/8	.0000/- .0004
3/4, 7/8, 1, & 1-1/4	.0000/- .0005

■ TT HT HPV In-BTKV Form B/AD



order number	catalog number	D1	D2	D21	L1	L1FC	L2	L9	V	stop screw	wrench size stop screw	lbs
3860041	BTKV50BHPVTHT050400	1/2	.94	1.26	4.00	3.94	2.504	1.42	.39	TTSS10014M	5mm	8.31
3860042	BTKV50BHPVTHT062400	5/8	1.06	1.33	4.00	3.94	2.504	1.54	.39	TTSS12014M	6mm	8.38
3860043	BTKV50BHPVTHT075400	3/4	1.30	1.61	4.00	3.94	2.504	1.61	.39	TTSS16014M	8mm	8.66
3860044	BTKV50BHPVTHT088400	7/8	1.30	1.61	4.00	3.94	2.504	1.61	.39	TTSS16014M	8mm	8.60
3860045	BTKV50BHPVTHT100400	1	1.73	2.05	4.00	3.94	2.504	1.85	.39	TTSS16014M	8mm	9.27
3860046	BTKV50BHPVTHT125400	1 1/4	1.73	2.05	4.00	3.94	2.504	2.01	.39	TTSS16014M	8mm	8.95

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Shrink Fit technical section, see page M78.

Supplied with stop screw.

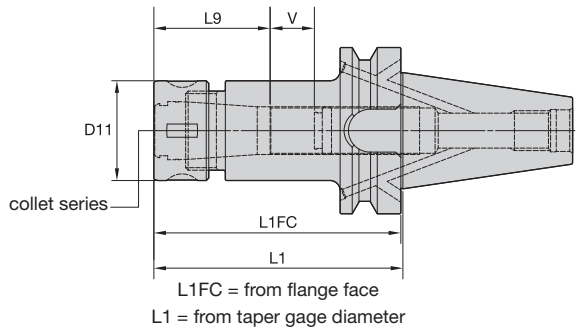
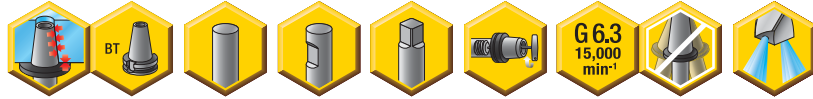
Adjusting stop screw gage, see page M81.

Optional M6~1.0P x 5mm lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.

For retention knobs, see page L45.

For Shrink Fit machine and accessories, see pages L12-L13.

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



BTKV50 Shank Tools

Collet Capacity

TG collet series	mm		inch	
	min	max	min	max
TG100	2,6	25,5	5/64	1
TG150	11,6	40,0	23/64	1-1/2

ERICKSON™

■ TG Round-BTKV Form B/AD



order number	catalog number	collet series	D11	L1	L1FC	L9	V	locknut	wrench	stop screw	wrench size stop screw	Nm	kg
3856665	BTKV50BTG100090M	TG100	60	90,0	88,5	64	36	LNA100M	HSW58M	SS112041G	4mm & 5/32	203	3,97
3856666	BTKV50BTG100150M	TG100	60	150,0	148,5	64	89	LNA100M	HSW58M	SS112041G	4mm & 5/32	203	5,15
3856667	BTKV50BTG150100M	TG150	85	100,0	98,5	78	13	LNA150M	HSW80M	SS162062G	4mm & 5/32	271	4,43
3856668	BTKV50BTG150150M	TG150	85	150,0	148,5	78	49	LNA150M	HSW80M	SS162062G	4mm & 5/32	271	6,08

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool,

then tighten to the recommended tightening torque.

Collet chuck technical section, see page M98.

Supplied with locknut and stop screw.

Locknut wrench must be ordered separately.

Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16–L17.

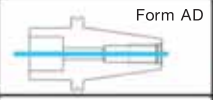








Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.

Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.

TG standard straight-bore collets, see page J10.

TG tap collets, see page J10.

For retention knobs, see page L45.

 <p>Form AD</p>					
 <p>Form B</p>			<p>40</p>	<p>(2x) MS2221S</p>	<p>2,5mm</p>
				<p>(2x) MS1296S</p>	<p>3mm</p>



To BEAT the HEAT

B/K284 Solid Carbide Drills

B/K284 Series Solid Carbide Drills offer a material-specific design and grade for machining high-temperature-resistant alloys, like titanium and nickel-based alloys, in aerospace applications. This drill minimizes subsurface deformation.

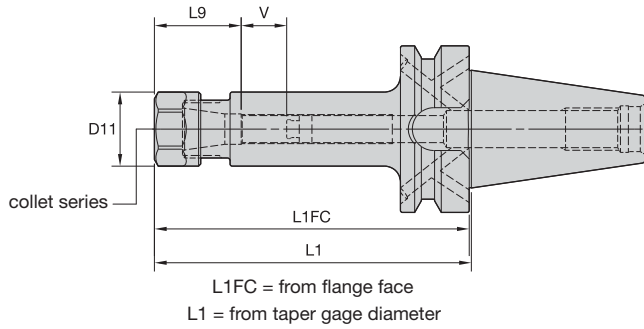
- HP drill point — prevents workpiece flexing.
- Straight cut edge — rigid corner wedge withstands high thermal and mechanical stress.
- Unique flute design — improves chip evacuation.
- K715™ grade — specified, uncoated 9% Co fine-grain carbide.
- Customization — intermediate diameters, length variations, and step drills available as customized solutions.
- For the latest product catalog, please refer to the e-catalog at www.kennametal.com.

Experience the advantages at your Authorized Kennametal Distributor or at www.kennametal.com.

www.kennametal.com



- Grip (2:1 advantage).



ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER16	0,5	10,0	.02	.41
ER20	0,5	13,0	.02	.50
ER25	1,0	16,0	.04	.63
ER32	2,0	20,0	.08	.81
ER40	3,0	26,0	.12	1.00

ERICKSON

■ ER Hex-BTKV Form B/AD

order number	catalog number	collet series	D11	L1	L1FC	L9	V	kg
3857128	BTKV50BER16100M	ER16	28	100	98,5	32	48	3,78
3857129	BTKV50BER16150M	ER16	28	150	148,5	32	48	3,97
3857130	BTKV50BER20070M	ER20	34	70	68,5	36	24	3,65
3857131	BTKV50BER20150M	ER20	34	150	148,5	36	64	4,12

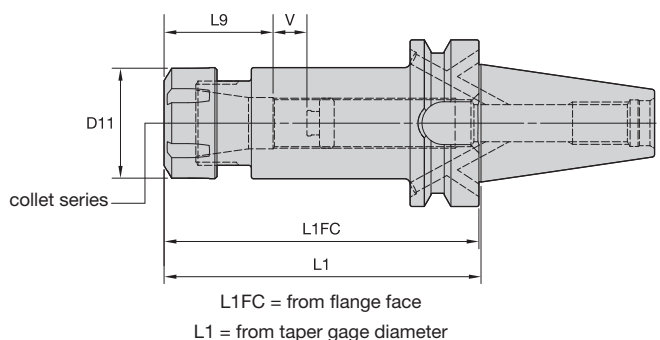
■ Spare Parts



catalog number	locknut	wrench	counterbore collet torque (Nm)	straight collet torque (Nm)	stop screw	wrench size stop screw
BTKV50BER16100M	LNHSER16M	OEW25M	40	56	SS044038G	4mm & 5/32
BTKV50BER16150M	LNHSER16M	OEW25M	40	56	SS044038G	4mm & 5/32
BTKV50BER20070M	LNHSER20M	OEW30M	32	80	SS056041G	4mm & 5/32
BTKV50BER20150M	LNHSER20M	OEW30M	32	80	SS056041G	4mm & 5/32

(continued)

(ER BTKV Form B/AD continued)



BTKV50 Shank Tools

■ ER Round-BTKV Form B/AD

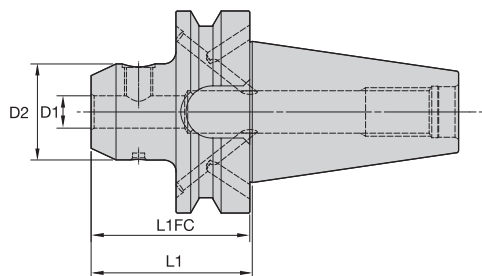
order number	catalog number	collet series	D11	L1	L1FC	L9	V	kg
3857132	BTKV50BER25070M	ER25	42	70,0	68,5	40	40	3,69
3857133	BTKV50BER25150M	ER25	42	150,0	148,5	40	60	4,38
3857134	BTKV50BER32070M	ER32	50	70,0	68,5	46	38	3,67
3857135	BTKV50BER32150M	ER32	50	150,0	148,5	46	54	4,67
3857136	BTKV50BER40080M	ER40	63	80,0	78,5	52	38	3,83
3857137	BTKV50BER40150M	ER40	63	150,0	148,5	52	48	5,33

■ Spare Parts

catalog number	locknut	wrench	Nm	stop screw	wrench size stop screw
BTKV50BER25070M	LNSER25M	ER25WM	104	SS075041G	4mm & 5/32
BTKV50BER25150M	LNSER25M	ER25WM	104	SS075041G	4mm & 5/32
BTKV50BER32070M	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32
BTKV50BER32150M	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32
BTKV50BER40080M	LNSER40M	ER40WM	176	SS112041G	4mm & 5/32
BTKV50BER40150M	LNSER40M	ER40WM	176	SS112041G	4mm & 5/32

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.
 For retention knobs, see page L45.

Form AD					
Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



L1FC = from flange face
L1 = from taper gage diameter



BTKV50 Shank Tools

ERICKSON

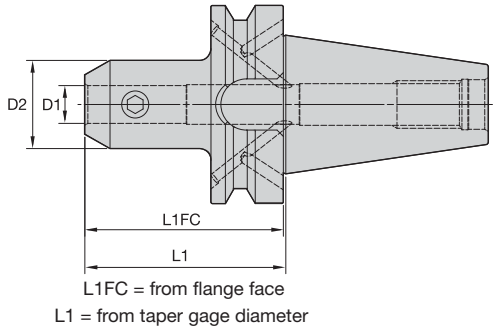
■ EM MM-BTKV Form B/AD



order number	catalog number	D1	D2	L1	L1FC	lock screw	wrench size lock screw	Nm	kg
3856539	BTKV50BEM06063M	6	24,5	63,0	61,5	SS03M012	3mm	7	3,58
3856541	BTKV50BEM08063M	8	27,5	63,0	61,5	SS03M014	4mm	15	3,60
3856542	BTKV50BEM10080M	10	34,5	80,0	78,5	SS03M018	5mm	25	3,79
3856563	BTKV50BEM12080M	12	41,5	80,0	78,5	SS03M023	6mm	35	3,86
3856564	BTKV50BEM14080M	14	43,5	80,0	78,5	SS03M023	6mm	35	3,90
3856565	BTKV50BEM16080M	16	47,5	80,0	78,5	SS03M025	6mm	50	3,97
3856566	BTKV50BEM18080M	18	49,5	80,0	78,5	SS03M025	6mm	50	4,00
3856567	BTKV50BEM20080M	20	51,5	80,0	78,5	SS03M026	8mm	95	4,02
3856568	BTKV50BEM25105M	25	64,5	105,0	103,5	SS03M027	10mm	135	4,80
3856569	BTKV50BEM32105M	32	71,5	105,0	103,5	SS03M029	10mm	160	5,04
3856570	BTKV50BEM40120M	40	89,5	120,0	118,5	SS03M029	10mm	160	6,56
3856571	BTKV50BEM50130M	50	99,5	130,0	128,5	—	12mm	200	7,50

(continued)

(EM BTKV Form B/AD continued)



BTKV50 Shank Tools

EM IN-BTKV Form B/AD



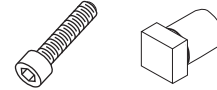
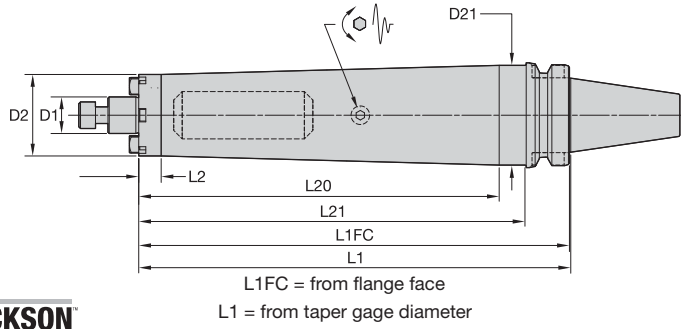
order number	catalog number	D1	D2	L1	L1FC	lock screw	wrench size lock screw	ft. lbs.	lbs
3856572	BTKV50BEM050300	1/2	1.37	3.00	2.94	ELS044038PKG	7/32	20	8.18
3856573	BTKV50BEM075400	3/4	1.75	4.00	3.94	ELS062050PKG	5/16	70	8.99
3856574	BTKV50BEM100400	1	2.00	4.00	3.94	ELS075056PKG	3/8	110	8.95
3856575	BTKV50BEM125400	1 1/4	2.50	4.00	3.94	ELS075062PKG	3/8	110	10.08
3856576	BTKV50BEM150450	1 1/2	2.75	4.50	4.44	ELS075069PKG	3/8	110	11.05
3856577	BTKV50BEM200550	2	3.75	5.50	5.44	ELS100088PKG	1/2	148	16.28

NOTE: Do not overtighten clamp screw; use torque recommendations above.
 Supplied with clamp screw.
 Clamp screw wrench not included.
 For retention knobs, see page L45.

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

BTKV50 Shank Tools

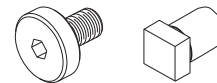
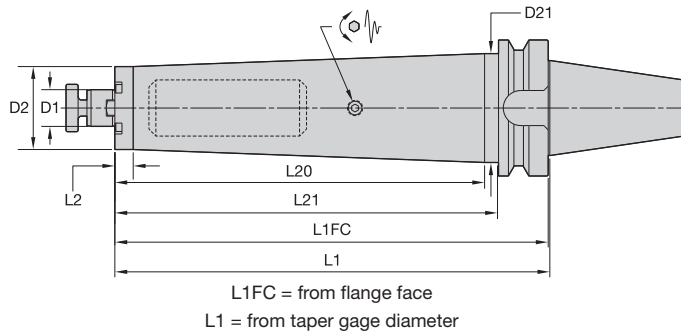
Tunable Shell Mill Adapters with Through Coolant



ERICKSON

■ SMC TD Cap MM-BTKV Form B/AD

order number	catalog number	D1	D2	D21	L1	L1FC	L2	L20	L21	lock screw	drive key	wrench size lock screw	kg
4136291	BTKV50BTDSMC22260M	22	49	70	260,0	258,5	13,5	211,8	222	MS1234	KDK22M	8mm	8,27



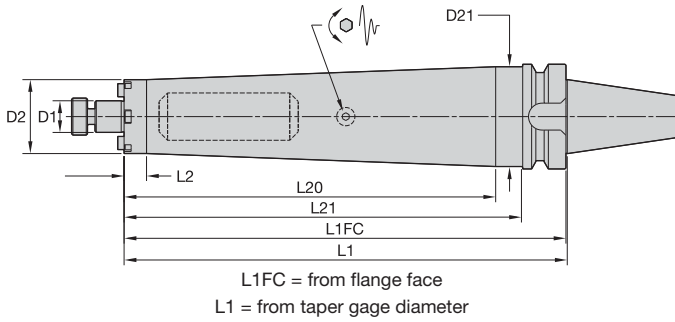
■ SMC TD Lock MM-BTKV Form B/AD

order number	catalog number	D1	D2	D21	L1	L1FC	L2	L20	L21	lock screw	drive key	wrench size lock screw	kg
4136292	BTKV50BTDSMC27320M	27	61	80	320	318,5	13,5	271,8	282	KLSS27M	—	10mm	11,89
4136303	BTKV50BTDSMC32330M	32	78	—	330	328,5	292,0	—	—	KLSS32M	KDK32M	14mm	16,22

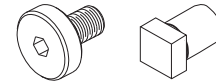
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BTKV50 Shank Tools

(SMC continued)



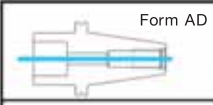




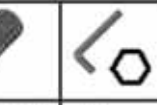



■ SMC TD Lock IN-BTKV Form B/AD

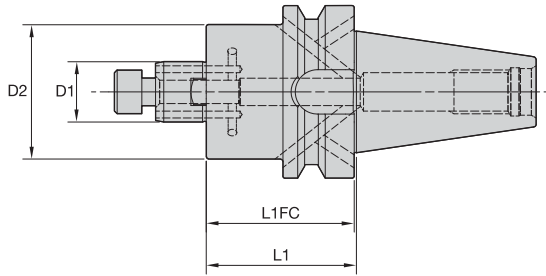


order number	catalog number	D1	D2	D21	L1	L1FC	L2	L20	L21	lock screw	drive key	wrench size lock screw	lbs
4136304	BTKV50BTDSMC0751050	3/4	1.75	2.56	10.50	10.44	.53	8.60	9.00	KLS07	KDK05	1/4	16.86
4136305	BTKV50BTDSMC1001250	1	2.75	—	12.50	12.44	11.00	—	—	KLS10	KDK06	5/16	25.60
4136306	BTKV50BTDSMC1251300	1 1/4	2.88	—	13.00	12.94	11.50	—	—	KLS12	KDK08	5/16	32.85

NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive keys.
 Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
 Lock screw wrench not included.
 For retention knobs, see page L45.

BTKV50 Shank Tools

 Form AD					
 Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



L1FC = from flange face
L1 = from taper gage diameter



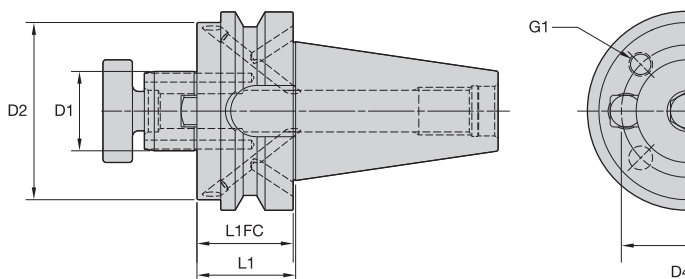
BTKV50 Shank Tools

ERICKSON

■ SMC Cap MM-BTKV Form B/AD



order number	catalog number	D1	D2	L1	L1FC	lock screw	drive key	wrench size lock screw	kg
3857069	BTKV50BSM2C16045M	16	38	45,0	43,5	MS1294	KDK16M	6mm	3,66
3857068	BTKV50BSM2C16045M	16	44	45,0	43,5	MS1294	KDK16M	6mm	3,67
3857071	BTKV50BSM2C22045M	22	42	45,0	43,5	MS1234	—	8mm	3,66
3857070	BTKV50BSM2C22045M	22	49	45,0	43,5	MS1234	KDK22M	8mm	3,69



L1FC = from flange face
L1 = from taper gage diameter



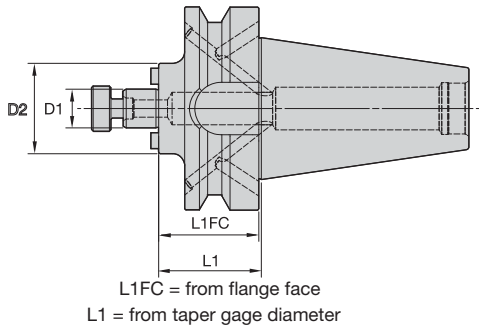
■ SMC Lock MM-BTKV Form B/AD



order number	catalog number	D1	D2	D4	G1	L1	L1FC	lock screw	drive key	wrench size lock screw	kg
3857072	BTKV50BSMC27045M	27	60	—	—	45,0	43,5	KLSS27M	KDK27M	10mm	3,80
3857093	BTKV50BSMC32045M	32	78	—	—	45,0	43,5	KLSS32M	KDK32M	14mm	4,01
3857094	BTKV50BSMC40050M	40	89	66,7	M12X1.75	50,0	48,5	KLSS40M	KDK40M	17mm	4,46
3857095	BTKV50BSMC60090M	60	129	101,6	M16X2.0	90,0	88,5	—	KDK60M	—	8,55

(continued)

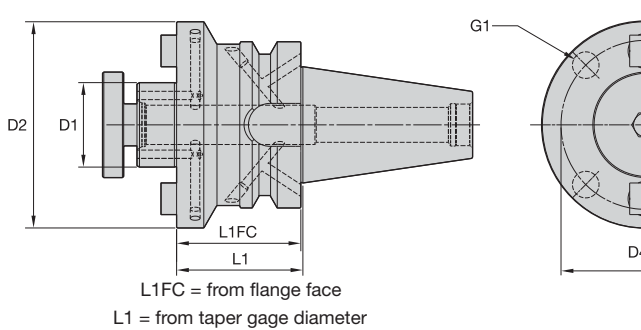
(SMC Lock BTKV Form B/AD continued)



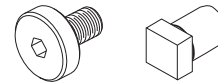
■ SMC Lock MM-BTKV Form B/AD



order number	catalog number	D1	D2	L1	L1FC	lock screw	drive key	wrench size lock screw	lbs
3857097	BTKV50BSM2C075200	3/4	1.46	2.00	1.941	KLS07	—	1/4	8.14
3857096	BTKV50BSMC075200	3/4	1.75	2.00	1.941	KLS07	KDK05	1/4	8.25
3857099	BTKV50BSM2C100200	1	2.19	2.00	1.941	KLS10	KDK06	5/16	8.45
3857098	BTKV50BSMC100200	1	2.75	2.00	1.941	KLS10	KDK06	5/16	8.75
3857100	BTKV50BSMC125200	1 1/4	2.88	2.00	1.941	KLS12	KDK08	5/16	9.05
3857101	BTKV50BSMC150200	1 1/2	3.81	2.00	1.941	KLS15	KDK10	3/8	10.07



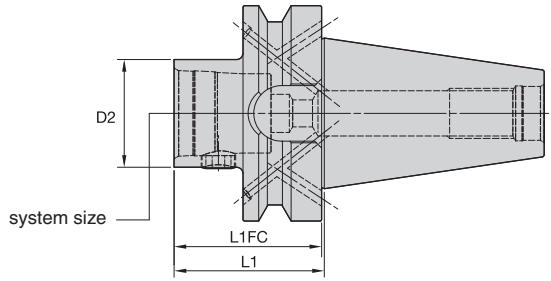
■ SMC Lock IN-BTKV Form B/AD



order number	catalog number	D1	D2	D4	G1	L1	L1FC	lock screw	drive key	wrench size lock screw	lbs
3857102	BTKV50BSMC200300	2	4.88	4.00	5/8-11 UNC	3.00	2.94	KLS20	KDK12	9/16	15.08
3857103	BTKV50BSMC250300	2 1/2	4.88	4.00	5/8-11 UNC	3.00	2.94	KLS25	KDK16	9/16	16.33

NOTE: Do not overtighten lock screw.
Supplied with lock screw and drive keys.
Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
Lock screw wrench not included.
For retention knob, see page L45.

	Form AD					
	Form B			40	(2x) MS2221S	2,5mm
				50	(2x) MS1296S	3mm



L1FC = from flange face
L1 = from taper gage diameter

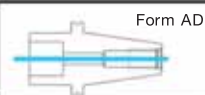










■ KM-BTKV Form B/AD

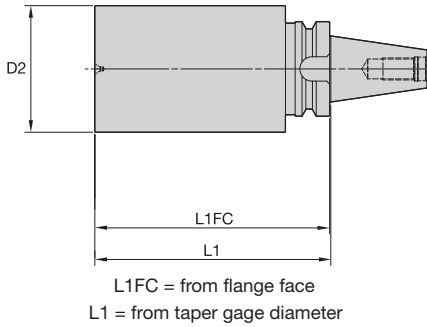
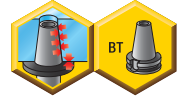


order number	catalog number	system size	D2	L1	L1FC	KM spare parts package	wrench size actuation screw	Nm	kg
3815301	BTKV50BKM32060M	KM32	32	60	58,5	KM32PKG3S	5mm	8-11	3,63
3815302	BTKV50BKM32090M	KM32	32	90	88,5	KM32PKG3S	5mm	8-11	3,78
3815333	BTKV50BKM40065M	KM40	40	65	63,5	KM40PKG3S	6mm	12-16	3,72
3815334	BTKV50BKM40100M	KM40	40	100	98,5	KM40PKG3S	6mm	12-16	4,01
3815335	BTKV50BKM50070M	KM50	50	70	68,5	KM50PKG3S	10mm	27-34	3,86
3815336	BTKV50BKM50120M	KM50	50	120	118,5	KM50PKG3S	10mm	27-34	4,54
3815337	BTKV50BKM63080M	KM63	63	80	78,5	KM63PKG3S	12mm	47-54	4,22
3815338	BTKV50BKM63140M	KM63	63	140	138,5	KM63PKG3S	12mm	47-54	5,55
3815339	BTKV50BKM80090M	KM80	80	90	88,5	KM80PKG3S	14mm	79-85	5,00

NOTE: Do not overtorque actuation screw; use torque recommendations above.
Supplied with KM actuation mechanism.
For retention knobs, see page L45.
These products are only available in the U.S., Canada, and Japan.

 Form AD					
 Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

- Machinable front 20–30 RW C.



BTKV50 Shank Tools

ERICKSON

■ BB-BTKV Form B/AD

order number	catalog number	D2	L1	L1FC	kg
3830226	BTKV50BB104350M	104	350	348,5	24,37
3830227	BTKV50BB134250M	134	250	248,5	26,58

NOTE: For retention knobs, see page L45.

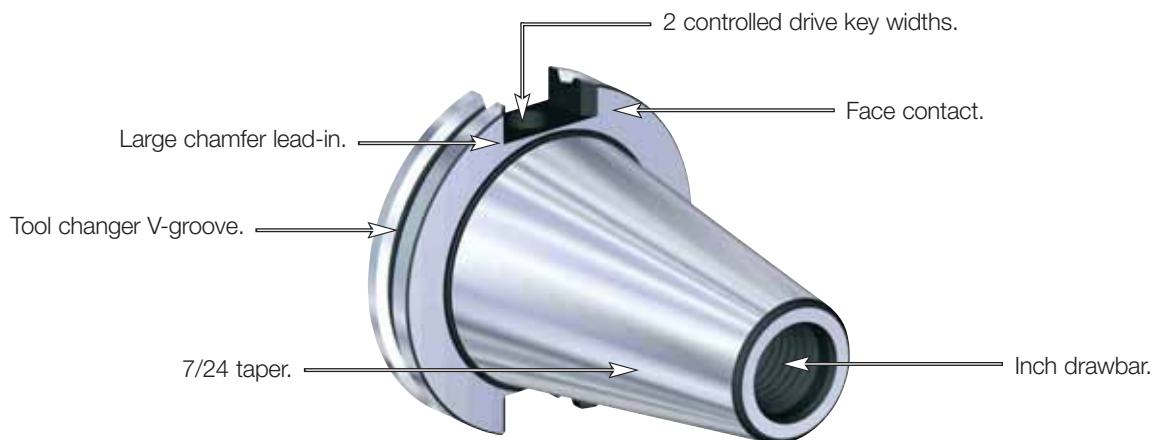
ERICKSON™ Taper Face Contact Shank Tooling System • CVKV40 Series

Primary Application

ERICKSON Taper Face CV Contact Taper Tooling is manufactured from premium materials and to the latest ANSI B5.50 specification standard. Controlled, increased flange thickness to the rear of the flange gains face contact between spindle and holder. The CVKV40 tools are prebalanced to a high specification that will perform effectively up to 20,000 RPM. For any applications higher than 20,000 RPM, Kennametal recommends that the complete toolholder assembly (toolholder, retention knobs, collets, hardware, and cutting tools) be balanced as one identity.

Features and Benefits

- ANSI B5.50 7/24 taper.
- Standard 5/8-11 drawbar thread.
- High axial repeatability due to face contact.
- High radial positioning due to controlled, tighter drive key widths.
- All tools set to form AD coolant specification. Many can be converted to form B style.
- Maximum 20,000 RPM.
- Maximum 100 bar (1,500 psi) coolant pressure.



Drive key slots are unequal depths. Detent hole identifies shallow drive key slot.

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



CVKV40BTG50100M

CVKV

Shank Style

ANSI B5.50
Face Contact

40

Shank Taper Size

40 = 40
50 = 50

B

Special Feature
(optional)

B =
DIN form B coolant feature,
tool shipped to AD
specification
(design allows conversion
to form B style)

(blank) =
(no "B" or "Z") — tool built
to form A/AD coolant style

HPV =
High performance and
balanceable

TD =
Tunable

TG

Toolholder Style

50

Toolholder Size

100

Tool Length

(Gage line
on taper to
front of tool)

inch
xxx = x.xx

M

Identification Value

M =
Tool built to metric values and has
metric retention thread

- BB** = Bar blank
- EM** = End mill adapter
- ER** = DIN 6499 single-angle collet chuck
- KM** = KM™ adapter
- SM2C** = Shell mill adapter with coolant and small diameter
- SMC** = Shell mill adapter with coolant
- TG** = Tremendous Grip single-angle collet chuck
- TT** = Shrink Fit thermo toolholder
- TTHT** = Shrink Fit thermo toolholder — high torque

TG =
Collet series xx (50), xxx (100)

EM =
I.D. size: metric — xx = xx, (20);
inch — xxx = x.xx, (075)

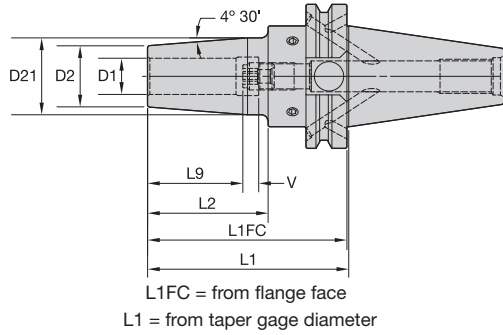
SM =
O.D. size: metric — xx = xx, (20);
inch — xxx = x.xx, (075)

CVKV40 Shank Tools

Shrink Fit Toolholders General Purpose (GP)



- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide and HSS cutting tools (requirements below).



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
6	h6	0,000/-0,008
8 & 10	h6	0,000/-0,009
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

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TT GP HPV MM-CVKV Form B/AD



order number	catalog number	D1	D2	D21	L1	L1FC	L2	L9	V	stop screw	wrench size stop screw	kg
3860164	CVKV40BHPVTT06M350	6	21	26,90	88,90	87,90	53,15	26	10	TTSS05014M	2,5mm	1,18
3860165	CVKV40BHPVTT08M350	8	21	26,90	88,90	87,90	53,15	26	10	TTSS06014M	3mm	1,18
3860166	CVKV40BHPVTT10M350	10	24	31,00	88,90	87,90	53,15	31	10	TTSS08014M	4mm	1,22
3860167	CVKV40BHPVTT12M350	12	24	31,00	88,90	87,90	53,15	36	10	TTSS10014M	5mm	1,21
3860168	CVKV40BHPVTT14M350	14	27	33,90	88,90	87,90	53,15	36	10	TTSS10014M	5mm	1,25
3860169	CVKV40BHPVTT16M350	16	27	33,90	88,90	87,90	53,15	39	10	TTSS12014M	6mm	1,22
3860170	CVKV40BHPVTT18M400	18	33	44,45	101,60	100,60	82,55	39	10	TTSS12014M	6mm	1,47
3860171	CVKV40BHPVTT20M400	20	33	44,45	101,60	100,60	82,55	41	10	TTSS16014M	8mm	1,43
3860172	CVKV40BHPVTT25M400	25	44	52,90	101,60	100,60	82,55	47	10	TTSS16014M	8mm	1,73
3860173	CVKV40BHPVTT32M400	32	44	52,90	101,60	100,60	82,55	51	10	TTSS16014M	8mm	1,56

(continued)

CVKV40 Shank Tools

(TT GP HPV CVKV Form B/AD continued)

Cutting Tool Shank Requirements inch (industry standard)

cutting tool shank diameters	tolerance
1/4, 5/16, & 3/8	.0000/- .0004
7/16, 1/2, 9/16, 5/8, & 11/16	.0000/- .0004
3/4, 7/8, 1, & 1-1/4	.0000/- .0005

■ TT GP HPV IN-CVKV Form B/AD



order number	catalog number	D1	D2	D21	L1	L1FC	L2	L9	V	stop screw	wrench size stop screw	lbs
3860008	CVKV40BHPVTT025350	1/4	.83	1.06	3.50	3.46	2.09	1.02	.39	TTSS05014M	2,5mm	2.61
3860009	CVKV40BHPVTT031350	5/16	.83	1.06	3.50	3.46	2.09	1.02	.39	TTSS06014M	3mm	2.59
3860010	CVKV40BHPVTT038375	3/8	.94	1.26	3.75	3.71	2.34	1.22	.39	TTSS08014M	4mm	2.78
3860011	CVKV40BHPVTT044375	7/16	.94	1.26	3.75	3.71	2.34	1.42	.39	TTSS10014M	5mm	2.75
3860012	CVKV40BHPVTT050375	1/2	.94	1.26	3.75	3.71	2.34	1.42	.39	TTSS10014M	5mm	2.73
3860013	CVKV40BHPVTT056375	9/16	1.06	1.33	3.75	3.71	2.34	1.42	.39	TTSS10014M	5mm	2.84
3860014	CVKV40BHPVTT062375	5/8	1.06	1.33	3.75	3.71	2.34	1.54	.39	TTSS12014M	6mm	2.79
3860015	CVKV40BHPVTT068400	11/16	1.30	1.75	4.00	3.96	3.25	1.54	.39	TTSS12014M	6mm	3.25
3860016	CVKV40BHPVTT075400	3/4	1.30	1.75	4.00	3.96	3.25	1.61	.39	TTSS12014M	8mm	3.17
3860017	CVKV40BHPVTT088400	7/8	1.30	1.75	4.00	3.96	3.25	1.61	.39	TTSS16014M	8mm	3.09
3860018	CVKV40BHPVTT100400	1	1.73	2.08	4.00	3.96	3.25	1.85	.39	TTSS16014M	8mm	3.79
3860019	CVKV40BHPVTT125400	1 1/4	1.73	2.08	4.00	3.96	3.25	2.01	.39	TTSS16014M	8mm	3.46

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Shrink Fit technical section, see page M78.

Supplied with stop screw.

Adjusting stop screw gage, see page M81.

Optional M6~1.0P x 5mm lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.

For retention knobs, see page L45.

For Shrink Fit machine and accessories, see pages L12-L13.

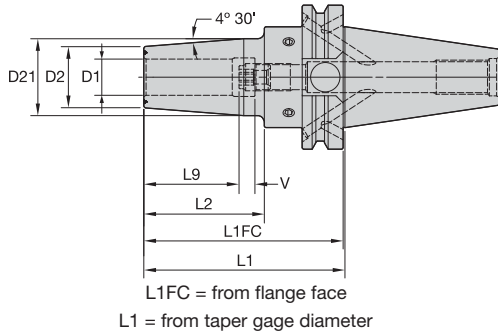
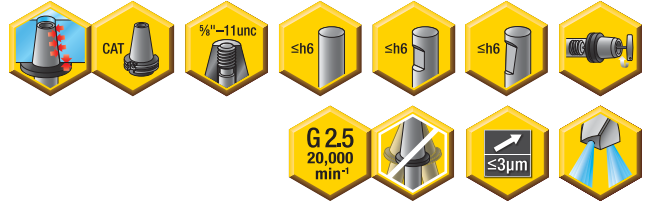
<p>Form AD</p>					
<p>Form B</p>					
			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

CVKV40 Shank Tools

Shrink Fit Toolholders High Torque (HT)



- 30–50% higher clamping torque compared to GP line.
- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide only, designated by groove in front face (requirements below).
- 10 kW power or greater Shrink Fit device must be used.



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
12, 16	h6	0,000/-0,011
20, 25	h6	0,000/-0,013
32	h6	0,000/-0,016

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■ TT HT HPV MM-CVKV Form B/AD



order number	catalog number	D1	D2	D21	L1	L1FC	L2	L9	V	stop screw	wrench size stop screw	kg
3860174	CVKV40BHPVTHT12M350	12	24	31,00	88,90	87,90	53,15	36	10	TTSS10014M	5mm	1,21
3860175	CVKV40BHPVTHT14M350	14	27	33,90	88,90	87,90	53,15	36	10	TTSS10014M	5mm	1,26
3860176	CVKV40BHPVTHT16M350	16	27	33,90	88,90	87,90	53,15	39	10	TTSS12014M	6mm	1,22
3860177	CVKV40BHPVTHT18M400	18	33	44,45	101,60	100,60	82,55	39	10	TTSS12014M	6mm	1,47
3860178	CVKV40BHPVTHT20M400	20	33	44,45	101,60	100,60	82,55	41	10	TTSS16014M	8mm	1,43
3860179	CVKV40BHPVTHT25M400	25	44	52,90	101,60	100,60	82,55	47	10	TTSS16014M	8mm	1,73
3860180	CVKV40BHPVTHT32M400	32	44	52,90	101,60	100,60	82,55	51	10	TTSS16014M	8mm	1,56

(continued)

(TT HT HPV CVKV Form B/AD continued)

Cutting Tool Shank Requirements inch (industry standard)

cutting tool shank diameters	tolerance
1/2, 9/16, 5/8, & 11/16	.0000/- .0004
3/4, 7/8, 1, & 1-1/4	.0000/- .0005

■ TT HT HPV IN-CVKV Form B/AD



order number	catalog number	D1	D2	D21	L1	L1FC	L2	L9	V	stop screw	wrench size stop screw	lbs
3860020	CVKV40BHPVTTHT050375	1/2	.94	1.26	3.75	3.71	2.34	1.42	.39	TTSS10014M	5mm	2.76
3860021	CVKV40BHPVTTHT056375	9/16	1.06	1.33	3.75	3.71	2.34	1.42	.39	TTSS10014M	5mm	2.84
3860022	CVKV40BHPVTTHT062375	5/8	1.06	1.33	3.75	3.71	2.34	1.54	.39	TTSS12014M	6mm	2.79
3860023	CVKV40BHPVTTHT068400	11/16	1.30	1.75	4.00	3.96	3.25	1.54	.39	TTSS12014M	6mm	3.25
3860024	CVKV40BHPVTTHT075400	3/4	1.30	1.75	4.00	3.96	3.25	1.61	.39	TTSS16014M	8mm	3.18
3860025	CVKV40BHPVTTHT088400	7/8	1.30	1.75	4.00	3.96	3.25	1.61	.39	TTSS16014M	8mm	3.09
3860026	CVKV40BHPVTTHT100400	1	1.73	2.08	4.00	3.96	3.25	1.85	.39	TTSS16014M	8mm	3.79
3860027	CVKV40BHPVTTHT125400	1 1/4	1.73	2.08	4.00	3.96	3.25	2.01	.39	TTSS16014M	8mm	3.46

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Shrink Fit technical section, see page M78.

Supplied with stop screw.

Adjusting stop screw gage, see page M81.

Optional M6~1.0P x 5mm lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.

For retention knobs, see page L45.

For Shrink Fit machine and accessories, see pages L12-L13.

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



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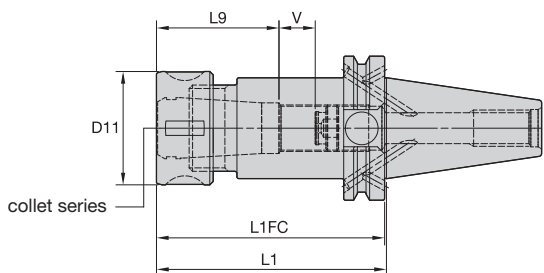
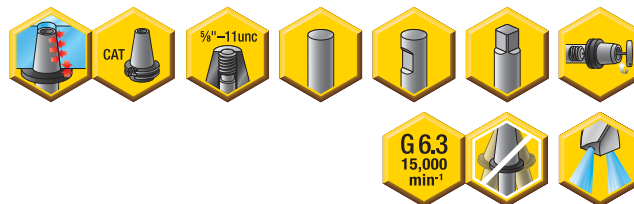
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- Tremendous Grip (3:1 advantage).



L1FC = from flange face
L1 = from taper gage diameter



CVKV40 Shank Tools

TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG75	2,6	20,0	3/64	3/4
TG100	2,6	25,5	5/64	1

ERICKSON

■ TG Round-CVKV Form B/AD



order number	catalog number	collet series	D11	L1	L1FC	L9	V	locknut	wrench	Nm	stop screw	wrench size stop screw	kg
3860134	CVKV40BTG075250G	TG75	50	63,50	62,50	50	13	LNA075M	HSW45M	136	SS081041G	4mm & 5/32	1,15
3860135	CVKV40BTG075400G	TG75	50	101,60	100,60	50	33	LNA075M	HSW45M	136	SS081041G	4mm & 5/32	1,55
3860136	CVKV40BTG075600G	TG75	50	152,40	151,40	50	93	LNA075M	HSW45M	136	SS081041G	4mm & 5/32	2,04
3860137	CVKV40BTG100275G	TG100	60	69,85	68,85	64	8	LNA100M	HSW58M	203	SS112041G	4mm & 5/32	1,27
3860138	CVKV40BTG100400G	TG100	60	101,60	100,60	64	24	LNA100M	HSW58M	203	SS112041G	4mm & 5/32	1,59
3860139	CVKV40BTG100600G	TG100	60	152,40	151,40	64	72	LNA100M	HSW58M	203	SS112041G	4mm & 5/32	2,69

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool,

then tighten to the recommended tightening torque.

Collet chuck technical section, see page M98.

Supplied with locknut and stop screw.

Locknut wrench must be ordered separately.

Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16–L17.

Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.

Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.

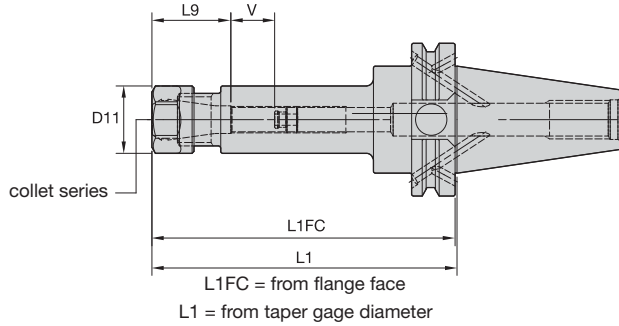
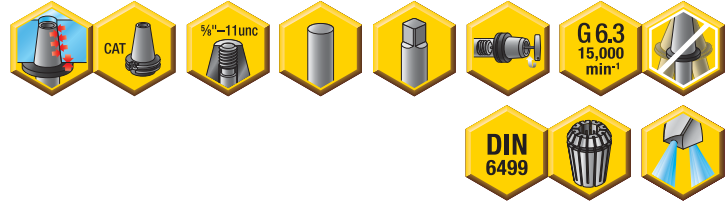
TG standard straight-bore collets, see page J10.

TG tap collets, see page J10.

For retention knobs, see page L45.

Form AD					
Form B					
	40	(2x) MS2221S	2,5mm		
	50	(2x) MS1296S	3mm		

- Grip (2:1 advantage).



CVKV40 Shank Tools

ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER16	0,5	10,0	.02	.41
ER20	0,5	13,0	.02	.50
ER25	1,0	16,0	.04	.63
ER32	2,0	20,0	.08	.81
ER40	3,0	26,0	.12	1.00

ERICKSON

■ ER Hex-CVKV Form B/AD

order number	catalog number	collet series	D11	L1	L1FC	L9	V	kg
3860218	CVKV40BER16250	ER16	28	63,5	62,5	32	33	1,07
3860220	CVKV40BER16500	ER16	28	127,0	126,0	32	38	1,31
3860221	CVKV40BER20250	ER20	34	63,5	62,5	36	26	1,07
3860222	CVKV40BER20600	ER20	34	152,4	151,4	36	44	1,60

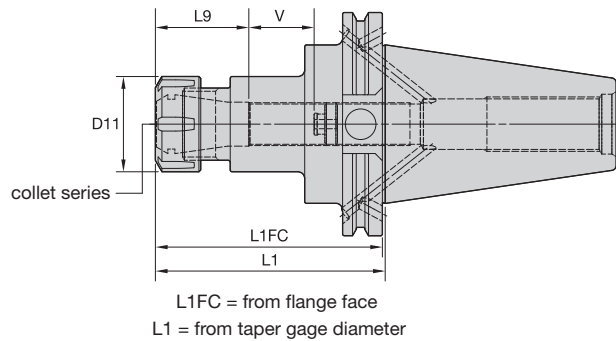
■ Spare Parts



catalog number	locknut	wrench	counterbore collet torque (Nm)	straight collet torque (Nm)	stop screw	wrench size stop screw
CVKV40BER16250	LNHSER16M	OEW25M	40	56	SS044038G	4mm & 5/32
CVKV40BER16500	LNHSER16M	OEW25M	40	56	SS044038G	4mm & 5/32
CVKV40BER20250	LNHSER20M	OEW30M	32	80	SS056041G	4mm & 5/32
CVKV40BER20600	LNHSER20M	OEW30M	32	80	SS056041G	4mm & 5/32

(continued)

(ER CVKV Form B/AD continued)



CVKV40 Shank Tools

ER Round-CVKV Form B/AD

order number	catalog number	collet series	D11	L1	L1FC	L9	V	kg
3860223	CVKV40BER25250	ER25	42	63,5	62,5	40	16	1,09
3860224	CVKV40BER25600	ER25	42	152,4	151,4	40	60	1,89
3860225	CVKV40BER32275	ER32	50	69,9	68,9	46	11	1,13
3860226	CVKV40BER32600	ER32	50	152,4	151,4	46	54	1,95
3860227	CVKV40BER40300	ER40	63	76,2	75,2	52	7	1,27
3860228	CVKV40BER40600	ER40	63	152,4	151,4	52	48	2,03

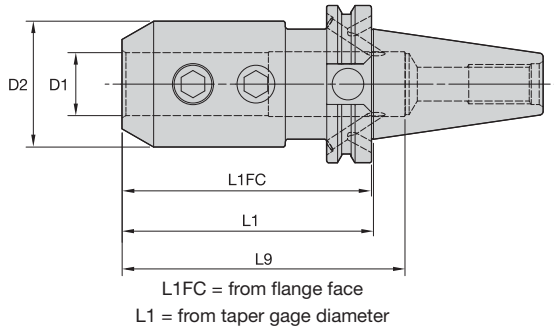
Spare Parts



catalog number	locknut	wrench	Nm	stop screw	wrench size stop screw
CVKV40BER25250	LNSER25M	ER25WM	104	SS075041G	4mm & 5/32
CVKV40BER25600	LNSER25M	ER25WM	104	SS075041G	4mm & 5/32
CVKV40BER32275	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32
CVKV40BER32600	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32
CVKV40BER40300	LNSER40M	ER40WM	176	SS112041G	4mm & 5/32
CVKV40BER40600	LNSER40M	ER40WM	176	SS112041G	4mm & 5/32

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.
 For retention knobs, see page L45.

Form AD	✓			
Form B				
			40	(2x) MS2221S 2,5mm
			50	(2x) MS1296S 3mm



CVKV40 Shank Tools

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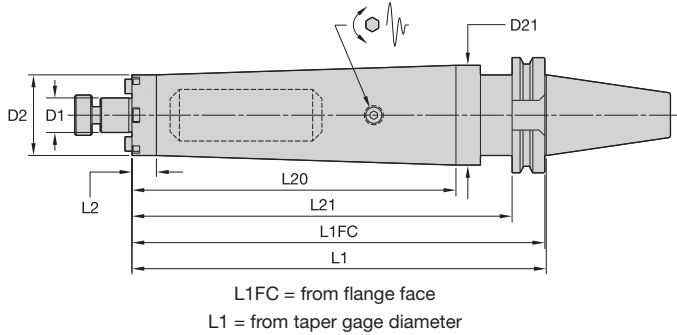
■ EM IN-CVKV Form B/AD



order number	catalog number	D1	D2	L1	L1FC	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
3860087	CVKV40BEM012250	1/8	.69	2.50	2.46	4.01	S1045PKG	3/32	3	2.28
3860088	CVKV40BEM018250	3/16	.69	2.50	2.46	4.01	S1045PKG	3/32	3	2.28
3860089	CVKV40BEM025250	1/4	.78	2.50	2.46	4.01	ELS025025PKG	1/8	5	2.31
3860090	CVKV40BEM031250	5/16	1.00	2.50	2.46	4.01	ELS031031PKG	5/32	11	2.36
3860091	CVKV40BEM038250	3/8	1.00	2.50	2.46	4.01	ELS038031PKG	3/16	15	2.36
3860092	CVKV40BEM044250	7/16	1.25	2.50	2.46	4.01	ELS044038PKG	7/32	20	2.47
3860123	CVKV40BEM050300	1/2	1.38	3.00	2.96	4.51	ELS044038PKG	7/32	20	2.66
3860124	CVKV40BEM050450	1/2	1.38	4.50	4.46	6.01	ELS044038PKG	7/32	20	3.20
3860125	CVKV40BEM062300	5/8	1.63	3.00	2.96	3.56	ELS056050PKG	1/4	40	2.81
3860126	CVKV40BEM062450	5/8	1.63	4.50	4.46	3.56	ELS056050PKG	1/4	40	3.59
3860127	CVKV40BEM075300	3/4	1.75	3.00	2.96	3.94	ELS062050PKG	5/16	70	2.77
3860128	CVKV40BEM075450	3/4	1.75	4.50	4.46	3.94	ELS062050PKG	5/16	70	3.70
3860129	CVKV40BEM088400	7/8	2.00	4.00	3.96	4.19	ELS062050PKG	5/16	70	3.47
3860130	CVKV40BEM100400	1	2.00	4.00	3.96	4.49	ELS075056PKG	3/8	110	3.43
3860131	CVKV40BEM125450	1 1/4	2.50	4.50	4.46	2.39	ELS075062PKG	3/8	110	5.09
3860132	CVKV40BEM150500	1 1/2	2.75	5.00	4.96	2.82	ELS075069PKG	3/8	110	6.08

NOTE: Do not overtighten lock screw; use torque recommendations above.
Supplied with lock screw.
Lock screw wrench not included.
For retention knobs, see page L46.

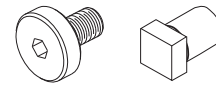
Form AD	✓				
Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



CVKV40 Shank Tools

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■ SMC TD Lock IN-CVKV Form B/AD



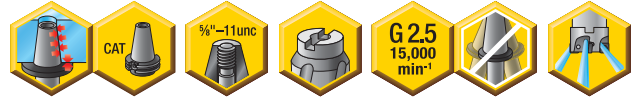
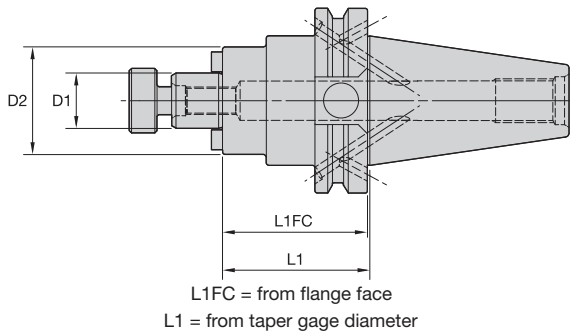
order number	catalog number	D1	D2	D21	L1	L1FC	L2	L20	L21	lock screw	drive key	wrench size lock screw	lbs
4135497	CVKV40BTDSMC0750900	3/4	1.75	2.17	9.00	8.96	.53	7.03	8.25	KLS07	KDK05	1/4	8.39
4135498	CVKV40BTDSMC1000900	1	2.19	—	9.00	8.96	8.25	—	—	KLS10	KDK06	5/16	10.03

NOTE: Do not overtighten lock screw.
Supplied with lock screw and drive keys.
Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
Lock screw wrench not included.
For retention knob, see page L46.

Form AD					
Form B					
			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

CVKV40 Shank Tools

Shell Mill Adapters with Through Coolant



CVKV40 Shank Tools

ERICKSON™

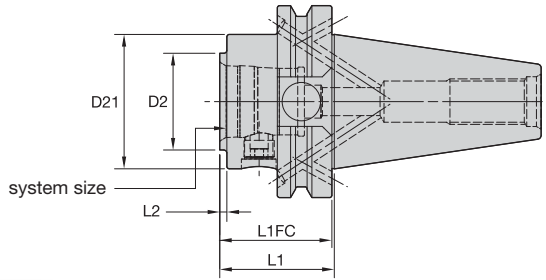
■ SMC TD Lock IN-CVKV Form B/AD



order number	catalog number	D1	D2	L1	L1FC	lock screw	drive key	wrench size retention screw	lbs
3870017	CVKV40BSM2C050200	1/2	1.20	2.000	1.961	KLS05	KDK04	3/16	2.46
3870019	CVKV40BSM2C050400	1/2	1.20	4.000	3.961	KLS05	KDK04	3/16	2.99
3870016	CVKV40BSMC050200	1/2	1.44	2.000	1.961	KLS05	KDK04	3/16	2.51
3870018	CVKV40BSMC050400	1/2	1.44	4.000	3.961	KLS05	KDK04	3/16	3.30
3870021	CVKV40BSM2C075200	3/4	1.46	2.000	1.961	KLS07	—	1/4	2.55
3870023	CVKV40BSM2C075400	3/4	1.46	4.000	3.961	KLS07	—	1/4	3.37
3870025	CVKV40BSM2C075600	3/4	1.46	6.000	5.961	KLS07	—	1/4	4.19
3870020	CVKV40BSMC075200	3/4	1.75	2.000	1.961	KLS07	KDK05	1/4	2.68
3870022	CVKV40BSMC075400	3/4	1.75	4.000	3.961	KLS07	KDK05	1/4	3.91
3870024	CVKV40BSMC075600	3/4	1.75	6.000	5.961	KLS07	KDK05	1/4	5.15
3870027	CVKV40BSM2C100200	1	2.19	2.000	1.961	KLS10	KDK06	5/16	3.00
3870029	CVKV40BSM2C100400	1	2.19	4.000	3.961	KLS10	KDK06	5/16	4.33
3870031	CVKV40BSM2C100600	1	2.19	6.000	5.961	KLS10	KDK06	5/16	5.62
3870026	CVKV40BSMC100200	1	2.75	2.000	1.961	KLS10	KDK06	5/16	3.31
3870028	CVKV40BSMC100400	1	2.75	4.000	3.961	KLS10	KDK06	5/16	4.78
3870030	CVKV40BSMC100600	1	2.75	6.000	5.961	KLS10	KDK06	5/16	6.07
3870032	CVKV40BSMC125200	1 1/4	2.88	2.000	1.961	KLS12	KDK08	5/16	3.98
3870033	CVKV40BSMC125400	1 1/4	2.88	4.000	3.961	KLS12	KDK08	5/16	5.22
3870034	CVKV40BSMC150250	1 1/2	3.81	2.500	2.461	KLS15	KDK10	3/8	5.60
3870035	CVKV40BSMC150400	1 1/2	3.81	4.000	3.961	KLS15	KDK10	3/8	6.86

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw and drive keys.
 Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
 Lock screw wrench not included.
 For retention knobs, see page L45.

Form AD					
Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



L1FC = from flange face
L1 = from taper gage diameter



CVKV40 Shank Tools

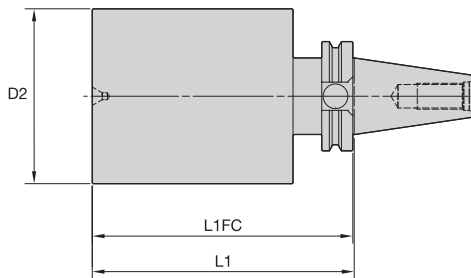
■ KM-CVKV Form B/AD

order number	catalog number	system size	D2	D21	L1	L1FC	L2	KM spare parts package	wrench size actuation screw	Nm	kg
3815241	CVKV40BKM32150	KM32	32	44,5	38,1	37,1	2,4	KM32PKG3L	5mm	8-11	1,00
3815242	CVKV40BKM32350	KM32	32	44,5	88,9	87,9	53,2	KM32PKG3S	5mm	8-11	1,27
3815313	CVKV40BKM40175	KM40	40	44,5	44,5	43,5	7,7	KM40PKG3S	6mm	12-16	1,03
3815314	CVKV40BKM40400	KM40	40	44,5	101,6	100,6	65,9	KM40PKG3S	6mm	12-16	1,53
3815315	CVKV40BKM50350	KM50	50	44,5	88,9	87,9	69,9	KM50PKG3S	10mm	27-34	1,60
3815316	CVKV40BKM50475	KM50	50	44,5	120,7	119,7	101,6	KM50PKG3S	10mm	27-34	1,95

NOTE: Do not overtorque actuation screw; use torque recommendations above.
Supplied with KM actuation mechanism.
For retention knobs, see page L45.

Form	Actuation	Wrench	Actuation screw	Retention knob
Form AD	✓			
Form B	↺	40	(2x) MS2221S	2,5mm
	↺	50	(2x) MS1296S	3mm

• Machinable front 20–30 RW C.



L1FC = from flange face
L1 = from taper gage diameter

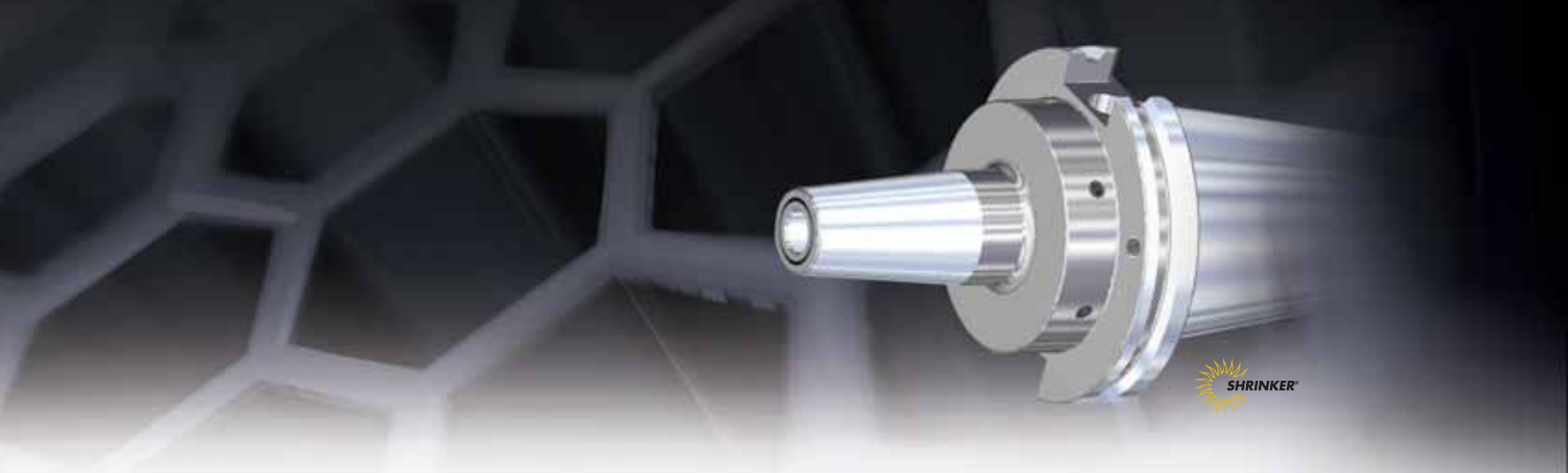


■ BB-CVKV Form A



order number	catalog number	D2	L1	L1FC	kg
3815310	CVKV40BB400600	101,6	152,4	151,4	8,46
3815311	CVKV40BB400120	101,6	304,8	303,8	18,14

NOTE: For retention knobs, see page L45.



ERICKSON™ Taper Face Contact Shank Tooling System • CVKV50 Series

Primary Application

ERICKSON Taper Face CV Contact Taper Tooling is manufactured from premium materials and to the latest ANSI B5.50 specification standard. Controlled, increased flange thickness to the rear of the flange gains face contact between spindle and holder. The CVKV50 tools are prebalanced to a high specification that will perform effectively up to 20,000 RPM. For any applications higher than 20,000 RPM, Kennametal recommends that the complete toolholder assembly (toolholder, retention knobs, collets, hardware, and cutting tools) be balanced as one identity.





Features and Benefits

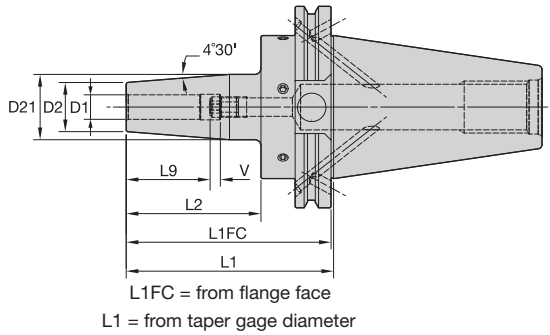
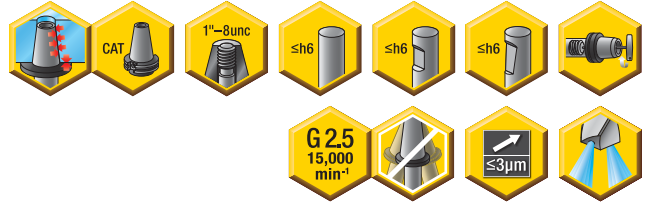
- ANSI B5.50 7/24 taper.
- Standard 1-8 drawbar thread.
- High axial repeatability due to face contact.
- High radial positioning due to controlled, tighter drive key widths.
- All tools set to form AD coolant specification. Many can be converted to form B style.
- Maximum 20,000 RPM.
- Maximum 100 bar (1,500 psi) coolant pressure.

CVKV50 Shank Tools

Shrink Fit Toolholders General Purpose (GP)



- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide and HSS cutting tools (requirements below).



Cutting Tool Shank Requirements
metric (ISO standard)

1cutting tool shank diameter	tolerance	
6	h6	0,000/-0,008
8 & 10	h6	0,000/-0,009
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

CVKV50 Shank Tools

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■ TT GP HPV MM-CVKV Form B/AD



order number	catalog number	D1	D2	D21	L1	L1FC	L2	L9	V	stop screw	wrench size stop screw	kg
3860147	CVKV50BHPVTT06M350	6	21	27	88,90	87,40	53,15	26	10	TTSS05014M	2,5mm	3,17
3860148	CVKV50BHPVTT08M350	8	21	27	88,90	87,40	53,15	26	10	TTSS06014M	3mm	3,17
3860149	CVKV50BHPVTT10M375	10	24	32	95,25	93,75	59,50	31	10	TTSS08014M	4mm	3,25
3860150	CVKV50BHPVTT12M400	12	24	32	101,60	100,10	65,85	36	10	TTSS10014M	5mm	3,27
3860151	CVKV50BHPVTT14M400	14	27	34	101,60	100,10	65,85	36	10	TTSS10014M	5mm	3,32
3860152	CVKV50BHPVTT16M400	16	27	34	101,60	100,10	65,85	39	10	TTSS12014M	6mm	3,29
3860153	CVKV50BHPVTT18M400	18	33	42	101,60	100,10	65,85	39	10	TTSS12014M	6mm	3,46
3860154	CVKV50BHPVTT20M400	20	33	42	101,60	100,10	65,85	41	10	TTSS16014M	8mm	3,42
3860155	CVKV50BHPVTT25M400	25	44	53	101,60	100,10	65,85	47	10	TTSS16014M	8mm	3,72
3860156	CVKV50BHPVTT32M400	32	44	53	101,60	100,10	65,85	51	10	TTSS16014M	8mm	3,56

(continued)

(TT GP HPV CVKV Form B/AD continued)

Cutting Tool Shank Requirements inch (industry standard)

cutting tool shank diameters	tolerance
1/4, 5/16, & 3/8	.0000/-0.0004
7/16, 1/2, 9/16, 5/8, & 11/16	.0000/-0.0004
3/4, 7/8, 1, 1-1/4, 1-1/2, & 2	.0000/-0.0005

■ TT GP HPV IN-CVKV Form B/AD



order number	catalog number	D1	D2	D21	L1	L1FC	L2	L9	V	stop screw	wrench size stop screw	lbs
3860047	CVKV50BHPVTT025350	1/4	.83	1.06	3.500	3.441	2.093	1.02	.39	TTSS05014M	2,5mm	6.99
3860048	CVKV50BHPVTT031350	5/16	.83	1.06	3.500	3.441	2.093	1.02	.39	TTSS06014M	3mm	6.98
3860049	CVKV50BHPVTT038375	3/8	.94	1.26	3.750	3.691	2.343	1.22	.39	TTSS08014M	4mm	7.17
3860050	CVKV50BHPVTT044375	7/16	.94	1.26	3.750	3.691	2.343	1.42	.39	TTSS10014M	5mm	7.14
3860051	CVKV50BHPVTT050400	1/2	.94	1.26	4.000	3.941	2.593	1.42	.39	TTSS10014M	5mm	7.20
3860052	CVKV50BHPVTT056400	9/16	1.06	1.33	4.000	3.941	2.593	1.42	.39	TTSS10014M	5mm	7.31
3860093	CVKV50BHPVTT062400	5/8	1.06	1.33	4.000	3.941	2.593	1.54	.39	TTSS12014M	6mm	7.26
3860094	CVKV50BHPVTT068400	11/16	1.30	1.65	4.000	3.941	2.593	1.54	.39	TTSS12014M	6mm	7.63
3860095	CVKV50BHPVTT075400	3/4	1.30	1.65	4.000	3.941	2.593	1.61	.39	TTSS16014M	8mm	7.56
3860096	CVKV50BHPVTT088400	7/8	1.30	1.65	4.000	3.941	2.593	1.61	.39	TTSS16014M	8mm	7.47
3860097	CVKV50BHPVTT100400	1	1.73	2.08	4.000	3.941	2.593	1.85	.39	TTSS16014M	8mm	8.18
3860098	CVKV50BHPVTT125400	1 1/4	1.73	2.08	4.000	3.941	2.593	2.01	.39	TTSS16014M	8mm	7.86
3860099	CVKV50BHPVTT150450	1 1/2	2.36	2.75	4.500	4.441	3.750	2.01	.39	TTSS20014M	10mm	9.88
3860100	CVKV50BHPVTT200450	2	2.72	3.11	4.500	4.441	3.750	2.20	.39	TTSS20014M	10mm	10.15

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.
 Shrink Fit technical section, see page M78.
 Supplied with stop screw.
 Adjusting stop screw gage, see page M81.
 Optional M6~1.0P x 5mm lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.
 For retention knobs, see page L45.
 For Shrink Fit machine and accessories, see pages L12~L13.

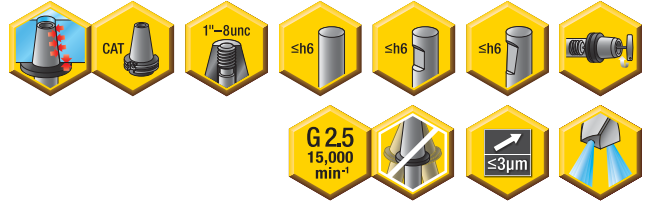
 Form AD					
 Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

CVKV50 Shank Tools

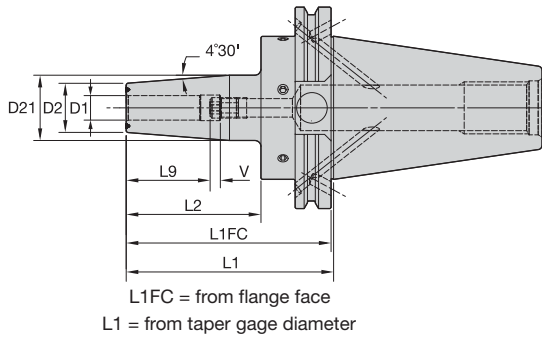
Shrink Fit Toolholders High Torque (HT)



- 30–50% higher clamping torque compared to GP line.
- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide only, designated by groove in front face (requirements below).
- 10 kW power or greater Shrink Fit device must be used.



CVKV50 Shank Tools



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

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■ TT HT HPV MM-CVKV Form B/AD



order number	catalog number	D1	D2	D21	L1	L1FC	L2	L9	V	stop screw	wrench size stop screw	kg
3860157	CVKV50BHPVTHT12M400	12	24	31,90	101,60	100,10	65,85	36	10	TTSS10014M	5mm	3,27
3860158	CVKV50BHPVTHT14M400	14	27	33,90	101,60	100,10	65,85	36	10	TTSS10014M	5mm	3,32
3860159	CVKV50BHPVTHT16M400	16	27	33,90	101,60	100,10	65,85	39	10	TTSS12014M	6mm	3,29
3860160	CVKV50BHPVTHT18M400	18	33	41,90	101,60	100,10	65,85	39	10	TTSS12014M	6mm	3,46
3860161	CVKV50BHPVTHT20M400	20	33	41,90	101,60	100,10	65,85	41	10	TTSS16014M	8mm	3,42
3860162	CVKV50BHPVTHT25M400	25	44	52,90	101,60	100,10	65,85	47	10	TTSS16014M	8mm	3,72
3860163	CVKV50BHPVTHT32M400	32	44	52,90	101,60	100,10	65,85	51	10	TTSS16014M	8mm	3,56

(continued)

(TT HT HPV CVKV Form B/AD continued)

Cutting Tool Shank Requirements inch (industry standard)

cutting tool shank diameters	tolerance
1/2, 9/16, 5/8, & 11/16	.0000/- .0004
3/4, 7/8, 1, 1-1/4, 1-1/2, & 2	.0000/- .0005

■ TT HT HPV IN-CVKV Form B/AD



order number	catalog number	D1	D2	D21	L1	L1FC	L2	L9	V	stop screw	wrench size stop screw	lbs
3860101	CVKV50BHPVTTHT050400	1/2	.94	1.256	4.000	3.941	2.593	1.42	.39	TTSS10014M	5mm	7.20
3860102	CVKV50BHPVTTHT056400	9/16	1.06	1.335	4.000	3.941	2.593	1.42	.39	TTSS10014M	5mm	7.31
3860103	CVKV50BHPVTTHT062400	5/8	1.06	1.335	4.000	3.941	2.593	1.54	.39	TTSS12014M	6mm	7.26
3860104	CVKV50BHPVTTHT068400	11/16	1.30	1.650	4.000	3.941	2.593	1.54	.39	TTSS12014M	6mm	7.63
3860105	CVKV50BHPVTTHT075400	3/4	1.30	1.650	4.000	3.941	2.593	1.61	.39	TTSS16014M	8mm	7.56
3860106	CVKV50BHPVTTHT088400	7/8	1.30	1.650	4.000	3.941	2.593	1.61	.39	TTSS16014M	8mm	7.47
3860107	CVKV50BHPVTTHT100400	1	1.73	2.083	4.000	3.941	2.593	1.85	.39	TTSS16014M	8mm	8.18
3860108	CVKV50BHPVTTHT125400	1 1/4	1.73	2.083	4.000	3.941	2.593	2.01	.39	TTSS16014M	8mm	7.86

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Shrink Fit technical section, see page M78.

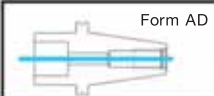








Supplied with stop screw.

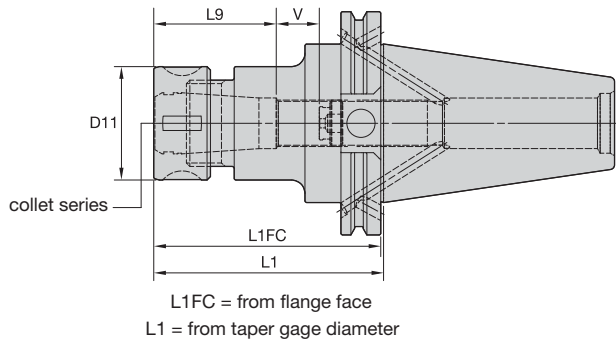
Adjusting stop screw gage, see page M81.

Optional M6~1.0P x 5mm lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.

For retention knobs, see page L45.

For Shrink Fit machine and accessories, see pages L12-L13.

 <p>Form AD</p>					
 <p>Form B</p>			<p>40</p>	<p>(2x) MS2221S</p>	<p>2,5mm</p>
			<p>50</p>	<p>(2x) MS1296S</p>	<p>3mm</p>



CVKV50 Shank Tools

Collet Capacity

TG collet series	mm		inch	
	min	max	min	max
TG75	2,6	20,0	3/64	3/4
TG100	2,6	25,5	5/64	1

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■ TG Round-CVKV Form B/AD



order number	catalog number	collet series	D11	L1	L1FC	L9	V	locknut	wrench	stop screw	wrench size stop screw	Nm	kg
3860140	CVKV50BTG075275G	TG75	50	69,85	68,35	50	24	LNA075M	HSW45M	SS081041G	4mm & 5/32	136	3,26
3860141	CVKV50BTG075400G	TG75	50	101,60	100,10	50	59	LNA075M	HSW45M	SS081041G	4mm & 5/32	136	3,70
3860142	CVKV50BTG075600G	TG75	50	152,40	150,90	50	104	LNA075M	HSW45M	SS081041G	4mm & 5/32	136	4,46
3860143	CVKV50BTG100275G	TG100	60	69,85	68,35	64	12	LNA100M	HSW58M	SS112041G	4mm & 5/32	203	3,26
3860144	CVKV50BTG100400G	TG100	60	101,60	100,10	64	38	LNA100M	HSW58M	SS112041G	4mm & 5/32	203	3,81
3860145	CVKV50BTG100600G	TG100	60	152,40	150,90	64	90	LNA100M	HSW58M	SS112041G	4mm & 5/32	203	4,71

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
Collet chuck technical section, see page M98.
Supplied with locknut and stop screw.
Locknut wrench must be ordered separately.
Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16–L17.
Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.
TG standard straight-bore collets, see page J10.
TG tap collets, see page J10.
For retention knobs, see page L45.

Form AD	✓				
Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



The **SPEED** to **EXCEED**

Solid Carbide Taps

The Kennametal Solid Carbide Taps deliver the accuracy you demand at up to four times the speed of HSS taps. Longer tool life, exceptional thread quality, and an array of sizes for ferrous and non-ferrous materials make our taps the most trusted and productive tools in the industry.

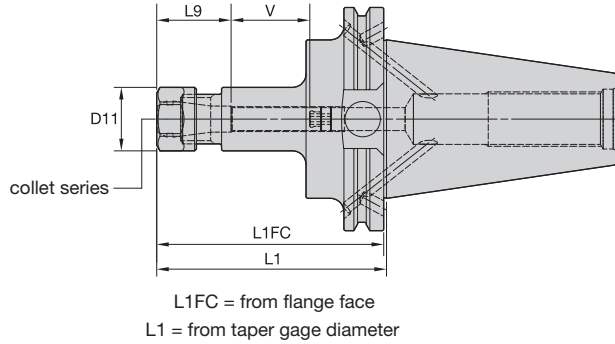
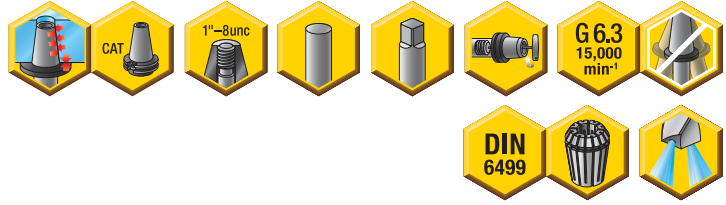
- Reduce your operating costs by up to 65%.
- Workpiece-specific grades: KC7542™ for steels and cast irons, KC7512™ for aluminum.
- Go 4x faster with 4x the service life of conventional HSS offerings.
- Wide array of styles and sizes for through or blind hole applications.

Tap into something great at your Authorized Kennametal Distributor or at www.kennametal.com.

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 **KENNAMETAL®**

- Grip (2:1 advantage).



ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER16	0,5	10,0	.02	.41
ER20	0,5	13,0	.02	.50
ER25	1,0	16,0	.04	.63
ER32	2,0	20,0	.08	.81
ER40	3,0	26,0	.12	1.00

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■ ER Hex-CVKV Form B/AD

order number	catalog number	collet series	D11	L1	L1FC	L9	V	kg
3860229	CVKV50BER16250	ER16	28	63,50	62,00	32	43	3,14
3860230	CVKV50BER16400	ER16	28	101,60	100,10	32	38	3,22
3860231	CVKV50BER20250	ER20	34	63,50	62,00	36	42	3,15
3860232	CVKV50BER20400	ER20	34	101,60	100,10	36	54	3,35

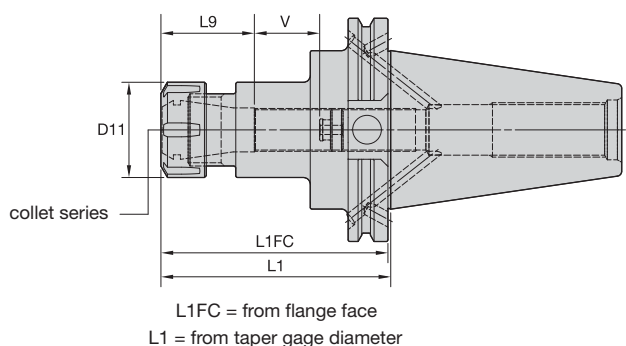
■ Spare Parts



catalog number	locknut	wrench	counterbore collet torque (Nm)	straight collet torque (Nm)	stop screw	wrench size stop screw
CVKV50BER16250	LNHSER16M	OEW25M	40	56	SS044038G	4mm & 5/32
CVKV50BER16400	LNHSER16M	OEW25M	40	56	SS044038G	4mm & 5/32
CVKV50BER20250	LNHSER20M	OEW30M	32	80	SS056041G	4mm & 5/32
CVKV50BER20400	LNHSER20M	OEW30M	32	80	SS056041G	4mm & 5/32

(continued)

(ER CVKV Form B/AD continued)



CVKV50 Shank Tools

ER Round-CVKV Form B/AD

order number	catalog number	collet series	D11	L1	L1FC	L9	V	kg
3860233	CVKV50BER25250	ER25	42	63,50	62,00	40	35	3,14
3860234	CVKV50BER25400	ER25	42	101,60	100,10	40	60	3,47
3860235	CVKV50BER32275	ER32	50	69,85	68,35	46	31	3,17
3860236	CVKV50BER32400	ER32	50	101,60	100,10	46	54	3,57
3860237	CVKV50BER40300	ER40	63	76,20	74,70	52	28	3,32
3860238	CVKV50BER40600	ER40	63	152,40	150,90	52	98	4,85

Spare Parts



catalog number	locknut	wrench	Nm	stop screw	wrench size stop screw
CVKV50BER25250	LNSER25M	ER25WM	104	SS075041G	4mm & 5/32
CVKV50BER25400	LNSER25M	ER25WM	104	SS075041G	4mm & 5/32
CVKV50BER32275	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32
CVKV50BER32400	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32
CVKV50BER40300	LNSER40M	ER40WM	176	SS112041G	4mm & 5/32
CVKV50BER40600	LNSER40M	ER40WM	176	SS112041G	4mm & 5/32

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
Collet chuck technical section, see page M98.
Supplied with locknut and stop screw.
Locknut wrench must be ordered separately.
ER standard straight-bore collets, see page J50.
ER tap collets, see pages J58–J59.
ER TCT tension-only tap collets, see page J60.
For retention knobs, see page L45.

Form AD	✓				
Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



More than just the right tool • the ultimate solution.

That's **Beyond BLAST™**



That's **Different Thinking.**

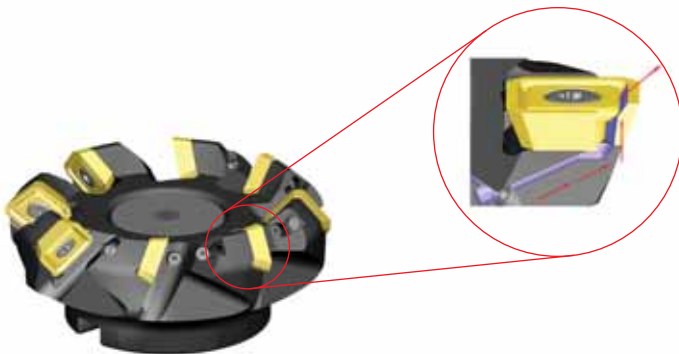
At Kennametal, innovation follows vision. Our revolutionary products and services are inspired by asking “what if?” The solutions that follow — like our Beyond BLAST through-coolant inserts — deliver remarkable results in the world’s most demanding machining environments.

A cutting-edge insert that delivers coolant precisely at the cutting edge. Now that's Different Thinking. That's Kennametal.

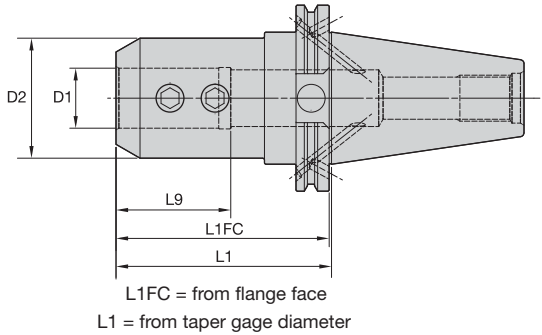
To learn more about your productivity gains using Beyond BLAST technology, visit www.kennametal.com.

Milling

- Beyond BLAST technology uses low-pressure conditions to offer many of the high-pressure performance benefits.
- Delivers superior performance on titanium, using either high- or low-pressure coolant systems.
- Effective thermal management results in reduced cutting temperatures, improved lubricity, superior chip control, and longer tool life.
- Beyond BLAST for milling increases tool life by up to 300% compared with conventional coolant delivery systems.



beyond™ BLAST™



CVKV50 Shank Tools

ERICKSON

EM IN-CVKV Form B/AD



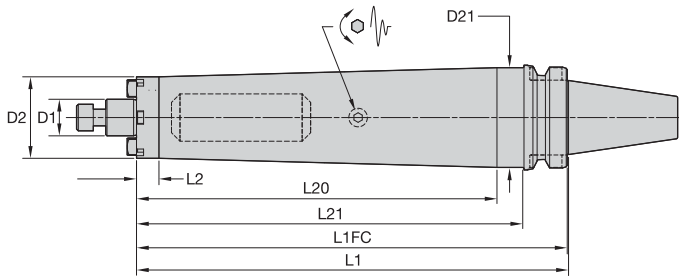
order number	catalog number	D1	D2	L1	L1FC	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
3860109	CVKV50BEM018250	3/16	.688	2.500	2.441	4.689	S1045PKG	3/32	3	6.66
3860110	CVKV50BEM025250	1/4	.780	2.500	2.441	4.689	ELS025025PKG	1/8	5	6.69
3860111	CVKV50BEM031250	5/16	1.000	2.500	2.441	4.689	ELS031031PKG	5/32	11	6.72
3860112	CVKV50BEM038250	3/8	1.000	2.500	2.441	4.689	ELS038031PKG	3/16	15	6.75
3860183	CVKV50BEM044250	7/16	1.250	2.500	2.441	4.689	ELS044038PKG	7/32	20	6.88
3860184	CVKV50BEM050300	1/2	1.375	3.000	2.941	5.189	ELS044038PKG	7/32	20	7.03
3860185	CVKV50BEM050450	1/2	1.375	4.500	4.441	6.689	ELS044038PKG	7/32	20	7.59
3860186	CVKV50BEM062300	5/8	1.625	3.000	2.941	5.189	ELS056050PKG	1/4	40	7.25
3860187	CVKV50BEM062450	5/8	1.625	4.500	4.441	6.689	ELS056050PKG	1/4	40	7.95
3860188	CVKV50BEM075300	3/4	1.750	3.000	2.941	5.189	ELS062050PKG	5/16	70	7.32
3860189	CVKV50BEM075450	3/4	1.750	4.500	4.441	6.689	ELS062050PKG	5/16	70	8.12
3860190	CVKV50BEM088400	7/8	2.000	4.000	3.941	4.190	ELS062050PKG	5/16	70	8.23
3860191	CVKV50BEM100450	1	2.000	4.500	4.441	4.493	ELS075056PKG	3/8	110	8.32
3860192	CVKV50BEM125450	1 1/4	2.500	4.500	4.441	2.390	ELS075062PKG	3/8	110	9.23
3860193	CVKV50BEM150450	1 1/2	2.750	4.500	4.441	2.820	ELS075069PKG	3/8	110	9.35
3860194	CVKV50BEM200600	2	3.750	6.000	5.941	3.375	ELS100088PKG	1/2	150	15.96

NOTE: Do not overtighten lock screw; use torque recommendations above.
Supplied with lock screw.
Lock screw wrench not included.
For retention knobs, see page L45.

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

CVKV50 Shank Tools

Tunable Shell Mill Adapters with Through Coolant



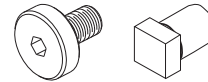
L1FC = from flange face
L1 = from taper gage diameter



CVKV50 Shank Tools

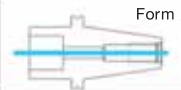








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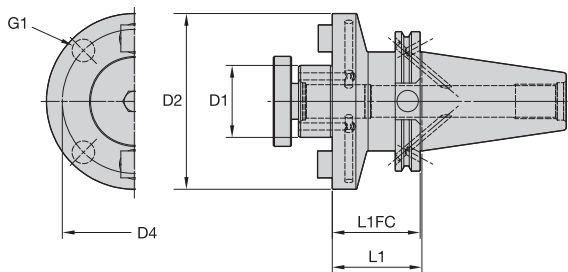
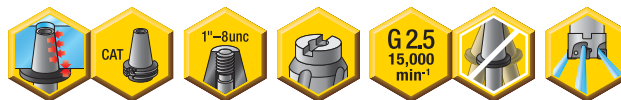
■ SMC TD Lock IN-CVKV Form B/AD



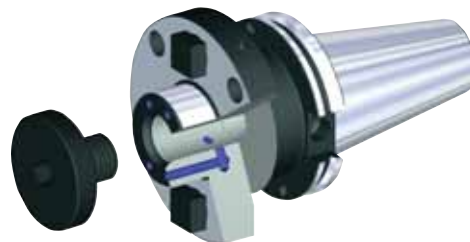
order number	catalog number	D1	D2	D21	L1	L1FC	L2	L20	L21	lock screw	drive key	wrench size lock screw	lbs
4135499	CVKV50BTDSMC0751050	3/4	1.75	2.75	10.500	10.441	.53	9.09	9.750	KLS07	KDK05	1/4	16.60
4135500	CVKV50BTDSMC1001250	1	2.75	—	12.500	12.441	11.75	—	—	KLS10	KDK06	5/16	24.68
4135501	CVKV50BTDSMC1251300	1 1/4	2.88	—	13.000	12.941	12.25	—	—	KLS12	KDK08	5/16	31.97

NOTE: Do not overtighten lock screw.
Supplied with lock screw and drive keys.
Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
Lock screw wrench not included.
For retention knobs, see page L45.

 Form AD					
 Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



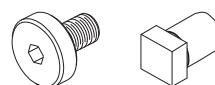
L1FC = from flange face
L1 = from taper gage diameter



CVKV50 Shank Tools

ERICKSON

■ SMC Lock IN-CVKV Form B/AD



order number	catalog number	D1	D2	D4	G1	L1	L1FC	lock screw	drive key	wrench size retention screw	lbs
3861304	CVKV50BSM2C075200	3/4	1.46	—	—	2.000	1.941	KLS07	—	1/4	7.10
3861306	CVKV50BSM2C075400	3/4	1.46	—	—	4.000	3.941	KLS07	—	1/4	7.69
3861308	CVKV50BSM2C075600	3/4	1.46	—	—	6.000	5.941	KLS07	—	1/4	8.45
3861303	CVKV50BSMC075200	3/4	1.75	—	—	2.000	1.941	KLS07	KDK05	1/4	7.16
3861305	CVKV50BSMC075400	3/4	1.75	—	—	4.000	3.941	KLS07	KDK05	1/4	8.17
3861307	CVKV50BSMC075600	3/4	1.75	—	—	6.000	5.941	KLS07	KDK05	1/4	9.31
3861310	CVKV50BSM2C100200	1	2.19	—	—	2.000	1.941	KLS10	KDK06	5/16	7.35
3861312	CVKV50BSM2C100400	1	2.19	—	—	4.000	3.941	KLS10	KDK06	5/16	9.21
3861314	CVKV50BSM2C100600	1	2.19	—	—	6.000	5.941	KLS10	KDK06	5/16	11.06
3861309	CVKV50BSMC100200	1	2.75	—	—	2.000	1.941	KLS10	KDK06	5/16	7.71
3861311	CVKV50BSMC100400	1	2.75	—	—	4.000	3.941	KLS10	KDK06	5/16	10.80
3861313	CVKV50BSMC100600	1	2.75	—	—	6.000	5.941	KLS10	KDK06	5/16	13.89
3861315	CVKV50BSMC125200	1 1/4	2.88	—	—	2.000	1.941	KLS12	KDK08	5/16	8.02
3861316	CVKV50BSMC125400	1 1/4	2.88	—	—	4.000	3.941	KLS12	KDK08	5/16	11.06
3861317	CVKV50BSMC125600	1 1/4	2.88	—	—	6.000	5.941	KLS12	KDK08	5/16	14.09
3861318	CVKV50BSMC150250	1 1/2	3.81	—	—	2.500	2.441	KLS15	KDK10	3/8	10.31
3861319	CVKV50BSMC150400	1 1/2	3.81	—	—	4.000	3.941	KLS15	KDK10	3/8	12.60
3861320	CVKV50BSMC150600	1 1/2	3.81	—	—	6.000	5.941	KLS15	KDK10	3/8	15.68
3861321	CVKV50BSMC200250	2	4.88	4.00	0.625-11	2.500	2.441	KLS20	KDK12	9/16	12.38
3861322	CVKV50BSMC200400	2	4.88	4.00	0.625-11	4.000	3.941	KLS20	KDK12	9/16	15.02
3861323	CVKV50BSMC200600	2	4.88	4.00	0.625-11	6.000	5.941	KLS20	KDK12	9/16	18.20
3861324	CVKV50BSMC250250	2 1/2	4.88	4.00	0.625-11	2.500	2.441	—	KDK16	—	13.60
3861325	CVKV50BSMC250400	2 1/2	4.88	4.00	0.625-11	4.000	3.941	—	KDK16	—	15.88

NOTE: Do not overtighten lock screw.

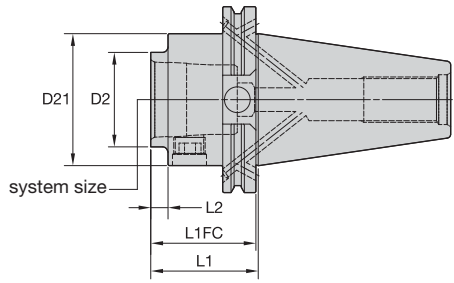
Supplied with lock screw and drive keys.

Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.

Lock screw wrench not included.

For retention knobs, see page L45.

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



L1FC = from flange face
L1 = from taper gage diameter



CVKV50 Shank Tools



■ KM-CVKV Form B/AD

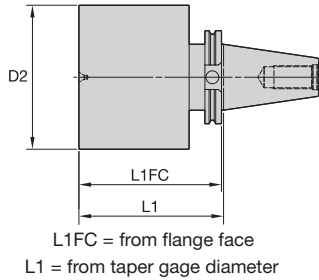


order number	catalog number	system size	D2	D21	L1	L1FC	L2	KM spare parts package	wrench size actuation screw	Nm	kg
3815265	CVKV50BKM32150	KM32	32	69,85	38,10	36,60	2,4	KM32PKG3L	5mm	8-11	3,08
3815266	CVKV50BKM32350	KM32	32	69,85	88,90	87,40	53,2	KM32PKG3L	5mm	8-11	3,26
3815267	CVKV50BKM40175	KM40	40	69,85	44,45	42,95	6,5	KM40PKG3L	6mm	12-16	3,15
3815268	CVKV50BKM40400	KM40	40	69,85	101,60	100,10	65,9	KM40PKG3S	6mm	12-16	3,51
3815269	CVKV50BKM50225	KM50	50	69,85	57,15	55,65	9,2	KM50PKG3L	10mm	27-34	3,42
3815270	CVKV50BKM50475	KM50	50	69,85	120,65	119,15	84,9	KM50PKG3S	10mm	27-34	4,05
3815271	CVKV50BKM63225	KM63	63	69,85	57,15	55,65	13,2	KM63PKG3L	12mm	47-54	3,31
3815272	CVKV50BKM63550	KM63	63	69,85	139,70	138,20	104,0	KM63PKG3S	12mm	47-54	5,07
3815303	CVKV50BKM80325	KM80	80	69,85	82,55	81,05	63,5	KM80PKG3S	14mm	79-85	4,29

NOTE: Do not overtorque actuation screw; use torque recommendations above.
Supplied with KM actuation mechanism.
For retention knobs, see page L45.
These products are only available in the U.S., Canada, and Japan.

<p>Form AD</p>					
<p>Form B</p>					
			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

- Machinable front 20–30 RW C.



CVKV50 Shank Tools

ERICKSON

■ BB-CVKV Form A

order number	catalog number	D2	L1	L1FC	kg
3815346	CVKV50BB400120	101,6	304,8	303,3	20,28
3815343	CVKV50BB400600	101,6	152,4	150,9	10,61
3815345	CVKV50BB600120	152,4	304,8	303,3	41,63
3815344	CVKV50BB600600	152,4	152,4	150,9	19,86

NOTE: For retention knobs, see page L45.



BT Shank Tools

BT30 .....	.E2-E18
BT40 .....	.E20-E60
BT50 .....	.E62-E95



ERICKSON™ BT V-Flange Shank Tooling System • BT30 Series

Primary Application

ERICKSON V-Flange BT Taper Tooling is manufactured from premium materials and meets or exceeds the latest JIS B 6339 specification and ISO-1947 taper accuracy of AT3 specification standards. The BT30 tools are either pre-balanced to a high specification or balanced-by-design. For high speed applications Kennametal recommends that the complete toolholder assembly (toolholder, retention knobs, collets, hardware, and cutting tools) be balanced as one entity. Exact RPM limits can only be determined by considering machine and spindle configurations in conjunction with tooling design and safety limits factored as a complete system.

Features and Benefits

- JIS B 6339 7/24 taper.
- Standard M12 metric drawbar thread.
- Taper accuracy of AT3 specification or better.
- Maximum 100 bar (1,500 psi) coolant pressure.



BT — JIS B6339 Shank

NOTE: Inherent balance conditions — all features are symmetrical.

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



BT40BER40120M

BT

Shank Style

JIS
6339

40

Shank Taper Size

30 = 30
40 = 40
50 = 50

B

Special Feature
(optional)

B =
DIN form B coolant feature, tool shipped to AD specifications (design allows conversion to form B style)

(blank) =
(no "B" or "Z") — tool built to form A/AD coolant style

CH =
Coolant form AD — high pressure

HPV =
High performance and balanceable

TD =
Tunable

ER

Toolholder Style

40

Toolholder Size

120

Tool Length

(Taper gage line to front of tool)

metric
xxx = xxx

inch
xxx = x.xx

M

Identification Value

M =
Tool built to metric values and has metric retention thread

TG =
Collet series xx (50), xxx (100)

EM =
I.D. size: metric — xx = xx, (20);
inch — xxx = x.xx, (075)

SM =
O.D. size: metric — xx = xx, (20);
inch — xxx = x.xx, (075)

BB = Bar blank

DA = Double-angle collet chuck

DC = Drill chuck

EM = End mill adapter

ER = DIN 6499 single-angle collet chuck

HC = Hydraulic chuck — Standard Line

HCB = Hydraulic chuck — Basic Line

HCSL = Hydraulic chuck — Slim Line

HCSLT = Hydraulic chuck — Slim Line — Trend

HCT = Hydraulic chuck — Trend Line

HPMC = Bearing milling chuck — high performance

HSK = HSK adapter

JT = Jacobs taper adapter

KM = KM™ adapter

KR = Romicon boring adapters

MT = Morse taper adapter

RC = Rapid Change — T&C tapping adapter chuck

SA = Slotting cutter adapter

SER = DIN 6499 single-angle collet chuck — short with internal locknut

SFTT = **SAFE-LOCK™** Shrink Fit thermo toolholder

SM2C = Shell mill adapter with coolant and small diameter

SMC = Shell mill adapter with coolant

SS = Adapter for straight shanks (drills)

SSF = Adapter for straight shanks with flat (drills)

ST = Screw-on adapters

STRC = Rapid Change — solid tapping adapter chuck

SWN = Whistle Notch™ 2° — short — (not to DIN standard)

TA = Tap chuck adapter

TCRC = Rapid Change — T&C tapping adapter chuck

TG = Tremendous Grip single-angle collet chuck

TGF = Tremendous Grip single-angle collet chuck — flush face

TT = Shrink Fit thermo toolholder

TTHT = Shrink Fit thermo toolholder — high torque

WD = Whistle Notch with drive

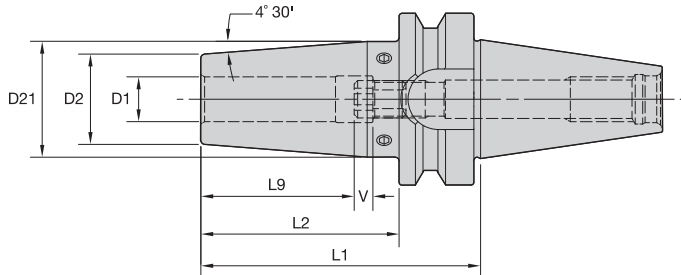
WN = Whistle Notch (2° metric; 5° inch)

BT30 Shank Tools

Shrink Fit Toolholders General Purpose (GP)



- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide and HSS cutting tools (requirements below).



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
6	h6	0,000/-0,008
8 & 10	h6	0,000/-0,009
12, 14, 16, & 18	h6	0,000/-0,011
20	h6	0,000/-0,013

BT30 Shank Tools

ERICKSON™

■ TT GP HPV MM-BT Form B/AD



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	kg
3782116	BT30HPVTT06075M	6	21	27	75	53	26	10	TTSS05014M	2,5mm	0,56
3782117	BT30HPVTT08075M	8	21	27	75	53	26	10	TTSS06014M	3mm	0,55
3782118	BT30HPVTT10075M	10	24	31	75	53	31	10	TTSS08014M	4mm	0,60
3615348	BT30HPVTT12075M	12	24	31	75	53	36	10	TTSS10014M	5mm	0,58
3615349	BT30HPVTT14075M	14	27	34	75	53	36	10	TTSS10014M	5mm	0,63
3615350	BT30HPVTT16075M	16	27	34	75	53	39	10	TTSS12014M	6mm	0,60
3615351	BT30HPVTT18090M	18	33	41	90	68	39	10	TTSS12014M	6mm	0,84
3615352	BT30HPVTT20090M	20	33	41	90	68	41	10	TTSS16014M	8mm	0,81

(continued)

(TT HPV Form B/AD continued)

Cutting Tool Shank Requirements
inch (industry standard)

cutting tool shank diameters	tolerance
1/4, 5/16, & 3/8	.0000/- .0004
7/16, 1/2, 9/16, 5/8, & 11/16	.0000/- .0004
3/4	.0000/- .0005

■ TT HPV IN-BT Form B/AD



BT30 Shank Tools

order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	lbs
3782119	BT30HPVTT025295	1/4	.83	1.06	2.95	2.09	1.02	.39	TTSS05014M	2,5mm	1.23
3782120	BT30HPVTT031295	5/16	.83	1.06	2.95	2.09	1.02	.39	TTSS06014M	3mm	1.22
3782121	BT30HPVTT038295	3/8	.95	1.22	2.95	2.09	1.22	.39	TTSS08014M	4mm	1.32
3782122	BT30HPVTT044295	7/16	.95	1.22	2.95	2.09	1.42	.39	TTSS10014M	5mm	1.30
3615343	BT30HPVTT050295	1/2	.95	1.22	2.95	2.09	1.42	.39	TTSS10014M	5mm	1.27
3615344	BT30HPVTT056295	9/16	1.06	1.34	2.95	2.09	1.42	.39	TTSS10014M	5mm	1.37
3615345	BT30HPVTT062295	5/8	1.06	1.34	2.95	2.09	1.54	.39	TTSS12014M	6mm	1.33
3615346	BT30HPVTT068354	11/16	1.30	1.61	3.54	2.68	1.54	.39	TTSS12014M	6mm	1.87
3615347	BT30HPVTT075354	3/4	1.30	1.61	3.54	2.68	1.61	.39	TTSS16014M	8mm	1.81

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Shrink Fit technical section, see page M78.

Supplied with stop screw.

Adjusting stop screw gage, see page M81.

Optional M6~1.0P x 5mm lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.

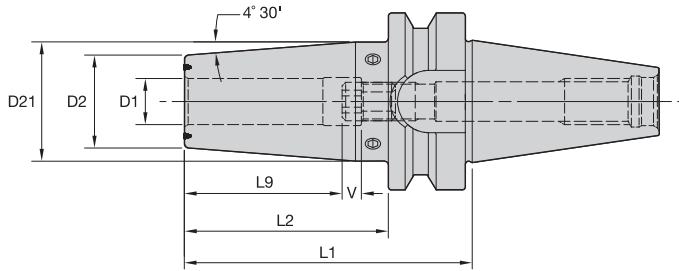
For retention knobs, see page L45.

BT30 Shank Tools

Shrink Fit Toolholders High Torque (HT)



- 30–50% higher clamping torque compared to GP line.
- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide only, designated by groove in front face (requirements below).
- 10 kW power or greater Shrink Fit device must be used.



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
12, 14, 16, & 18	h6	0,000/-0,011
20	h6	0,000/-0,013

BT30 Shank Tools

ERICKSON

■ TT HT HPV MM-BT Form B/AD



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	kg
3615439	BT30HPVTHT12075M	12	24	31	75	53	36	10	TTSS10014M	5mm	0,58
3615440	BT30HPVTHT14075M	14	27	34	75	53	36	10	TTSS10014M	5mm	0,63
3615441	BT30HPVTHT16075M	16	27	34	75	53	39	10	TTSS12014M	6mm	0,60
3615442	BT30HPVTHT18090M	18	33	41	90	68	39	10	TTSS12014M	6mm	0,84
3615443	BT30HPVTHT20090M	20	33	41	90	68	41	10	TTSS16014M	8mm	0,81

Cutting Tool Shank Requirements
inch (industry standard)

cutting tool shank diameters	tolerance
1/2, 9/16, 5/8, & 11/16	.0000/- .0004
3/4	.0000/- .0005

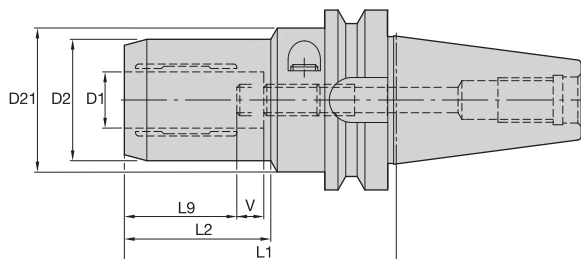
■ TT HT HPV IN-BT Form B/AD



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	lbs
3615434	BT30HPVTHT050295	1/2	.95	1.22	2.95	2.09	1.42	.39	TTSS10014M	5mm	1.27
3615435	BT30HPVTHT056295	9/16	1.06	1.34	2.95	2.09	1.42	.39	TTSS10014M	5mm	1.37
3615436	BT30HPVTHT062295	5/8	1.06	1.34	2.95	2.09	1.54	.39	TTSS12014M	6mm	1.33
3615437	BT30HPVTHT068354	11/16	1.30	1.61	3.54	2.68	1.54	.39	TTSS12014M	6mm	1.87
3615438	BT30HPVTHT075354	3/4	1.30	1.61	3.54	2.68	1.61	.39	TTSS16014M	8mm	1.82

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.
 Shrink Fit technical section, see page M78.
 Supplied with stop screw.
 Adjusting stop screw gage, see page M81.
 Optional M6~1.0P x 5mm lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.
 For retention knobs, see page L45.

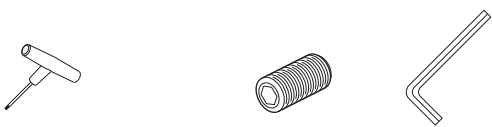




BT30 Shank Tools

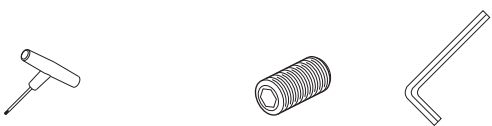
ERICKSON

■ HC Trend MM-BT Form AD



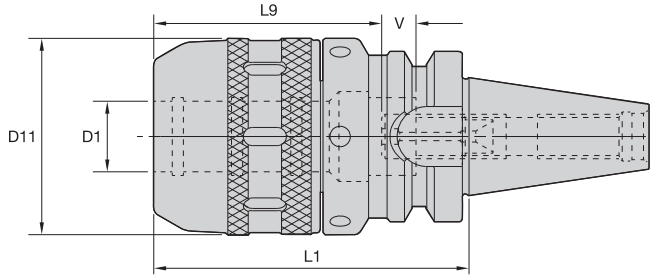
order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	stop screw	stop screw wrench	wrench size stop screw	kg
2255463	BT30HCT06075M	6	25,7	32	75	35	27	10	170.135	5mm	571.061	170.003	3mm	0,59
2255464	BT30HCT08075M	8	27,7	32	75	35	27	10	170.135	5mm	571.061	170.003	3mm	0,61
2255465	BT30HCT10080M	10	29,7	32	80	38	31	10	170.135	5mm	571.061	170.003	3mm	0,63
2255466	BT30HCT12085M	12	31,6	32	85	40	36	10	170.135	5mm	571.061	170.003	3mm	0,69
2255467	BT30HCT14100M	14	33,6	50	100	46	36	10	170.135	5mm	571.063	170.005	5mm	1,00
2255468	BT30HCT16100M	16	37,6	50	100	47	39	10	170.135	5mm	571.063	170.005	5mm	1,06
2255469	BT30HCT18100M	18	39,6	50	100	47	39	10	170.135	5mm	571.063	170.005	5mm	1,09
2255470	BT30HCT20100M	20	41,6	50	100	48	41	10	170.135	5mm	571.063	170.005	5mm	1,11

■ HC Trend IN-BT Form AD



order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size stop screw	stop screw	stop screw wrench	wrench size stop screw	lbs
2259953	BT30HCT025295	1/4	1.01	1.25	2.95	1.38	1.06	.39	170.135	5mm	571.061	170.003	5mm	1.30
2259954	BT30HCT038315	3/8	1.17	1.25	3.15	1.57	1.22	.39	170.135	5mm	571.061	170.003	5mm	1.44
2259955	BT30HCT050335	1/2	1.24	1.25	3.35	1.69	1.42	.39	170.135	5mm	571.061	170.003	5mm	1.51
2259956	BT30HCT062394	5/8	1.48	1.96	3.94	1.83	1.54	.39	170.135	5mm	571.063	170.005	5mm	2.36
2259957	BT30HCT075413	3/4	1.64	1.96	4.13	1.89	1.61	.39	170.135	5mm	571.063	170.005	5mm	2.64

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw.
 Actuation wrench must be ordered separately.
 Reduction sleeves are available and must be ordered separately; see page J2.
 For retention knobs, see page L45.



BT30 Shank Tools

ERICKSON™

■ HPMC MM-BT Form AD

order number	catalog number	D1	D11	L1	L9	V	locknut wrench	stop screw	wrench size stop screw	kg
3578486	BT30HPMC20085M	20	53	85	55	20	PSW52M	MCSS12030M	2,5mm & 5mm	1,00



■ HPMC IN-BT Form AD

order number	catalog number	D1	D11	L1	L9	V	locknut wrench	stop screw	wrench size stop screw	lbs
3100411	BT30HPMC075335	3/4	2.09	3.35	2.17	.59	PSW52M	MCSS12030M	2,5mm & 5mm	2.50



NOTE: Milling chuck technical section, see page M88.

Supplied with locknut and stop screw.

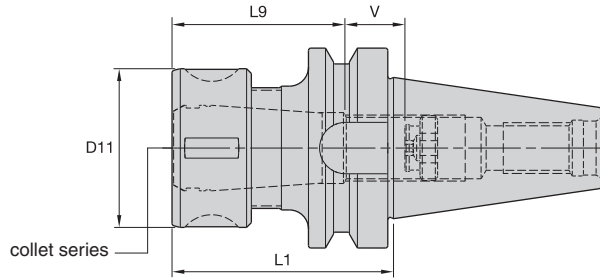
Locknut wrench not included.

Optional M6~1,0P fine-balancing screw set is available (order number HPMCBALSCREWSET) and must be ordered separately; see page L14.

Reduction sleeves are available and must be ordered separately; see page J6.

For retention knobs, see page L45.

- Tremendous Grip (3:1 advantage).



TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG75	2,6	20,0	3/64	3/4

ERICKSON

■ TG Round-BT Form AD



order number	catalog number	collet series	D11	L1	L9	V	locknut	wrench	Nm	stop screw	wrench size stop screw	kg
1156351	BT30TG075075M	TG75	50	75	55	17	LNA075M	HSW45M	136	SS081041G	4mm & 5/32	0,60

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.

Collet chuck technical section, see page M98.

Supplied with locknut and stop screw.

Locknut wrench must be ordered separately.

Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16–L17.

Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.

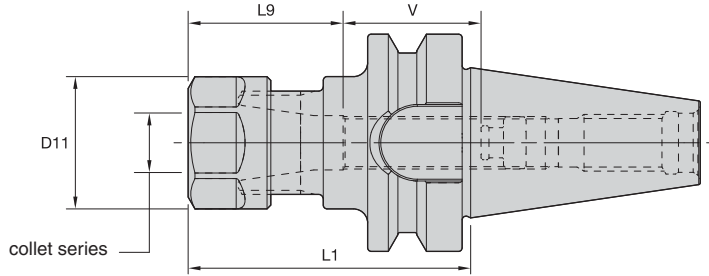
Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.

TG standard straight-bore collets, see page J10.

TG tap collets, see page J10.

For retention knobs, see page L45.

- Grip (2:1 advantage).



BT30 Shank Tools

ERICKSON™

■ ER Hex-BT Form AD

ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER16	0,5	10,0	.02	.41
ER20	0,5	13,0	.02	.50
ER25	1,0	16,0	.04	.63
ER32	2,0	20,0	.08	.81
ER40	3,0	26,0	.12	1.00

order number	catalog number	collet series	D11	L1	L9	V	kg
1258023	BT30ER16060M	ER16	28	60	32	33	0,48
1826220	BT30ER16100M	ER16	28	100	32	48	0,64
3847457	BT30ER16150M	ER16	28	150	32	48	0,85
1021296	BT30ER20060M	ER20	34	60	36	31	0,49
3847458	BT30ER20100M	ER20	34	100	36	44	0,74

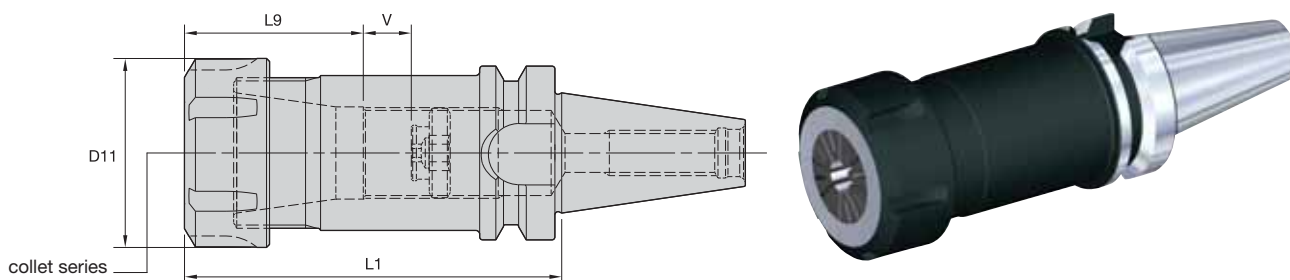
■ Spare Parts



catalog number	locknut	wrench	Nm	stop screw	wrench size stop screw
BT30ER16060M	LNHSER16M	OEW25M	40	SS044038G	4mm & 5/32
BT30ER16100M	LNHSER16M	OEW25M	40	SS044038G	4mm & 5/32
BT30ER16150M	LNHSER16M	OEW25M	40	SS044038G	4mm & 5/32
BT30ER20060M	LNHSER20M	OEW30M	32	SS056041G	4mm & 5/32
BT30ER20100M	LNHSER20M	OEW30M	32	SS056041G	4mm & 5/32

(continued)

(ER BT Form AD continued)



■ ER Round-BT Form AD

order number	catalog number	collet series	D11	L1	L9	V	kg
1258025	BT30ER25060M	ER25	42	60	40	16	0,52
1826221	BT30ER25100M	ER25	42	100	40	40	0,73
1156350	BT30ER32070M	ER32	50	70	46	10	0,65
3847459	BT30ER32100M	ER32	50	100	46	34	0,88
3847460	BT30ER40100M	ER40	63	100	52	10	1,15

■ Spare Parts



catalog number	locknut	wrench	Nm	stop screw	wrench size stop screw
BT30ER25060M	LNSER25M	ER25WM	104	SS075041G	4mm & 5/32
BT30ER25100M	LNSER25M	ER25WM	104	SS075041G	4mm & 5/32
BT30ER32070M	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32
BT30ER32100M	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32
BT30ER40100M	LNSER40M	ER40WM	176	SS112041G	4mm & 5/32

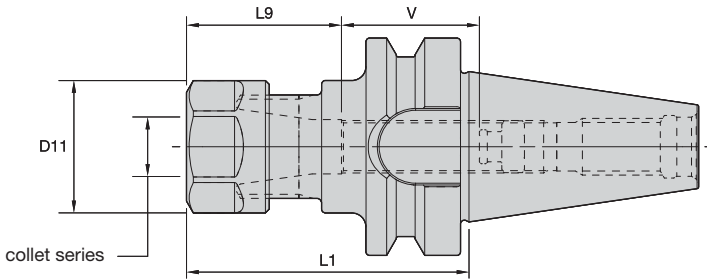
NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.
 For retention knobs, see page L45.

BT30 Shank Tools

DA 08 Series Double-Angle Collet Chucks



- Grip 1:1.



BT30 Shank Tools

ERICKSON

DA Hex-BT Form AD

DA collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
DA200	0,2	10	1/64	25/64
DA180	2,2	20	1/64	3/4

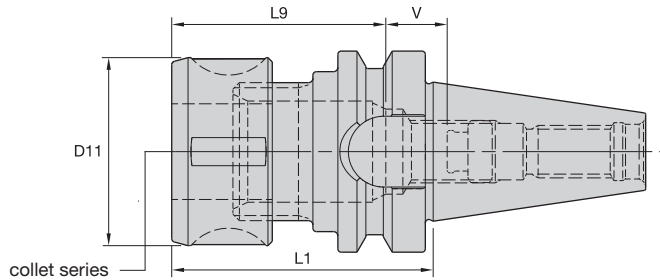
order number	catalog number	collet series	D11	L1	L9	V	lbs
1258011	BT30DA208060M	DA200	1.08	2.36	1.50	1.17	1.10

Spare Parts

catalog number	locknut	locknut wrench	ft. lbs.	stop screw	wrench size stop screw
BT30DA208060M	LNA208M	OEW24M	45	SS038031G	2mm & 5/64

(continued)

(DA BT Form AD continued)



BT30 Shank Tools

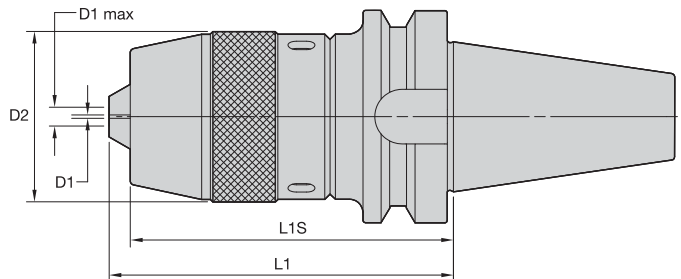
■ DA Round-BT Form AD

order number	catalog number	collet series	D11	L1	L9	V	lbs
1191712	BT30DA188060M	DA180	1.69	2.36	2.13	.35	1.54

■ Spare Parts

catalog number	locknut	locknut wrench	ft. lbs.	stop screw	wrench size stop screw
BT30DA188060M	LNA188M	HSW45M	100	SS056041G	4 mm & 5/32

NOTE: Tighten locknut to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 DA standard straight-bore collets, see pages J65–J68.
 DA non-pullout collets, see pages J65–J68.
 For retention knobs, see page L45.



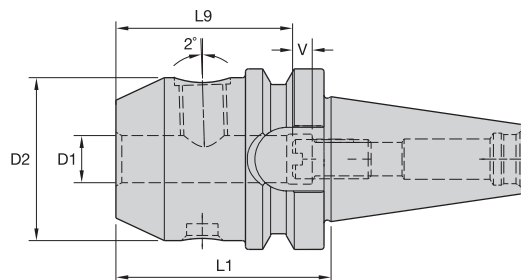
ERICKSON™

■ DC-BT Form AD

order number	catalog number	D1		D1 max		D2	L1	L1S	Nm	lbs
		mm	in	mm	in					
3582592	BT30DC08092M	0,5	.020	8,0	.315	38	100	92	25	2.89

NOTE: Tighten to the recommended tightening torque.
Locknut wrench supplied.
For retention knobs, see page L45.

BT30 Shank Tools

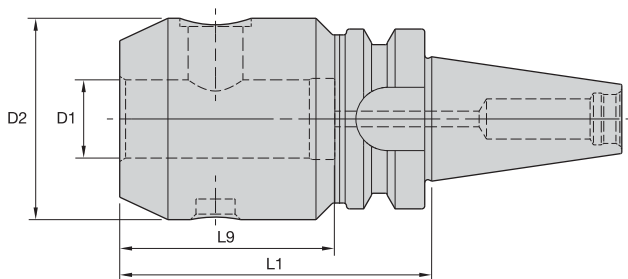


ERICKSON™

■ WN MM-BT Form AD

order number	catalog number	D1	D2	L1	L9	V	lock screw	wrench size lock screw	Nm	stop screw	wrench size stop screw	kg
1861123	BT30WN08050M	8	28	50	30	10	SS03M014	4mm	15	571.067	3mm	0,49
2255556	BT30WN10055M	10	35	55	35	10	SS03M018	5mm	25	571.062	4mm	0,58
2255557	BT30WN12055M	12	42	55	40	10	SS03M023	6mm	35	571.063	5mm	0,67
2255558	BT30WN14055M	14	44	55	40	10	SS03M023	6mm	35	571.063	5mm	0,68
2255559	BT30WN16055M	16	46	55	43	10	SS03M025	6mm	50	571.069	6mm	0,71

NOTE: Do not overtighten lock screw; use torque recommendations above.
Supplied with lock screw and stop screw.
Lock screw and stop screw wrenches not included.
For retention knobs, see page L45.



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■ EM MM-BT Form AD



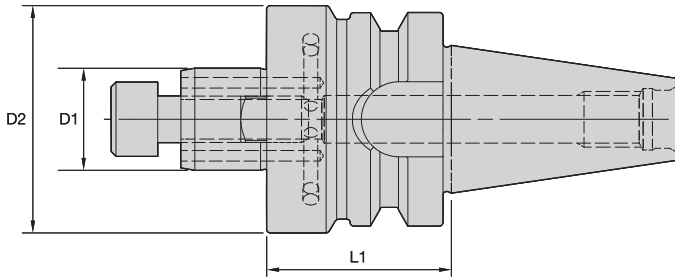
order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	Nm	kg
1258015	BT30EM06050M	6	25	50	74	SS03M012	3mm	7	0,46
1258018	BT30EM08060M	8	28	60	84	SS03M014	4mm	15	0,52
1258019	BT30EM10060M	10	35	60	84	SS03M018	5mm	25	0,60
1155346	BT30EM12060M	12	42	60	50	SS03M023	6mm	35	0,70
1258020	BT30EM16060M	16	48	60	53	SS03M025	6mm	50	0,77
1258021	BT30EM20080M	20	52	80	55	SS03M026	8mm	95	1,03

■ EM IN-BT Form AD



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
2249689	BT30EM012236	1/8	.69	2.36	3.30	S1045PKG	3/32	3	.95
2249690	BT30EM018236	3/16	.69	2.36	3.30	S1045PKG	3/32	3	.94
1258012	BT30EM025236	1/4	1.00	2.36	3.30	ELS025025PKG	1/8	5	1.10
2249691	BT30EM031236	5/16	1.00	2.36	3.30	ELS031031PKG	5/32	11	1.08
1258013	BT30EM038236	3/8	1.00	2.36	3.30	ELS038031PKG	3/16	15	1.08
1258014	BT30EM050236	1/2	1.38	2.36	1.97	ELS044038PKG	7/32	20	1.26
1258016	BT30EM062236	5/8	1.63	2.36	2.09	ELS056050PKG	1/4	40	1.43
1258017	BT30EM075236	3/4	1.75	2.36	2.22	ELS062050PKG	5/16	70	1.46

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw.
 Lock screw wrench not included.
 For retention knobs, see page L45.



BT30 Shank Tools

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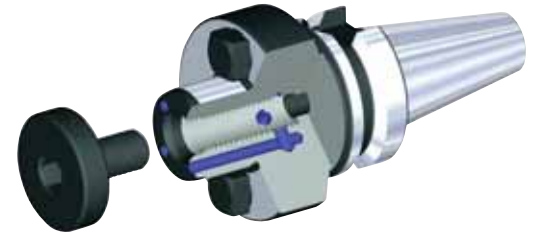
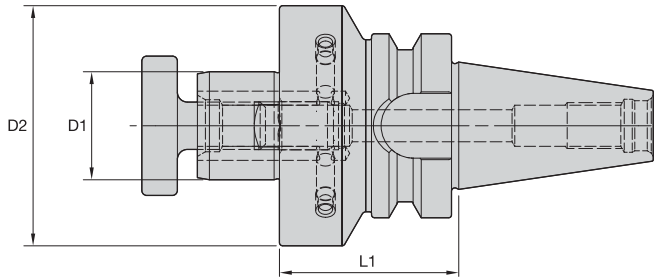
■ SMC Cap MM-BT Form B/AD



order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size lock screw	kg
3752223	BT30SM2C16035M	16	38	35	MS1294	KDK16M	6mm	0,51
3752222	BT30SMC16035M	16	44	35	MS1294	KDK16M	6mm	0,55
3752225	BT30SM2C16050M	16	38	50	MS1294	KDK16M	6mm	0,64
3752224	BT30SMC16050M	16	44	50	MS1294	KDK16M	6mm	0,73
3752227	BT30SM2C22040M	22	42	40	MS1234	—	8mm	0,62
3752226	BT30SMC22040M	22	49	40	MS1234	KDK22M	8mm	0,68
3752229	BT30SM2C22050M	22	42	50	MS1234	—	8mm	0,73
3752228	BT30SMC22050M	22	49	50	MS1234	KDK22M	8mm	0,79

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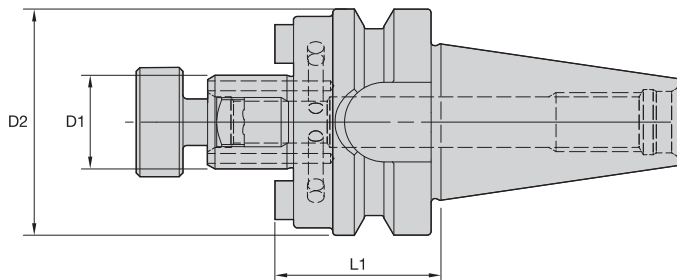
(SMC BT Form B/AD continued)



■ SMC Lock MM-BT Form B/AD



order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size lock screw	kg
3752230	BT30SMC27045M	27	60	45	KLSS27M	KDK22M	10mm	0,97



■ SMC Lock IN-BT Form B/AD

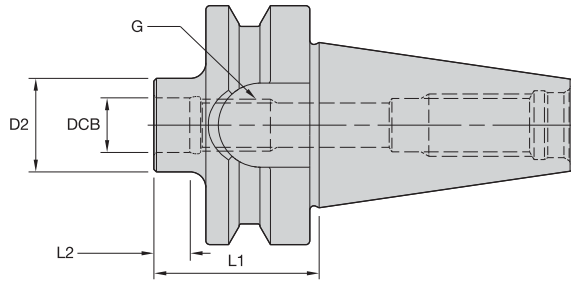


order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size lock screw	lbs
3648599	BT30SM2C050118	1/2	1.20	1.18	KLS05	KDK04	3/16	.97
3648598	BT30SMC050118	1/2	1.44	1.18	KLS05	KDK04	3/16	1.01
3648601	BT30SM2C075118	3/4	1.46	1.18	KLS07	—	1/4	1.08
3648600	BT30SMC075118	3/4	1.69	1.18	KLS07	KDK05	1/4	1.13
3648653	BT30SM2C100177	1	2.19	1.77	KLS10	KDK06	5/16	1.83
3648602	BT30SMC100177	1	2.75	1.77	KLS10	KDK06	5/16	2.16

NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive keys.
 Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
 Lock screw wrench not included.
 For retention knobs, see page L45.

BT30 Shank Tools

Screw-On Adapters for Modular Milling Cutters • KM™ Modular Adapters

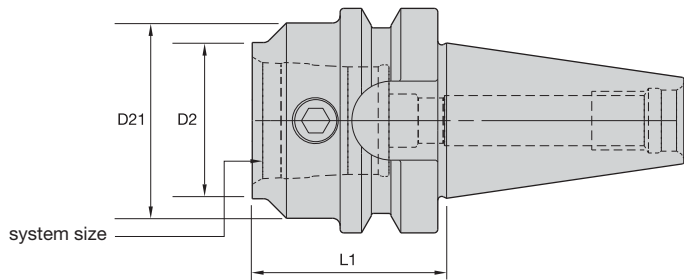


ERICKSON

ST-BT Form AD

order number	catalog number	DCB	G	D2	L1	L2	kg
4070054	BT30ST06032M	6,5	M6	10	32	9	0,39
4070055	BT30ST08032M	8,5	M8	13	32	9	0,39
4070056	BT30ST10032M	10,5	M10	18	32	9	0,39
4070057	BT30ST12032M	12,5	M12	21	32	9	0,38

NOTE: For retention knobs, see page L45.



ERICKSON

KM-BT Form AD



order number	catalog number	system size	D2	D21	L1	KM spare parts package	wrench size actuation screw	Nm	kg
1013658	BT30KM3240	KM32	32	40	40	KM32PKG3L	5mm	8-11	0,49

NOTE: Do not overtorque actuation screw; use torque recommendations above.
 Supplied with KM actuation mechanism.
 For retention knobs, see page L45.



The Tunable Tooling

Internal dampening package eliminates chatter, vibration, and harmonics in all your deep-hole boring applications!

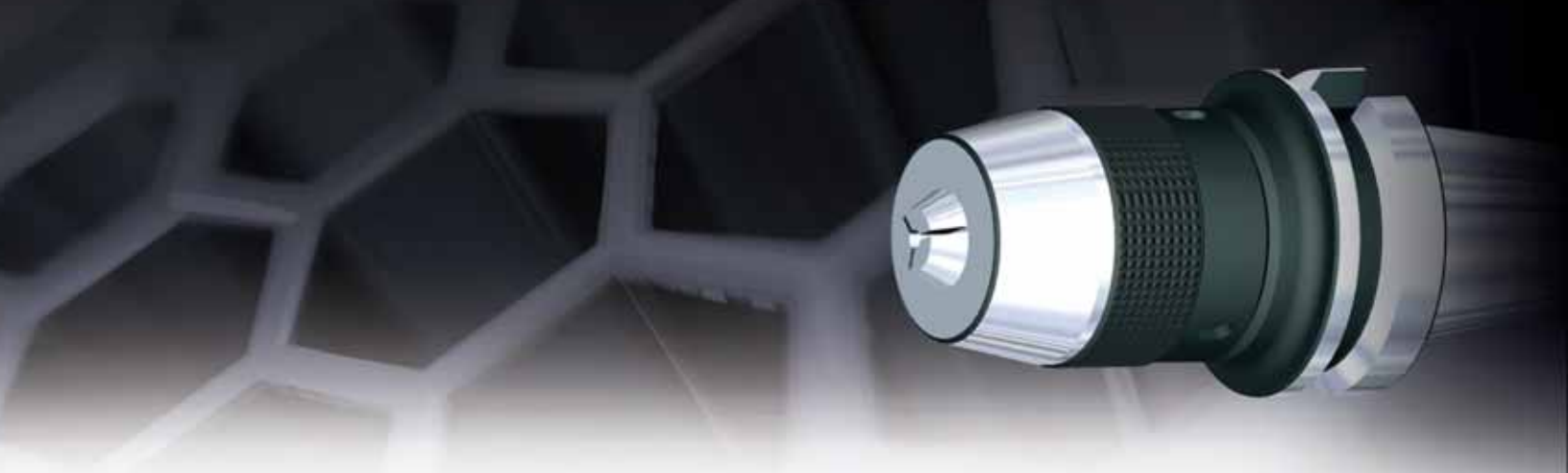
- Proprietary features provide superior surface finish and increased productivity.
- Wide product offering — from boring bars, extensions, and holders to rotating adapters and modular sections.
- Reduce setup time with KM™ Quick Change Tooling — now an ISO Standard!
- Customize Kennametal's pre-tuned boring bars — after they're on the machine — to optimize performance in your specific machining operations.

For tighter tolerances, reduced scrap rates, and improved tool life, you can rely on Kennametal Tunable Tooling!

Experience the advantages at your Authorized Kennametal Distributor or at www.kennametal.com.

www.kennametal.com





ERICKSON™ BT V-Flange Shank Tooling System • BT40 Series

Primary Application

ERICKSON V-Flange BT Taper Tooling is manufactured from premium materials and meets or exceeds the latest JIS B 6339 specification and ISO-1947 taper accuracy of AT3 specification standards. The BT40 tools are either pre-balanced to a high specification or balanced-by-design. For high speed applications Kennametal recommends that the complete toolholder assembly (toolholder, retention knobs, collets, hardware, and cutting tools) be balanced as one entity. Exact RPM limits can only be determined by considering machine and spindle configurations in conjunction with tooling design and safety limits factored as a complete system.



BT — JIS B6339 Shank

NOTE: Inherent balance conditions — all features are symmetrical.



Features and Benefits

- JIS B 6339 7/24 taper.
- Standard M16 metric drawbar thread.
- Taper accuracy of AT3 specification or better.
- All tools set to form AD coolant specification. Many can be converted to form B style.
- Maximum 100 bar (1,500 psi) coolant pressure.

Order Information

Kennametal high-performance end mills with a shank diameter of 12mm (1/2") and larger are available with **SAFE-LOCK™** technology, as a special tool, upon request. Please contact your local customer service location to receive a quote.

Features

- Form-closed clamping.
- High accuracy clamping.
- Helical grooves.

Functions

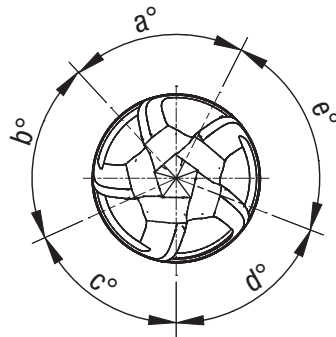
- No pull out.
- Excellent runoff.
- Adjustable clamping length.

Benefits

- Reduce scrap rate.
- Higher tool life.
- No need to change NC program after regrinding.



Customized-Solution Example for Highest Metal Removal Rates



The HARVI II UDDE proprietary design with **unequal flute spacing** and unique core geometry for chatter-free machining enables slotting operations in titanium up to 1 x D.

SAFE-LOCK™ by HAIMER

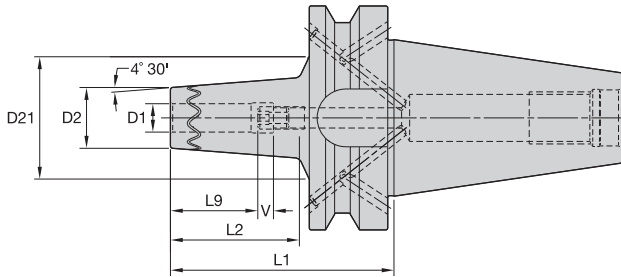
The safety belt for high-performance solid carbide end mills provides a form-closed clamping with high accuracy and helical grooves for length adjustment.



To learn more, *scan here*.
For instructions on how to scan,
please see page xxxiii.



- **SAFE-LOCK™**, innovative and unique non-slip system.
- Suitable for carbide and HSS cutting tools.
- Need ≥ 10 kW shrink unit.



BT40 Shank Tools

ERICKSON

■ TT SF MM-BT FORM B/AD

order number	catalog number	D1	D2	D21	L1	L2	L9	V	kg
5090264	BT40BSFTT12070M	12	27	33	70	43	37	10	1,14
5090265	BT40BSFTT14075M	14	30	37	75	48	37	10	1,21
5090266	BT40BSFTT16075M	16	30	37	75	48	40	10	1,18
5090267	BT40BSFTT18075M	18	36	43	75	48	40	10	1,29
5090268	BT40BSFTT20075M	20	36	43	75	48	42	10	1,24
5090269	BT40BSFTT25085M	25	46	55	85	58	48	10	1,59
5090270	BT40BSFTT32085M	32	46	55	85	58	48	10	1,43

Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance
12, 14, 16, & 18	h6 | 0,000/-0,011
20 & 25	h6 | 0,000/-0,013
32	h6 | 0,000/-0,016

Cutting Tool Shank Requirements
inch (industry standard)

cutting tool shank diameters	tolerance
1/2 & 5/8	.0000/- .0004
3/4, 1	.0000/- .0005

■ TT SF IN-BT FORM B/AD

order number	catalog number	D1	D2	D21	L1	L2	L9	V	lbs
5129960	BT40BSFTT050276	1/2	1.04	1.31	2.76	1.69	1.46	.39	2.50
5129962	BT40BSFTT062295	5/8	1.16	1.46	2.95	1.89	1.58	.39	2.61
5129963	BT40BSFTT075295	3/4	1.40	1.70	2.95	1.89	1.65	.39	2.77
5129964	BT40BSFTT100335	1	1.79	2.15	3.35	2.28	1.89	.39	3.48

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder. Shrink Fit technical section, see page M78. Shrink Fit accessories, see pages L12-L13. For retention knobs, see page L45.

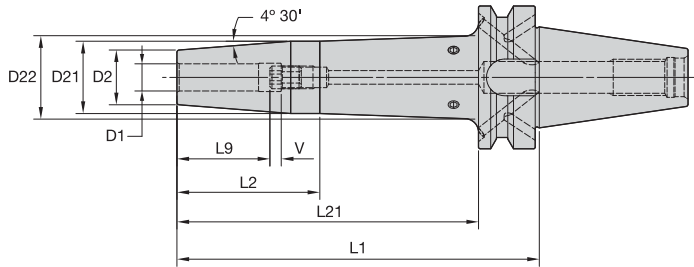
			40	(2x) SFV40	1,5mm
			50	(2x) SFV50	1,5mm

BT40 Shank Tools

Shrink Fit Toolholders General Purpose (GP)



- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide and HSS cutting tools (requirements below).



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
6	h6	0,000/-0,008
8 & 10	h6	0,000/-0,009
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

BT40 Shank Tools

ERICKSON™

■ TT GP HPV MM-BT Form B/AD



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	kg
3782133	BT40BHPVTT06090M	6	21	27	—	90	63	—	26	10	TTSS05014M	2,5mm	1,16
3782134	BT40BHPVTT06120M	6	21	27	—	120	93	—	26	10	TTSS05014M	2,5mm	1,29
3782135	BT40BHPVTT06160M	6	21	27	33	160	50	133	26	10	TTSS05014M	2,5mm	1,54
3782136	BT40BHPVTT08090M	8	21	27	—	90	63	—	26	10	TTSS06014M	3mm	1,15
3782137	BT40BHPVTT08120M	8	21	27	—	120	93	—	26	10	TTSS06014M	3mm	1,28
3782138	BT40BHPVTT08160M	8	21	27	33	160	50	133	26	10	TTSS06014M	3mm	1,54
3782139	BT40BHPVTT10090M	10	24	32	—	90	63	—	31	10	TTSS08014M	4mm	1,22
3782140	BT40BHPVTT10120M	10	24	32	—	120	93	—	31	10	TTSS08014M	4mm	1,40
3782141	BT40BHPVTT10160M	10	24	32	37	160	63	133	31	10	TTSS08014M	4mm	1,71
3615365	BT40BHPVTT12090M	12	24	32	—	90	63	—	36	10	TTSS10014M	5mm	1,20
3615366	BT40BHPVTT12120M	12	24	32	—	120	93	—	36	10	TTSS10014M	5mm	1,38
3615367	BT40BHPVTT12160M	12	24	32	37	160	63	133	36	10	TTSS10014M	5mm	1,70
3615368	BT40BHPVTT14090M	14	27	34	—	90	63	—	36	10	TTSS10014M	5mm	1,25
3615369	BT40BHPVTT14120M	14	27	34	—	120	93	—	36	10	TTSS10014M	5mm	1,45
3615370	BT40BHPVTT14160M	14	27	34	39	160	63	133	36	10	TTSS10014M	5mm	1,81
3615371	BT40BHPVTT16090M	16	27	34	—	90	63	—	39	10	TTSS12014M	6mm	1,23
3615372	BT40BHPVTT16120M	16	27	34	—	120	93	—	39	10	TTSS12014M	6mm	1,43
3615373	BT40BHPVTT16160M	16	27	34	39	160	63	133	39	10	TTSS12014M	6mm	1,77
3615374	BT40BHPVTT18090M	18	33	41	—	90	63	—	39	10	TTSS12014M	6mm	1,38
3615375	BT40BHPVTT18120M	18	33	42	—	120	93	—	39	10	TTSS12014M	6mm	1,69
3615376	BT40BHPVTT18160M	18	33	42	—	160	133	—	39	10	TTSS12014M	6mm	2,10
3615377	BT40BHPVTT20090M	20	33	41	—	90	63	—	41	10	TTSS16014M	8mm	1,35
3615378	BT40BHPVTT20120M	20	33	42	—	120	93	—	41	10	TTSS16014M	8mm	1,65
3615379	BT40BHPVTT20160M	20	33	42	—	160	133	—	41	10	TTSS16014M	8mm	2,05
3615380	BT40BHPVTT25100M	25	44	52	—	100	73	—	47	10	TTSS16014M	8mm	1,75
3615381	BT40BHPVTT32105M	32	44	53	—	105	78	—	51	10	TTSS16014M	8mm	1,67

(continued)

(TT GP HPV BT Form B/AD continued)

Cutting Tool Shank Requirements inch (industry standard)

cutting tool shank diameters	tolerance
1/4, 5/16, & 3/8	.0000/- .0004
7/16, 1/2, & 5/8	.0000/- .0004
3/4, 7/8, 1, & 1-1/4	.0000/- .0005

■ TT GP HPV IN-BT Form B/AD



order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	lbs
3782142	BT40BHPVTT025354	1/4	.83	1.06	3.54	2.48	1.02	.39	TTSS05014M	2,5mm	2.55
3782143	BT40BHPVTT025630	1/4	.83	1.06	6.30	1.97	1.02	.39	TTSS05014M	2,5mm	3.39
3782144	BT40BHPVTT031354	5/16	.83	1.06	3.54	2.48	1.02	.39	TTSS06014M	3mm	2.53
3782145	BT40BHPVTT031630	5/16	.83	1.06	6.30	1.97	1.02	.39	TTSS06014M	3mm	3.39
3782146	BT40BHPVTT038354	3/8	.95	1.26	3.54	2.48	1.22	.39	TTSS08014M	4mm	2.69
3782147	BT40BHPVTT038630	3/8	.95	1.26	6.30	2.48	1.22	.39	TTSS08014M	4mm	3.78
3782148	BT40BHPVTT044354	7/16	.95	1.26	3.54	2.48	1.42	.39	TTSS10014M	5mm	2.66
3615353	BT40BHPVTT050354	1/2	.95	1.26	3.54	2.48	1.42	.39	TTSS10014M	5mm	2.64
3615354	BT40BHPVTT050630	1/2	.95	1.26	6.30	2.48	1.42	.39	TTSS10014M	5mm	3.73
3615355	BT40BHPVTT062354	5/8	1.06	1.34	3.54	2.48	1.54	.39	TTSS12014M	6mm	2.71
3615356	BT40BHPVTT062630	5/8	1.06	1.34	6.30	2.48	1.54	.39	TTSS12014M	6mm	3.91
3615357	BT40BHPVTT075354	3/4	1.30	1.61	3.54	2.48	1.61	.39	TTSS16014M	8mm	2.99
3615358	BT40BHPVTT075630	3/4	1.30	1.65	6.30	5.24	1.61	.39	TTSS16014M	8mm	4.56
3615359	BT40BHPVTT088354	7/8	1.30	1.61	3.54	2.48	1.61	.39	TTSS16014M	8mm	2.90
3615360	BT40BHPVTT088630	7/8	1.30	1.65	6.30	5.24	1.61	.39	TTSS16014M	8mm	4.47
3615361	BT40BHPVTT100394	1	1.73	2.06	3.94	2.87	1.85	.39	TTSS16014M	8mm	3.84
3615362	BT40BHPVTT100630	1	1.73	2.08	6.30	5.24	1.85	.39	TTSS16014M	8mm	6.03
3615363	BT40BHPVTT125413	1 1/4	1.73	2.08	4.13	3.07	2.01	.39	TTSS16014M	8mm	3.69
3615364	BT40BHPVTT125630	1 1/4	1.73	2.08	6.30	5.24	2.01	.39	TTSS16014M	8mm	5.69

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Shrink Fit technical section, see page M78.

Supplied with stop screw.

Adjusting stop screw gage, see page M81.

Optional M6~1.0P x 5mm lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.

For retention knobs, see page L45.

BT40 Shank Tools

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

BT40 Shank Tools

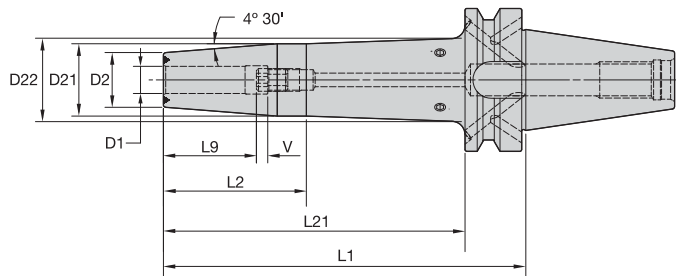
Shrink Fit Toolholders High Torque (HT)



- 30–50% higher clamping torque compared to GP line.
- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide only, designated by groove in front face (requirements below).
- 10 kW power or greater Shrink Fit device must be used.



BT40 Shank Tools



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

ERICKSON

TT HT HPV MM-BT Form B/AD



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	kg
3615457	BT40BHPVTTH12090M	12	24	32	—	90	63	—	36	10	TTSS10014M	5mm	1,20
3615458	BT40BHPVTTH12120M	12	24	32	—	120	93	—	36	10	TTSS10014M	5mm	1,38
3615459	BT40BHPVTTH12160M	12	24	32	37	160	63	133	36	10	TTSS10014M	5mm	1,70
3615460	BT40BHPVTTH14090M	14	27	34	—	90	63	—	36	10	TTSS10014M	5mm	1,25
3615461	BT40BHPVTTH14120M	14	27	34	—	120	93	—	36	10	TTSS10014M	5mm	1,45
3615462	BT40BHPVTTH14160M	14	27	34	39	160	63	133	36	10	TTSS10014M	5mm	1,81
3615463	BT40BHPVTTH16090M	16	27	34	—	90	63	—	39	10	TTSS12014M	6mm	1,23
3615464	BT40BHPVTTH16120M	16	27	34	—	120	93	—	39	10	TTSS12014M	6mm	1,43
3615465	BT40BHPVTTH16160M	16	27	34	39	160	63	133	39	10	TTSS12014M	6mm	1,77
3615466	BT40BHPVTTH18090M	18	33	41	—	90	63	—	39	10	TTSS12014M	6mm	1,38
3615467	BT40BHPVTTH18120M	18	33	42	—	120	93	—	39	10	TTSS12014M	6mm	1,69
3615468	BT40BHPVTTH18160M	18	33	42	—	160	133	—	39	10	TTSS12014M	6mm	2,10
3615469	BT40BHPVTTH20090M	20	33	41	—	90	63	—	41	10	TTSS16014M	8mm	1,35
3615470	BT40BHPVTTH20120M	20	33	42	—	120	93	—	41	10	TTSS16014M	8mm	1,65
3615471	BT40BHPVTTH20160M	20	33	42	—	160	133	—	41	10	TTSS16014M	8mm	2,06
3615472	BT40BHPVTTH25100M	25	44	52	50	100	73	—	47	10	TTSS16014M	8mm	1,75
3615473	BT40BHPVTTH32105M	32	44	53	50	105	78	—	51	10	TTSS16014M	8mm	1,66

(continued)



(TT HT HPV BT Form B/AD continued)

Cutting Tool Shank Requirements
inch (industry standard)

cutting tool shank diameters	tolerance
1/2 & 5/8	.0000/- .0004
3/4, 7/8, 1, & 1-1/4	.0000/- .0005

■ TT HT HPV IN-BT Form B/AD



BT40 Shank Tools

order number	catalog number	D1	D2	D21	L1	L2	L9	V	stop screw	wrench size stop screw	lbs
3615444	BT40BHPVTTH050354	1/2	.95	1.26	3.54	2.48	1.42	.39	TTSS10014M	5mm	2.63
3615445	BT40BHPVTTH050630	1/2	.95	1.26	6.30	2.48	1.42	.39	TTSS10014M	5mm	3.73
3615446	BT40BHPVTTH062354	5/8	1.06	1.34	3.54	2.48	1.54	.39	TTSS12014M	6mm	2.71
3615447	BT40BHPVTTH062630	5/8	1.06	1.34	6.30	2.48	1.54	.39	TTSS12014M	6mm	3.91
3615448	BT40BHPVTTH075354	3/4	1.30	1.61	3.54	2.48	1.61	.39	TTSS16014M	8mm	2.99
3615450	BT40BHPVTTH075630	3/4	1.30	1.65	6.30	5.24	1.61	.39	TTSS16014M	8mm	4.56
3615451	BT40BHPVTTH088354	7/8	1.30	1.61	3.54	2.48	1.61	.39	TTSS16014M	8mm	2.90
3615452	BT40BHPVTTH088630	7/8	1.30	1.65	6.30	5.24	1.61	.39	TTSS16014M	8mm	4.47
3615453	BT40BHPVTTH100394	1	1.73	2.06	3.94	2.87	1.85	.39	TTSS16014M	8mm	3.84
3615454	BT40BHPVTTH100630	1	1.73	2.08	6.30	5.24	1.85	.39	TTSS16014M	8mm	6.03
3615455	BT40BHPVTTH125413	1 1/4	1.73	2.08	4.13	3.07	2.01	.39	TTSS16014M	8mm	3.68
3615456	BT40BHPVTTH125630	1 1/4	1.73	2.08	6.30	5.24	2.01	.39	TTSS16014M	8mm	5.69

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Shrink Fit technical section, see page M78.

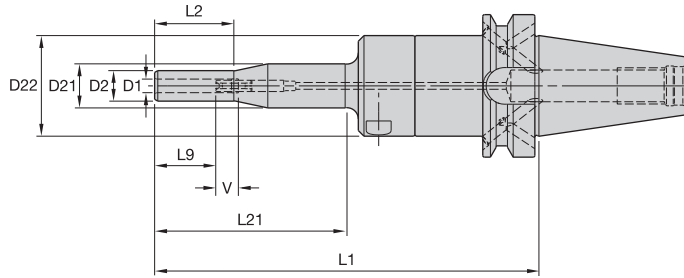
Supplied with stop screw.

Adjusting stop screw gage, see page M81.

Optional M6~1.0P x 5mm lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.

For retention knobs, see page L45.

 Form AD					
 Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



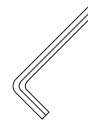
BT40 Shank Tools

ERICKSON

■ HC Slim-T MM-BT Form B/AD

order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	kg
3019236	BT40BHCSLT06170M	6	13,5	19,5	44	170	35	85	27	10	1,68
3019237	BT40BHCSLT08170M	8	15,5	19,5	44	170	35	85	27	10	1,69
3019238	BT40BHCSLT10170M	10	17,5	44,5	—	170	85	145	31	10	1,68

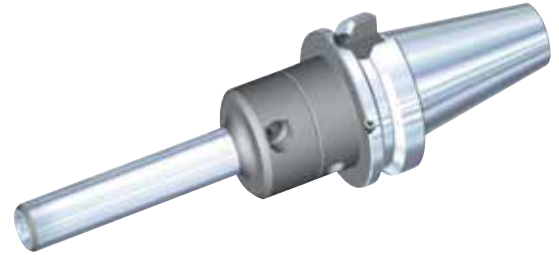
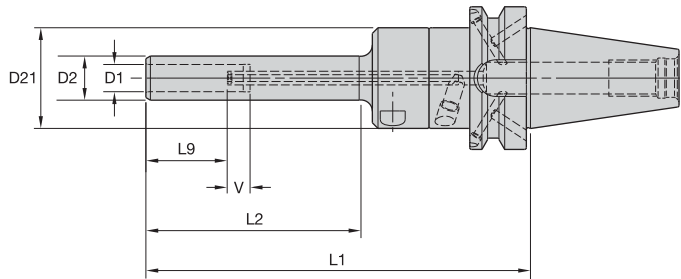
■ Spare Parts



catalog number	actuation wrench	wrench size actuation screw	stop screw	stop screw wrench	wrench size stop screw
BT40BHCSLT06170M	170.135	5mm	571.060	170.002	2,5mm
BT40BHCSLT08170M	170.135	5mm	571.060	170.002	2,5mm
BT40BHCSLT10170M	170.135	5mm	571.061	170.003	3mm

(continued)

(HC Slim MM-BT Form B/AD continued)



BT40 Shank Tools

■ HC Slim MM-BT Form B/AD

order number	catalog number	D1	D2	D21	L1	L2	L9	V	kg
2634575	BT40BHCSL12170M	12	19,5	44,5	170	95	36	10	1,61
2634576	BT40BHCSL14170M	14	21,5	52,5	170	95	36	10	1,84
2634577	BT40BHCSL16170M	16	23,5	52,5	170	95	39	10	1,87
2634578	BT40BHCSL18170M	18	25,5	52,5	170	95	39	10	1,91
2634579	BT40BHCSL20170M	20	27,5	52,5	170	95	41	10	1,95

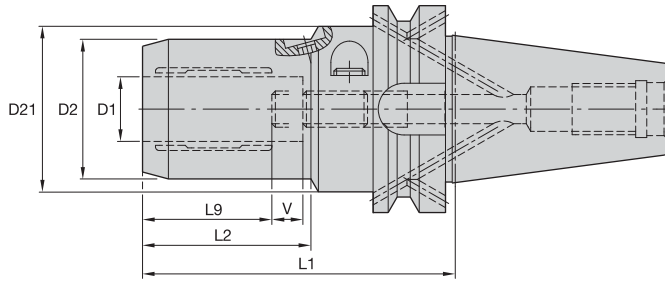
■ Spare Parts



catalog number	actuation wrench	wrench size actuation screw	stop screw wrench	wrench size stop screw
BT40BHCSL12170M	170.135	5mm	170.002	2,5mm
BT40BHCSL14170M	170.135	5mm	170.002	2,5mm
BT40BHCSL16170M	170.135	5mm	170.002	2,5mm
BT40BHCSL18170M	170.135	5mm	170.002	2,5mm
BT40BHCSL20170M	170.135	5mm	170.002	2,5mm

NOTE: Do not overtorque actuation screw. Use supplied wrench and tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw and actuation wrench.
 Unable to use SEFAS™ chamfering rings on this design.
 Reduction sleeves are available and must be ordered separately; see page J2.
 For retention knobs, see page L45.

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



BT40 Shank Tools

ERICKSON

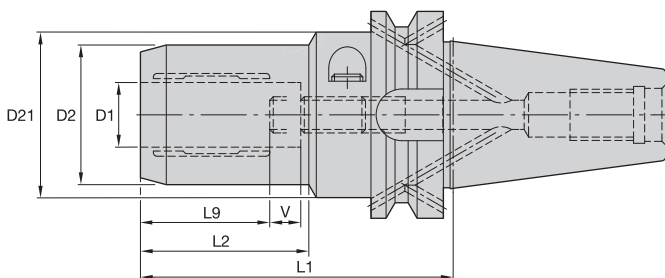
■ HC MM-BT Form B/AD



order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	stop screw wrench	wrench size stop screw	kg
1315341	BT40BHC06080M	6	25,7	50	80	33	27	10	170.135	5mm	170.002	2,5mm	1,28
1315342	BT40BHC08080M	8	27,7	50	80	34	27	10	170.135	5mm	170.002	2,5mm	1,30
1315343	BT40BHC10085M	10	29,7	50	85	35	31	10	170.135	5mm	170.002	2,5mm	1,35
1315344	BT40BHC12090M	12	31,6	50	90	40	36	10	170.135	5mm	170.002	2,5mm	1,39
1315345	BT40BHC14090M	14	33,6	50	90	42	36	10	170.135	5mm	170.003	3mm	1,40
1315347	BT40BHC16090M	16	37,6	50	90	47	39	10	170.135	5mm	170.003	3mm	1,44
1315348	BT40BHC18090M	18	39,6	50	90	47	39	10	170.135	5mm	170.003	3mm	1,47
1315349	BT40BHC20095M	20	41,6	50	95	48	41	10	170.135	5mm	170.003	3mm	1,54
1315350	BT40BHC25115M	25	49,8	63	115	51	46	10	170.136	6mm	170.004	4mm	2,18
1315351	BT40BHC32120M	32	59,8	63	120	59	50	10	170.136	6mm	170.004	4mm	2,46

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
Hydraulic chuck technical section, see page M84.
Supplied with stop screw.
Actuation wrench must be ordered separately.
Reduction sleeves are available and must be ordered separately; see page J2.
For retention knobs, see page L45.

Form AD	✓				
Form B					
			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



BT40 Shank Tools

ERICKSON

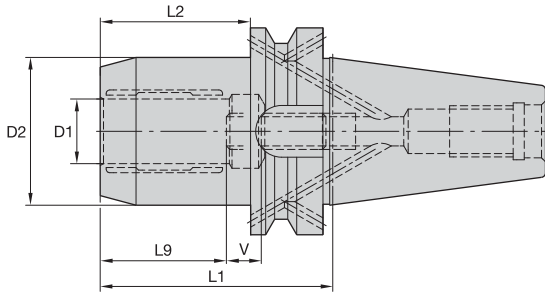
■ HC Trend IN-BT Form B/AD



order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	stop screw	stop screw wrench	wrench size stop screw	lbs
2263075	BT40BHCT025315	1/4	1.011	1.963	3.150	1.378	1.063	.394	170.135	5mm	571.061	170.003	3mm	2.85
2263076	BT40BHCT038335	3/8	1.168	1.963	3.346	1.496	1.220	.394	170.135	5mm	571.061	170.003	3mm	3.02
2263077	BT40BHCT050354	1/2	1.243	1.963	3.543	1.575	1.417	.394	170.135	5mm	571.061	170.003	3mm	3.16
2263078	BT40BHCT062354	5/8	1.479	1.963	3.543	1.831	1.535	.394	170.135	5mm	571.063	—	5mm	3.23
2263079	BT40BHCT075374	3/4	1.636	1.963	3.740	1.890	1.614	.394	170.135	5mm	571.063	—	5mm	3.49
2263080	BT40BHCT100453	1	1.959	2.474	4.528	2.008	1.850	.394	170.136	6mm	571.063	170.005	5mm	4.80
2263081	BT40BHCT125472	1 1/4	2.352	2.474	4.724	2.323	2.008	.394	170.136	6mm	571.063	170.005	5mm	5.43

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw.
 Actuation wrench must be ordered separately.
 Reduction sleeves are available and must be ordered separately; see page J2.
 For retention knobs, see page L45.

Form AD					
Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



BT40 Shank Tools

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■ HC Basic MM-BT Form B/AD

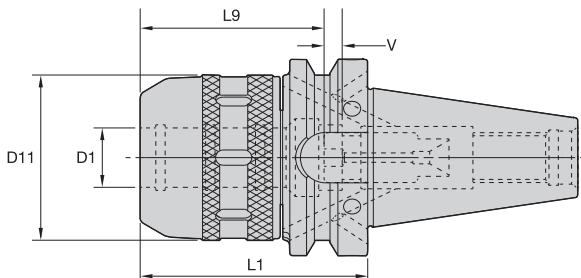
order number	catalog number	D1	D2	L1	L2	L9	V	actuation wrench	wrench size actuation screw	stop screw	wrench size stop screw	kg	
1599687	BT40BHCB20095M	20	49,9	95	68	41	10		5mm		280.034	5mm	1,79

■ HC Basic IN-BT Form B/AD

order number	catalog number	D1	D2	L1	L2	L9	V	actuation wrench	wrench size actuation screw	stop screw	wrench size stop screw	lbs	
2263074	BT40BHCB075374	3/4	1.96	3.74	2.68	1.61	—		5mm		280.034	5mm	3.98

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
Hydraulic chuck technical section, see page M84.
Supplied with stop screw.
Actuation wrench must be ordered separately.
Reduction sleeves are available and must be ordered separately; see page J2.
For retention knobs, see page L45.

	Form AD				
	Form B			40	(2x) MS2221S
				50	(2x) MS1296S
					2,5mm
					3mm



ERICKSON

■ HPMC MM-BT Form B/AD

order number	catalog number	D1	D11	L1	L9	V	locknut wrench	stop screw	wrench size stop screw	kg
3578487	BT40BHPMC20075M	20	53	75	47	20	PSW52M	MCSS16040M	2,5mm & 5mm	1,50
3578488	BT40BHPMC20120M	20	53	120	50	20	PSW52M	MCSS16040M	2,5mm & 5mm	2,20
3578489	BT40BHPMC25085M	25	61	85	55	20	PSW58M	MCSS16040M	2,5mm & 5mm	1,80
3578490	BT40BHPMC25120M	25	61	120	55	20	PSW58M	MCSS16040M	2,5mm & 5mm	2,50
3578491	BT40BHPMC32090M	32	70	90	58	20	PSW68M	MCSS16040M	2,5mm & 5mm	2,10
3578492	BT40BHPMC32120M	32	70	120	58	20	PSW68M	MCSS16040M	2,5mm & 5mm	2,70

■ HPMC IN-BT Form B/AD

order number	catalog number	D1	D11	L1	L9	V	locknut wrench	stop screw	wrench size stop screw	lbs
3100412	BT40BHPMC075295	3/4	2.09	2.95	1.85	.79	PSW52M	MCSS16040M	2,5mm & 5mm	3.30
3100413	BT40BHPMC075472	3/4	2.09	4.72	1.97	.79	PSW52M	MCSS16040M	2,5mm & 5mm	4.90
3100414	BT40BHPMC100335	1	2.40	3.35	2.17	.79	PSW58M	MCSS16040M	2,5mm & 5mm	4.10
3100415	BT40BHPMC100472	1	2.40	4.72	2.17	.79	PSW58M	MCSS16040M	2,5mm & 5mm	5.70
3100416	BT40BHPMC125354	1 1/4	2.76	3.54	2.28	.79	PSW68M	MCSS16040M	2,5mm & 5mm	4.50
3100417	BT40BHPMC125472	1 1/4	2.76	4.72	2.28	.79	PSW68M	MCSS16040M	2,5mm & 5mm	6.10

NOTE: Milling chuck technical section, see page M88.

Supplied with locknut and stop screw.

Locknut wrench not included.

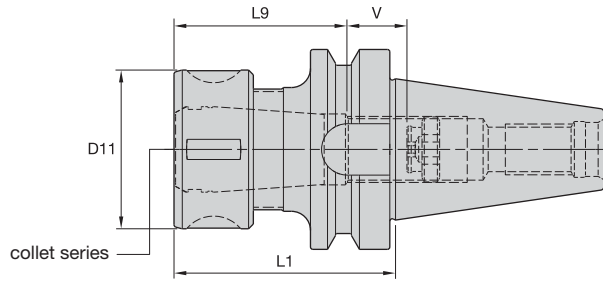
Optional M6~1,0P fine-balancing screw set is available (order number HPMCBALSCREWSET) and must be ordered separately; see page L14.

Reduction sleeves are available and must be ordered separately; see page J6.

For retention knobs, see page L45.

Form AD	✓				
Form B	↩			40	(2x) MS2221S
				50	(2x) MS1296S
					2,5mm
					3mm

- Tremendous Grip (3:1 advantage).



BT40 Shank Tools

TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG75	2,6	20,0	3/64	3/4
TG100	2,6	25,5	5/64	1
TG150	11,6	40,0	23/64	1 1/2

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■ TG Round-BT Form AD



order number	catalog number	collet series	D11	L1	L9	V	locknut	wrench	Nm	stop screw	wrench size stop screw	kg
1156366	BT40TG075070M	TG75	50	70	54	27	LNA075M	HSW45M	136	SS081041G	4mm & 5/32	1,24
1156367	BT40TG100080M	TG100	60	80	70	13	LNA100M	HSW58M	203	SS112041G	4mm & 5/32	1,44
1191754	BT40TG100100M	TG100	60	100	70	33	LNA100M	HSW58M	203	SS112041G	4mm & 5/32	1,63
1191755	BT40TG100150M	TG100	60	150	70	83	LNA100M	HSW58M	203	SS112041G	4mm & 5/32	2,11
1191756	BT40TG150110M	TG150	85	110	86	20	LNA150M	HSW80M	271	SS112041G	4mm & 5/32	2,46

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.

Collet chuck technical section, see page M98.

Supplied with locknut and stop screw.

Locknut wrench must be ordered separately.

Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16–L17.

Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.

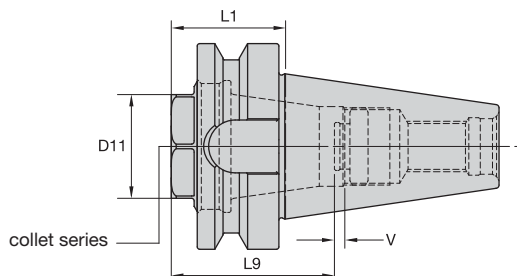
Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.

TG standard straight-bore collets, see page J10.

TG tap collets, see page J10.

For retention knobs, see page L45.

- Grip (2:1 advantage).



ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER32	2,0	20,0	.08	.81

BT40 Shank Tools

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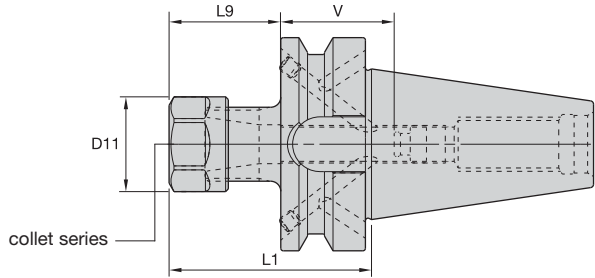
■ ER Short-BT Form AD



order number	catalog number	collet series	D11	L1	L9	V	locknut	wrench	Nm	stop screw	wrench size stop screw	kg
2978765	BT40SER32035M	ER32	36	35	50	6	LNECSER32M	OEW32M	136	SS094041G	4mm & 5/32	0,75

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 ER standard straight-bore collets, see pages J58–J59.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.
 For retention knobs, see page L45.

- Grip (2:1 advantage).



BT40 Shank Tools

Collet Capacity

ER collet series	mm		inch	
	min	max	min	max
ER16	0,5	10,0	.02	.41
ER20	0,5	13,0	.02	.50
ER25	1,0	16,0	.04	.63
ER32	2,0	20,0	.08	.81
ER40	3,0	26,0	.12	1.00

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■ ER Hex-BT Form B/AD

order number	catalog number	collet series	D11	L1	L9	V	kg
1315660	BT40BER16060M	ER16	28	60	32	39	1,03
1623345	BT40BER16120M	ER16	28	120	32	48	1,27
3847461	BT40BER16150M	ER16	28	150	32	48	1,39
3847462	BT40BER20060M	ER20	34	60	37	38	1,04
3847513	BT40BER20120M	ER20	34	120	37	63	1,41
3847514	BT40BER20150M	ER20	34	150	37	63	1,59

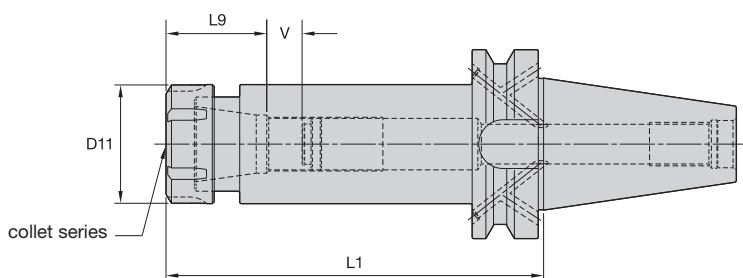
■ Spare Parts



catalog number	locknut	wrench	counterbore collet torque (Nm)	straight collet torque (Nm)	stop screw	wrench size stop screw
BT40BER16060M	LNHSER16M	OEW25M	40	56	SS044038G	4mm & 5/32
BT40BER16120M	LNHSER16M	OEW25M	40	56	SS044038G	4mm & 5/32
BT40BER16150M	LNHSER16M	OEW25M	40	56	SS044038G	4mm & 5/32
BT40BER20060M	LNHSER20M	OEW30M	32	80	SS056041G	4mm & 5/32
BT40BER20120M	LNHSER20M	OEW30M	32	80	SS056041G	4mm & 5/32
BT40BER20150M	LNHSER20M	OEW30M	32	80	SS056041G	4mm & 5/32

(continued)

(continued ER BT Form B/AD)



ER Round-BT Form B/AD

order number	catalog number	collet series	D11	L1	L9	V	kg
1718315	BT40BER25070M	ER25	42	70	40	38	1,15
1610709	BT40BER25120M	ER25	42	120	40	60	1,61
3798342	BT40BER25150M	ER25	42	150	40	60	1,90
1538985	BT40BER32070M	ER32	50	70	46	40	1,15
1538986	BT40BER32120M	ER32	50	120	46	54	1,82
3798343	BT40BER32150M	ER32	50	150	46	54	2,26
1871535	BT40BER40080M	ER40	63	80	52	28	1,37
1871538	BT40BER40120M	ER40	63	120	52	33	2,29

Spare Parts



catalog number	locknut	wrench	counterbore collet torque (Nm)	stop screw	wrench size stop screw
BT40BER25070M	LNSER25M	ER25WM	104	SS075041G	4mm & 5/32
BT40BER25120M	LNSER25M	ER25WM	104	SS075041G	4mm & 5/32
BT40BER25150M	LNSER25M	ER25WM	104	SS075041G	4mm & 5/32
BT40BER32070M	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32
BT40BER32120M	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32
BT40BER32150M	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32
BT40BER40080M	LNSER40M	ER40WM	176	SS112041G	4mm & 5/32
BT40BER40120M	LNSER40M	ER40WM	176	SS112041G	4mm & 5/32

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.
 For retention knobs, see page L45.

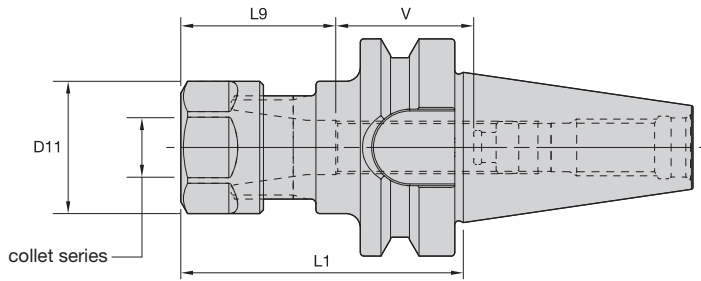
Form AD	✓				
Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

BT40 Shank Tools

DA 08 Series Double-Angle Collet Chucks



- Grip 1:1.



BT40 Shank Tools

ERICKSON™

■ DA Hex-BT form AD

DA collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
DA200	0,2	10	1/64	25/64
DA100	1,8	14	1/64	9/16

order number	catalog number	collet series	collet series				lbs
			D11	L1	L9	V	
1191725	BT40DA208070M	DA200	1.08	2.76	1.50	1.26	2.20
1191722	BT40DA108070M	DA100	1.44	2.76	1.77	1.10	2.20

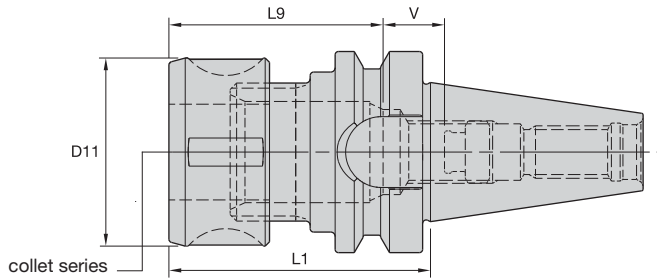
■ Spare Parts



catalog number	locknut	locknut wrench	ft. lbs.	stop screw	wrench size stop screw
BT40DA108070M	LNA108M	OEW32M	55	SS056041G	4mm & 5/32
BT40DA208070M	LNA208M	OEW24M	44	SS038031G	2mm & 5/64

(continued)

(DA BT Form AD continued)



BT40 Shank Tools

■ DA Round-BT form AD

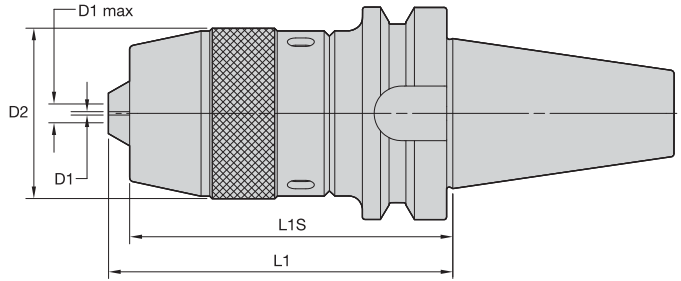
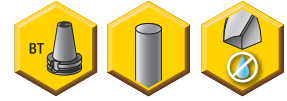
order number	catalog number	collet series	D11	L1	L9	V	lbs
1191723	BT40DA188070M	DA180	1.69	2.76	1.89	1.30	2.65
1258159	BT40DA188100M	DA180	1.69	3.94	1.89	2.05	3.09
1191724	BT40DA188150M	DA180	1.69	5.91	1.97	1.77	3.75

■ Spare Parts



catalog number	locknut	locknut wrench	ft. lbs.	stop screw	wrench size stop screw
BT40DA188070M	LNA188M	HSW45M	100	SS081041G	4mm & 5/32
BT40DA188100M	LNA188M	HSW45M	100	SS081041G	4mm & 5/32
BT40DA188150M	LNA188M	HSW45M	100	SS081041G	4mm & 5/32

NOTE: For retention tighten locknut to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 DA standard straight-bore collets, see page J62.
 DA non-pullout collets, see pages J65–J68.

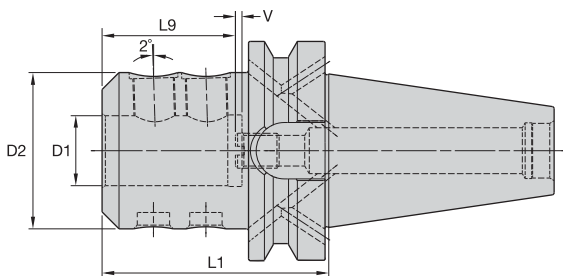


BT40 Shank Tools

■ DC-BT Form A

order number	catalog number	D1		D1 max		D2	L1	L1S	locknut wrench PSW45M	Nm	kg
		mm	in	mm	in						
3583293	BT40DC13096M	1,0	.039	13,0	.512	51	108	96		55	1,74

NOTE: Tighten to the recommended tightening torque.
Locknut wrench not supplied.
For retention knobs, see page L45.



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■ WN MM-BT Form B/AD



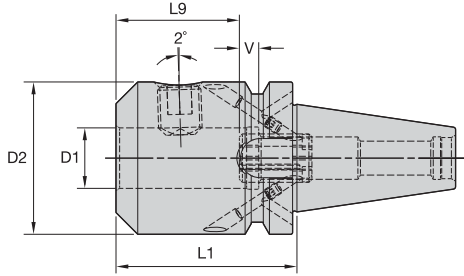
order number	catalog number	D1	D2	L1	L9	V	lock screw	wrench size lock screw	Nm	stop screw	wrench size stop screw	kg
1126481	BT40BWN06050M	6	25	50	30	10	SS03M012	3mm	7	571.060	2,5mm	1,03
1126482	BT40BWN08050M	8	28	50	30	10	SS03M014	4mm	15	571.067	3mm	1,04
1126850	BT40BWN10063M	10	35	63	35	10	SS03M018	5mm	25	571.068	4mm	1,18
1126483	BT40BWN12063M	12	42	63	40	10	SS03M023	6mm	35	571.074	5mm	1,26
1126844	BT40BWN14063M	14	44	63	40	10	SS03M023	6mm	35	571.074	5mm	1,28
1126845	BT40BWN16063M	16	48	63	43	10	SS03M025	6mm	50	571.075	6mm	1,34
1126846	BT40BWN18063M	18	50	63	43	10	SS03M025	6mm	50	571.075	6mm	1,36
1126847	BT40BWN20063M	20	52	63	45	10	SS03M026	8mm	95	571.076	6mm	1,37
1126848	BT40BWN25090M	25	65	90	55	10	SS03M027	10mm	135	571.077	6mm	2,21
1126849	BT40BWN32100M	32	72	100	54	10	SS03M029	10mm	160	571.077	6mm	2,63

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw and stop screw.
 Lock screw or stop screw wrenches not included.
 For retention knobs, see page L45.

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

BT40 Shank Tools

Whistle Notch™ Adapters Short • Whistle Notch Tap Chuck Adapters Short TA



BT40 Shank Tools

ERICKSON™

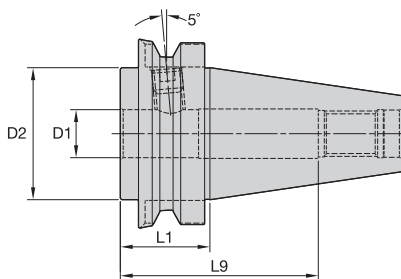
■ SWN MM-BT Form B/AD



order number	catalog number	D1	D2	L1	L9	V	lock screw	wrench size lock screw	stop screw	wrench size stop screw	Nm	kg
1126479	BT40BSWN25075M	25	65	75	44	15	SS03M027	10mm	571.066	10mm	135	1,90
1126480	BT40BSWN32075M	32	72	75	46	17	SS03M029	10mm	571.066	10mm	160	1,98

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw.
 Lock screw wrenches not included.
 For retention knobs, see page L45.

Form	Checkmark	Material	Wrench Size	Wrench Size	Wrench Size
Form AD	✓	MS2221S	40	(2x) MS2221S	2,5mm
Form B	✗	MS1296S	50	(2x) MS1296S	3mm



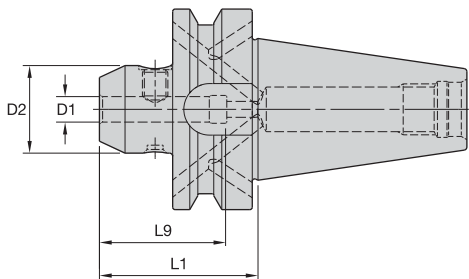
ERICKSON™

■ SWN IN-BT Form AD (Tap Chuck Adapter)



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
1017937	BT40TA1106	1	2.48	1.06	2.50	ELS038031PKG	3/16	15	1.79

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw.
 Lock screw wrench not included.
 For retention knobs, see page L45.



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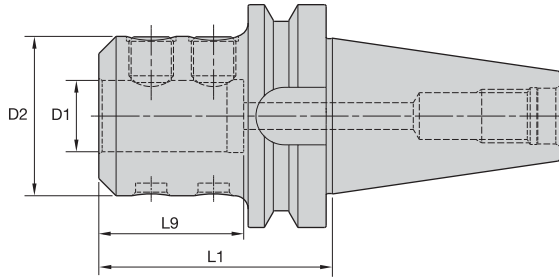
EM MM-BT Form B/AD



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	Nm	kg
1126851	BT40BEM06050M	6	25	50	40	SS03M012	3mm	7	1,02
1126852	BT40BEM08050M	8	28	50	40	SS03M014	4mm	15	1,03
1126853	BT40BEM10063M	10	35	63	45	SS03M018	5mm	25	1,17
1127275	BT40BEM12063M	12	42	63	50	SS03M023	6mm	35	1,26
1126914	BT40BEM14063M	14	44	63	50	SS03M023	6mm	35	1,28
1126915	BT40BEM16063M	16	48	63	53	SS03M025	6mm	50	1,33
1126916	BT40BEM18063M	18	50	63	53	SS03M025	6mm	50	1,35
1126917	BT40BEM20063M	20	52	63	55	SS03M026	8mm	95	1,36
1126478	BT40BEM25090M	25	65	90	60	SS03M027	10mm	135	2,24

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw.
 Lock screw wrench not included.
 For retention knobs, see page L45.

			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



BT40 Shank Tools

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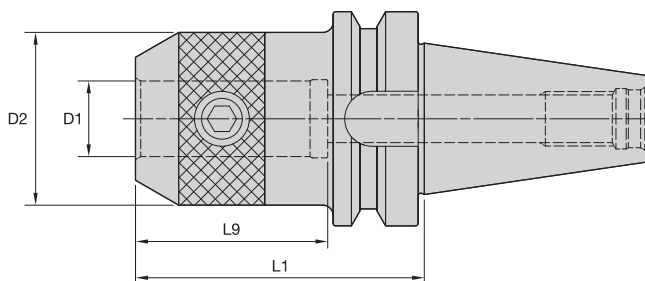
■ EM MM-BT Form AD



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	Nm	kg
1156359	BT40EM32110M	32	72	110	65	SS03M029	10mm	160	2,91

(continued)

(EM BT Form AD continued)

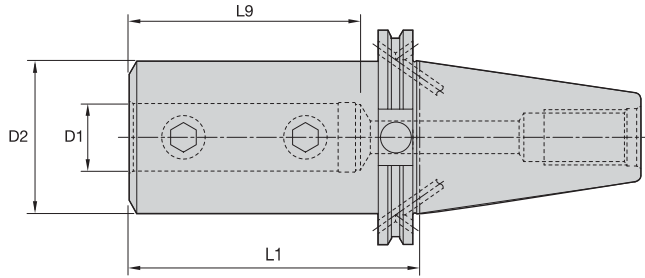


EM IN-BT Form AD



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
1258164	BT40EM025255	1/4	1.00	2.55	3.93	ELS025025PKG	1/8	5	2.35
1258165	BT40EM031255	5/16	1.00	2.55	3.93	ELS031031PKG	5/32	11	2.35
1258166	BT40EM038255	3/8	1.00	2.55	3.93	ELS038031PKG	3/16	15	2.32
1026620	BT40EM050255	1/2	1.38	2.55	3.93	ELS044038PKG	7/32	20	2.52
1064863	BT40EM050400	1/2	1.38	4.00	5.38	ELS044038PKG	7/32	20	3.03
1258176	BT40EM062255	5/8	1.63	2.55	2.09	ELS056050PKG	1/4	40	2.69
1084589	BT40EM075150	3/4	1.68	1.50	2.22	ELS062050PKG	5/16	70	2.08
1258177	BT40EM075255	3/4	1.75	2.55	2.22	ELS062050PKG	5/16	70	2.73
1258184	BT40EM088335	7/8	2.00	3.35	2.22	ELS062050PKG	5/16	70	3.58
1084590	BT40EM100162	1	2.04	1.63	2.46	DWG ELS075044	3/8	110	2.00
1150875	BT40EM100374	1	2.00	3.74	2.56	ELS075056PKG	3/8	110	3.73
1064864	BT40EM100500	1	2.00	5.00	4.49	ELS075056PKG	3/8	110	4.42
1084591	BT40EM125250	1 1/4	2.46	2.50	2.51	ELS075062PKG	3/8	110	3.05
1258194	BT40EM125335	1 1/4	2.40	3.35	2.51	ELS075056PKG	3/8	110	3.95

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw.
 Lock screw wrench not included.
 For retention knobs, see page L45.



BT40 Shank Tools

ERICKSON

■ SSF IN-BT Form B/AD



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
1749289	BT40BSSF075325	3/4	1.75	3.25	2.25	ELS062050PKG	5/16	70	3.22
1749290	BT40BSSF100425	1	1.97	4.25	3.25	DWG ELS075050	3/8	110	4.01
1749292	BT40BSSF125500	1 1/4	2.50	5.00	3.50	ELS075056PKG	3/8	110	5.83

NOTE: Do not overtighten lock screw; use torque recommendations above.
Supplied with lock screw.
Lock screw wrench not included.
For retention knobs, see page L45.

	Form AD					
	Form B					
		40	(2x) MS2221S	2,5mm		
		50	(2x) MS1296S	3mm		



KM MicroTM Quick Change Tooling System

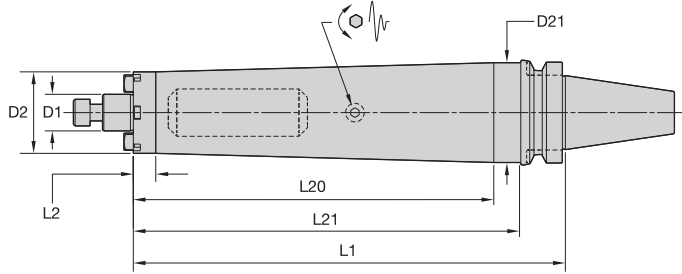
A smaller, more compact version of the internationally renowned KMTM system.

- Quick-change cutter heads reduce indexing and set-up times by 66%.
- Specially designed for use with automatic and smaller universal lathes.
- Unique flange attachment system increases machine tool capacity.
- KM Micro square shank adapters can be installed quickly and easily in existing tool block adapters.

Experience the advantages at your Authorized Kennametal Distributor or at www.kennametal.com.

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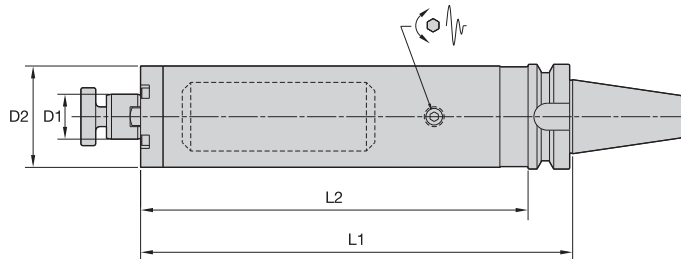


BT40 Shank Tools

ERICKSON

■ SMC TD Cap MM-BT Form B/AD

order number	catalog number	D1	D2	D21	L1	L2	L20	L21	lock screw	drive key	wrench size lock screw	kg
4135487	BT40BTDSMC22260M	22	49	60	260	14	217	233	MS1234	KDK22M	8mm	5,06



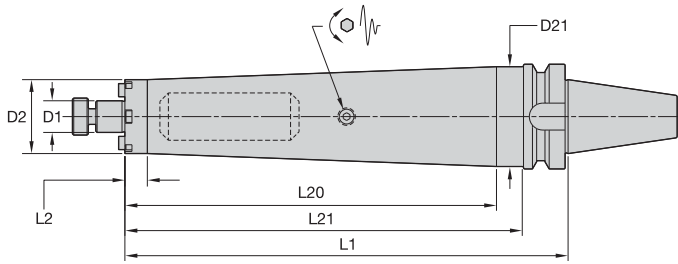
■ SMC TD Lock MM-BT Form B/AD

order number	catalog number	D1	D2	L1	L2	socket-head cap screw	drive key	wrench size retention screw	Nm	kg
4135488	BT40BTDSMC27260M	27	61	260	233	KLSS27M	—	10mm	—	5,96

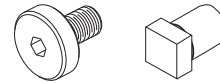


(continued)

(SMC TD BT Form B/AD continued)



■ SMC TD Lock IN-BT Form B/AD



order number	catalog number	D1	D2	D21	L1	L2	L20	L21	lock screw	drive key	wrench size lock screw	lbs
4135489	BT40BTDSMC0751050	3/4	1.75	2.36	10.50	.53	8.80	9.44	KLS07	KDK05	1/4	10.67
4135490	BT40BTDSMC1001050	1	2.75	—	10.50	10.50	—	—	KLS10	KDK06	5/16	16.86

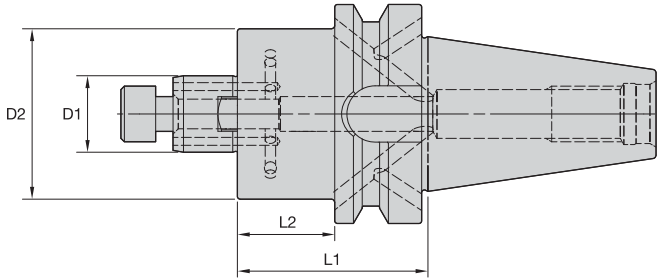
NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive keys.
 Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
 Lock screw wrench not included.
 For retention knobs, see page L45.

BT40 Shank Tools

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

BT40 Shank Tools

Shell Mill Adapters with Through Coolant



BT40 Shank Tools

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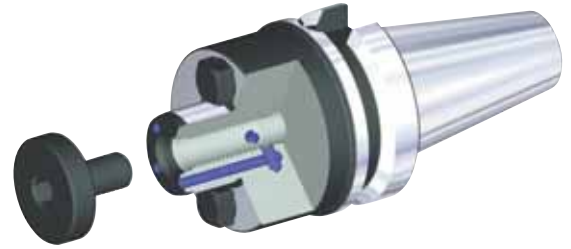
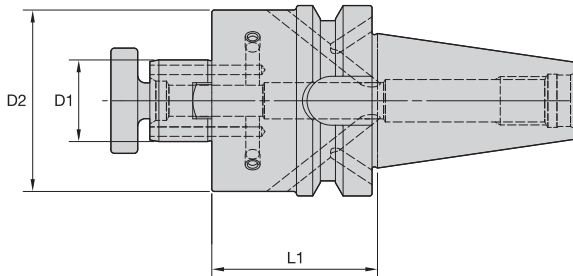
■ SMC Cap MM-BT Form B/AD



order number	catalog number	D1	D2	L1	L2	lock screw	drive key	wrench size lock screw	kg
3752232	BT40BSM2C16050M	16	38	50	23	MS1294	KDK16M	6mm	1,16
3752234	BT40BSM2C16075M	16	38	75	48	MS1294	KDK16M	6mm	1,35
3752236	BT40BSM2C16100M	16	38	100	73	MS1294	KDK16M	6mm	1,55
3752231	BT40BSMC16050M	16	44	50	23	MS1294	KDK16M	6mm	1,23
3752233	BT40BSMC16075M	16	44	75	48	MS1294	KDK16M	6mm	1,50
3752235	BT40BSMC16100M	16	44	100	73	MS1294	KDK16M	6mm	1,77
3752238	BT40BSM2C22055M	22	42	55	28	MS1234	—	8mm	1,30
3752241	BT40BSM2C22100M	22	42	100	73	MS1234	—	8mm	1,75
3752243	BT40BSM2C22150M	22	42	150	123	MS1234	—	8mm	2,26
3752237	BT40BSMC22055M	22	49	55	28	MS1234	KDK22M	8mm	1,41
3752239	BT40BSMC22100M	22	49	100	73	MS1234	KDK22M	8mm	2,03
3752242	BT40BSMC22150M	22	49	150	123	MS1234	KDK22M	8mm	2,74

(continued)

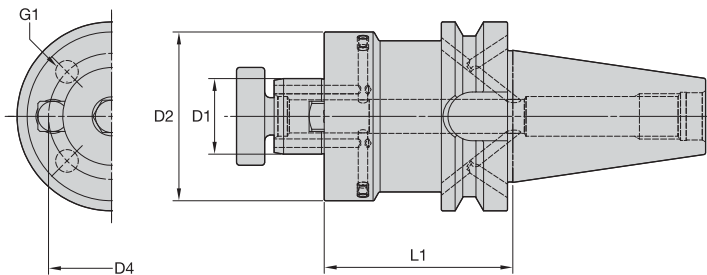
(SMC BT Form B/AD continued)



■ SMC Lock MM-BT Form B/AD



order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size lock screw	kg
3752244	BT40BSMC27055M	27	60	55	KLSS27M	KDK22M	10mm	2
3752245	BT40BSMC27100M	27	60	100	KLSS27M	KDK22M	10mm	3
3752246	BT40BSMC27150M	27	60	150	KLSS27M	KDK22M	10mm	4
3752247	BT40BSMC32060M	32	78	60	KLSS32M	KDK32M	14mm	2
3752248	BT40BSMC32100M	32	78	100	KLSS32M	KDK32M	14mm	3



■ SMC DIR MM-BT Form B/AD

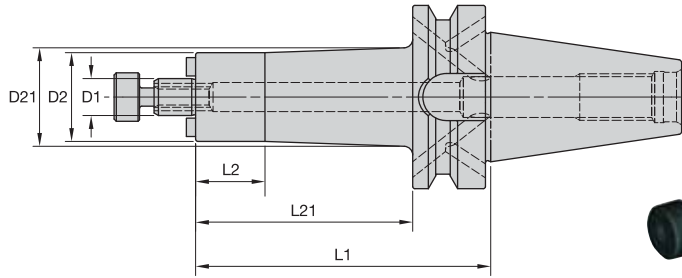


order number	catalog number	D1	D2	L1	G1	D4	lock screw	drive key	wrench size lock screw	kg
3752249	BT40BSMC40060M	40	89	60	M12 X 1.75	66,7	KLSS40M	KDK40M	17mm	3
3752250	BT40BSMC40100M	40	89	100	M12 X 1.75	66,7	KLSS40M	KDK40M	17mm	4

(continued)

			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

(SMC BT Form B/AD continued)



BT40 Shank Tools

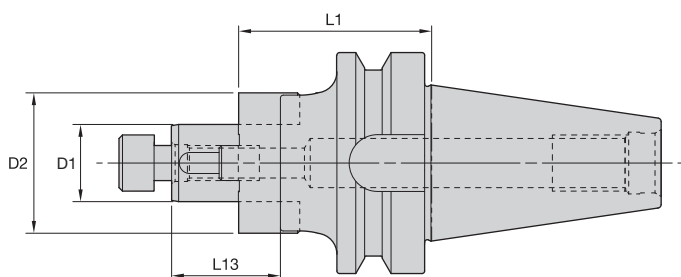
■ SMC Lock IN-BT Form B/AD



order number	catalog number	D1	D2	D21	L1	L2	L21	lock screw	drive key	wrench size lock screw	lbs
3648655	BT40BSM2C050177	1/2	1.20	—	1.77	.71	—	KLS05	KDK04	3/16	2.36
3648657	BT40BSM2C050400	1/2	1.20	1.34	4.00	.94	2.94	KLS05	KDK04	3/16	3.05
3648654	BT40BSMC050177	1/2	1.44	—	1.77	.71	—	KLS05	KDK04	3/16	2.41
3648656	BT40BSMC050400	1/2	1.44	1.58	4.00	.94	2.94	KLS05	KDK04	3/16	3.42
3648659	BT40BSM2C075177	3/4	1.46	—	1.77	.71	—	KLS07	—	1/4	2.47
3648662	BT40BSM2C075400	3/4	1.46	—	4.00	2.94	—	KLS07	—	1/4	3.39
3648658	BT40BSMC075177	3/4	1.75	—	1.77	.71	—	KLS07	KDK05	1/4	2.62
3648661	BT40BSMC075400	3/4	1.75	—	4.00	2.94	—	KLS07	KDK05	1/4	3.99
3648663	BT40BSMC075600	3/4	1.75	—	6.00	4.94	—	KLS07	KDK05	1/4	5.22
3648665	BT40BSM2C100177	1	2.19	—	1.77	.71	—	KLS10	KDK06	5/16	3.00
3648667	BT40BSM2C100400	1	2.19	—	4.00	2.94	—	KLS10	KDK06	5/16	5.30
3648664	BT40BSMC100177	1	2.75	—	1.77	1.77	—	KLS10	KDK06	5/16	3.31
3648666	BT40BSMC100400	1	2.75	—	4.00	4.00	—	KLS10	KDK06	5/16	6.09
3648668	BT40BSMC100600	1	2.75	—	6.00	6.00	—	KLS10	KDK06	5/16	8.50
3648669	BT40BSMC125236	1 1/4	2.88	—	2.36	2.36	—	KLS12	KDK08	5/16	4.41
3648670	BT40BSMC125500	1 1/4	2.88	—	5.00	5.00	—	KLS12	KDK08	5/16	7.65
3648671	BT40BSMC150236	1 1/2	3.63	—	2.36	2.36	—	KLS15	KDK10	3/8	5.59
3648672	BT40BSMC150500	1 1/2	3.81	—	5.00	5.00	—	KLS15	KDK10	3/8	9.11

NOTE: Do not overtighten lock screw.
Supplied with lock screw and drive keys.
Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
Lock screw wrench not included.
For retention knobs, see page L45.

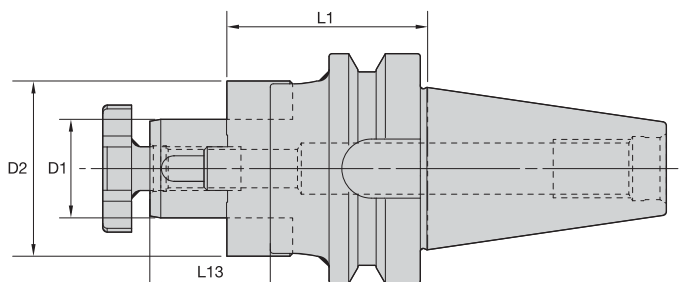
Form AD					
Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm


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■ CS MM-BT Form AD



order number	catalog number	D1	D2	L1	L13	lock screw	wrench size lock screw	combi driver ring	combi drive key	kg
1191713	BT40CS16055M	16	32	55	27	MS1294	6mm	CDR16M	CDK16M	1,15
1191714	BT40CS16100M	16	32	100	27	MS1294	6mm	CDR16M	CDK16M	1,41
1191715	BT40CS22055M	22	40	55	31	MS1234	8mm	CDR22M	CDK22M	1,28
1191716	BT40CS22150M	22	40	150	31	MS1234	8mm	CDR22M	CDK22M	2,16

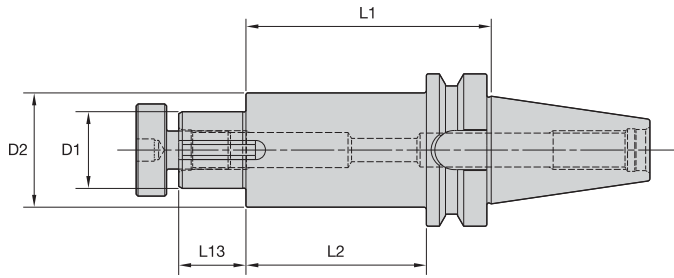


■ CS Lock MM-BT Form AD



order number	catalog number	D1	D2	L1	L13	lock screw	lock screw wrench	combi driver ring	combi drive key	kg
1191717	BT40CS27055M	27	48	55	33	KLS27MPKG	SMW27M	CDR27M	CDK27M	1,47
1191718	BT40CS27150M	27	48	150	33	KLS27MPKG	SMW27M	CDR27M	CDK27M	2,73
1191719	BT40CS32060M	32	58	60	38	KLS32M	SMW32M	CDR32M	CDK32M	1,80
1191720	BT40CS32150M	32	58	150	38	KLS32M	SMW32M	CDR32M	CDK32M	3,62
1191721	BT40CS40080M	40	70	80	41	KLS40M	SMW40M	CDR40M	CDK40M	2,75

NOTE: Do not overtighten lock screw.
 Supplied with lock screw, combi drive ring, and drive keys.
 Lock screw wrench not included.
 For retention knobs, see page L45.



BT40 Shank Tools

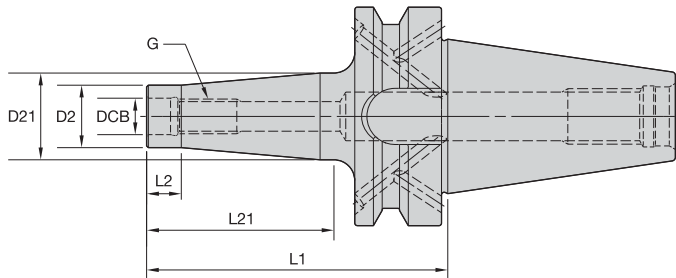
ERICKSON

■ SA IN-BT Form AD



order number	catalog number	D1	D2	L1	L13	L2	lock screw	wrench size lock screw	drive key	lbs
1026219	BT40SA100400	1	1.61	4.00	.94	2.94	KLS10	5/16	DWG SDK100106	3.99
1026220	BT40SA125400	1 1/4	1.86	4.00	1.09	2.94	KLS12	5/16	DWG SDK125119	4.86

NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive key.
 Lock screw wrench not included.
 For retention knobs, see page L45.
 Interchangeable coolant style lock screws are available and must be ordered separately; see page L38.



ERICKSON

■ ST-BT Form B/AD

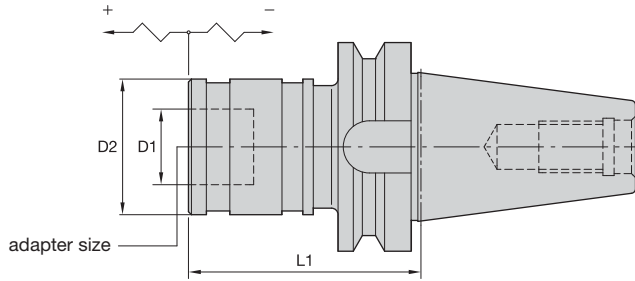
order number	catalog number	DCB	G	D2	D21	L1	L2	L21	kg
4066159	BT40BST06047M	6,5	M6	10	—	47	14	—	0,94
4066160	BT40BST06067M	6,5	M6	10	13	67	10	34	0,96
4066161	BT40BST06087M	6,5	M6	10	20	87	10	54	1,01
4066162	BT40BST06107M	6,5	M6	10	23	107	10	74	1,06
4066303	BT40BST08047M	8,5	M8	13	—	47	14	—	0,95
4066304	BT40BST08067M	8,5	M8	13	15	67	10	34	0,99
4066305	BT40BST08087M	8,5	M8	13	23	87	10	54	1,04
4066306	BT40BST08107M	8,5	M8	13	23	107	10	74	1,07
4066307	BT40BST10047M	10,5	M10	18	—	47	14	—	0,98
4066308	BT40BST10067M	10,5	M10	18	20	67	10	34	1,02
4066309	BT40BST10087M	10,5	M10	18	25	87	10	54	1,07
4066310	BT40BST10107M	10,5	M10	18	28	107	10	74	1,20
4066311	BT40BST12047M	12,5	M12	21	—	47	14	—	0,98
4066312	BT40BST12067M	12,5	M12	21	24	67	10	34	1,04
4066313	BT40BST12087M	12,5	M12	21	24	87	10	54	1,10
4066314	BT40BST12107M	12,5	M12	21	31	107	10	74	1,25
4066315	BT40BST12127M	12,5	M12	21	31	127	10	94	1,32
4066316	BT40BST16047M	17,0	M16	29	—	47	14	—	1,01
4066317	BT40BST16067M	17,0	M16	29	—	67	34	—	1,10
4066318	BT40BST16087M	17,0	M16	29	34	87	10	54	1,25
4066319	BT40BST16107M	17,0	M16	29	34	107	10	74	1,36
4066320	BT40BST16127M	17,0	M16	29	39	127	10	94	1,58

NOTE: For retention knobs, see page L45.

			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

BT40 Shank Tools

Tap Chucks RC Tension and Compression • RC Solid



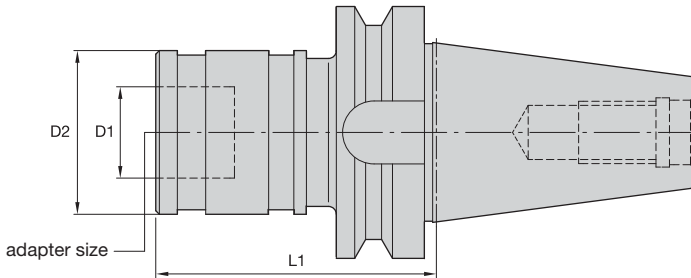
BT40 Shank Tools

ERICKSON

RC-BT Form A

order number	catalog number	adapter size	tap size		D1	D2	L1	tension	compression	kg
			mm	in						
1125829	BT40RC1067M	1	M1 - M14	#0 - 9/16	19	36	67	7,5	7,5	2,00
1125812	BT40RC2094M	2	M5 - M24	5/16 - 7/8	31	53	94	12,5	12,5	2,20

NOTE: Quick-change tap adapters are available and must be ordered separately; see page J76.
For retention knobs, see page L45.

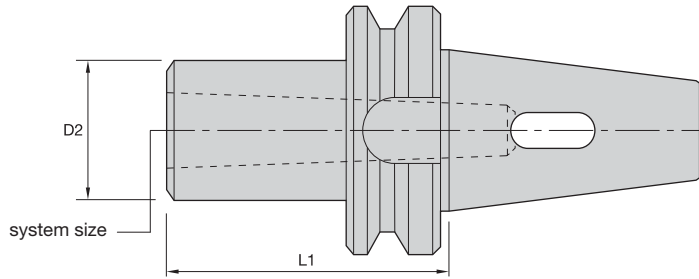


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STRC-BT Form A

order number	catalog number	adapter size	tap size		D1	D2	L1	kg
			mm	in				
1778911	BT40STRC1074M	1	M1 - M14	#0 - 9/16	19	36	74	1,40
1778973	BT40STRC2089M	2	M5 - M24	5/16 - 7/8	31	53	89	1,70

NOTE: Quick-change tap adapters are available and must be ordered separately; see page J76.
For retention knobs, see page L45.



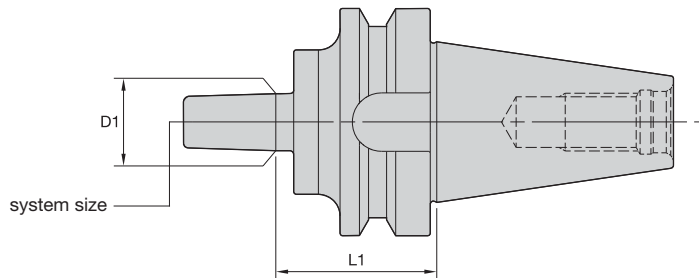
BT40 Shank Tools

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■ **MT-BT Form A**

order number	catalog number	system size	D2	L1	kg
1156364	BT40MT1050M	1	25	50	1,01
1191735	BT40MT2050M	2	32	50	1,06
1191736	BT40MT3070M	3	40	70	1,13
1191737	BT40MT4095M	4	48	95	1,33

NOTE: For retention knobs; see page L45.



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■ **JT-BT Form A**

order number	catalog number	system size	D1	L1	kg
1156363	BT40JT33045M	33	15,85	45	1,12

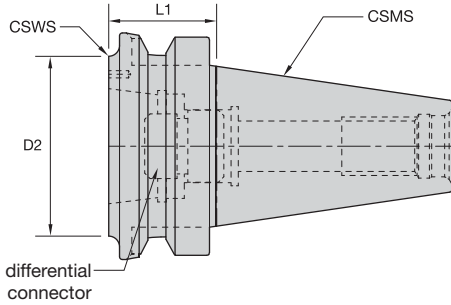
NOTE: For retention knobs; see page L45.

BT40 Shank Tools

Romicron™ High-Performance Boring Systems



- Differential connector included.



BT40 Shank Tools

ERICKSON™

■ BT to KR JIS B6339 Adapters AD/B • Metric



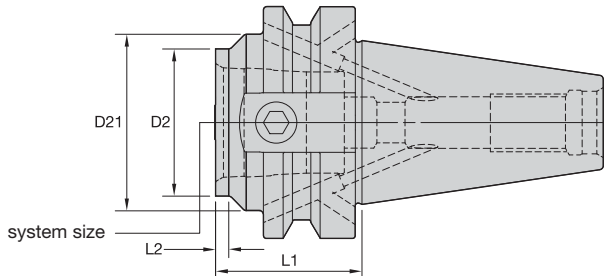
order number	catalog number	CSMS system size	CSWS system size	D2	L1	differential connector	kg	reference head
3554372	BT40BKR32030M	BT40	KR32	50	30	KRDCKR32M	1,20	SVS00B,0B,1B,2B,3B,SVUBB1,BB2
3554373	BT40BKR50050M	BT40	KR50	63	50	KRDCKR50M	1,26	SVS4B,5B,SVU65,SVUBB2

■ BT to KR JIS B6339 Adapters AD/B • Inch



order number	catalog number	CSMS system size	CSWS system size	D2	L1	differential connector	lbs	reference head
3554372	BT40BKR32030M	BT40	KR32	1.97	1.180	KRDCKR32M	2.63	SVS00B,0B,1B,2B,3B,SVUBB1,BB2
3554373	BT40BKR50050M	BT40	KR50	2.48	1.970	KRDCKR50M	2.80	SVS4B,5B,SVU65,SVUBB2

	Form AD					
	Form B			40	(2x) MS2221S	2,5mm
				50	(2x) MS1296S	3mm



■ KM-BT Form B/AD

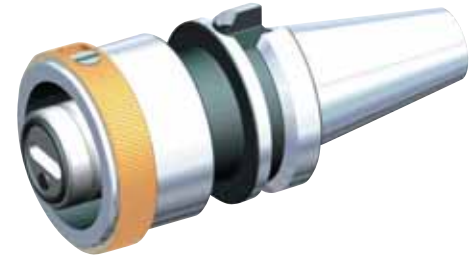
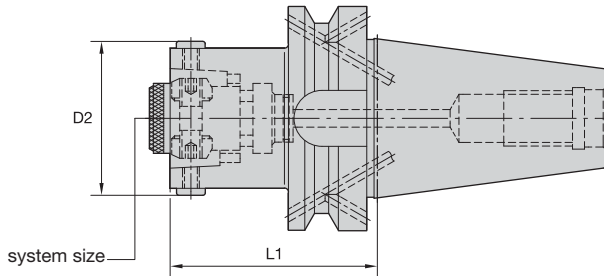


order number	catalog number	system size	D2	D21	L1	L2	KM spare parts package	wrench size actuation screw	Nm	kg
3783935	BT40BKM32040M	KM32	32	40	40	3	KM32PKG3L	5mm	8-11	1,01
3783945	BT40BKM32090M	KM32	32	—	90	63	KM32PKG3S	5mm	8-11	1,25
3783946	BT40BKM40040M	KM40	40	48	40	4	KM40PKG3L	6mm	12-16	1,03
3783947	BT40BKM40100M	KM40	40	—	100	73	KM40PKG3S	6mm	12-16	1,52
3783948	BT40BKM50060M	KM50	50	—	60	33	KM50PKG3S	10mm	27-34	1,26
3783949	BT40BKM50120M	KM50	50	—	120	93	KM50PKG3S	10mm	27-34	2,11

NOTE: Do not overtorque actuation screw; use torque recommendations above.
 Supplied with KM actuation mechanism.
 For retention knobs, see page L45.

BT40 Shank Tools

	Form AD					
	Form B			40	(2x) MS2221S	2,5mm
				50	(2x) MS1296S	3mm



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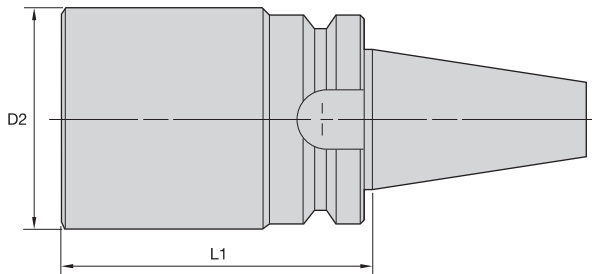
■ HSK-BT Form B/AD

order number	catalog number	system size	D2	L1	wrench size actuation screw	Nm	kg
1519684	BT40BHSK32050M	HSK32	37	50	3mm	6	1,00
1519685	BT40BHSK40060M	HSK40	45	60	3mm	8	1,10
1499750	BT40BHSK50070M	HSK50	55	70	4mm	15	1,10
1519688	BT40BHSK63075M	HSK63	70	75	5mm	20	1,40

NOTE: Do not overtorque actuation screw; use torque recommendations above.
 Supplied with actuation mechanism and sealing ring.
 For retention knobs, see page L45.

				40	(2x) MS2221S	2,5mm
				50	(2x) MS1296S	3mm

- Machinable front 20–30 RW C.



ERICKSON

■ BB-BT Form A

order number	catalog number	D2	L1	kg
1258120	BT40BB063280M	63	280	7,12
1258122	BT40BB104200M	104	200	11,77

NOTE: For retention knobs, see page L45.



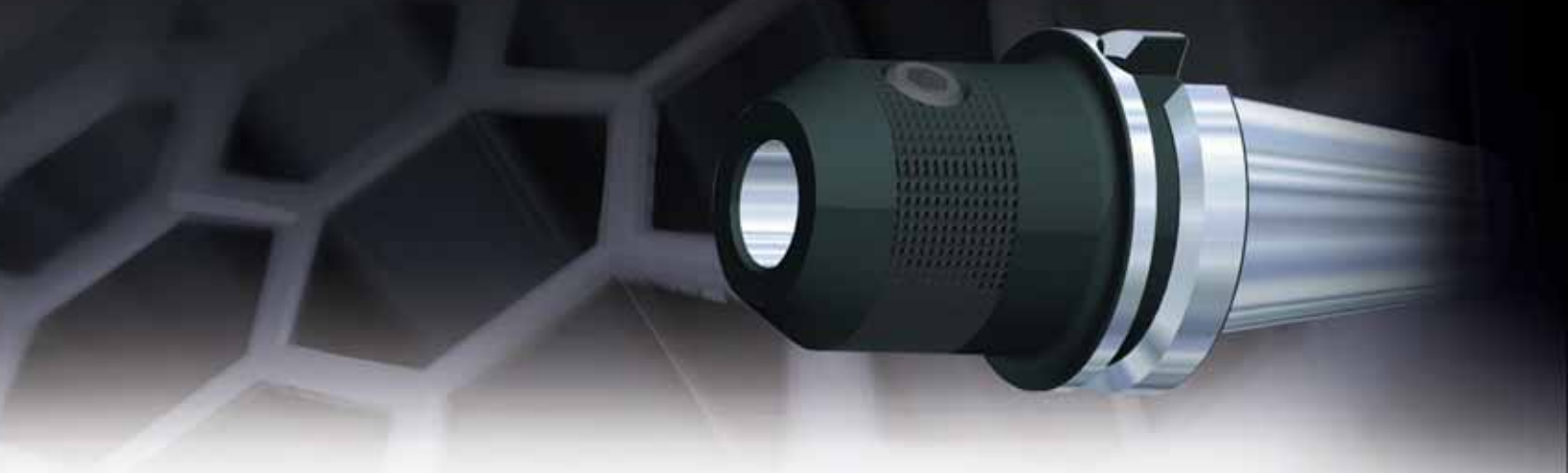
KM[™] The ISO 26622 QUICK CHANGE Standard

KM[™] Quick-Change Tooling — the ISO 26622 Standard.

- Our unique three-surface taper contact design makes this the most rigid and accurate modular quick-change tooling system available.
- It's highly versatile, too: can be fully and easily employed on your lathe, machining center, multi-spindle, or mill-turn machine — significantly reducing your tool-change and part setup downtime!

www.kennametal.com

 **KENNAMETAL[®]**



ERICKSON™ BT V-Flange Shank Tooling System • BT50 Series

Primary Application

ERICKSON V-Flange BT Taper Tooling is manufactured from premium materials and meets or exceeds the latest JIS B 6339 specification and ISO-1947 taper accuracy of AT3 specification standards. The BT50 tools are either pre-balanced to a high specification or balanced-by-design. For high speed applications Kennametal recommends that the complete toolholder assembly (toolholder, retention knobs, collets, hardware, and cutting tools) be balanced as one entity. Exact RPM limits can only be determined by considering machine and spindle configurations in conjunction with tooling design and safety limits factored as a complete system.



BT — JIS B6339 Shank

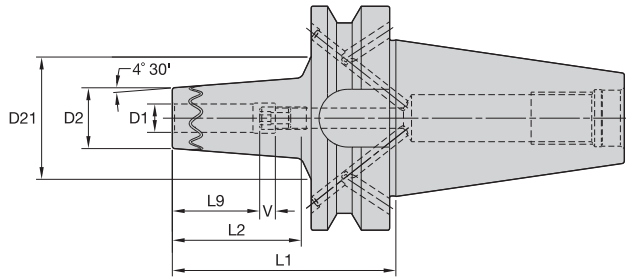
NOTE: Inherent balance conditions — all features are symmetrical.



Features and Benefits

- JIS B 6339 7/24 taper.
- Standard M24 metric drawbar thread.
- Taper accuracy of AT3 specification or better.
- All tools set to form AD coolant specification. Many can be converted to form B style.
- Maximum 100 bar (1,500 psi) coolant pressure.

- **SAFE-LOCK™**, innovative and unique non-slip system.
- Suitable for carbide and HSS cutting tools.
- Need ≥ 10 kW shrink unit.



**Cutting Tool Shank Requirements
metric (ISO standard)**

cutting tool shank diameter	tolerance	
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013

BT50 Shank Tools

ERICKSON™

■ TT SF HPV MM-BT FORM B/AD

order number	catalog number	D1	D2	D21	L1	L2	L9	V	kg
5090277	BT50BSFTT12100M	12	27	55	100	62	37	10	3,98
5090278	BT50BSFTT14100M	14	33	43	100	62	37	10	4,11
5090279	BT50BSFTT16100M	16	33	43	100	62	40	10	4,08
5090280	BT50BSFTT18100M	18	45	54	100	62	40	10	4,44
5090281	BT50BSFTT20100M	20	45	54	100	62	42	10	4,39
5090282	BT50BSFTT25100M	25	45	54	100	62	48	10	4,29

**Cutting Tool Shank Requirements
inch (industry standard)**

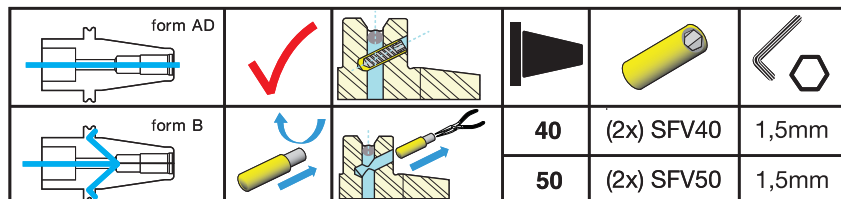
cutting tool shank diameters	tolerance	
1/2 & 5/8		.0000/-0.0004
3/4, 1		.0000/-0.0005

■ TT SF HPV IN-BT FORM B/AD

order number	catalog number	D1	D2	D21	L1	L2	L9	V	lbs
5129965	BT50BSFTT050394	1/2	1.06	2.17	3.94	2.44	1.46	.39	8.76
5129966	BT50BSFTT062394	5/8	1.31	1.70	3.94	2.44	1.58	.39	8.99
5129967	BT50BSFTT075394	3/4	1.76	2.14	3.94	2.44	1.65	.39	9.71
5129968	BT50BSFTT100394	1	1.76	2.14	3.94	2.44	1.89	.39	9.45

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Shrink Fit technical section, see page M78.
Shrink Fit accessories, see pages L12-L13.
HSK coolant unit and wrench are available and must be ordered separately; see page L44.



Order Information

Kennametal high-performance end mills with a shank diameter of 12mm (1/2") and larger are available with **SAFE-LOCK™** technology, as a special tool, upon request. Please contact your local customer service location to receive a quote.

Features

- Form-closed clamping.
- High accuracy clamping.
- Helical grooves.

Functions

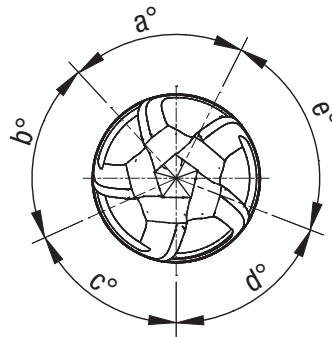
- No pull out.
- Excellent runout.
- Adjustable clamping length.

Benefits

- Reduce scrap rate.
- Higher tool life.
- No need to change NC program after regrinding.



Customized-Solution Example for Highest Metal Removal Rates



The HARVI II UDDE proprietary design with **unequal flute spacing** and unique core geometry for chatter-free machining enables slotting operations in titanium up to 1 x D.

SAFE-LOCK™ by HAIMER

The safety belt for high-performance solid carbide end mills provides a form-closed clamping with high accuracy and helical grooves for length adjustment.

To learn more, *scan here.*
For instructions on how to scan,
please see page xxxiii.

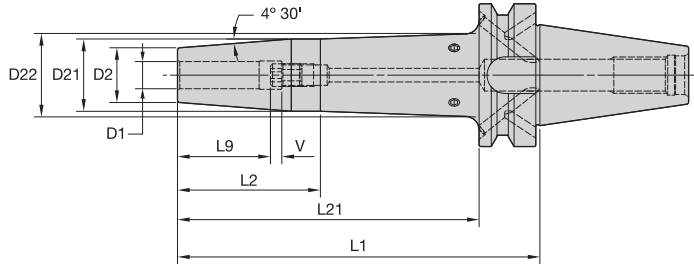
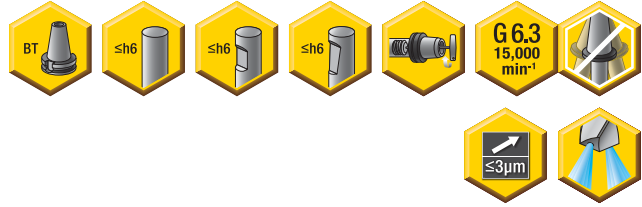


BT50 Shank Tools

Shrink Fit Toolholders General Purpose (GP)



- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide and HSS cutting tools (requirements below).



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
6	h6	0,000/-0,008
8 & 10	h6	0,000/-0,009
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

BT50 Shank Tools

ERICKSON™

■ TT GP HPV MM-BT Form B/AD



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	kg
3782149	BT50BHPVTT06100M	6	21	27	—	100	62	—	26	10	TTSS05014M	2,5mm	3,69
3782150	BT50BHPVTT06160M	6	21	27	32	160	50	122	26	10	TTSS05014M	2,5mm	4,01
3782151	BT50BHPVTT08100M	8	21	27	—	100	62	—	26	10	TTSS06014M	3mm	3,68
3782152	BT50BHPVTT08160M	8	21	27	32	160	50	122	26	10	TTSS06014M	3mm	4,00
3782153	BT50BHPVTT10100M	10	24	32	—	100	62	—	31	10	TTSS08014M	4mm	3,75
3782154	BT50BHPVTT10160M	10	24	32	36	160	63	122	31	10	TTSS08014M	4mm	4,16
3615394	BT50BHPVTT12100M	12	24	32	—	100	63	—	36	10	TTSS10014M	5mm	3,73
3615395	BT50BHPVTT12160M	12	24	32	36	160	63	122	36	10	TTSS10014M	5mm	4,14
3615396	BT50BHPVTT14100M	14	27	34	—	100	62	—	36	10	TTSS10014M	5mm	3,78
3615397	BT50BHPVTT14160M	14	27	34	38	160	57	122	36	10	TTSS10014M	5mm	4,26
3615398	BT50BHPVTT16100M	16	27	34	—	100	62	—	39	10	TTSS12014M	6mm	3,75
3615399	BT50BHPVTT16160M	16	27	34	39	160	56	122	39	10	TTSS12014M	6mm	4,22
3615400	BT50BHPVTT18100M	18	33	41	—	100	62	—	39	10	TTSS12014M	6mm	3,90
3615401	BT50BHPVTT18160M	18	33	42	46	160	69	122	39	10	TTSS12014M	6mm	4,58
3615402	BT50BHPVTT20100M	20	33	41	—	100	62	—	41	10	TTSS16014M	8mm	3,87
3615403	BT50BHPVTT20160M	20	33	42	46	160	69	122	41	10	TTSS16014M	8mm	4,53
3615404	BT50BHPVTT25100M	25	44	52	—	100	62	—	47	10	TTSS16014M	8mm	4,15
3615405	BT50BHPVTT32100M	32	44	52	—	100	62	—	51	10	TTSS16014M	8mm	4,00

(continued)

(TT GP HPV BT Form B/AD continued)

Cutting Tool Shank Requirements inch (industry standard)

cutting tool shank diameters	tolerance
1/4, 5/16, & 3/8	.0000/- .0004
7/16, 1/2, & 5/8	.0000/- .0004
3/4, 7/8, 1, & 1-1/4	.0000/- .0005

■ TT GP HPV IN-BT Form B/AD



BT50 Shank Tools

order number	catalog number	D1	D2	D21	L1	L2	L21	L9	V	stop screw	wrench size stop screw	lbs
3782155	BT50BHPVTT025394	1/4	.83	1.06	3.94	2.44	—	1.02	.39	TTSS05014M	2,5mm	8.14
3782156	BT50BHPVTT025787	1/4	.83	1.06	7.87	1.97	6.38	1.02	.39	TTSS05014M	2,5mm	9.42
3782157	BT50BHPVTT031394	5/16	.83	1.06	3.94	2.44	—	1.02	.39	TTSS06014M	3mm	8.12
3782158	BT50BHPVTT031787	5/16	.83	1.06	7.87	1.97	6.38	1.02	.39	TTSS06014M	3mm	9.41
3782159	BT50BHPVTT038394	3/8	.95	1.26	3.94	2.44	—	1.22	.39	TTSS08014M	4mm	8.26
3782160	BT50BHPVTT038787	3/8	.95	1.26	7.87	2.48	6.38	1.22	.39	TTSS08014M	4mm	9.92
3782161	BT50BHPVTT044394	7/16	.95	1.26	3.94	2.44	—	1.42	.39	TTSS10014M	5mm	8.24
3615382	BT50BHPVTT050394	1/2	.95	1.26	3.94	2.44	—	1.42	.39	TTSS10014M	5mm	8.21
3615383	BT50BHPVTT050787	1/2	.95	1.26	7.87	2.48	6.38	1.42	.39	TTSS10014M	5mm	9.87
3615384	BT50BHPVTT062394	5/8	1.06	1.34	3.94	2.44	—	1.54	.39	TTSS12014M	6mm	8.28
3615385	BT50BHPVTT062787	5/8	1.06	1.34	7.87	2.20	6.38	1.54	.39	TTSS12014M	6mm	10.14
3615386	BT50BHPVTT075394	3/4	1.30	1.61	3.94	2.44	—	1.61	.39	TTSS16014M	8mm	8.55
3615387	BT50BHPVTT075787	3/4	1.30	1.65	7.87	2.72	6.38	1.61	.39	TTSS16014M	8mm	11.17
3615388	BT50BHPVTT088394	7/8	1.30	1.61	3.94	2.44	—	1.61	.39	TTSS16014M	8mm	8.46
3615389	BT50BHPVTT088787	7/8	1.30	1.65	7.87	2.72	6.38	1.61	.39	TTSS16014M	8mm	11.08
3615390	BT50BHPVTT100394	1	1.73	2.05	3.94	2.44	—	1.85	.39	TTSS16014M	8mm	9.14
3615391	BT50BHPVTT100787	1	1.73	2.08	7.87	2.72	6.38	1.85	.39	TTSS16014M	8mm	13.21
3615392	BT50BHPVTT125394	1 1/4	1.73	2.05	3.94	2.44	—	2.01	.39	TTSS16014M	8mm	8.82
3615393	BT50BHPVTT125787	1 1/4	1.73	2.08	7.87	2.72	6.38	2.01	.39	TTSS16014M	8mm	12.88

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Supplied with stop screw.

Adjusting stop screw gage, see page M81.

Optional M6~1.0P x 5mm lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.

For retention knobs, see page L45.

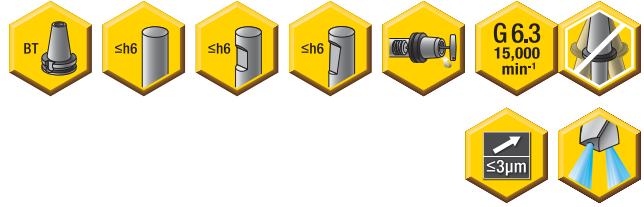
<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

BT50 Shank Tools

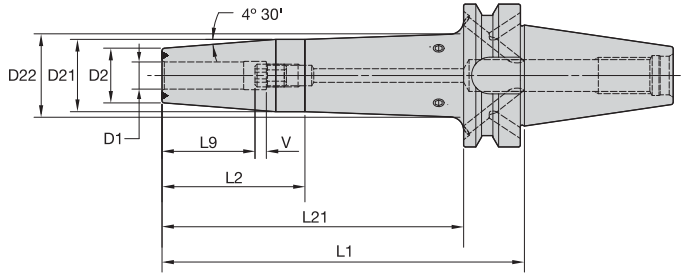
Shrink Fit Toolholders High Torque (HT)



- 30–50% higher clamping torque compared to GP line.
- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide only, designated by groove in front face (requirements below).
- 10 kW power or greater Shrink Fit device must be used.



BT50 Shank Tools



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

ERICKSON

TT HT HPV MM-BT Form B/AD



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	kg
3615487	BT50BHPVTTH12100M	12	24	32	—	100	62	—	36	10	TTSS10014M	5mm	3,73
3615488	BT50BHPVTTH12160M	12	24	32	36	160	63	122	36	10	TTSS10014M	5mm	4,15
3615489	BT50BHPVTTH14100M	14	27	34	—	100	62	—	36	10	TTSS10014M	5mm	3,78
3615490	BT50BHPVTTH14160M	14	27	34	38	160	57	122	36	10	TTSS10014M	5mm	4,26
3615491	BT50BHPVTTH16100M	16	27	34	—	100	62	—	39	10	TTSS12014M	6mm	3,76
3615492	BT50BHPVTTH16160M	16	27	34	39	160	56	122	39	10	TTSS12014M	6mm	4,23
3615493	BT50BHPVTTH18100M	18	33	41	—	100	62	—	39	10	TTSS12014M	6mm	3,90
3615494	BT50BHPVTTH18160M	18	33	42	46	160	69	122	39	10	TTSS12014M	6mm	4,58
3615495	BT50BHPVTTH20100M	20	33	41	—	100	62	—	41	10	TTSS16014M	8mm	3,87
3615496	BT50BHPVTTH20160M	20	33	42	46	160	69	122	41	10	TTSS16014M	8mm	4,54
3615497	BT50BHPVTTH25100M	25	44	52	—	100	62	—	47	10	TTSS16014M	8mm	4,16
3615498	BT50BHPVTTH32100M	32	44	52	—	100	62	—	51	10	TTSS16014M	8mm	4,00

(continued)

(TT HT HPV BT Form B/AD continued)

Cutting Tool Shank Requirements
inch (industry standard)

cutting tool shank diameters	tolerance
1/2 & 5/8	.0000/- .0004
3/4, 7/8, 1, & 1-1/4	.0000/- .0005

■ TT HT HPV IN-BT Form B/AD



BT50 Shank Tools

order number	catalog number	D1	D2	D21	L1	L2	L21	L9	V	stop screw	wrench size stop screw	lbs
3615474	BT50BHPVTTH050394	1/2	.95	1.26	3.94	2.44	—	1.42	.39	TTSS10014M	5mm	8.21
3615475	BT50BHPVTTH050787	1/2	.95	1.26	7.87	2.48	6.38	1.42	.39	TTSS10014M	5mm	9.87
3615476	BT50BHPVTTH062394	5/8	1.06	1.34	3.94	2.44	—	1.54	.39	TTSS12014M	6mm	8.28
3615477	BT50BHPVTTH062787	5/8	1.06	1.34	7.87	2.20	6.38	1.54	.39	TTSS12014M	6mm	10.14
3615479	BT50BHPVTTH075394	3/4	1.30	1.61	3.94	2.44	—	1.61	.39	TTSS16014M	8mm	8.55
3615480	BT50BHPVTTH075787	3/4	1.30	1.65	7.87	2.72	6.38	1.61	.39	TTSS16014M	8mm	11.17
3615481	BT50BHPVTTH088394	7/8	1.30	1.61	3.94	2.44	—	1.61	.39	TTSS16014M	8mm	8.46
3615482	BT50BHPVTTH088787	7/8	1.30	1.65	7.87	2.72	6.38	1.61	.39	TTSS16014M	8mm	11.08
3615483	BT50BHPVTTH100394	1	1.73	2.05	3.94	2.44	—	1.85	.39	TTSS16014M	8mm	9.14
3615484	BT50BHPVTTH100787	1	1.73	2.08	7.87	2.72	6.38	1.85	.39	TTSS16014M	8mm	13.21
3615485	BT50BHPVTTH125394	1 1/4	1.73	2.05	3.94	2.44	—	2.01	.39	TTSS16014M	8mm	8.82
3615486	BT50BHPVTTH125787	1 1/4	1.73	2.08	7.87	2.72	6.38	2.01	.39	TTSS16014M	8mm	12.88

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Shrink Fit technical section, see page M78.

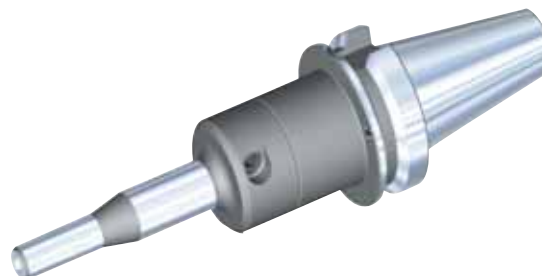
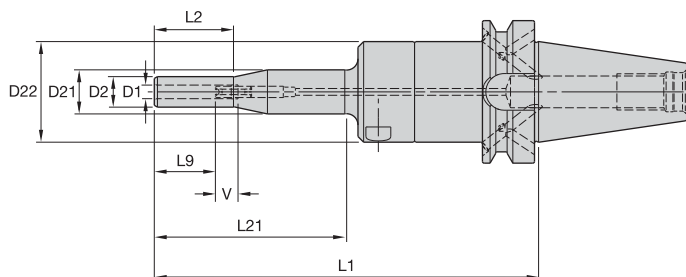
Supplied with stop screw.

Adjusting stop screw gage, see page M81.

Optional M6~1.0P x 5mm lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.

For retention knobs, see page L45.

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



BT50 Shank Tools

ERICKSON

■ HC Slim-T MM-BT Form B/AD

order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	kg
3019242	BT50BHCSLT06200M	6	13,5	19,5	44	200	35	85	27	10	4,55
3019243	BT50BHCSLT08200M	8	15,5	19,5	44	200	35	85	27	10	4,56
3019244	BT50BHCSLT10200M	10	17,5	44,5	—	200	85	162	31	10	4,55

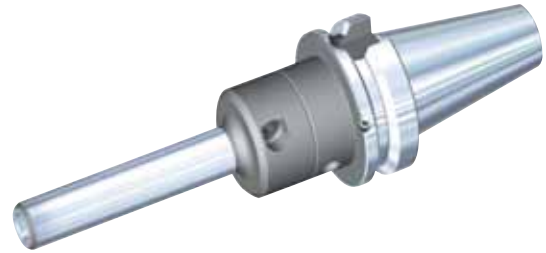
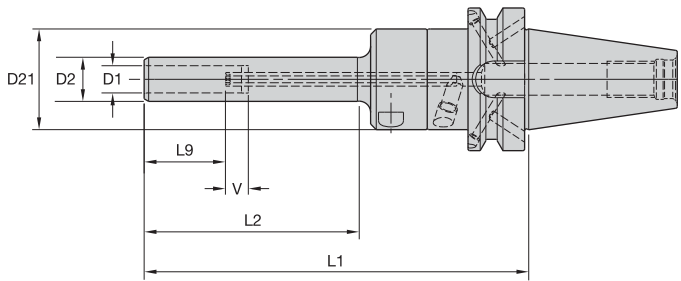
■ Spare Parts



catalog number	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size adjusting screw
BT50BHCSLT06200M	170.135	5mm	170.002	2,5mm
BT50BHCSLT08200M	170.135	5mm	170.002	2,5mm
BT50BHCSLT10200M	170.135	5mm	170.003	3mm

(continued)

(HC Slim BT continued)



BT50 Shank Tools

■ HC Slim MM-BT Form B/AD

order number	catalog number	D1	D2	D21	L1	L2	L9	V	kg
2634540	BT50BHCSL12200M	12	19,5	44,5	200	95	36	10	4,34
2634541	BT50BHCSL14200M	14	21,5	52,5	200	95	36	10	4,66
2634542	BT50BHCSL16200M	16	23,5	52,5	200	95	39	10	4,68
2634573	BT50BHCSL18200M	18	25,5	52,5	200	95	39	10	4,73
2634574	BT50BHCSL20200M	20	27,5	52,5	200	95	41	10	4,77

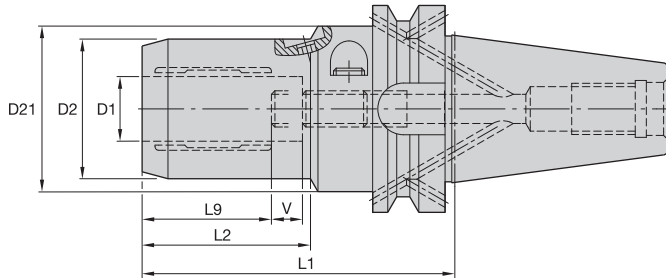
■ Spare Parts



catalog number	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw
BT50BHCSL12200M	170.135	5mm	170.002	2,5mm
BT50BHCSL14200M	170.135	5mm	170.002	2,5mm
BT50BHCSL16200M	170.135	5mm	170.002	2,5mm
BT50BHCSL18200M	170.135	5mm	170.002	2,5mm
BT50BHCSL20200M	170.135	5mm	170.002	2,5mm

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw.
 Actuation wrenches must be ordered separately.
 Reduction sleeves are available and must be ordered separately; see page J2.
 For retention knobs, see page L45.

Form AD	✓				
Form B	↺				
			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



BT50 Shank Tools

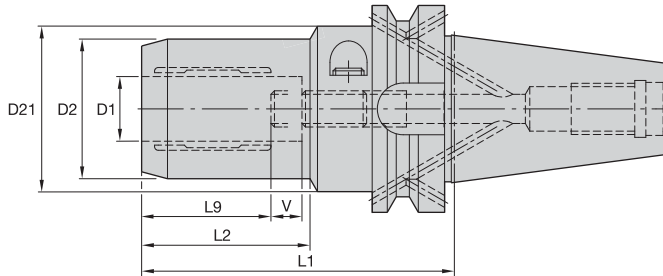
ERICKSON

■ HC MM-BT Form B/AD

order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size adjusting screw	kg
1315352	BT50BHC06090M	6	25,7	50	90	33	27	10	170.135	5mm	170.002	2,5mm	2,50
1315353	BT50BHC08090M	8	27,7	50	90	34	27	10	170.135	5mm	170.002	2,5mm	2,50
1315354	BT50BHC10095M	10	29,7	50	95	39	31	10	170.135	5mm	170.002	2,5mm	2,50
1315355	BT50BHC12100M	12	31,6	50	100	45	36	10	170.135	5mm	170.002	2,5mm	2,50
1315356	BT50BHC14100M	14	33,6	50	100	42	36	10	170.135	5mm	170.003	3mm	3,00
1315357	BT50BHC16100M	16	37,6	50	100	47	39	10	170.135	5mm	170.003	3mm	3,00
1315358	BT50BHC18100M	18	39,6	50	100	47	39	10	170.135	5mm	170.003	3mm	3,00
1315359	BT50BHC20105M	20	41,6	50	105	48	41	10	170.135	5mm	170.003	3mm	3,00
1315360	BT50BHC25115M	25	49,6	63	115	51	46	10	170.136	6mm	170.004	4mm	4,00
1315778	BT50BHC32120M	32	59,9	63	120	59	50	10	170.136	6mm	170.004	4mm	4,00

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
Hydraulic chuck technical section, see page M84.
Supplied with stop screw.
Actuation wrench must be ordered separately.
Reduction sleeves are available and must be ordered separately; see page J2.
For retention knobs, see page L45.

	Form AD					
	Form B					
		40	(2x) MS2221S	2,5mm		
		50	(2x) MS1296S	3mm		



BT50 Shank Tools

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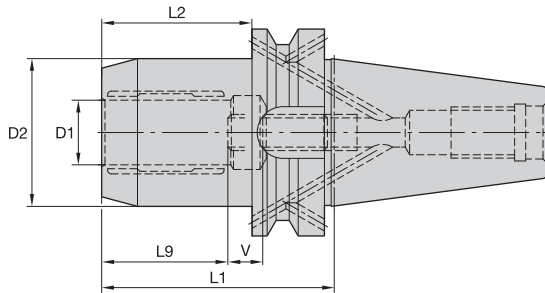
■ HC Trend IN-HSK Form B/AD



order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size adjusting screw	lbs
2263123	BT50BHCT025354	1/4	1.01	1.96	3.54	1.38	1.06	.39	170.135	5mm	170.003	3mm	8.39
2263124	BT50BHCT038374	3/8	1.17	1.96	3.74	1.50	1.22	.39	170.135	5mm	170.003	3mm	8.57
2263125	BT50BHCT050394	1/2	1.24	1.96	3.94	1.57	1.42	.39	170.135	5mm	170.003	3mm	8.70
2263126	BT50BHCT062394	5/8	1.48	1.96	3.94	1.83	1.54	.39	170.135	5mm	170.003	3mm	8.78
2263127	BT50BHCT075413	3/4	1.64	1.96	4.13	1.89	1.61	.39	170.135	5mm	170.005	5mm	9.03
2263128	BT50BHCT100453	1	1.96	2.47	4.53	2.01	1.85	.39	170.136	6mm	170.005	5mm	10.01
2263129	BT50BHCT125472	1 1/4	2.35	2.47	4.72	2.32	2.01	.39	170.136	6mm	170.005	5mm	10.66

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw.
 Actuation wrench must be ordered separately.
 Reduction sleeves are available and must be ordered separately; see page J2.
 For retention knobs, see page L45.

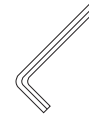
Form AD	✓				
Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



BT50 Shank Tools

ERICKSON

■ HC Basic MM-BT Form B/AD



order number	catalog number	D1	D2	L1	L2	L9	V	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size adjusting screw	kg
1599688	BT50BHCB20105M	20	49,9	105	67	41	10	170.135	5mm	170.005	5mm	4,30

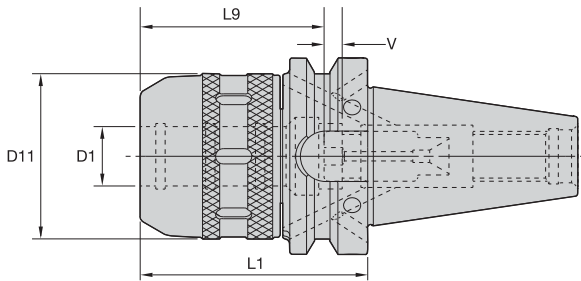
■ HC Basic IN-BT Form B/AD



order number	catalog number	D1	D2	L1	L2	L9	V	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size adjusting screw	lbs
2263082	BT50BHCB075413	3/4	1.96	4.13	2.64	1.61	.39	170.135	5mm	170.005	5mm	9.52

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
Hydraulic chuck technical section, see page M84.
Supplied with stop screw.
Actuation wrench must be ordered separately.
Reduction sleeves are available and must be ordered separately; see page J2.
For retention knobs, see page L45.

	Form AD						
	Form B						
		40	(2x) MS2221S	2,5mm			
		50	(2x) MS1296S	3mm			



ERICKSON

■ HPMC MM-BT Form B/AD

order number	catalog number	D1	D11	L1	L9	V	locknut wrench	stop screw	wrench size stop screw	kg
3578563	BT50BHPMC20105M	20	53	105	50	20	PSW52M	MCSS16040M	2,5mm & 5mm	4,40
3578564	BT50BHPMC20165M	20	53	165	50	20	PSW52M	MCSS16040M	2,5mm & 5mm	5,30
3578565	BT50BHPMC25105M	25	61	105	55	20	PSW58M	MCSS16040M	2,5mm & 5mm	4,60
3578566	BT50BHPMC25165M	25	61	165	55	20	PSW58M	MCSS16040M	2,5mm & 5mm	5,80
3578567	BT50BHPMC32105M	32	74	105	75	20	PSW68M	MCSS16040M	2,5mm & 5mm	4,90
3578568	BT50BHPMC32165M	32	74	165	75	20	PSW68M	MCSS16040M	2,5mm & 5mm	6,50

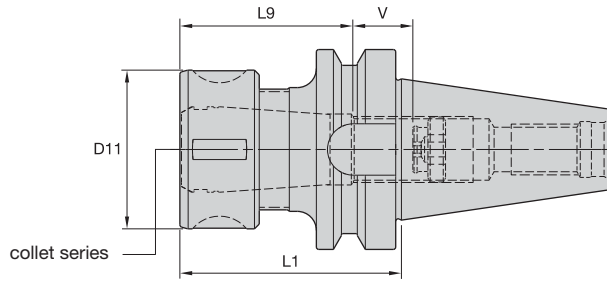
■ HPMC IN-BT Form B/AD

order number	catalog number	D1	D11	L1	L9	V	locknut wrench	stop screw	wrench size stop screw	lbs
3100418	BT50BHPMC075413	3/4	2.09	4.13	1.93	.79	PSW52M	MCSS16040M	2,5mm & 5mm	9.70
3100419	BT50BHPMC100413	1	2.40	4.13	2.17	.79	PSW58M	MCSS16040M	2,5mm & 5mm	10.20
3100420	BT50BHPMC125413	1 1/4	2.91	4.13	2.95	.79	PSW68M	MCSS16040M	2,5mm & 5mm	11.80

NOTE: Milling chuck technical section, see page M88.
 Supplied with locknut and stop screw.
 Locknut wrench not included.
 Optional M6~1,0P fine-balancing screw set is available (order number HPMCBALSCREWSET) and must be ordered separately; see page L14.
 Reduction sleeves are available and must be ordered separately; see page J6.
 For retention knobs, see page L45.

Form AD	✓	✗	40	(2x) MS2221S	2,5mm
Form B	✗	✓	50	(2x) MS1296S	3mm

- Tremendous Grip (3:1 advantage).



BT50 Shank Tools

TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG100	2,6	25,5	5/64	1
TG150	11,6	40,0	23/64	1-1/2

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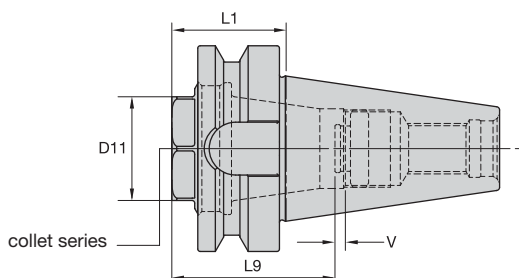
■ TG Round-BT Form AD



order number	catalog number	collet series	D11	L1	L9	V	locknut	wrench	Nm	stop screw	wrench size	kg
1156372	BT50TG100090M	TG100	60	90	70	53	LNA100M	HSW58M	203	SS112041G	4mm & 5/32	3,96
1188173	BT50TG100150M	TG100	60	150	70	88	LNA100M	HSW58M	203	SS112041G	4mm & 5/32	5,11
1188172	BT50TG100200M	TG100	60	200	70	88	LNA100M	HSW58M	203	SS112041G	4mm & 5/32	6,08
1191801	BT50TG150100M	TG150	85	100	83	39	LNA150M	HSW80M	271	SS162062G	4mm & 5/32	4,42
1258570	BT50TG150150M	TG150	85	150	83	69	LNA150M	HSW80M	271	SS162062G	4mm & 5/32	6,42

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16–L17.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.
 TG standard straight-bore collets, see page J10.
 TG tap collets, see page J10.
 For retention knobs, see page L45.

- Grip (2:1 advantage).



ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER32	2,0	20,0	.08	.81
ER40	3,0	26,0	.12	1.00



BT50 Shank Tools

ERICKSON

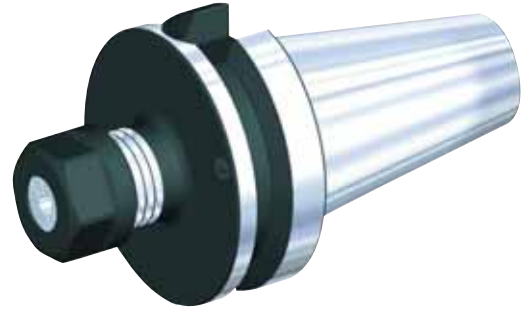
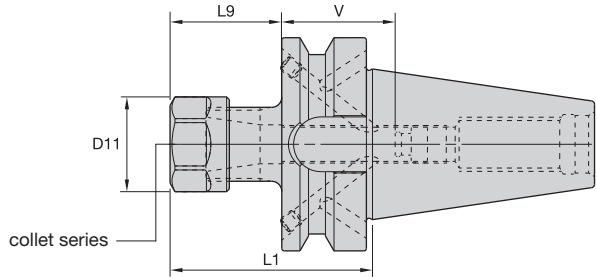
ER Short-BT Form AD



order number	catalog number	collet series	D11	L1	L9	V	locknut	wrench	Nm	stop screw	wrench size stop screw	kg
2978766	BT50SER32046M	ER32	36	46	50	28	LNECSER32M	OEW32M	136	SS094041G	4mm & 5/32	3,37
2978767	BT50SER40046M	ER40	46	46	57	21	LNECSER40M	OEW168	176	SS112041G	4mm & 5/32	3,19

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.
 For retention knobs, see page L45.

- Grip (2:1 advantage).



BT50 Shank Tools

ERICKSON

■ ER Hex-BT Form B/AD

ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER16	0,5	10,0	.02	.41
ER20	0,5	13,0	.02	.50
ER25	1,0	16,0	.04	.63
ER32	2,0	20,0	.08	.81
ER40	3,0	26,0	.12	1.00

order number	catalog number	collet series	D11	L1	L9	V	kg
1586520	BT50BER16100M	ER16	28	100	32	48	3,76
1871539	BT50BER16150M	ER16	28	150	32	48	3,93
3847515	BT50BER20100M	ER20	34	100	37	43	3,81
3847516	BT50BER20150M	ER20	34	150	37	63	4,07

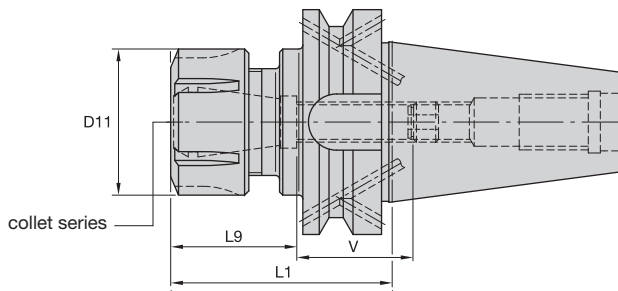
■ Spare Parts



catalog number	locknut	wrench	counterbore collet torque (Nm)	straight collet torque (Nm)	stop screw	wrench size stop screw
BT50BER16100M	LNHSER16M	OEW25M	40	56	SS044038G	4mm & 5/32
BT50BER16150M	LNHSER16M	OEW25M	40	56	SS044038G	4mm & 5/32
BT50BER20100M	LNHSER20M	OEW30M	32	80	SS056041G	4mm & 5/32
BT50BER20150M	LNHSER20M	OEW30M	32	80	SS056041G	4mm & 5/32

(continued)

(ER BT Form B/AD continued)



ER Round-BT Form B/AD

order number	catalog number	collet series	D11	L1	L9	V	kg
1871540	BT50BER25070M	ER25	42	70	40	60	3,67
1871541	BT50BER25150M	ER25	42	150	40	60	4,36
1587031	BT50BER32070M	ER32	50	70	46	38	3,65
1729881	BT50BER32150M	ER32	50	150	46	54	4,64
1556433	BT50BER40080M	ER40	63	80	52	48	3,79
1187371	BT50BER40150M	ER40	63	150	52	48	5,32
3847517	BT50BER40200M	ER40	63	200	52	48	6,33

Spare Parts

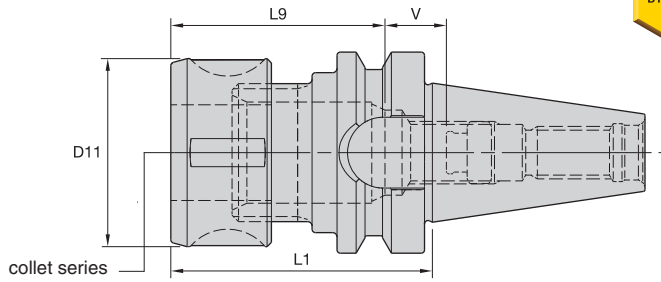


catalog number	locknut	wrench	stop screw	wrench size stop screw
BT50BER25070M	LNSER25M	ER25WM	SS075041G	4mm & 5/32
BT50BER25150M	LNSER25M	ER25WM	SS075041G	4mm & 5/32
BT50BER32070M	LNSER32M	ER32WM	SS094041G	4mm & 5/32
BT50BER32150M	LNSER32M	ER32WM	SS094041G	4mm & 5/32
BT50BER40080M	LNSER40M	ER40WM	SS112041G	4mm & 5/32
BT50BER40150M	LNSER40M	ER40WM	SS112041G	4mm & 5/32
BT50BER40200M	LNSER40M	ER40WM	SS112041G	4mm & 5/32

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.
 For retention knobs, see page L45.

Form AD	✓				
Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

• Grip 1:1.



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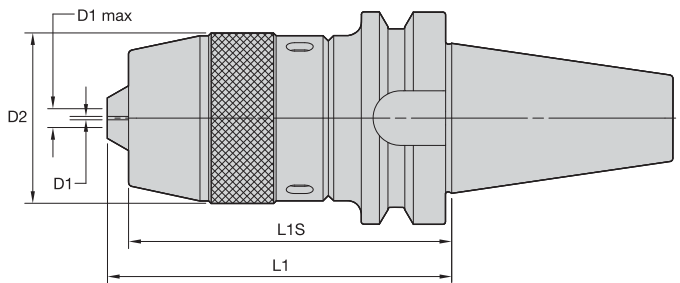
■ DA Round-BT Form AD

order number	catalog number	collet series	D11	L1	L9	V	kg	Collet Capacity			
								mm		inch	
								min	max	min	max
1258441	BT50DA188200M	DA180	1.69	7.87	1.97	1.81	5,00	2,2	20	1/64	3/4
1197722	BT50DA188150M	DA180	1.69	5.91	1.97	1.81	4,50				
1191767	BT50DA188070M	DA180	1.69	2.76	1.97	1.85	3,70				

■ Spare Parts

catalog number	locknut	locknut wrench	Nm	stop screw	wrench size stop screw
BT50DA188200M	LNA188M	HSW45M	136	SS081041G	4mm & 5/32
BT50DA188150M	LNA188M	HSW45M	136	SS081041G	4mm & 5/32
BT50DA188070M	LNA188M	HSW45M	136	SS081041G	4mm & 5/32

NOTE: Tighten locknut to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 DA standard straight-bore collets, see page J62.
 DA non-pullout collets, see pages J65–J68.
 For retention knobs, see page L45.

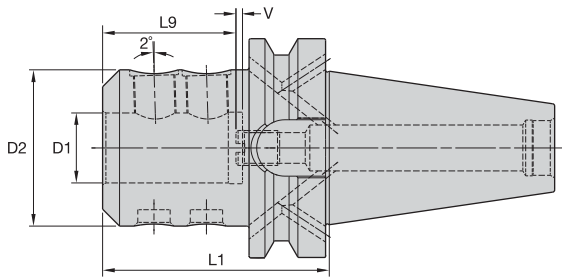


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■ DC-BT Form A

order number	catalog number	D1		D1 max		D2	L1	L1S	wrench	Nm	kg
		mm	in	mm	in						
3583294	BT50DC13110M	1,0	.039	13,0	.512	51	122	110	PSW45M	55	4,44

NOTE: Tighten to the recommended tightening torque.
 Locking wrench not supplied.
 For retention knobs, see page L45.



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■ WN MM-BT Form B/AD



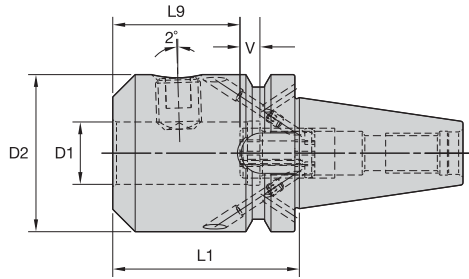
order number	catalog number	D1	D2	L1	L9	V	lock screw	wrench size lock screw	Nm	stop screw	wrench size stop screw	kg
1175468	BT50BWN06063M	6	25	63	30	10	SS03M012	3mm	7	571.060	2,5mm	3,63
1300426	BT50BWN08063M	8	28	63	30	10	SS03M014	4mm	15	571.067	3mm	3,64
1137510	BT50BWN10063M	10	35	63	35	10	SS03M018	5mm	25	571.068	4mm	3,69
1137518	BT50BWN12080M	12	42	80	40	10	SS03M023	6mm	35	571.074	5mm	3,92
1137526	BT50BWN14080M	14	44	80	40	10	SS03M023	6mm	35	571.074	5mm	3,95
1137535	BT50BWN16080M	16	48	80	43	10	SS03M025	6mm	50	571.075	6mm	4,02
1137543	BT50BWN18080M	18	50	80	43	10	SS03M025	6mm	50	571.075	6mm	4,05
1137550	BT50BWN20080M	20	52	80	45	10	SS03M026	8mm	95	571.076	6mm	4,06
1137558	BT50BWN25100M	25	65	100	50	10	SS03M027	10mm	135	571.076	6mm	4,80
1137576	BT50BWN32105M	32	72	105	54	10	SS03M029	10mm	160	571.076	6mm	5,15

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw and stop screw.
 Lock screw or stop screw wrenches not included.
 For retention knobs, see page L45.

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

BT50 Shank Tools

Tap Chuck Adapters Whistle Notch™ Short • Tap Chuck Adapters



BT50 Shank Tools

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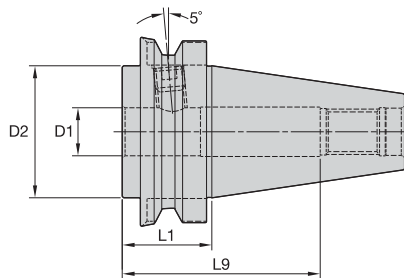
SWN MM-BT Form B/AD



order number	catalog number	D1	D2	L1	L9	V	lock screw	wrench size lock screw	Nm	stop screw	wrench size stop screw	kg
1134607	BT50BSWN25075M	25	65	75	44	15	SS03M027	10mm	135	571.066	10mm	4,23
1134608	BT50BSWN32075M	32	72	75	46	17	SS03M029	10mm	160	571.066	10mm	4,31

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw.
 Lock screw wrenches not included.
 For retention knobs, see page L45.

Form	Checkmark	Whistle Notch	Stop Screw	Lock Screw	Wrench Size
Form AD	✓	Yes	40	(2x) MS2221S	2,5mm
Form B	✗	No	50	(2x) MS1296S	3mm



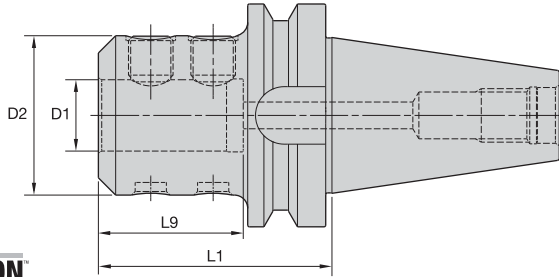
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Tap Chuck Adapter



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size clamp screw	lbs
1017939	BT50TA1187	1	2.75	1.88	4.13	ELS062050PKG	5/16	8.09

NOTE: Do not overtighten drawbar screw.
 Supplied with drawbar screw.
 Draw bar screw wrench not included.
 For retention knobs, see page L45.



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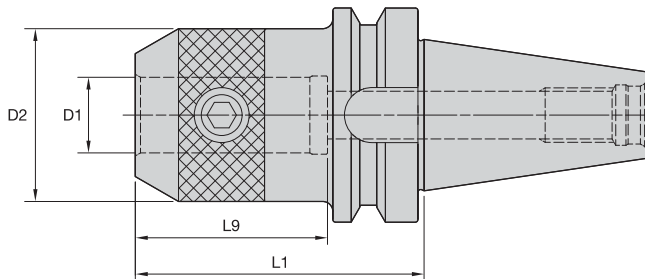


■ EM MM-BT Form AD

order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	Nm	kg
1191769	BT50EM06063M	6	25	63	119	SS03M012	3mm	7	3,57
1258446	BT50EM06150M	6	25	150	206	SS03M012	3mm	7	3,87
1191770	BT50EM08063M	8	28	63	119	SS03M014	4mm	15	3,59
1191771	BT50EM10080M	10	35	80	136	SS03M018	5mm	25	3,82
1258453	BT50EM10100M	10	35	100	156	SS03M018	5mm	25	3,88
1191772	BT50EM12080M	12	42	80	136	SS03M023	6mm	35	3,85
1191773	BT50EM16080M	16	48	80	136	SS03M025	6mm	50	3,96
1191774	BT50EM20080M	20	52	80	136	SS03M026	8mm	95	4,01
1191776	BT50EM25105M	25	65	105	60	SS03M027	10mm	135	4,88
1156369	BT50EM32105M	32	72	105	65	SS03M029	10mm	160	5,11
1191777	BT50EM40120M	40	90	120	75	SS03M029	10mm	160	6,66
1258473	BT50EM50130M	50	100	130	85	—	12mm	200	7,60



BT50 Shank Tools

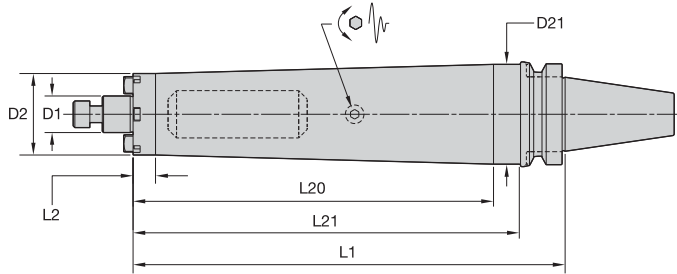


■ EM IN-BT Form AD

order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
1258444	BT50EM050295	1/2	1.38	2.95	5.16	ELS044038PKG	7/32	20	8.14
1258447	BT50EM075295	3/4	1.75	2.95	5.16	ELS062050PKG	5/16	70	8.36
1258450	BT50EM100413	1	2.00	4.13	4.49	ELS075056PKG	3/8	110	9.11
1258451	BT50EM100600	1	2.00	6.00	4.49	ELS075056PKG	3/8	110	10.51
1258456	BT50EM125413	1 1/4	2.50	4.13	2.51	ELS075062PKG	3/8	110	10.23
1258457	BT50EM125600	1 1/4	2.50	6.00	2.51	ELS075062PKG	3/8	110	12.54
1258459	BT50EM150413	1 1/2	2.75	4.13	2.93	ELS075062PKG	3/8	110	10.41
1232393	BT50EM200531	2	3.75	5.31	3.53	ELS100088PKG	1/2	150	16.00



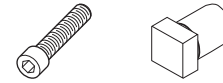
NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw.
 Lock screw wrench not included.
 For retention knobs, see page L45.



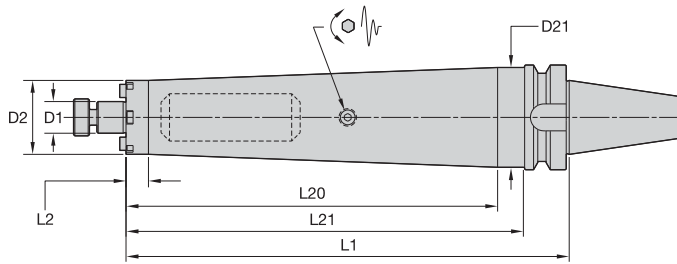
BT50 Shank Tools

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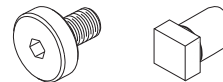
■ SMC TD Cap MM-BT Form B/AD



order number	catalog number	D1	D2	D21	L1	L2	L20	L21	lock screw	drive key	wrench size lock screw	kg
4135491	BT50BTDSMC22260M	22	49	70	260	13,5	211,8	222	MS1234	KDK22M	8mm	8,21



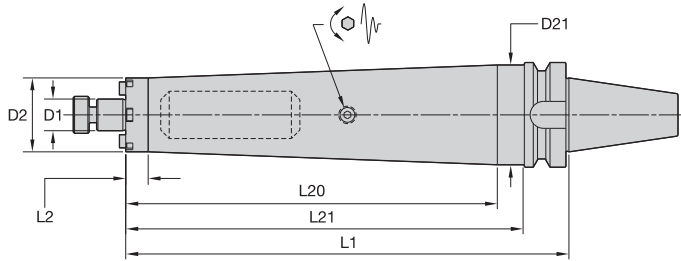
■ SMC TD Lock MM-BT Form B/AD



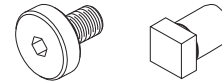
order number	catalog number	D1	D2	D21	L1	L2	L20	L21	lock screw	drive key	wrench size lock screw	kg
4135492	BT50BTDSMC27320M	27	61	80	320	285	271,8	282	KLSS27M	—	10mm	11,83
4135493	BT50BTDSMC32330M	32	78	—	330	292	—	—	KLSS32M	KDK32M	14mm	16,16

(continued)

(SMC BT Form B/AD continued)



■ SMC TD Lock IN-BT Form B/AD



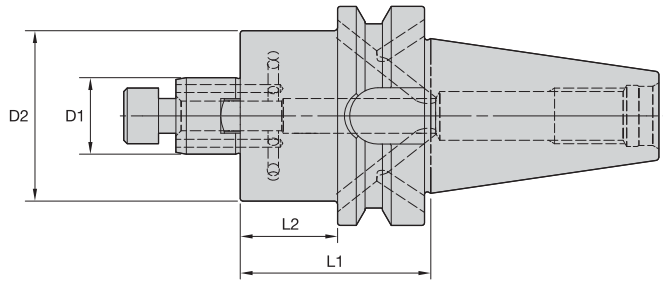
order number	catalog number	D1	D2	D21	L1	L2	L20	L21	lock screw	drive key	wrench size lock screw	lbs
4135494	BT50BTDSMC0751050	3/4	1.75	2.56	10.5	.53	8.6	9	KLS07	KDK05	1/4	16.73
4135495	BT50BTDSMC1001250	1	2.75	—	12.5	11.00	—	—	KLS10	KDK06	5/16	25.46
4135496	BT50BTDSMC1251300	1 1/4	2.88	—	13.0	11.50	—	—	KLS12	KDK08	5/16	32.71

NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive keys.
 Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
 Lock screw wrench not included.
 For retention knobs, see page L45.

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

BT50 Shank Tools

Shell Mill Adapters with Through Coolant



BT50 Shank Tools

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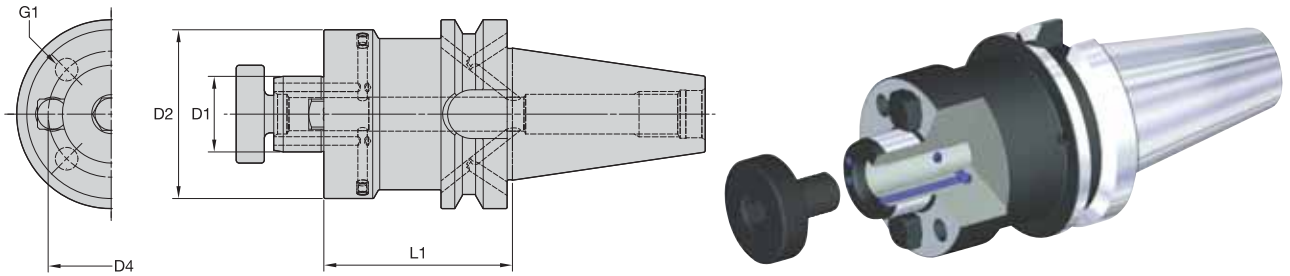
■ SMC Cap MM-BT Form B/AD



order number	catalog number	D1	D2	L1	L2	lock screw	wrench size lock screw	drive key	kg
3750032	BT50BSM2C16045M	16	38	45	7	MS1294	6mm	KDK16M	3,62
3750034	BT50BSM2C16100M	16	38	100	62	MS1294	6mm	KDK16M	4,01
3750036	BT50BSM2C16150M	16	38	150	112	MS1294	6mm	KDK16M	4,41
3750031	BT50BSMC16045M	16	44	45	7	MS1294	6mm	KDK16M	3,63
3750033	BT50BSMC16100M	16	44	100	62	MS1294	6mm	KDK16M	4,18
3750035	BT50BSMC16150M	16	44	150	112	MS1294	6mm	KDK16M	4,71
3750038	BT50BSM2C22045M	22	42	45	7	MS1234	8mm	—	3,63
3750040	BT50BSM2C22100M	22	42	100	62	MS1234	8mm	—	4,12
3750042	BT50BSM2C22150M	22	42	150	112	MS1234	8mm	—	4,56
3750037	BT50BSMC22045M	22	49	45	7	MS1234	8mm	KDK22M	3,66
3750039	BT50BSMC22100M	22	49	100	62	MS1234	8mm	KDK22M	4,37
3750041	BT50BSMC22150M	22	49	150	112	MS1234	8mm	KDK22M	5,00

(continued)

(SMC BT Form B/AD continued)



■ SMC Lock MM-BT Form B/AD

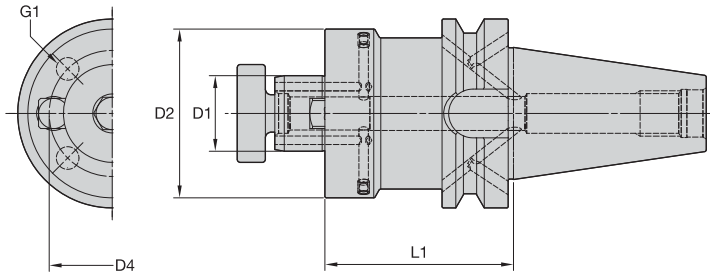


order number	catalog number	D1	D2	D4	G1	L1	lock screw	drive key	kg
3750043	BT50BSMC27045M	27	60	—	—	45	KLSS27M	KDK27M	3,76
3750044	BT50BSMC27100M	27	60	—	—	100	KLSS27M	KDK27M	4,86
3750045	BT50BSMC27150M	27	60	—	—	150	KLSS27M	KDK27M	5,85
3750046	BT50BSMC32045M	32	78	—	—	45	KLSS32M	KDK32M	3,94
3750047	BT50BSMC32100M	32	78	—	—	100	KLSS32M	KDK32M	5,87
3750048	BT50BSMC32150M	32	78	—	—	150	KLSS32M	KDK32M	7,62
3750049	BT50BSMC40050M	40	89	66,7	M12 X 1.75	50	KLSS40M	KDK40M	4,36
3750050	BT50BSMC40100M	40	89	66,7	M12 X 1.75	100	KLSS40M	KDK40M	6,40
3750051	BT50BSMC40150M	40	89	66,7	M12 X 1.75	150	KLSS40M	KDK40M	8,26
3750052	BT50BSMC60090M	60	129	101,6	M16 X 2.0	90	—	KDK60M	8,53

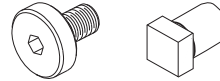
(continued)

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

(SMC BT Form B/AD continued)

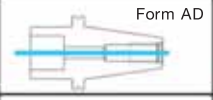










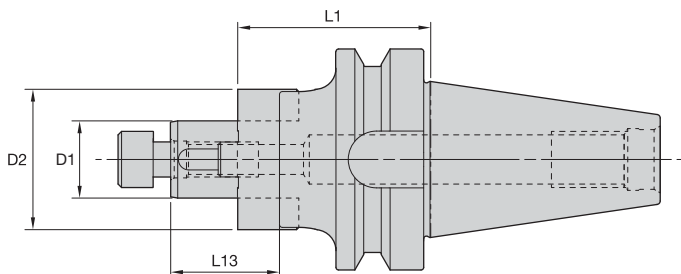
■ SMC Lock IN-BT Form B/AD



order number	catalog number	D1	D2	D4	G1	L1	lock screw	drive key	wrench size lock screw	lbs
3653805	BT50BSM2C050400	1/2	1.20	—	—	4.00	KLS05	KDK04	3/16	8.50
3653772	BT50BSMC050177	1/2	1.44	—	—	1.77	KLS05	KDK04	3/16	7.87
3653804	BT50BSMC050400	1/2	1.44	—	—	4.00	KLS05	KDK04	3/16	8.81
3653809	BT50BSM2C075400	3/4	1.46	—	—	4.00	KLS07	—	1/4	8.80
3653806	BT50BSMC075177	3/4	1.75	—	—	1.77	KLS07	KDK05	1/4	7.98
3653808	BT50BSMC075400	3/4	1.75	—	—	4.00	KLS07	KDK05	1/4	9.34
3653813	BT50BSM2C100400	1	2.19	—	—	4.00	KLS10	KDK06	5/16	10.22
3653810	BT50BSMC100177	1	2.75	—	—	1.77	KLS10	KDK06	5/16	8.32
3653812	BT50BSMC100400	1	2.75	—	—	4.00	KLS10	KDK06	5/16	11.77
3653814	BT50BSMC100600	1	2.75	—	—	6.00	KLS10	KDK06	5/16	14.86
3653815	BT50BSMC125177	1 1/4	2.88	—	—	1.77	KLS12	KDK08	5/16	8.60
3653816	BT50BSMC125400	1 1/4	2.88	—	—	4.00	KLS12	KDK08	5/16	12.46
3653817	BT50BSMC125600	1 1/4	2.88	—	—	6.00	KLS12	KDK08	5/16	15.92
3653818	BT50BSMC150177	1 1/2	3.63	—	—	1.77	KLS15	KDK10	3/8	9.21
3653819	BT50BSMC150400	1 1/2	3.81	—	—	4.00	KLS15	KDK10	3/8	16.36
3653820	BT50BSMC150600	1 1/2	3.81	—	—	6.00	KLS15	KDK10	3/8	22.68
3653823	BT50BSMC250236	2 1/2	4.88	4.00	.625-11 UNC	2.36	KLS25	KDK16	9/16	14.02
3653821	BT50BSMC200236	2	4.88	—	—	2.36	KLS20	KDK12	9/16	13.20
3653824	BT50BSMC250400	2 1/2	4.88	4.00	.625-11 UNC	4.00	KLS25	KDK16	9/16	19.92
3653822	BT50BSMC200400	2	4.88	4.00	.625-11 UNC	4.00	KLS20	KDK12	9/16	19.01

NOTE: Do not overtighten lock screw.
Supplied with lock screw and drive keys.
Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
Lock screw wrench not included.
For retention knob, see page L45.

 Form AD					
 Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

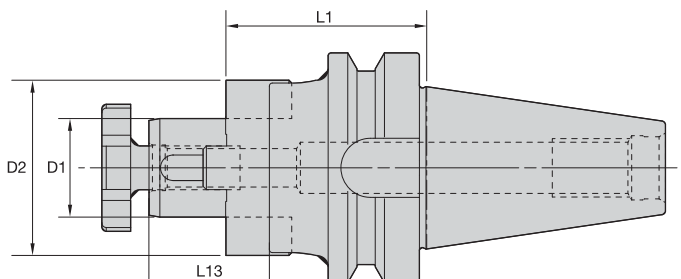


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■ CS Cap MM-BT Form AD



order number	catalog number	D1	D2	L1	L13	lock screw	wrench size lock screw	combi driver ring	combi drive key	kg
1258428	BT50CS16070M	16	32	70	27	MS1294	6mm	CDR16M	CDK16M	3,72
1258431	BT50CS16150M	16	32	150	27	MS1294	6mm	CDR16M	CDK16M	4,19
1191760	BT50CS22070M	22	40	70	31	MS1234	8mm	CDR22M	CDK22M	3,87
1258433	BT50CS22150M	22	40	150	31	MS1234	8mm	CDR22M	CDK22M	4,58
1191761	BT50CS22200M	22	40	200	31	MS1234	8mm	CDR22M	CDK22M	5,05



■ CS Lock MM-BT Form AD

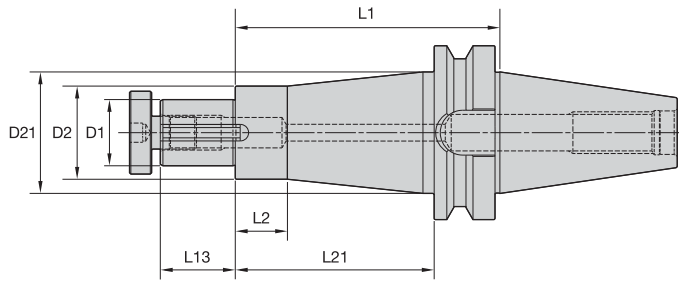


order number	catalog number	D1	D2	L1	L13	lock screw	locknut wrench	combi driver ring	combi drive key	kg
1191763	BT50CS32070M	32	58	70	38	KLS32M	SMW32M	CDR32M	CDK32M	4,33
1258437	BT50CS32150M	32	58	150	38	KLS32M	SMW32M	CDR32M	CDK32M	5,86
1191764	BT50CS40070M	40	70	70	41	KLS40M	SMW40M	CDR40M	CDK40M	4,78
1191765	BT50CS40150M	40	70	150	41	KLS40M	SMW40M	CDR40M	CDK40M	7,17
1258438	BT50CS40200M	40	70	200	41	KLS40M	SMW40M	CDR40M	CDK40M	8,90
1258439	BT50CS50075M	50	90	75	46	KLS50M	SMW50M	CDR50M	CDK50M	7,90
1191766	BT50CS50150M	50	90	150	46	KLS50M	SMW50M	CDR50M	CDK50M	9,20

NOTE: Do not overtighten lock screw.
 Supplied with lock screw, drive ring, and drive keys.
 Lock screw wrench not included.
 For retention knobs, see page L45.

BT50 Shank Tools

Slotting Cutter Adapters • Screw-On Adapters for Modular Milling Cutters



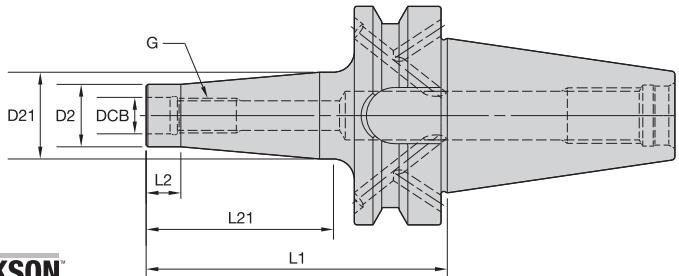
ERICKSON

SA IN-BT Form A



order number	catalog number	D1	D2	D21	L1	L2	L13	L21	lock screw	wrench size lock screw	drive key	lbs
1026221	BT50SA125600	1 1/4	1.86	2.75	6.00	1.10	1.09	4.50	KLS12	5/16	DWG SDK125119	13.22
1026340	BT50SA150600	1 1/2	2.11	2.75	6.00	1.18	1.70	4.50	KLS15	3/8	DWG SDK150175	14.27

NOTE: Do not overtighten lock screw.
 Supplied with lock screw, drive key, and spacer.
 Lock screw wrench not included.
 For retention knobs, see page L45.



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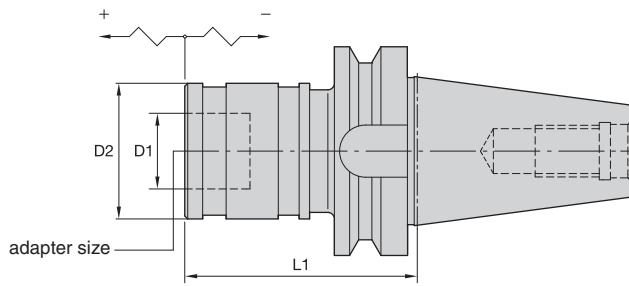
ST-BT Form B/AD

order number	catalog number	DCB	G	D2	D21	L1	L2	L21	kg
4067906	BT50BST12087M	12,5	M12	21	24	87	10	43	3,67
4067907	BT50BST12137M	12,5	M12	21	31	137	10	93	3,97
4067908	BT50BST12187M	12,5	M12	21	39	187	10	143	4,34
4067909	BT50BST16087M	17,0	M16	21	34	87	10	43	3,79
4067910	BT50BST16137M	17,0	M16	29	39	137	10	93	4,11
4067911	BT50BST16187M	17,0	M16	29	39	187	10	143	4,53
4067912	BT50BST16237M	17,0	M16	29	49	237	10	193	5,40

NOTE: For retention knobs, see page L45.

Form AD	✓				
Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

BT50 Shank Tools

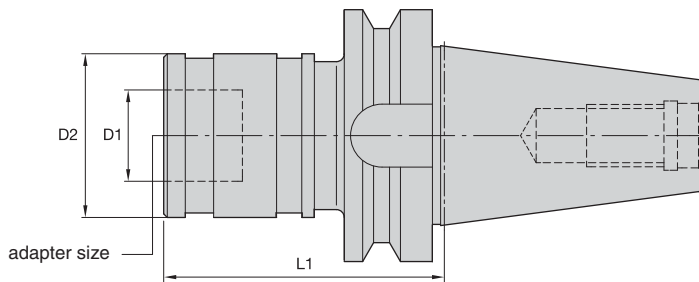


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■ RC-BT Form A

order number	catalog number	adapter size	tap size		D1	D2	L1	tension	compression	kg
			mm	in						
1778908	BT50RC1075M	1	M1 - M14	#0 - 9/16	19	36	73	7,5	7,5	3,10
1127889	BT50RC2102M	2	M5 - M24	5/16 - 7/8	31	53	102	12,5	12,5	3,90
1135816	BT50RC3141M	3	M14 - M27	13/16 - 1 3/8	48	78	141	20,0	20,0	4,70

NOTE: Quick-change tap adapters are available and must be ordered separately; see page J76.
For retention knobs, see page L45.



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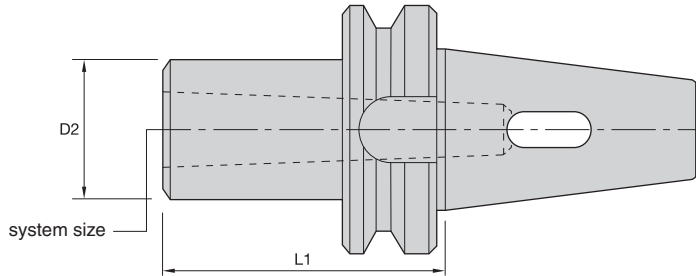
■ STRC-BT Form A

order number	catalog number	adapter size	tap size		D1	D2	L1	kg
			mm	in				
1778974	BT50STRC1074M	1	M1 - M14	#0 - 9/16	19	36	74	3,80
1778975	BT50STRC2089M	2	M5 - M24	5/16 - 7/8	31	53	89	4,00

NOTE: Quick-change tap adapters are available and must be ordered separately; see page J76.
For retention knobs, see page L45.

BT50 Shank Tools

Morse Taper Adapters • Jacobs Taper Adapters



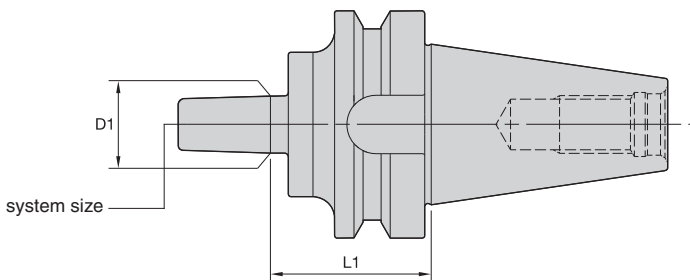
BT50 Shank Tools

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■ MT-BT Form A

order number	catalog number	system size	D2	L1	kg
1191785	BT50MT5105M	5	70	105	4,28

NOTE: For retention knobs, see page L45.

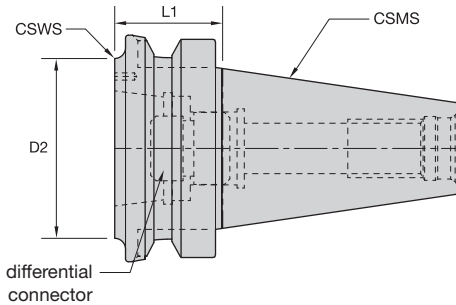


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■ JT-BT Form A

order number	catalog number	system size	D1	L1	kg
1258492	BT50JT33041M	33	15,85	41	3,70

NOTE: For retention knobs, see page L45.



BT50 Shank Tools

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■ BT to KR JIS B6339 Adapters AD/B • Metric



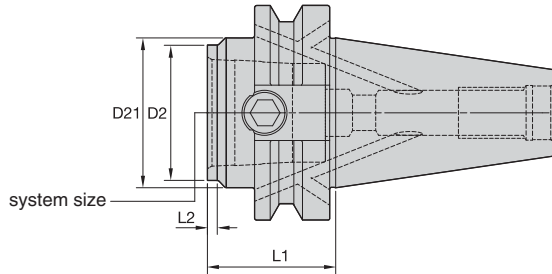
order number	catalog number	CSMS system size	CSWS system size	D2	L1	differential connector	kg	reference head
3554374	BT50BKR32040M	BT50	KR32	50	40	KRDCKR32M	3,90	SVS00B,0B,1B,2B,3B,SVUBB1,BB2
3554375	BT50BKR50040M	BT50	KR50	65	40	KRDCKR50M	3,17	SVS4B,5B,SVU65,SVUBB2
3554376	BT50BKR63060M	BT50	KR63	85	60	KRDCKR63M	4,31	SVS6B,7B,8B
3554377	BT50BKR80060M	BT50	KR80	95	60	KRDCKR80M	4,53	SVU92,120

■ BT to KR JIS B6339 Adapters AD/B • Inch



order number	catalog number	CSMS system size	CSWS system size	D2	L1	differential connector	lbs	reference head
3554374	BT50BKR32040M	BT50	KR32	1.97	1.570	KRDCKR32M	8.60	SVS00B,0B,1B,2B,3B,SVUBB1,BB2
3554375	BT50BKR50040M	BT50	KR50	2.56	1.570	KRDCKR50M	7.00	SVS4B,5B,SVU65,SVUBB2
3554376	BT50BKR63060M	BT50	KR63	3.35	2.360	KRDCKR63M	9.50	SVS6B,7B,8B
3554377	BT50BKR80060M	BT50	KR80	3.74	2.360	KRDCKR80M	9.98	SVU92,120

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



BT50 Shank Tools

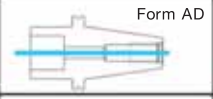










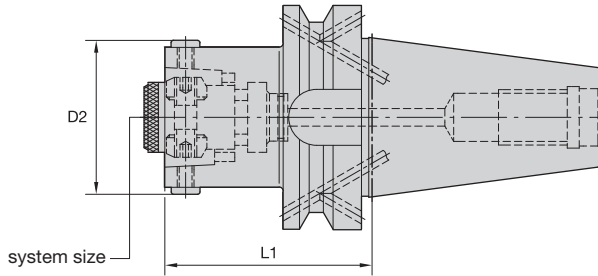
■ KM-BT Form B/AD



order number	catalog number	system size	D2	D21	L1	L2	KM spare parts package	wrench size actuation screw	Nm	kg
3783950	BT50BKM32040M	KM32	32	—	40	2	KM32PKG3L	5mm	8-11	3,50
3783951	BT50BKM32090M	KM32	32	—	90	52	KM32PKG3S	5mm	8-11	3,74
3783952	BT50BKM40060M	KM40	40	48	60	4	KM40PKG3L	6mm	12-16	3,72
3783953	BT50BKM40100M	KM40	40	—	100	62	KM40PKG3S	6mm	12-16	3,98
3783954	BT50BKM50060M	KM50	50	63	60	4	KM50PKG3L	10mm	27-34	3,80
3783955	BT50BKM50120M	KM50	50	—	120	82	KM50PKG3S	10mm	27-34	4,51
3783956	BT50BKM63060M	KM63	63	70	60	5	KM63PKG3L	12mm	47-54	3,78
3783957	BT50BKM63140M	KM63	63	—	140	102	KM63PKG3S	12mm	47-54	5,50
3783958	BT50BKM80080M	KM80	80	—	80	42	KM80PKG3S	14mm	79-85	4,50

NOTE: Do not overtorque actuation screw; use torque recommendations above.
 Supplied with KM actuation mechanism.
 For retention knobs, see page L45.
 These products only available in the U.S., Canada, and Japan.

 Form AD					
 Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



BT50 Shank Tools

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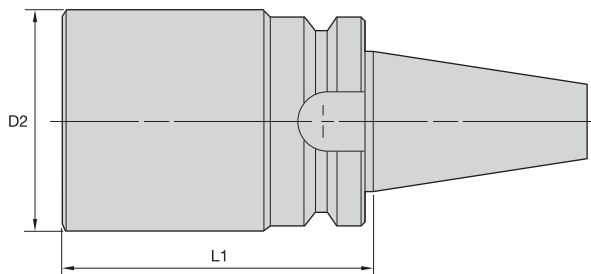
■ HSK-BT Form B/AD

order number	catalog number	system size	D2	L1	wrench size actuation screw	Nm	kg
1519708	BT50BHSK40060M	HSK40	45	60	3mm	8	3,70
1519709	BT50BHSK50065M	HSK50	55	65	4mm	15	3,80
1510763	BT50BHSK63075M	HSK63	70	75	5mm	20	4,00

NOTE: Do not overtorque actuation screw; use torque recommendations above.
Supplied with actuation mechanism and sealing ring.
For retention knobs, see page L45.

 Form AD						
 Form B			40	(2x) MS2221S	2,5mm	
			50	(2x) MS1296S	3mm	

- Machinable front 20–30 RW C.



ERICKSON

■ BB-BT

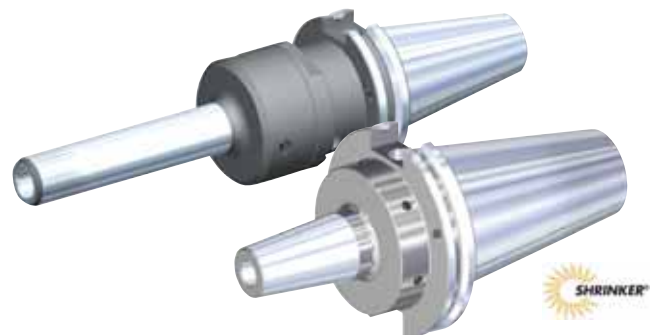
order number	catalog number	D2	L1	kg
1258384	BT50BB104350M	104	350	24,3
1258386	BT50BB134250M	134	250	26,5

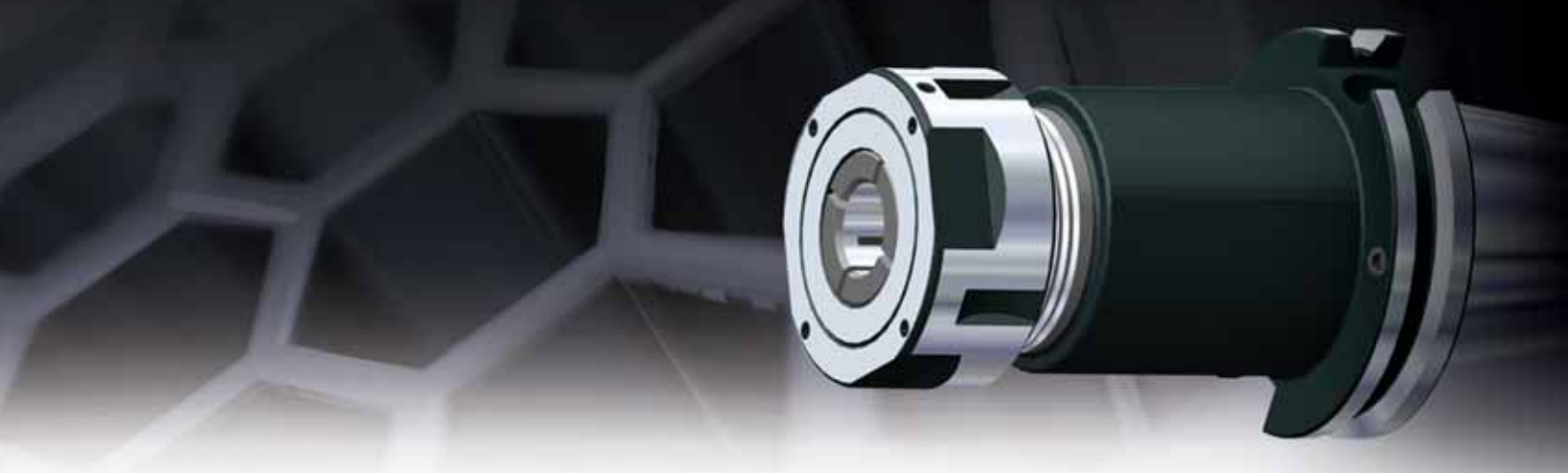
NOTE: For retention knobs, see page L45.



CV Shank Tools

CAT40(CV)	F2-F39
CAT50(CV)	F40-F83



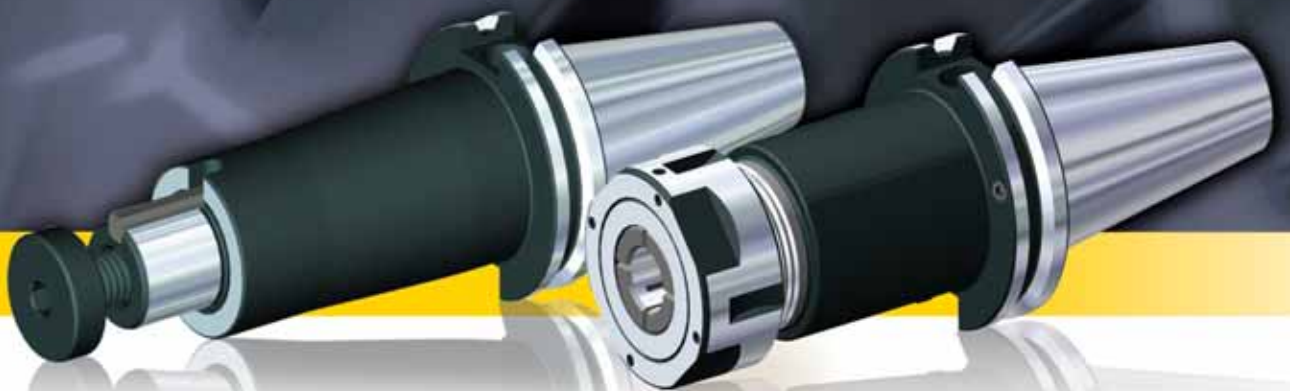


ERICKSON™ CAT V-Flange Shank Tooling System • CV40 Series

Primary Application

ERICKSON V-Flange CAT Taper Tooling is manufactured from premium materials and meets or exceeds the latest ANSI B5.50 and ISO-1947 taper accuracy of AT3 specification standards. The CV40 tools are either pre-balanced to a high specification or balanced-by-design. For high speed applications Kennametal recommends that the complete toolholder assembly (toolholder, retention knobs, collets, hardware, and cutting tools) be balanced as one entity. Exact RPM limits can only be determined by considering machine and spindle configurations in conjunction with tooling design and safety limits factored as a complete system.





Features and Benefits

- ANSI B5.50 7/24 taper.
- Standard 5/8-11 drawbar thread.
- Taper accuracy of AT3 specification or better.
- All tools set to form AD coolant specification.
Many can be converted to form B style.
- Maximum 100 bar (1,500 psi) coolant pressure.

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



CV40BTG50M100

CV

CAT
Shank
Style

ANSI
B5.50

40

Shank
Taper
Size

40 = 40
50 = 50

B

Special Feature
(optional)

B =
DIN form B coolant feature,
tool shipped to AD specifications
(design allows conversion to form B style)

Z =
Deviates from ANSI — B5.50
standard — no hub in front of V flange

(blank) =
(no "B" or "Z") — tool built to DIN form
A/AD coolant style

CH =
Coolant form AD — high pressure

HPV =
High performance and balanceable

TD =
Tunable

TG

Toolholder
Style

50

Toolholder
Size

M

Special
Feature

M =
Previous 2/3 numbers are metric
values (this is an exception where
there is a metric bore on an inch
shank style)

100

Tool
Length

(Gage line on
taper to front
of tool)

inch
xxx = x.xx

TG =
Collet series xx (50), xxx (100)

EM =
I.D. size: metric — xx = xx, (20);
inch — xxx = x.xx, (075)

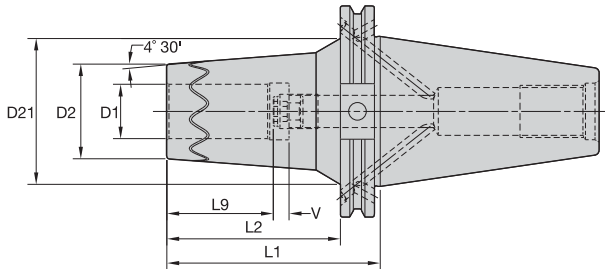
SM =
O.D. size: metric — xx = xx, (20);
inch — xxx = x.xx, (075)

BB = Bar blank
DA = Double-angle collet chuck
DC = Drill chuck
EM = End mill adapter
ER = DIN 6499 single-angle collet chuck
HC = Hydraulic chuck — Standard Line
HCB = Hydraulic chuck — Basic Line
HCSL = Hydraulic chuck — Slim Line
HCSLT = Hydraulic chuck — Slim Line — Trend
HCT = Hydraulic chuck — Trend Line
HPMC = Bearing milling chuck — high performance
HSK = HSK adapter
JT = Jacobs taper adapter
KM = KM™ adapter

MT = Morse taper adapter
RC = Rapid Change — T&C tapping
adapter chuck
SA = Slotting cutter adapter
SER = DIN 6499 single-angle collet chuck —
short with internal locknut
SFTT = **SAFE-LOCK™** Shrink Fit Thermo Toolholder
SM2C = Shell mill adapter with coolant
and small diameter
SMC = Shell mill adapter with coolant
SS = Adapter for straight shanks (drills)
SSF = Adapter for straight shanks
with flat (drills)
ST = Screw-on adapters
STRC = Rapid Change — solid tapping
adapter chuck

SWN = Whistle Notch™ 2° — short
— (not to DIN standard)
TA = Tap chuck adapter
TCRC = Rapid Change — T&C tapping
adapter chuck
TG = Tremendous Grip single-angle collet chuck
TGF = Tremendous Grip single-angle
collet chuck — flush face
TT = Shrink Fit thermo toolholder
TTHT = Shrink Fit thermo toolholder — high torque
WD = Whistle Notch with drive
WNA = Whistle Notch — NAS 5° inch
WN = Whistle Notch (2° metric; 5° inch)

- SAFE-LOCK™, innovative and unique non-slip system.
- Suitable for carbide and HSS cutting tools.
- Need ≥ 10 kW shrink unit.



ERICKSON

■ TT SF MM-CV Z FORM B/AD

order number	catalog number	D1	D2	D21	L1	L2	L9	V	kg
5089582	CV40ZBSFTT12M256	12	27	34	65	46	37	10	1,00
5089583	CV40ZBSFTT16M256	16	30	37	65	46	40	10	1,01
5089584	CV40ZBSFTT20M256	20	36	43	65	46	42	10	1,06
5089585	CV40ZBSFTT25M295	25	46	51	75	56	48	10	1,29

Cutting Tool Shank Requirements metric (ISO standard)

cutting tool shank diameter	tolerance	
12, 16	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013

Cutting Tool Shank Requirements inch (industry standard)

cutting tool shank diameters	tolerance
1/2 & 5/8	.0000/- .0004
3/4, 1	.0000/- .0005

■ TT SF IN-CV Z Form B/AD

order number	catalog number	D1	D2	D21	L1	L2	L9	V	lbs
5089586	CV40ZBSFTT050256	1/2	1.04	1.33	2.56	1.81	1.46	.39	2.20
5089587	CV40ZBSFTT062256	5/8	1.16	1.45	2.56	1.81	1.58	.39	2.22
5089588	CV40ZBSFTT075256	3/4	1.40	1.68	2.56	1.81	1.65	.39	2.37
5089589	CV40ZBSFTT100295	1	1.79	2.03	2.95	2.20	1.89	.39	2.82

CV40Z toolholders deviate from ANSI-B5.50 standard. The 1.750" hub in front of the V-flange has been eliminated to achieve short gage lengths.

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Shrink Fit technical section, see page M78.
Shrink Fit accessories, see pages L12–L13.
HSK coolant unit and wrench are available and must be ordered separately; see page L44.

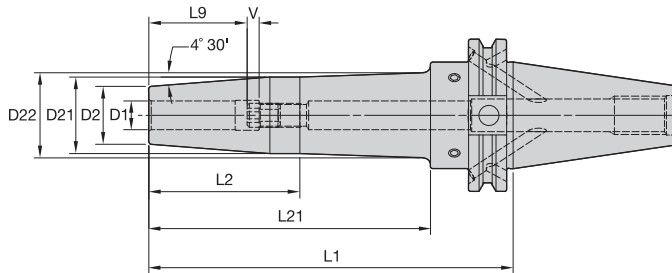
			40	(2x) SFV40
			50	(2x) SFV50
				1,5mm
				1,5mm

CAT40 Shank Tools

Shrink Fit Toolholders General Purpose (GP)



- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide and HSS cutting tools (requirements below).



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
6	h6	0,000/-0,008
8 & 10	h6	0,000/-0,009
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

ERICKSON

■ TT GP HPV MM-CV Form B/AD

order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	kg
3683482	CV40BHPVTT06M350	6	21	27	—	89	54	—	26	10	TTSS05014M	2,5mm	1,16
3683493	CV40BHPVTT06M600	6	21	27	32	152	50	117	26	10	TTSS05014M	2,5mm	1,48
3683494	CV40BHPVTT08M350	8	21	27	—	89	54	—	26	10	TTSS06014M	3mm	1,15
3683495	CV40BHPVTT08M600	8	21	27	32	152	50	117	26	10	TTSS06014M	3mm	1,48
3683496	CV40BHPVTT10M375	10	24	32	—	95	60	—	31	10	TTSS08014M	4mm	1,24
3683497	CV40BHPVTT10M600	10	24	32	36	152	63	117	31	10	TTSS08014M	4mm	1,63
3615213	CV40BHPVTT12M375	12	24	32	—	95	60	—	36	10	TTSS10014M	5mm	1,22
3615214	CV40BHPVTT12M600	12	24	32	36	152	63	117	36	10	TTSS10014M	5mm	1,57
3615215	CV40BHPVTT14M375	14	27	34	—	95	60	—	36	10	TTSS10014M	5mm	1,27
3615216	CV40BHPVTT14M600	14	27	34	38	152	63	117	36	10	TTSS10014M	5mm	1,66
3615217	CV40BHPVTT16M375	16	27	34	—	95	60	—	39	10	TTSS12014M	6mm	1,24
3615218	CV40BHPVTT16M600	16	27	34	38	152	63	117	39	10	TTSS12014M	6mm	1,64
3615219	CV40BHPVTT18M400	18	34	44	—	102	83	—	39	10	TTSS12014M	6mm	1,48
3615220	CV40BHPVTT18M600	18	33	42	—	152	117	—	39	10	TTSS12014M	6mm	1,95
3615221	CV40BHPVTT20M400	20	34	44	—	102	83	—	41	10	TTSS16014M	8mm	1,44
3615222	CV40BHPVTT20M600	20	33	42	—	152	117	—	41	10	TTSS16014M	8mm	1,89
3615223	CV40BHPVTT25M400	25	44	53	—	102	83	—	47	10	TTSS16014M	8mm	1,71
3615224	CV40BHPVTT25M600	25	44	53	—	152	133	—	47	10	TTSS16014M	8mm	2,52
3615225	CV40BHPVTT32M400	32	44	53	—	102	83	—	51	10	TTSS16014M	8mm	1,55
3615226	CV40BHPVTT32M600	32	44	53	—	152	133	—	51	10	TTSS16014M	8mm	2,36



(continued)

CAT40 Shank Tools

(TT GP HPV continued)

Cutting Tool Shank Requirements
inch (industry standard)

cutting tool shank diameters	tolerance
1/4, 5/16 & 3/8	.0000/- .0004
7/16, 1/2, 9/16, 5/8, & 11/16	.0000/- .0004
3/4, 7/8, 1, & 1-1/4	.0000/- .0005

■ TT GP HPV IN-CV Form B/AD



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	lbs
3683474	CV40BHPVTT025350	1/4	.83	1.06	—	3.50	2.13	—	1.02	.39	TTSS05014M	2,5mm	2.55
3683476	CV40BHPVTT025600	1/4	.83	1.06	1.24	6.00	1.97	4.63	1.02	.39	TTSS05014M	2,5mm	3.27
3683477	CV40BHPVTT031350	5/16	.83	1.06	—	3.50	2.13	—	1.02	.39	TTSS06014M	3mm	2.54
3683478	CV40BHPVTT031600	5/16	.83	1.06	1.24	6.00	1.97	4.63	1.02	.39	TTSS06014M	3mm	3.25
3683479	CV40BHPVTT038375	3/8	.95	1.26	—	3.75	2.38	—	1.22	.39	TTSS08014M	4mm	2.73
3683480	CV40BHPVTT038600	3/8	.95	1.26	1.41	6.00	2.48	4.63	1.22	.39	TTSS08014M	4mm	3.59
3683481	CV40BHPVTT044375	7/16	.95	1.26	—	3.75	2.38	—	1.42	.39	TTSS10014M	5mm	2.70
3615175	CV40BHPVTT050375	1/2	.95	1.26	—	3.75	2.38	—	1.42	.39	TTSS10014M	5mm	2.68
3615176	CV40BHPVTT050600	1/2	.95	1.26	1.41	6.00	2.48	4.63	1.42	.39	TTSS10014M	5mm	3.44
3615177	CV40BHPVTT056375	9/16	1.06	1.34	—	3.75	2.38	—	1.42	.39	TTSS10014M	5mm	2.79
3615178	CV40BHPVTT062375	5/8	1.06	1.34	—	3.75	2.38	—	1.54	.39	TTSS12014M	6mm	2.74
3615179	CV40BHPVTT062600	5/8	1.06	1.34	1.48	6.00	2.48	4.63	1.54	.39	TTSS12014M	6mm	3.61
3615180	CV40BHPVTT068400	11/16	1.34	1.75	—	4.00	3.25	—	1.54	.39	TTSS12014M	6mm	3.28
3615182	CV40BHPVTT075600	3/4	1.30	1.65	—	6.00	4.63	—	1.61	.39	TTSS16014M	8mm	4.24
3615181	CV40BHPVTT075400	3/4	1.34	1.75	—	4.00	3.25	—	1.61	.39	TTSS16014M	8mm	3.22
3615184	CV40BHPVTT088600	7/8	1.30	1.65	—	6.00	4.63	—	1.61	.39	TTSS16014M	8mm	4.15
3615183	CV40BHPVTT088400	7/8	1.34	1.75	—	4.00	3.25	—	1.61	.39	TTSS16014M	8mm	3.14
3615185	CV40BHPVTT100400	1	1.73	2.08	—	4.00	3.25	—	1.85	.39	TTSS16014M	8mm	3.76
3615186	CV40BHPVTT100600	1	1.73	2.08	—	6.00	5.25	—	1.85	.39	TTSS16014M	8mm	5.06
3615187	CV40BHPVTT125400	1 1/4	1.73	2.08	—	4.00	3.25	—	2.01	.39	TTSS16014M	8mm	3.43
3615188	CV40BHPVTT125600	1 1/4	1.73	2.08	—	6.00	5.25	—	2.01	.39	TTSS16014M	8mm	4.74

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Shrink Fit technical section, see page M78.

Supplied with stop screw.

Adjusting stop screw gage, see page M81.

Optional M6~1.0P x 5mm lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.

For retention knobs, see page L45.

CAT40 Shank Tools

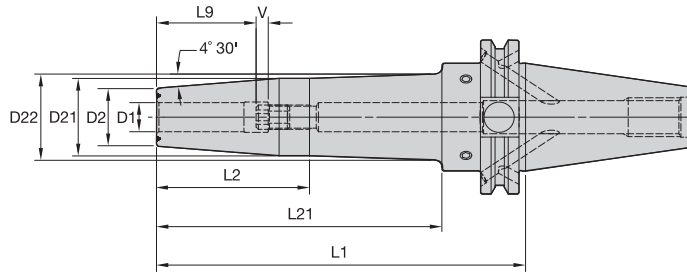
<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

CAT40 Shank Tools

Shrink Fit Toolholders High Torque (HT)



- 30–50% higher clamping torque compared to GP line.
- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide only, designated by groove in front face (requirements below).
- 10 kW power or greater Shrink Fit device must be used.



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

CAT40 Shank Tools



■ TT HT HPV MM-CV Form B/AD



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	kg
3618030	CV40BHPVTHT12M375	12	24	32	—	95	60	—	36	10	TTSS10014M	5mm	1,22
3618031	CV40BHPVTHT12M600	12	24	32	36	152	63	117	36	10	TTSS10014M	5mm	1,57
3618032	CV40BHPVTHT14M375	14	27	34	—	95	60	—	36	10	TTSS10014M	5mm	1,27
3618033	CV40BHPVTHT14M600	14	27	34	38	152	63	117	36	10	TTSS10014M	5mm	1,66
3618034	CV40BHPVTHT16M375	16	27	34	—	95	60	—	39	10	TTSS12014M	6mm	1,24
3618035	CV40BHPVTHT16M600	16	27	34	38	152	63	117	39	10	TTSS12014M	6mm	1,64
3618036	CV40BHPVTHT18M400	18	34	44	—	102	83	—	39	10	TTSS12014M	6mm	1,48
3618037	CV40BHPVTHT18M600	18	33	42	—	152	117	—	39	10	TTSS12014M	6mm	1,95
3618038	CV40BHPVTHT20M400	20	34	44	—	102	83	—	41	10	TTSS16014M	8mm	1,44
3618039	CV40BHPVTHT20M600	20	33	42	—	152	117	—	41	10	TTSS16014M	8mm	1,89
3618040	CV40BHPVTHT25M400	25	44	53	—	102	83	—	47	10	TTSS16014M	8mm	1,71
3618041	CV40BHPVTHT25M600	25	44	53	—	152	133	—	47	10	TTSS16014M	8mm	2,52
3618042	CV40BHPVTHT32M400	32	44	53	—	102	83	—	51	10	TTSS16014M	8mm	1,55
3618043	CV40BHPVTHT32M600	32	44	53	—	152	133	—	51	10	TTSS16014M	8mm	2,36

(continued)

(TT HT HPV continued)

Cutting Tool Shank Requirements inch (industry standard)

cutting tool shank diameters	tolerance
1/2, 9/16, 5/8, & 11/16	.0000/- .0004
3/4, 7/8, 1, & 1-1/4	.0000/- .0005

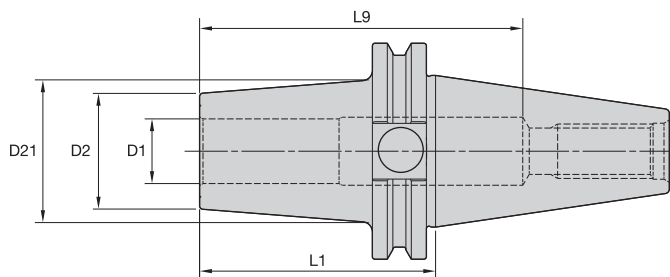
■ TT HT HPV IN-CV Form B/AD



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	lbs
3617952	CV40BHPVTHT050375	1/2	.95	1.26	—	3.75	2.38	—	1.42	.39	TTSS10014M	5mm	2.68
3618003	CV40BHPVTHT050600	1/2	.95	1.26	1.41	6.00	2.48	4.63	1.42	.39	TTSS10014M	5mm	3.44
3618004	CV40BHPVTHT056375	9/16	1.06	1.34	—	3.75	2.38	—	1.42	.39	TTSS10014M	5mm	2.79
3618005	CV40BHPVTHT062375	5/8	1.06	1.34	—	3.75	2.38	—	1.54	.39	TTSS12014M	6mm	2.74
3618006	CV40BHPVTHT062600	5/8	1.06	1.34	1.48	6.00	2.48	4.63	1.54	.39	TTSS12014M	6mm	3.61
3618007	CV40BHPVTHT068400	11/16	1.34	1.75	—	4.00	3.25	—	1.54	.39	TTSS12014M	6mm	3.28
3618009	CV40BHPVTHT075600	3/4	1.30	1.65	—	6.00	4.63	—	1.61	.39	TTSS16014M	8mm	4.24
3618008	CV40BHPVTHT075400	3/4	1.34	1.75	—	4.00	3.25	—	1.61	.39	TTSS16014M	8mm	3.22
3618011	CV40BHPVTHT088600	7/8	1.30	1.65	—	6.00	4.63	—	1.61	.39	TTSS16014M	8mm	4.15
3618010	CV40BHPVTHT088400	7/8	1.34	1.75	—	4.00	3.25	—	1.61	.39	TTSS16014M	8mm	3.13
3618012	CV40BHPVTHT100400	1	1.73	2.08	—	4.00	3.25	—	1.85	.39	TTSS16014M	8mm	3.76
3618013	CV40BHPVTHT100600	1	1.73	2.08	—	6.00	5.25	—	1.85	.39	TTSS16014M	8mm	5.06
3618014	CV40BHPVTHT125400	1 1/4	1.73	2.08	—	4.00	3.25	—	2.01	.39	TTSS16014M	8mm	3.43
3618015	CV40BHPVTHT125600	1 1/4	1.73	2.08	—	6.00	5.25	—	2.01	.39	TTSS16014M	8mm	4.74

CAT40 Shank Tools

			40	(2x) MS2221S
			50	(2x) MS1296S
				2,5mm
				3mm



■ TT HT HPV IN-CV Z Form AD

order number	catalog number	D1	D2	D21	L1	L9	lbs
3683514	CV40ZTHT050275	1/2	.95	1.26	2.75	4.26	2.16
3683516	CV40ZTHT075275	3/4	1.34	1.65	2.75	3.74	2.34

CV40Z toolholders deviate from ANSI-B5-50 standard. The 1.750" diameter in front of the V-flange has been eliminated to achieve short gage lengths.

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

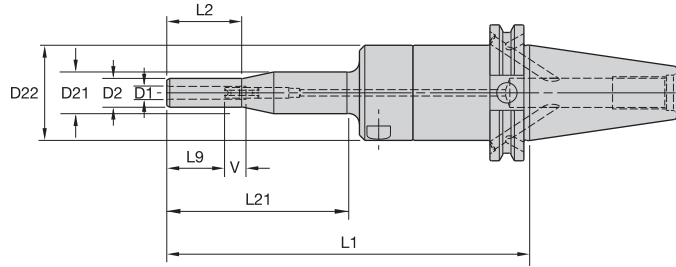
Shrink Fit technical section, see page M78.

Supplied with stop screw.

Adjusting stop screw gage, see page M81.

Optional M6~1.0P x 5mm lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.

For retention knobs, see page L45.

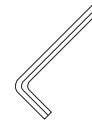


ERICKSON

■ HC Slim T MM-CV Form B/AD

order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	kg
3019245	CV40BHCSLT06M669	6	13,5	19,5	44,5	170	35	85	27	10	1,64
3019246	CV40BHCSLT08M669	8	15,5	19,5	44,5	170	35	85	27	10	1,65
3019247	CV40BHCSLT10M669	10	17,5	44,5	—	170	85	151	31	10	1,65

■ Spare Parts



catalog number	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw
CV40BHCSLT06M669	170.135	5mm	170.002	2,5mm
CV40BHCSLT08M669	170.135	5mm	170.002	2,5mm
CV40BHCSLT10M669	170.135	5mm	170.003	3mm

■ HC Slim T IN-CV Form B/AD

order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	lbs
3019257	CV40BHCSLT025669	.25	.54	.77	44,45	6.69	1.38	85,00	1.06	.39	3.64
3019258	CV40BHCSLT038669	.38	.69	1.75	—	6.69	3.35	150,95	1.22	.39	3.64

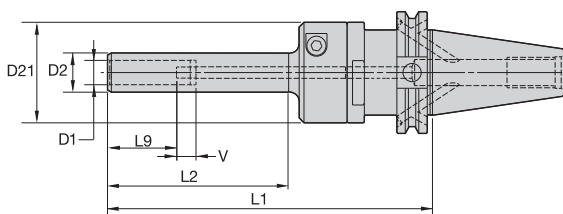
■ Spare Parts



catalog number	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw
CV40BHCSLT025669	170.135	5mm	170.002	2,5mm
CV40BHCSLT038669	170.135	5mm	170.003	3mm

(continued)

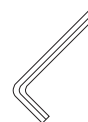
(HC Slim Form B/AD continued)



■ HC Slim MM-CV Form B/AD

order number	catalog number	D1	D2	D21	L1	L2	L9	V	kg
2495136	CV40BHCSL12M669	12	19,5	44,5	170	95	36	10	1,56
3019248	CV40BHCSL14M669	14	21,5	52,5	170	95	36	10	1,75
3019249	CV40BHCSL16M669	16	23,5	52,5	170	95	39	10	1,78
3019250	CV40BHCSL18M669	18	25,5	52,5	170	95	39	10	1,82
2495141	CV40BHCSL20M669	20	27,5	52,5	170	95	41	10	1,83

■ Spare Parts



catalog number	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw
CV40BHCSL12M669	170.135	5mm	170.002	2,5mm
CV40BHCSL14M669	170.135	5mm	170.002	2,5mm
CV40BHCSL16M669	170.135	5mm	170.002	2,5mm
CV40BHCSL18M669	170.135	5mm	170.002	2,5mm
CV40BHCSL20M669	170.135	5mm	170.002	2,5mm

■ HC Slim IN-CV Form B/AD

order number	catalog number	D1	D2	D21	L1	L2	L9	V	lbs
2508153	CV40BHCSL050669	.50	.81	2.07	6.69	3.74	1.42	.39	3.84
3019259	CV40BHCSL062669	.63	.93	2.07	6.69	3.74	1.54	.39	3.92
2508154	CV40BHCSL075669	.75	1.06	2.07	6.69	3.74	1.61	.39	4.08

■ Spare Parts

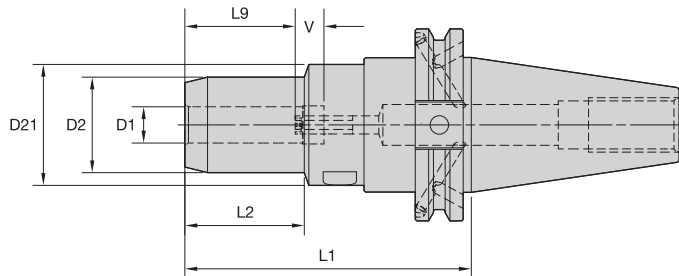


catalog number	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw
CV40BHCSL050669	170.135	5mm	170.002	2,5mm
CV40BHCSL062669	170.135	5mm	170.002	2,5mm
CV40BHCSL075669	170.135	5mm	170.002	2,5mm

NOTE: Do not overtorque actuation screw. Use supplied wrench and tighten by hand until stop is felt.

Hydraulic chuck technical section, see page M84.
 Supplied with stop screw and actuation wrench.
 Unable to use SEFAS™ chamfering rings on this design.
 Reduction sleeves are available and must be ordered separately; see page J2.
 For retention knobs, see page L45.

	Form AD					
	Form B			40	(2x) MS2221S	2,5mm
				50	(2x) MS1296S	3mm



ERICKSON

■ HC MM -CV Form B/AD

CAT40 Shank Tools



order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	stop screw wrench	wrench size stop screw	kg
1605145	CV40BHC06M350	6	25,7	40	88,9	33	27	10	170.135	5mm	170.002	2,5mm	1,24
1605149	CV40BHC08M350	8	27,7	40	88,9	33	27	10	170.135	5mm	170.002	2,5mm	1,25
1605150	CV40BHC10M375	10	29,7	40	95,3	39	31	10	170.135	5mm	170.002	2,5mm	1,30
2079279	CV40BHC12M375	12	31,6	40	95,3	40	36	10	170.135	5mm	170.002	2,5mm	1,32
2079280	CV40BHC14M400	14	33,6	50	101,6	46	41	10	170.135	5mm	170.003	3mm	1,45
2079281	CV40BHC16M400	16	37,6	50	101,6	47	41	10	170.135	5mm	170.003	3mm	1,52
2079282	CV40BHC18M400	18	39,6	50	101,6	47	41	10	170.135	5mm	170.003	3mm	1,54
2079523	CV40BHC20M400	20	41,6	50	101,6	48	41	10	170.135	5mm	170.003	3mm	1,56
1605216	CV40BHC25M462	25	49,9	63	117,5	51	51	10	170.136	6mm	170.004	4mm	2,13
1605217	CV40BHC32M462	32	59,9	63	117,5	59	51	10	170.136	6mm	170.004	4mm	2,31

(continued)

(HC CV Form B/AD continued)

■ HC IN -CV Form B/AD

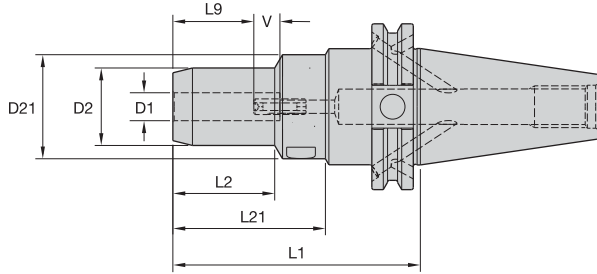


order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	stop screw wrench	wrench size stop screw	lbs
1605101	CV40BHC025350	1/4	1.01	1.57	3.50	1.30	1.06	.39	170.135	5mm	170.002	2,5mm	2.7
1605102	CV40BHC038375	3/8	1.17	1.57	3.75	1.54	1.22	.39	170.135	5mm	170.002	2,5mm	2.9
1605103	CV40BHC050375	1/2	1.24	1.57	3.75	1.57	1.42	.39	170.135	5mm	170.002	2,5mm	2.9
1605104	CV40BHC062400	5/8	1.48	1.97	4.00	1.83	1.54	.39	170.135	5mm	170.003	3mm	3.2
1605105	CV40BHC075400	3/4	1.64	1.97	4.00	1.89	1.61	.39	170.135	5mm	170.003	3mm	3.4
1605106	CV40BHC100462	1	1.96	2.48	4.63	2.01	1.81	.39	170.136	6mm	170.004	4mm	4.7
1605107	CV40BHC125462	1 1/4	2.36	2.48	4.63	2.32	1.97	.39	170.136	6mm	170.004	4mm	5.1

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw.
 Actuation wrench must be ordered separately.
 Reduction sleeves are available and must be ordered separately; see page J2.
 For retention knobs, see page L45.

CAT40 Shank Tools

<p>Form AD</p>					
<p>Form B</p>			<p>40</p>	<p>(2x) MS2221S</p>	<p>2,5mm</p>
			<p>50</p>	<p>(2x) MS1296S</p>	<p>3mm</p>



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■ HC Trend MM-CV Form B/AD



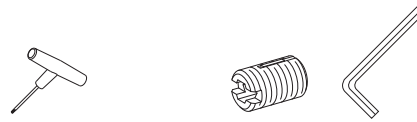
order number	catalog number	D1	D2	D21	L1	L2	L21	L9	V	actuation wrench	wrench size actuation screw	stop screw	stop screw wrench	wrench size stop screw	kg
2979257	CV40BHCT06M350	6	26	40	89	33	53	27	10	170.135	5mm	571.061	170.003	3mm	1,25
2982160	CV40BHCT06M600	6	26	40	152	100	117	27	10	170.135	5mm	571.061	170.003	3mm	1,49
2979258	CV40BHCT08M350	8	28	40	89	33	53	27	10	170.135	5mm	571.061	170.003	3mm	1,27
2982161	CV40BHCT08M600	8	28	40	152	100	117	27	10	170.135	5mm	571.061	170.003	3mm	1,55
2979259	CV40BHCT10M375	10	30	40	95	39	58	31	10	170.135	5mm	571.061	170.003	3mm	1,32
2982162	CV40BHCT10M600	10	30	40	152	100	117	31	10	170.135	5mm	571.061	170.003	3mm	1,62
2979260	CV40BHCT12M375	12	32	40	95	40	60	36	10	170.135	5mm	571.061	170.003	3mm	1,32
2982163	CV40BHCT12M600	12	32	40	152	100	117	36	10	170.135	5mm	571.061	170.003	3mm	1,67
2979261	CV40BHCT14M400	14	34	50	102	46	65	41	10	170.135	5mm	571.063	170.005	5mm	1,47
2982164	CV40BHCT14M600	14	34	50	152	100	116	36	10	170.135	5mm	—	170.005	5mm	1,79
2979262	CV40BHCT16M400	16	38	50	102	47	65	41	10	170.135	5mm	571.063	170.005	5mm	1,54
2982165	CV40BHCT16M600	16	38	50	152	100	116	39	10	170.135	5mm	571.063	170.005	5mm	1,95
2979263	CV40BHCT18M400	18	40	50	102	47	65	41	10	170.135	5mm	571.063	170.005	5mm	1,56
2982166	CV40BHCT18M600	18	40	50	152	100	116	39	10	170.135	5mm	571.063	170.005	5mm	2,02
2979264	CV40BHCT20M400	20	42	50	102	48	65	41	10	170.135	5mm	571.063	170.005	5mm	1,58
2982167	CV40BHCT20M600	20	42	50	152	100	116	41	10	170.135	5mm	571.063	170.005	5mm	2,10
2979265	CV40BHCT25M462	25	50	63	117	51	81	51	10	170.136	6mm	571.063	170.005	5mm	2,15
2979266	CV40BHCT32M462	32	60	63	117	59	81	51	10	170.136	6mm	—	170.005	5mm	2,33

(continued)

CAT40 Shank Tools

(HC Trend CV Form B/AD continued)

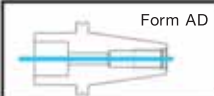








■ HC Trend IN-CV Form B/AD

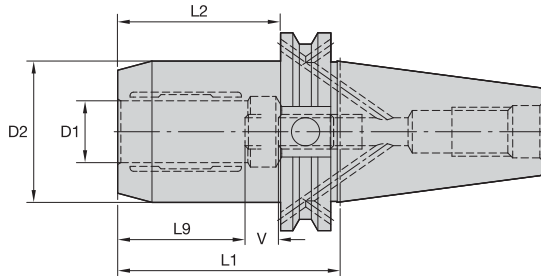


order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	stop screw	stop screw wrench	wrench size stop screw	lbs
2979230	CV40BHCT025350	1/4	1.012	1.569	3.500	1.299	1.063	.39	170.135	5mm	571.061	170.003	3mm	2.76
2982155	CV40BHCT025600	1/4	1.012	1.569	6.000	3.937	1.063	.39	170.135	5mm	571.061	170.003	3mm	3.28
2979231	CV40BHCT038375	3/8	1.169	1.569	3.750	1.535	1.221	.39	170.135	5mm	571.061	170.003	3mm	2.91
2982156	CV40BHCT038600	3/8	1.169	1.569	6.000	3.937	1.221	.39	170.135	5mm	571.061	170.003	3mm	3.57
2979232	CV40BHCT050375	1/2	1.244	1.569	3.750	1.575	1.417	.39	170.135	5mm	571.061	170.003	3mm	2.91
2982157	CV40BHCT050600	1/2	1.244	1.569	6.000	3.937	1.417	.39	170.135	5mm	571.061	170.003	3mm	3.68
2979253	CV40BHCT062400	5/8	1.480	1.963	4.000	1.831	1.535	.39	170.135	5mm	571.063	170.005	5mm	3.40
2982158	CV40BHCT062600	5/8	1.479	1.963	6.000	3.937	1.535	.39	170.135	5mm	571.063	170.005	5mm	4.30
2979254	CV40BHCT075400	3/4	1.638	1.963	4.000	1.890	1.614	.39	170.135	5mm	571.063	170.005	5mm	3.53
2982159	CV40BHCT075600	3/4	1.873	1.963	6.000	3.937	1.614	.39	170.135	5mm	571.063	170.005	5mm	4.65
2979255	CV40BHCT100462	1	1.961	2.474	4.625	2.008	1.811	.39	170.136	6mm	571.063	170.005	5mm	4.76
2979256	CV40BHCT125462	1 1/4	2.354	2.474	4.625	2.323	1.969	.39	170.136	6mm	571.063	170.005	5mm	5.18

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw.
 Actuation wrench must be ordered separately.
 Reduction sleeves are available and must be ordered separately; see page J2.
 For retention knobs, see page L45.

CAT40 Shank Tools

 <p>Form AD</p>					
 <p>Form B</p>			<p>40</p>	<p>(2x) MS2221S</p>	<p>2,5mm</p>
			<p>50</p>	<p>(2x) MS1296S</p>	<p>3mm</p>



CAT40 Shank Tools

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■ HC Basic MM-CV Form B/AD

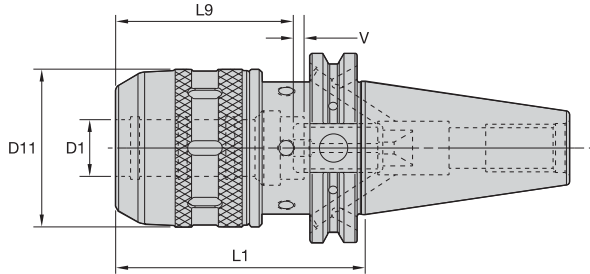
order number	catalog number	D1	D2	L1	L2	L9	V	actuation wrench	wrench size actuation screw	stop screw wrench	wrench size stop screw	kg
2001975	CV40BHCB20M400	20	49,9	102	83	41	10		5mm		5mm	1,81

■ HC Basic IN-CV Form B/AD

order number	catalog number	D1	D2	L1	L2	L9	V	actuation wrench	wrench size actuation screw	stop screw wrench	wrench size stop screw	lbs
2001976	CV40BHCB075400	3/4	1.96	4.00	3.25	1.61	.39		5mm		5mm	4.01

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
Hydraulic chuck technical section, see page M84.
Supplied with stop screw.
Actuation wrench must be ordered separately.
Reduction sleeves are available and must be ordered separately; see page J2.
For retention knobs, see page L45.

	Form AD					
	Form B			40	(2x) MS2221S	2,5mm
				50	(2x) MS1296S	3mm



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■ HPMC IN-CV Form B/AD

order number	catalog number	D1	D11	L1	L9	V	locknut wrench	stop screw	wrench size stop screw	lbs
3100356	CV40BHPMC075335	3/4	2.09	3.35	4.73	.79	PSW52M	MCSS16040M	2,5mm & 5mm	3.40
3100358	CV40BHPMC075591	3/4	2.09	5.91	1.93	.79	PSW52M	MCSS16040M	2,5mm & 5mm	5.70
3100359	CV40BHPMC100374	1	2.40	3.74	2.17	.79	PSW58M	MCSS16040M	2,5mm & 5mm	4.20
3100360	CV40BHPMC100591	1	2.40	5.91	2.17	.79	PSW58M	MCSS16040M	2,5mm & 5mm	6.45
3100362	CV40BHPMC125472	1 1/4	2.76	4.72	2.28	.79	PSW68M	MCSS16040M	2,5mm & 5mm	5.65
3100361	CV40BHPMC125591	1 1/4	2.76	5.91	2.28	.79	PSW68M	MCSS16040M	2,5mm & 5mm	7.20

NOTE: Milling chuck technical section, see page M88.
 Supplied with locknut and stop screw.
 Locknut wrench not included.
 Optional M6-1,0P fine-balancing screw set is available (order number HPMCBALSCREWSET) and must be ordered separately; see page L14.
 Reduction sleeves are available and must be ordered separately; see page J6.
 For retention knobs, see page L45.

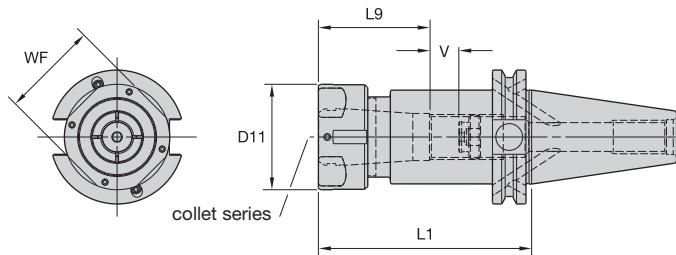
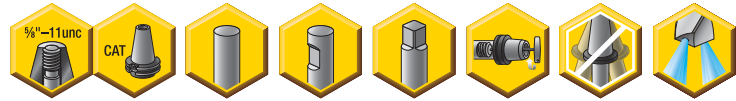
 Form AD					
 Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

CAT40 Shank Tools

TG Flush Face Single-Angle Collet Chucks



- Tremendous Grip (3:1 advantage).
- Totally flush face, locknut to collet.



TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG50	1,1	13,5	1/32	17/32
TG75	2,6	20,0	3/64	3/4
TG100	2,6	25,5	5/64	1

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TG Flush Face-CV Form B/AD

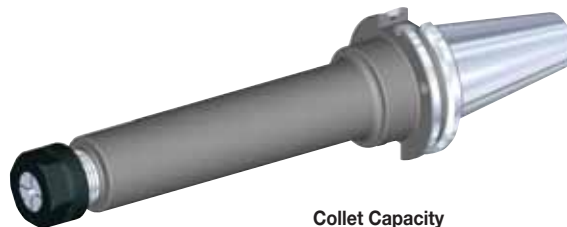
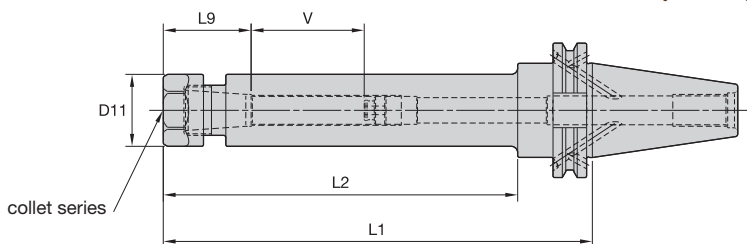
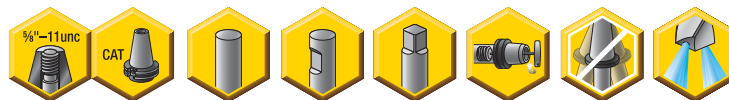


order number	catalog number	collet series	D11	L1	L9	V	locknut	WF	locknut wrench	ft. lbs.	stop screw	wrench size	stop screw	lbs
2987290	CV40BTGF050250	TG50	1.50	2.50	1.46	.70	LNATGF050M	34	HSW34M	50	SS056041G	4mm & 5/32	2.37	
2987291	CV40BTGF050400	TG50	1.50	4.00	1.46	2.20	LNATGF050M	34	HSW34M	50	SS056041G	4mm & 5/32	2.76	
2987292	CV40BTGF050600	TG50	1.50	6.00	1.46	2.48	LNATGF050M	34	HSW34M	50	SS056041G	4mm & 5/32	3.36	
2987303	CV40BTGF075250	TG75	1.97	2.50	1.89	.95	LNATGF075M	46	HSW45M	100	SS081041G	4mm & 5/32	2.43	
2987304	CV40BTGF075400	TG75	1.97	4.00	1.89	1.30	LNATGF075M	46	HSW45M	100	SS081041G	4mm & 5/32	3.31	
2987305	CV40BTGF075600	TG75	1.97	6.00	1.89	3.31	LNATGF075M	46	HSW45M	100	SS081041G	4mm & 5/32	4.41	
2987306	CV40BTGF100275	TG100	2.36	2.75	2.44	.55	LNATGF100M	55	HSW58M	150	SS112041G	4mm & 5/32	2.55	
2987307	CV40BTGF100400	TG100	2.36	4.00	2.44	.71	LNATGF100M	55	HSW58M	150	SS112041G	4mm & 5/32	3.42	
2987308	CV40BTGF100600	TG100	2.36	6.00	2.44	2.68	LNATGF100M	55	HSW58M	150	SS112041G	4mm & 5/32	4.50	

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Locknut disk sealing cap is available and must be ordered separately; see pages L34-L35.
 Coolant disks for sealing cap are available and must be ordered separately; see pages L16-L17.
 Stop screw coolant caps are available and must be ordered separately; see pages L34-L35.
 Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.
 TG standard straight-bore collets, see page J10.
 TG tap collets, see page J10.
 For retention knobs, see page L45.

Form AD	✓				
Form B				40	(2x) MS2221S
				50	(2x) MS1296S
					2,5mm
					3mm

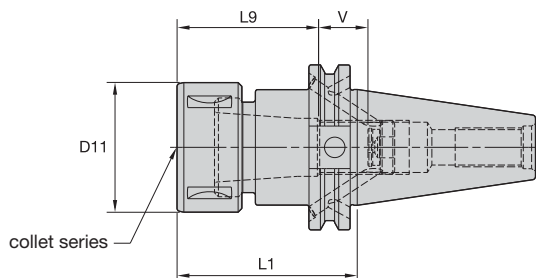
- Tremendous Grip (3:1 advantage).



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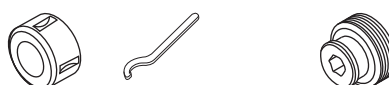
■ TG Hex-CV Form B/AD

order number	catalog number	collet series	D11	L1	L2	L9	V	hex locknut	wrench	ft. lbs.	Collet Capacity		
											mm		inch
4135683	CV40BTG050300	TG50	1.34	3.00	1.59	1.50	1	LN050M	OEW30M	50	SS056041G	4mm & 5/32	2.49
4135684	CV40BTG050500	TG50	1.34	5.00	3.59	1.50	2	LN050M	OEW30M	50	SS056041G	4mm & 5/32	3.16
4135685	CV40BTG050800	TG50	1.34	8.00	6.59	1.50	2	LN050M	OEW30M	50	SS056041G	4mm & 5/32	4.20
4135686	CV40BTG0501000	TG50	1.34	10.00	8.59	1.50	2	LN050M	OEW30M	50	SS056041G	4mm & 5/32	4.90



■ TG Round-CV Form B/AD

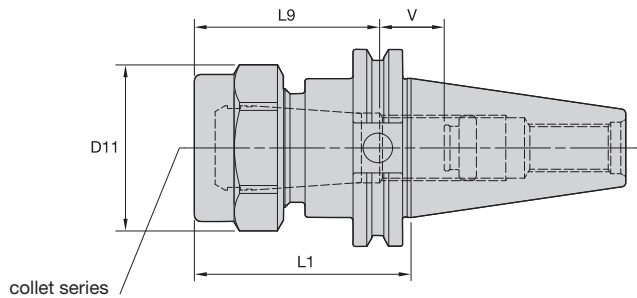
order number	catalog number	collet series	D11	L1	L9	V	locknut	wrench	ft. lbs.	Collet Capacity		
										mm		inch
1261621	CV40BTG075275G	TG75	1.97	2.75	1.93	.75	LNA075M	HSW45M	100	SS081041G	4mm & 5/32	2.63
1261622	CV40BTG075600G	TG75	1.97	6.00	1.93	4.01	LNA075M	HSW45M	100	SS081041G	4mm & 5/32	4.50
1261623	CV40BTG100300G	TG100	2.36	3.00	2.64	.67	LNA100M	HSW58M	150	SS094041G	4mm & 5/32	2.91
1261624	CV40BTG100600G	TG100	2.36	6.00	2.64	2.95	LNA100M	HSW58M	150	SS094041G	4mm & 5/32	4.82



NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque. Collet chuck technical section, see page M98. Supplied with locknut and stop screw. Locknut wrench must be ordered separately. Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16-L17. Stop screw coolant caps are available and must be ordered separately; see pages L34-L35. Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16. TG standard straight-bore collets, see page J10. TG tap collets, see page J10. For retention knobs, see page L45.

Form	Checkmark	Locknut	Wrench	Stop screw	Wrench size
Form AD	✓	LN050M	OEW30M	SS056041G	4mm & 5/32
Form B	✓	LNA075M	HSW45M	SS081041G	4mm & 5/32
		LNA100M	HSW58M	SS094041G	4mm & 5/32

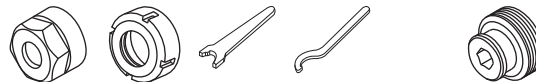
• Tremendous Grip (3:1 advantage).



TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG75	2,6	20,0	3/64	3/4
TG100	2,6	25,5	5/64	1
TG150	11,6	40,0	23/64	1 1/2

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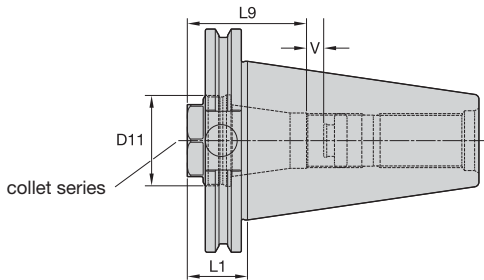
■ TG Hex-CV Form AD



order number	catalog number	collet series	D11	L1	L9	V	locknut	locknut	locknut wrench	locknut wrench	ft. lbs.	stop screw	wrench size stop screw	lbs
1025600	CV40TG075600	TG75	2.09	6.00	2.16	3.84	NPA075	—	OEW188	—	100	SS081041G	4mm & 5/32	4.40
1025799	CV40TG075275	TG75	2.09	2.75	2.28	1.18	NPA075	—	OEW188	—	100	SS081041G	4mm & 5/32	2.41
1025771	CV40TG100300	TG100	2.44	3.00	2.95	.51	NPA100	—	OEW225	—	150	SS112041G	4mm & 5/32	2.77
1025772	CV40TG100600	TG100	2.44	6.00	2.94	3.38	NPA100	—	OEW225	—	150	SS112041G	4mm & 5/32	5.40
1025773	CV40TG100400	TG100	2.44	4.00	2.95	1.54	NPA100	—	OEW225	—	150	SS112041G	4mm & 5/32	3.28
1013532	CV40TG150488	TG150	3.50	4.88	3.27	1.23	—	NPA150	—	PSW350	200	SS125050G	4mm & 5/32	5.72

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see page L14.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.
 TG standard straight-bore collets, see page J10.
 TG tap collets, see page J10.
 For retention knobs, see page L45.

- Grip (2:1 advantage).

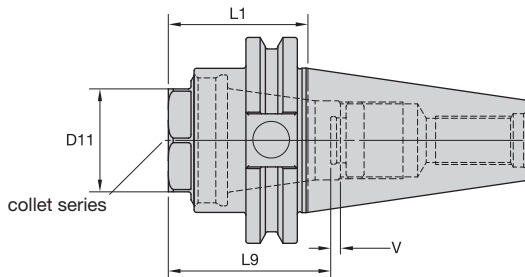


ER collet series	mm		inch	
	min	max	min	max
ER32	2,0	20,0	.08	.81

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■ ER Short-CV Z Form AD

order number	catalog number	collet series	D11	L1	L9	V	locknut	locknut wrench	ft. lbs.	stop screw	wrench size	stop screw	lbs
2978739	CV40ZSER32106	ER32	1.41	1.06	1.97	.20	LNECSER32M	OEWS32M	100	SS094041G	4mm & 5/32		1.35



■ ER Short-CV Form AD

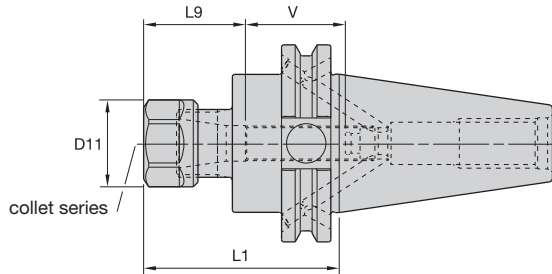
order number	catalog number	collet series	D11	L1	L9	V	locknut	wrench	ft. lbs.	stop screw	wrench size	stop screw	lbs
2978740	CV40SER32169	ER32	1.41	1.69	1.97	.43	LNECSER32M	OEWS32M	100	SS094041G	4mm & 5/32		1.70



CV40Z toolholders deviate from ANSI-B5-50 standard. The 1.750" diameter in front of the V-flange has been eliminated to achieve short gage lengths.

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.
 For retention knobs, see page L45.

- Grip (2:1 advantage).



CAT40 Shank Tools

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■ ER Hex-CV Form B/AD

ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER16	0,5	10,0	.02	.41
ER20	0,5	13,0	.02	.50
ER25	1,0	16,0	.04	.63
ER32	2,0	20,0	.08	.81
ER40	3,0	26,0	.12	1.00

order number	catalog number	collet series	D11	L1	L9	V	lbs
1901019	CV40BER16250	ER16	1.10	2.50	1.26	1.30	2.30
1901046	CV40BER16500	ER16	1.10	5.00	1.26	1.58	2.85
1261618	CV40BER20250	ER20	1.34	2.50	1.42	1.73	2.32
2249531	CV40BER20600	ER20	1.34	6.00	1.42	1.73	3.47

■ Spare Parts

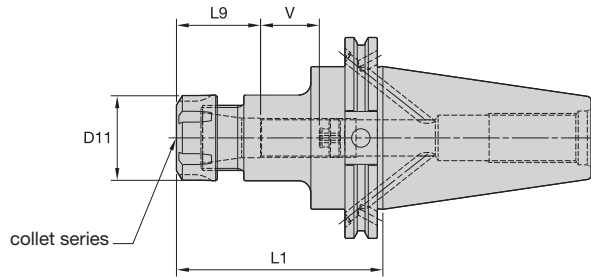


catalog number	locknut	locknut wrench	ft. lbs.	stop screw	wrench size stop screw
CV40BER16250	LNHSER16M	OEW25M	30	SS044038G	4mm & 5/32
CV40BER16500	LNHSER16M	OEW25M	30	SS044038G	4mm & 5/32
CV40BER20250	LNHSER20M	OEW30M	24	SS056041G	4mm & 5/32
CV40BER20600	LNHSER20M	OEW30M	24	SS056041G	4mm & 5/32

(continued)

Form AD	✓				
Form B					
			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

(ER continued)



ER Round-CV Form B/AD

order number	catalog number	collet series	D11	L1	L9	V	lbs
2249532	CV40BER25250	ER25	1.65	2.50	1.57	.75	2.35
2249703	CV40BER25600	ER25	1.65	6.00	1.57	2.37	4.13
1261619	CV40BER32275	ER32	1.97	2.75	1.81	1.65	2.34
1901045	CV40BER32600	ER32	1.97	6.00	1.81	2.13	4.26
2249704	CV40BER40300	ER40	2.48	3.00	2.05	.47	2.78
2249705	CV40BER40600	ER40	2.48	6.00	2.05	1.89	4.44

Spare Parts

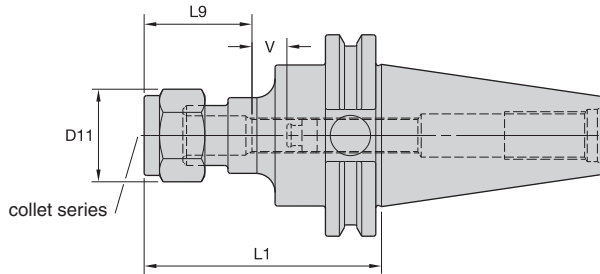
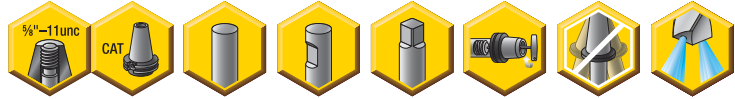


catalog number	locknut	locknut wrench	ft. lbs.	stop screw	wrench size stop screw
CV40BER25250	LNSER25M	ER25WM	77	SS075041G	4mm & 5/32
CV40BER25600	LNSER25M	ER25WM	77	SS075041G	4mm & 5/32
CV40BER32275	LNSER32M	ER32WM	100	SS094041G	4mm & 5/32
CV40BER32600	LNSER32M	ER32WM	100	SS094041G	4mm & 5/32
CV40BER40300	LNSER40M	ER40WM	130	SS112041G	4mm & 5/32
CV40BER40600	LNSER40M	ER40WM	130	SS112041G	4mm & 5/32

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58-J59.
 ER TCT tension-only tap collets, see page J60.
 For retention knobs, see page L45.

Form AD	✓				
Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

- Grip 1:1.



Collet Capacity

DA collet series	mm		inch	
	min	max	min	max
DA200	0,2	10	1/64	25/64
DA180	2,2	20	1/64	3/4

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■ DA Hex-CV Form AD

order number	catalog number	collet series	D11	L1	L9	V	lbs
1015515	CV40DA208300	DA200	1.15	3.00	1.62	1.38	2.41
1015305	CV40DA208500	DA200	1.15	5.00	1.62	3.38	3.05
1015304	CV40DA188600	DA180	1.73	6.00	1.94	3.94	3.60
1015596	CV40DA188300	DA180	1.73	3.00	1.94	.81	2.42

■ Spare Parts



catalog number	locknut	locknut wrench	ft. lbs.	stop screw	wrench size stop screw
CV40DA208500	NPA208	OEW100	40	SS044038G	4mm & 5/32
CV40DA208300	NPA208	OEW100	40	SS044038G	4mm & 5/32
CV40DA188600	NPA188	OEW150	75	SS081041G	4mm & 5/32
CV40DA188300	NPA188	OEW150	75	SS081041G	4mm & 5/32

NOTE: For retention tighten locknut to the recommended tightening torque.

Collet chuck technical section, see page M98.

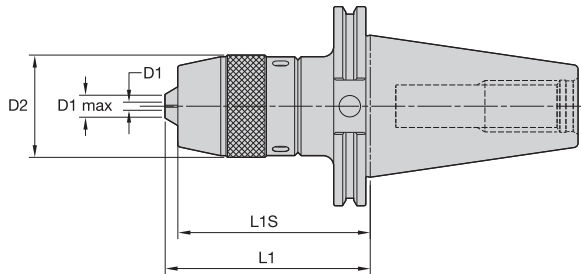
Supplied with locknut and stop screw.

Locknut wrench must be ordered separately.

Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.

DA standard straight-bore collets, see page J62.

DA non-pullout collets, see pages J65–J68.



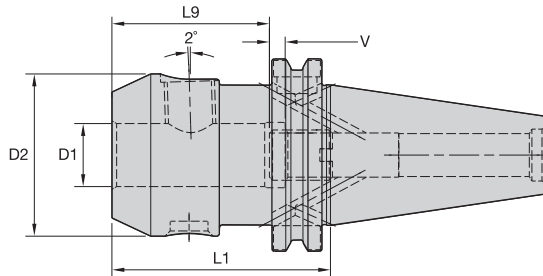
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■ DC-CV Form A

order number	catalog number	D1		D1 max		D2	L1	L1S	wrench	lbs
		mm	in	mm	in					
2262967	CV40DC13M421	1,0	.039	13,0	.512	1.969	4.210	3.726	HSW45M	3.84

NOTE: Tighten to the recommended tightening torque.
 Locking wrench not supplied.
 For retention knobs, see page L45.

CAT40 Shank Tools



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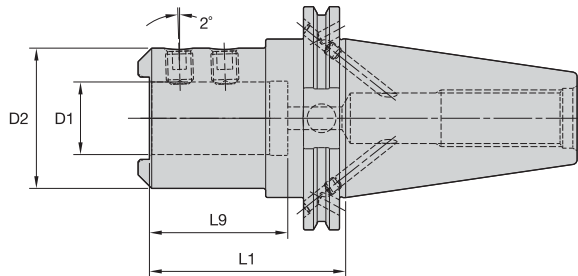
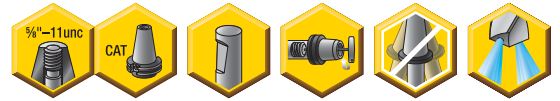
■ WN MM-CV Form B/AD

CAT40 Shank Tools

order number	catalog number	D1	D2	L1	L9	V	lock screw	wrench size lock screw	Nm	stop screw	wrench size stop screw	kg
1549300	CV40BWN06M244	6	25	62	30	10	SS03M012	3mm	7	571.060	2,5mm	1,09
1549315	CV40BWN08M244	8	28	62	26	10	SS03M014	4mm	15	571.067	3mm	1,10
1549317	CV40BWN10M244	10	35	62	35	10	SS03M018	5mm	25	571.068	4mm	1,15
1549320	CV40BWN12M260	12	42	66	40	10	SS03M023	6mm	35	571.074	5mm	1,25
1549326	CV40BWN14M260	14	44	66	40	10	SS03M023	6mm	35	571.074	5mm	1,26
1549328	CV40BWN16M275	16	48	70	43	10	SS03M025	6mm	50	571.075	6mm	1,35
1549329	CV40BWN18M275	18	50	70	43	10	SS03M025	6mm	50	571.075	6mm	1,36
1549342	CV40BWN20M275	20	52	70	45	10	SS03M026	8mm	95	571.076	6mm	1,38
1549330	CV40BWN25M375	25	65	95	50	10	SS03M027	10mm	135	571.077	6mm	2,17
1549341	CV40BWN32M388	32	72	99	54	10	SS03M029	10mm	160	571.076	6mm	2,45

NOTE: Do not overtighten lock screw; use torque recommendations above.
Supplied with lock screw and stop screw.
Lock screw and stop screw wrenches not included.
For retention knobs, see page L45.

 Form AD		 Form B			
			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



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■ **WD MM-CV Form B/AD**

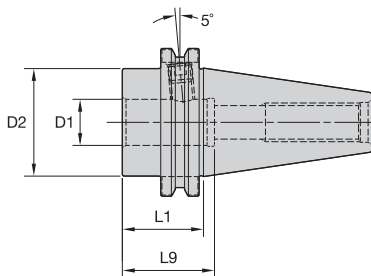


order number	catalog number	D1	D2	L1	L9	lock screw	wrench size clamp screw	Nm	kg
1749276	CV40BWD32M343	32	60	87	63	SS03M023	6 mm	35	1,74

NOTE: Do not overtighten clamp screw; use torque recommendations above.
Supplied with clamp screw.
Clamp screw wrenches not included.
For retention knobs, see page L45.

	Form AD					
	Form B			40	(2x) MS2221S	2,5mm
				50	(2x) MS1296S	3mm

CAT40 Shank Tools



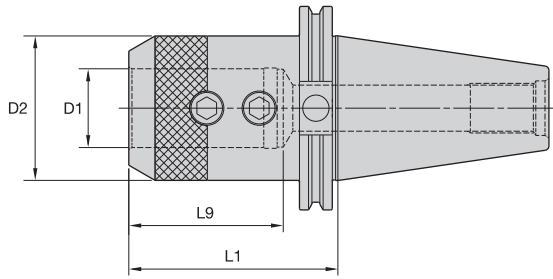
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■ **SWN IN-CV Form AD (Tap Chuck Adapter)**



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
1018054	CV40TA7137	.75	1.75	1.38	1.50	ELS038031PKG	3/16	15	2.20
1017938	CV40TA1137	1.00	1.75	1.38	2.81	ELS038031PKG	3/16	15	1.79

NOTE: Do not overtighten lock screw; use torque recommendations above.
Supplied with lock screw.
Lock screw wrench not included.
For retention knobs, see page L45.



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■ EM IN-CV Form AD

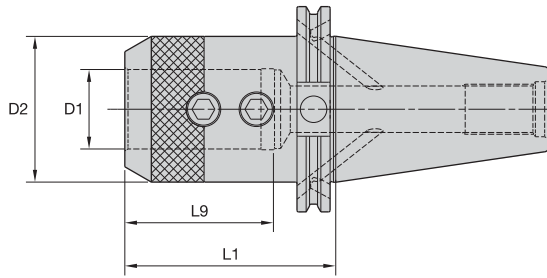


CAT40 Shank Tools

order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
1026404	CV40ZEM012138	1/8	.69	1.38	2.89	S1045PKG	3/32	3	1.79
1026405	CV40EM012450	1/8	.69	4.50	6.01	S1045PKG	3/32	3	2.41
1026406	CV40ZEM018138	3/16	.69	1.38	2.89	S1045PKG	3/32	3	1.79
1025921	CV40EM018250	3/16	.69	2.50	4.01	S1045PKG	3/32	3	2.22
1026407	CV40EM018450	3/16	.69	4.50	6.01	S1045PKG	3/32	3	2.41
1026408	CV40ZEM025138	1/4	.78	1.38	2.89	ELS025025PKG	1/8	5	1.82
1018427	CV40EM025250	1/4	1.00	2.50	4.01	ELS025025PKG	1/8	5	2.35
1026409	CV40EM025450	1/4	.78	4.50	6.01	ELS025025PKG	1/8	5	2.51
1026410	CV40ZEM031138	5/16	1.00	1.38	2.89	ELS031031PKG	5/32	11	1.85
1026411	CV40EM031450	5/16	1.00	4.50	6.01	ELS031031PKG	5/32	11	2.76
1026412	CV40ZEM038138	3/8	1.00	1.38	2.89	ELS038031PKG	3/16	15	1.85
1026338	CV40EM038250	3/8	1.00	2.50	4.01	ELS038031PKG	3/16	15	2.32
1013350	CV40EM038450	3/8	1.00	4.50	6.01	ELS038031PKG	3/16	15	2.69
1013351	CV40EM038650	3/8	1.00	6.50	8.01	ELS038031PKG	3/16	15	3.17
1013352	CV40ZEM044175	7/16	1.25	1.76	3.26	ELS044038PKG	7/32	20	2.00
1013353	CV40EM044450	7/16	1.25	4.50	6.01	ELS044038PKG	7/32	20	3.04
1026380	CV40ZEM050175	1/2	1.75	1.75	3.26	ELS044038PKG	7/32	20	2.27
1025922	CV40EM050262	1/2	1.38	2.62	4.13	ELS044038PKG	7/32	20	2.52
1013374	CV40EM050462	1/2	1.25	4.62	3.07	ELS044038PKG	7/32	20	3.06
1013375	CV40EM050662	1/2	1.25	6.62	8.13	ELS044038PKG	7/32	20	3.83
1026381	CV40ZEM062175	5/8	1.75	1.75	3.56	ELS056050PKG	1/4	40	2.19
1025923	CV40EM062375	5/8	1.50	3.75	3.56	DWG ELS056038	1/4	40	2.96
1013376	CV40EM062575	5/8	1.63	5.75	3.56	ELS056050PKG	1/4	40	4.21
1026382	CV40ZEM075175	3/4	1.75	1.75	2.40	ELS062050PKG	5/16	70	2.09
1025944	CV40EM075375	3/4	1.75	3.75	3.94	ELS062050PKG	5/16	70	3.21
1013377	CV40EM075575	3/4	1.75	5.75	3.94	ELS062050PKG	5/16	70	4.44
1013378	CV40ZEM088175	7/8	1.88	1.75	2.27	ELS062050PKG	5/16	70	2.13
1025945	CV40EM088400	7/8	2.00	4.00	4.19	ELS062050PKG	5/16	70	3.65
1013424	CV40EM088600	7/8	1.88	6.00	4.19	ELS062050PKG	5/16	70	4.86
1026383	CV40ZEM100175	1	1.75	1.75	2.64	DWG ELS075044	3/8	110	1.78
1025946	CV40EM100400	1	2.00	4.00	4.49	ELS075056PKG	3/8	110	3.39
1013425	CV40EM100600	1	2.00	6.00	4.49	ELS075056PKG	3/8	110	5.04
1013426	CV40ZEM125200	1 1/4	2.25	2.00	2.35	DWG ELS075050	3/8	110	2.25
1025947	CV40EM125425	1 1/4	2.50	4.25	2.39	ELS075062PKG	3/8	110	4.96
1013427	CV40EM125625	1 1/4	2.50	6.25	2.39	ELS075062PKG	3/8	110	7.47
1025986	CV40EM150462	1 1/2	2.75	4.63	2.82	ELS075069PKG	3/8	110	5.80
1013428	CV40EM150662	1 1/2	2.75	6.62	2.82	ELS075069PKG	3/8	110	8.76

CV40Z toolholders deviate from ANSI-B5-50 standard. The 1.750" diameter in front of the V-flange has been eliminated to achieve short gage lengths.

NOTE: Do not overtighten lock screw; use torque recommendations above.
Supplied with lock screw.
Lock screw wrench not included.
For retention knobs, see page L45.



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EM IN-CV Form B/AD

order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
1261613	CV40BEM050262	1/2	1.38	2.62	4.13	ELS044038PKG	7/32	20	2.48
1261614	CV40BEM062375	5/8	1.50	3.75	3.56	ELS056050PKG	1/4	40	2.95
1261615	CV40BEM075375	3/4	1.75	3.75	3.94	ELS062050PKG	5/16	70	3.18
1261616	CV40BEM100400	1	2.00	4.00	4.49	ELS075056PKG	3/8	110	3.37
1261617	CV40BEM125425	1 1/4	2.50	4.25	2.39	ELS075062PKG	3/8	110	4.97

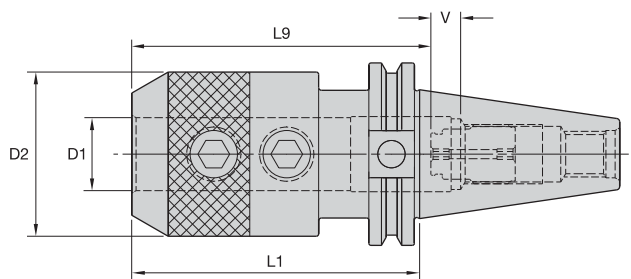
NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw.
 Lock screw wrench not included.
 For retention knobs, see page L45.

CAT40 Shank Tools

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

CAT40 Shank Tools

Straight Shank Adapters • Straight Shank with Flat Adapters



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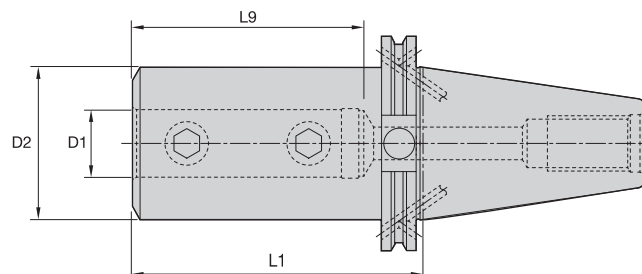
■ SS IN-CV Form AD



order number	catalog number	D1	D2	L1	L9	V	lock screw	wrench size lock screw	ft. lbs.	stop screw	wrench size stop screw	lbs
1018426	CV40SS100400	1	2.25	4.00	3.75	.63	ELS075062PKG	3/8	110	CSS081125	1/8	4.06

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screws and stop screw.
 Lock screw and stop screw wrench not included.
 For retention knobs, see page L45.

CAT40 Shank Tools



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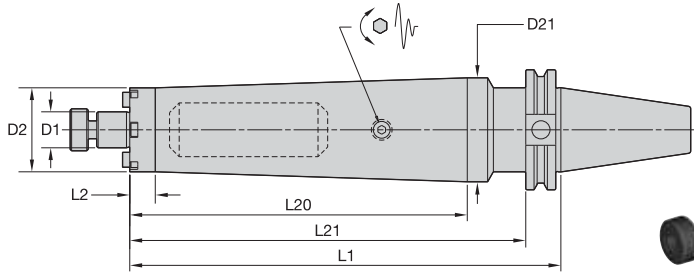
■ SSF IN-CV Form B/AD



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
1749368	CV40BSSF075275	3/4	1.75	2.75	2.25	ELS062050PKG	5/16	70	2.78
1749369	CV40BSSF100450	1	2.00	4.50	3.25	DWG ELS075050	3/8	110	4.12
1749370	CV40BSSF125475	1 1/4	2.50	4.75	3.50	ELS075056PKG	3/8	110	5.44
1749471	CV40BSSF150575	1 1/2	2.75	5.75	4.00	ELS075056PKG	3/8	110	7.01

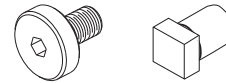
NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw.
 Lock screw wrench not included.
 For retention knobs, see page L45.

Form	Image	Wrench Size	Wrench	Flat Width
Form AD				
Form B		40	(2x) MS2221S	2,5mm
		50	(2x) MS1296S	3mm



ERICKSON

■ SMC TD Lock IN-CV Form B/AD



order number	catalog number	D1	D2	D21	L1	L2	L20	L21	lock screw	drive key	wrench size lock screw	lbs
4136187	CV40BTDSMC0750900	3/4	1.75	2.17	9.00	.53	7.03	8.25	KLS07	KDK05	1/4	8.34
4136188	CV40BTDSMC1000900	1	2.19	—	9.00	8.25	—	—	KLS10	KDK06	5/16	9.99

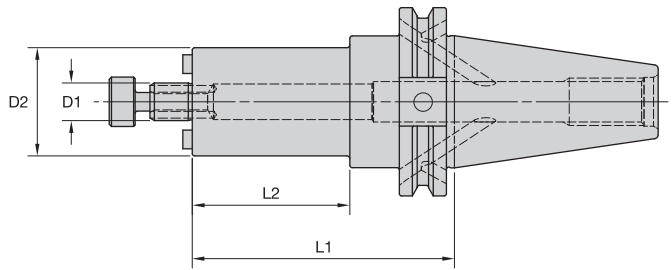
NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive keys.
 Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
 Lock screw wrench not included.
 For retention knobs, see page L45.

CAT40 Shank Tools

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

CAT40 Shank Tools

Shell Mill Adapters with Through Coolant



CAT40 Shank Tools

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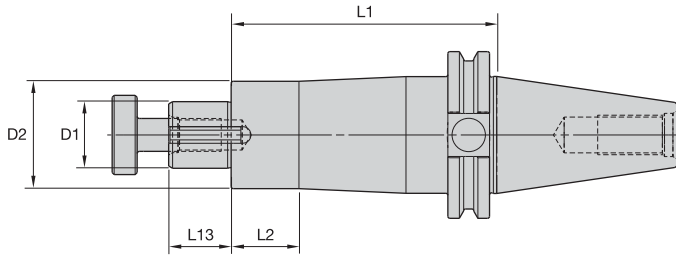
■ SMC Lock IN-CV Form B/AD



order number	catalog number	D1	D2	L1	L2	lock screw	drive key	wrench size lock screw	lbs
3641491	CV40BSM2C050350	1/2	1.20	3.50	2.09	KLS05	KDK04	3/16	2.80
3641490	CV40BSMC050350	1/2	1.44	3.50	2.09	KLS05	KDK04	3/16	3.05
3641514	CV40BSM2C075350	3/4	1.46	3.50	2.09	KLS07	—	1/4	3.12
3641516	CV40BSM2C075600	3/4	1.46	6.00	5.25	KLS07	—	1/4	4.14
3641489	CV40BSMC050138	1/2	1.75	1.38	.63	KLS05	KDK04	3/16	2.18
3641492	CV40BSMC075138	3/4	1.75	1.38	.63	KLS07	KDK05	1/4	2.25
3641513	CV40BSMC075350	3/4	1.75	3.50	2.09	KLS07	KDK05	1/4	3.56
3641515	CV40BSMC075600	3/4	1.75	6.00	5.25	KLS07	KDK05	1/4	5.10
3641518	CV40ZBSM2C100100	1	2.19	1.00	.25	KLS10	KDK06	5/16	2.21
3641520	CV40BSM2C100206	1	2.19	2.06	1.31	KLS10	KDK06	5/16	2.98
3641522	CV40BSM2C100400	1	2.19	4.00	3.25	KLS10	KDK06	5/16	4.30
3641524	CV40BSM2C100600	1	2.19	6.00	5.25	KLS10	KDK06	5/16	5.59
3641517	CV40ZBSMC100100	1	2.75	1.00	.25	KLS10	KDK06	5/16	2.33
3641519	CV40BSMC100206	1	2.75	2.06	1.31	KLS10	KDK06	5/16	3.28
3641521	CV40BSMC100400	1	2.75	4.00	3.25	KLS10	KDK06	5/16	4.70
3641523	CV40BSMC100600	1	2.75	6.00	5.25	KLS10	KDK06	5/16	5.99
3641525	CV40BSMC125212	1 1/4	2.88	2.12	1.37	KLS12	KDK08	5/16	3.79
3641526	CV40BSMC125400	1 1/4	2.88	4.00	3.25	KLS12	KDK08	5/16	5.08
3641527	CV40BSMC150241	1 1/2	3.81	2.41	1.66	KLS15	KDK10	3/8	5.36
3641528	CV40BSMC150400	1 1/2	3.81	4.00	3.25	KLS15	KDK10	3/8	6.85

NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive keys.
 Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
 Lock screw wrench not included.
 For retention knobs, see page L45.

Form AD	✓				
Form B					
	40	(2x) MS2221S	2,5mm		
	50	(2x) MS1296S	3mm		



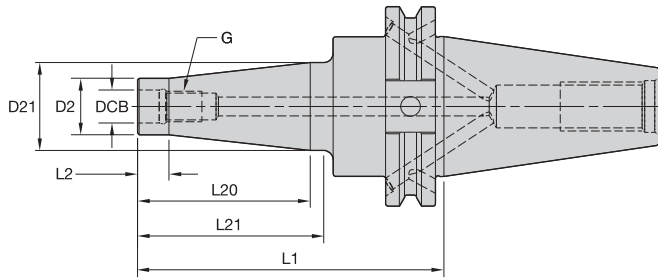
ERICKSON

SA IN-CV Form AD



order number	catalog number	D1	D2	L1	L13	L2	lock screw	wrench size lock screw	drive key	lbs
1261699	CV40SA062400	5/8	1.25	4.00	.78	2.63	KLS07	1/4	DWG SDK062088	3.10
1026215	CV40SA100400	1	1.61	4.00	.94	1.00	KLS10	5/16	DWG SDK100106	3.97
1026216	CV40SA125400	1 1/4	1.86	4.00	1.09	3.25	KLS12	5/16	DWG SDK125119	4.97

NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive key.
 Lock screw wrench not included.
 For retention knobs, see page L45.



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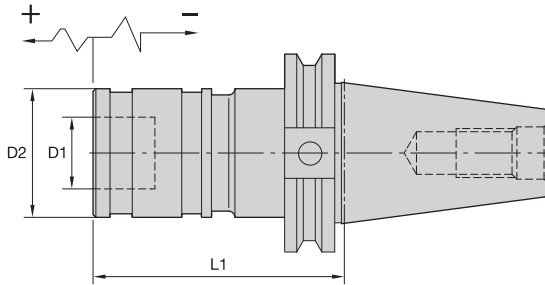
■ ST-CV Form B/AD

CAT40 Shank Tools

order number	catalog number	DCB	G	D2	D21	L1	L2	L20	L21	kg
4073528	CV40BST06M228	6,5	M6	10	13	58	10	18	19	1,00
4073529	CV40BST06M386	6,5	M6	10	23	98	10	55	59	1,07
4073530	CV40BST08M228	8,5	M8	13	15	58	10	18	19	1,00
4073531	CV40BST08M386	8,5	M8	13	23	98	10	55	59	1,07
4073532	CV40BST10M228	10,5	M10	18	20	58	10	18	19	1,04
4073643	CV40BST10M386	10,5	M10	18	28	98	10	55	59	1,19
4073644	CV40BST12M228	12,5	M12	21	24	58	10	18	19	1,05
4073645	CV40BST12M386	12,5	M12	21	31	98	10	55	59	1,22
4073646	CV40BST16M228	17,0	M16	29	—	58	19	—	—	1,07
4073647	CV40BST16M386	17,0	M16	29	34	98	10	55	59	1,32

NOTE: For retention knobs, see page L45.

	Form AD					
	Form B					
			40	(2x) MS2221S	2,5mm	
			50	(2x) MS1296S	3mm	



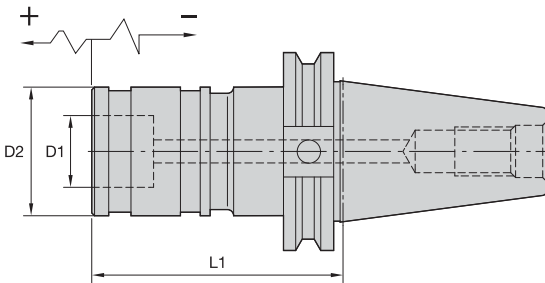
ERICKSON

■ RC-CV Form A

order number	catalog number	adapter size	tap size			D1	D2	L1	tension	compression	kg
			mm	in							
1615978	CV40TCRC1297	1	M1 - M14	#0 - 9/16	19	36	75	15,0	15,0	1,21	
1615979	CV40TCRC2393	2	M5 - M24	5/16 - 7/8	31	53	98	25,0	25,0	1,62	

NOTE: Quick-change tap adapters are available and must be ordered separately; see page J76.
For retention knobs, see page L45.

CAT40 Shank Tools

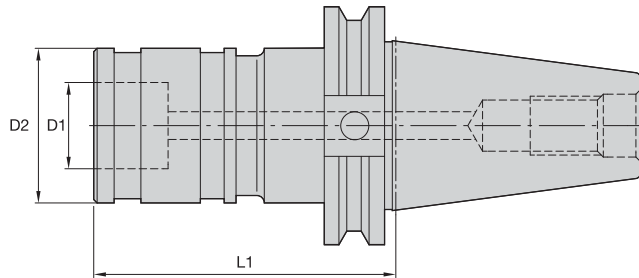


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■ RC Cool-CV Form AD

order number	catalog number	adapter size	tap size			D1	D2	L1	tension	compression	kg
			mm	in							
1615986	CV40HTCRC1382	1	M1 - M14	#0 - 9/16	19	36	97	15,0	15,0	1,41	
1615987	CV40HTCRC2524	2	M5 - M24	5/16 - 7/8	31	53	133	20,0	20,0	2,40	

NOTE: Quick-change tap adapters are available and must be ordered separately; see page J76.
For retention knobs, see page L45.



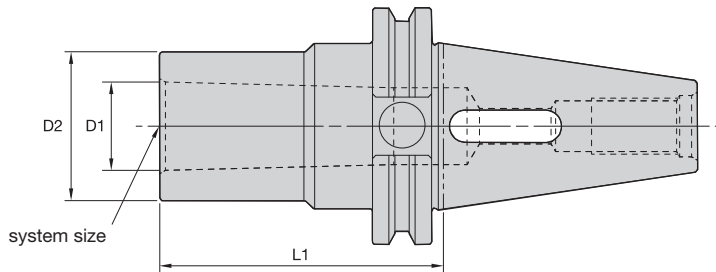
ERICKSON

STRC-CV Form AD

order number	catalog number	adapter size	tap size		D1	D2	L1	lbs
			mm	in				
1615969	CV40CSTRC1290	1	M1 - M14	#0 - 9/16	.75	1.26	2.88	2.60
1615971	CV40CSTRC2350	2	M5 - M24	5/16 - 7/8	1.22	1.97	3.50	3.50

NOTE: Quick-change tap adapters are available and must be ordered separately; see page J76.
For retention knobs, see page L45.

CAT40 Shank Tools

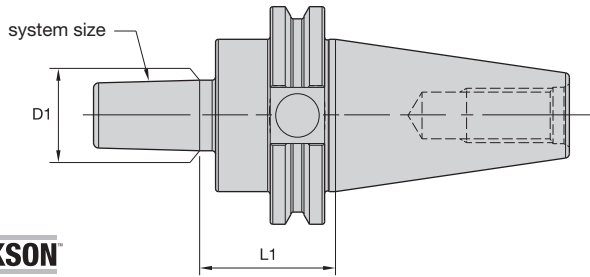


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MT-CV Form A

order number	catalog number	system size	D1	D2	L1	lbs
1025949	CV40MT2244	2	.70	1.26	2.44	2.30
1025950	CV40MT3300	3	.94	1.57	3.00	2.49
1025987	CV40MT4388	4	1.23	1.89	3.88	2.86

NOTE: For retention knobs, see page L45.



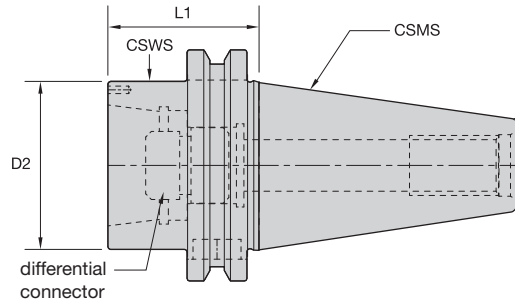
ERICKSON

■ JT-CV Form A

order number	catalog number	system size	D1	L1	lbs
1025951	CV40JT2244	2	.56	1.57	2.33
1025953	CV40JT3278	3	.81	1.56	2.45
1025952	CV40JT33256	33	.62	1.56	2.32

NOTE: For retention knobs, see page L45.

- Differential connector included.



■ CV to KR Adapters B/AD • Metric

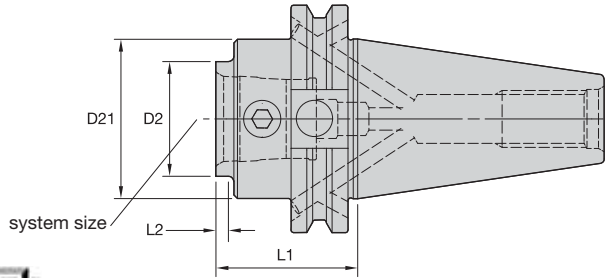
order number	catalog number	CSMS system size	CSWS system size	D2	L1	differential connector	kg	reference head
3554366	CV40BKR32157	CV40	KR32	47	40	KRDCKR32M	1,08	SVS00B,0B,1B,2B,3B,SVUBB1,BB2
3554367	CV40BKR50236	CV40	KR50	65	60	KRDCKR50M	1,23	SVS4B,5B,SVU65,SVUBB2

■ CV to KR Adapters B/AD • Inch

order number	catalog number	CSMS system size	CSWS system size	D2	L1	differential connector	lbs	reference head
3554366	CV40BKR32157	CV40	KR32	1.85	1.581	KRDCKR32M	2.40	SVS00B,0B,1B,2B,3B,SVUBB1,BB2
3554367	CV40BKR50236	CV40	KR50	2.56	2.368	KRDCKR50M	2.70	SVS4B,5B,SVU65,SVUBB2

NOTE: For more information on Romicon boring systems, see the Kennametal Innovations Master Catalog Cutting Tools 2013.

Form AD	✓	✗	✗	✗	✗
Form B	✗	✓	✓	40	(2x) MS2221S
				50	(2x) MS1296S
					2,5mm
					3mm



CAT40 Shank Tools

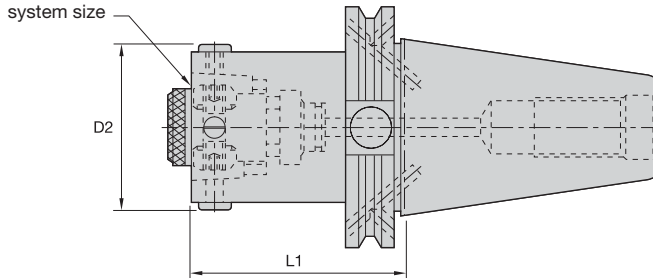
■ KM-CV Form B/AD



order number	catalog number	system size	D2	D21	L1	L2	KM spare parts package	wrench size actuation screw	ft. lbs.	lbs
2992433	CV40BKM32157	KM32	1.26	1.75	1.58	.37	KM32PKG3L	5mm	6	2.15
2992434	CV40BKM32354	KM32	1.26	1.75	3.54	2.14	KM32PKG3S	5mm	6	2.77
2992435	CV40BKM40157	KM40	1.58	1.75	1.58	.18	KM40PKG3L	6mm	9	2.12
2992436	CV40BKM40394	KM40	1.58	1.75	3.94	2.56	KM40PKG3S	6mm	9	3.29
2992437	CV40BKM50354	KM50	1.97	—	3.54	2.79	KM50PKG3S	10mm	20	3.51
2992438	CV40BKM50472	KM50	1.97	—	4.72	3.97	KM50PKG3S	10mm	20	4.23

NOTE: Do not overtorque actuation screw; use torque recommendations above.
Supplied with KM actuation mechanism.
For retention knobs, see page L45.

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



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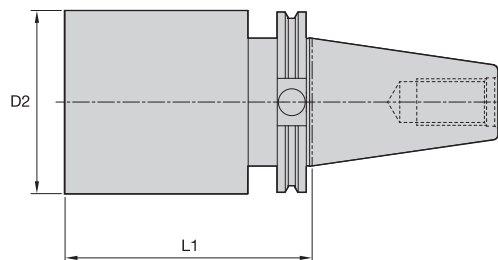
■ HSK-CV Form B/AD

order number	catalog number	system size	D2	L1	wrench size actuation screw	ft. lbs.	lbs
1533057	CV40BHSK63295	HSK63	2.76	2.95	5mm	15	2.65

NOTE: Do not overtorque actuation screw; use torque recommendations above.
 Supplied with actuation mechanism and sealing ring.
 For retention knobs, see page L45.

Form AD					
Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

- Machinable front 20–30 HRC.



ERICKSON

■ BB-CV Form A

order number	catalog number	D2	L1	lbs
1020634	CV40BB400120	4.00	12.00	39.89
1020563	CV40BB400600	4.00	6.00	18.55

NOTE: For retention knob, see page L45.



ERICKSON™ CAT V-Flange Shank Tooling System • CV50 Series

Primary Application

ERICKSON V-Flange CAT Taper Tooling is manufactured from premium materials and meets or exceeds the latest ANSI B5.50 and ISO-1947 taper accuracy of AT3 specification standards. The CV50 tools are either pre-balanced to a high specification or balanced-by-design. For high speed applications Kennametal recommends that the complete toolholder assembly (toolholder, retention knobs, collets, hardware, and cutting tools) be balanced as one entity. Exact RPM limits can only be determined by considering machine and spindle configurations in conjunction with tooling design and safety limits factored as a complete system.



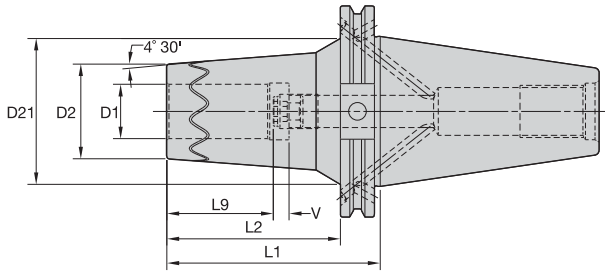


SAFE-LOCK™
by HAIMER

Features and Benefits

- ANSI B5.50 7/24 taper.
- Standard 1-8 drawbar thread.
- Taper accuracy of AT3 specification or better.
- All tools set to form AD coolant specification.
Many can be converted to form B style.
- Maximum 100 bar (1,500 psi) coolant pressure.

- **SAFE-LOCK™**, innovative and unique non-slip system.
- Suitable for carbide and HSS cutting tools.
- Need ≥ 10 kW shrink unit.



**Cutting Tool Shank Requirements
metric (ISO standard)**

cutting tool shank diameter	tolerance	
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013

ERICKSON™

■ **TT SF MM-CV Z FORM B/AD**

order number	catalog number	D1	D2	D21	L1	L2	L9	V	kg
5089650	CV50ZBSFTT12M315	12	27	55	80	61	37	10	2,95
5089651	CV50ZBSFTT14M315	14	33	43	80	61	37	10	3,08
5089652	CV50ZBSFTT16M315	16	33	43	80	61	37	10	3,04
5089653	CV50ZBSFTT18M315	18	45	54	80	61	40	10	3,39
5089654	CV50ZBSFTT20M315	20	45	54	80	61	42	10	3,35
5089655	CV50ZBSFTT25M394	25	44	68	100	81	48	10	3,63

**Cutting Tool Shank Requirements
inch (industry standard)**

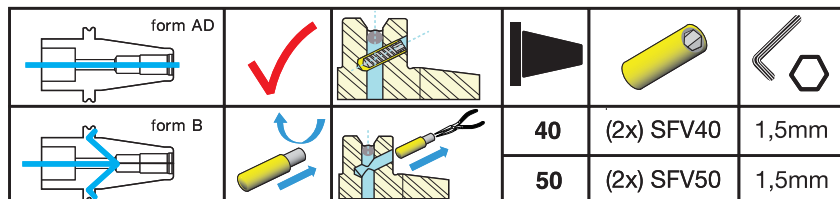
cutting tool shank diameters	tolerance
1/2 & 5/8	.0000/- .0004
3/4, 7/8, 1	.0000/- .0005

■ **TT SF IN-CV Z FORM B/AD**

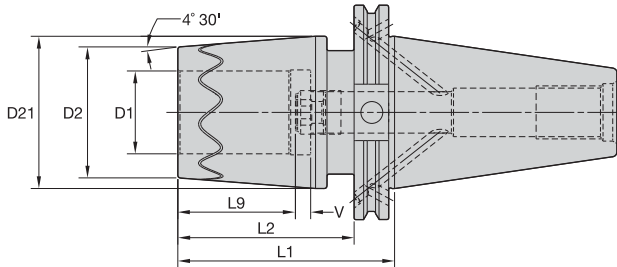
order number	catalog number	D1	D2	D21	L1	L2	L9	V	lbs
5089656	CV50ZBSFTT050315	1/2	1.06	2.17	3.15	2.40	1.46	.39	6.49
5089657	CV50ZBSFTT062315	5/8	1.31	1.69	3.15	2.40	1.46	.39	6.71
5089658	CV50ZBSFTT075315	3/4	1.76	2.14	3.15	2.40	1.65	.39	7.41
5089659	CV50ZBSFTT100394	1	1.73	2.68	3.94	3.19	1.89	.39	7.33

CV50Z toolholders deviate from ANSI-B5.50 standard. The 1.750" hub in front of the V-flange has been eliminated to achieve short gage lengths.

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder. Shrink Fit technical section, see page M78. Shrink Fit accessories, see pages L12-L13. HSK coolant unit and wrench are available and must be ordered separately; see page L44.



- SAFE-LOCK™, innovative and unique non-slip system.
- Ultra short and heavy-duty design.
- Suitable for carbide and HSS cutting tools.
- Need ≥ 20 kW shrink unit.



ERICKSON

■ TT SF HD MM-CV Z FORM B/AD

order number	catalog number	D1	D2	D21	L1	L2	L9	V	kg
5089660	CV50ZBSFHDTT25M354	25	63	71	90	71	48	10	4,29
5089661	CV50ZBSFHDTT32M354	32	70	78	90	71	51	10	4,44
5089662	CV50ZBSFHDTT40M394	40	82	90	100	81	78	10	5,07
5089663	CV50ZBSFHDTT50M551	50	82	94	140	121	78	10	6,77

Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
25	h6	0,000/-0,013
32, 40, & 50	h6	0,000/-0,016

Cutting Tool Shank Requirements
inch (industry standard)

cutting tool shank diameters	tolerance
1, 1-1/4, 1-1/2, & 2	.0000/- .0005

■ TT SF HD IN-CV Z FORM B/AD

order number	catalog number	D1	D2	D21	L1	L9	V	lbs
5089664	CV50ZBSFHDTT100354	1	2.48	2.81	3.54	1.89	.39	9.44
5089665	CV50ZBSFHDTT125354	1 1/4	2.76	3.07	3.54	2.01	.39	9.81
5089666	CV50ZBSFHDTT150394	1 1/2	3.23	3.54	3.94	3.07	.39	11.35
5089667	CV50ZBSFHDTT200551	2	3.23	3.70	5.51	3.07	.39	14.84

CV50Z toolholders deviate from ANSI-B5.50 standard. The 2.750" hub in front of the V-flange has been eliminated to achieve short gage lengths.

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Shrink Fit technical section, see page M78.

Shrink Fit accessories, see pages L12–L13.

HSK coolant unit and wrench are available and must be ordered separately; see page L44.

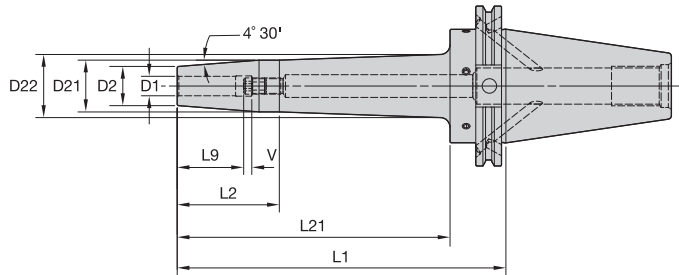
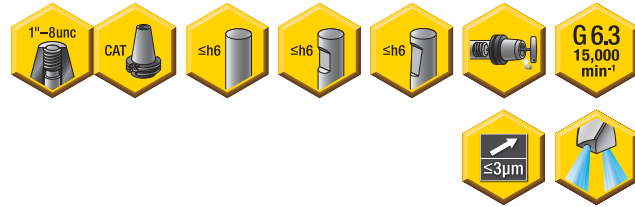
			40	(2x) SFV40	1,5mm
			50	(2x) SFV50	1,5mm

CAT50 Shank Tools

Shrink Fit Toolholders General Purpose (GP)



- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide and HSS cutting tools (requirements below).



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter		tolerance
6	h6	0,000/-0,008
8 & 10	h6	0,000/-0,009
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

CAT50 Shank Tools

ERICKSON™

■ TT GP HPV MM-CV Form B/AD



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	kg
3683508	CV50BHPVTT06M350	6	21	27	—	89	54	—	26	10	TTSS05014M	2,5mm	3,13
3683509	CV50BHPVTT06M800	6	21	27	35	203	50	168	26	10	TTSS05014M	2,5mm	3,74
3683510	CV50BHPVTT08M350	8	21	27	—	89	54	—	26	10	TTSS06014M	3mm	3,12
3683511	CV50BHPVTT08M800	8	21	27	35	203	50	168	26	10	TTSS06014M	3mm	3,73
3683512	CV50BHPVTT10M375	10	24	32	—	95	60	—	31	10	TTSS08014M	4mm	3,21
3683513	CV50BHPVTT10M800	10	24	32	39	203	63	168	31	10	TTSS08014M	4mm	3,98
3615227	CV50BHPVTT12M375	12	24	32	—	95	60	—	36	10	TTSS10014M	5mm	3,17
3615228	CV50BHPVTT12M800	12	24	32	39	203	63	168	36	10	TTSS10014M	5mm	3,88
3615229	CV50BHPVTT14M375	14	27	34	—	95	60	—	36	10	TTSS10014M	5mm	3,22
3615230	CV50BHPVTT14M800	14	27	34	41	203	63	168	36	10	TTSS10014M	5mm	3,98
3615231	CV50BHPVTT16M375	16	27	34	—	95	60	—	39	10	TTSS12014M	6mm	3,19
3615232	CV50BHPVTT16M800	16	27	34	41	203	63	168	39	10	TTSS12014M	6mm	3,96
3615233	CV50BHPVTT18M400	18	33	42	—	102	67	—	39	10	TTSS12014M	6mm	3,40
3615234	CV50BHPVTT18M800	18	33	42	49	203	70	168	39	10	TTSS12014M	6mm	4,52
3615235	CV50BHPVTT20M400	20	33	42	—	102	67	—	41	10	TTSS16014M	8mm	3,36
3615236	CV50BHPVTT20M800	20	33	42	49	203	70	168	41	10	TTSS16014M	8mm	4,44
3615237	CV50BHPVTT25M400	25	44	53	—	102	67	—	47	10	TTSS16014M	8mm	3,67
3615238	CV50BHPVTT25M800	25	44	53	60	203	70	168	47	10	TTSS16014M	8mm	5,44
3615239	CV50BHPVTT32M400	32	44	53	—	102	67	—	51	10	TTSS16014M	8mm	3,51
3615240	CV50BHPVTT32M800	32	44	53	60	203	70	168	51	10	TTSS16014M	8mm	5,28

(continued)

(TT GP HPV continued)

Cutting Tool Shank Requirements
inch (industry standard)

cutting tool shank diameters	tolerance
1/4, 5/16, & 3/8	.0000/- .0004
7/16, 1/2, 9/16, 5/8, & 11/16	.0000/- .0004
3/4, 7/8, 1, 1-1/4, 1-1/2, & 2	.0000/- .0005

■ TT GP HPV IN-CV Form B/AD



order number	catalog number	D1	D2	D21	L1	D22	L2	L9	L21	V	stop screw	wrench size stop screw	lbs
3683498	CV50BHPVTT025350	1/4	.83	1.06	3.50	—	2.13	1.02	—	.39	TTSS05014M	2,5mm	6.89
3683499	CV50BHPVTT025800	1/4	.83	1.06	8.00	1.38	1.97	1.02	6.63	.39	TTSS05014M	2,5mm	8.25
3683500	CV50BHPVTT031350	5/16	.83	1.06	3.50	—	2.13	1.02	—	.39	TTSS06014M	3mm	6.88
3683501	CV50BHPVTT031800	5/16	.83	1.06	8.00	1.38	1.97	1.02	6.63	.39	TTSS06014M	3mm	8.23
3683502	CV50BHPVTT038375	3/8	.95	1.26	3.75	—	2.38	1.22	—	.39	TTSS08014M	4mm	7.07
3683503	CV50BHPVTT038800	3/8	.95	1.26	8.00	1.55	2.48	1.22	6.63	.39	TTSS08014M	4mm	8.77
3683504	CV50BHPVTT044375	7/16	.95	1.26	3.75	—	2.38	1.42	—	.39	TTSS10014M	5mm	7.04
3683505	CV50BHPVTT044800	7/16	.95	1.26	8.00	1.55	2.48	1.42	6.63	.39	TTSS10014M	5mm	8.75
3615189	CV50BHPVTT050375	1/2	.95	1.26	3.75	—	2.38	1.42	—	.39	TTSS10014M	5mm	6.95
3615190	CV50BHPVTT050800	1/2	.95	1.26	8.00	1.55	2.48	1.42	6.63	.39	TTSS10014M	5mm	8.52
3615191	CV50BHPVTT056375	9/16	1.06	1.34	3.75	—	2.38	1.42	—	.39	TTSS10014M	5mm	7.06
3615192	CV50BHPVTT062375	5/8	1.06	1.34	3.75	—	2.38	1.54	—	.39	TTSS12014M	6mm	7.01
3615193	CV50BHPVTT062800	5/8	1.06	1.34	8.00	1.62	2.48	1.54	6.63	.39	TTSS12014M	6mm	8.72
3615194	CV50BHPVTT068400	11/16	1.30	1.65	4.00	—	2.63	1.54	—	.39	TTSS12014M	6mm	7.48
3615195	CV50BHPVTT075400	3/4	1.30	1.65	4.00	—	2.63	1.61	—	.39	TTSS16014M	8mm	7.41
3615196	CV50BHPVTT075800	3/4	1.30	1.65	8.00	1.92	2.76	1.61	6.63	.39	TTSS16014M	8mm	9.80
3615197	CV50BHPVTT088400	7/8	1.30	1.65	4.00	—	2.63	1.61	—	.39	TTSS16014M	8mm	7.32
3615198	CV50BHPVTT088800	7/8	1.30	1.65	8.00	1.92	2.76	1.61	6.63	.39	TTSS16014M	8mm	9.71
3615199	CV50BHPVTT100400	1	1.73	2.08	4.00	—	2.63	1.85	—	.39	TTSS16014M	8mm	8.05
3615200	CV50BHPVTT100800	1	1.73	2.08	8.00	2.35	2.76	1.85	6.63	.39	TTSS16014M	8mm	11.97
3615201	CV50BHPVTT125400	1 1/4	1.73	2.08	4.00	—	2.63	2.01	—	.39	TTSS16014M	8mm	7.74
3615202	CV50BHPVTT125800	1 1/4	1.73	2.08	8.00	2.35	2.76	2.01	6.63	.39	TTSS16014M	8mm	11.65
3683506	CV50BHPVTT150450	1 1/2	2.36	2.75	4.50	—	3.75	2.01	—	.39	TTSS20014M	10mm	9.81
3683507	CV50BHPVTT200450	2	2.72	3.11	4.50	—	3.75	2.20	—	.39	TTSS20014M	10mm	10.07

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Shrink fit technical section, see page M78.

Supplied with stop screw.

Adjusting stop screw gage, see page M81.

Optional M6~1.0P x 5 lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.

For retention knobs, see page L45.

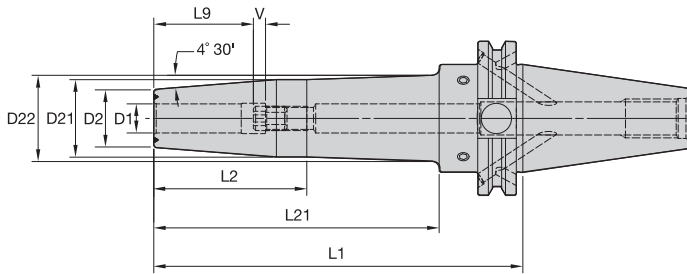
<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

CAT50 Shank Tools

Shrink Fit Toolholders High Torque (HT)



- 30–50% higher clamping torque compared to GP line.
- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide only, designated by groove in front face (requirements below).
- 10 kW power or greater Shrink Fit device must be used.



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
12, 14, 16 & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

CAT50 Shank Tools

ERICKSON

■ TT HT HPV MM-CV Form B/AD



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	kg
3618044	CV50BHPVTHT12M375	12	24	32	—	95	60	—	36	10	TTSS10014M	5mm	3,17
3618045	CV50BHPVTHT12M800	12	24	32	39	203	63	168	36	10	TTSS10014M	5mm	3,88
3618046	CV50BHPVTHT14M375	14	27	34	—	95	60	—	36	10	TTSS10014M	5mm	3,21
3618047	CV50BHPVTHT14M800	14	27	34	41	203	63	168	36	10	TTSS10014M	5mm	3,98
3618048	CV50BHPVTHT16M375	16	27	34	—	95	60	—	39	10	TTSS12014M	6mm	3,19
3618049	CV50BHPVTHT16M800	16	27	34	41	203	63	168	39	10	TTSS12014M	6mm	3,96
3618050	CV50BHPVTHT18M400	18	33	42	—	102	67	—	39	10	TTSS12014M	6mm	3,40
3618051	CV50BHPVTHT18M800	18	33	42	49	203	70	168	39	10	TTSS12014M	6mm	4,52
3618052	CV50BHPVTHT20M400	20	33	42	—	102	67	—	41	10	TTSS16014M	8mm	3,36
3618053	CV50BHPVTHT20M800	20	33	42	49	203	70	168	41	10	TTSS16014M	8mm	4,44
3618054	CV50BHPVTHT25M400	25	44	53	—	102	67	—	47	10	TTSS16014M	8mm	3,67
3618055	CV50BHPVTHT25M800	25	44	53	60	203	70	168	47	10	TTSS16014M	8mm	5,44
3618056	CV50BHPVTHT32M400	32	44	53	—	102	67	—	51	10	TTSS16014M	8mm	3,51
3618057	CV50BHPVTHT32M800	32	44	53	60	203	70	168	51	10	TTSS16014M	8mm	5,28

(continued)

(TT HT HPV continued)

Cutting Tool Shank Requirements inch (industry standard)

cutting tool shank diameters	tolerance
1/2, 9/16, 5/8 & 11/16	.0000/- .0004
3/4, 7/8, 1 & 1-1/4	.0000/- .0005

■ TT HT HPV IN-CV Form B/AD



order number	catalog number	D1	D2	D21	D22	L1	L2	L9	L21	V	stop screw	wrench size stop screw	lbs
3618016	CV50BHPVTHT050375	1/2	.95	1.26	—	3.75	2.38	1.42	—	.39	TTSS10014M	5mm	6.95
3618017	CV50BHPVTHT050800	1/2	.95	1.26	1.55	8.00	2.48	1.42	6.63	.39	TTSS10014M	5mm	8.52
3618018	CV50BHPVTHT056375	9/16	1.06	1.34	—	3.75	2.38	1.42	—	.39	TTSS10014M	5mm	7.06
3618019	CV50BHPVTHT062375	5/8	1.06	1.34	—	3.75	2.38	1.54	—	.39	TTSS12014M	6mm	7.01
3618020	CV50BHPVTHT062800	5/8	1.06	1.34	1.62	8.00	2.48	1.54	6.63	.39	TTSS12014M	6mm	8.72
3618021	CV50BHPVTHT068400	11/16	1.30	1.65	—	4.00	2.63	1.54	—	.39	TTSS12014M	6mm	7.48
3618022	CV50BHPVTHT075400	3/4	1.30	1.65	—	4.00	2.63	1.61	—	.39	TTSS16014M	8mm	7.41
3618023	CV50BHPVTHT075800	3/4	1.30	1.65	1.92	8.00	2.76	1.61	6.63	.39	TTSS16014M	8mm	9.80
3618024	CV50BHPVTHT088400	7/8	1.30	1.65	—	4.00	2.63	1.61	—	.39	TTSS16014M	8mm	7.32
3618025	CV50BHPVTHT088800	7/8	1.30	1.65	1.92	8.00	2.76	1.61	6.63	.39	TTSS16014M	8mm	9.72
3618026	CV50BHPVTHT100400	1	1.73	2.08	—	4.00	2.63	1.85	—	.39	TTSS16014M	8mm	8.05
3618027	CV50BHPVTHT100800	1	1.73	2.08	2.35	8.00	2.76	1.85	6.63	.39	TTSS16014M	8mm	11.97
3618028	CV50BHPVTHT125400	1 1/4	1.73	2.08	—	4.00	2.63	2.01	—	.39	TTSS16014M	8mm	7.74
3618029	CV50BHPVTHT125800	1 1/4	1.73	2.08	2.35	8.00	2.76	2.01	6.63	.39	TTSS16014M	8mm	11.65

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Shrink Fit technical section, see page M78.

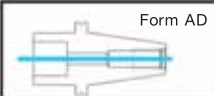








Supplied with stop screw.

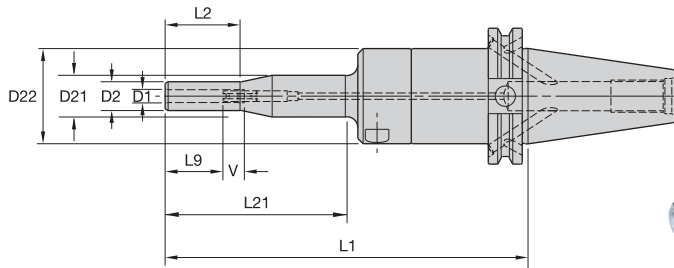
Adjusting stop screw gage, see page M81.

Optional M6~1.0P x 5 lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.

For retention knobs, see page L45.

CAT50 Shank Tools

 <p>Form AD</p>					
 <p>Form B</p>			<p>40</p>	<p>(2x) MS2221S</p>	<p>2,5mm</p>
			<p>50</p>	<p>(2x) MS1296S</p>	<p>3mm</p>

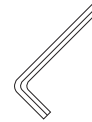


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■ HC Slim T MM-CV Form B/AD

order number	catalog number	D1	D2	D21	D22	L1	L2	L9	L21	V	kg
3019251	CV50BHCSLT06M787	6	13,5	19,5	44	200	35	27	85	10	4,17
3019252	CV50BHCSLT08M787	8	15,5	19,5	44	200	35	27	85	10	4,18
3019253	CV50BHCSLT10M787	10	17,5	44,5	70	200	85	31	141	10	4,17

■ Spare Parts

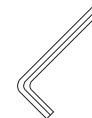


catalog number	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw
CV50BHCSLT06M787	170.135	5mm	170.002	2,5mm
CV50BHCSLT08M787	170.135	5mm	170.002	2,5mm
CV50BHCSLT10M787	170.135	5mm	170.003	3mm

■ HC Slim T IN-CV Form B/AD

order number	catalog number	D1	D2	D21	D22	L1	L2	L9	V	lbs
3019260	CV50BHCSLT025787	.25	.54	.77	1.75	7.87	1.38	1.06	.39	9.22
3019261	CV50BHCSLT038787	.38	.69	1.75	2.75	7.87	3.35	1.22	.39	9.19

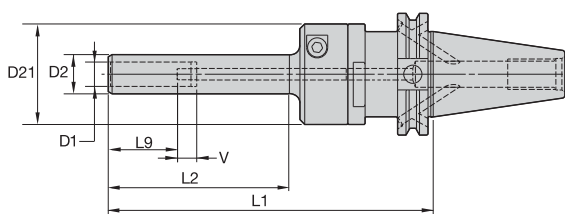
■ Spare Parts



catalog number	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw
CV50BHCSLT025787	170.135	5mm	170.002	2,5mm
CV50BHCSLT038787	170.135	5mm	170.003	3mm

(continued)

(HC Slim continued)



■ HC Slim MM-CV Form B/AD

order number	catalog number	D1	D2	D21	L1	L2	L9	V	kg
2508155	CV50BHCSL12M787	12	19,5	44,5	200	95	36	10	3,91
3019254	CV50BHCSL14M787	14	21,5	52,5	200	95	36	10	4,25
3019255	CV50BHCSL16M787	16	23,5	52,5	200	95	39	10	4,27
3019256	CV50BHCSL18M787	18	25,5	52,5	200	95	39	10	4,31
2508156	CV50BHCSL20M787	20	27,5	52,5	200	95	41	10	4,32

■ Spare Parts



catalog number	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw
CV50BHCSL12M787	170.135	5mm	170.002	2,5mm
CV50BHCSL14M787	170.135	5mm	170.002	2,5mm
CV50BHCSL16M787	170.135	5mm	170.002	2,5mm
CV50BHCSL18M787	170.135	5mm	170.002	2,5mm
CV50BHCSL20M787	170.135	5mm	170.002	2,5mm

■ HC Slim IN-CV Form B/AD

order number	catalog number	D1	D2	D21	L1	L2	L9	V	lbs
2508157	CV50BHCSL050787	.50	.81	2.07	7.87	3.74	1.42	.39	9.28
3019262	CV50BHCSL062787	.63	.93	2.07	7.87	3.74	1.54	.39	9.41
2508158	CV50BHCSL075787	.75	1.06	2.07	7.87	3.74	1.61	.39	9.52

■ Spare Parts

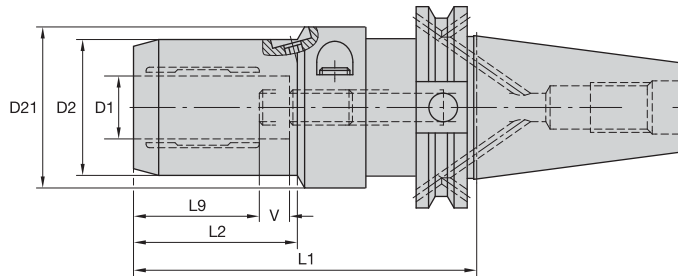


catalog number	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw
CV50BHCSL050787	170.135	5mm	170.002	2,5mm
CV50BHCSL062787	170.135	5mm	170.002	2,5mm
CV50BHCSL075787	170.135	5mm	170.002	2,5mm

NOTE: Do not overtorque actuation screw. Use supplied wrench and tighten by hand until stop is felt.

Hydraulic chuck technical section, see page M84.
 Supplied with stop screw and actuation wrench.
 Unable to use SEFAS™ chamfering rings on this design.
 Reduction sleeves are available and must be ordered separately; see page J2.
 For retention knobs, see page L45.

	Form AD					
	Form B			40	(2x) MS2221S	2,5mm
				50	(2x) MS1296S	3mm



ERICKSON

■ HC MM-CV Form B/AD

order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw	kg
2079529	CV50BHC06M350	6	25,7	63	89	33	27	10	170.135	5mm	170.002	2,5mm	3,44
2079530	CV50BHC08M350	8	27,7	63	89	33	27	10	170.135	5mm	170.002	2,5mm	3,46
2079531	CV50BHC10M375	10	29,7	63	95	37	31	10	170.135	5mm	170.002	2,5mm	3,54
2079532	CV50BHC12M375	12	31,6	63	95	40	36	10	170.135	5mm	170.002	2,5mm	3,52
2079563	CV50BHC14M400	14	33,6	63	102	46	41	10	170.135	5mm	170.003	3mm	3,56
2079564	CV50BHC16M400	16	37,6	63	102	47	41	10	170.135	5mm	170.003	3mm	3,62
2079565	CV50BHC18M400	18	39,6	63	102	47	41	10	170.135	5mm	170.003	3mm	3,64
2079566	CV50BHC20M400	20	41,6	63	102	48	41	10	170.135	5mm	170.003	3mm	3,67
1605226	CV50BHC25M462	25	49,9	63	117	51	51	10	170.136	6mm	170.004	4mm	4,10
1605227	CV50BHC32M462	32	59,9	63	117	59	51	10	170.136	6mm	170.004	4mm	4,29

■ HC IN-CV Form B/AD

order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw	lbs
2079524	CV50BHC025350	1/4	1.01	2.48	3.50	1.30	1.06	.39	170.135	5mm	170.002	2,5mm	7.59
2079525	CV50BHC038375	3/8	1.17	2.48	3.75	1.46	1.22	.39	170.135	5mm	170.002	2,5mm	7.83
2079526	CV50BHC050375	1/2	1.24	2.48	3.75	1.57	1.42	.39	170.135	5mm	170.002	2,5mm	7.74
2079527	CV50BHC062400	5/8	1.48	2.48	4.00	1.83	1.54	.39	170.135	5mm	170.003	3mm	8.00
2079528	CV50BHC075400	3/4	1.64	2.48	4.00	1.89	1.61	.39	170.135	5mm	170.003	3mm	8.11
1605143	CV50BHC100462	1	1.96	2.48	4.63	2.01	1.81	.39	170.136	6mm	170.004	4mm	9.06
1605144	CV50BHC125462	1 1/4	2.36	2.48	4.63	2.32	1.97	.39	170.136	6mm	170.004	4mm	9.50

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
Hydraulic chuck technical section, see page M84.
Supplied with stop screw.
Actuation wrench must be ordered separately.
Reduction sleeves are available and must be ordered separately; see page J2.
For retention knobs, see page L45.

Form AD		Form B	40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



KM4X™

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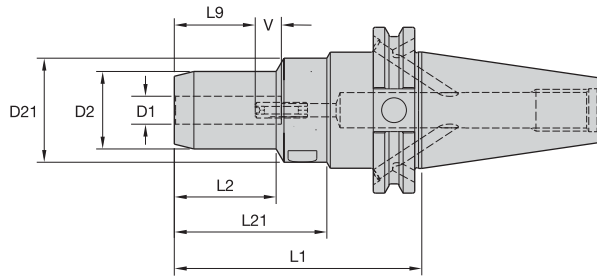
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ERICKSON™

■ HC Trend MM-CV Form B/AD

CAT50 Shank Tools

order number	catalog number	D1	D2	D21	L1	L2	L21	L9	V	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw	kg
2977690	CV50BHCT06M350	6	25,7	63	89	33	53	27	10	170.135	6mm	170.003	3mm	3,48
2452778	CV50BHCT06M600	6	25,7	63	152	100	117	27	10	170.135	5mm	170.003	3mm	3,68
2977691	CV50BHCT08M350	8	27,7	63	89	33	53	27	10	170.135	5mm	170.003	3mm	3,55
2452779	CV50BHCT08M600	8	27,7	63	152	100	117	27	10	170.135	5mm	170.003	3mm	3,73
2977692	CV50BHCT10M375	10	29,7	63	95	37	59	31	10	170.135	5mm	170.003	3mm	3,58
2452780	CV50BHCT10M600	10	29,7	63	152	100	117	31	10	170.135	5mm	170.003	3mm	3,80
2977693	CV50BHCT12M375	12	31,6	63	95	40	59	36	10	170.135	5mm	170.003	3mm	3,56
2452781	CV50BHCT12M600	12	31,6	63	152	100	117	36	10	170.135	5mm	170.005	5mm	3,85
2977694	CV50BHCT14M400	14	33,6	63	102	46	66	41	10	170.135	5mm	170.005	5mm	3,60
2452782	CV50BHCT14M600	14	33,6	63	152	100	117	36	10	170.135	5mm	170.005	5mm	3,92
2977695	CV50BHCT16M400	16	37,6	63	102	47	66	41	10	170.135	5mm	170.005	5mm	3,67
2453233	CV50BHCT16M600	16	37,6	63	152	100	117	39	10	170.135	5mm	170.005	5mm	4,08
2977696	CV50BHCT18M400	18	39,6	63	102	47	66	41	10	170.135	5mm	170.005	5mm	3,70
2453234	CV50BHCT18M600	18	39,6	63	152	100	117	39	10	170.135	5mm	170.005	5mm	4,15
2977697	CV50BHCT20M400	20	41,6	63	102	48	66	41	10	170.135	5mm	170.005	5mm	3,71
2453235	CV50BHCT20M600	20	41,6	63	152	100	117	41	10	170.135	5mm	170.005	5mm	4,23
2977698	CV50BHCT25M462	25	49,9	63	117	51	81	51	10	170.136	6mm	170.005	5mm	4,15
2977699	CV50BHCT32M462	32	59,9	63	117	59	81	51	10	170.136	6mm	170.005	5mm	4,33

(continued)

(HC Trend continued)

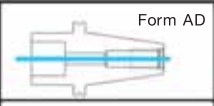




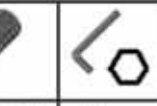



■ HC Trend IN-CV Form B/AD

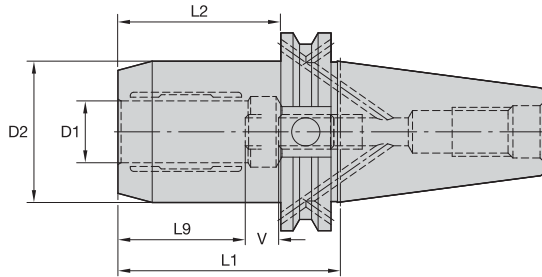


order number	catalog number	D1	D2	D21	L1	L2	L21	L9	V	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw	lbs
2977683	CV50BHCT025350	1/4	1.01	2.47	3.50	1.30	2.08	1.06	.39	170.135	5mm	170.003	3mm	7.67
2452210	CV50BHCT025600	1/4	1.01	2.47	6.00	3.94	4.59	1.06	.39	170.135	5mm	170.003	3mm	8.10
2977684	CV50BHCT038375	3/8	1.17	2.47	3.75	1.46	2.33	1.22	.39	170.135	5mm	170.003	3mm	7.89
2452774	CV50BHCT038600	3/8	1.17	2.47	6.00	3.94	4.59	1.22	.39	170.135	5mm	170.003	3mm	8.36
2977685	CV50BHCT050375	1/2	1.24	2.47	3.75	1.57	2.33	1.42	.39	170.135	5mm	170.003	3mm	7.83
2452775	CV50BHCT050600	1/2	1.24	2.47	6.00	3.94	4.59	1.42	.39	170.135	5mm	170.005	5mm	8.47
2977686	CV50BHCT062400	5/8	1.48	2.47	4.00	1.83	2.58	1.54	.39	170.135	5mm	170.005	5mm	8.09
2452776	CV50BHCT062600	5/8	1.48	2.47	6.00	3.94	4.59	1.54	.39	170.135	5mm	170.005	5mm	8.98
2977687	CV50BHCT075400	3/4	1.64	2.47	4.00	1.89	2.58	1.61	.39	170.135	5mm	170.005	5mm	8.20
2452777	CV50BHCT075600	3/4	1.64	2.47	6.00	3.94	4.59	1.61	.39	170.135	5mm	170.005	5mm	9.33
2977688	CV50BHCT100462	1	1.96	2.47	4.63	2.01	3.21	1.81	.39	170.136	6mm	170.005	5mm	9.17
2977689	CV50BHCT125462	1 1/4	2.35	2.47	4.63	2.32	3.21	1.97	.39	170.136	6mm	170.005	5mm	9.57

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw.
 Actuation wrench must be ordered separately.
 Reduction sleeves are available and must be ordered separately; see page J2.
 For retention knobs, see page L45.

CAT50 Shank Tools

 <p>Form AD</p>					
 <p>Form B</p>			<p>40</p>	<p>(2x) MS2221S</p>	<p>2,5mm</p>
			<p>50</p>	<p>(2x) MS1296S</p>	<p>3mm</p>



CAT50 Shank Tools

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■ HC Basic MM-CV Form B/AD

order number	catalog number	D1	D2	L1	L2	L9	V	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw	kg
2001977	CV50BHCB20M400	20	62,9	102	65	41	10	170.135	5mm	170.005	5mm	4,38

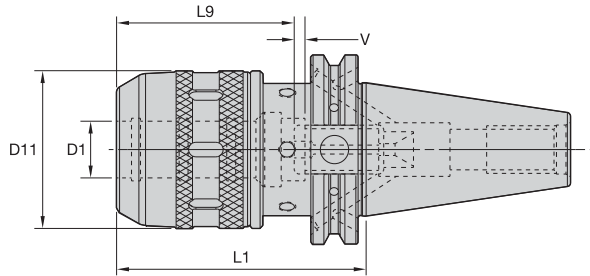
■ HC Basic IN-CV Form B/AD

order number	catalog number	D1	D2	L1	L2	L9	V	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw	lbs
2001978	CV50BHCB075400	3/4	2.47	4.00	2.56	1.61	.39	170.135	5mm	170.005	5mm	9.68

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
Hydraulic chuck technical section, see page M84.
Supplied with stop screw.
Actuation wrench must be ordered separately.
Reduction sleeves are available and must be ordered separately; see page J2.
For retention knobs, see page L45.

	Form AD					
	Form B					
				40	(2x) MS2221S	2,5mm
				50	(2x) MS1296S	3mm

- Heavy- and fine-milling capabilities.
- Balancable — fine tune with optional M6 set screws.



ERICKSON

■ HPMC IN-CV Form B/AD

order number	catalog number	D1	D11	L1	L9	V	locknut wrench	stop screw	wrench size stop screw	lbs
3100403	CV50BHPMC075354	3/4	2.09	3.54	1.93	.79	PSW52M	MCSS16040M	2,5mm & 5mm	8.10
3100404	CV50BHPMC075650	3/4	2.09	6.50	1.93	.79	PSW52M	MCSS16040M	2,5mm & 5mm	10.50
3100405	CV50BHPMC100354	1	2.40	3.54	2.17	.79	PSW58M	MCSS16040M	2,5mm & 5mm	8.50
3100406	CV50BHPMC100531	1	2.40	5.32	2.17	.79	PSW58M	MCSS16040M	2,5mm & 5mm	10.50
3100407	CV50BHPMC100650	1	2.40	6.50	2.17	.79	PSW58M	MCSS16040M	2,5mm & 5mm	11.85
3100408	CV50BHPMC125354	1 1/4	2.76	3.54	2.28	.79	PSW68M	MCSS16040M	2,5mm & 5mm	9.00
3100409	CV50BHPMC125531	1 1/4	2.91	5.32	2.95	.79	PSW68M	MCSS16040M	2,5mm & 5mm	11.70
3100410	CV50BHPMC125650	1 1/4	2.91	6.50	2.95	.79	PSW68M	MCSS16040M	2,5mm & 5mm	13.50

NOTE: Milling chuck technical section, see page M88.

Supplied with locknut and stop screw.

Locknut wrench not included.

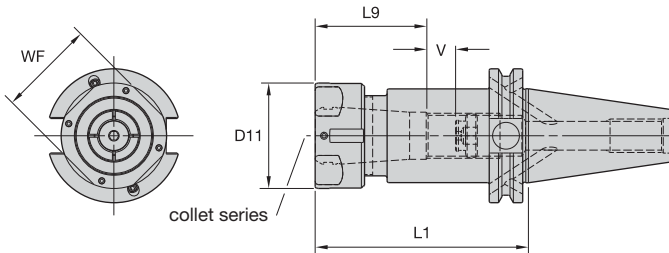
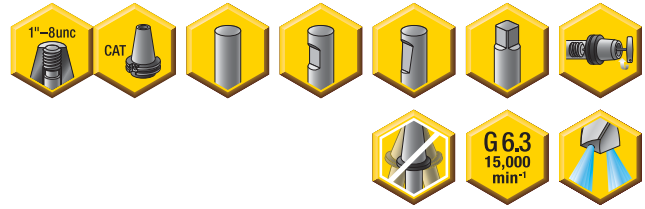
Optional M6-1,0P fine-balancing screw set is available (order number HPMCBALSCREWSET) and must be ordered separately; see page L14.

Reduction sleeves are available and must be ordered separately; see page J6.

For retention knobs, see page L45.

Form AD	✓				
Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

- Tremendous Grip (3:1 advantage).
- Totally flush face, locknut to collet.
- Locknut uses either open end wrench or spanner wrench.
- Locknut disk sealing cap available for through coolant to prevent collet contamination.



TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG50	1,1	13,5	1/32	17/32
TG75	2,6	20,0	3/64	3/4
TG100	2,6	25,5	5/64	1

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■ TG Flush-CV Form B/AD



order number	catalog number	collet series	D11	L1	L9	V	WF	locknut	wrench	ft. lbs.	stop screw	wrench size	lbs
2993251	CV50BTGF075275	TG75	1.97	2.75	1.89	1	2	LNATGF075M	HSW45M	100	SS081041G	4mm & 5/32	7.21
2993247	CV50BTGF050275	TG50	1.50	2.75	1.46	2	1	LNATGF050M	HSW34M	50	SS056041G	4mm & 5/32	7.06
2993255	CV50BTGF100275	TG100	2.36	2.75	2.44	1	2	LNATGF100M	HSW58M	150	SS112041G	4mm & 5/32	7.13
2993248	CV50BTGF050400	TG50	1.50	4.00	1.46	2	1	LNATGF050M	HSW34M	50	SS056041G	4mm & 5/32	7.38
2993256	CV50BTGF100400	TG100	2.36	4.00	2.44	1	2	LNATGF100M	HSW58M	150	SS112041G	4mm & 5/32	8.28
2993252	CV50BTGF075400	TG75	1.97	4.00	1.89	2	2	LNATGF075M	HSW45M	100	SS081041G	4mm & 5/32	8.15
2993253	CV50BTGF075600	TG75	1.97	6.00	1.89	2	2	LNATGF075M	HSW45M	100	SS081041G	4mm & 5/32	9.52
2993249	CV50BTGF050600	TG50	1.50	6.00	1.46	2	1	LNATGF050M	HSW34M	50	SS056041G	4mm & 5/32	7.75
2993257	CV50BTGF100600	TG100	2.36	6.00	2.44	3	2	LNATGF100M	HSW58M	150	SS112041G	4mm & 5/32	10.39
2993250	CV50BTGF050800	TG50	1.50	8.00	1.46	2	1	LNATGF050M	HSW34M	50	SS056041G	4mm & 5/32	8.48
2993258	CV50BTGF100800	TG100	2.36	8.00	2.44	3	2	LNATGF100M	HSW58M	150	SS112041G	4mm & 5/32	12.53
2993254	CV50BTGF075800	TG75	1.97	8.00	1.89	2	2	LNATGF075M	HSW45M	100	SS081041G	4mm & 5/32	11.02

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Disk sealing cap and coolant disks are available and must be ordered separately; see pages L16–L17.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.
 TG standard straight-bore collets, see page J10.
 TG tap collets, see page J10.
 For retention knobs, see page L45.

Form AD	✓				
Form B				40	(2x) MS2221S
				50	(2x) MS1296S

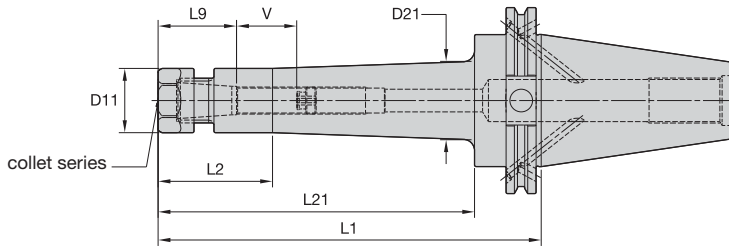
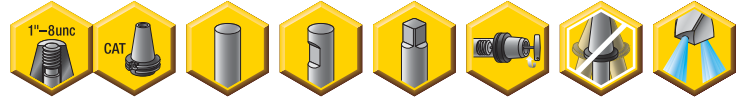


KM[™] The ISO 26622 QUICK CHANGE Standard

KM[™] Quick-Change Tooling — the ISO 26622 Standard.

- Our unique three-surface taper contact design makes this the most rigid and accurate modular quick-change tooling system available.
- It's highly versatile, too: can be fully and easily employed on your lathe, machining center, multi-spindle, or mill-turn machine — significantly reducing your tool-change and part setup downtime!

- Tremendous Grip (3:1 advantage).



TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG50	1,3	13,5	1/32	17/32

CAT50 Shank Tools

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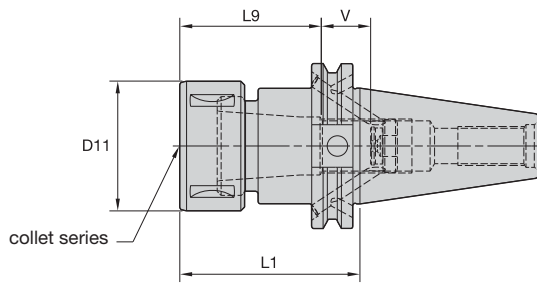
■ TG Hex-CV Form B/AD



order number	catalog number	collet series	D11	D21	L1	L2	L21	L9	V	locknut	wrench	ft. lbs.	stop screw	wrench size	stop screw	lbs
4135687	CV50BTG050300	TG50	1.34	—	3.00	1.59	—	1.50	1.81	LN050M	OEW30M	50	SS056041G	4mm & 5/32		7.06
4135688	CV50BTG050500	TG50	1.34	—	5.00	3.59	—	1.50	2.44	LN050M	OEW30M	50	SS056041G	4mm & 5/32		7.58
4135689	CV50BTG050800	TG50	1.34	1.63	8.00	2.00	6.59	1.50	2.44	LN050M	OEW30M	50	SS056041G	4mm & 5/32		8.93
4135690	CV50BTG0501000	TG50	1.34	1.70	10.00	3.00	8.59	1.50	2.44	LN050M	OEW30M	50	SS056041G	4mm & 5/32		9.85
4135691	CV50BTG0501200	TG50	1.34	1.81	12.00	3.50	10.59	1.50	2.44	LN050M	OEW30M	50	SS056041G	4mm & 5/32		10.97

(continued)

(TG Form B/AD continued)



TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG75	2,6	20,0	3/64	3/4
TG100	2,6	25,5	5/64	1

■ TG Round-CV Form B/AD



order number	catalog number	collet series	D11	L1	L9	V	locknut	wrench	ft. lbs.	stop screw	wrench size stop screw	lbs
1261786	CV50BTG075300G	TG75	1.97	3.00	1.93	1.46	LNA075M	HSW45M	100	SS081041G	4mm & 5/32	7.34
1261787	CV50BTG075600G	TG75	1.97	6.00	1.93	4.45	LNA075M	HSW45M	100	SS081041G	4mm & 5/32	9.56
1261788	CV50BTG100300G	TG100	2.36	3.00	2.56	.98	LNA100M	HSW58M	150	SS112041G	4mm & 5/32	7.32
1261789	CV50BTG100750G	TG100	2.36	7.50	2.56	5.12	LNA100M	HSW58M	150	SS112041G	4mm & 5/32	11.80

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.

Collet chuck technical section, see page M98.

Supplied with locknut and stop screw.

Locknut wrench must be ordered separately.

Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16–L17.

Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.

Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.

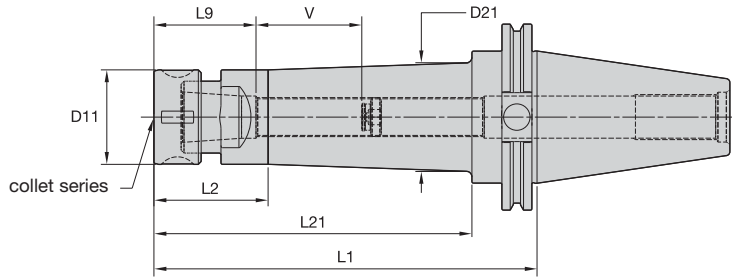
TG standard straight-bore collets, see page J10.

TG tap collets, see page J10.

For retention knobs, see page L45.

Form AD					
Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

- Tremendous Grip (3:1 advantage).



TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG75	2,6	20,0	3/64	3/4
TG100	2,6	25,5	5/64	1

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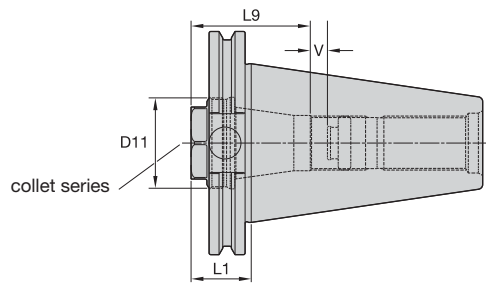
■ TG Round-CV Form AD



order number	catalog number	collet series	D11	D21	L1	L2	L21	L9	V	locknut	wrench	ft. lbs.	stop screw	wrench size	stop screw	lbs
1025603	CV50TG075279G	TG75	1.97	—	2.79	1.42	—	1.93	1.38	LNA075M	HSW45M	100.0000	SS081041G	4mm & 5/32		7.30
1025635	CV50TG075579G	TG75	1.97	2.15	5.79	1.82	4.38	1.93	4.37	LNA075M	HSW45M	100.0000	SS081041G	4mm & 5/32		9.70
1025914	CV50TG075800G	TG75	1.97	2.27	8.00	2.38	6.63	2.09	4.45	LNA075M	HSW45M	100.0000	SS081041G	4mm & 5/32		11.45
1025915	CV50TG0751000G	TG75	1.97	2.40	10.00	2.38	8.63	2.09	4.45	LNA075M	HSW45M	100.0000	SS081041G	4mm & 5/32		13.61
1025916	CV50TG0751200G	TG75	1.97	2.54	12.00	2.40	10.63	1.93	4.57	LNA075M	HSW45M	100.0000	SS081041G	4mm & 5/32		16.50
2636767	CV50TG100276G	TG100	2.36	—	2.76	1.47	—	2.76	1.85	LNA100M	HSW58M	150.0000	SS112041G	4mm & 5/32		7.07
2636768	CV50TG100326G	TG100	2.36	—	3.26	1.69	—	2.76	2.36	LNA100M	HSW58M	150.0000	SS112041G	4mm & 5/32		7.61
2636769	CV50TG100526G	TG100	2.36	—	5.26	3.89	—	2.76	4.33	LNA100M	HSW58M	150.0000	SS112041G	4mm & 5/32		9.50
2636770	CV50TG100726G	TG100	2.36	—	7.26	5.89	—	2.76	5.15	LNA100M	HSW58M	150.0000	SS112041G	4mm & 5/32		11.56

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
Collet chuck technical section, see page M98.
Supplied with locknut and stop screw.
Locknut wrench must be ordered separately.
Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16–L17.
Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.
TG standard straight-bore collets, see page J10.
TG tap collets, see page J10.
For retention knobs, see page L45.

- Grip (2:1 advantage).



ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER32	2,0	20,0	.08	.81
ER40	3,0	26,0	.12	1.00

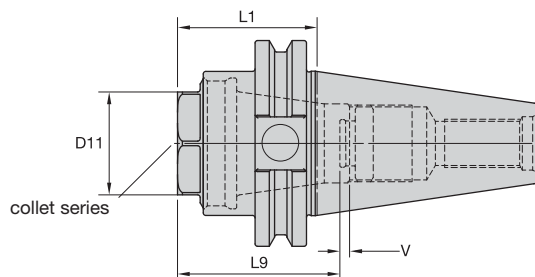
ERICKSON

■ ER Short-CV Z Form AD



order number	catalog number	collet series	D11	L1	L9	V	locknut	wrench	ft. lbs.	stop screw	wrench size stop screw	lbs
2978741	CV50ZSER32106	ER32	1.41	1.06	1.97	.67	LNEC32M	OEW32M	100	SS094041G	4mm & 5/32	5.32
2978763	CV50ZSER40106	ER40	1.81	1.06	2.24	.43	LNEC40M	OEW168	130	SS112041G	4mm & 5/32	4.94

CV50 toolholders deviate from ANSI B5.50 standard. The 2.750" diameter in front of the V-flange has been eliminated to achieve short gage lengths.



ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER32	2,0	20,0	.08	.81
ER40	3,0	26,0	.12	1.00

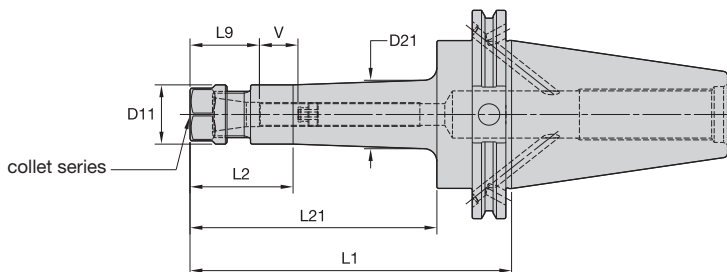
■ ER Short-CV Form AD



order number	catalog number	collet series	D11	L1	L9	V	locknut	wrench	ft. lbs.	stop screw	wrench size stop screw	lbs
2978742	CV50SER32169	ER32	1.41	1.69	1.97	1.06	LNEC32M	OEW32M	100	SS094041G	4mm & 5/32	6.27
2978764	CV50SER40169	ER40	1.81	1.69	2.24	.83	LNEC40M	OEW168	130	SS112041G	4mm & 5/32	5.86

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Stop screw coolant caps are available and must be ordered separately; see pages L34-L35.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58-J59.
 ER TCT tension-only tap collets, see page J60.
 For retention knobs, see page L45.

- Grip (2:1 advantage).



CAT50 Shank Tools

ERICKSON™

■ ER Hex-CV Form B/AD

ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER16	0,5	10,0	.02	.41
ER20	0,5	13,0	.02	.50
ER25	1,0	16,0	.04	.63
ER32	2,0	20,0	.08	.81
ER40	3,0	26,0	.12	1.00

order number	catalog number	collet series	D11	D21	L1	L2	L21	L9	V	lbs
2249706	CV50BER16250	ER16	1.10	—	2.50	1.13	—	1.26	1.69	6.83
2249707	CV50BER16400	ER16	1.10	—	4.00	2.63	—	1.26	1.50	6.97
2249708	CV50BER16600	ER16	1.10	1.29	6.00	1.92	4.59	1.26	1.50	7.55
2249709	CV50BER20250	ER20	1.34	—	2.50	1.13	—	1.42	1.73	6.84
1261782	CV50BER20400	ER20	1.34	—	4.00	2.63	—	1.42	1.73	7.19
2249710	CV50BER20600	ER20	1.34	—	6.00	4.63	—	1.42	1.73	7.77

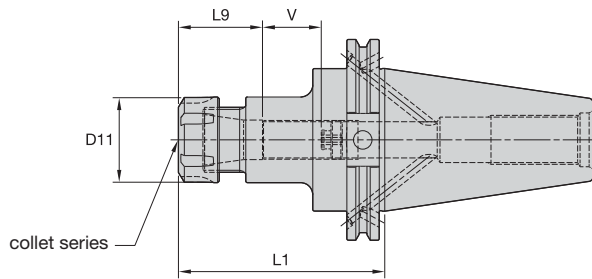
■ Spare Parts



catalog number	locknut	wrench	counterbore collet torque (ft. lbs.)	straight collet torque (ft. lbs.)	stop screw	wrench size stop screw
CV50BER16250	LNHSER16M	OEW25M	30	42	SS044038G	4mm & 5/32
CV50BER16400	LNHSER16M	OEW25M	30	42	SS044038G	4mm & 5/32
CV50BER16600	LNHSER16M	OEW25M	30	42	SS044038G	4mm & 5/32
CV50BER20250	LNHSER20M	OEW30M	24	59	SS056041G	4mm & 5/32
CV50BER20400	LNHSER20M	OEW30M	24	59	SS056041G	4mm & 5/32
CV50BER20600	LNHSER20M	OEW30M	24	59	SS056041G	4mm & 5/32

(continued)

(ER Form B/AD continued)



ER Round-CV Form B/AD

order number	catalog number	collet series	D11	L1	L9	V	lbs
2249711	CV50BER25250	ER25	1.65	2.50	1.57	1	6.85
2249712	CV50BER25400	ER25	1.65	4.00	1.57	2	7.61
2249713	CV50BER25600	ER25	1.65	6.00	1.57	2	8.44
2249714	CV50BER32275	ER32	1.97	2.75	1.81	1	6.91
1261783	CV50BER32400	ER32	1.97	4.00	1.81	1	7.78
2249715	CV50BER32600	ER32	1.97	6.00	1.81	1	9.19
2249716	CV50BER40300	ER40	2.48	3.00	2.05	1	7.21
2249717	CV50BER40600	ER40	2.48	6.00	2.05	4	10.58

Spare Parts

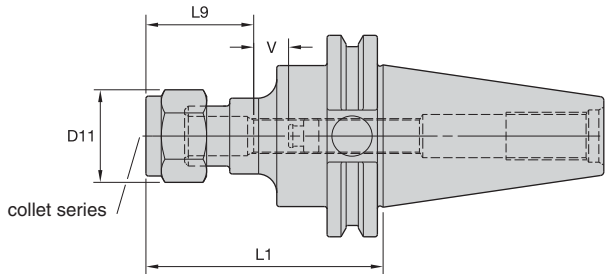


catalog number	locknut	wrench	counterbore collet torque (ft. lbs.)	stop screw	wrench size stop screw
CV50BER25250	LNSER25M	ER25WM	77	SS075041G	4mm & 5/32
CV50BER25400	LNSER25M	ER25WM	77	SS075041G	4mm & 5/32
CV50BER25600	LNSER25M	ER25WM	77	SS075041G	4mm & 5/32
CV50BER32275	LNSER32M	ER32WM	100	SS094041G	4mm & 5/32
CV50BER32400	LNSER32M	ER32WM	100	SS094041G	4mm & 5/32
CV50BER32600	LNSER32M	ER32WM	100	SS094041G	4mm & 5/32
CV50BER40300	LNSER40M	ER40WM	130	SS112041G	4mm & 5/32
CV50BER40600	LNSER40M	ER40WM	130	SS112041G	4mm & 5/32

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58-J59.
 ER TCT tension-only tap collets, see page J60.
 For retention knobs, see page L45.

Form AD	✓				
Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

- Grip 1:1.



CAT50 Shank Tools

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■ DA Hex-CV Form AD

DA collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
DA180	2,2	20	1/64	3/4

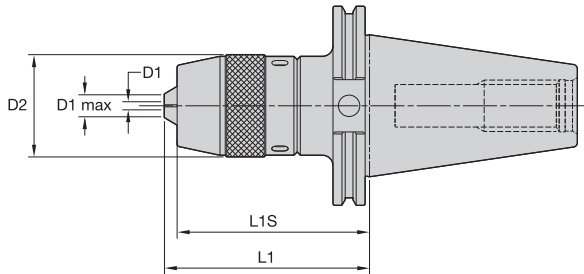
order number	catalog number	collet series	D11	L1	L9	V	lbs
1015307	CV50DA188600	DA180	1.73	6	1.93	4.65	8.21
1015306	CV50DA188300	DA180	1.73	3	1.93	2.36	7.03

■ Spare Parts



catalog number	locknut	locknut wrench	ft. lbs.	stop screw	wrench size stop screw
CV50DA188300	NPA188	OEW150	75	SS081041G	4mm & 5/32
CV50DA188600	NPA188	OEW150	75	SS081041G	4mm & 5/32

NOTE: Tighten locknut to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 DA standard straight-bore collets, see page J62.
 DA non-pullout collets, see pages J65–J68.
 For retention knobs, see page L45.



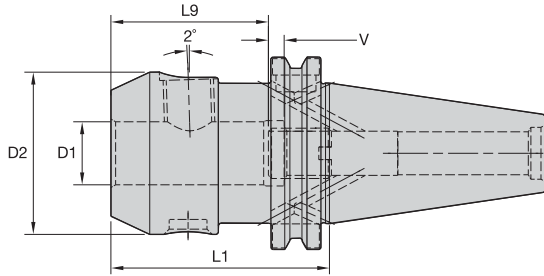
ERICKSON

■ DC-CV Form A

order number	catalog number	D1		D1 max		D2	L1	L1S	locknut wrench	lbs
		mm	in	mm	in					
2262968	CV50DC13M421	1,0	.039	13,0	.512	1.97	4.21	3.72	HSW45M	7.85

NOTE: Locknut wrench is supplied.
For retention knobs, see page L45.

CAT50 Shank Tools



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■ WN MM-CV Form B/AD

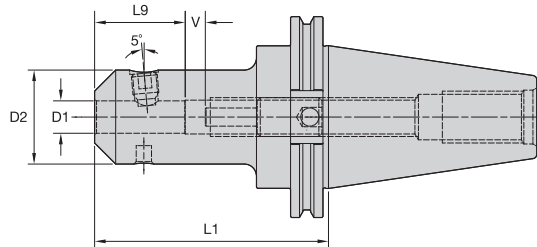


order number	catalog number	D1	D2	L1	L9	V	lock screw	wrench size lock screw	Nm	stop screw	wrench size stop screw	kg
1549343	CV50BWN06M244	6	25	62	30	10	SS03M012	3mm	7	571.060	2,5mm	3,14
1549344	CV50BWN08M244	8	28	62	30	10	SS03M014	4mm	15	571.067	3mm	3,10
1549378	CV50BWN10M244	10	35	62	35	10	SS03M018	5mm	25	571.068	4mm	3,21
1549345	CV50BWN12M264	12	42	67	40	10	SS03M023	6mm	35	571.074	5mm	3,32
1549346	CV50BWN14M264	14	44	67	40	10	SS03M023	6mm	35	571.074	5mm	3,30
1549352	CV50BWN16M275	16	48	70	43	10	SS03M025	6mm	50	571.075	6mm	3,41
1549353	CV50BWN18M275	18	50	70	43	10	SS03M025	6mm	50	571.075	6mm	3,43
1549362	CV50BWN20M275	20	52	70	45	10	SS03M026	8mm	95	571.076	6mm	3,43
1804514	CV50BWN20M600	20	52	152	45	10	SS03M026	8mm	95	571.076	6mm	4,67
1549354	CV50BWN25M375	25	65	95	50	10	SS03M027	10mm	135	571.077	6mm	4,23
1804515	CV50BWN25M600	25	65	152	50	10	SS03M027	10mm	135	571.077	6mm	5,52
1549355	CV50BWN32M388	32	72	99	54	10	SS03M029	10mm	160	571.076	6mm	4,51
1804516	CV50BWN32M600	32	72	152	54	10	SS03M029	10mm	160	571.076	6mm	6,06

NOTE: Do not overtighten clamp screw; use torque recommendations above.
 Supplied with clamp screw and stop screw.
 Clamp screw or stop screw wrenches not included.
 For retention knobs, see page L45.

Form AD					
Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

- 5° NAS 987 Whistle Notch cutting toolholders.
- No through-the-toolholder coolant capability (Form A only), unless stop screw is removed.
- Axial adjustment with constant 3/8" drive throughout complete range of adapters.



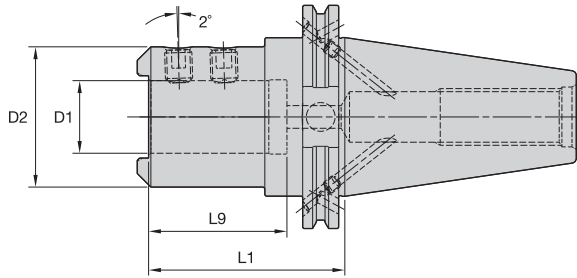
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■ WN NAS-CV Form AD • Inch



order number	catalog number	D1	D2	L1	L9	V	lock screw	wrench size clamp screw	ft. lbs.	wrench size stop screw	lbs
3594645	CV50WNA038282	3/8	1.38	2.82	1.19	.38	—	3/16	15	3/8	7.33
3594646	CV50WNA038469	3/8	1.38	4.69	1.19	.38	—	3/16	15	3/8	7.94
3594647	CV50WNA038669	3/8	1.38	6.69	1.19	.38	—	3/16	15	3/8	8.59
3594648	CV50WNA050273	1/2	1.63	2.73	1.40	.38	—	3/16	15	3/8	7.45
3594649	CV50WNA050460	1/2	1.63	4.60	1.40	.38	—	3/16	15	3/8	8.37
3594650	CV50WNA050660	1/2	1.63	6.60	1.40	.38	—	3/16	15	3/8	9.36
3594651	CV50WNA062266	5/8	1.81	2.66	1.52	.38	—	1/4	60	3/8	7.55
3594652	CV50WNA062453	5/8	1.81	4.53	1.52	.38	—	1/4	60	3/8	8.75
3594653	CV50WNA062653	5/8	1.81	6.53	1.52	.38	—	1/4	60	3/8	10.02
3594654	CV50WNA075263	3/4	2.00	2.63	1.54	.38	—	1/4	60	3/8	7.60
3594655	CV50WNA075450	3/4	2.00	4.50	1.65	.38	—	1/4	60	3/8	9.14
3594656	CV50WNA075650	3/4	2.00	6.50	1.65	.38	—	1/4	60	3/8	10.73
3594657	CV50WNA088263	7/8	2.25	2.63	1.53	.38	—	1/4	60	3/8	7.78
3594658	CV50WNA088450	7/8	2.25	4.50	1.64	.38	—	1/4	60	3/8	9.74
3594659	CV50WNA088650	7/8	2.25	6.50	1.64	.38	—	1/4	60	3/8	11.88
3594660	CV50WNA100300	1	2.63	3.00	1.90	.38	S-1820	3/8	110	3/8	8.57
3594661	CV50WNA100450	1	2.63	4.50	1.90	.38	S-1820	3/8	110	3/8	10.75
3594662	CV50WNA100650	1	2.63	6.50	1.90	.38	S-1820	3/8	110	3/8	13.68
3594663	CV50WNA125300	1 1/4	2.88	3.00	1.90	.38	S-1820	3/8	110	3/8	8.80
3594664	CV50WNA125450	1 1/4	2.88	4.50	1.90	.38	S-1820	3/8	110	3/8	11.44
3594665	CV50WNA125650	1 1/4	2.88	6.50	1.90	.38	S-1820	3/8	110	3/8	14.98
3594666	CV50WNA150400	1 1/2	3.13	4.00	1.90	.38	S-1820	3/8	110	3/8	10.95
3594667	CV50WNA200535	2	4.00	5.35	3.01	.38	S-1820	3/8	110	3/8	16.44
3594668	CV50WNA200735	2	4.00	7.35	3.01	.38	S-1820	3/8	110	3/8	23.42
3594669	CV50WNA250535	2 1/2	5.00	5.35	3.01	.38	—	3/8	110	3/8	22.44
3594670	CV50WNA250735	2 1/2	5.00	7.35	3.01	.38	—	3/8	110	3/8	26.77
3594671	CV50ZWNA200375	2	3.75	3.75	3.01	.38	S-1820	3/8	110	3/8	11.48

NOTE: Do not overtighten clamp screw; use torque recommendations above.
 Supplied with clamp screw and stop screw (3/4"-10 RH x 2.25lg).
 Clamp screw or stop screw wrenches not included.
 For retention knobs, see page L45.



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■ WD MM-CV Form B/AD

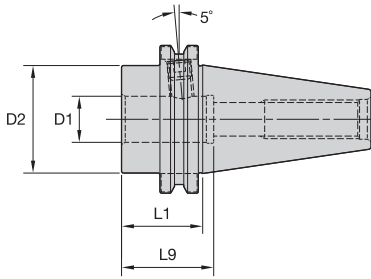
CAT50 Shank Tools



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	Nm	kg
1749279	CV50BWD32M343	32	63	87	61	SS03M023	6mm	35	3,84
1749283	CV50BWD40M343	40	70	87	71	SS03M023	6mm	35	3,88
1749284	CV50BWD50M343	50	80	87	69	SS03M023	6mm	35	4,04

NOTE: Do not overtighten clamp screw; use torque recommendations above.
Supplied with clamp screw.
Lock screw wrenches not included.
For retention knobs, see page L45.

	Form AD					
	Form B					
		40	(2x) MS2221S	2,5mm		
		50	(2x) MS1296S	3mm		



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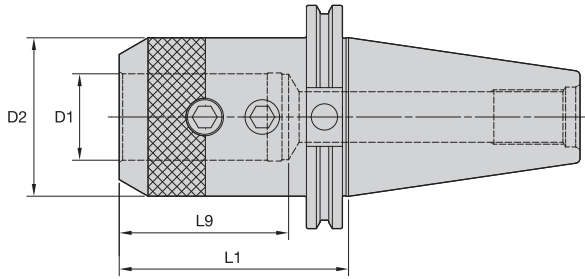
■ SWN IN-CV Form AD (Tap Chuck Adapter)



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
1064539	CV50TA1137	1.00	2.75	1.38	3.63	ELS062050PKG	5/16	70	6.53
1017996	CV50TA15200	1.50	2.75	2.00	3.80	ELS050050PKG	1/4	60	6.38

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw.
 Lock screw wrench not included.
 For retention knobs, see page L45.

CAT50 Shank Tools



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■ EM IN-CV Form AD



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	lbs	ft. lbs.
1013379	CV50EM018250	3/16	.69	2.50	4.69	S1045PKG	3/32	6.55	3
1013408	CV50EM018450	3/16	.69	4.50	6.69	S1045PKG	3/32	6.84	3
1013409	CV50EM018650	3/16	.69	6.50	8.69	S1045PKG	3/32	7.05	3
1013380	CV50EM025250	1/4	.78	2.50	4.69	ELS025025PKG	1/8	6.55	5
1013410	CV50EM025450	1/4	.78	4.50	6.69	ELS025025PKG	1/8	7.17	5
1013411	CV50EM025650	1/4	.78	6.50	7.68	ELS025025PKG	1/8	7.19	5
1013381	CV50EM031250	5/16	1.00	2.50	4.69	ELS031031PKG	5/32	6.61	11
1013412	CV50EM031450	5/16	1.00	4.50	6.69	ELS031031PKG	5/32	7.15	11
1013413	CV50EM031650	5/16	1.00	6.50	8.69	ELS031031PKG	5/32	7.60	11
1026020	CV50EM038250	3/8	1.00	2.50	4.69	ELS038031PKG	3/16	6.63	15
1026286	CV50EM038450	3/8	1.00	4.50	6.69	ELS038031PKG	3/16	7.07	15
1026093	CV50EM038650	3/8	1.00	6.50	8.69	ELS038031PKG	3/16	7.45	15
1013382	CV50EM038850	3/8	1.00	8.50	10.70	ELS038031PKG	3/16	8.27	15
1013383	CV50EM044250	7/16	1.25	2.50	4.69	ELS044038PKG	7/32	6.78	20
1026021	CV50EM050262	1/2	1.38	2.62	4.81	ELS044038PKG	7/32	6.82	20
1026114	CV50EM050462	1/2	1.38	4.62	6.81	ELS044038PKG	7/32	7.52	20
1026115	CV50EM050662	1/2	1.38	6.62	8.81	ELS044038PKG	7/32	8.21	20
1013404	CV50EM050850	1/2	1.25	8.50	10.69	ELS044038PKG	7/32	9.03	20
1026022	CV50EM062375	5/8	1.63	3.75	5.94	ELS056050PKG	1/4	7.53	40
1026116	CV50EM062575	5/8	1.63	5.75	7.94	ELS056050PKG	1/4	8.63	40
1026117	CV50EM062775	5/8	1.63	7.75	9.94	ELS056050PKG	1/4	9.48	40
1026250	CV50EM075375	3/4	1.75	3.75	5.94	ELS062050PKG	5/16	7.65	70
1026118	CV50EM075575	3/4	1.75	5.75	7.94	ELS062050PKG	5/16	8.67	70
1026119	CV50EM075775	3/4	1.75	7.75	7.91	ELS062050PKG	5/16	9.81	70
1013405	CV50EM0751000	3/4	1.75	10.00	12.19	ELS062050PKG	5/16	12.25	70
1026023	CV50EM088375	7/8	2.00	3.75	4.19	ELS062050PKG	5/16	7.65	70
1026120	CV50EM088575	7/8	2.00	5.75	4.19	ELS062050PKG	5/16	9.44	70
1026121	CV50EM088775	7/8	2.00	7.75	4.19	ELS062050PKG	5/16	10.85	70
1026044	CV50EM100400	1	2.00	4.00	4.49	ELS075056PKG	3/8	7.94	110
1026287	CV50EM100600	1	2.00	6.00	4.49	ELS075056PKG	3/8	9.39	110

(continued)

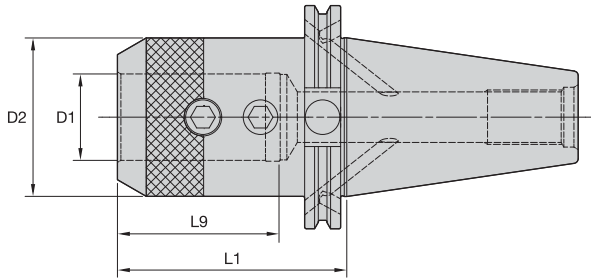
(EM IN-CV Form AD continued)



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	lbs	ft. lbs.
1026122	CV50EM100800	1	2.00	8.00	4.49	ELS075056PKG	3/8	10.82	110
1013406	CV50EM1001000	1	2.00	10.00	4.49	ELS075056PKG	3/8	13.37	110
1026045	CV50EM125400	1 1/4	2.50	4.00	2.39	ELS075062PKG	3/8	8.98	110
1026123	CV50EM125600	1 1/4	2.50	6.00	2.39	ELS075062PKG	3/8	11.42	110
1026288	CV50EM125800	1 1/4	2.50	8.00	2.39	ELS075062PKG	3/8	13.85	110
1013407	CV50EM1251000	1 1/4	2.50	10.00	2.39	ELS075062PKG	3/8	16.28	110
1026284	CV50EM150400	1 1/2	2.75	4.00	2.82	ELS075069PKG	3/8	9.19	110
1026289	CV50EM150600	1 1/2	2.75	6.00	2.82	ELS075069PKG	3/8	12.21	110
1026144	CV50EM150800	1 1/2	2.75	8.00	2.82	ELS075069PKG	3/8	15.25	110
1026046	CV50EM200562	2	3.75	5.62	3.38	ELS100088PKG	1/2	15.96	150
1026145	CV50EM200762	2	3.75	7.62	3.38	ELS100088PKG	1/2	19.01	150
1026290	CV50EM200962	2	3.75	9.62	3.38	ELS100088PKG	1/2	22.08	150

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw.
 Lock screw wrench not included.
 For retention knobs, see page L45.

CAT50 Shank Tools



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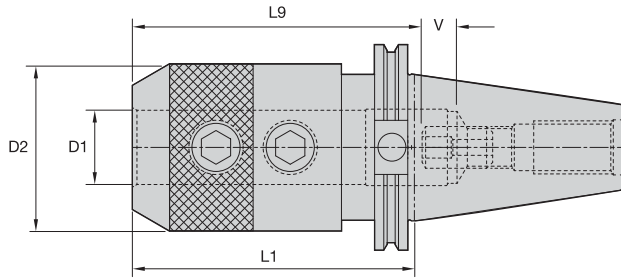
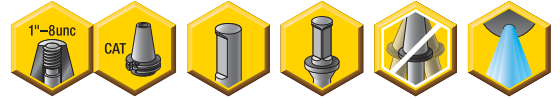
■ EM IN-CV Form B/AD



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	lbs	ft. lbs.
1261776	CV50BEM050462	1/2	1.38	4.62	6.81	ELS044038PKG	7/32	7.53	20
1261777	CV50BEM062375	5/8	1.62	3.75	5.94	ELS056050PKG	1/4	7.48	40
1261778	CV50BEM075375	3/4	1.75	3.75	5.94	ELS062050PKG	5/16	7.62	70
1261779	CV50BEM100400	1	2.00	4.00	4.49	ELS075056PKG	3/8	7.90	110
1261780	CV50BEM125400	1 1/4	2.50	4.00	2.39	ELS075062PKG	3/8	8.94	110
1261781	CV50BEM150400	1 1/2	2.75	4.00	2.82	ELS075069PKG	3/8	9.17	110

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw.
 Lock screw wrench not included.
 For retention knobs, see page L45.

	Form AD					
	Form B			40	(2x) MS2221S	2,5mm
				50	(2x) MS1296S	3mm


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■ SS-CV Form AD • Inch

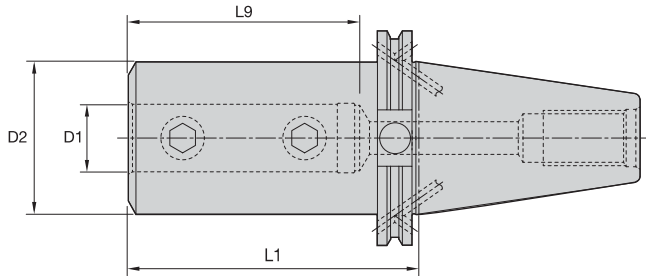
order number	catalog number	D1	D2	L1	L9	V	lbs
1018311	CV50SS100400	1	2.25	4.00	3.75	.63	8.74
1018312	CV50SS100600	1	2.25	6.00	3.75	.63	10.66
1018313	CV50SS100800	1	2.25	8.00	3.75	.63	12.57
1018357	CV50SS150400	1 1/2	2.75	4.00	3.25	1.25	8.83
1018358	CV50SS150600	1 1/2	2.75	6.00	3.25	1.25	11.85
1018359	CV50SS150800	1 1/2	2.75	8.00	3.25	1.25	14.87
1018354	CV50SS125400	1 1/4	2.50	4.00	3.25	1.25	8.80
1018355	CV50SS125600	1 1/4	2.50	6.00	3.25	1.25	11.24
1018356	CV50SS125800	1 1/4	2.50	8.00	3.25	1.25	13.67
1018360	CV50SS175400	1 3/4	3.13	4.00	2.75	1.25	9.51
1018361	CV50SS200562	2	3.69	5.62	3.25	1.25	14.99
1018362	CV50SS200762	2	3.69	7.62	3.25	1.25	20.70
1018425	CV50SS250800	2 1/2	4.00	8.00	4.25	1.25	21.50
1018424	CV50SS225650	2 1/4	4.00	6.50	3.75	1.25	18.64

■ Spare Parts



catalog number	lock screw	wrench size clamp screw	ft. lbs.	stop screw	wrench size stop screw
CV50SS100400	ELS075062PKG	3/8	110	CSS081125	1/8
CV50SS100600	ELS075062PKG	3/8	110	CSS081125	1/8
CV50SS125400	ELS075062PKG	3/8	110	CSS112175PKG	3/16
CV50SS125600	ELS075062PKG	3/8	110	CSS112175PKG	3/16
CV50SS150400	ELS075062PKG	3/8	110	CSS112175PKG	3/16
CV50SS150600	ELS075062PKG	3/8	110	CSS112175PKG	3/16
CV50SS175400	ELS075069PKG	3/8	110	CSS112175PKG	3/16
CV50SS200562	ELS100088PKG	1/2	150	CSS112175PKG	3/16
CV50SS250800	ELS100062	1/2	150	CSS112175PKG	3/16

NOTE: Do not overtighten clamp screw; use torque recommendations above.
 Supplied with clamp screws and stop screw.
 Clamp screw or stop screw wrench not included.
 For retention knobs, see page L45.



CAT50 Shank Tools

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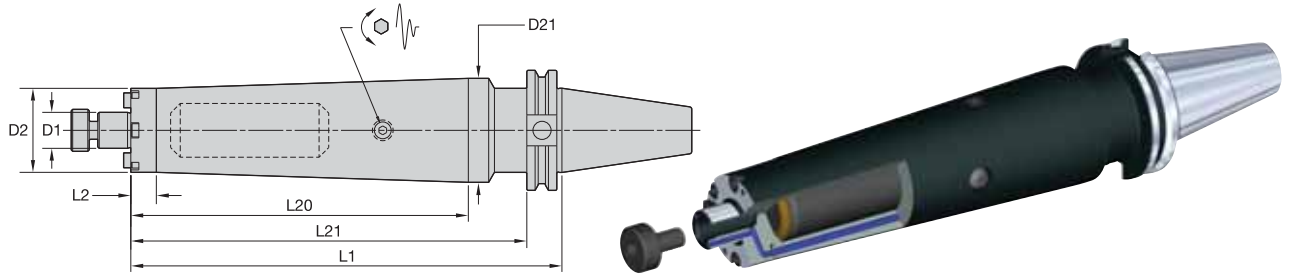
■ SSF IN-CV Form B/AD



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
1749472	CV50BSSF075275	3/4	1.75	2.75	2.25	ELS062050PKG	5/16	70	7.21
1749473	CV50BSSF100400	1	2.00	4.00	3.25	DWG ELS075050	3/8	110	8.05
1749474	CV50BSSF125400	1 1/4	2.50	4.00	3.50	ELS075056PKG	3/8	110	8.86
1749475	CV50BSSF150450	1 1/2	2.75	4.50	4.00	ELS075056PKG	3/8	110	9.67
1749209	CV50BSSF200550	2	3.75	5.50	4.25	ELS100088PKG	1/2	150	15.23

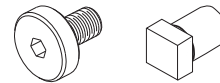
NOTE: Do not overtighten lock screw; use torque recommendations above.
Supplied with lock screw.
Lock screw wrench not included.
For retention knobs, see page L45.

	Form AD				
	Form B				
				40	(2x) MS2221S 2,5mm
				50	(2x) MS1296S 3mm



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■ SMC TD Lock IN-CV Form A



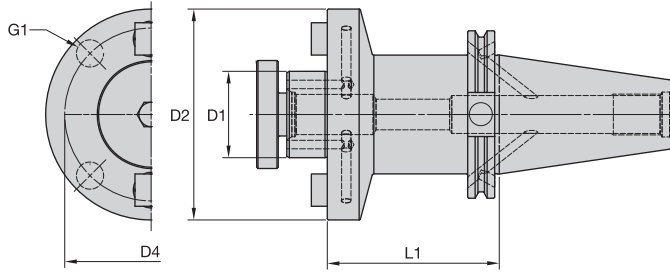
order number	catalog number	D1	D2	D21	L1	L2	L20	L21	lock screw	drive key	wrench size lock screw	lbs
4136189	CV50BTDSMC0751050	3/4	1.75	2.75	10.50	.53	9.09	9.75	KLS07	KDK05	1/4	16.53
4136190	CV50BTDSMC1001250	1	2.75	—	12.50	11.75	—	—	KLS10	KDK06	5/16	24.62
4136191	CV50BTDSMC1251300	1 1/4	2.88	—	13.00	12.25	—	—	KLS12	KDK08	5/16	31.97

NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive keys.
 Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
 Lock screw wrench not included.
 For retention knobs, see page L45.

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

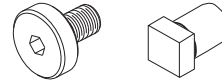
CAT50 Shank Tools

Shell Mill Adapters with Through Coolant



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■ SMC Lock IN-CV Form B/AD

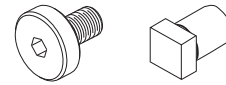


CAT50 Shank Tools

order number	catalog number	D1	D2	D4	G1	L1	lock screw	drive key	wrench size retention screw	lbs
3640130	CV50BSM2C050150	1/2	1.20	—	—	1.50	KLS05	KDK04	3/16	6.80
3640132	CV50BSM2C050350	1/2	1.20	—	—	3.50	KLS05	KDK04	3/16	7.10
3640194	CV50BSM2C050550	1/2	1.20	—	—	5.50	KLS05	KDK04	3/16	7.64
3640129	CV50BSMC050150	1/2	1.44	—	—	1.50	KLS05	KDK04	3/16	6.81
3640131	CV50BSMC050350	1/2	1.44	—	—	3.50	KLS05	KDK04	3/16	7.39
3640193	CV50BSMC050550	1/2	1.44	—	—	5.50	KLS05	KDK04	3/16	8.21
3640196	CV50BSM2C075150	3/4	1.46	—	—	1.50	KLS07	—	1/4	6.80
3640198	CV50BSM2C075350	3/4	1.46	—	—	3.50	KLS07	—	1/4	7.41
3640200	CV50BSM2C075550	3/4	1.46	—	—	5.50	KLS07	—	1/4	8.17
3640195	CV50BSMC075150	3/4	1.75	—	—	1.50	KLS07	KDK05	1/4	6.94
3640197	CV50BSMC075350	3/4	1.75	—	—	3.50	KLS07	KDK05	1/4	7.85
3640199	CV50BSMC075550	3/4	1.75	—	—	5.50	KLS07	KDK05	1/4	9.04
3640201	CV50BSMC075700	3/4	1.75	—	—	7.00	KLS07	KDK05	1/4	10.51
3640202	CV50BSMC075900	3/4	1.75	—	—	9.00	KLS07	KDK05	1/4	12.39
3640204	CV50BSM2C100200	1	2.19	—	—	2.00	KLS10	KDK06	5/16	7.26
3640206	CV50BSM2C100400	1	2.19	—	—	4.00	KLS10	KDK06	5/16	9.12
3640208	CV50BSM2C100600	1	2.19	—	—	6.00	KLS10	KDK06	5/16	10.98
3640203	CV50BSMC100200	1	2.75	—	—	2.00	KLS10	KDK06	5/16	7.63
3640205	CV50BSMC100400	1	2.75	—	—	4.00	KLS10	KDK06	5/16	10.72
3640207	CV50BSMC100600	1	2.75	—	—	6.00	KLS10	KDK06	5/16	13.81
3640209	CV50BSMC100800	1	2.75	—	—	8.00	KLS10	KDK06	5/16	16.89
3640210	CV50BSMC1001000	1	2.75	—	—	10.00	KLS10	KDK06	5/16	19.98
3640211	CV50BSMC125150	1 1/4	2.75	—	—	1.50	KLS12	KDK08	5/16	7.10
3640212	CV50BSMC125350	1 1/4	2.88	—	—	3.50	KLS12	KDK08	5/16	10.24
3640213	CV50BSMC125550	1 1/4	2.88	—	—	5.50	KLS12	KDK08	5/16	13.27
3640214	CV50BSMC125700	1 1/4	2.88	—	—	7.00	KLS12	KDK08	5/16	15.22
3640215	CV50BSMC125900	1 1/4	2.88	—	—	9.00	KLS12	KDK08	5/16	18.57
3640216	CV50BSMC150240	1 1/2	3.81	—	—	2.40	KLS15	KDK10	3/8	9.88
3640217	CV50BSMC150400	1 1/2	3.81	—	—	4.00	KLS15	KDK10	3/8	12.53
3640218	CV50BSMC150600	1 1/2	3.81	—	—	6.00	KLS15	KDK10	3/8	15.72
3640219	CV50BSMC150800	1 1/2	3.81	—	—	8.00	KLS15	KDK10	3/8	18.90
3640220	CV50BSMC200240	2	4.88	4.00	5/8-11 UNC	2.40	KLS20	KDK12	9/16	11.95

(continued)

(SMC Lock IN-CV Form B/AD continued)

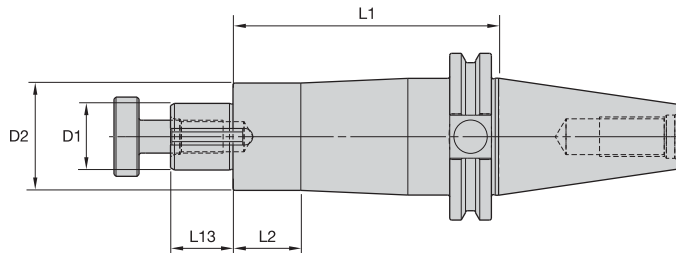


order number	catalog number	D1	D2	D4	G1	L1	lock screw	drive key	wrench size retention screw	lbs
3640221	CV50BSMC200400	2	4.88	4.00	5/8-11 UNC	4.00	KLS20	KDK12	9/16	14.94
3640222	CV50BSMC200600	2	4.88	4.00	5/8-11 UNC	6.00	KLS20	KDK12	9/16	18.18
3640223	CV50BSMC200800	2	4.88	4.00	5/8-11 UNC	8.00	KLS20	KDK12	9/16	21.43
3640224	CV50BSMC250240	2 1/2	4.88	4.00	5/8-11 UNC	2.40	—	KDK16	—	12.87
3640225	CV50BSMC250400	2 1/2	4.88	4.00	5/8-11 UNC	4.00	—	KDK16	—	15.80

NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive keys.
 Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
 Lock screw wrench not included.
 For retention knob, see page L45.

Form AD	✓				
			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

CAT50 Shank Tools



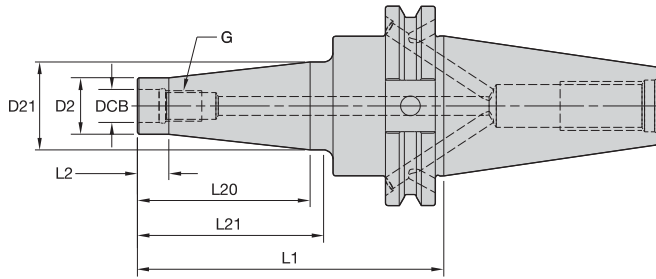
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SA IN-CV Form A



order number	catalog number	D1	D2	L1	L2	L13	lock screw	wrench size lock screw	drive key	lbs
1261878	CV50SA062400	5/8	1.25	4.00	2.63	.78	KLS07	1/4	DWG SDK062088	7.96
1026217	CV50SA100400	1	1.56	4.00	2.63	.94	KLS10	5/16	DWG SDK100106	8.59
2461123	CV50SA100600	1	1.56	6.00	.87	.94	KLS10	5/16	DWG SDK100106	11.60
2461124	CV50SA125400	1 1/4	1.88	4.00	2.63	1.09	KLS12	5/16	DWG SDK125119	9.56
1026218	CV50SA125600	1 1/4	1.88	6.00	1.06	1.09	KLS12	5/16	DWG SDK125119	12.60
2461125	CV50SA150400	1 1/2	2.00	4.00	2.63	1.70	KLS15	3/8	DWG SDK150175	10.35
1026223	CV50SA150600	1 1/2	2.00	6.00	1.06	1.70	KLS15	3/8	DWG SDK150175	13.44
1026244	CV50SA200600	2	2.75	6.00	5.25	1.70	KLS20	9/16	SDK200169	16.67

NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive key.
 Lock screw wrench not included.
 For retention knobs, see page L45.



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■ ST-CV Form B/AD

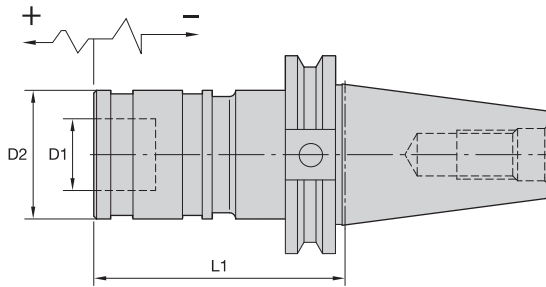
CAT50 Shank Tools

order number	catalog number	DCB	G	D2	D21	L1	L2	L20	L21	lbs
4073648	CV50BST12M343	.5	M12	.83	.94	3.43	.39	1.77	1.83	7.06
4073649	CV50BST12M539	.5	M12	.83	1.22	5.39	.39	3.54	3.75	7.62
4073650	CV50BST12M736	.5	M12	.83	1.54	7.36	.39	5.71	5.72	8.51
4073651	CV50BST16M343	.7	M16	1.14	1.34	3.43	.39	1.77	1.79	7.35
4073652	CV50BST16M539	.7	M16	1.14	1.54	5.39	.39	3.54	3.75	8.23
4073653	CV50BST16M739	.7	M16	1.14	1.54	7.36	.39	5.51	5.72	8.98
4073654	CV50BST16M933	.7	M16	1.14	1.93	9.33	.39	7.48	7.69	10.81

NOTE: For retention knobs, see page L45.

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

- Rapid Change style.



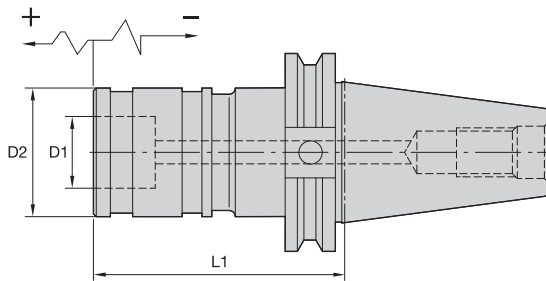
ERICKSON

■ RC-CV Form A

order number	catalog number	adapter size	tap size		D1	D2	L1	lbs
			mm	in				
1615981	CV50TCRC1297	1	M1 - M14	#0 - 9/16	.75	1.42	2.96	7.22
1615982	CV50TCRC2393	2	M5 - M24	5/16 - 7/8	1.22	2.09	3.86	8.00
1615983	CV50TCRC3516	3	M14 - M27	13/16 - 1 3/8	1.89	3.07	5.16	9.60

NOTE: Quick-change tap adapters are available and must be ordered separately; see page J76.
For retention knobs, see page L45.

- Rapid Change style.
- High-pressure coolant capability through the chuck.

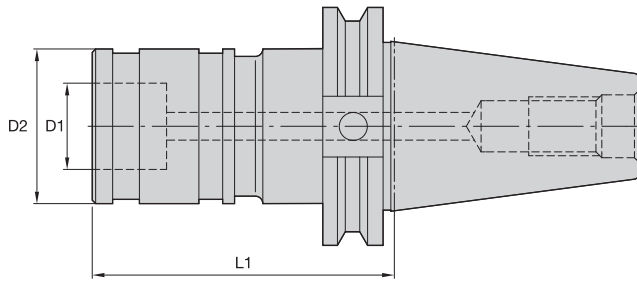


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■ RC Coolant-CV Form AD

order number	catalog number	adapter size	tap size		D1	D2	L1	lbs
			mm	in				
1615989	CV50HTCRC1382	1	M1 - M14	#0 - 9/16	.75	1.42	3.82	7.70
1615990	CV50HTCRC2524	2	M5 - M24	5/16 - 7/8	1.22	2.09	5.23	10.30
1616001	CV50HTCRC3717	3	M14 - M27	13/16 - 1 3/8	1.89	3.07	7.17	16.30

NOTE: Quick-change tap adapters are available and must be ordered separately; see page J76.
For retention knobs, see page L45.



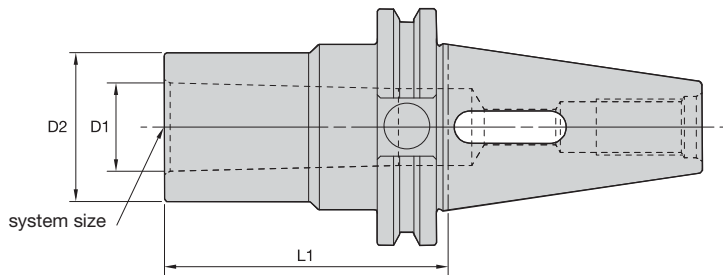
ERICKSON

STRC-CV Form AD

order number	catalog number	adapter size	tap size		D1	D2	L1	lbs
			mm	in				
1615973	CV50CSTRC1290	1	M1 - M14	#0 - 9/16	.75	1.26	3	7.20
1615974	CV50CSTRC2350	2	M5 - M24	5/16 - 7/8	1.22	1.97	4	8.00
1615976	CV50CSTRC3481	3	M14 - M27	13/16 - 1 3/8	1.89	2.81	5	10.60

NOTE: Quick-change tap adapters are available and must be ordered separately; see page J76.
For retention knobs, see page L45.

CAT50 Shank Tools

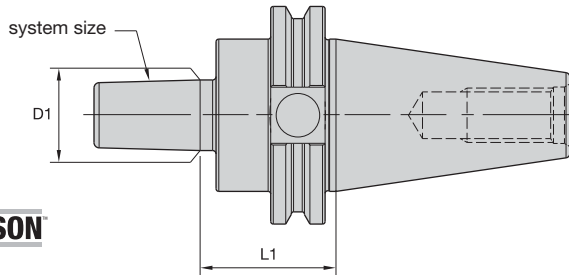


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MT-CV Form A

order number	catalog number	system size	D1	D2	L1	lbs
1026050	CV50MT2200	2	.70	2.75	2.00	7.43
1026051	CV50MT3250	3	.94	1.57	2.50	6.73
1026052	CV50MT4338	4	1.23	1.89	3.38	6.90
1026091	CV50MT5375	5	1.75	2.75	3.75	7.55

NOTE: For retention knobs, see page L45.



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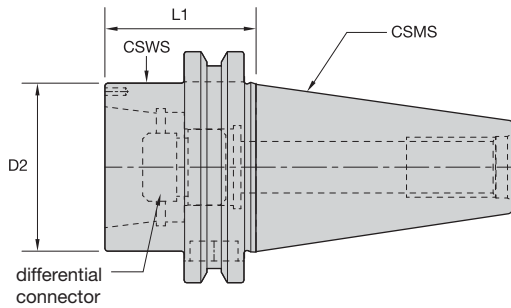
■ JT-CV Form A



order number	catalog number	system size	D1	L1	lbs
1026379	CV50JT3268	3	.81	1.46	6.97

NOTE: For retention knobs, see page L45.

• Differential connector included.



■ CV to KR Adapters B/AD • Metric

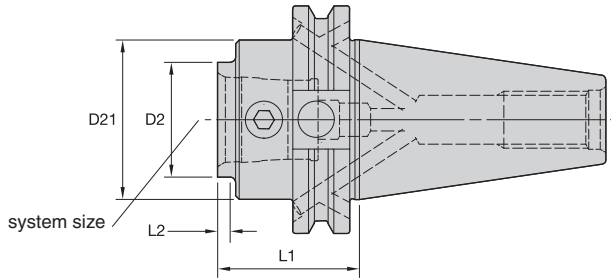
order number	catalog number	CSMS system size	CSWS system size	D2	L1	differential connector	kg	reference head
3554368	CV50BKR32157	CV50	KR32	50	40	KRDCKR32M	3,25	SVS00B,0B,1B,2B,3B,SVUBB1,BB2
3554369	CV50BKR50157	CV50	KR50	65	40	KRDCKR50M	3,05	SVS4B,5B,SVU65,SVUBB2
3554370	CV50BKR63236	CV50	KR63	85	60	KRDCKR63M	3,50	SVS6B,7B,8B
3554371	CV50BKR80275	CV50	KR80	95	70	KRDCKR80M	4,28	SVU92,120

■ CV to KR Adapters B/AD • Inch

order number	catalog number	CSMS system size	CSWS system size	D2	L1	differential connector	lbs	reference head
3554368	CV50BKR32157	CV50	KR32	1.97	1.571	KRDCKR32M	7.20	SVS00B,0B,1B,2B,3B,SVUBB1,BB2
3554369	CV50BKR50157	CV50	KR50	2.56	1.571	KRDCKR50M	6.70	SVS4B,5B,SVU65,SVUBB2
3554370	CV50BKR63236	CV50	KR63	3.35	2.358	KRDCKR63M	7.70	SVS6B,7B,8B
3554371	CV50BKR80275	CV50	KR80	3.74	2.752	KRDCKR80M	9.40	SVU92,120

NOTE: For more information on Romicon boring systems, see the Kennametal Innovations Master Catalog Cutting Tools 2013.

Form AD	Form B	40	50
		(2x) MS2221S	2,5mm
		(2x) MS1296S	3mm



CAT50 Shank Tools

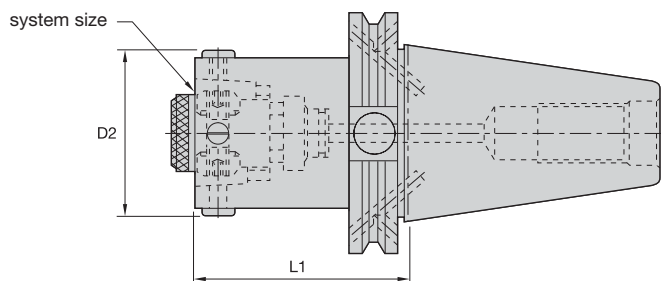
■ KM-CV Form B/AD



order number	catalog number	system size	D2	D21	L1	L2	KM spare parts package	wrench size actuation screw	ft. lbs.	lbs
2992484	CV50BKM32157	KM32	1.26	2.75	1.58	.12	KM32PKG3L	5mm	6	6.60
2992485	CV50BKM32354	KM32	1.26	2.75	3.54	1.89	KM32PKG3S	5mm	6	7.10
2992486	CV50BKM40157	KM40	1.57	2.75	1.58	.12	KM40PKG3L	6mm	9	6.61
2992487	CV50BKM40394	KM40	1.57	2.75	3.94	2.28	KM40PKG3S	6mm	9	7.63
2992488	CV50BKM50236	KM50	1.97	2.75	2.36	.16	KM50PKG3L	10mm	20	7.59
2992489	CV50BKM50472	KM50	1.97	2.75	4.72	3.07	KM50PKG3S	10mm	20	8.83
2992490	CV50BKM50630	KM50	1.97	2.75	6.30	4.65	KM50PKG3S	10mm	20	9.95
2992491	CV50BKM63236	KM63	2.48	2.75	2.36	.20	KM63PKG3L	12mm	35	7.39
2992492	CV50BKM63551	KM63	2.48	2.75	5.51	4.06	KM63PKG3S	12mm	35	11.04
2992493	CV50BKM63709	KM63	2.48	2.75	7.09	5.63	KM63PKG3S	12mm	35	13.12
2992494	CV50BKM80319	KM80	3.15	—	3.19	—	KM80PKG3S	14mm	58	9.04

NOTE: These products only available in the U.S., Canada, and Japan.
Do not overtorque actuation screw; use torque recommendations above.
Supplied with KM actuation mechanism.
For retention knobs, see page L45.

	Form AD					
	Form B					
				40	(2x) MS2221S	2,5mm
				50	(2x) MS1296S	3mm



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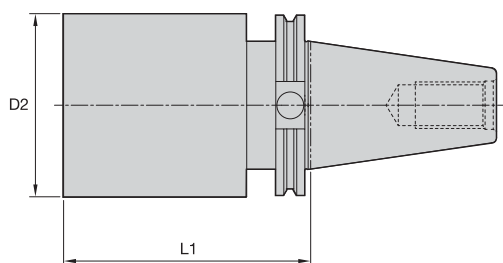
■ HSK-CV Form B/AD

order number	catalog number	system size	D2	L1	wrench size actuation screw	ft. lbs.	lbs
1533058	CV50BHSK50197	HSK50	2.17	1.97	4mm	11	6.39
1533059	CV50BHSK63236	HSK63	2.76	2.36	5mm	15	6.83

NOTE: Do not overtorque actuation screw; use torque recommendations above.
 Supplied with actuation mechanism and sealing ring.
 For retention knobs, see page L45.

	Form AD						
	Form B					40	(2x) MS2221S 2,5mm
						50	(2x) MS1296S 3mm

- Machinable front 20–30 HRC.



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■ BB-CV Form A

order number	catalog number	D2	L1	lbs
1065951	CV50BB400120	4.00	12.00	44.56
1020558	CV50BB400600	4.00	6.00	23.23
1020560	CV50BB600120	6.00	12.00	91.40
1020559	CV50BB600600	6.00	6.00	43.50

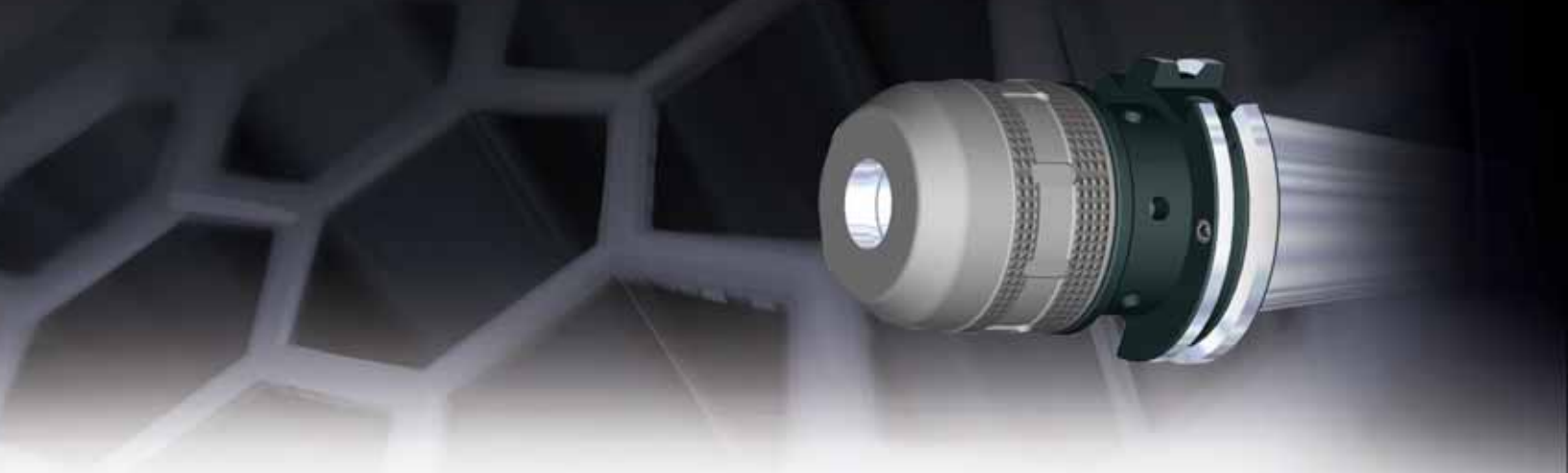
NOTE: For retention knobs, see page L45.



DV Shank Tools

DV40 .....	.G2-G41
DV50 .....	.G42-G77





ERICKSON™ DV V-Flange Shank Tooling System • DV40 Series

Primary Application

ERICKSON V-Flange DV Taper Tooling is manufactured from premium materials and meets or exceeds the latest DIN 69871 specification and ISO-1947 taper accuracy of AT3 specification standards. The DV40 tools are either pre-balanced to a high specification or balanced-by-design. For high speed applications Kennametal recommends that the complete toolholder assembly (toolholder, retention knobs, collets, hardware, and cutting tools) be balanced as one entity. Exact RPM limits can only be determined by considering machine and spindle configurations in conjunction with tooling design and safety limits factored as a complete system.



DV DIN 69871 Form B/AD Shank

NOTE: Inherent out-of-balance conditions due to notch and unequal depth of drive slots.

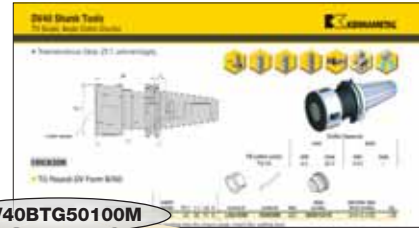


Features and Benefits

- DIN 69871 7/24 taper.
- Standard M16 metric drawbar thread.
- Taper accuracy of AT3 specification or better.
- All tools set to form AD coolant specification. Many can be converted to form B style.
- Maximum 100 bar (1,500 psi) coolant pressure.

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



DV40BTG50100M

DV	40	B	TG	50	100	M
Shank Style	Shank Taper Size	Special Feature (optional)	Toolholder Style	Toolholder Size	Tool Length	Identification Values
<p>DIN 69871</p>	<p>40 = 40 50 = 50</p>	<p>B = DIN form B coolant feature, tool shipped to AD specifications (design allows conversion to form B style)</p> <p>(blank) = (no "B" or "Z") — tool built to DIN form A/AD coolant style</p> <p>CH = Coolant form AD — high pressure</p> <p>HPV = High performance and balanceable</p> <p>TD = Tunable</p>			<p>(Taper gage line to front of tool)</p> <p>metric xxx = xxx</p> <p>inch xxx = x.xx</p>	

BB = Bar blank	SM2C = Shell mill adapter with coolant and small diameter
DA = Double-angle collet chuck	SMC = Shell mill adapter with coolant
DC = Drill chuck	SS = Adapter for straight shanks (drills)
EM = End mill adapter	SSF = Adapter for straight shanks with flat (drills)
ER = DIN 6499 single-angle collet chuck	ST = Screw-on adapters
HC = Hydraulic chuck — Standard Line	STRC = Rapid Change — solid tapping adapter chuck
HCB = Hydraulic chuck — Basic Line	SWN = Whistle Notch™ 2° — short — (not to DIN standard)
HCSL = Hydraulic chuck — Slim Line	TA = Tap chuck adapter
HCSLT = Hydraulic chuck — Slim Line — Trend	TCRC = Rapid Change — T&C tapping adapter chuck
HCT = Hydraulic chuck — Trend Line	TG = Tremendous Grip single-angle collet chuck
HPMC = Bearing milling chuck — high performance	TGF = Tremendous Grip single-angle collet chuck — flush face
HSK = HSK adapter	TT = Shrink Fit thermo toolholder
JT = Jacobs taper adapter	TTHT = Shrink Fit thermo toolholder — high torque
KM = KM™ adapter	WD = Whistle Notch with drive
MT = Morse taper adapter	WN = Whistle Notch (2° metric; 5° inch)
RC = Rapid Change — T&C tapping adapter chuck	
SA = Slotting cutter adapter	
SER = DIN 6499 single-angle collet chuck — short with internal locknut	
SFTT = SAFE-LOCK™ Shrink Fit Thermo Toolholder	

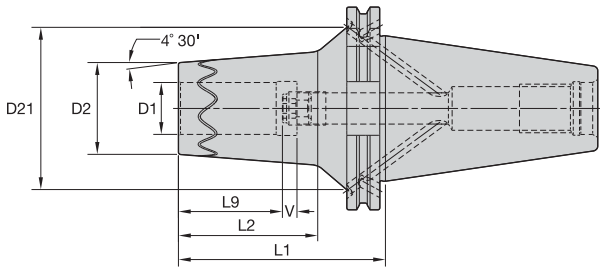
M =
Tool built to metric values and has metric retention thread

TG =
Collet series xx (50), xxx (100)

EM =
I.D. size: metric — xx = xx, (20);
inch — xxx = x.xx, (075)

SM =
O.D. size: metric — xx = xx, (20);
inch — xxx = x.xx, (075)

- SAFE-LOCK™, innovative and unique non-slip system.
- Suitable for carbide and HSS cutting tools.
- Need ≥ 10 kW shrink unit.



ERICKSON

■ TT SF HPV MM-DV FORM B/AD

Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

order number	catalog number	D1	D2	D21	L1	L2	L9	V	kg
5129969	DV40BSFTT12065M	12	27	34	65	46	37	10	1,00
5129970	DV40BSFTT14065M	14	30	37	65	46	37	10	1,04
5090239	DV40BSFTT16065M	16	30	37	65	46	40	10	1,01
5090260	DV40BSFTT18065M	18	36	43	65	46	40	10	1,10
5090261	DV40BSFTT20065M	20	36	43	65	46	42	10	1,07
5090262	DV40BSFTT25075M	25	46	52	75	56	48	10	1,35
5090263	DV40BSFTT32080M	32	46	53	80	61	48	10	1,27

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.
Shrink Fit technical section, see page M78.
Shrink Fit accessories, see pages L12–L13.
HSK coolant unit and wrench are available and must be ordered separately; see page L44.

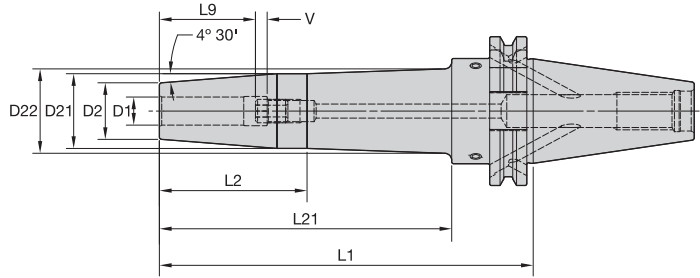
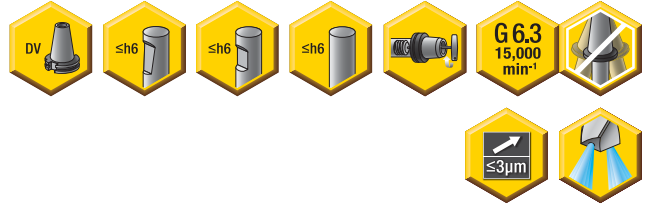
			40	(2x) SFV40	1,5mm
			50	(2x) SFV50	1,5mm

DV40 Shank Tools

Shrink Fit Toolholders General Purpose (GP)



- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide and HSS cutting tools (requirements below).



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
6	h6	0,000/-0,008
8 & 10	h6	0,000/-0,009
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

ERICKSON™

■ TT GP HPV MM-DV Form B/AD



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	kg
3790097	DV40BHPVTT06080M	6	21	27	—	80	61	—	26	10	TTSS05014M	2,5mm	0,99
3790098	DV40BHPVTT06120M	6	21	27	—	120	85	—	26	10	TTSS05014M	2,5mm	1,28
3790099	DV40BHPVTT06160M	6	21	27	32	160	50	125	26	10	TTSS05014M	2,5mm	1,52
3790100	DV40BHPVTT08080M	8	21	27	—	80	61	—	26	10	TTSS06014M	3mm	0,99
3790101	DV40BHPVTT08120M	8	21	27	—	120	85	—	26	10	TTSS06014M	3mm	1,28
3790102	DV40BHPVTT08160M	8	21	27	32	160	50	125	26	10	TTSS06014M	3mm	1,52
3790203	DV40BHPVTT10080M	10	24	32	—	80	61	—	31	10	TTSS08014M	4mm	1,05
3790204	DV40BHPVTT10120M	10	24	32	—	120	85	—	31	10	TTSS08014M	4mm	1,38
3790205	DV40BHPVTT10160M	10	24	32	36	160	63	125	31	10	TTSS08014M	4mm	1,68
3617617	DV40BHPVTT12080M	12	24	32	—	80	61	—	36	10	TTSS10014M	5mm	1,03
3617642	DV40BHPVTT12120M	12	24	32	—	120	85	—	36	10	TTSS10014M	5mm	1,37
3617643	DV40BHPVTT12160M	12	24	32	36	160	63	125	36	10	TTSS10014M	5mm	1,66
3617644	DV40BHPVTT14080M	14	27	34	—	80	61	—	36	10	TTSS10014M	5mm	1,08
3617645	DV40BHPVTT14120M	14	27	34	—	120	85	—	36	10	TTSS10014M	5mm	1,43

(continued)

(TT GP HPV continued)



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	kg
3617646	DV40BHPVTT14160M	14	27	34	38	160	63	125	36	10	TTSS10014M	5mm	1,76
3617647	DV40BHPVTT16080M	16	27	34	—	80	61	—	39	10	TTSS12014M	6mm	1,05
3617648	DV40BHPVTT16120M	16	27	34	—	120	85	—	39	10	TTSS12014M	6mm	1,40
3617649	DV40BHPVTT16160M	16	27	34	38	160	63	125	39	10	TTSS12014M	6mm	1,73
3617650	DV40BHPVTT18080M	18	33	41	—	80	61	—	39	10	TTSS12014M	6mm	1,19
3617651	DV40BHPVTT18120M	18	33	42	—	120	85	—	39	10	TTSS12014M	6mm	1,63
3617652	DV40BHPVTT18160M	18	33	42	—	160	125	—	39	10	TTSS12014M	6mm	2,05
3617653	DV40BHPVTT20080M	20	33	41	—	80	61	—	41	10	TTSS16014M	8mm	1,16
3617654	DV40BHPVTT20120M	20	33	42	—	120	85	—	41	10	TTSS16014M	8mm	1,59
3617655	DV40BHPVTT20160M	20	33	42	—	160	125	—	41	10	TTSS16014M	8mm	2,00
3617656	DV40BHPVTT25100M	25	44	53	—	100	81	—	47	10	TTSS16014M	8mm	1,65
3617657	DV40BHPVTT25160M	25	44	53	—	160	141	—	47	10	TTSS16014M	8mm	2,65
3617658	DV40BHPVTT32100M	32	44	53	—	100	81	—	51	10	TTSS16014M	8mm	1,49
3617659	DV40BHPVTT32160M	32	44	53	—	160	141	—	51	10	TTSS16014M	8mm	2,48

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.
 Shrink Fit technical section, see page M78.
 Supplied with stop screw.
 Adjusting stop screw gage, see page M81.
 Optional M6~1.0P x 5mm lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.
 For retention knobs, see page L45.

DV40 Shank Tools

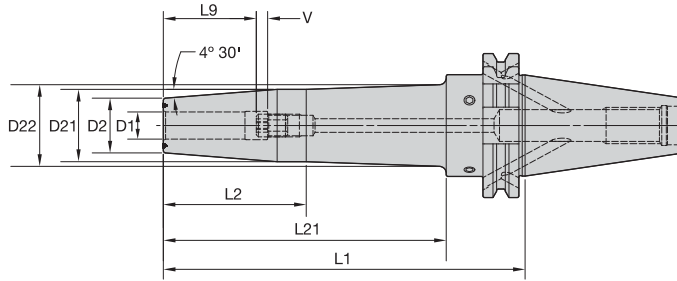
	Form AD				
	Form B			40	(2x) MS2221S
				50	(2x) MS1296S
					2,5mm
					3mm

DV40 Shank Tools

Shrink Fit Toolholders High Torque (HT)



- 30–50% higher clamping torque compared to GP line.
- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide only, designated by groove in front face (requirements below).
- 10 kW power or greater Shrink Fit device must be used.



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

ERICKSON

■ TT HT HPV MM-DV Form B/AD



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	kg
3617591	DV40BHPVTTH12080M	12	24	32	—	80	61	—	36	10	TTSS10014M	5mm	1,03
3617592	DV40BHPVTTH12120M	12	24	32	—	120	85	—	36	10	TTSS10014M	5mm	1,37
3617605	DV40BHPVTTH12160M	12	24	32	36	160	63	125	36	10	TTSS10014M	5mm	1,66
3617606	DV40BHPVTTH14080M	14	27	34	—	80	61	—	36	10	TTSS10014M	5mm	1,08
3617607	DV40BHPVTTH14120M	14	27	34	—	120	85	—	36	10	TTSS10014M	5mm	1,43
3617608	DV40BHPVTTH14160M	14	27	34	38	160	63	125	36	10	TTSS10014M	5mm	1,76
3617609	DV40BHPVTTH16080M	16	27	34	—	80	61	—	39	10	TTSS12014M	6mm	1,05
3617610	DV40BHPVTTH16120M	16	27	34	—	120	85	—	39	10	TTSS12014M	6mm	1,40
3617611	DV40BHPVTTH16160M	16	27	34	38	160	63	125	39	10	TTSS12014M	6mm	1,73
3617612	DV40BHPVTTH18080M	18	33	41	—	80	61	—	39	10	TTSS12014M	6mm	1,19
3617613	DV40BHPVTTH18120M	18	33	42	—	120	85	—	39	10	TTSS12014M	6mm	1,63
3617614	DV40BHPVTTH18160M	18	33	42	—	160	125	—	39	10	TTSS12014M	6mm	2,05
3617615	DV40BHPVTTH20080M	20	33	41	—	80	61	—	41	10	TTSS16014M	8mm	1,16
3617616	DV40BHPVTTH20120M	20	33	42	—	120	85	—	41	10	TTSS16014M	8mm	1,59

(continued)

DV40 Shank Tools

(TT HT HPV continued)



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	kg
3617618	DV40BHPVTTHT20160M	20	33	42	—	160	125	—	41	10	TTSS16014M	8mm	2,00
3617619	DV40BHPVTTHT25100M	25	44	53	—	100	81	—	47	10	TTSS16014M	8mm	1,65
3617620	DV40BHPVTTHT25160M	25	44	53	—	160	141	—	47	10	TTSS16014M	8mm	2,65
3617621	DV40BHPVTTHT32100M	32	44	53	—	100	81	—	51	10	TTSS16014M	8mm	1,49
3617622	DV40BHPVTTHT32160M	32	44	53	—	160	141	—	51	10	TTSS16014M	8mm	2,48

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Shrink Fit technical section, see page M78.

Supplied with stop screw.

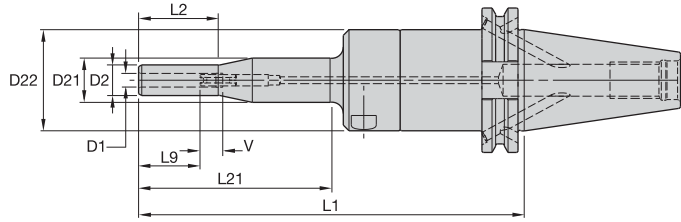
Adjusting stop screw gage, see page M81.

Optional M6~1.0P x 5mm lg fine-balancing screw set (10 pieces) is available. Order number is MS1276PKG and must be ordered separately.

For retention knobs, see page L45.



<p>Form AD</p>					
<p>Form B</p>			<p>40</p>	<p>(2x) MS2221S</p>	<p>2,5mm</p>
			<p>50</p>	<p>(2x) MS1296S</p>	<p>3mm</p>



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■ HC Slim-T MM-DV Form B/AD

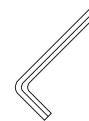
Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
12, 14, 16, & 18	h6	0,000/-0,011
20	h6	0,000/-0,013

DV40 Shank Tools

order number	catalog number	D1	D2	D21	D22	L1	L2	L9	L21	V	kg
3019233	DV40BHCSLT06170M	6	13,5	19,5	44,5	170	35	27	85	10	1,64
3019234	DV40BHCSLT08170M	8	15,5	19,5	44,5	170	35	27	85	10	1,65
3019235	DV40BHCSLT10170M	10	17,5	44,5	—	170	85	31	151	10	1,64

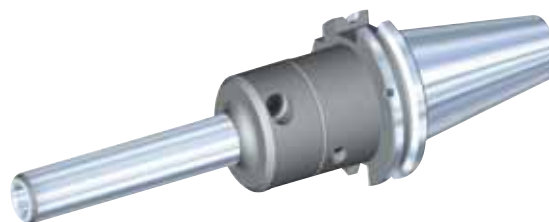
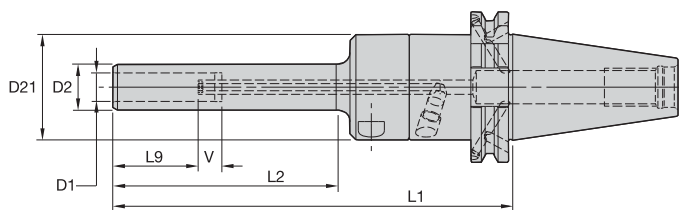
■ Spare Parts



catalog number	actuation wrench	wrench size actuation screw	stop screw wrench	wrench size stop screw
DV40BHCSLT06170M	170.135	5mm	170.002	2,5mm
DV40BHCSLT08170M	170.135	5mm	170.002	2,5mm
DV40BHCSLT10170M	170.135	5mm	170.003	3mm

(continued)

(Slim Line continued)



■ HC Slim MM-DV Form B/AD

order number	catalog number	D1	D2	D21	L1	L2	L9	V	kg
2634535	DV40BHCSL12170M	12	19,5	44,5	170	95	36	10	1,55
2634536	DV40BHCSL14170M	14	21,5	52,5	170	95	36	10	1,78
2634537	DV40BHCSL16170M	16	23,5	52,5	170	95	39	10	1,80
2634538	DV40BHCSL18170M	18	25,5	52,5	170	95	39	10	1,85
2634539	DV40BHCSL20170M	20	27,5	52,5	170	95	41	10	1,89

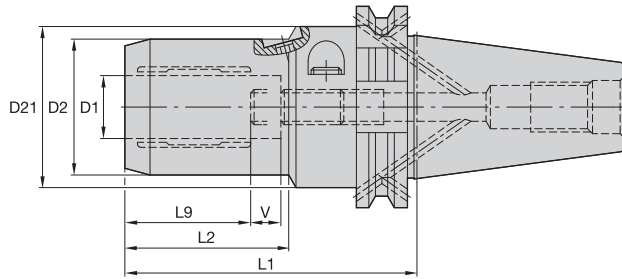
■ Spare Parts



catalog number	actuation wrench	wrench size actuation screw	stop screw wrench	wrench size stop screw
DV40BHCSL12170M	170.135	5mm	170.002	2,5mm
DV40BHCSL14170M	170.135	5mm	170.002	2,5mm
DV40BHCSL16170M	170.135	5mm	170.002	2,5mm
DV40BHCSL18170M	170.135	5mm	170.002	2,5mm
DV40BHCSL20170M	170.135	5mm	170.002	2,5mm

NOTE: Do not overtorque actuation screw. Use supplied wrench and tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw and actuation wrench.
 Unable to use SEFAS™ chamfering rings on this design.
 Reduction sleeves are available and must be ordered separately; see page J2.
 For retention knobs, see page L45.

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
6	h6	0,000/-0,008
8 & 10	h6	0,000/-0,009
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

DV40 Shank Tools

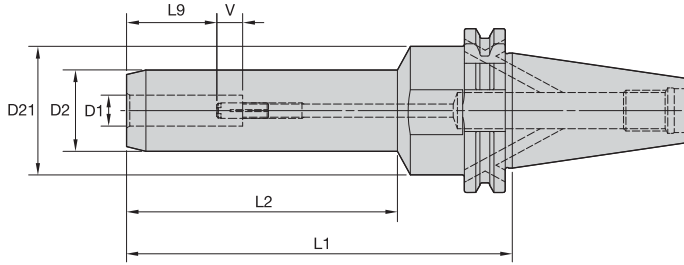
ERICKSON™

■ HC MM-DV Form B/AD

order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	stop screw wrench	wrench size stop screw	kg
1245443	DV40BHC06072M	6	25,7	50	72	33	30	10	170.135	5mm	170.002	2,5mm	1,12
1245444	DV40BHC08072M	8	27,7	50	72	34	30	10	170.135	5mm	170.002	2,5mm	1,13
1245445	DV40BHC10077M	10	29,7	50	77	39	35	10	170.135	5mm	170.002	2,5mm	1,17
1237451	DV40BHC12077M	12	31,6	50	77	40	35	10	170.135	5mm	170.002	2,5mm	1,18
1245446	DV40BHC14082M	14	33,6	50	82	46	40	10	170.135	5mm	170.003	3mm	1,22
1237452	DV40BHC16082M	16	37,6	50	82	47	40	10	170.135	5mm	170.003	3mm	1,28
1245447	DV40BHC18082M	18	39,6	50	82	47	40	10	170.135	5mm	170.003	3mm	1,31
1191013	DV40BHC20082M	20	41,6	50	82	48	40	10	170.135	5mm	170.003	3mm	1,33
1245448	DV40BHC25117M	25	49,8	63	117	51	51	10	170.136	6mm	170.004	4mm	2,16
1245449	DV40BHC32117M	32	59,8	63	117	59	51	10	170.136	6mm	170.004	4mm	2,34

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
Hydraulic chuck technical section, see page M84.
Supplied with stop screw.
Actuation wrench must be ordered separately.
Reduction sleeves are available and must be ordered separately; see page J2.
For retention knobs, see page L45.

	Form AD				
	Form B				
		40	(2x) MS2221S	2,5mm	
		50	(2x) MS1296S	3mm	



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
6	h6	0,000/-0,008
8 & 10	h6	0,000/-0,009
12, 14, 16, & 18	h6	0,000/-0,011
20	h6	0,000/-0,013

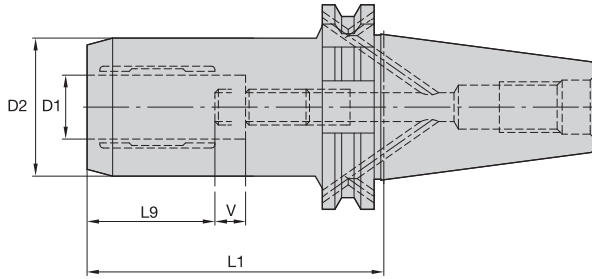
ERICKSON

■ HC Trend In-DV Form B/AD

order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	stop screw wrench	wrench size stop screw	kg
1809973	DV40BHCT06150M	6	26	50	150	105	30	10	170.135	5mm	170.003	3mm	1,50
1809974	DV40BHCT08150M	8	28	50	150	105	30	10	170.135	5mm	170.003	3mm	1,56
1809975	DV40BHCT10150M	10	30	50	150	105	35	10	170.135	5mm	170.003	3mm	1,63
1809976	DV40BHCT12150M	12	32	50	150	105	35	10	170.135	5mm	170.003	3mm	1,69
1809977	DV40BHCT14150M	14	34	50	150	105	40	10	170.135	5mm	170.005	5mm	1,73
1809978	DV40BHCT16150M	16	38	50	150	105	40	10	170.135	5mm	170.005	5mm	1,90
1809979	DV40BHCT18150M	18	40	50	150	105	40	10	170.135	5mm	170.005	5mm	1,98
1809980	DV40BHCT20150M	20	42	50	150	105	40	10	170.135	5mm	170.005	5mm	2,07

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw.
 Actuation wrench must be ordered separately.
 Reduction sleeves are available and must be ordered separately; see page J2.
 For retention knobs, see page L45.

Form AD	✓				
Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



ERICKSON

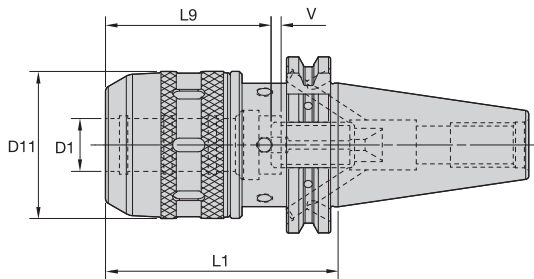
■ HC Basic MM-DV Form B/AD

DV40 Shank Tools

order number	catalog number	D1	D2	L1	L9	V	actuation wrench	wrench size actuation screw	stop screw wrench	wrench size stop screw	kg
1599399	DV40BHCB20082M	20	49,9	82	41	10		5mm	—	5mm	1,57

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
Hydraulic chuck technical section, see page M84.
Supplied with stop screw.
Actuation wrench must be ordered separately.
Reduction sleeves are available and must be ordered separately; see page J2.
For retention knobs, see page L45.

	Form AD					
	Form B			40	(2x) MS2221S	2,5mm
				50	(2x) MS1296S	3mm



ERICKSON

■ HPMC MM-DV Form B/AD

order number	catalog number	D1	D11	L1	L9	V	locknut wrench	stop screw	wrench size stop screw	kg
3523084	DV40BHPMC20085M	20	53	85	44	20	PSW52M	MCSS16040M	2,5mm & 5mm	1,54
3523085	DV40BHPMC20150M	20	53	150	49	20	PSW52M	MCSS16040M	2,5mm & 5mm	2,59
3523086	DV40BHPMC25095M	25	61	95	55	20	PSW58M	MCSS16040M	2,5mm & 5mm	1,91
3523087	DV40BHPMC25150M	25	61	150	55	20	PSW58M	MCSS16040M	2,5mm & 5mm	2,93
3523088	DV40BHPMC32120M	32	70	120	58	20	PSW68M	MCSS16040M	2,5mm & 5mm	2,56
3523089	DV40BHPMC32150M	32	70	150	58	20	PSW68M	MCSS16040M	2,5mm & 5mm	3,27

NOTE: Milling chuck technical section, see page M88.

Supplied with locknut and stop screw.

Locknut wrench not included.

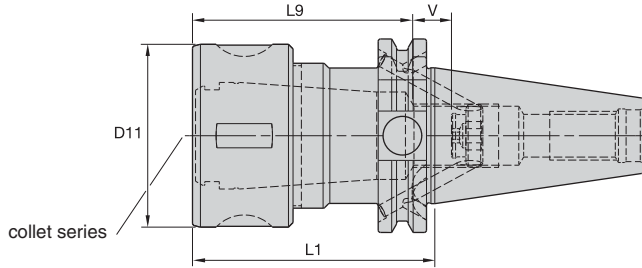
Optional M6~1,0P fine-balancing screw set is available (order number HPMCBALSCREWSET) and must be ordered separately; see page L14.

Reduction sleeves are available and must be ordered separately; see page J6.

For retention knobs, see page L45.

Form AD					
Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

- Tremendous Grip (3:1 advantage).



TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG100	2,6	25,5	5/64	1

ERICKSON™

■ TG Round-DV Form B/AD



order number	catalog number	collet series	D11	L1	L9	V	locknut	wrench	Nm	stop screw	wrench size stop screw	kg
1237204	DV40BTG100080M	DV40	60	80	70	8	LNA100M	HSW58M	203	SS081041G	4mm & 5/32	1,38

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.

Collet chuck technical section, see page M98.

Supplied with locknut and stop screw.

Locknut wrench must be ordered separately.

Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16–L17.

Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.

Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.

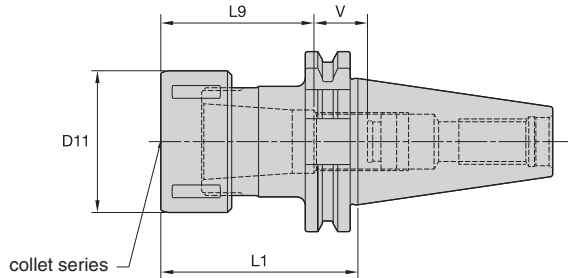
TG standard straight-bore collets, see page J10.

TG tap collets, see page J10.

For retention knobs, see page L45.

Form AD					
Form B					
			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

- Tremendous Grip (3:1 advantage).



TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG75	2,6	20,0	3/64	3/4
TG100	2,6	25,5	5/64	1
TG150	11,6	40,0	23/64	1 1/2

ERICKSON

■ TG Round-DV Form AD



order number	catalog number	collet series	D11	L1	L9	V	locknut	wrench	Nm	stop screw	wrench size stop screw	kg
1191962	DV40TG075070M	TG75	50	70	54	14	LNA075M	HSW45M	136	SS081041G	4mm & 5/32	1,14
1156385	DV40TG100080M	TG100	60	80	70	23	LNA100M	HSW58M	203	SS112041G	4mm & 5/32	1,30
1263986	DV40TG100100M	TG100	60	100	70	43	LNA100M	HSW58M	203	SS112041G	4mm & 5/32	1,49
1191963	DV40TG100150M	TG100	60	150	70	70	LNA100M	HSW58M	203	SS112041G	4mm & 5/32	1,99
1191964	DV40TG150125M	TG150	85	125	86	52	LNA150M	HSW80M	271	SS112041G	4mm & 5/32	2,57

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.

Collet chuck technical section, see page M98.

Supplied with locknut and stop screw.

Locknut wrench must be ordered separately.

Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16–L17.

Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.

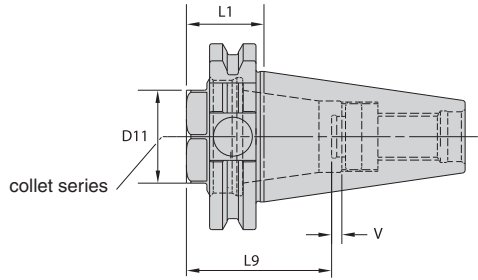
Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.

TG standard straight-bore collets, see page J10.

TG tap collets, see page J10.

For retention knobs, see page L45.

- Grip (2:1 advantage).



ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER32	2,0	20,0	.08	.81

ERICKSON

■ ER Short-DV Form AD



order number	catalog number	collet series	D11	L1	L9	V	locknut	wrench	Nm	stop screw	wrench size stop screw	kg
3479819	DV40SER32027M	ER32	36	27	50	5	LNECSER32M	OEW32M	136	SS094041G	4mm & 5/32	0,60

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.
 For retention knobs, see page L45.



RomiconTM Boring System

Fast

Adjustments can be made in less than 5 seconds, while still holding 0,002mm (.0001") on the diameter!

Accurate

Each click of the dial is 0,001mm (.000040") on the radius and can be done in less than 5 seconds.

This high-performance boring system will give you:

- More uptime.
- Less scrap.
- Longer tool life.
- CPKs greater than 1.33.
- Less stress during adjustments.

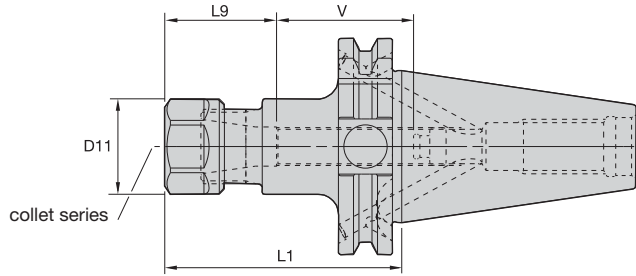
NOTE: For Romicon boring systems, see the Kennametal Innovations Master Catalog Cutting Tools 2013.

Experience the advantages at your Authorized Kennametal Distributor or at www.kennametal.com.

www.kennametal.com

 **KENNAMETAL[®]**

- Grip (2:1 advantage).



ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER16	0,5	10,0	.02	.41
ER25	1,0	16,0	.04	.63
ER32	2,0	20,0	.08	.81
ER40	3,0	26,0	.12	1.00

ERICKSON™

■ ER Hex-DV Form B/AD

order number	catalog number	collet series	D11	L1	L9	V	kg
1770957	DV40BER16070M	ER16	28	70	32	48	0,96
1770958	DV40BER16120M	ER16	28	120	32	48	1,14

■ Spare Parts

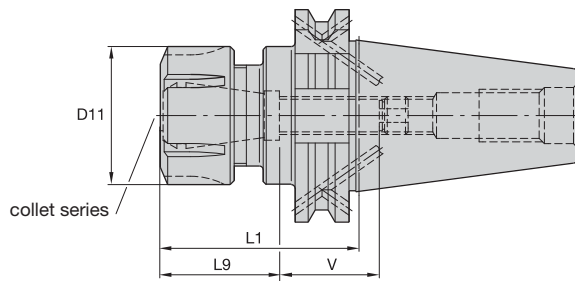


catalog number	locknut	wrench	counterbore collet torque (Nm)	straight collet torque (Nm)	stop screw	wrench size stop screw
DV40BER16070M	LNHSER16M	OEW25M	40	56	SS044038G	4mm & 5/32
DV40BER16120M	LNHSER16M	OEW25M	40	56	SS044038G	4mm & 5/32

(continued)

DV40 Shank Tools

(ER continued)



ER Round-DV Form B/AD

order number	catalog number	collet series	D11	L1	L9	V	kg
1263807	DV40BER25065M	ER25	42	65	40	35	1,04
1263808	DV40BER25120M	ER25	42	120	40	60	1,51
1263809	DV40BER32070M	ER32	50	70	46	33	1,08
1263810	DV40BER32120M	ER32	50	120	46	54	1,55
1263811	DV40BER40080M	ER40	63	80	52	34	1,22
1263812	DV40BER40120M	ER40	63	120	52	48	1,57

Spare Parts



catalog number	locknut	wrench	Nm	stop screw	wrench size stop screw
DV40BER25065M	LNSER25M	ER25WM	104	SS075041G	4mm & 5/32
DV40BER25120M	LNSER25M	ER25WM	104	SS075041G	4mm & 5/32
DV40BER32070M	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32
DV40BER32120M	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32
DV40BER40080M	LNSER40M	ER40WM	176	SS112041G	4mm & 5/32
DV40BER40120M	LNSER40M	ER40WM	176	SS112041G	4mm & 5/32

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.
 For retention knobs, see page L45.

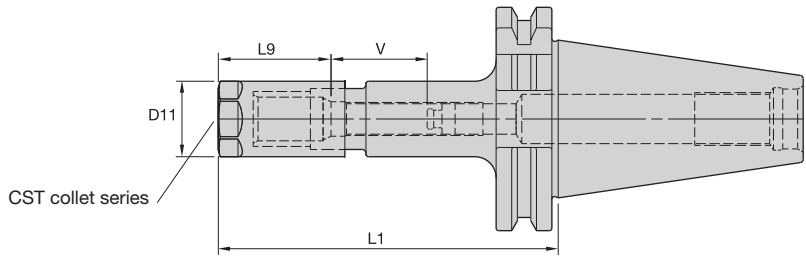
Form AD	✓				
Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

DV40 Shank Tools

DA 04 Series Double-Angle Collet Chucks



- Grip 1:1.
- Balanced-by-design.
- Through-the-toolholder coolant capability — form AD.



DV40 Shank Tools

ERICKSON

■ DA Style 04-DV Form AD • Hex Locknut • Metric

DA 08 collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
DA200	0,2	10	1/64	25/64

order number	catalog number	CST collet series	D11	L1	L9	V	locknut	wrench	Nm	stop screw	wrench size stop screw	Nm	kg
1156381	DV40DA204100M	DA200	21	100	38	30	LNA204M	OEW19M	54	SS038031G	2mm & 5/64	54	1,10
1191927	DV40DA204150M	DA200	21	150	38	30	LNA204M	OEW19M	54	SS038031G	2mm & 5/64	54	1,06

NOTE: Tighten locknut to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 DA standard straight-bore collets, see page J62.
 DA non-pullout collets, see pages J65–J68.
 For retention knobs, see page L45.

High-Performance Solid Carbide End Mills

In High-Performance Cutting (HPC), slow microcreeping can cause the cutting tool to be pulled out of the chuck, **turning high-quality workpieces to scrap.**

Be on the Safe Side with SAFE-LOCK™ in High-Performance Cutting (HPC)



Benefits

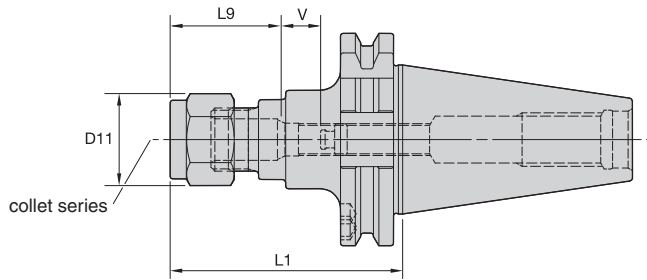
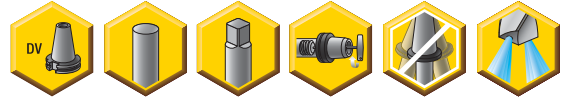
- Highly accurate clamping due to positive connection.
- No loss of accuracy.
- No pull out or spinning of the tool.
- No damage to the workpiece or machine.
- Groove on tool shank is directed so the tool will be pulled into the chuck (depending on direction of rotation).



To learn more, [scan here](#).
For instructions on how to scan, please see page xxxiii.



- Grip 1:1.



DA collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
DA200	0,2	10	1/64	25/64
DA100	1,8	14	1/64	9/16
DA180	2,2	20	1/64	3/4

ERICKSON™

■ DA Hex-DV Form AD

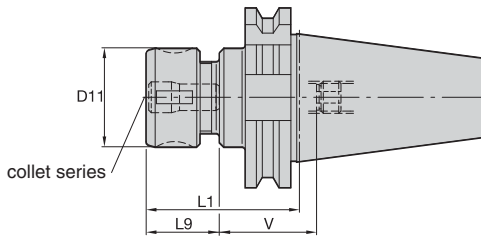
order number	catalog number	collet series	D11	L1	L9	V	lbs
1156382	DV40DA208070M	DA200	1.08	2.76	1.50	1.26	2.11
1191924	DV40DA108070M	DA100	1.44	2.76	1.77	1.58	2.19

■ Spare Parts

catalog number	locknut	locknut wrench	ft. lbs.	stop screw	wrench size stop screw
DV40DA208070M	LNA208M	OEW24M	44	SS038031G	2mm & 5/64
DV40DA108070M	LNA108M	OEW32M	55	SS056041G	4mm & 5/32

(continued)

(DA continued)



■ DA Round-DV Form AD

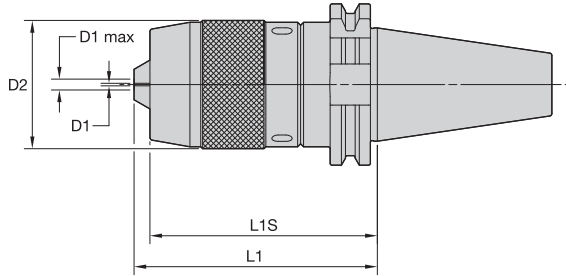
order number	catalog number	collet series	D11	L1	L9	V	lbs
1156380	DV40DA188070M	DA180	1.69	2.76	1.96	.67	2.65
1191925	DV40DA188100M	DA180	1.69	3.94	1.96	1.86	3.09
1191926	DV40DA188150M	DA180	1.69	5.91	1.96	1.86	3.97

■ Spare Parts



catalog number	locknut	locknut wrench	ft. lbs.	stop screw	wrench size stop screw
DV40DA188070M	LNA188M	HSW45M	100	SS081041G	4mm & 5/32
DV40DA188100M	LNA188M	HSW45M	100	SS081041G	4mm & 5/32
DV40DA188150M	LNA188M	HSW45M	100	SS081041G	4mm & 5/32

NOTE: For retention, tighten locknut to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Stop screw coolant caps are available and must be ordered separately; see pages L34-L35.
 DA standard straight-bore collets, see page J62.
 DA non-pullout collets, see pages J65-J68.



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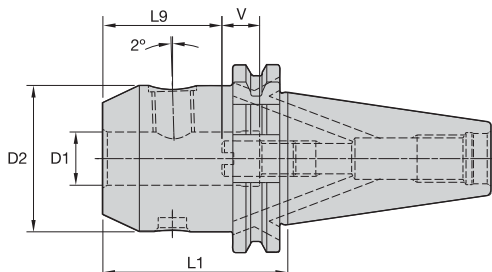
■ DC-DV Form A



order number	catalog number	D1		D1 max		D2	L1	L1S	locknut wrench	ft. lbs.	lbs
		mm	in	mm	in						
3583505	DV40DC13090M	1,0	.039	13,0	.512	50,5	102,3	90	PSW45M	40	3.48

NOTE: Tighten to the recommended tightening torque.
Locking wrench not supplied.
For retention knobs, see page L45.

DV40 Shank Tools



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WN MM-DV Form B/AD

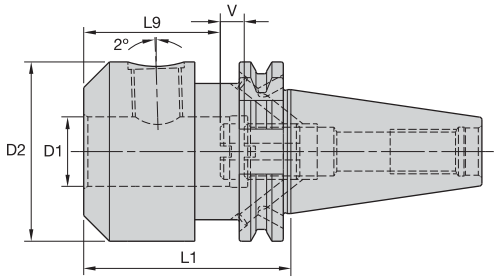
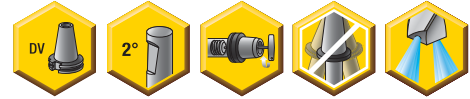


order number	catalog number	D1	D2	L1	L9	V	lock screw	wrench size lock screw	Nm	stop screw	wrench size stop screw	kg
1135194	DV40BWN06050M	6	25	50	30	10	SS03M012	3mm	7	571.060	2,5mm	0,89
1135203	DV40BWN08050M	8	28	50	30	10	SS03M014	4mm	15	571.067	3mm	0,92
1135210	DV40BWN10050M	10	35	50	35	10	SS03M018	5mm	25	571.068	4mm	0,98
1135219	DV40BWN12050M	12	42	50	40	10	SS03M023	6mm	35	571.074	5mm	1,05
1135227	DV40BWN14050M	14	44	50	40	10	SS03M023	6mm	35	571.074	5mm	1,07
1135245	DV40BWN16063M	16	48	63	43	10	SS03M025	6mm	50	571.075	6mm	1,27
1135255	DV40BWN18063M	18	50	63	43	10	SS03M025	6mm	50	571.075	6mm	1,31
1135265	DV40BWN20063M	20	52	63	45	10	SS03M026	8mm	95	571.076	6mm	1,29
1135273	DV40BWN25100M	25	65	100	50	10	SS03M027	10mm	135	571.076	6mm	2,26
1135282	DV40BWN32100M	32	72	100	54	10	SS03M029	10mm	160	571.076	6mm	2,48

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw and stop screw.
 Lock screw or stop screw wrenches not included.
 For retention knobs, see page L45.

DV40 Shank Tools

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



ERICKSON

■ SWN MM-DV Form B/AD

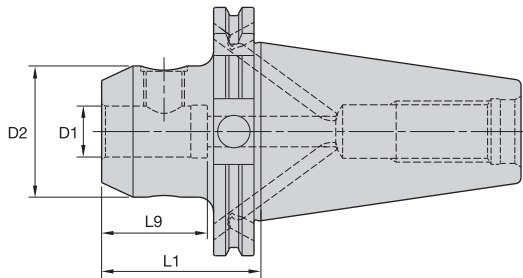


order number	catalog number	D1	D2	L1	L9	V	lock screw	wrench size lock screw	Nm	stop screw	wrench size stop screw	kg
1134537	DV40BSWN25075M	25	65	75	44	15	SS03M027	10mm	135	571.066	10mm	1,71
1134538	DV40BSWN32075M	32	72	75	46	17	SS03M029	10mm	160	571.066	10mm	1,80

NOTE: Do not overtighten lock screw; use torque recommendations above.
Supplied with lock screw.
Lock screw wrenches not included.
For retention knobs, see page L45.

DV40 Shank Tools

<p>Form AD</p>					
<p>Form B</p>					
				40	(2x) MS2221S 2,5mm
				50	(2x) MS1296S 3mm



ERICKSON

EM MM-DV Form B/AD

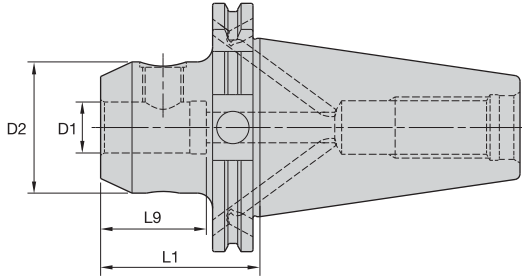


order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	Nm	kg
1263781	DV40BEM06050M	6	25	50	40	SS03M012	3mm	7	0,88
1263784	DV40BEM08050M	8	28	50	40	SS03M014	4mm	15	0,93
1263787	DV40BEM10050M	10	35	50	45	SS03M018	5mm	25	0,96
1263790	DV40BEM12050M	12	42	50	50	SS03M023	6mm	35	1,03
1886608	DV40BEM14050M	14	44	50	50	SS03M023	6mm	35	1,06
1263796	DV40BEM16063M	16	48	63	53	SS03M025	6mm	50	1,25
1263799	DV40BEM20063M	20	50	63	55	SS03M026	8mm	95	1,25
1156378	DV40BEM25100M	25	65	100	60	SS03M027	10mm	135	2,27
1237816	DV40BEM32100M	32	72	100	65	SS03M029	10mm	160	2,48

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw.
 Lock screw wrench not included.
 For retention knobs, see page L45.

DV40 Shank Tools

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



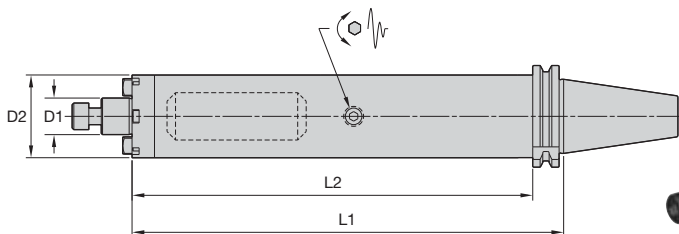
SEM MM-DV Form B/AD

order number	catalog number	D1	D2	L1	L9
1263821	DV40BSEM25045M	25	44,45	45	60
1263822	DV40BSEM32070M	32	65,50	70	—

NOTE: Do not overtighten clamp screw.
Supplied with clamp screw.
Clamp screw wrench not included.
For retention knobs, see page L45.

DV40 Shank Tools

<p>Form AD</p>					
<p>Form B</p>					
		40	(2x) MS2221S	2,5mm	
		50	(2x) MS1296S	3mm	



ERICKSON

■ SMC TD Cap MM-DV Form B/AD

order number	catalog number	D1	D2	L1	L2	lock screw	drive key	wrench size lock screw	kg
4135132	DV40BTDSMC22260M	22	49	260	13,5	MS1234	KDK22M	8mm	4,30

■ SMC TD Lock MM-DV Form B/AD

order number	catalog number	D1	D2	L1	L2	lock screw	drive key	wrench size lock screw	kg
4135483	DV40BTDSMC27260M	27	61	260	241,0	KLSS27M	—	10mm	5,88

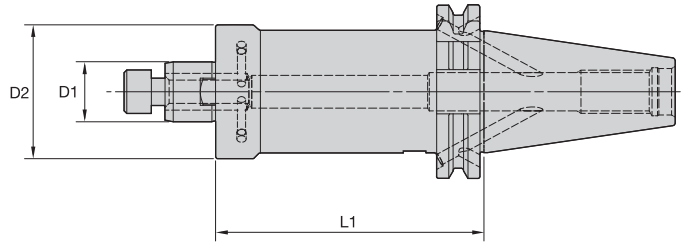
NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive keys.
 Lock screw wrench not included.
 For retention knobs, see page L45.

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

DV40 Shank Tools

DV40 Shank Tools

Shell Mill Adapters with Through Coolant



ERICKSON

SMC Cap MM-DV Form B/AD



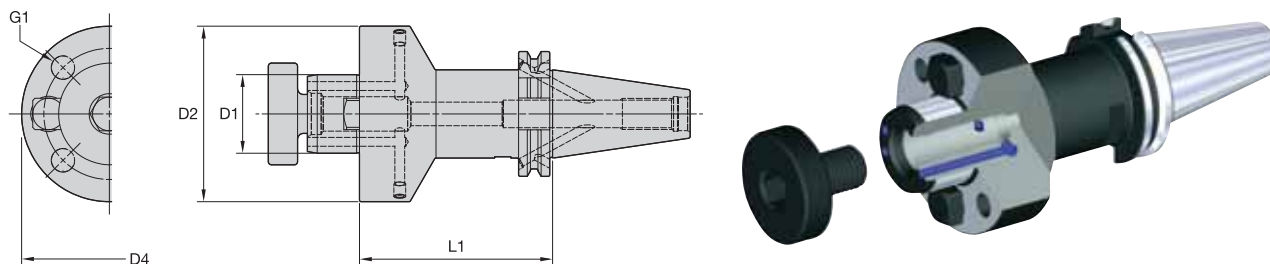
order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size lock screw	kg
3767816	DV40BSM2C16035M	16	38	35	MS1294	KDK16M	6mm	0,94
3767818	DV40BSM2C16100M	16	38	100	MS1294	KDK16M	6mm	1,46
3767815	DV40BSMC16035M	16	44	35	MS1294	KDK16M	6mm	0,98
3767817	DV40BSMC16100M	16	44	100	MS1294	KDK16M	6mm	1,70
3767820	DV40BSM2C22035M	22	42	35	MS1234	—	8mm	1,00
3767822	DV40BSM2C22100M	22	42	100	MS1234	—	8mm	1,65
3767819	DV40BSMC22035M	22	49	35	MS1234	KDK22M	8mm	1,06
3767821	DV40BSMC22100M	22	49	100	MS1234	KDK22M	8mm	1,81

(continued)

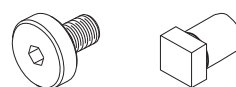
DV40 Shank Tools

<p>Form AD</p>					
<p>Form B</p>				<p>40 (2x) MS2221S 2,5mm</p> <p>50 (2x) MS1296S 3mm</p>	

(SMC continued)

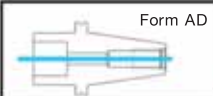










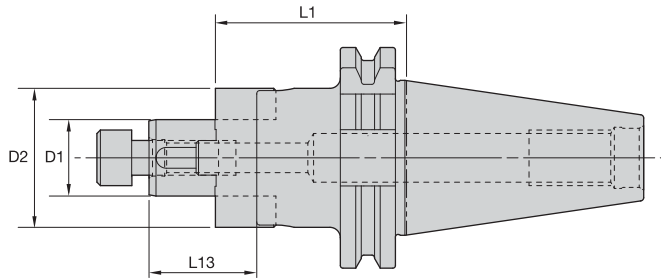
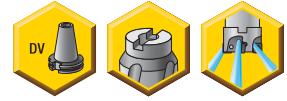
■ SMC Lock MM-DV Form B/AD



order number	catalog number	D1	D2	L1	G1	D4	lock screw	drive key	wrench size lock screw	kg
3767833	DV40BSMC27035M	27	50,0	35	—	—	KLSS27M	KDK27M	10mm	1,14
3767834	DV40BSMC27100M	27	60,0	100	—	—	KLSS27M	KDK27M	10mm	2,05
3767835	DV40BSMC32050M	32	78,0	50	—	—	KLSS32M	KDK32M	14mm	1,77
3767836	DV40BSMC32100M	32	78,0	100	—	—	KLSS32M	KDK32M	14mm	2,54
3767837	DV40BSMC40050M	40	89,3	50	M12 X 1.75	67	KLSS40M	KDK40M	17mm	2,01
3767838	DV40BSMC40100M	40	89,3	100	M12 X 1.75	67	KLSS40M	KDK40M	17mm	3,23

NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive keys.
 Lock screw wrench not included.
 For retention knobs, see page L45.

 Form AD					
 Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



ERICKSON™

■ CS MM-DV Form AD • Cap Screw Design

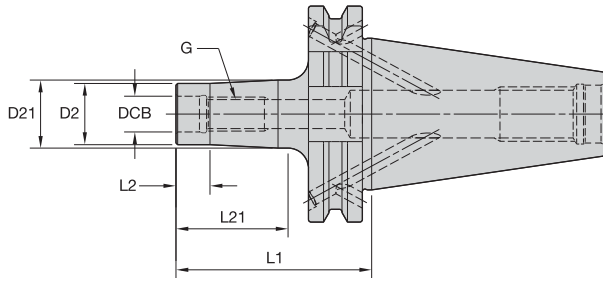
DV40 Shank Tools

order number	catalog number	D1	D2	L1	L13	lock screw	wrench size lock screw	combi driver ring	combi drive key	kg
1263828	DV40CS16055M	16	32	55	27	MS1294	6mm	CDR16M	CDK16M	1,02
1191920	DV40CS16100M	16	32	100	27	MS1294	6mm	CDR16M	CDK16M	1,25
1236436	DV40CS22055M	22	40	55	31	MS1234	8mm	CDR22M	CDK22M	1,18
1191921	DV40CS22100M	22	40	100	31	MS1234	8mm	CDR22M	CDK22M	1,56

■ CS MM-DV Form AD • Lock Screw Design

order number	catalog number	D1	D2	L1	L13	lock screw	wrench	combi driver ring	combi drive key	kg
1156379	DV40CS27055M	27	48	55	33	KLS27MPKG	SMW27M	CDR27M	CDK27M	1,36
1263832	DV40CS27100M	27	48	100	33	KLS27MPKG	SMW27M	CDR27M	CDK27M	1,94
1263833	DV40CS27150M	27	48	150	33	KLS27MPKG	SMW27M	CDR27M	CDK27M	2,59
1191922	DV40CS32060M	32	58	60	38	KLS32M	SMW32M	CDR32M	CDK32M	1,65
1263835	DV40CS32100M	32	58	100	38	KLS32M	SMW32M	CDR32M	CDK32M	2,43
1191923	DV40CS40060M	40	70	60	41	KLS40M	SMW40M	CDR40M	CDK40M	2,06

NOTE: Do not overtighten lock screw.
Supplied with lock screw, drive ring, and drive keys.
Lock screw wrench not included.
For retention knobs, see page L45.



ERICKSON

■ ST-DV Form B/AD

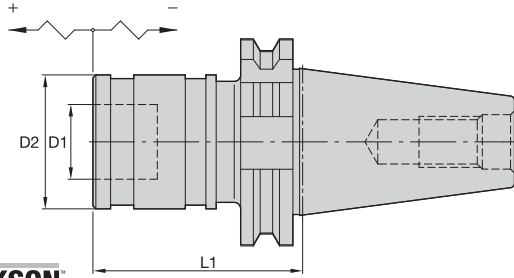
order number	catalog number	DCB	G	D2	D21	L1	L2	L21	kg
4066108	DV40BST06038M	6,5	M6	10	—	38	13	—	0,82
4066109	DV40BST06058M	6,5	M6	10	13	58	10	33	0,80
4066110	DV40BST06078M	6,5	M6	10	20	78	10	53	0,85
4066111	DV40BST06098M	6,5	M6	10	23	98	10	73	0,90
4066112	DV40BST08038M	8,5	M8	13	—	38	13	—	0,82
4066123	DV40BST08058M	8,5	M8	13	15	58	10	33	0,81
4066124	DV40BST08078M	8,5	M8	13	23	78	10	53	0,88
4066125	DV40BST08098M	8,5	M8	13	23	98	10	73	0,91
4066126	DV40BST10038M	10,5	M10	18	—	38	13	—	0,83
4066127	DV40BST10058M	10,5	M10	18	20	58	10	33	0,87
4066128	DV40BST10078M	10,5	M10	18	25	78	10	53	0,91
4066129	DV40BST10098M	10,5	M10	18	28	98	10	73	0,99
4066130	DV40BST12038M	12,5	M12	21	—	38	13	—	0,83
4066131	DV40BST12058M	12,5	M12	21	24	58	10	33	0,88
4066132	DV40BST12078M	12,5	M12	21	24	78	10	53	0,91
4066133	DV40BST12098M	12,5	M12	21	31	98	10	73	1,05
4066134	DV40BST12118M	12,5	M12	21	31	118	10	93	1,12
4066135	DV40BST16038M	17,0	M16	29	—	38	13	—	0,86
4066136	DV40BST16058M	17,0	M16	29	—	58	33	—	0,95
4066137	DV40BST16078M	17,0	M16	29	34	78	10	53	1,09
4066138	DV40BST16098M	17,0	M16	29	34	98	10	73	1,20
4066139	DV40BST16118M	17,0	M16	29	39	118	10	93	1,42

NOTE: For retention knobs, see page L45.

Form AD	✓				
Form B	⚠		40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

DV40 Shank Tools

Tap Chucks RC Tension and Compression • Solid



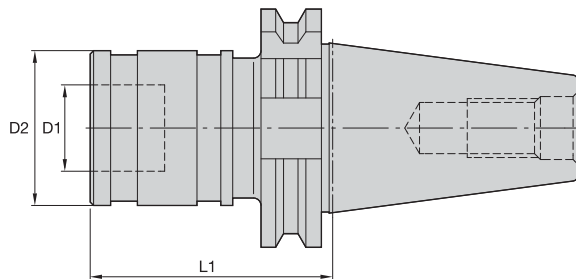
ERICKSON™

■ RC-DV Form A

order number	catalog number	adapter size	tap size		D1	D2	L1	tension	compression	kg
			mm	in						
1777397	DV40RC1060M	1	M1 - M14	#0 - 9/16	19	36	60	7,5	7,5	1,80
1777380	DV40RC2098M	2	M5 - M24	5/16 - 7/8	31	53	98	12,5	12,5	2,00
1777381	DV40RC3150M	3	M14 - M27	13/16 - 1 3/8	48	78	150	20,0	20,0	2,70

NOTE: Quick-change tap adapters are available and must be ordered separately; see page J76.
For retention knobs, see page L45.

DV40 Shank Tools

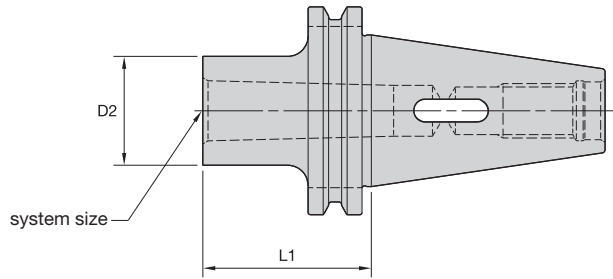


ERICKSON™

■ STRC-DV Form A

order number	catalog number	adapter size	tap size		D1	D2	L1	kg
			mm	in				
1777541	DV40STRC1074M	1	M1 - M14	#0 - 9/16	19	36	74	1,20
1778012	DV40STRC2089M	2	M5 - M24	5/16 - 7/8	31	53	89	1,50

NOTE: Quick-change tap adapters are available and must be ordered separately; see page J76.
For retention knobs, see page L45.



ERICKSON

■ MT-DV Form A

order number	catalog number	system size	D2	L1	kg
1191946	DV40MT1050M	1	25	50	1,03
1156384	DV40MT2050M	2	32	50	1,01
1191947	DV40MT3070M	3	40	70	1,03
1191948	DV40MT4095M	4	48	95	1,25

NOTE: For retention knobs; see page L45.

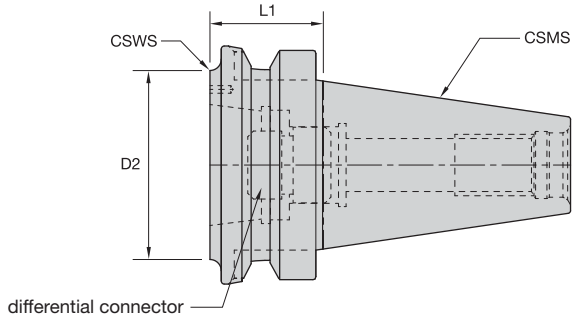
DV40 Shank Tools

DV40 Shank Tools

Romicron™ High-Performance Boring Systems



- Differential connector included.



DV to KR DIN 69871 AD/B • Metric



order number	catalog number	CSMS system size	CSWS system size	D2	L1	differential connector	kg	reference head
1539005	DV40BKR32041M	DV40	KR32	44	41	KRDCKR32M	1,00	SVS00B,0B,1B,2B,3B,SVUBB1,BB2
1263816	DV40BKR50060M	DV40	KR50	65	60	KRDCKR50M	1,40	SVS4B,5B,SVU65,SVUBB2

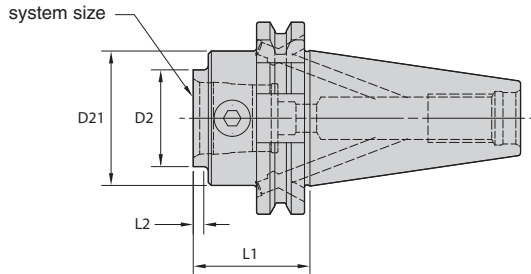
DV to KR DIN 69871 AD/B • Inch



order number	catalog number	CSMS system size	CSWS system size	D2	L1	differential connector	lbs	reference head
1539005	DV40BKR32041M	DV40	KR32	1.75	1.614	KRDCKR32M	2.20	SVS00B,0B,1B,2B,3B,SVUBB1,BB2
1263816	DV40BKR50060M	DV40	KR50	2.56	2.362	KRDCKR50M	3.08	SVS4B,5B,SVU65,SVUBB2

NOTE: For Romicron boring systems, see the Kennametal Innovations Master Catalog Cutting Tools 2013.

 Form AD					
 Form B				40 (2x) MS2221S 50 (2x) MS1296S	2,5mm 3mm



■ KM-DV Form B/AD

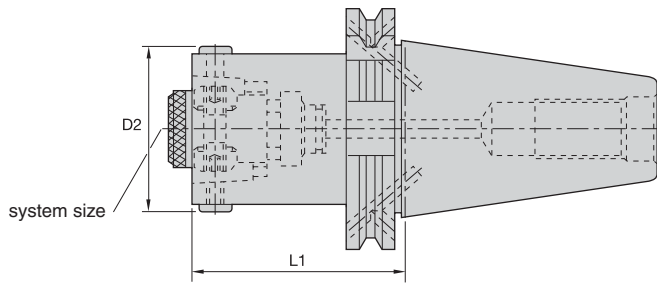


order number	catalog number	system size	D2	D21	L1	L2	KM spare parts package	wrench size actuation screw	Nm	kg
1974735	DV40BKM32040M	KM32	32	44,5	40	5	KM32PKG3L	5mm	8-11	0,97
1974736	DV40BKM32090M	KM32	32	44,5	90	55	KM32PKG3S	5mm	8-11	1,23
1974737	DV40BKM40040M	KM40	40	44,5	40	5	KM40PKG3L	6mm	12-16	0,95
1974738	DV40BKM40100M	KM40	40	44,5	100	65	KM40PKG3S	6mm	12-16	1,47
1974739	DV40BKM50060M	KM50	50	—	60	41	KM50PKG3S	10mm	27-34	1,22
1974740	DV40BKM50120M	KM50	50	—	120	101	KM50PKG3S	10mm	27-34	2,07

NOTE: Do not overtorque actuation screw; use torque recommendations above.
 Supplied with KM actuation mechanism.
 For retention knobs, see page L45.

DV40 Shank Tools

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



ERICKSON

■ HSK-DV Form B/AD

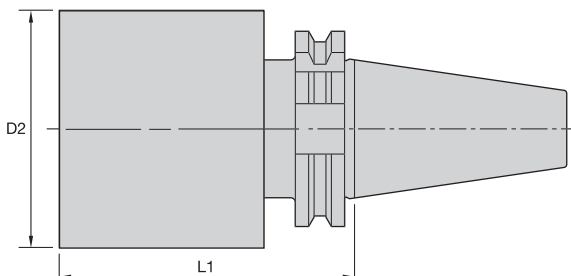
order number	catalog number	system size	D2	L1	wrench size actuation screw	Nm	kg
1519665	DV40BHSK40060M	HSK40	45	60	3mm	8	1,00
1519668	DV40BHSK50065M	HSK50	55	65	4mm	15	1,00
1320683	DV40BHSK63075M	HSK63	70	75	5mm	20	1,20

NOTE: Do not overtorque actuation screw; use torque recommendations above.
 Supplied with actuation mechanism and sealing ring.
 For retention knobs, see page L45.

DV40 Shank Tools

	Form AD					
	Form B			40	(2x) MS2221S	2,5mm
				50	(2x) MS1296S	3mm

- Machinable front 20–30 HRC.



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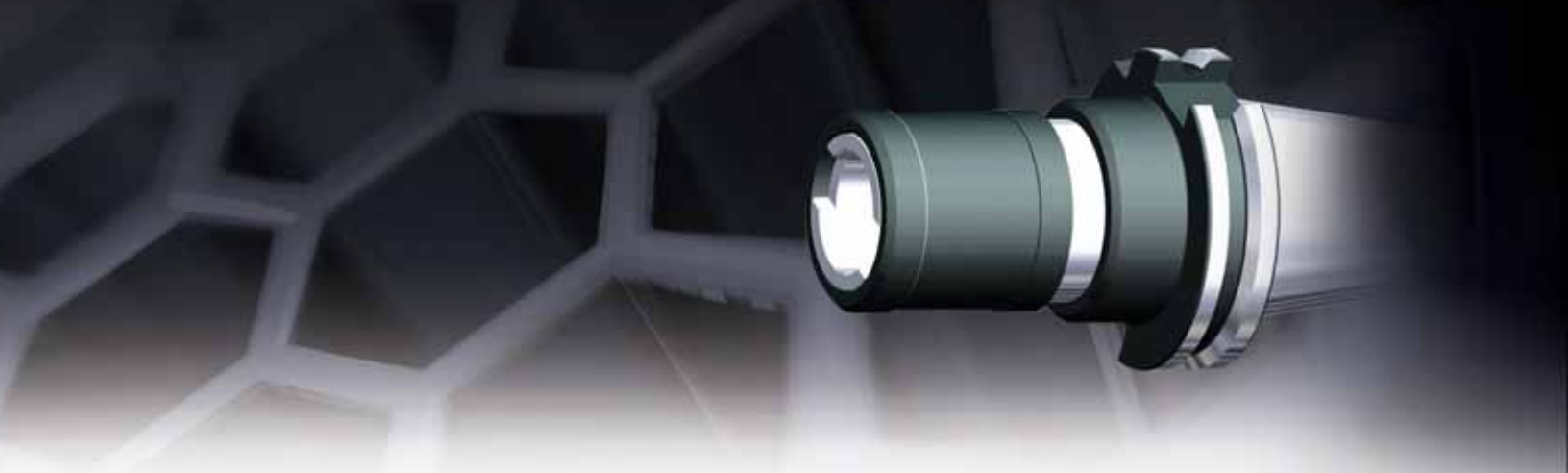
■ BB-DV Form A

order number	catalog number	D2	L1	kg
1263773	DV40BB063280M	63	280	7,00
1263774	DV40BB082280M	82	280	11,15
1263775	DV40BB104200M	104	200	11,99

NOTE: For retention knobs, see page L45.



DV40 Shank Tools



ERICKSON™ DV V-Flange Shank Tooling System • DV50 Series

Primary Application

ERICKSON V-Flange DV Taper Tooling is manufactured from premium materials and meets or exceeds the latest DIN 69871 specification and ISO-1947 taper accuracy of AT3 specification standards. The DV50 tools are either pre-balanced to a high specification or balanced-by-design. For high speed applications Kennametal recommends that the complete toolholder assembly (toolholder, retention knobs, collets, hardware, and cutting tools) be balanced as one entity. Exact RPM limits can only be determined by considering machine and spindle configurations in conjunction with tooling design and safety limits factored as a complete system.



DV DIN 69871 Form B/AD Shank

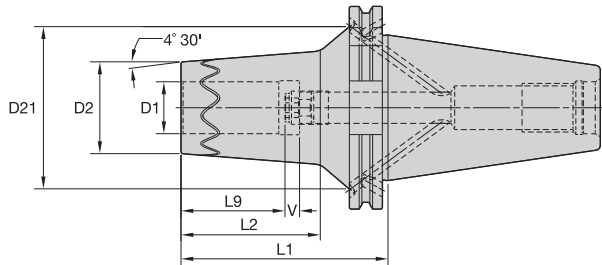
NOTE: Inherent out-of-balance conditions due to notch and unequal depth of drive slots.



Features and Benefits

- DIN 69871 7/24 taper.
- Standard M24 metric drawbar thread.
- Taper accuracy of AT3 specification or better.
- All tools set to form AD coolant specification. Many can be converted to form B style.
- Maximum 100 bar (1,500 psi) coolant pressure.

- **SAFE-LOCK™**, innovative and unique non-slip system.
- Suitable for carbide and HSS cutting tools.
- Need ≥ 10 kW shrink unit.



**Cutting Tool Shank Requirements
metric (ISO standard)**

cutting tool shank diameter	tolerance	
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013

ERICKSON™

■ TT SF HPV MM-DV FORM B/AD

order number	catalog number	D1	D2	D21	L1	L2	L9	V	kg
5090271	DV50BSFTT12080M	12	27	55	80	61	37	10	2,97
5090272	DV50BSFTT14080M	14	33	43	80	61	37	10	3,10
5090273	DV50BSFTT16080M	16	33	43	80	61	40	10	3,06
5090274	DV50BSFTT18080M	18	45	54	80	61	40	10	3,41
5090275	DV50BSFTT20080M	20	45	54	80	61	42	10	3,37
5090276	DV50BSFTT25100M	25	44	78	100	81	48	10	3,72

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.
 Shrink Fit technical section, see page M78.
 Shrink Fit accessories, see pages L12–L13.
 HSK coolant unit and wrench are available and must be ordered separately; see page L44.

			40	(2x) SFV40	1,5mm
			50	(2x) SFV50	1,5mm

Looking for a product that's not shown in this catalog?
Check the Kennametal website!



Tooling Systems

Online product catalog available 24/7

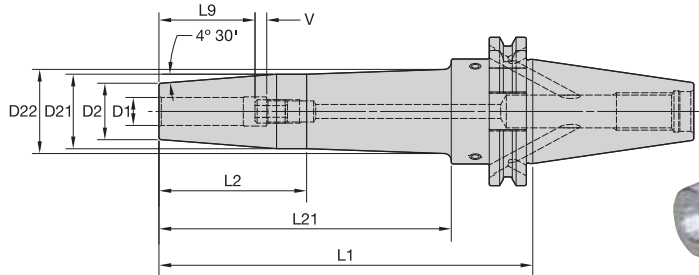
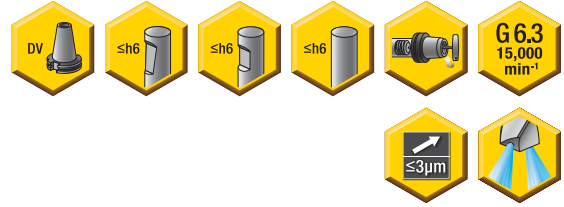
Visit <http://www.kennametal.com/toolingsystems/> to browse our electronic catalog any time you're looking for Kennametal's best tooling solutions. It's fast, free, and always available. The online e-catalog is updated weekly with products and solutions for milling, turning, holemaking, and tooling systems applications.

DV50 Shank Tools

Shrink Fit Toolholders General Purpose (GP)



- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide and HSS cutting tools (requirements below).



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
6	h6	0,000/-0,008
8 & 10	h6	0,000/-0,009
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016



ERICKSON

■ TT GP HPV MM-DV Form B/AD

order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	kg
3790206	DV50BHPVTT06080M	6	21	27	—	80	61	—	26	10	TTSS05014M	2,5mm	2,72
3790207	DV50BHPVTT06120M	6	21	27	—	120	85	—	26	10	TTSS05014M	2,5mm	3,30
3790208	DV50BHPVTT06160M	6	21	27	32	160	50	125	26	10	TTSS05014M	2,5mm	3,54
3790209	DV50BHPVTT08080M	8	21	27	—	80	61	—	26	10	TTSS06014M	3mm	2,71
3790210	DV50BHPVTT08120M	8	21	27	—	120	85	—	26	10	TTSS06014M	3mm	3,29
3790211	DV50BHPVTT08160M	8	21	27	32	160	50	125	26	10	TTSS06014M	3mm	3,53
3790212	DV50BHPVTT10080M	10	24	32	—	80	61	—	31	10	TTSS08014M	4mm	2,78
3790213	DV50BHPVTT10120M	10	24	32	—	120	85	—	31	10	TTSS08014M	4mm	3,40
3790214	DV50BHPVTT10160M	10	24	32	36	160	63	125	31	10	TTSS08014M	4mm	3,70
3617660	DV50BHPVTT12080M	12	24	32	—	80	61	—	36	10	TTSS10014M	5mm	2,76
3617661	DV50BHPVTT12120M	12	24	32	—	120	85	—	36	10	TTSS10014M	5mm	3,38
3617662	DV50BHPVTT12160M	12	24	32	36	160	63	125	36	10	TTSS10014M	5mm	3,68
3617663	DV50BHPVTT14080M	14	27	34	—	80	61	—	36	10	TTSS10014M	5mm	2,81
3617664	DV50BHPVTT14120M	14	27	34	—	120	85	—	36	10	TTSS10014M	5mm	3,45

(continued)

(TT GP HPV MM-DV Form B/AD continued)



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	kg
3617665	DV50BHPVTT14160M	14	27	34	39	160	57	125	36	10	TTSS10014M	5mm	3,79
3617666	DV50BHPVTT16080M	16	27	34	—	80	61	—	39	10	TTSS12014M	6mm	2,80
3617667	DV50BHPVTT16120M	16	27	34	—	120	85	—	39	10	TTSS12014M	6mm	3,42
3617668	DV50BHPVTT16160M	16	27	34	39	160	57	125	39	10	TTSS12014M	6mm	3,76
3617669	DV50BHPVTT18080M	18	33	41	—	80	61	—	39	10	TTSS12014M	6mm	2,93
3617670	DV50BHPVTT18120M	18	33	42	—	120	85	—	39	10	TTSS12014M	6mm	3,65
3617671	DV50BHPVTT18160M	18	33	42	46	160	69	125	39	10	TTSS12014M	6mm	4,13
3617672	DV50BHPVTT20080M	20	33	41	—	80	61	—	41	10	TTSS16014M	8mm	2,90
3617673	DV50BHPVTT20120M	20	33	42	—	120	85	—	41	10	TTSS16014M	8mm	3,61
3617674	DV50BHPVTT20160M	20	33	42	46	160	69	125	41	10	TTSS16014M	8mm	4,08
3617675	DV50BHPVTT25100M	25	44	53	—	100	81	—	47	10	TTSS16014M	8mm	3,48
3617676	DV50BHPVTT25160M	25	44	53	—	160	120	—	47	10	TTSS16014M	8mm	4,74
3617677	DV50BHPVTT32100M	32	44	53	—	100	81	—	51	10	TTSS16014M	8mm	3,32
3617678	DV50BHPVTT32160M	32	44	53	—	160	120	—	51	10	TTSS16014M	8mm	4,58

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.

Shrink fit technical section, see page M78.

Supplied with stop screw.

Adjusting stop screw gage, see page M81.

Optional M6-1.0P x 5 lg fine-balancing screw set (10 pieces) is available. Order number is MS127PKG and must be ordered separately.

For retention knobs, see page L45.

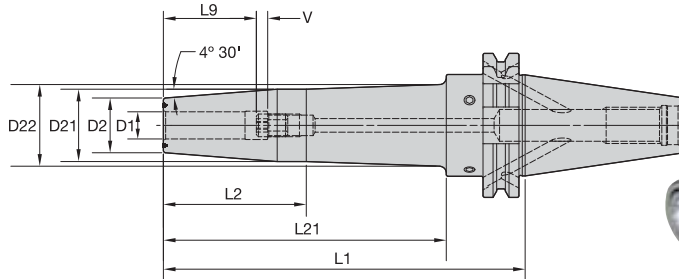
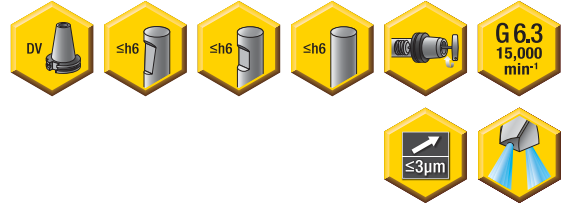
<p>Form AD</p>					
<p>Form B</p>			<p>40</p>	<p>(2x) MS2221S</p>	<p>2,5mm</p>
			<p>50</p>	<p>(2x) MS1296S</p>	<p>3mm</p>

DV50 Shank Tools

Shrink Fit Toolholders High Torque (HT)



- 30–50% higher clamping torque compared to GP line.
- Balanceable — fine tune with optional M6 set screws.
- Suitable for carbide only, designated by groove in front face (requirements below).
- 10 kW power or greater Shrink Fit device must be used.



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
12, 14, 16, & 18	h6	0,000/-0,011
20 & 25	h6	0,000/-0,013
32	h6	0,000/-0,016

ERICKSON™

■ TT HT HPV MM-DV Form B/AD



order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	kg
3617623	DV50BHPVTHT12080M	12	24	32	—	80	61	—	36	10	TTSS10014M	5mm	2,76
3617624	DV50BHPVTHT12120M	12	24	32	—	120	85	—	36	10	TTSS10014M	5mm	3,38
3617625	DV50BHPVTHT12160M	12	24	32	36	160	63	125	36	10	TTSS10014M	5mm	3,68
3617626	DV50BHPVTHT14080M	14	27	34	—	80	61	—	36	10	TTSS10014M	5mm	2,81
3617627	DV50BHPVTHT14120M	14	27	34	—	120	85	—	36	10	TTSS10014M	5mm	3,45
3617628	DV50BHPVTHT14160M	14	27	34	39	160	57	125	36	10	TTSS10014M	5mm	3,79
3617629	DV50BHPVTHT16080M	16	27	34	—	80	61	—	39	10	TTSS12014M	6mm	2,80
3617630	DV50BHPVTHT16120M	16	27	34	—	120	85	—	39	10	TTSS12014M	6mm	3,42
3617631	DV50BHPVTHT16160M	16	27	34	39	160	57	125	39	10	TTSS12014M	6mm	3,76
3617632	DV50BHPVTHT18080M	18	33	41	—	80	61	—	39	10	TTSS12014M	6mm	2,93
3617633	DV50BHPVTHT18120M	18	33	42	—	120	85	—	39	10	TTSS12014M	6mm	3,65
3617634	DV50BHPVTHT18160M	18	33	42	46	160	69	125	39	10	TTSS12014M	6mm	4,13

(continued)

DV50 Shank Tools

(TT HT HPV MM-DV Form B/AD continued)

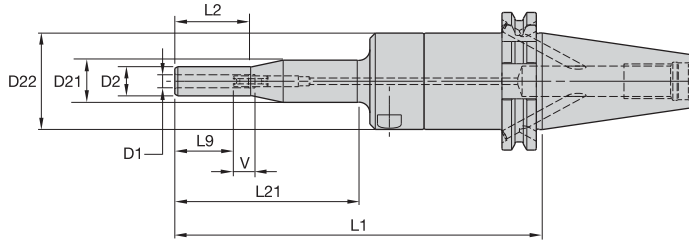


order number	catalog number	D1	D2	D21	D22	L1	L2	L21	L9	V	stop screw	wrench size stop screw	kg
3617635	DV50BHPVTHT20080M	20	33	41	—	80	61	—	41	10	TTSS16014M	8mm	2,90
3617636	DV50BHPVTHT20120M	20	33	42	—	120	85	—	41	10	TTSS16014M	8mm	3,61
3617637	DV50BHPVTHT20160M	20	33	42	46	160	69	125	41	10	TTSS16014M	8mm	4,08
3617638	DV50BHPVTHT25100M	25	44	53	—	100	81	—	47	10	TTSS16014M	8mm	3,48
3617639	DV50BHPVTHT25160M	25	44	53	—	160	125	—	47	10	TTSS16014M	8mm	4,74
3617640	DV50BHPVTHT32100M	32	44	53	—	100	81	—	51	10	TTSS16014M	8mm	3,32
3617641	DV50BHPVTHT32160M	32	44	53	—	160	125	—	51	10	TTSS16014M	8mm	4,58

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.
 Shrink Fit technical section, see page M78.
 Supplied with stop screw.
 Adjusting stop screw gage, see page M81.
 Optional M6~1.0P x 5 lg fine-balancing screw set (10 pieces) is available. Order number is M51276PKG and must be ordered separately.
 For retention knobs, see page L45.

DV50 Shank Tools

 Form AD					
 Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

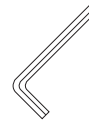


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■ HC Slim T MM-DV Form B/AD

order number	catalog number	D1	D2	D21	D22	L1	L2	L9	L21	V	kg
3019239	DV50BHCSLT06200M	6	13,5	19,5	44	200	35	27	85	10	3,81
3019240	DV50BHCSLT08200M	8	15,5	19,5	44	200	35	27	85	10	3,82
3019241	DV50BHCSLT10200M	10	17,5	44,5	—	200	85	31	181	10	3,81

■ Spare Parts

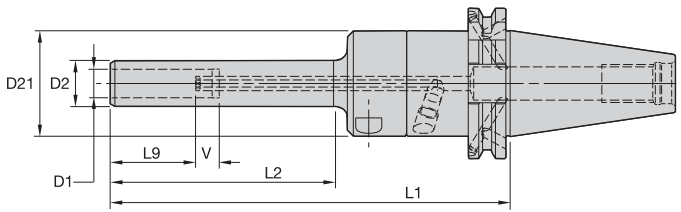


catalog number	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw
DV50BHCSLT06200M	170.135	5mm	170.002	2,5mm
DV50BHCSLT08200M	170.135	5mm	170.002	2,5mm
DV50BHCSLT10200M	170.135	5mm	170.003	3mm

(continued)

 Form AD					
 Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

(HC Slim continued)



■ HC Slim MM-DV Form B/AD

order number	catalog number	D1	D2	D21	L1	L2	L9	V	kg
2634420	DV50BHCSL12200M	12	19,5	44,5	200	95	36	10	3,57
2634421	DV50BHCSL14200M	14	21,5	52,5	200	95	36	10	3,99
2634422	DV50BHCSL16200M	16	23,5	52,5	200	95	39	10	4,01
2634533	DV50BHCSL18200M	18	25,5	52,5	200	95	39	10	4,05
2634534	DV50BHCSL20200M	20	27,5	52,5	200	95	41	10	4,09

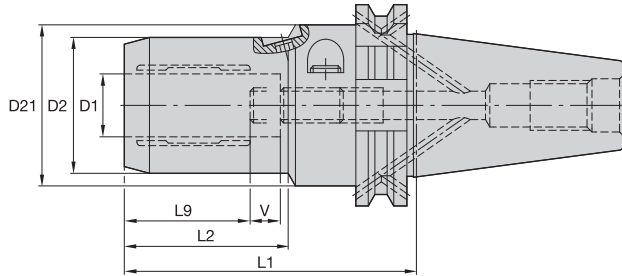
■ Spare Parts



catalog number	actuation wrench	wrench size actuation screw	length-adjustment wrench	wrench size stop screw
DV50BHCSL12200M	170.135	5mm	170.002	2,5mm
DV50BHCSL14200M	170.135	5mm	170.002	2,5mm
DV50BHCSL16200M	170.135	5mm	170.002	2,5mm
DV50BHCSL18200M	170.135	5mm	170.002	2,5mm
DV50BHCSL20200M	170.135	5mm	170.002	2,5mm

NOTE: Do not overtorque actuation screw. Use supplied wrench and tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw and actuation wrench.
 Unable to use SEFAS™ chamfering rings on this design.
 Reduction sleeves are available and must be ordered separately; see page J2.
 For retention knobs, see page L45.

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



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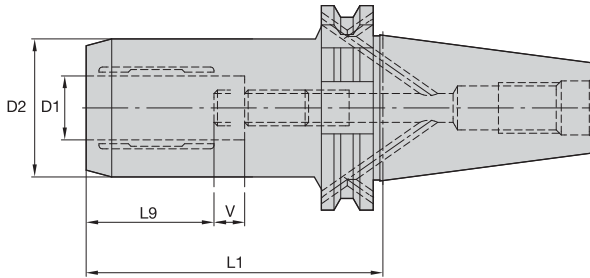
■ HC MM-DV Form B/AD

DV50 Shank Tools

order number	catalog number	D1	D2	D21	L1	L2	L9	V	actuation wrench	wrench size actuation screw	stop screw wrench	wrench size stop screw	kg
1245450	DV50BHC06072M	6	25,7	50	72	33	30	10	170.135	5mm	170.002	2,5mm	2,87
1245451	DV50BHC08072M	8	27,7	50	72	34	30	10	170.135	5mm	170.002	2,5mm	2,90
1191014	DV50BHC10077M	10	29,7	50	77	39	35	10	170.135	5mm	170.002	2,5mm	2,92
1191015	DV50BHC12077M	12	31,6	50	77	40	35	10	170.135	5mm	170.002	2,5mm	2,93
1245452	DV50BHC14082M	14	33,6	50	82	46	40	10	170.135	5mm	170.003	3mm	2,96
1245453	DV50BHC16082M	16	37,6	50	82	47	40	10	170.135	5mm	170.003	3mm	3,02
1245454	DV50BHC18082M	18	39,6	50	82	47	40	10	170.135	5mm	170.003	3mm	3,04
1191016	DV50BHC20082M	20	41,6	50	82	48	40	10	170.135	5mm	170.003	3mm	3,06
1245455	DV50BHC25117M	25	49,8	63	117	51	51	10	170.136	6mm	170.004	4mm	4,03
1197514	DV50BHC32117M	32	59,8	63	117	59	51	10	170.136	6mm	170.004	4mm	4,21

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
Hydraulic chuck technical section, see page M84.
Supplied with stop screw.
Actuation wrench must be ordered separately.
Reduction sleeves are available and must be ordered separately; see page J2.
For retention knobs, see page L45.

 Form AD					
 Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



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■ HC Basic MM-DV Form B/AD

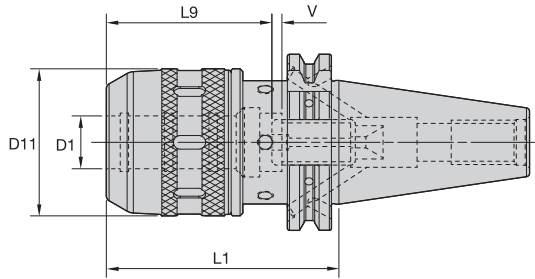


order number	catalog number	D1	D2	L1	L9	V	actuation wrench	wrench size actuation screw	stop screw wrench	wrench size stop screw	kg
1599686	DV50BHCB20082M	20	49,9	82	41	10	170.135	5mm	170.005	5mm	3,30

NOTE: Do not overtorque actuation screw. Tighten by hand until stop is felt.
 Hydraulic chuck technical section, see page M84.
 Supplied with stop screw.
 Actuation wrench must be ordered separately.
 Reduction sleeves are available and must be ordered separately; see page J2.
 For retention knobs, see page L45.

DV50 Shank Tools

 Form AD					
 Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



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■ HPMC MM-DV Form B/AD

DV50 Shank Tools

order number	catalog number	D1	D11	L1	L9	V	locknut wrench	stop screw	wrench size stop screw	kg
3523090	DV50BHPMC20090M	20	53	90	49	20	PSW52M	MCSS16040M	2.5 mm & 5 mm	3,67
3523091	DV50BHPMC20165M	20	53	165	49	20	PSW52M	MCSS16040M	2.5 mm & 5 mm	4,76
3523092	DV50BHPMC25090M	25	61	90	55	20	PSW58M	MCSS16040M	2.5 mm & 5 mm	3,86
3523093	DV50BHPMC25165M	25	61	165	55	20	PSW58M	MCSS16040M	2.5 mm & 5 mm	5,37
3523094	DV50BHPMC32090M	32	70	90	58	20	PSW68M	MCSS16040M	2.5 mm & 5 mm	4,08
3523095	DV50BHPMC32165M	32	74	165	75	20	PSW68M	MCSS16040M	2.5 mm & 5 mm	6,12

NOTE: Milling chuck technical section, see page M88.

Supplied with locknut and stop screw.

Locknut wrench not included.

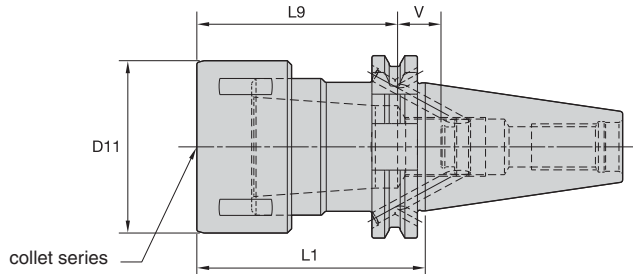
Optional M6~1,0P fine-balancing screw set is available (order number HPMCBALSCREWSET) and must be ordered separately; see page L14.

Reduction sleeves are available and must be ordered separately; see page J6.

For retention knobs, see page L45.

Form AD					
Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

- Tremendous Grip (3:1 advantage).



TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG100	2,6	25,5	5/64	1

ERICKSON

■ TG Round-DV Form B/AD



order number	catalog number	collet series	D11	L1	L9	V	locknut	wrench	stop screw	wrench size stop screw	kg
1125523	DV50BTG100085M	TG100	60	85	70	18	LNA100M	HSW58M	SS112041G	4mm & 5/32	3,00
1264147	DV50BTG100150M	TG100	60	150	70	80	LNA100M	HSW58M	SS112041G	4mm & 5/32	4,50

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool,

then tighten to the recommended tightening torque.

Collet chuck technical section, see page M98.

Supplied with locknut and stop screw.

Locknut wrench must be ordered separately.

Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16–L17.

Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.

Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.

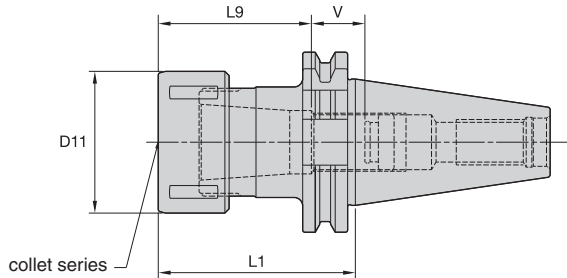
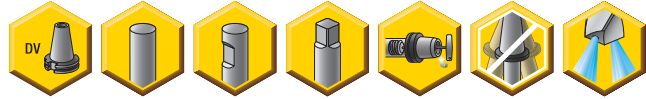
TG standard straight-bore collets, see page J10.

TG tap collets, see page J10.

For retention knobs, see page L45.

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

- Tremendous Grip (3:1 advantage).



TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG100	2,6	25,5	5/64	1
TG150	11,6	40,0	23/64	1 1/2

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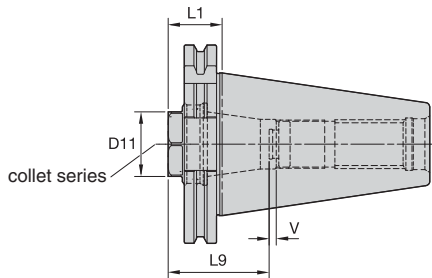
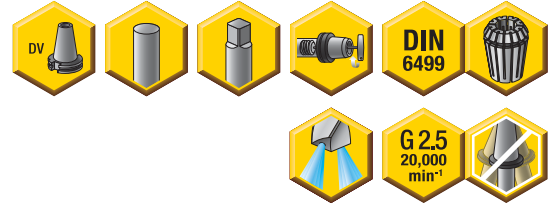
■ TG Round-DV Form AD



order number	catalog number	collet series	D11	L1	L9	V	locknut	wrench	stop screw	wrench size stop screw	kg
1156402	DV50TG100085M	TG100	60	85	70	38	LNA100M	HSW58M	SS112041G	4mm & 5/32	3,36
1156403	DV50TG100150M	TG100	60	150	70	80	LNA100M	HSW58M	SS112041G	4mm & 5/32	4,54
1264353	DV50TG100200M	TG100	60	200	70	80	LNA100M	HSW58M	SS112041G	4mm & 5/32	5,51
1252592	DV50TG150090M	TG150	85	90	83	27	LNA150M	HSW80M	SS162062G	4mm & 5/32	3,73
1228270	DV50TG150150M	TG150	85	150	83	67	LNA150M	HSW80M	SS162062G	4mm & 5/32	4,94

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16–L17.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.
 TG standard straight-bore collets, see page J10.
 TG tap collets, see page J10.
 For retention knobs, see page L45.

- Grip (2:1 advantage).



ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER32	2,0	20,0	.08	.81
ER40	3,0	26,0	.12	1.00

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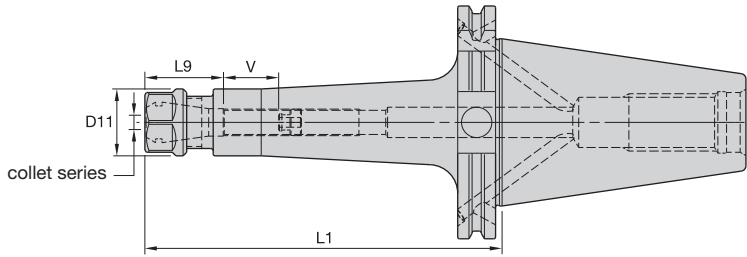
■ ER Short-DV Form AD



order number	catalog number	collet series	D11	L1	L9	V	locknut	wrench	Nm	stop screw	wrench size stop screw	kg
3479820	DV50SER32027M	ER32	36	27	50	17	LNECSER32M	OEW32M	136	SS094041G	4mm & 5/32	2,41
3479821	DV50SER40027M	ER40	46	27	57	11	LNECSER40M	OEW168	176	SS112041G	4mm & 5/32	2,24

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.
 For retention knobs, see page L45.

- Grip (2:1 advantage).



ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER16	0,5	10,0	.02	.41
ER25	1,0	16,0	.04	.63
ER32	2,0	20,0	.08	.81
ER40	3,0	26,0	.12	1.00

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■ ER Hex-DV Form B/AD

order number	catalog number	collet series	D11	L1	L9	V	kg
1748235	DV50BER16100M	ER16	28	100	32	48	2,81
1972537	DV50BER16150M	ER16	28	150	32	48	3,13

■ Spare Parts

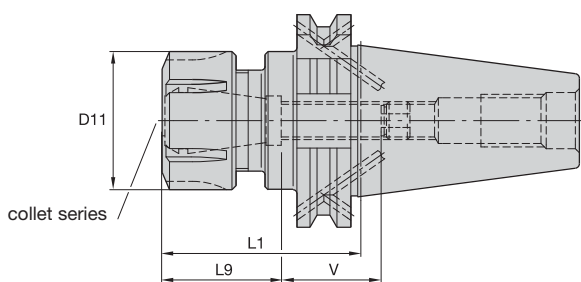


catalog number	locknut	wrench	counterbore collet torque (Nm)	straight collet torque (Nm)	stop screw	wrench size stop screw
DV50BER16100M	LNHSER16M	OEW25M	40	56	SS044038G	4mm & 5/32
DV50BER16150M	LNHSER16M	OEW25M	40	56	SS044038G	4mm & 5/32

(continued)

Form AD	✓				
Form B					
		40	(2x) MS2221S	2,5mm	
		50	(2x) MS1296S	3mm	

(ER DV Form B/AD continued)



ER Round-DV Form B/AD

order number	catalog number	collet series	D11	L1	L9	V	kg
1264126	DV50BER25070M	ER25	42	70	40	50	2,87
1264127	DV50BER25150M	ER25	42	150	40	60	3,53
1264128	DV50BER32070M	ER32	50	70	46	54	2,91
1264129	DV50BER32150M	ER32	50	150	46	54	3,89
1264130	DV50BER40080M	ER40	63	80	52	48	3,25
1264132	DV50BER40150M	ER40	63	150	52	48	4,66

DV50 Shank Tools

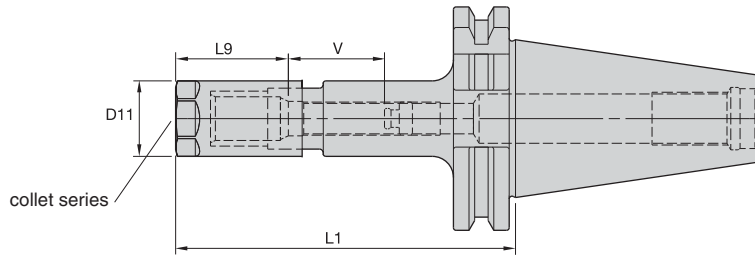
Spare Parts



catalog number	locknut	wrench	counterbore collet torque (Nm)	stop screw	wrench size stop screw
DV50BER25070M	LNSER25M	ER25WM	104	SS075041G	4mm & 5/32
DV50BER25150M	LNSER25M	ER25WM	104	SS075041G	4mm & 5/32
DV50BER32070M	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32
DV50BER32150M	LNSER32M	ER32WM	136	SS094041G	4mm & 5/32
DV50BER40080M	LNSER40M	ER40WM	176	SS112041G	4mm & 5/32
DV50BER40150M	LNSER40M	ER40WM	176	SS112041G	4mm & 5/32

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.
 For retention knobs, see page L45.

Form AD	✓				
Form B				40	(2x) MS2221S
				50	(2x) MS1296S



DA 08 collet series	mm		inch	
	min	max	min	max
DA200	0,2	10	1/64	25/64

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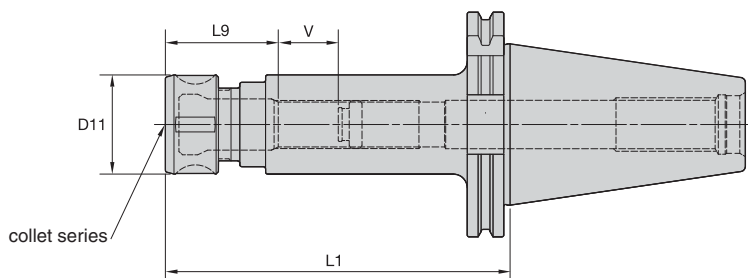
■ DA 04 Hex-DV Form AD



order number	catalog number	collet series	D11	L1	L9	V	locknut	wrench	Nm	stop screw	wrench size stop screw	kg
1264197	DV50DA204100M	DA200	21,46	100	38	32	LNA204M	OEW19M	54	SS038031G	2mm & 5/64	3,00
1264198	DV50DA204150M	DA200	21,46	150	38	32	LNA204M	OEW19M	54	SS038031G	2mm & 5/64	3,20

NOTE: Tighten locknut to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 DA standard straight-bore collets, see page J62.
 DA non-pullout collets, see pages J65–L68.
 For retention knobs, see page L45.

- Grip 1:1.



DA collet series	Collet Capacity		Collet Capacity	
	mm		inch	
	min	max	min	max
DA180	2,2	20	1/64	3/4

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■ DA 08 Round-DV Form AD

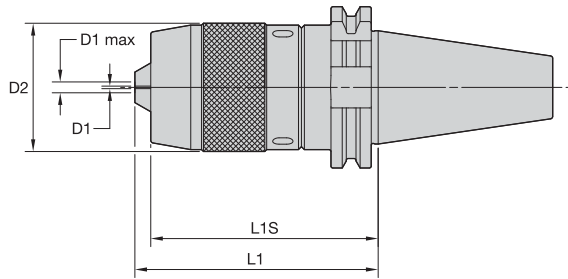
order number	catalog number	collet series	D11	L1	L9	V
1179333	DV50DA188070M	DA180	43	70	50	49
1156389	DV50DA188150M	DA180	43	150	50	50
1136821	DV50DA188200M	DA180	43	200	50	50

■ Spare Parts



catalog number	locknut	locknut wrench	Nm	stop screw	wrench size stop screw
DV50DA188070M	LNA188M	HSW45M	136	SS081041G	4mm & 5/32
DV50DA188150M	LNA188M	HSW45M	136	SS081041G	4mm & 5/32
DV50DA188200M	LNA188M	HSW45M	136	SS081041G	4mm & 5/32

NOTE: For retention, tighten locknut to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 DA standard straight-bore collets, see page J62.
 DA non-pullout collets, see pages J65–J68.
 For retention knobs, see page L45.



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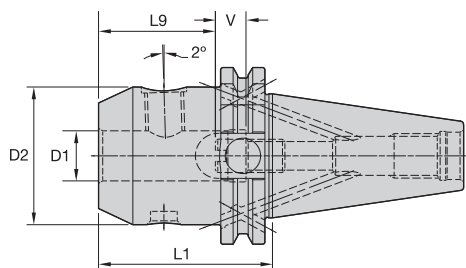
■ DC-DV Form A



order number	catalog number	D1		D1 max		D2	L1	L1S	locknut wrench	Nm	kg
		mm	in	mm	in						
3583506	DV50DC13090M	1,0	.039	13,0	.512	50,5	102,3	90	PSW45M	55	3,50

NOTE: Tighten to the recommended tightening torque.
Locking wrench not supplied.
For retention knobs, see page L45.

DV50 Shank Tools



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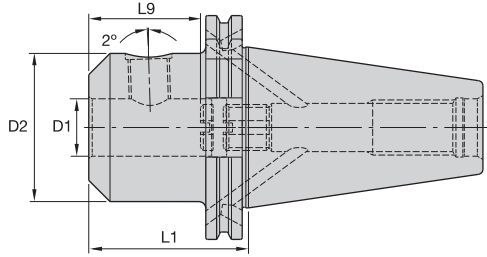
■ WN MM-DV Form B/AD



order number	catalog number	D1	D2	L1	L9	V	lock screw	wrench size lock screw	Nm	stop screw	wrench size stop screw	kg
1136755	DV50BWN06063M	6	25	63	30	10	SS03M012	3 mm	7	571.060	2,5mm	2,67
1136774	DV50BWN08063M	8	28	63	30	10	SS03M014	4 mm	15	571.067	3mm	2,71
1136783	DV50BWN10063M	10	35	63	35	10	SS03M018	5 mm	25	571.068	4mm	2,83
1191334	DV50BWN12063M	12	42	63	40	10	SS03M023	6 mm	35	571.074	5mm	2,95
1136800	DV50BWN14063M	14	44	63	40	10	SS03M023	6 mm	35	571.074	5mm	2,98
1136806	DV50BWN16063M	16	48	63	43	10	SS03M025	6 mm	50	571.075	6mm	3,05
1136814	DV50BWN18063M	18	50	63	43	10	SS03M025	6 mm	50	571.075	6mm	3,11
1136823	DV50BWN20063M	20	52	63	45	10	SS03M026	8 mm	95	571.076	6mm	3,12
1136842	DV50BWN25080M	25	65	80	50	10	SS03M027	10 mm	135	571.076	6mm	3,82
1136851	DV50BWN32100M	32	72	100	54	10	SS03M029	10 mm	160	571.076	6mm	4,59

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw and stop screw.
 Lock screw or stop screw wrenches not included.
 For retention knobs, see page L45.

Form AD					
Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



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■ SWN IN-DV Form B/AD

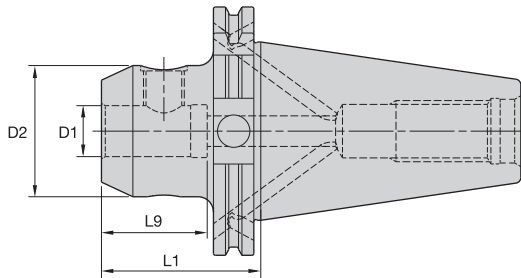


order number	catalog number	D1	D2	L1	L9	lock screw	Nm	wrench size lock screw	kg
1134539	DV50BSWN25070M	25	65	70	44	SS03M027	135	10mm	3,59
1134540	DV50BSWN32070M	32	70	70	46	SS03M029	160	10mm	3,69

NOTE: Do not overtighten lock screw; use torque recommendations above.
Supplied with lock screw.
Lock screw wrenches not included.
For retention knobs, see page L45.

DV50 Shank Tools

<p>Form AD</p>					
<p>Form B</p>			<p>40</p>	<p>(2x) MS2221S</p>	<p>2,5mm</p>
			<p>50</p>	<p>(2x) MS1296S</p>	<p>3mm</p>



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EM MM-DV Form B/AD

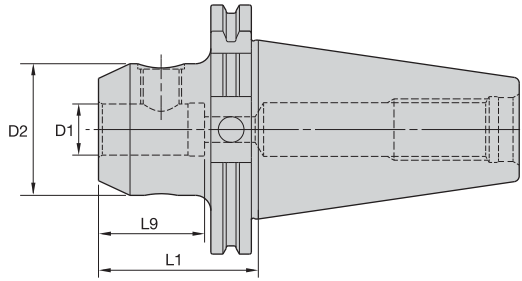


order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	Nm	kg
1264102	DV50BEM16063M	16	48	63	53	SS03M025	6mm	50	3,00
1264107	DV50BEM20063M	20	52	63	55	SS03M026	8mm	95	3,06
1156387	DV50BEM25080M	25	65	80	60	SS03M027	10mm	135	3,72
1156388	DV50BEM32100M	32	72	100	65	SS03M029	10mm	160	4,48
1264122	DV50BEM40110M	40	90	110	75	SS03M032	10mm	160	5,76
1264125	DV50BEM50120M	50	100	120	85	SS03M030	12mm	250	6,63

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw.
 Lock screw wrench not included.
 For retention knobs, see page L45.

DV50 Shank Tools

<p>Form AD</p>					
<p>Form B</p>			<p>40</p>	<p>(2x) MS2221S</p>	<p>2,5mm</p>
			<p>50</p>	<p>(2x) MS1296S</p>	<p>3mm</p>



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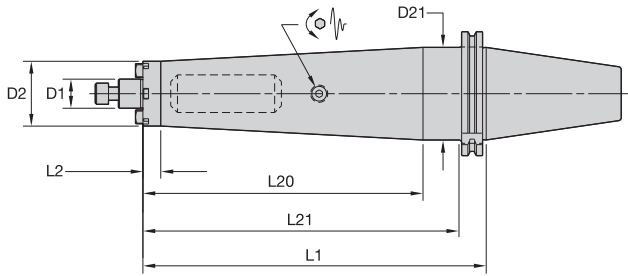
EM MM-DV Form AD



DV50 Shank Tools

order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	Nm	kg
1264207	DV50EM06063M	6	25	63	40	SS03M012	3mm	7	2,67
1264208	DV50EM06150M	6	25	150	40	SS03M012	3mm	7	2,96
1264210	DV50EM08063M	8	28	63	40	SS03M014	4mm	15	2,71
1264212	DV50EM08150M	8	28	150	40	SS03M014	4mm	15	3,05
1264214	DV50EM10063M	10	35	63	45	SS03M018	5mm	25	2,84
1264216	DV50EM10150M	10	35	150	45	SS03M018	5mm	25	3,39
1191975	DV50EM12063M	12	42	63	50	SS03M023	6mm	35	3,02
1264219	DV50EM12150M	12	42	150	50	SS03M023	6mm	35	3,77
1189666	DV50EM16150M	16	48	150	53	SS03M025	6mm	50	4,13
1152193	DV50EM20150M	20	52	150	55	SS03M026	8mm	95	4,44

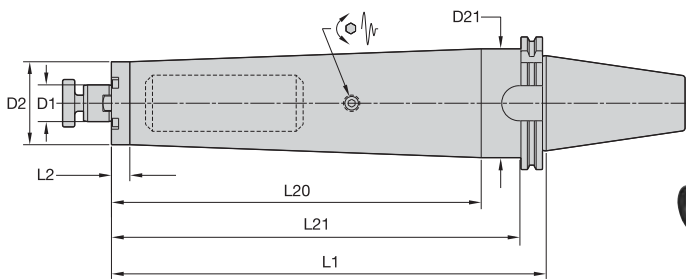
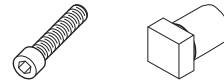
NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw.
 Lock screw wrench not included.
 For retention knobs, see page L45.



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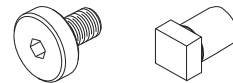
■ SMC TD Cap MM-DV Form B/AD

order number	catalog number	D1	D2	D21	L1	L2	L20	L21	lock screw	drive key	wrench size lock screw	kg
4135484	DV50BTDSMC22260M	22	49	70	260	13,5	211,8	241	MS1234	KDK22M	8mm	7,83



■ SMC TD Lock MM-DV Form B/AD

order number	catalog number	D1	D2	D21	L1	L2	L20	L21	lock screw	drive key	wrench size lock screw	kg
4135485	DV50BTDSMC27320M	27	61	80	320	13,5	271,8	301	KLSS27M	—	10mm	11,63
4135486	DV50BTDSMC32330M	32	78	—	330	311,0	—	—	KLSS32M	KDK32M	14mm	15,91

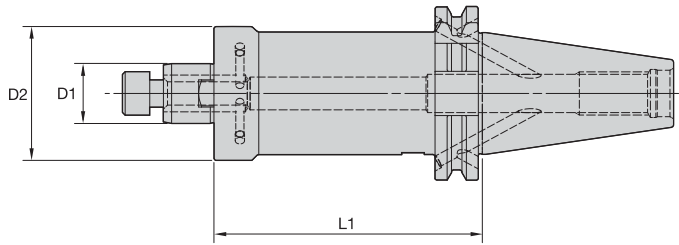


NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive keys.
 Lock screw wrench not included.
 For retention knobs, see page L45.

Form	Checkmark	Diagram	Wrench Size	Lock Screw	Key Size
Form AD	✓		40	(2x) MS2221S	2,5mm
Form B	✗		50	(2x) MS1296S	3mm

DV50 Shank Tools

Shell Mill Adapters with Through Coolant



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■ SMC Cap MM-DV Form B/AD

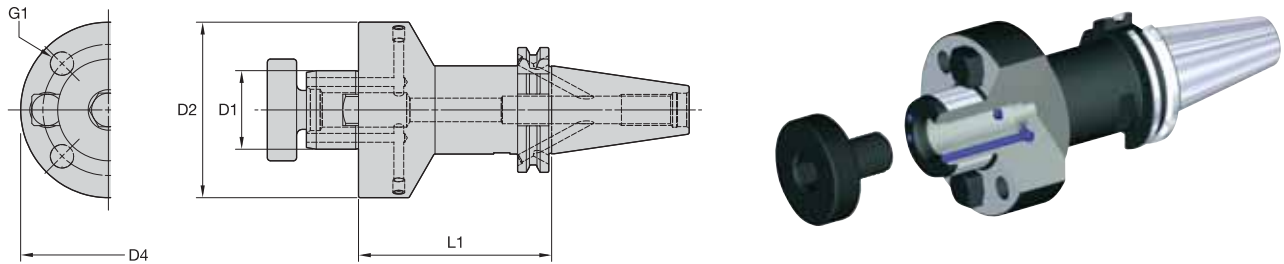


order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size lock screw	kg
3767840	DV50BSM2C16035M	16	38	35	MS1294	KDK16M	6mm	2,73
3767842	DV50BSM2C16100M	16	38	100	MS1294	KDK16M	6mm	3,17
3767839	DV50BSMC16035M	16	44	35	MS1294	KDK16M	6mm	2,76
3767841	DV50BSMC16100M	16	44	100	MS1294	KDK16M	6mm	3,39
3767844	DV50BSM2C22035M	22	42	35	MS1234	—	8mm	2,76
3767846	DV50BSM2C22100M	22	42	100	MS1234	—	8mm	3,31
3767848	DV50BSM2C22150M	22	42	150	MS1234	—	8mm	3,75
3767843	DV50BSMC22035M	22	49	35	MS1234	KDK22M	8mm	2,82
3767845	DV50BSMC22100M	22	49	100	MS1234	KDK22M	8mm	3,63
3767847	DV50BSMC22150M	22	49	150	MS1234	KDK22M	8mm	4,26

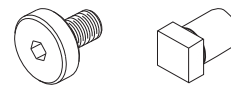
(continued)

<p>Form AD</p>					
<p>Form B</p>			<p>40</p>	<p>(2x) MS2221S</p>	<p>2,5mm</p>
			<p>50</p>	<p>(2x) MS1296S</p>	<p>3mm</p>

(SMC continued)



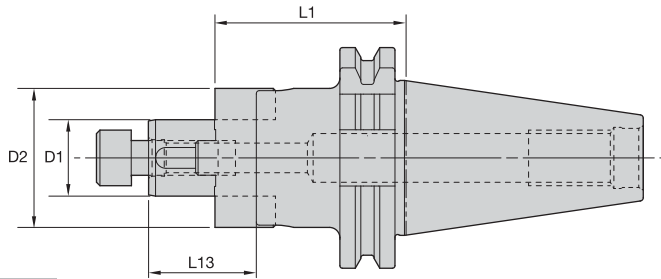
■ SMC Lock MM-DV Form B/AD



order number	catalog number	D1	D2	L1	G1	D4	lock screw	drive key	wrench size lock screw	kg
3767849	DV50BSMC27035M	27	60,0	35	—	—	KLSS27M	KDK27M	10mm	2,98
3767850	DV50BSMC27100M	27	60,0	100	—	—	KLSS27M	KDK27M	10mm	4,26
3767851	DV50BSMC27150M	27	60,0	150	—	—	KLSS27M	KDK27M	10mm	5,24
3767852	DV50BSMC32035M	32	78,0	35	—	—	KLSS32M	KDK32M	14mm	3,31
3767853	DV50BSMC32100M	32	78,0	100	—	—	KLSS32M	KDK32M	14mm	5,17
3767854	DV50BSMC32150M	32	78,0	150	—	—	KLSS32M	KDK32M	14mm	6,58
3767855	DV50BSMC40050M	40	89,3	50	M12 X 1.75	66,7	KLSS40M	KDK40M	17mm	4,18
3767856	DV50BSMC40100M	40	89,3	100	M12 X 1.75	66,7	KLSS40M	KDK40M	17mm	5,76
3767857	DV50BSMC40150M	40	89,3	150	M12 X 1.75	66,7	KLSS40M	KDK40M	17mm	7,12
3767858	DV50BSMC60070M	60	129,0	70	M16 X 2.0	101,6	—	KDK60M	—	6,24

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw and drive keys.
 Lock screw wrench not included.
 For retention knobs, see page L45.

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

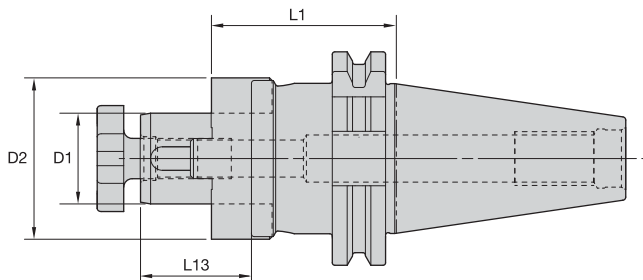


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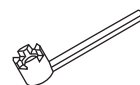
■ CS-DV Form AD • Cap Screw Design



order number	catalog number	D1	D2	L1	L13	lock screw	wrench size retention screw	combi driver ring	combi drive key	kg
1264174	DV50CS16055M	16	32	55	27	MS1294	6mm	CDR16M	CDK16M	2,78
1191972	DV50CS22055M	22	40	55	31	MS1234	8mm	CDR22M	CDK22M	2,93
1264181	DV50CS22100M	22	40	100	31	MS1234	8mm	CDR22M	CDK22M	3,36
1236218	DV50CS22150M	22	40	150	31	MS1234	8mm	CDR22M	CDK22M	3,83

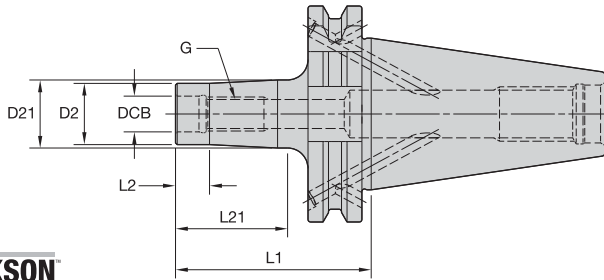


■ CS-DV Form AD • Lock Screw Design



order number	catalog number	D1	D2	L1	L13	lock screw	lock screw wrench	combi driver ring	combi drive key	kg
1191973	DV50CS27055M	27	48	55	33	KLS27MPKG	SMW27M	CDR27M	CDK27M	3,11
1264185	DV50CS27100M	27	48	100	33	KLS27MPKG	SMW27M	CDR27M	CDK27M	3,75
1264186	DV50CS27150M	27	48	150	33	KLS27MPKG	SMW27M	CDR27M	CDK27M	4,27
1191974	DV50CS32055M	32	58	55	38	KLS32M	SMW32M	CDR32M	CDK32M	3,41
1264188	DV50CS32100M	32	58	100	38	KLS32M	SMW32M	CDR32M	CDK32M	4,29
1264189	DV50CS32150M	32	58	150	38	KLS32M	SMW32M	CDR32M	CDK32M	5,18
1232559	DV50CS40100M	40	70	100	41	KLS40M	SMW40M	CDR40M	CDK40M	5,17
1264192	DV50CS40150M	40	70	150	41	KLS40M	SMW40M	CDR40M	CDK40M	6,57
1264194	DV50CS50075M	50	90	75	46	KLS50M	SMW50M	CDR50M	CDK50M	7,20
1264195	DV50CS50150M	50	90	150	46	KLS50M	SMW50M	CDR50M	CDK50M	7,84

NOTE: Do not overtighten lock screw.
Supplied with lock screw, drive ring, and drive keys.
Lock screw wrench not included.
For retention knobs, see page L45.



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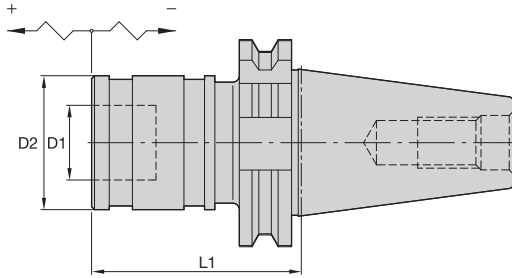
■ ST-DV Form B/AD

order number	catalog number	DCB	G	D2	D21	L1	L2	L21	kg
4067827	DV50BST12087M	12,5	M12	21	24	87	10	62	2,77
4067828	DV50BST12137M	12,5	M12	21	31	137	10	112	3,05
4067829	DV50BST12187M	12,5	M12	21	39	187	10	162	3,50
4067830	DV50BST16087M	17,0	M16	29	34	87	10	62	2,96
4067831	DV50BST16137M	17,0	M16	29	39	137	10	112	3,38
4067832	DV50BST16187M	17,0	M16	29	39	187	10	162	3,71
4067863	DV50BST16237M	17,0	M16	29	49	237	10	212	4,62

NOTE: For retention knobs, see page L45.
For technical information, see page M96–M97.

DV50 Shank Tools

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



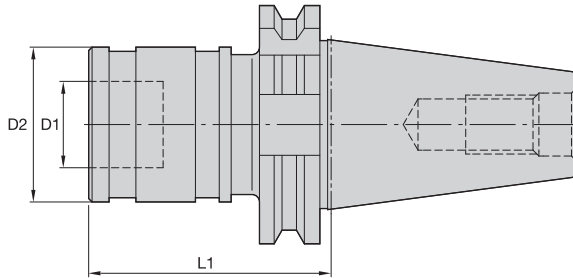
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■ RC-DV Form A

order number	catalog number	adapter size	tap size		D1	D2	L1	tension	compression	kg
			mm	in						
1777453	DV50RC1075M	1	M1 - M14	#0 - 9/16	19	36	75	7,5	7,5	2,90
1777455	DV50RC2084M	2	M5 - M24	5/16 - 7/8	31	53	85	12,5	12,5	3,70
1777540	DV50RC3139M	3	M14 - M27	13/16 - 1 3/8	48	78	139	20,0	20,0	4,50

NOTE: Quick-change tap adapters are available and must be ordered separately; see page M76.
For retention knobs, see page L45.

DV50 Shank Tools



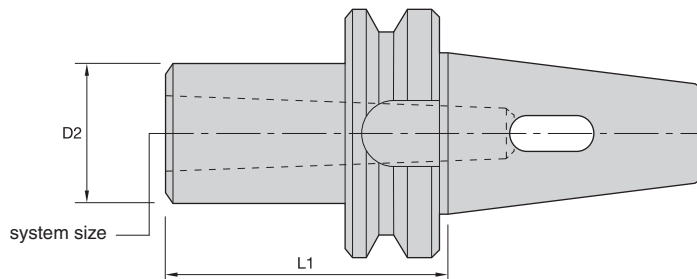
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■ STRC-DV Form AD

order number	catalog number	adapter size	tap size		D1	D2	L1	kg
			mm	in				
1778243	DV50STRC1074M	1	M1 - M14	#0 - 9/16	19	36	74	3,60
1778244	DV50STRC2089M	2	M5 - M24	5/16 - 7/8	31	53	89	3,80

NOTE: Quick-change tap adapters are available and must be ordered separately; see page M76.
For retention knobs, see page L45.

DV50 Shank Tools



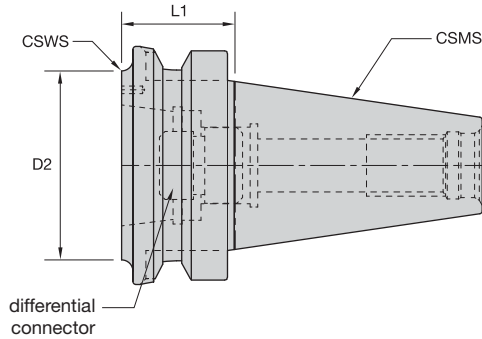
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■ MT-DV Form A

order number	catalog number	system size	D2	L1	kg

NOTE: For retention knobs; see page L45.

- Differential connector included.



■ DV to KR DIN 69871 AD/B • Metric



order number	catalog number	CSMS system size	CSWS system size	D2	L1	differential connector	kg	reference head
1528328	DV50BKR32041M	DV50	KR32	50	41	KRDCKR32M	2,80	SVS00B,0B,1B,2B,3B,SVUBB1,BB2
1191971	DV50BKR50040M	DV50	KR50	65	40	KRDCKR50M	2,80	SVS4B,5B,SVU65,SVUBB2
1264135	DV50BKR63060M	DV50	KR63	85	60	KRDCKR63M	3,30	SVS6B,7B,8B
1264136	DV50BKR80070M	DV50	KR80	95	70	KRDCKR80M	4,10	SVU92,120

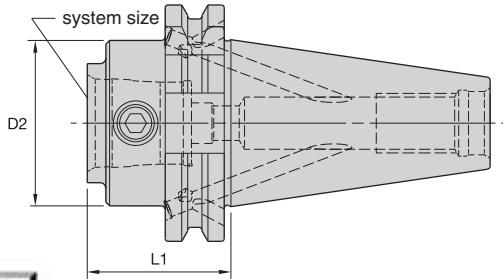
■ DV to KR DIN 69871 AD/B • Inch



order number	catalog number	CSMS system size	CSWS system size	D2	L1	differential connector	lbs	reference head
1528328	DV50BKR32041M	DV50	KR32	1.96	1.614	KRDCKR32M	6.16	SVS00B,0B,1B,2B,3B,SVUBB1,BB2
1191971	DV50BKR50040M	DV50	KR50	2.56	1.575	KRDCKR50M	6.16	SVS4B,5B,SVU65,SVUBB2
1264135	DV50BKR63060M	DV50	KR63	3.34	2.362	KRDCKR63M	7.26	SVS6B,7B,8B
1264136	DV50BKR80070M	DV50	KR80	3.73	2.756	KRDCKR80M	9.02	SVU92,120

NOTE: For Romicon boring systems, see the Kennametal Innovations Master Catalog Cutting Tools 2013.

	Form AD						
	Form B				40	(2x) MS2221S	2,5mm
					50	(2x) MS1296S	3mm



■ KM-DV Form B/AD

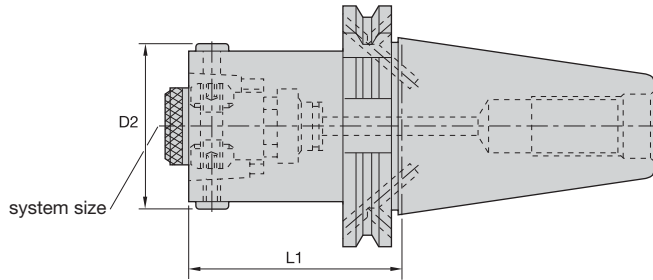


order number	catalog number	system size	D2	L1	KM spare parts package	wrench size		
						actuation screw	Nm	kg
1974741	DV50BKM32040M	KM32	32	40,0	KM32PKG3S	5mm	8-11	2,64
1974742	DV50BKM32090M	KM32	32	90,0	KM32PKG3S	5mm	8-11	2,91
1974813	DV50BKM40040M	KM40	40	40,0	KM40PKG3L	6mm	12-16	3,00
1974814	DV50BKM40100M	KM40	40	100,0	KM40PKG3S	6mm	12-16	3,18
1974815	DV50BKM50060M	KM50	50	60,0	KM50PKG3S	10mm	27-34	2,99
1974816	DV50BKM50120M	KM50	50	120,0	KM50PKG3S	10mm	27-34	3,79
1974817	DV50BKM63060M	KM63	63	60,0	KM63PKG3S	12mm	47-54	3,18
1974818	DV50BKM63140M	KM63	63	140,0	KM63PKG3S	12mm	47-54	4,95
1974819	DV50BKM80080M	KM80	80	80,0	KM80PKG3S	14mm	79-85	4,23

NOTE: Do not overtorque actuation screw; use torque recommendations above.
 Supplied with KM actuation mechanism.
 For retention knobs, see page L45.

DV50 Shank Tools

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



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■ HSK-DV Form B/AD

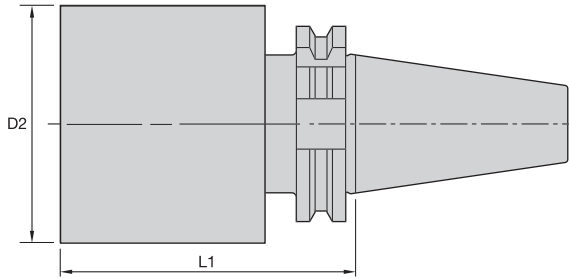
order number	catalog number	system size	D2	L1	wrench size actuation screw	Nm	kg
1519669	DV50BHSK32055M	HSK32	37	55	3mm	6	2,70
1519670	DV50BHSK40060M	HSK40	45	60	3mm	8	2,80
1124343	DV50BHSK50065M	HSK50	55	65	4mm	15	2,90
1126202	DV50BHSK63075M	HSK63	70	75	5mm	20	3,10

NOTE: Do not overtorque actuation screw; use torque recommendations above.
 Supplied with actuation mechanism and sealing ring.
 For retention knobs, see page L45.

DV50 Shank Tools

 Form AD					
 Form B			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm

- Machinable front 20–30 RW C.



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■ BB-DV Form A

order number	catalog number	D2	L1	kg
1264076	DV50BB104350M	104	350	24,08
1123987	DV50BB134250M	134	250	26,86

NOTE: For retention knobs, see page L45.

DV50 Shank Tools



QC and R8 Shank Tools

QC30 Shank Tools .....	.H2-H9
QC40 Shank Tools .....	.H10-H17
QC50 Shank Tools .....	.H18-H22
R8 Shank Tools .....	.H24-H27



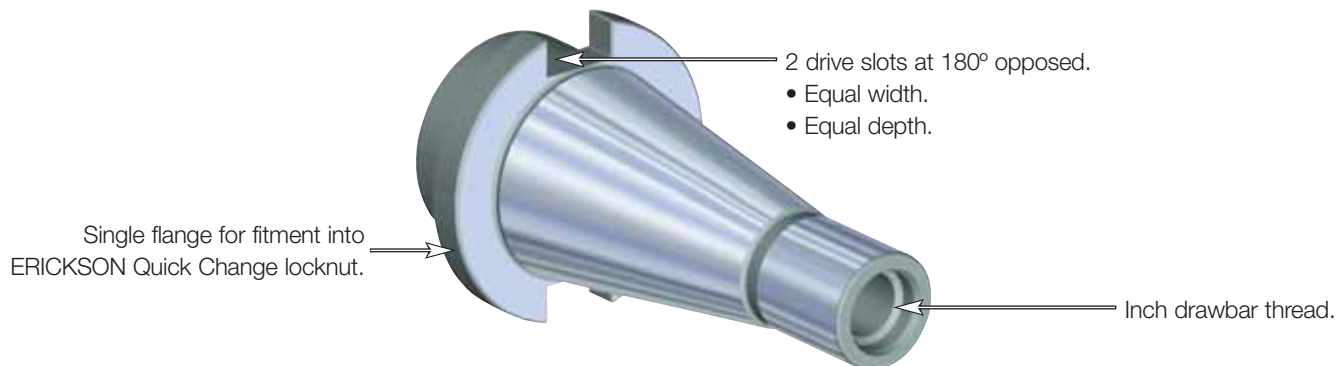
ERICKSON™ Quick Change Flange Shank Tooling System • QC30 Series

Primary Application

With an ERICKSON QC locknut retrofitted to manual-loading milling machine spindles, the ERICKSON Quick Change Flange QC Taper Tooling can be used as a quick-change system. The QC30 tools are manufactured from premium materials and meet or exceed the latest ISO-1947 taper accuracy. QC tools are balanced-by-design and will perform effectively at lower RPMs. For high speed applications Kennametal recommends that the complete toolholder assembly (toolholder, collets, hardware, and cutting tools) be balanced as one entity. Exact RPM limits can only be determined by considering machine and spindle configurations in conjunction with tooling design and safety limits factored as a complete system.

Features and Benefits

- 7/24 taper, interchangeable with NMTB and DIN2080 shank tooling.
- Hub at the tail end of taper cone houses the machine's drawbar bolt, standard 1/2" – 13 UNC – 2B thread.
- Flange faces are precision ground to accommodate ERICKSON QC locknuts.
- Taper accuracy of AT4 specification or better.
- Maximum 100 bar (1,500 psi) coolant pressure.



QC Quick Change (NMTB)

How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



QC30TG50100M

QC

Shank
Style

30

Shank
Taper
Size

30 = 30

40 = 40

50 = 50

TG

Toolholder
Style

- DA** = Double-angle collet chuck
- EM** = End mill adapter
- MS** = Morse taper adapter
- SA** = Slotting cutter adapter
- SM** = Shell mill adapter
- TA** = Tap chuck adapter
- TG** = Tremendous Grip single-angle collet chuck

50

Toolholder
Size

100

Tool
Length

(Taper gage
line to from
of tool)

inch
xxx = x.xx

M

Tool
Length

M = Tool built to metric
values and has metric
retention thread

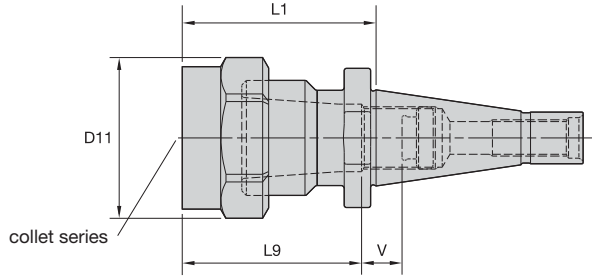
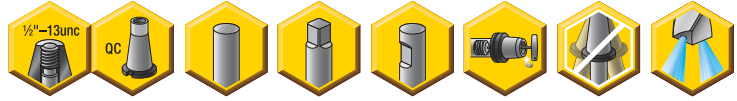
(blank) = Tool built to inch
values and has inch
retention thread

TG =
Collet series xx (50), xxx (100)

EM =
I.D. size: metric — xx = xx, (20);
inch — xxx = x.xx, (075)

SM =
O.D. size: metric — xx = xx, (20);
inch — xxx = x.xx, (075)

- Tremendous Grip (3:1 advantage).



ERICKSON

■ TG Hex-QC IN

TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG75	2,6	20,0	3/64	3/4
TG100	2,6	25,5	5/64	1



order number	catalog number	collet series	D11	L1	L9	V	locknut	wrench	ft. lbs.	stop screw	wrench size stop screw	lbs
1025640	QC30TG075253	TG75	1.81	2.53	2.31	.37	NPA075	OEW188	100	SS081041G	4mm & 5/32	1.26
1025641	QC30TG100394	TG100	2.44	3.94	2.91	.83	NPA100	OEW225	150	SS081041G	4mm & 5/32	2.57

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.

Collet chuck technical section, see page M98.

Supplied with locknut and stop screw.

Locknut wrench must be ordered separately.

Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16–L17.

Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.

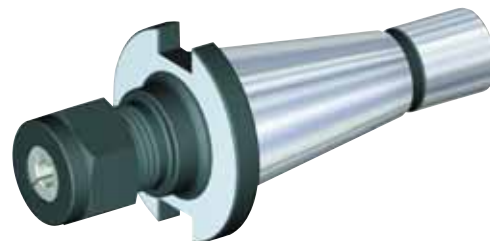
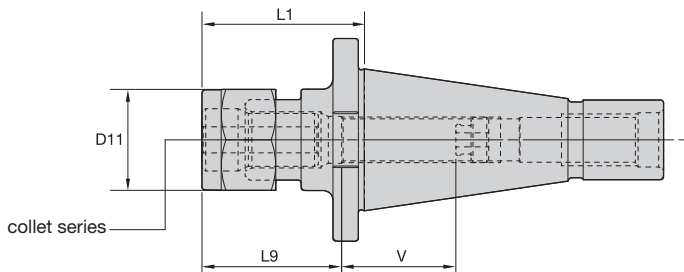
Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.

TG standard straight-bore collets, see page J10.

TG tap collets, see page J10.

For retention knobs, see page L45.

- Grip 1:1.



DA collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
DA300	0,2	6	1/64	1/4
DA200	0,2	10	1/64	25/64
DA100	1,8	14	1/64	9/16
DA180	2,2	20	1/64	3/4

ERICKSON

■ DA Hex-QC IN

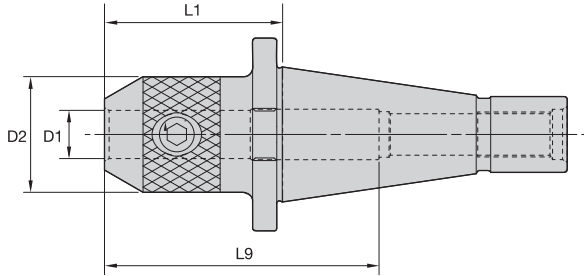
order number	catalog number	collet series	D11	L1	L9	V	lbs
1015552	QC30DA308162	DA300	.77	1.62	1.34	1.38	.73
1015546	QC30DA208181	DA200	1.15	1.81	1.42	1.49	.82
1015595	QC30DA188206	DA180	1.73	2.06	1.93	.47	.90
1015544	QC30DA108200	DA100	1.44	2.00	1.65	1.10	.90

■ Spare Parts



catalog number	locknut	locknut wrench	ft. lbs.	stop screw	wrench size stop screw
QC30DA308162	LNA308M	—	20	SS031031G	2mm & 5/64
QC30DA208181	NPA208	OEW100	40	SS044038G	2mm & 5/64
QC30DA188206	NPA188	OEW150	75	SS081041G	4mm & 5/32
QC30DA108200	LNA108M	OEW32M	55	SS056041G	4mm & 5/32

NOTE: Tighten locknut to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 DA standard straight-bore collets, see page J62.
 DA non-pullout collets, see pages J65–J68.
 For retention knobs, see page L45.



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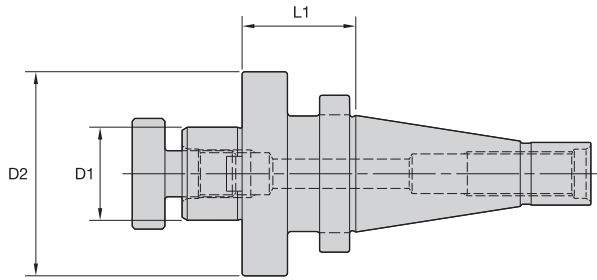
■ EM IN-QC IN



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
1018668	QC30EM018175	3/16	.69	1.75	3.40	S1045PKG	3/32	3	.73
1018669	QC30EM038175	3/8	1.00	1.75	3.40	ELS038031PKG	3/16	15	.84
1018671	QC30EM062175	5/8	1.44	1.75	2.14	DWG ELS056038	1/4	40	.96
1018242	QC30EM025175	1/4	1.00	1.75	3.40	ELS025025PKG	1/8	5	.86
1018670	QC30EM050175	1/2	1.25	1.75	3.07	ELS044038PKG	7/32	20	.90
1018672	QC30EM075213	3/4	1.75	2.13	2.27	ELS062050PKG	5/16	70	1.28
1018714	QC30EM100269	1	2.00	2.69	2.51	ELS075056PKG	3/8	110	1.73
1018715	QC30EM125363	1 1/4	2.50	3.63	2.51	ELS075062PKG	3/8	110	3.65

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw.
 Lock screw wrench not included.
 For retention knobs, see page L45.

QC30 Shank Tools



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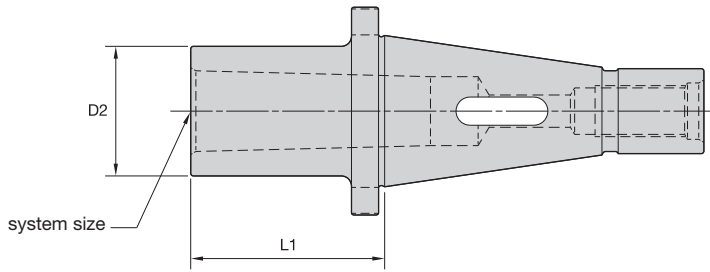
■ SM IN-QC IN



order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size retention screw	lbs
1018716	QC30SM050125	1/2	1.44	1.25	KLS05	KDK04	3/16	1
1018717	QC30SM075131	3/4	1.75	1.31	KLS07	KDK05	1/4	1
1018718	QC30SM100131	1	2.19	1.31	KLS10	KDK06	5/16	2
1018719	QC30SM125144	1 1/4	2.88	1.44	KLS12	KDK08	5/16	2
1018720	QC30SM150156	1 1/2	3.81	1.56	KLS15	KDK10	3/8	4

NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive keys.
 Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
 Lock screw wrench not included.
 For retention knobs, see page L45.

QC30 Shank Tools

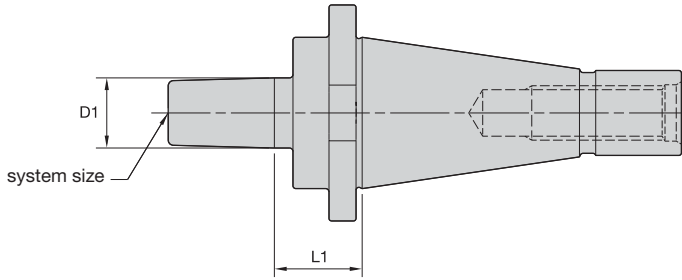


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■ MT-QC IN

order number	catalog number	system size	D2	L1	kg
1018721	QC30MT1100	1	25	25,40	0,31
1018722	QC30MT2212	2	32	53,85	0,44
1018723	QC30MT3281	3	40	71,37	0,54

NOTE: For retention knobs, see page L45.



ERICKSON

■ JT-QC IN

order number	catalog number	system size	D1	L1	lbs
1018774	QC30JT1159	1	.38	.93	.80
1018775	QC30JT2181	2	.56	.94	.84
1018776	QC30JT3219	3	.81	.97	.95
1018779	QC30JT33197	33	.62	.97	.86
1018777	QC30JT4262	4	1.12	.96	1.25
1018778	QC30JT6197	6	.68	.97	.89

NOTE: For retention knobs, see page L45.

QC30 Shank Tools

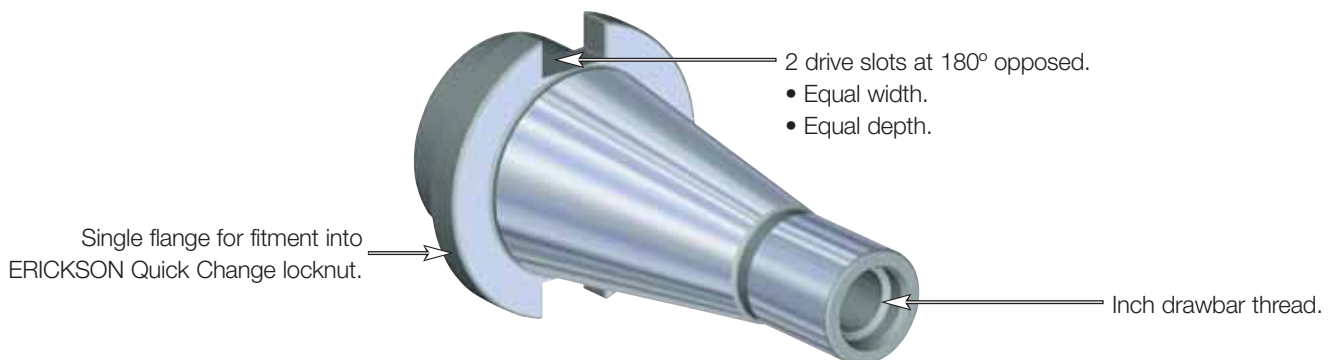
ERICKSON™ Quick Change Flange Shank Tooling System • QC40 Series

Primary Application

With an ERICKSON QC locknut retrofitted to manual-loading milling machine spindles, the ERICKSON Quick Change Flange QC Taper Tooling can be used as a quick-change system. The QC40 tools are manufactured from premium materials and meet or exceed the latest ISO-1947 taper accuracy. QC tools are balanced-by-design and will perform effectively at lower RPMs. For high speed applications Kennametal recommends that the complete toolholder assembly (toolholder, collets, hardware, and cutting tools) be balanced as one entity. Exact RPM limits can only be determined by considering machine and spindle configurations in conjunction with tooling design and safety limits factored as a complete system.

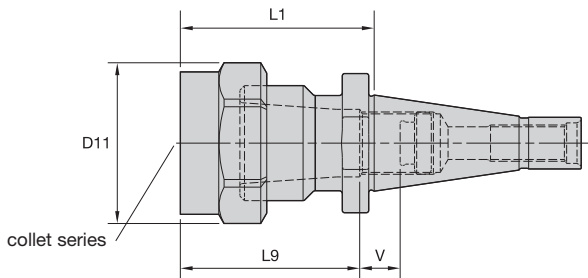
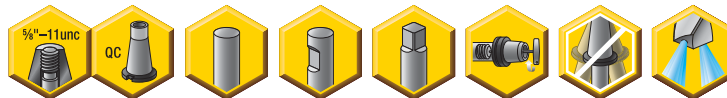
Features and Benefits

- 7/24 taper, interchangeable with NMTB and DIN2080 shank tooling.
- Hub at the tail end of taper cone houses the machine's drawbar bolt, standard 5/8" – 11 UNC – 2B thread.
- Flange faces are precision ground to accommodate ERICKSON QC locknuts.
- Taper accuracy of AT4 specification or better.
- Maximum 100 bar (1,500 psi) coolant pressure.



QC Quick Change (NMTB)

- Tremendous Grip (3:1 advantage).



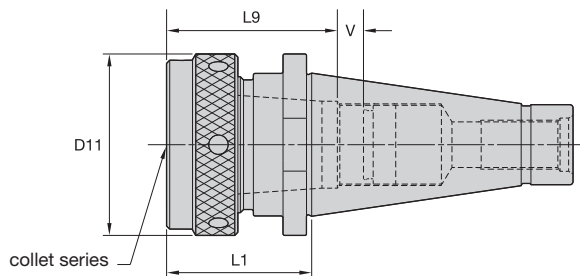
TG collet series	Collet Capacity			
	mm		inch	
TG75	min 2,6	max 20,0	min 3/64	max 3/4
TG100	min 2,6	max 25,5	min 5/64	max 1
TG150	min 11,6	max 40,0	min 23/64	max 1-1/2

ERICKSON

■ TG Hex-QC IN



order number	catalog number	collet series	D11	L1	L9	V	locknut	wrench	stop screw	wrench size stop screw	lbs
1025642	QC40TG075211	TG75	2.09	2.11	2.31	1.04	NPA075	OEW188	SS081041G	4mm & 5/32	2.07
1025643	QC40TG100255	TG100	2.50	2.55	2.72	.41	NPA100	OEW225	SS112041G	4mm & 5/32	2.56



■ TG Round-QC IN



order number	catalog number	collet series	D11	L1	L9	V	locknut	wrench	stop screw	wrench size stop screw	lbs
1013525	QC40TG150450	TG150	3.48	4.50	3.22	1.24	NPA150	PSW350	SS125050G	4mm & 5/32	5.75

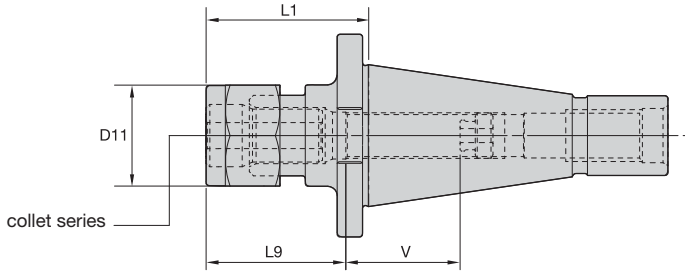
NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16–L17.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.
 TG standard straight-bore collets, see page J10.
 TG tap collets, see page J10.
 For retention knobs, see page L45.

QC40 Shank Tools

DA 08 Series Double-Angle Collet Chucks



- Grip 1:1.



ERICKSON™

DA Hex-QC IN

DA collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
DA300	0,2	6	1/64	1/4
DA200	0,2	10	1/64	25/64
DA100	1,8	14	1/64	9/16
DA180	2,2	20	1/64	3/4

QC40 Shank Tools

order number	catalog number	collet series	D11	L1	L9	V	lbs
1015413	QC40DA308163	DA300	.77	1.63	1.30	1.30	1.69
1015412	QC40DA208181	DA200	1.15	1.81	1.46	2.04	1.79
1015410	QC40DA108200	DA100	1.44	2.00	1.65	2.05	1.87
1015411	QC40DA188206	DA180	1.73	2.06	1.93	1.73	1.82

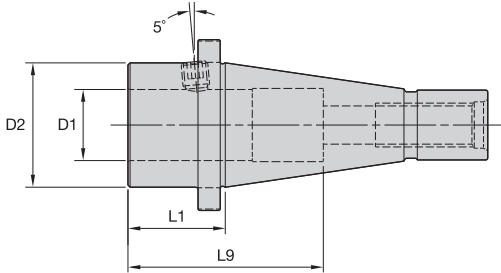
Spare Parts



catalog number	locknut	locknut wrench	ft. lbs.	stop screw	wrench size stop screw
QC40DA308163	LNA308M	—	20.00	SS031031G	2mm & 5/64
QC40DA208181	NPA208	OEW100	40.00	SS044038G	4mm & 5/32
QC40DA108200	LNA108M	OEW32M	55.00	SS056041G	4mm & 5/32
QC40DA188206	NPA188	OEW150	75.00	SS081041G	4mm & 5/32

NOTE: For retention, tighten locknut to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 DA standard straight-bore collets, see page J62.
 DA non-pullout collets, see pages J65–J68.
 For retention knobs, see page L45.

- Through-the-toolholder coolant capability — form AD.
- 1" — 8 UNC drawbar thread.
- Suitable for Whistle Notch straight-shank-style tap chucks.



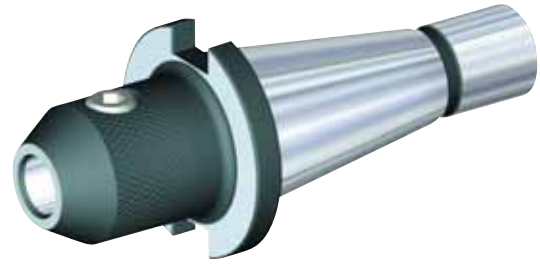
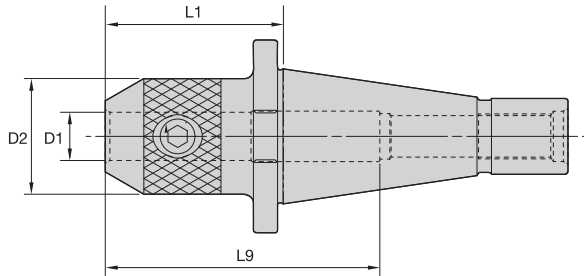
ERICKSON

■ SWN IN-QC IN

order number	catalog number	D1	D2	L1	L9	wrench size lock screw	ft. lbs.	lbs
1017943	QC40TA1137	1.00	1.75	1.38	2.75	3/16	15	1.68

NOTE: Do not overtighten clamp screw; use torque recommendations above.
Supplied with clamp screw.
Clamp screw wrench not included.
For retention knobs, see page L45.

QC40 Shank Tools



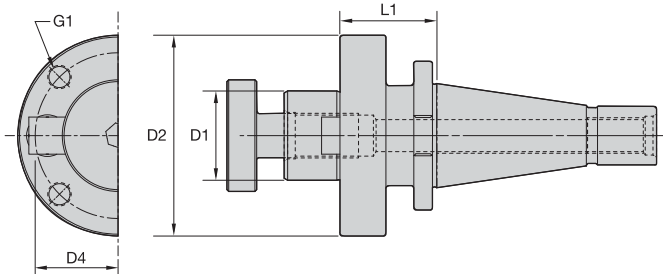
ERICKSON™

■ EM IN-QC IN



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
1018781	QC40EM018231	.19	.69	2.31	4.84	S1045PKG	3/32	3	1.74
1018667	QC40EM025138	.25	1.00	1.38	3.91	ELS025025PKG	1/8	5	1.73
1018782	QC40EM038231	.38	1.00	2.31	4.84	ELS038031PKG	3/16	15	1.86
1018783	QC40EM050231	.50	1.25	2.31	4.84	ELS044038PKG	7/32	20	2.02
1018844	QC40EM062231	.63	1.50	2.31	3.56	ELS056050PKG	1/4	40	2.18
1018845	QC40EM075231	.75	1.75	2.31	3.94	ELS062050PKG	5/16	70	2.46
1018846	QC40EM088294	.88	2.00	2.94	4.19	ELS062050PKG	5/16	70	2.80
1018847	QC40EM100338	1.00	2.00	3.38	4.49	ELS075056PKG	3/8	110	3.00
1018848	QC40EM125369	1.25	2.50	3.69	2.39	ELS075062PKG	3/8	110	4.63
1019099	QC40EM150395	1.50	2.75	3.95	2.82	ELS075062PKG	3/8	110	5.29

NOTE: Do not overtighten lock screw; use torque recommendations above.
Supplied with lock screw.
Lock screw wrench not included.
For retention knobs, see page L45.



ERICKSON

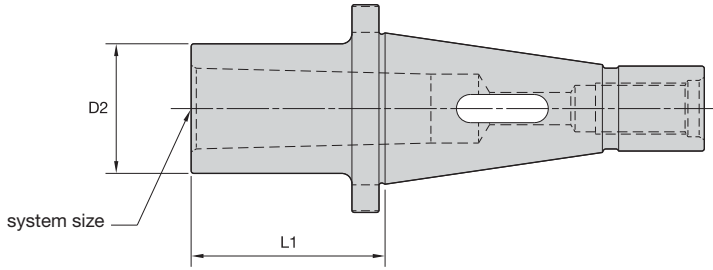
■ SM IN-QC IN



order number	catalog number	D1	D2	D4	G1	L1	lock screw	drive key	wrench size lock screw	lbs
1018849	QC40SM050088	1/2	1.44	—	—	.88	KLS05	KDK04	3/16	1.90
1018850	QC40SM075088	3/4	1.75	—	—	.88	KLS07	KDK05	1/4	2.02
1018851	QC40SM100131	1	2.19	—	—	1.31	KLS10	KDK06	5/16	2.57
1018852	QC40SM125150	1 1/4	2.88	—	—	1.50	KLS12	KDK08	5/16	3.47
1018853	QC40SM150163	1 1/2	3.38	—	—	1.63	KLS15	KDK10	3/8	4.58
1018904	QC40SM200163	2	4.88	4.00	5/8-11 UNC	1.63	KLS20	KDK12	9/16	6.85

NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive keys.
 Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
 Lock screw wrench not included.
 For retention knob, see page L45.

QC40 Shank Tools

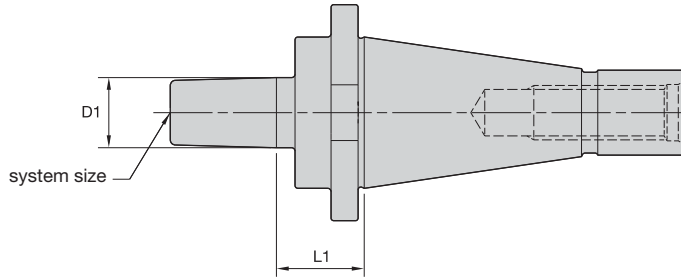


ERICKSON™

■ MT-QC IN

order number	catalog number	system size	D2	L1	lbs
1018905	QC40MT1094	1	1.00	.94	1.64
1018906	QC40MT2206	2	1.25	2.06	1.93
1018907	QC40MT3225	3	1.50	2.25	1.95
1018908	QC40MT4306	4	1.88	3.06	2.33
1019097	QC40MT5700	5	2.38	7.00	5.57

NOTE: For retention knobs, see page L45.



ERICKSON

■ JT-QC IN

order number	catalog number	system size	D1	L1	lbs
1018909	QC40JT2188	2	.56	1.01	2.02
1018910	QC40JT3225	3	.81	1.03	2.11
1018913	QC40JT33194	33	.62	.94	2.00
1018911	QC40JT4269	4	1.12	1.03	2.44
1018912	QC40JT6194	6	.68	.94	2.02

NOTE: For retention knobs, see page L45.

QC40 Shank Tools

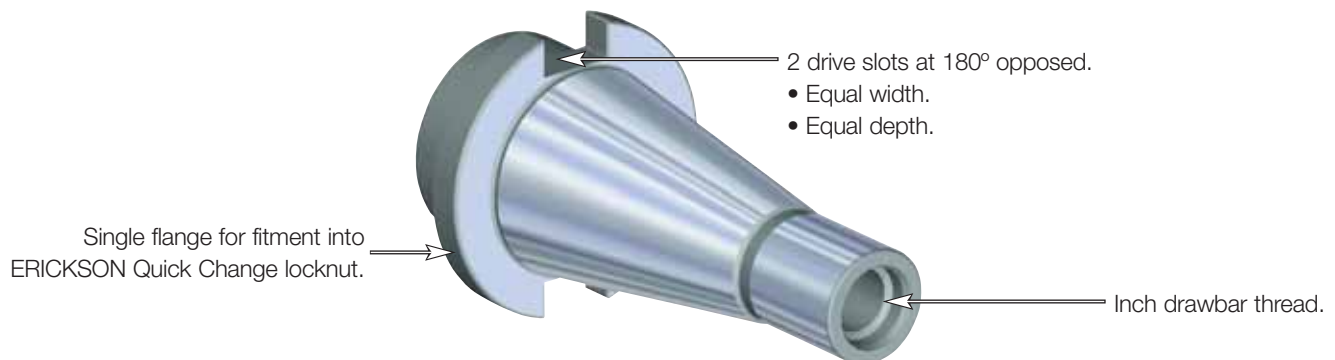
ERICKSON™ Quick Change Flange Shank Tooling System • QC50 Series

Primary Application

With an ERICKSON QC locknut retrofitted to manual-loading milling machine spindles, the ERICKSON Quick Change Flange QC Taper Tooling can be used as a quick-change system. The QC50 tools are manufactured from premium materials and meet or exceed the latest ISO-1947 taper accuracy. QC tools are balanced-by-design and will perform effectively at lower RPMs. For high speed applications Kennametal recommends that the complete toolholder assembly (toolholder, collets, hardware, and cutting tools) be balanced as one entity. Exact RPM limits can only be determined by considering machine and spindle configurations in conjunction with tooling design and safety limits factored as a complete system.

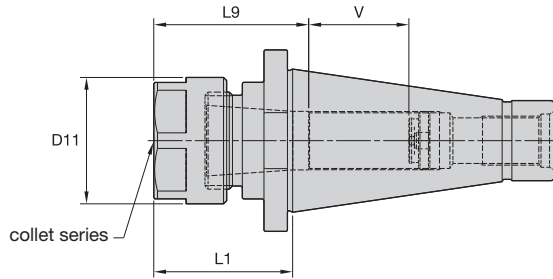
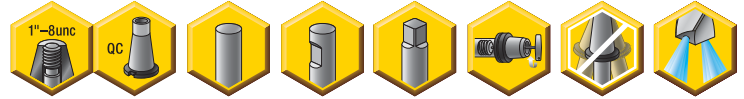
Features and Benefits

- 7/24 taper, interchangeable with NMTB and DIN2080 shank tooling.
- Hub at the tail end of taper cone houses the machine's drawbar bolt, standard 1" – 8 UNC – 2B thread.
- Flange faces are precision ground to accommodate ERICKSON QC locknuts.
- Taper accuracy of AT4 specification or better.
- Maximum 100 bar (1,500 psi) coolant pressure.



QC Quick Change (NMTB)

- Tremendous Grip (3:1 advantage).



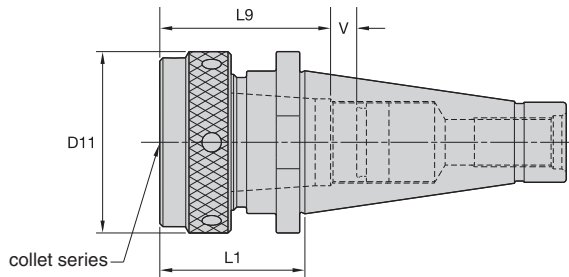
TG collet series	Collet Capacity			
	mm		inch	
TG100	min 2,6	max 25,5	min 5/64	max 1
TG150	min 11,6	max 40,0	min 23/64	max 1-1/2

ERICKSON

■ TG Hex-QC IN



order number	catalog number	collet series	D11	L1	L9	V	locknut	wrench	stop screw	wrench size stop screw	ft. lbs.	lbs
1025798	QC50TG100272	TG100	2.44	2.72	2.76	2.28	NPA100	OEW225	SS112041G	4mm & 5/32	150	6.45

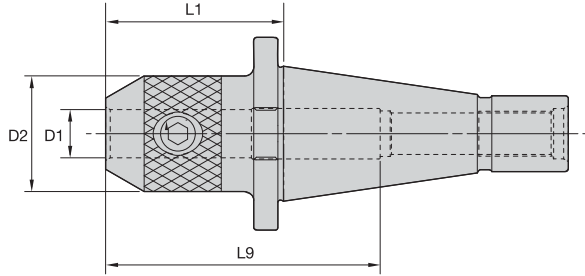


■ TG Round-QC IN



order number	catalog number	collet series	D11	L1	L9	V	locknut	wrench	stop screw	wrench size stop screw	ft. lbs.	lbs
1013526	QC50TG150284	TG150	3.50	2.84	3.15	1.26	NPA150	PSW350	SS162062G	4mm & 5/32	200	7.14

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16–L17.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 Balanceable/interchangeable locknuts are available and must be ordered separately; see page L16.
 TG standard straight-bore collets, see page J10.
 TG tap collets, see page J10.
 For retention knobs, see page L45.



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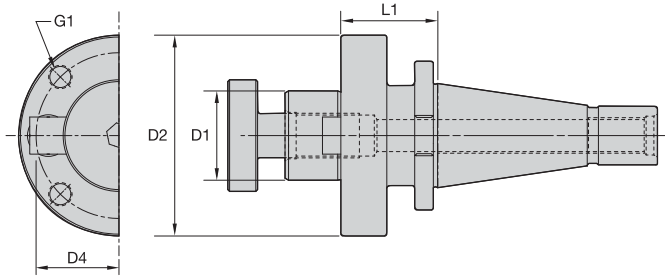
■ EM IN-QC IN



order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
1019096	QC50EM038275	3/8	1.00	2.75	5.96	ELS038031PKG	3/16	15	5.81
1018979	QC50EM050275	1/2	1.38	2.75	5.96	ELS044038PKG	7/32	20	6.07
1019101	QC50EM062275	5/8	1.63	2.75	5.96	ELS056050PKG	1/4	40	6.18
1019100	QC50EM075275	3/4	1.75	2.75	5.96	ELS062050PKG	5/16	70	6.30
1018980	QC50EM088200	7/8	2.00	2.00	4.19	ELS062050PKG	5/16	70	6.05
1018981	QC50EM100306	1	2.00	3.06	4.49	ELS075056PKG	3/8	110	6.58
1019102	QC50EM125306	1-1/4	2.50	3.06	2.39	ELS075062PKG	3/8	110	7.57
1019145	QC50EM150350	1-1/2	2.75	3.50	2.82	ELS075069PKG	3/8	110	8.42
1018982	QC50EM200475	2	3.75	4.75	3.38	ELS100088PKG	1/2	150	13.67

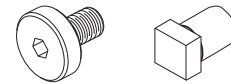
NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw.
 Lock screw wrench not included.
 For retention knobs, see page L45.

QC50 Shank Tools



ERICKSON

■ SM IN-QC IN



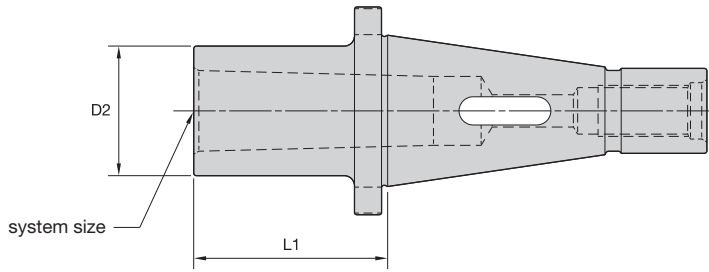
order number	catalog number	D1	D2	D4	G1	L1	lock screw	drive key	wrench size retention screw	lbs
1925520	QC50SM050125	1/2	1.44	—	—	1.25	KLS05	KDK04	3/16	5.71
1018983	QC50SM075125	3/4	1.75	—	—	1.25	KLS07	KDK05	1/4	5.78
1019273	QC50SM075600	3/4	1.75	—	—	6.00	KLS07	KDK05	1/4	9.40
1019024	QC50SM100188	1	2.19	—	—	1.88	KLS10	KDK06	5/16	7.28
1019334	QC50SM100600	1	2.19	—	—	6.00	KLS10	KDK06	5/16	11.57
1019335	QC50SM100800	1	2.19	—	—	8.00	KLS10	KDK06	5/16	14.36
1019336	QC50SM125600	1-1/4	2.75	—	—	6.00	KLS12	KDK08	5/16	14.45
1019337	QC50SM1251000	1-1/4	2.75	—	—	10.00	KLS12	KDK08	5/16	20.66
1019025	QC50SM125188	1-1/4	2.88	—	—	1.88	KLS12	KDK08	5/16	14.78
1019146	QC50SM150188	1-1/2	3.38	—	—	1.88	KLS15	KDK10	3/8	8.99
1019095	QC50SM200188	2	4.88	4.00	5/8-11 UNC	1.88	KLS20	KDK12	9/16	11.04
1019026	QC50SM250200	2-1/2	4.88	4.00	5/8-11 UNC	2.00	—	KDK16	1/2	11.94

NOTE: Do not overtighten lock screw; use torque recommendations above.
 Supplied with lock screw and drive keys.
 Interchangeable coolant-style lock screws are available and must be ordered separately; see page L38.
 Lock screw wrench not included.
 For retention knob, see page L45.

QC50 Shank Tools

QC50 Shank Tools

Morse Taper Adapters • Slotting Cutter Adapters



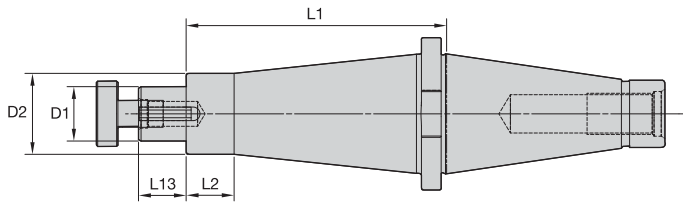
ERICKSON™

■ MT-QC IN

order number	catalog number	system size	D2	L1	lbs
1019027	QC50MT2188	2	1.25	1.88	5.61
1019028	QC50MT3238	3	1.62	2.38	5.67
1019029	QC50MT4325	4	2.00	3.25	6.44
1019030	QC50MT5462	5	2.75	4.62	8.74

NOTE: For retention knobs, see page L45.

QC50 Shank Tools



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■ SA IN-QC IN

order number	catalog number	D1	D2	L1	L2	L13	lock screw	wrench size lock screw	drive key	lbs
1026342	QC50SA125600	1-1/4	1.86	6	1.10	1.09	KLS12	5/16	DWG SDK125119	12.27
1026343	QC50SA150600	1-1/2	2.11	6	1.25	1.70	KLS15	3/8	DWG SDK150175	13.49
1026222	QC50SA200600	2	2.75	6	5.41	1.70	KLS20	9/16	SDK200169	16.72



NOTE: Do not overtighten lock screw.
 Supplied with lock screw and drive key.
 Lock screw wrench not included.
 For retention knobs, see page L45.



KSRM™

Multitpurpose Milling Cutters

Specially developed for machining titanium and stainless steel. KSRM platform enables you to pocket, profile, ramp, and plunge with up to 1 mm (.039") fz with consistent performance, providing outstanding metal removal rates with the lowest cutting forces in roughing applications.

- Anti-rotation feature with eight indexes.
- High positive topography with strong cutting edges.
- High clearance on the cutters and inserts.
- Wide cutter offering with internal coolant.
- Ground and PSTS inserts.
- Provides more stability and reliability.
- Lower cutting forces generated.
- Cutters can run with higher feed rates and better ramping capacities.
- Take advantage of through-spindle coolant to use the latest holders offered.
- Cover extensive workpiece materials.
- Superior productivity and better insert utilization/cost per edge.
- Long tool life and better metal removal rate.
- Able to convert all milling applications.
- Improve tool life and chip evacuation.
- Superior overall performance.

Experience the advantages at your Authorized Kennametal Distributor or at www.kennametal.com.

www.kennametal.com

 **KENNAMETAL®**

Shank Tooling System • R8 Shank Tooling

Primary Application

R8 Shank Toolholders are designed with a locking groove that aligns into a locking mechanism when inserted into the spindle. A milling machine drawbar bolt pulls the tool into the spindle for a secure connection.

Features and Benefits

- All non-critical surfaces are black oxide.
- Design enables coolant as a standard feature.
- Clean components prior to assembly.
- To avoid destroying the toolholder, never overtighten toolholders or neglect surface damage.



How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



R8DA188181

R8

Shank
Style

DA

Toolholder
Style

188

Toolholder
Size

181

Tool
Length

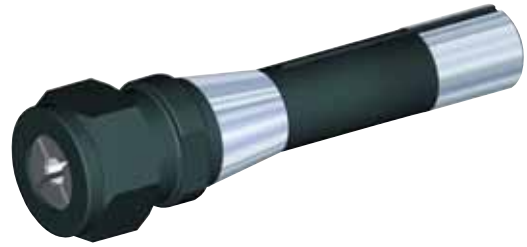
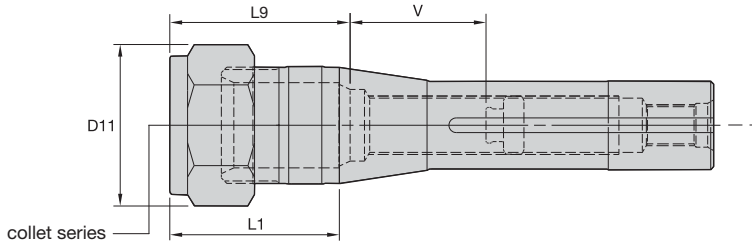
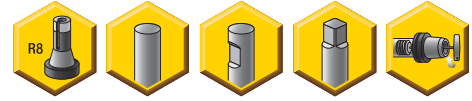
DA = Double-angle collet chuck
EM = End mill adapter
SM = Shell mill adapter

(Tool gage line
to front of tool)

inch
xxx = x.xx

DA =
Collet series xxx (188)
EM =
I.D. size: metric — xx = xx, (20);
inch — xxx = x.xx, (075)
SM =
O.D. size: metric — xx = xx, (20);
inch — xxx = x.xx, (075)

- Grip 1:1.



ERICKSON™

■ DA 08 Hex-R8

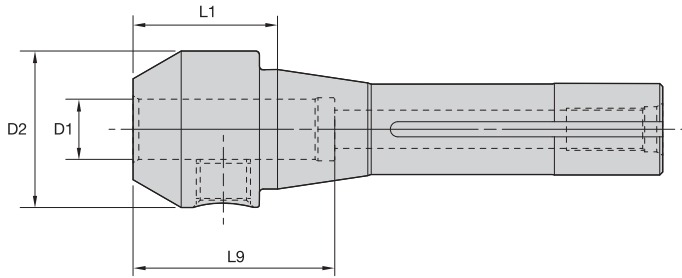
DA collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
DA180	2,2	20	1/64	3/4

order number	catalog number	collet series	D11	L1	L9	V	lbs
1015548	R8DA188181	DA180	1.73	1.81	2.29	2.36	1.01

■ Spare Parts

catalog number	locknut	locknut wrench	ft. lbs.	stop screw	wrench size stop screw
R8DA188181	NPA188	OEW150	75	SS062041G	4mm & 5/32

NOTE: For retention, tighten locknut to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 DA standard straight-bore collets, see page J62.
 DA non-pullout collets, see pages J65–J68.



ERICKSON

EM IN-R8

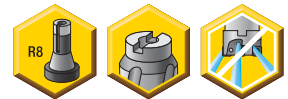
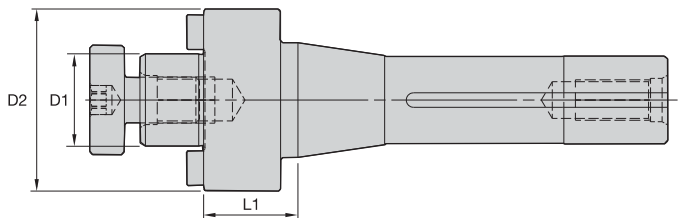


order number	catalog number	D1	D2	L1	L9	lock screw	wrench size lock screw	ft. lbs.	lbs
1286048	R8EM018112	3/16	.69	1.13	1.01	S1045PKG	3/32	5	.86
1286049	R8EM038100	3/8	1.00	1.00	1.73	ELS038031PKG	3/16	15	.90
1286050	R8EM050112	1/2	1.24	1.13	1.73	ELS044038PKG	7/32	20	.95
1286051	R8EM062150	5/8	1.63	1.50	2.09	ELS056050PKG	1/4	40	1.29
1229174	R8EM075262	3/4	1.75	2.63	2.22	ELS062050PKG	5/16	70	2.04
1286052	R8EM088306	7/8	2.00	3.06	2.22	ELS062050PKG	5/16	70	2.80
1286053	R8EM100306	1	2.00	3.06	2.46	ELS075056PKG	3/8	110	2.64
1286054	R8EM125306	1-1/4	2.50	3.06	2.51	ELS075056PKG	3/8	110	3.72

NOTE: Do not overtighten lock screw; use torque recommendations above.
Supplied with lock screw.
Lock screw wrench not included.



R8 Shank Tools



ERICKSON

SM Lock IN-R8



order number	catalog number	D1	D2	L1	lock screw	drive key	wrench size lock screw	lbs
1286058	R8SM050102	1/2	1.28	1.02	KLS05	KDK04	3/16	1.23
1286059	R8SM075102	3/4	1.63	1.02	KLS07	KDK05	1/4	1.50
1286060	R8SM100102	1	1.97	1.02	KLS10	KDK06	5/16	1.85
1286061	R8SM125102	1-1/4	2.50	1.02	KLS12	KDK08	5/16	2.51

NOTE: Do not overtighten lock screw.
Supplied with lock screw and drive keys.
Lock screw wrench not included.



Straight Shanks

Shrink Fit Toolholders .....	.I4–I5
TG Single-Angle Collet Chucks .....	.I6–I7
Standard .....	.I6
Tension and Compression .....	.I7
ER Single-Angle Collet Chucks .....	.I8–I11
Standard .....	.I8–I11
DA Double-Angle Collet Chucks .....	.I12–I22
01 Series Standard .....	.I12–I13
04 Series Standard .....	.I14–I15
08 Series Standard .....	.I16–I17
Tap Chucks .....	.I18–I20
Floating Holders .....	.I21–I22
Screw-On Adapters for Modular Milling Cutters .....	.I23–I26
Slotting Cutter Adapters .....	.I27



Shank Tooling System • Straight Shank Tools

Primary Application

Straight Shank Toolholders are ideal for extending tool length to reach difficult-to-machine areas. These toolholders are intended for use in combination with other toolholder and adapter systems.

Features and Benefits

- All non-critical surfaces are black oxide.
- Design enables coolant as a standard feature on most designs.
- Clean components prior to assembly.
- To avoid destroying the toolholder, never over tighten toolholders or neglect surface damage.



How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



ERICKSON™

SS120TG50100M

SS

Shank Style

120

Shank Taper Size

TG

Toolholder Style

50

Toolholder Size

100

Tool Length

M

Identification Value

- 120 = 12mm
- 125 = 12,5mm
- 160 = 16mm
- 190 = 19mm
- 200 = 20mm
- 250 = 25mm
- 038 = 3/8"
- 050 = 1/2"
- 062 = 5/8"
- 075 = 3/4"
- 100 = 1"
- 125 = 1-1/4"
- 150 = 1-1/2"
- 175 = 1-3/4"
- 200 = 2"

- DA** = Double-angle collet chuck
- DP** = Double pin, floating holder
- ER** = DIN 6499 single-angle collet chuck
- FC** = Fully floating holder
- SA** = Slotting cutter adapter
- STL** = DAL — tapping adapter, solid
- TCJ** = DAJ — tapping adapter, tension and compression
- TCK** = DAK — tapping adapter, tension and compression
- TCL** = DAL — tapping adapter, tension and compression
- TCTG** = TG — tapping adapter, tension and compression
- TG** = Tremendous Grip single-angle collet chuck
- TOJ** = DAJ — tapping adapter, tension only
- TOK** = DAK — tapping adapter, tension only
- TOL** = DAL — tapping adapter, tension only
- TT** = Shrink Fit thermo toolholder

(Flange face to front of tool)

metric
xxx = xxx

inch
xxx = x.xx

M = Tool built to metric values
(blank) = Tool built to inch values

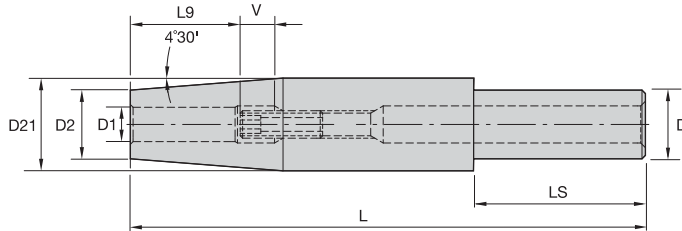
- TG** =
Collet series xx (50), xxx (100)
- EM** =
I.D. size: metric — xx = xx, (20);
inch — xxx = x.xx, (075)
- SM** =
O.D. size: metric — xx = xx, (20);
inch — xxx = x.xx, (075)

Straight Shank Tools

Shrink Fit Toolholders General Purpose (GP)



- Suitable for carbide and HSS cutting tools (requirements below).
- Slim design for extending adapters, collet chucks, and toolholders.
- 10mm (3/8") axial adjustment.



Cutting Tool Shank Requirements
metric (ISO standard)

cutting tool shank diameter	tolerance	
3	h4	0,000/-0,003
4	h4	0,000/-0,004
5	h5	0,000/-0,005
6	h6	0,000/ -0,008
8 & 10	h6	0,000/ -0,009
12	h6	0,000/ -0,011

ERICKSON

■ TT GP MM-SS MM



order number	catalog number	D	D1	D2	D21	L	LS	L9	V	stop screw	wrench size stop screw	kg
2264458	SS160TT03110M	16	3	9	15	110	50	15	10	TTSS05014M	2,5mm	0,11
2456194	SS160TT04110M	16	4	9	15	110	50	15	10	TTSS05014M	2,5mm	0,12
1801299	SS200TT04150M	20	4	9	15	150	60	15	10	TTSS05014M	2,5mm	0,22
1801300	SS200TT05150M	20	5	9	15	150	60	15	10	TTSS06014M	3mm	0,22
1801301	SS200TT06150M	20	6	15	—	150	118	26	10	TTSS05014M	2,5mm	0,30
1801302	SS200TT08150M	20	8	15	—	150	118	26	10	TTSS06014M	3mm	0,30
1801413	SS200TT10150M	20	10	20	27	150	50	31	10	TTSS08014M	4mm	0,46
1801414	SS200TT12150M	20	12	20	27	150	50	36	10	TTSS10014M	5mm	0,44

(continued)

Straight Shank Tools

(TT GP continued)

Cutting Tool Shank Requirements
inch (industry standard)

cutting tool shank diameters	tolerance
1/8 & 3/16	.0000/- .0003
1/4, 5/16, & 3/8	.0000/- .0004
7/16, 1/2, 9/16, & 5/8	.0000/- .0004

■ TT GP IN-SS IN

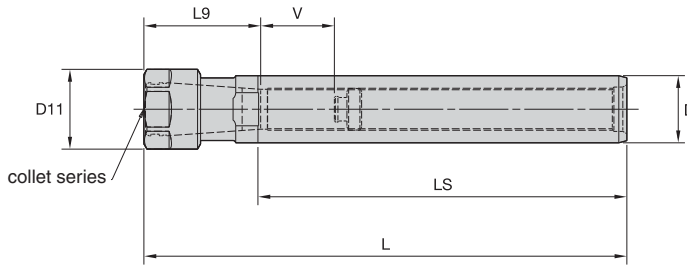
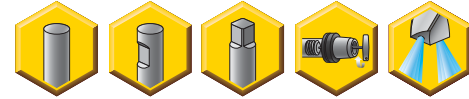


order number	catalog number	D	D1	D2	D21	L	LS	L9	V	stop screw	wrench size stop screw	lbs
1794109	SS050TT012600	1/2	1/8	.35	.50	6.00	5.07	.61	.39	TTSS05014M	2,5mm	.26
1794110	SS050TT018600	1/2	3/16	.35	.50	6.00	5.07	.61	.39	TTSS06014M	3mm	.25
1794111	SS075TT025600	3/4	1/4	.59	.75	6.00	4.98	1.02	.39	TTSS05014M	2,5mm	.62
1794112	SS075TT031600	3/4	5/16	.59	.75	6.00	4.98	1.02	.39	TTSS06014M	3mm	.61
1794233	SS075TT038600	3/4	3/8	.79	1.06	6.00	1.50	1.22	.39	TTSS08014M	4mm	1.07
1794234	SS075TT044600	3/4	7/16	.79	1.06	6.00	1.50	1.42	.39	TTSS10014M	4mm	1.05
1794235	SS075TT050600	3/4	1/2	.79	1.06	6.00	1.50	1.42	.39	TTSS10014M	5mm	1.02
1794236	SS100TT056700	1	9/16	.95	1.26	7.00	1.75	1.42	.39	TTSS10014M	4mm	1.72
1794237	SS100TT062700	1	5/8	.95	1.26	7.00	1.75	1.54	.39	TTSS12014M	6mm	1.68

Straight shank toolholders are a great complement to the Shrink Fit program. Use caution to not overheat the Slim Line design. Overheating can cause warping or permanent damage. The life cycle of the toolholders will be drastically reduced if the activating heat is not controlled. The Slim Line design permits only a limited number of heat shrinks. Testing has shown more than 300 heat shrinks can be performed with the straight shank extensions when the activation heat is controlled to less than 426 °C (800 °F).

NOTE: Do not overheat. Overheating will destroy the accuracy and functionality of the toolholder.
 Shrink Fit technical section, see page M78.
 Supplied with stop screw.
 Adjusting stop screw gage, see page M81.
 For Shrink Fit machine and accessories, see pages L12-L13.

- Tremendous Grip (3:1 advantage).



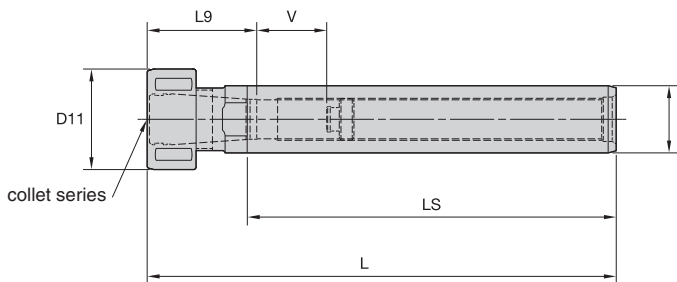
TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG50	1,1	13,5	1/32	17/32
TG75	2,6	20,0	3/64	3/4
TG100	2,6	25,5	5/64	1

ERICKSON™

■ TG Hex-SS IN



order number	catalog number	collet series	D	D11	L	L9	LS	V	locknut	locknut wrench	ft. lbs.	stop screw	wrench size stop screw	lbs
1082537	SS100TG050719	TG50	1	1.19	7.19	1.77	5.49	4.73	NPA050	OEW106	75	SS062041G	4mm & 5/32	1.03
1025794	SS125TG075850	TG75	1 1/4	2.09	8.50	2.06	6.00	3.56	NPA075	OEW188	100	SS081041G	4mm & 5/32	2.28
1025797	SS150TG075775	TG75	1 1/2	2.09	7.75	2.06	6.00	5.00	NPA075	OEW188	100	SS081041G	4mm & 5/32	2.97
2636807	SS125TG100925	TG100	1 1/4	2.44	9.25	2.88	6.00	3.63	NPA100	OEW225	150	SS081041G	4mm & 5/32	3.27
1025638	SS150TG100925	TG100	1 1/2	2.44	9.25	2.63	6.00	5.93	NPA100	OEW225	150	SS112041G	4mm & 5/32	3.52
1025796	SS175TG100819	TG100	1 3/4	2.44	8.19	2.63	6.02	4.87	NPA100	OEW225	150	SS112041G	4mm & 5/32	4.15
1025795	SS200TG100819	TG100	2	2.44	8.19	2.76	6.00	4.74	NPA100	OEW225	150	SS112041G	4mm & 5/32	5.38



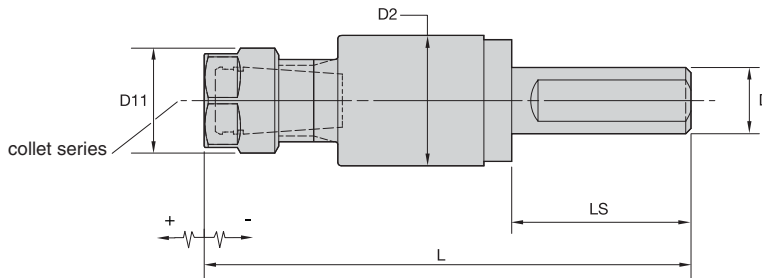
■ TG Round-SS IN



order number	catalog number	collet series	D	D11	L	L2	L9	V	locknut	wrench	ft. lbs.	stop screw	wrench size stop screw	lbs
1025637	SS100TG050698G	TG50	1	1.50	6.98	1.49	1.77	4.53	LNA050M	HSW34M	50	SS062041G	4mm & 5/32	1.15

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
Collet chuck technical section, see page M98.
Supplied with locknut and stop screw.
Locknut wrench must be ordered separately.
Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16–L17.
Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
TG standard straight-bore collets, see page J10.
TG tap collets, see page J10.

- Tremendous Grip (3:1 advantage).
- Anti-friction drive.
- Compact design.
- Adjustment hard start.



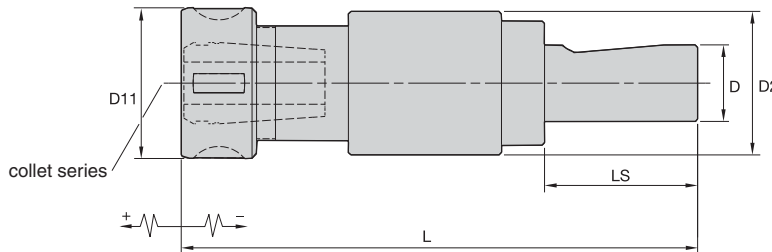
TG collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
TG50	1,1	13,5	1/32	17/32
TG75	2,6	20,0	3/64	3/4
TG100	2,6	25,5	5/64	1

ERICKSON

■ TG Hex Tap T&C-SS IN



order number	catalog number	collet series	D	D11	D2	L	LS	tension	compression	hex assembly	OEW	ft. lbs.	lbs
1288221	SS075TCTG050	TG50	3/4	1.22	1.48	5.48	2.00	.25	.30	NPA050	OEW106	75	.68



■ TG Round Tap T&C-SS IN



order number	catalog number	collet series	D	D11	D2	L	LS	tension	compression	locknut	wrench	ft. lbs.	lbs
1288256	SS100TCTG075	TG75	1	1.97	1.88	6.79	2.20	.40	.43	LNA075M	HSW45M	100	1.50
1017625	SS150TCTG100756	TG100	1 1/2	2.36	2.50	7.56	2.68	.50	.13	LNA100M	HSW58M	150	2.12

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.

Collet chuck technical section, see page M98.
Supplied with locknut.

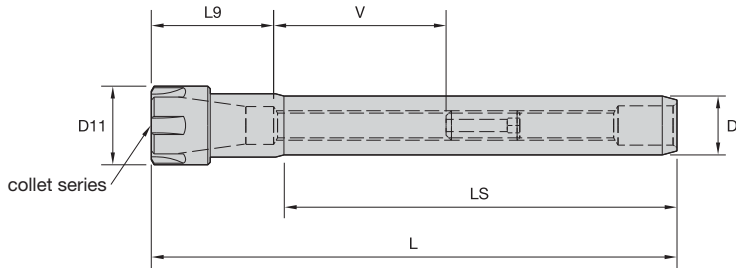
Locknut wrench must be ordered separately.

Interchangeable locknuts, coolant-style locknuts, and coolant disks are available and must be ordered separately; see pages L16-L17.

TG standard straight-bore collets, see page J10.

TG tap collets, see page J10.

- Grip (2:1 advantage).



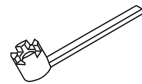
ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER11	0,5	7,0	.02	.28
ER16	0,5	10,0	.02	.41
ER20	0,5	13,0	.02	.50
ER25	1,0	16,0	.04	.63
ER32	1,0	20,0	.04	.79

ERICKSON™

■ ER Slim-SS MM

order number	catalog number	collet series	D	D11	L	LS	L9	V	kg
1288261	SS120ER11107M	ER11	12	16	107	80	24	56	0,08
1288285	SS160ER11132M	ER11	16	16	132	100	24	56	0,16
1125015	SS200ER16182M	ER16	20	22	182	140	32	68	0,32
1288321	SS250ER20190M	ER20	25	28	190	150	36	64	0,55

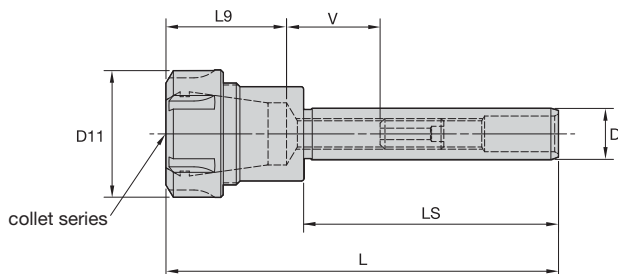
■ Spare Parts



catalog number	locknut	locknut wrench	counterbore collet torque (Nm)	straight collet torque (Nm)	stop screw	wrench size stop screw
SS120ER11107M	LER11M	ER11WEM	12	16	CSS0615M	3mm
SS200ER16182M	LER16M	ER16WEM	24	24	CSS1020M	5mm
SS250ER20190M	LER20M	ER20WEM	28	28	CSS1225M	6mm

(continued)

(ER SS MM continued)



ER Round-SS MM

order number	catalog number	collet series	D	D11	L	LS	L9	V	kg
1288303	SS200ER25146M	ER25	20	42	146	100	42	58	0,38
1288304	SS200ER32154M	ER32	20	50	154	100	49	51	0,51

Spare Parts

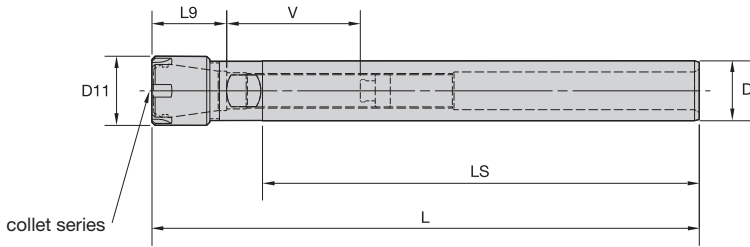


catalog number	locknut	locknut wrench	Nm	stop screw	wrench size stop screw
SS200ER25146M	LNSER25M	ER25WM	104	CSS1225M	6mm
SS200ER32154M	LNSER32M	ER32WM	136	CSS1225M	6mm

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.



- Grip (2:1 advantage).



ERICKSON™

■ ER Slim-SS IN

ER collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
ER8	0,5	0,5	.02	.20
ER11	0,5	7,0	.02	.28
ER16	0,5	10,0	.02	.41
ER20	0,5	13,0	.02	.50
ER25	1,0	16,0	.04	.63

order number	catalog number	collet series	D	D11	L	LS	L9	V	lbs
1021460	SS038ER08500	ER8	3/8	.47	5.00	4.15	.71	1.42	.10
1021462	SS050ER11700	ER11	1/2	.63	7.00	5.96	.95	3.23	.26
1021494	SS075ER16700	ER16	3/4	.87	7.00	5.47	1.30	2.24	.56

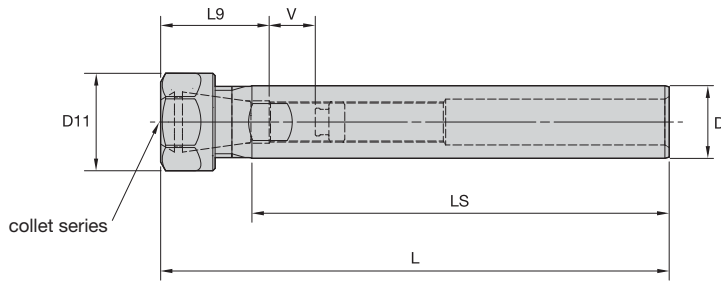
■ Spare Parts



catalog number	locknut	wrench	Nm	stop screw	wrench size stop screw
SS038ER08500	LER08M	ER08WEM	4.8	SS025031PKG	—
SS050ER11700	LER11M	ER11WEM	12.0	SS031031G	2mm & 5/64
SS075ER16700	LER16M	ER16WEM	24.0	SS044038G	4mm & 5/32

(continued)

(ER SS IN continued)



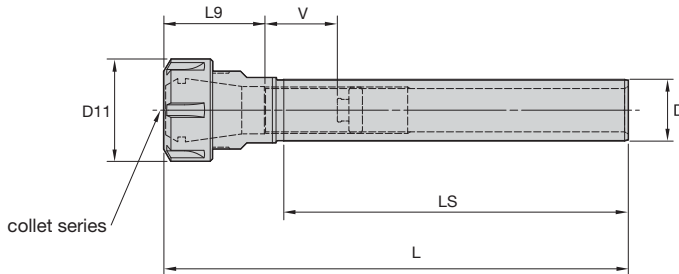
ER Hex-SS IN

order number	catalog number	collet series	D	D11	L	LS	L9	V	lbs
1021496	SS100ER20700	ER20	1.00	1.34	7.00	5.70	1.30	2.20	1.07

Spare Parts



catalog number	locknut	wrench	counterbore collet torque (ft. lbs.)	straight collet torque (ft. lbs.)	stop screw	wrench size stop screw
SS100ER20700	LNHSER20M	OEW30M	24	59	SS056041G	4mm & 5/32



ER Round-SS IN

order number	catalog number	collet series	D	D11	L	LS	L9	V	lbs
1021498	SS100ER25750	ER25	1.00	1.65	7.50	5.69	1.58	1.97	1.13

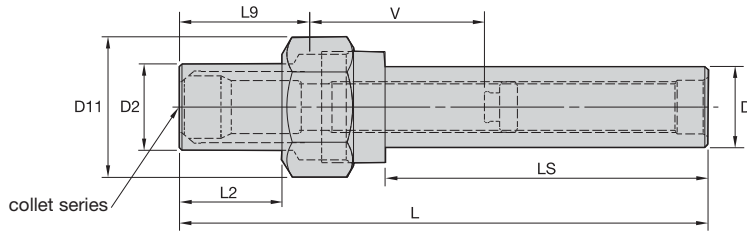
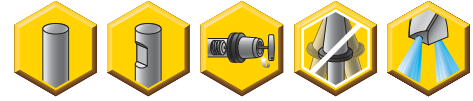
Spare Parts



catalog number	locknut	wrench	ft. lbs.	stop screw	wrench size stop screw
SS100ER25750	LNSER25M	ER25WM	77	SS075041G	4mm & 5/32

NOTE: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 ER standard straight-bore collets, see page J50.
 ER tap collets, see pages J58–J59.
 ER TCT tension-only tap collets, see page J60.

- Grip 1:1.



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■ DA 01-SS IN





DA collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
DA300	0,2	6	1/64	1/4
DA200	0,2	10	1/64	25/64
DA100	1,8	14	1/64	9/16
DA180	2,2	20	1/64	3/4

order number	catalog number	collet series	D	D2	D11	L	L2	LS	L9	V	lbs
1015309	SS050DA301544	DA300	1/2	.50	.87	5.44	.62	3.98	1.25	2.9370	.23
1015312	SS062DA301319	DA300	5/8	.50	.87	3.19	.62	1.73	1.21	1.4800	.21
1015313	SS062DA301544	DA300	5/8	.50	.87	5.44	.62	3.98	1.25	2.9410	.36
1015736	SS062DA201325	DA200	5/8	.81	1.44	3.25	.91	1.26	1.30	1.4600	.45
1015522	SS062DA201600	DA200	5/8	.81	1.44	6.00	.91	4.01	1.42	2.7559	.60
1015483	SS075DA301344	DA300	3/4	.50	.86	3.44	.61	—	1.22	1.7300	.30
1015695	SS075DA301544	DA300	3/4	.50	.86	5.44	—	3.96	1.26	3.5400	.51
1015669	SS075DA201600	DA200	3/4	.81	1.44	6.00	.91	4.01	1.11	3.0120	.71
1015601	SS075DA101650	DA100	3/4	1.06	1.73	6.50	—	3.96	1.57	4.1800	.98
1015666	SS100DA301544	DA300	1	.50	.86	5.44	.62	3.96	1.22	3.0300	.89
1015340	SS100DA201600	DA200	1	.81	1.44	6.00	.88	4.01	1.50	2.5980	1.10
1015520	SS100DA101650	DA100	1	1.06	1.73	6.50	1.26	3.96	1.69	4.0200	1.24
1015625	SS100DA181638	DA180	1	1.32	2.02	6.38	—	3.96	1.69	4.0160	1.33
1015375	SS125DA181838	DA180	1 1/4	1.32	2.02	8.38	2.42	5.96	1.73	3.9800	2.12
1015378	SS150DA201600	DA200	1 1/2	.81	1.44	6.00	—	4.01	1.50	2.6300	2.21
1015597	SS150DA181838	DA180	1 1/2	1.32	2.02	8.38	—	5.96	1.50	4.2100	3.03
1015764	SS200DA201800	DA200	2	.81	1.44	8.00	.91	6.01	1.50	2.6378	5.45
1015765	SS200DA101850	DA100	2	1.06	1.73	8.50	1.26	5.97	1.70	4.0160	5.46
1015631	SS200DA181838	DA180	2	1.32	2.02	8.38	.99	5.98	1.88	5.9060	5.41

(continued)

(DA 01-SS IN continued)

■ Spare Parts

catalog number	 nose piece	 hex locknut	 locknut wrench	ft. lbs.	 stop screw	wrench size stop screw
SS050DA301544	NP301	LN301	OEW075	20	SS031031G	2mm & 5/64
SS062DA301319	NP301	LN301	OEW075	20	SS031031G	2mm & 5/64
SS062DA301544	NP301	LN301	OEW075	20	SS031031G	2mm & 5/64
SS062DA201325	NP201	LN201	OEW125	40	SS038031G	2mm & 5/64
SS062DA201600	NP201	LN201	OEW125	40	SS038031G	2mm & 5/64
SS075DA301344	NP301	LN301	OEW075	20	SS031031G	2mm & 5/64
SS075DA301544	NP301	LN301	OEW075	20	SS031031G	2mm & 5/64
SS075DA201600	NP201	LN201	OEW125	40	SS044038G	4mm & 5/32
SS075DA101650	NP101	LN101	OEW150	45	SS050038G	4mm & 5/32
SS100DA301544	NP301	LN301	OEW075	20	SS031031G	2mm & 5/64
SS100DA201600	NP201	LN201	OEW125	40	SS044038G	4mm & 5/32
SS100DA101650	NP101	LN101	OEW150	45	SS062041G	4mm & 5/32
SS100DA181638	NP181	LN181	OEW175	75	SS075041G	4mm & 5/32
SS125DA181838	NP181	LN181	OEW150	75	SS081041G	4mm & 5/32
SS150DA201600	NP201	LN201	OEW125	40	SS044038G	4mm & 5/32
SS150DA181838	NP181	LN181	OEW175	75	SS081041G	4mm & 5/32
SS200DA201800	NP201	LN201	OEW125	40	SS044038G	4mm & 5/32
SS200DA101850	NP101	LN101	OEW150	45	SS062041G	4mm & 5/32
SS200DA181838	NP181	LN181	OEW175	75	SS081041G	4mm & 5/32

NOTE: Tighten locknut to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 DA standard straight-bore collets, see page J62.
 DA non-pullout collets, see pages J65–J68.

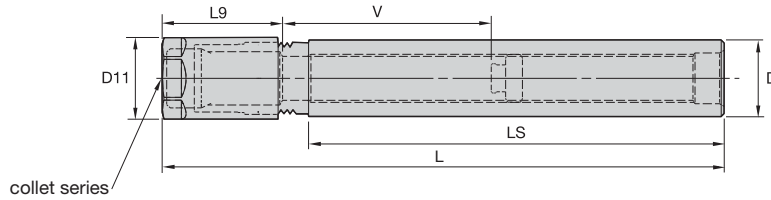
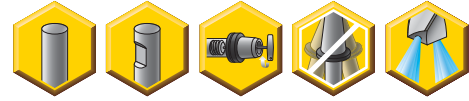


Straight Shank Tools

DA 04 Series Double-Angle Collet Chucks



- Grip 1:1.
- Small outside diameter clearance is ideal for machining centers, close center-distance, and fixture problems.



DA collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
DA000	0,65	4	—	—
DA300	0,2	6	1/64	1/4
DA200	0,2	10	1/64	25/64
DA100	1,8	14	1/64	9/16
DA180	2,2	20	1/64	3/4

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■ DA 04-SS MM

order number	catalog number	collet series	D	D11	L	LS	L9	V	kg
1015043	SS080DA000132M	DA000	8,0	10,1	132	100	—	—	0,05
1015037	SS125DA304109M	DA300	12,5	14,2	109	72	33	63	0,07
1015038	SS125DA304173M	DA300	12,5	14,2	173	136	34	126	0,11
1015034	SS190DA204117M	DA200	19,1	21,5	117	74	37	65	0,19
1015013	SS190DA204181M	DA200	19,1	21,5	181	138	42	124	0,29
1015035	SS200DA204117M	DA200	20,0	21,5	117	74	38	65	0,21
1015036	SS200DA204181M	DA200	20,0	21,5	181	138	37	128	0,32
1015011	SS250DA104122M	DA100	25,0	27,0	122	73	46	61	0,29
1015012	SS250DA104186M	DA100	25,0	27,0	186	137	46	124	0,45

■ Spare Parts



catalog number	locknut	locknut wrench	Nm	stop screw	wrench size stop screw
SS080DA000132M	LN000M	OEW9M	41	—	—
SS125DA304109M	LNA304M	OEW13M	27	SS031031G	2mm & 5/64
SS125DA304173M	LNA304M	OEW13M	27	SS031031G	2mm & 5/64
SS190DA204117M	LNA204M	OEW19M	54	SS044038G	4mm & 5/32
SS190DA204181M	LNA204M	OEW19M	54	SS044038G	4mm & 5/32
SS200DA204117M	LNA204M	OEW19M	54	SS044038G	4mm & 5/32
SS200DA204181M	LNA204M	OEW19M	54	SS044038G	4mm & 5/32
SS250DA104122M	LNA104M	OEW24M	61	SS062041G	4mm & 5/32
SS250DA104186M	LNA104M	OEW24M	61	SS062041G	4mm & 5/32

(continued)

Straight Shank Tools

(DA 04-SS continued)

■ DA 04-SS IN

order number	catalog number	collet series	D	D11	L	LS	L9	V	lbs
1015308	SS050DA304438	DA300	1/2	.56	4.38	2.93	1.34	2.60	.17
1015311	SS050DA304681	DA300	1/2	.56	6.81	5.36	1.27	2.98	.24
1015334	SS075DA204469	DA200	3/4	.84	4.69	3.00	1.50	2.63	.42
1015337	SS075DA204712	DA200	3/4	.84	7.13	5.44	1.50	3.27	.62
1015338	SS100DA104488	DA100	1	1.06	4.88	2.95	1.69	2.56	.66
1015342	SS100DA104731	DA100	1	1.06	7.31	5.38	1.73	4.96	1.02
1015517	SS125DA184738	DA180	1 1/4	1.44	7.38	5.38	1.89	4.76	1.61
1015594	SS125DA184988	DA180	1 1/4	1.44	9.88	7.86	1.89	7.20	2.15
1015737	SS150DA404104	DA400	1 1/2	1.87	10.40	7.96	2.20	7.25	2.80
1015545	SS150DA404791	DA400	1 1/2	1.88	7.91	5.18	2.19	4.81	2.22

■ Spare Parts



catalog number	locknut	wrench	ft. lbs.	stop screw	wrench size stop screw
SS050DA304438	LNA304M	OEW050	20	SS031031G	2mm & 5/64
SS050DA304681	LNA304M	OEW050	20	SS031031G	2mm & 5/64
SS075DA204469	LNA204M	OEW075	40	SS044038G	4mm & 5/32
SS075DA204712	LNA204M	OEW075	40	SS044038G	4mm & 5/32
SS100DA104488	LNA104M	OEW094	45	SS062041G	4mm & 5/32
SS100DA104731	LNA104M	OEW094	45	SS062041G	4mm & 5/32
SS125DA184738	LNA184M	OEW119	60	SS081041G	4mm & 5/32
SS125DA184988	LNA184M	OEW119	60	SS081041G	4mm & 5/32
SS150DA404104	LNA404M	OEW168	64	SS112041G	4mm & 5/32
SS150DA404791	LNA404M	OEW168	64	SS112041G	4mm & 5/32

NOTE: Tighten locknut to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 DA standard straight-bore collets, see page J62.
 DA non-pullout collets, see pages J65–J68.

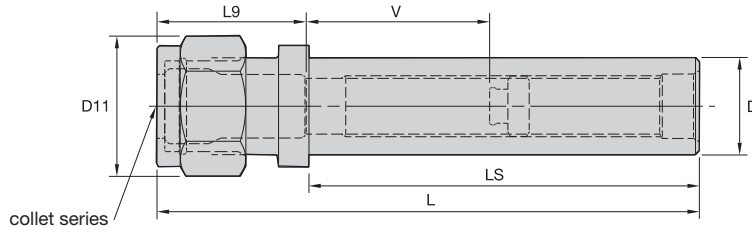
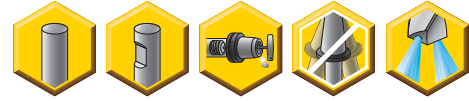
Straight Shank Tools

Straight Shank Tools

DA 08 Series Double-Angle Collet Chucks



- Grip 1:1.
- Heavy-duty design.



DA collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
DA300	0,2	6	1/64	1/4
DA200	0,2	10	1/64	25/64
DA100	1,8	14	1/64	9/16
DA180	2,2	20	1/64	3/4

■ DA 08-SS-IN

order number	catalog number	collet series	D	D11	L	LS	L9	V	lbs
1015310	SS050DA308516	DA300	1/2	.79	5.16	3.98	1.34	2.91	.22
1015519	SS062DA308516	DA300	5/8	.77	5.16	3.98	1.38	2.80	.35
1015694	SS062DA208569	DA200	5/8	1.15	5.69	4.00	1.38	2.87	.44
1015336	SS075DA308516	DA300	3/4	.79	5.16	4.24	1.97	2.62	.50
1015335	SS075DA208531	DA200	3/4	1.15	5.31	3.96	1.45	2.68	.52
1015518	SS075DA108588	DA100	3/4	1.44	5.88	4.00	1.73	3.62	.67
1015696	SS100DA308516	DA300	1	.77	5.16	3.98	1.38	2.76	.88
1015734	SS100DA208431	DA200	1	1.15	4.31	2.96	1.50	2.24	.73
1015341	SS100DA208531	DA200	1	1.15	5.31	3.95	1.46	2.68	.91
1015698	SS100DA108556	DA100	1	1.44	5.56	3.99	1.75	3.21	.90
1015339	SS100DA188638	DA180	1	1.73	6.38	4.00	1.97	3.82	1.04
1015703	SS125DA208531	DA200	1-1/4	1.15	5.31	3.96	1.50	2.59	1.40
1015343	SS125DA108556	DA100	1-1/4	1.44	5.56	3.99	1.77	3.19	1.40
1015374	SS125DA108756	DA100	1-1/4	1.44	7.56	5.99	1.77	3.94	1.92
1015376	SS125DA188762	DA180	1-1/4	1.73	7.63	5.91	1.93	5.04	1.76
1015379	SS150DA208531	DA200	1-1/2	1.15	5.31	3.96	1.50	3.22	2.02
1015629	SS150DA208731	DA200	1-1/2	1.15	7.31	5.96	1.46	2.67	2.91
1015380	SS150DA108756	DA100	1-1/2	1.44	7.56	5.99	1.77	3.94	2.83
1015381	SS150DA188762	DA180	1-1/2	1.73	7.63	5.91	1.93	5.08	2.64
1015404	SS175DA188762	DA180	1-3/4	1.73	7.63	5.91	1.93	5.08	3.70
1015405	SS200DA188762	DA180	2	1.73	7.63	5.91	1.89	5.22	4.92

(continued)

Straight Shank Tools

(DA 08-SS IN continued)

■ Spare Parts



catalog number	locknut	wrench	ft. lbs.	stop screw	wrench size stop screw
SS050DA308516	LNA308M	OEW068	20	SS031031G	2mm & 5/64
SS062DA308516	LNA308M	OEW068	20	SS031031G	2mm & 5/64
SS062DA208569	NPA208	OEW100	40	SS038031G	2mm & 5/64
SS075DA308516	LNA308M	OEW068	20	SS031031G	2mm & 5/64
SS075DA208531	NPA208	OEW100	40	SS044038G	4mm & 5/32
SS075DA108588	LNA108M	OEW125	55	SS050038G	4mm & 5/32
SS100DA308516	LNA308M	OEW068	20	SS031031G	2mm & 5/64
SS100DA208431	NPA208	OEW100	40	SS044038G	4mm & 5/32
SS100DA208531	NPA208	OEW100	40	SS044038G	4mm & 5/32
SS100DA108556	LNA108M	OEW125	55	SS062041G	4mm & 5/32
SS100DA188638	NPA188	OEW150	75	SS075041G	4mm & 5/32
SS125DA208531	NPA208	OEW100	40	SS044038G	4mm & 5/32
SS125DA108556	LNA108M	OEW125	55	SS062041G	4mm & 5/32
SS125DA108756	LNA108M	OEW125	55	SS062041G	4mm & 5/32
SS125DA188762	NPA188	OEW150	75	SS081041G	4mm & 5/32
SS150DA208531	NPA208	OEW100	40	SS044038G	4mm & 5/32
SS150DA208731	NPA208	OEW100	40	SS044038G	4mm & 5/32
SS150DA108756	LNA108M	OEW125	55	SS062041G	4mm & 5/32
SS150DA188762	NPA188	OEW150	75	SS081041G	4mm & 5/32
SS175DA188762	NPA188	OEW150	75	SS081041G	4mm & 5/32
SS200DA188762	NPA188	OEW150	75	SS081041G	4mm & 5/32

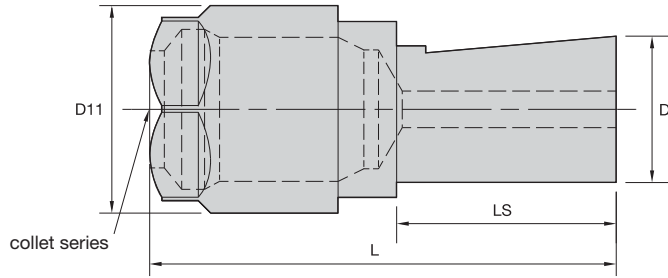
NOTE: For retention tighten locknut to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut and stop screw.
 Locknut wrench must be ordered separately.
 Stop screw coolant caps are available and must be ordered separately; see pages L34–L35.
 DA standard straight-bore collets, see page J62.
 DA non-pullout collets, see pages J65–J68.

Straight Shank Tools

DA L Tap Series Solid Tapping, Double-Angle Collet Chucks



- Grip 1:1.
- Industry standard Erickson™ double-angle collet system.
- Small outside diameter clearance is ideal for machining centers, close center-distance, and fixture issues.
- Solid drive/positive drive collets prevent tap slippage.
- Right- or left-hand tapping capability.
- Economical to use.



DA L collet series	mm		Collet Capacity			
	min	max	min	max	min	max
L	M5	M24	#0	7/8	1/16P	1/2P

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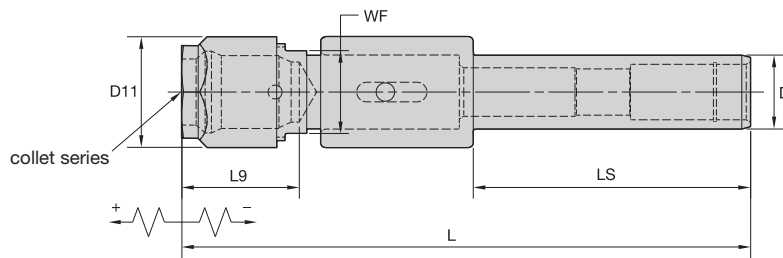
■ DA L Tap Solid-SS IN



order number	catalog number	collet series	D	D11	L	LS	locknut	ft. lbs.	wrench	lbs
1017941	SS100STL169	L	1	1.50	3.19	1.50	LNAL04M	60	OEW125	1.59

NOTE: Tighten locknut to the recommended tightening torque.
 Collet chuck technical section, see page M98.
 Supplied with locknut.
 Locknut wrench must be ordered separately.
 DA standard straight-bore collets, see page J62.

- Grip 1:1.
- Industry standard Erickson™ double-angle collet system.
- Small outside diameter clearance is ideal for use on machining centers, close center-distance, and fixture issues.
- Use for through hole tapping.
- Key drive.
- Right- or left-hand tapping capability.
- Alternate springs available to adjust tension pressure to control thread quality in a variety of workpiece conditions.
- Positive-drive collets prevent tap slippage.
- Economical to use.



DA J, K, and L collet series	mm		Collet Capacity			
	min	max	inch		min	max
J	M1	M12	#0	1/2	1/16P	—
K	M1	M16	#0	5/8	1/16P	1/8P
L	M5	M24	#0	7/8	1/16P	1/2P

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■ DA J, K, and L Tap T&C-SS • Inch



order number	catalog number	collet series	D	D11	L	LS	L9	tension	compression	WF	locknut	ft. lbs.	wrench	lbs
1017581	SS075TCJ731	J	3/4	.85	7.31	5.44	1.50	.56	.19	.562	LNA204M	40	OEW075	.72
1017748	SS100TCK719	K	1	1.06	7.19	5.44	—	.56	.19	.750	LNAK04M	45	OEW094	1.23
1017580	SS100TCL769	L	1	1.50	7.69	3.75	—	.56	.19	1.125	LNAL04M	60	OEW125	2.06

NOTE: Do not overtighten locknut; use torque recommendations above.
 Collet chuck technical section, see page M98.
 Supplied with locknut.
 Locknut wrench must be ordered separately.
 DA standard straight-bore collets, see page J62.

■ Alternate Tension Adjustment Springs for Tension and Compression Chucks

tap chuck	standard spring	alternate spring	preload (lb/in ²)
SS075TCJ731	CS0563041156PKG	—	2.37
—	—	heavier CS054001150PKG	3.50
SS100TCK719	CS0720067125PKG	—	6.75
—	—	lightest CS0563041156PKG	2.37
—	—	lightest CS0600049125PKG	3.25
—	—	heavier CS0600055150PKG	7.50
—	—	heaviest CS0600072150PKG	18.00
SS100TCL769	CS0600072150PKG	—	18.00
—	—	light CS0600055150 PKG	7.50

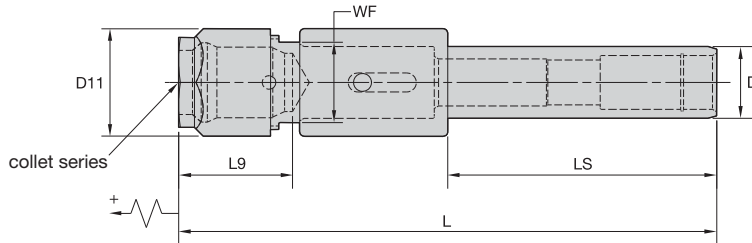
NOTE: There are two springs in a package.

Straight Shank Tools

DA J, K, and L Tap Series Double-Angle Collet Chucks, Tension Only



- Grip 1:1.
- Industry standard Erickson™ double-angle collet system.
- Small outside diameter clearance is ideal for use with machining centers, close center-distance, and fixture issues.
- Use for through hole tapping.
- Solid hard start ensures tap will start at same point every time, regardless if it is sharp or dull.
- Key drive.
- Right- or left-hand tapping capability.
- Alternate springs available to adjust tension pressure to control thread quality in a variety of workpiece conditions.
- Positive-drive collets prevent tap slippage.
- Economical to use.



DA J, K, and L collet series	mm		Collet Capacity			
	min	max	min	max	min	max
J	M1	M12	#0	1/2	1/16P	—
K	M1	M16	#0	5/8	1/16P	1/8P
L	M5	M24	#0	7/8	1/16P	1/2P

Straight Shank Tools

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■ DA J, K, and L Tap Tension Only-SS • Inch



order number	catalog number	collet series	D	D11	L	LS	L9	tension	WF	locknut	ft. lbs.	wrench	lbs
1017627	SS075TOJ712	J	3/4	.85	7.13	5.44	1.50	.50	.562	LNA204M	40	OEW075	.72
1017629	SS100TOK700	K	1	1.06	7.00	5.44	1.47	.75	.750	LNAK04M	45	OEW094	1.14
1017631	SS100TOL750	L	1	1.50	7.50	3.75	1.59	.75	1.125	LNAL04M	60	OEW125	2.08

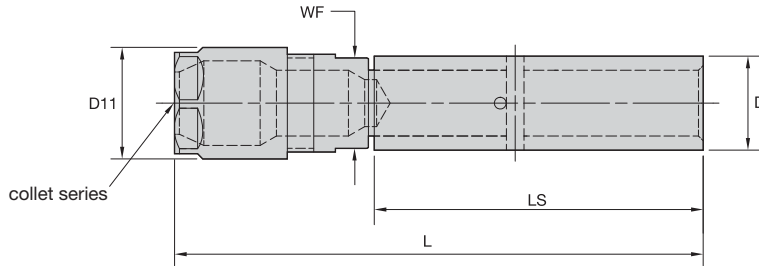
NOTE: Do not overtighten locknut; use torque recommendations above.
 Collet chuck technical section, see page M98.
 Supplied with locknut.
 Locknut wrench must be ordered separately.
 DA standard straight-bore collets, see page J62.

■ Alternate Tension Adjustment Springs for Tension-Only Chucks

tap chuck	standard spring	alternate spring	preload (lb/in ²)
SS075TOJ712	CS0563041156PKG	—	2.37
—	—	heavier CS0540041150 PKG	3.50
SS100TOK700	CS0600055150PKG	—	7.50
—	—	lighter CS0563041156 PKG	2.37
SS100TOL750	CS0600049125PKG	—	3.25
—	—	heavier CS0600055150 PKG	7.50

NOTE: There are two springs in a package.

- Grip 1:1.
- Industry standard Erickson™ double-angle collet system.
- Ideal for machining centers.
- Tool holder provides 0,10mm (.004") movement in all directions to compensate for angular and parallel misalignments.
- Minimum outside diameter and overhang provide maximum tool clearance.



DA collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
DA300	0,2	6	1/64	1/4
DA200	0,2	10	1/64	25/64
DA100	1,8	14	1/64	9/16
DA180	2,2	20	1/64	3/4

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■ DA 08 DP F-SS IN



order number	catalog number	collet series	D	D11	L	LS	WF	locknut	wrench	ft. lbs.	lbs
1015905	SS050DP308403	DA300	1/2	.69	4.03	2.50	.500	NPA338	OEW062	20	.22
1015906	SS075DP308403	DA300	3/4	.69	4.03	2.50	.500	NPA338	OEW062	20	.50
1015980	SS075DP208448	DA200	3/4	.94	4.50	3.00	.625	NPA238	OEW088	40	.56
1015949	SS100DP308403	DA300	1	.69	4.03	2.50	.500	NPA338	OEW062	20	.89
1015981	SS100DP208448	DA200	1	.94	4.50	3.00	.625	NPA238	OEW088	40	.99
1015979	SS100DP108562	DA100	1	1.19	5.63	3.50	.875	NPA139	OEW088	55	1.24
1015944	SS125DP188696	DA180	1-1/4	1.50	6.97	4.50	1.125	LNA138	OEW138	75	2.41

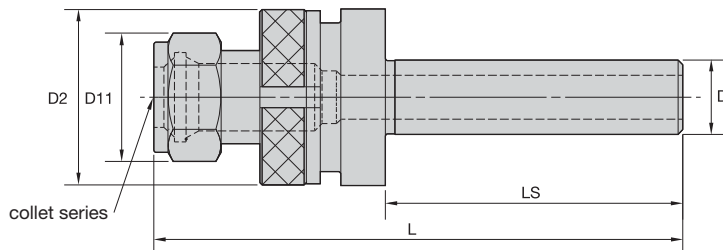
NOTE: Do not overtighten locknut; use torque recommendations above.
 Using two wrenches is recommended to prevent premature wear on the floating mechanism. Wrenches must be ordered separately.
 Collet chuck technical section, see page M98.
 Supplied with locknut.
 DA standard straight-bore collets, see page J62.

Straight Shank Tools

DA 08 FF Series Double-Angle Collet Chucks, Fully Floating Holders



- Grip 1:1.
- Industry standard Erickson™ double-angle collet system.
- Recommended only for stationary applications (lathe).
- Toolholder provides 0,25mm (.010") movement in all directions to compensate for angular and parallel misalignments.
- Hollow design enables coolant through the tool and short projection lengths.
- Adjusting nut varies spring tension to compensate for cutter weight.



DA 08 collet series	Collet Capacity			
	mm		inch	
	min	max	min	max
DA180	2,2	20	1/64	3/4

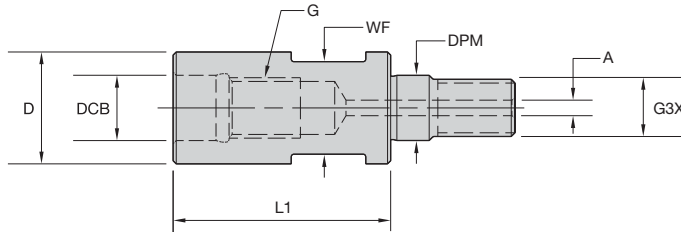
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■ DA 08 FF-SS IN



order number	catalog number	collet series	D	D11	D2	L	LS	locknut	wrench	wrench	ft. lbs.	lbs
1015975	SS075FC188688	DA180	3/4	1.73	2.38	6.88	4.00	NPA188	OEW150	HSW58M	75	.86
1015982	SS100FC188688	DA180	1	1.73	2.38	6.88	4.00	NPA188	OEW150	HSW58M	75	1.52
1015910	SS125FC188888	DA180	1 1/4	1.73	2.38	8.88	6.00	NPA188	OEW150	HSW58M	75	4.08
1015952	SS150FC188688	DA180	1 1/2	1.73	2.38	6.88	4.00	NPA188	OEW150	HSW58M	75	3.44
1015947	SS150FC188888	DA180	1 1/2	1.73	2.38	8.88	6.00	NPA188	OEW150	HSW58M	75	4.44
1015976	SS175FC188888	DA180	1 3/4	1.73	2.38	8.88	6.00	NPA188	OEW150	HSW58M	75	6.04
1013502	SS200FC188888	DA180	2	1.73	2.38	8.88	6.00	NPA188	OEW150	HSW58M	75	—

NOTE: Do not overtighten locknut; use torque recommendations above.
 Locknut and adjusting nut wrenches must be ordered separately.
 Collet chuck technical section, see page M98.
 Supplied with locknut.
 DA standard straight-bore collets, see page J62.



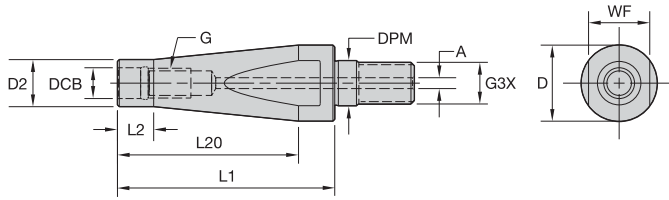
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■ ST Ext-ST

order number	catalog number	DCB	G	DPM	G3X	D	A	L1	WF	kg
4074158	M06MST06025M	6,5	M6	6,5	M6	9,8	2	25	7	0,01
4074159	M08MST08030M	8,5	M8	8,5	M8	13,0	2	30	10	0,03
4074160	M10MST10035M	10,5	M10	10,5	M10	18,0	3	35	15	0,06
4074161	M12MST12040M	12,5	M12	12,5	M12	21,0	3	40	17	0,10
4074162	M16MST16040M	17,0	M16	17,0	M16	29,0	4	40	22	0,18

NOTE: For Screw-On end mill cutters, see the Kennametal Innovations Master Catalog Cutting Tools 2013.





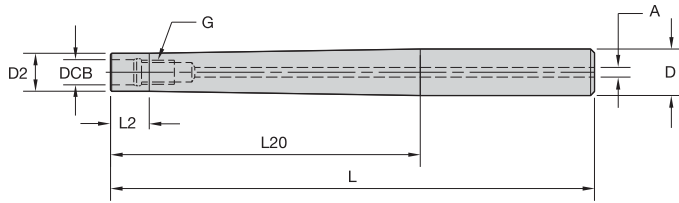
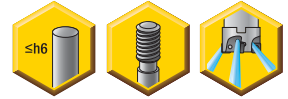
ERICKSON™

■ ST Red-ST

order number	catalog number	DCB	G	DPM	G3X	D	D2	A	L1	L2	L20	WF
4077826	M08MST06025M	6,5	M6	8,5	M8	13	10	2,0	25	10	15	10
4077815	M10MST08030M	8,5	M8	10,5	M10	18	13	2,5	30	10	20	15
4077822	M12MST06080M	6,5	M6	12,5	M12	21	10	3,0	80	10	70	17
4077818	M12MST06040M	6,5	M6	12,5	M12	21	10	3,0	40	10	30	17
4077820	M12MST10035M	10,5	M10	12,5	M12	21	18	3,0	35	10	25	17
4077816	M12MST06060M	6,5	M6	12,5	M12	21	10	3,0	60	10	50	17
4077817	M12MST08080M	8,5	M8	12,5	M12	21	13	3,0	80	10	70	17
4077819	M12MST08060M	8,5	M8	12,5	M12	21	13	3,0	60	10	50	17
4077821	M12MST08040M	8,5	M8	12,5	M12	21	13	3,0	40	10	30	17
4077825	M16MST10060M	10,5	M10	17,0	M16	29	18	4,0	60	10	50	22
4074194	M16MST12040M	12,5	M12	17,0	M16	29	21	4,0	35	10	25	22
4074193	M16MST08060M	8,5	M8	17,0	M16	29	13	4,0	60	10	50	22
4077824	M16MST10080M	10,5	M10	17,0	M16	29	18	4,0	80	10	70	22
4077823	M16MST08080M	8,5	M8	17,0	M16	29	13	4,0	80	10	70	22

NOTE: For Screw-On end mill cutters, see the Kennametal Innovations Master Catalog Cutting Tools 2013.

- Heavy metal for strength.



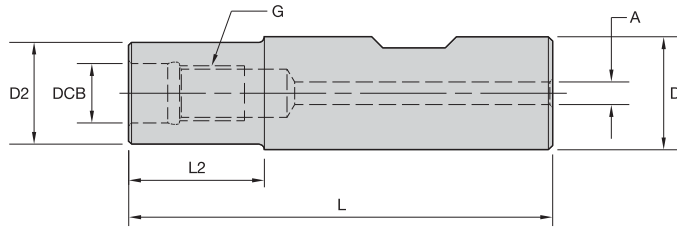
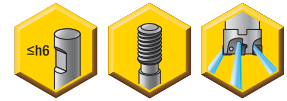
ERICKSON

■ ST EXT-SS MM

order number	catalog number	DCB	G	D	D2	A	L	L2	L20
4160427	SS120STCHM06085M	6,5	M6	12	10	2,5	85	10	40
4160428	SS120STCHM06105M	6,5	M6	12	10	2,5	105	10	60
4160430	SS120STCHM06125M	6,5	M6	12	10	2,5	125	10	80
4160431	SS160STCHM08088M	8,5	M8	16	13	3,0	88	10	40
4160473	SS160STCHM08128M	8,5	M8	16	13	3,0	128	10	80
4160432	SS160STCHM08108M	8,5	M8	16	13	3,0	108	10	60
4160474	SS160STCHM08148M	8,5	M8	16	13	3,0	148	10	100
4160475	SS160STCHM08168M	8,5	M8	16	13	3,0	168	10	120
4160480	SS200STCHM10170M	10,5	M10	20	18	3,5	170	10	130
4160479	SS200STCHM10150M	10,5	M10	20	18	3,5	150	10	100
4160478	SS200STCHM10130M	10,5	M10	20	18	3,5	130	10	80
4160477	SS200STCHM10110M	10,5	M10	20	18	3,5	110	10	60
4160476	SS200STCHM10090M	10,5	M10	20	18	3,5	90	10	40

NOTE: For Screw-On end mill cutters, see the Kennametal Innovations Master Catalog Cutting Tools 2013.

Straight Shank Tools

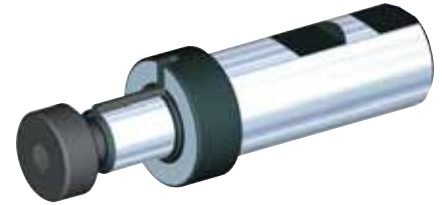
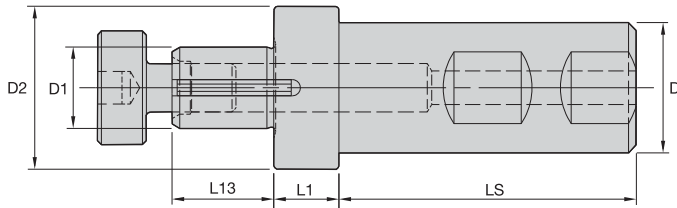


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■ ST EXT-WN MM

order number	catalog number	DCB	G	D	D2	A	L	L2
4074129	M06WST10060M	6,5	M6	10	10	2	60	19
4074131	M08WST16073M	8,5	M8	16	13	4	73	24
4074132	M10WST20080M	10,5	M10	20	18	4	75	24
4074153	M12WST25086M	12,5	M12	25	21	5	86	29
4074154	M16WST32095M	17,0	M16	32	29	6	95	34

NOTE: For Screw-On end mill cutters, see the Kennametal Innovations Master Catalog Cutting Tools 2013.



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SA-SS IN



order number	catalog number	D	D1	D2	L1	LS	L13	lock screw	wrench size lock screw	drive key	spacing collar	lbs
1288235	SS100SA062050	1	5/8	1.25	.50	2.28	.78	KLS07	1/4	DWG SDK062088	—	.74
1288264	SS125SA100075	1 1/4	1	1.61	.75	2.28	.94	KLS10	5/16	DWG SDK100106	—	1.46
1015362	SS125SA125075	1 1/4	1 1/4	1.86	.75	2.28	1.09	KLS12	5/16	DWG SDK125119	QNB-80617B	2.05
1015363	SS150SA150100	1 1/2	1 1/2	2.11	1.00	2.69	1.70	KLS15	3/8	DWG SDK150175	—	3.28
1015384	SS200SA200100	2	2	2.75	1.00	3.25	1.70	KLS20	9/16	SDK200169	—	6.64

NOTE: Do not overtighten lock screw.
 Item 1288264 is supplied with .156" spacer.
 Item 1015362 is supplied with .250" spacer.
 Supplied with lock screw and drive key.
 Lock screw wrench not included.



Collets and Sleeves

HC Hydraulic Chuck Sleeves	J2–J5
SMC Bearing Milling Chuck Sleeves	J6–J9
TG Single-Angle Collets (Standard, Coolant, High Precision, Non-Pullout [End Mill], and Tap Collets)	J10–J48
TG50 Series	J14–J21
TG75 Series	J22–J29
TG100 Series	J30–J41
TG150 Series	J42–J48
ER Single-Angle Collets (ER8, 11, 16, 25, 32, and 40)	J50–J60
Standard Collets	J54–J57
Solid Tap Collets	J58–J59
Tension Tap Collets	J60
DA Double-Angle Collets (DA100, 180, 200, and 300)	J62–J75
Standard Collets	J65–J69
DA-J Solid Tap Collets	J71
DA-K Solid Tap Collets	J72–J73
DA-L Solid Tap Collets	J74–J75
RC Rapid Quick-Change Tap Adapters	J76–J81



ERICKSON™ HC Hydraulic Chuck Sleeves • Drilling

Primary Application

ERICKSON Hydraulic Reduction Sleeves are specially designed for high-precision clamping of straight cylindrical cutting tool shanks. The self-sealing design enables efficient use of through-coolant cutting tools when the cutting tool shank completely engages the full gripping length of the sleeve.

Features and Benefits

- One-piece design with slot configuration to seal coolant.
- Cutting tool must be cylindrical and have a through hole when using coolant.
- Capable of up to 100 bar (1,500 psi) coolant pressure.
- Cutting tool shank requirement tolerance is h6 and Ra $\geq 0,3 \mu\text{m}$ (12 μin) surface finish.
- Maximum collapse is h6.



How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



20MHC160M

20

System Size

- 12 = 12mm
- 20 = 20mm
- 32 = 32mm
- 50 = 1/2"
- 75 = 3/4"
- 12 = 1-1/4"

M

System Value

M = Previous two numbers built in metric values

HC

Sleeve Style

HC = Hydraulic Chuck

160

Sleeve Bore Size

metric (xx.x)

- 010 = 1mm
- 160 = 16mm
- 250 = 25mm

inch (x.xxx)

- 0125 = 1/8"
- 0500 = 1/2"
- 1000 = 1"

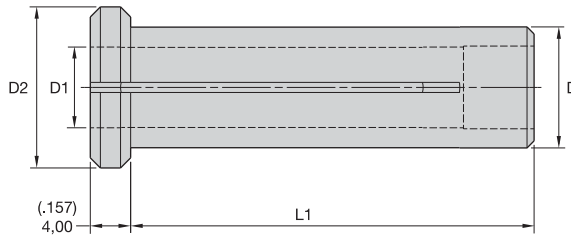
M

Identification Value

M = Sleeve bore size built to metric values
(blank) = Sleeve bore size built to metric values



- One-piece design with slot configuration to seal coolant.
- Cutting tool must be cylindrical and have a through hole when using coolant.
- Sleeve must be inserted completely into the hydraulic chuck until shoulder mates against the hydraulic chuck front face.
- Cutting tools must be in full contact with the sleeve length (L1).



ERICKSON™

■ Metric with Metric Bores

D1	12HC D = 12mm D2 = 16mm L1 = 40mm	20HC D = 20mm D2 = 25mm L1 = 50mm	25HC D = 25mm D2 = 30mm L1 = 56mm	32HC D = 32mm D2 = 36mm L1 = 60mm
3,0	12MHC030M	20MHC030M	25MHC030M	—
4,0	12MHC040M	20MHC040M	25MHC040M	—
5,0	12MHC050M	20MHC050M	25MHC050M	—
6,0	12MHC060M	20MHC060M	25MHC060M	32MHC060M
7,0	12MHC070M	20MHC070M	25MHC070M	32MHC070M
8,0	12MHC080M	20MHC080M	25MHC080M	32MHC080M
9,0	12MHC090M	20MHC090M	25MHC090M	32MHC090M
10,0	12MHC100M	20MHC100M	25MHC100M	32MHC100M
11,0	—	20MHC110M	—	32MHC110M
12,0	—	20MHC120M	25MHC120M	32MHC120M
13,0	—	20MHC130M	—	32MHC130M
14,0	—	20MHC140M	25MHC140M	32MHC140M
15,0	—	20MHC150M	—	32MHC150M
16,0	—	20MHC160M	25MHC160M	32MHC160M
17,0	—	—	—	32MHC170M
18,0	—	—	25MHC180M	32MHC180M
19,0	—	—	—	32MHC190M
20,0	—	—	25MHC200M	32MHC200M
22,0	—	—	—	32MHC220M
25,0	—	—	—	32MHC250M

(continued)

Collets and Sleeves

(HC Hydraulic Chuck Sleeves continued)

■ Metric with Inch Bores

D1	20HC	32HC
	D = 20mm D2 = 25mm L1 = 50mm	D = 32mm D2 = 36mm L1 = 60mm
3/16	20HCM0188	—
1/4	20HCM0250	—
5/16	20HCM0312	—
3/8	20HCM0375	—
7/16	20HCM0438	—
1/2	20HCM0500	32HCM0500
9/16	20HCM0562	32HCM0562
5/8	20HCM0625	32HCM0625
11/16	—	32HCM0688
3/4	—	32HCM0750
7/8	—	32HCM0875
1	—	32HCM1000

■ Inch with Metric Bores

D1	50HC	75HC	12HC
	D = .500 D2 = .630 L1 = 1.575	D = .750 D2 = .984 L1 = 1.969	D = 1.250 D2 = 1.417 L1 = 2.362
3,0	50HC030M	75HC030M	—
4,0	50HC040M	75HC040M	—
5,0	50HC050M	75HC050M	—
6,0	50HC060M	75HC060M	—
8,0	50HC080M	75HC080M	—
10,0	50HC100M	75HC100M	—
12,0	—	75HC120M	—
14,0	—	75HC140M	—
16,0	—	75HC160M	12HC160M
18,0	—	—	12HC180M
20,0	—	—	12HC200M
25,0	—	—	12HC250M

■ Inch with Inch Bores

D1	50HC	75HC	12HC
	D = .500 D2 = .630 L1 = 1.575	D = .750 D2 = .945 L1 = 1.969	D = 1.250 D2 = 1.417 L1 = 2.362
1/8	50HC0125	75HC0125	—
3/16	50HC0188	75HC0188	—
1/4	50HC0250	75HC0250	—
5/16	50HC0312	75HC0312	—
3/8	50HC0375	75HC0375	—
7/16	—	75HC0438	—
1/2	—	75HC0500	12HC0500
9/16	—	75HC0562	12HC0562
5/8	—	75HC0625	12HC0625
11/16	—	—	12HC0688
3/4	—	—	12HC0750
13/16	—	—	12HC0812
7/8	—	—	12HC0875
1	—	—	12HC1000

NOTE: Inserting the cutting tool less than the full gripping length (L9) of the sleeve can permanently damage the sleeve and hydraulic chuck. Full length of the gripping bore needs to be maintained to achieve maximum accuracy, safety, and coolant sealing feature.

Collets and Sleeves

ERICKSON™ SMC Bearing Milling Chuck Sleeves • Milling

Primary Application

ERICKSON Bearing Milling Chuck Reduction Sleeves are specially designed for high-precision clamping of straight cylindrical cutting tool shanks. These are not self-sealing designed and rely on the back-up screws in the milling chuck for sealing coolant through the cutting tool.

Features and Benefits

- One-piece design.
- Cutting tool shank requirement tolerance is h6.
- Maximum collapse is h6.



- One-piece design.
- Cutting tool must be cylindrical and have a through hole when using coolant.
- Cutting tool shank requirement tolerance is h6 and Ra $\geq 0,3 \mu\text{m}$ (12 μin) surface finish.
- Maximum collapse is h6.



ERICKSON

20

System Size

20 = 20mm
 25 = 25mm
 32 = 32mm
 75 = 3/4"
 10 = 1"
 12 = 1-1/4"

SMC

Sleeve Style

SMC = Milling Chuck

120

Sleeve Bore Size

metric (xx.x)
 010 = 1mm
 160 = 16mm
 245 = 24,5mm

inch (x.xxx)
 0125 = 1/8"
 0500 = 1/2"
 1000 = 1"

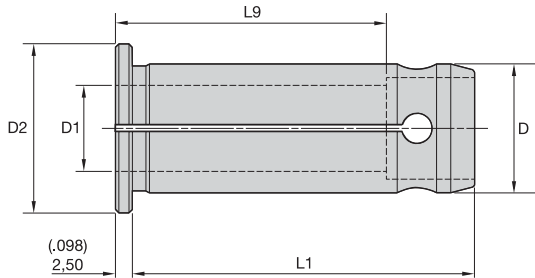
M

Identification Value

M = Sleeve bore size built to metric values
(blank) = Sleeve bore size built to metric values



- One-piece design.
- Cutting tool must be cylindrical and have a through hole when using coolant.
- Sleeve must be inserted completely into the milling chuck until shoulder mates against the chuck front face.
- Cutting tools must be in full contact with the sleeve bore length (L9).
- Maximum collapse is h6.
- Metric and inch bores are available.



ERICKSON™

■ Metric with Metric Bores

D1	20SMC D = 20mm D2 = 25mm L1 = 50,5mm	32SMC D = 32mm D2 = 37mm L1 = 61,51mm	L9
6	20SMC060M	32SMC060M	32,0
8	20SMC080M	32SMC080M	35,0
10	20SMC100M	—	36,0
10	—	32SMC100M	38,0
12	20SMC120M	—	40,0
12	—	32SMC120M	42,5
16	20SMC160M	—	41,0
16	—	32SMC160M	47,5
20	—	32SMC200M	48,5
25	—	32SMC250M	51,5

■ Inch with Metric Bores

D1	75SMC D = 19,05mm D2 = 25mm L1 = 50,5mm	10SMC D = 25,4mm D2 = 29mm L1 = 58,5mm	12SMC D = 31,75mm D2 = 37mm L1 = 61,51mm	L9
.2362	75SMC060M	10SMC060M	12SMC060M	1.260
.3150	75SMC080M	10SMC080M	12SMC080M	1.378
.3937	75SMC100M	—	—	1.417
.3937	—	—	12SMC100M	1.496
.3937	—	10SMC100M	—	1.516
.4724	75SMC120M	—	—	1.575
.4724	—	10SMC120M	12SMC120M	1.673
.5512	75SMC140M	—	—	1.614
.5512	—	10SMC140M	—	1.673
.5512	—	—	12SMC140M	1.752
.6299	75SMC160M	—	—	1.614
.6299	—	10SMC160M	12SMC160M	1.870

(continued)

(SMC Milling Chuck Sleeves continued)

D1	75SMC D = 19,05mm D2 = 25mm L1 = 50,5mm	10SMC D = 25,4mm D2 = 29mm L1 = 58,5mm	12SMC D = 31,75mm D2 = 37mm L1 = 61,51mm	L9
.7087	—	—	12SMC180M	1.870
.7087	—	10SMC180M	—	1.909
.7874	—	10SMC200M	12SMC200M	1.909
.8661	—	—	12SMC220M	1.949
.9843	—	—	12SMC250M	2.028

■ Inch with Inch Bores

D1	75SMC D = .750 D2 = .984 L1 = 1.988	10SMC D = 1.000 D2 = 1.142 L1 = 2.303	12SMC D = 1.250 D2 = 1.457 L1 = 2.422	L9
1/8	75SMC0125	10SMC0125	12SMC0125	.709
3/16	75SMC0188	10SMC0188	12SMC0188	.984
1/4	75SMC0250	10SMC0250	12SMC0250	1.260
5/16	75SMC0312	10SMC0312	12SMC0312	1.378
3/8	75SMC0375	—	—	1.417
3/8	—	—	12SMC0375	1.496
3/8	—	10SMC0375	—	1.516
7/16	75SMC0438	10SMC0438	12SMC0438	1.575
1/2	75SMC0500	—	—	1.575
1/2	—	10SMC0500	12SMC0500	1.673
9/16	75SMC0563	—	—	1.614
9/16	—	10SMC0563	—	1.673
9/16	—	—	12SMC0563	1.752
5/8	75SMC0625	—	—	1.614
5/8	—	10SMC0625	12SMC0625	1.870
3/4	—	10SMC0750	12SMC0750	1.909
7/8	—	10SMC0875	—	1.909
7/8	—	—	12SMC0875	1.949
1	—	—	12SMC1000	2.028

ERICKSON™ • TG Single-Angle Collets

Primary Application

TG — Tremendous Grip Collets are manufactured according to the original ERICKSON standard and developed to utilize the full power available from the modern machine tool. A slow taper (8° inclusive angle) is used to produce maximum wedge action as the collet is forced back into the chuck body from the actuating locknut. From all the Collets Kennametal offers, the TG system is superior on grip, versatile in applications, and the most accurate. They are ideal for end milling, drilling, tapping, reaming, and boring solutions and available in a variety of styles, TG50, TG75, TG100, and TG150, with clamping ranges from 0,5–40mm (.0197–1.5000").

Features and Benefits

- Original ERICKSON standard.
- Slow 8° inclusive angle taper for best grip (approximately 3:1).
- Standard design accuracy to DIN 6499 Class 2 accuracy.
- HP design accuracy to DIN 6499 Class 1 accuracy.
- Bonded style available for through-coolant applications.
- Non-pullout style to captivate Weldon®-style end mills.
- Dedicated versions for tapping — driving off the square of the tap.



- Provides Tremendous Grip (3:1 advantage) and accuracy for all drilling applications.
- Industry-standard Erickson™ single-angle collet system.
- Grips on back taper and margin of drill for maximum feed rates and more accurate holes.
- Manufactured to DIN 6499 Class 2 accuracy, see page M103.

100TGC160M

ERICKSON

100

System Size

- 50 = 50
- 75 = 75
- 100 = 100
- 150 = 150

TG

Collet Style

TG = Tremendous Grip, single angle

C

Special Features
(optional)

- C** = Coolant style — bonded
- HP** = High precision
- CHP** = Coolant/high precision
- NP** = Non-pullout (slot for drive)
- ST** = Solid tapping (slot for drive)
- STC** = Solid tapping/coolant (slot for drive)

160

Collet Bore Size

- metric (xx.x)**
- 010 = 1mm
- 160 = 16mm
- 245 = 24,5mm
- inch (x.xxx)**
- 0125 = 1/8"
- 0500 = 1/2"
- 1000 = 1"

M

Identification Value

- M** = Sleeve bore size built to metric values
- (blank)** = Sleeve bore size built to metric values



TG • Tremendous Grip

- Provides Tremendous Grip and accuracy for all drilling applications.
- 0,4mm [.016" (1/64)] range of collapse.
- Grips on back taper and margin of drill for maximum feed rates and more accurate holes.
- Manufactured to DIN 6499 Class 2 accuracy.

ERICKSON



TGC • Tremendous Grip Coolant

- Rubber-filled slots seal collet for coolant-fed tool applications.
- Suitable for coolant pressure up to 100 bar (1500 psi).
- Unique design features permit easy entry into nosepiece.
- Available from stock in all popular sizes.
- Fits all standard TG-style collet chucks.
- 0,13mm (.005") range of collapse.
- Design enables flutes of drills to enter collet, unlike competitive designs.

ERICKSON



TGHP • Tremendous Grip High Precision

- Twice as accurate as standard TG- and ER-style collets.
- Available from stock in all popular sizes.
- Can be used in all standard TG-style collet chucks.
- 0,25mm (.010") range of collapse.
- Manufactured to DIN 6499 Class 1 accuracy.

ERICKSON



TGCHP • Tremendous Grip Coolant High Precision

- Rubber-filled slots seal collet for coolant-fed tool applications.
- Suitable for coolant pressure up to 100 bar (1500 psi).
- Unique design features permit easy entry into nosepiece.
- Available from stock in all popular sizes.
- Fits all standard TG-style collet chucks.
- 0,13mm (.005") range of collapse.
- Manufactured to DIN 6499 Class 1 accuracy.

ERICKSON



TGNP • Tremendous Grip Non-Pullout, Weldon® Style

- Positive retention and drive provided by drive wedge in collet.
- Eliminates inaccuracy created by solid end mill holders.
- 0,13mm (.005") range of collapse.
- Fits all standard TG-style collet chucks.

ERICKSON



TGST • Tremendous Grip Single-Angle Tap Collet

- Designed to grip the tap on the shank and square.
- Fits all standard TG-style collet chucks.
- 0,13mm (.005") range of collapse.

ERICKSON



TGSTC • Tremendous Grip Single-Angle Tap Collet, Coolant Style

- Rubber-filled slots seal collet for coolant-fed tool applications.
- Suitable for coolant pressure up to 70 bar (1000 psi).
- Designed to grip the tap on the shank and square.
- Fits all standard TG-style collet chucks.
- 0,13mm (.005") range of collapse.

ERICKSON





ERICKSON™

Superior Gripping

For bearing milling chucks when grip counts. ERICKSON — the industry name you can trust.

- Heavy and fine milling applications.
- Great accuracy $\leq 5\mu\text{m}$ (.0002") at 3 x D and best gripping system.
- Pre-balanced to high specifications.
- Versatile as a collet chuck with the use of reduction sleeves.

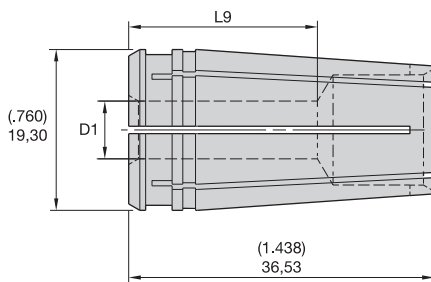
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www.kennametal.com

 **KENNAMETAL®**



- Provides Tremendous Grip (3:1 advantage) and accuracy for all drilling applications.
- Industry-standard Erickson™ single-angle collet system.
- 50TG 0,4mm [.016" (1/64)] range of collapse.
- 50TGC and 50TGCHP 0,13mm (.005") range of collapse.
- 50TGHP 0,25mm (.010") range of collapse.
- Grips on back taper and margin of drill for maximum feed rates and more accurate holes.
- Manufactured to DIN 6499 Class 2 accuracy; see page M103.
- HP design manufactured to DIN 6499 class/accuracy.



ERICKSON™

TG50 Series • Metric

D1	50TG standard	50TGC standard – coolant	50TGHP high precision	50TGCHP high precision – coolant	collet capacity max mm	collet capacity min mm	L9
1,5	50TG015M	–	–	–	1,50	1,10	11,9
2,0	50TG020M	–	–	–	2,00	1,60	12,0
2,5	50TG025M	–	–	–	2,50	2,10	18,0
3,0	50TG030M	–	–	–	3,00	2,60	18,2
3,5	50TG035M	–	–	–	3,50	3,10	18,4
4,0	50TG040M	–	–	–	4,00	3,60	21,7
4,0	–	–	50TGHP040M	–	4,00	3,75	21,7
4,5	50TG045M	–	–	–	4,50	4,10	21,9
5,0	50TG050M	–	–	–	5,00	4,60	22,0
5,5	50TG055M	–	–	–	5,50	5,10	22,2
6,0	–	–	50TGHP060M	–	6,00	5,75	22,3
6,0	50TG060M	–	–	–	6,00	5,60	22,3
6,0	–	50TGC060M	–	–	6,00	5,87	22,3
6,0	–	–	–	50TGCHP060M	5,90	5,87	22,4
6,5	50TG065M	–	–	–	6,50	6,10	22,3
7,0	50TG070M	–	–	–	7,00	6,60	29,0

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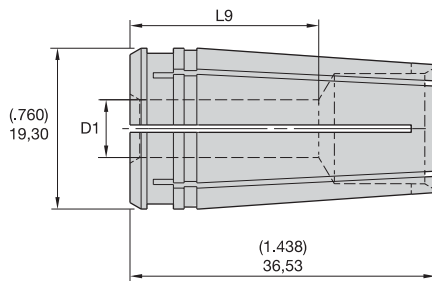
(TG50 Series continued)

D1	50TG standard	50TGC standard – coolant	50TGHP high precision	50TGCHP high precision – coolant	collet capacity max mm	collet capacity min mm	L9
7,5	50TG075M	–	–	–	7,50	7,10	29,1
8,0	–	50TGC080M	–	–	8,00	7,87	22,9
8,0	–	–	–	50TGCHP080M	7,90	7,87	23,0
8,0	50TG080M	–	–	–	8,00	7,60	29,3
8,0	–	–	50TGHP080M	–	8,00	7,75	29,4
8,5	50TG085M	–	–	–	8,50	8,10	29,4
9,0	50TG090M	–	–	–	9,00	8,60	29,6
9,5	50TG095M	–	–	–	9,50	9,10	29,9
10,0	–	50TGC100M	–	–	10,00	9,87	30,0
10,0	–	–	–	50TGCHP100M	9,90	9,87	30,0
10,0	–	–	50TGHP100M	–	10,00	9,75	30,0
10,0	50TG100M	–	–	–	10,00	9,60	30,0
10,5	50TG105M	–	–	–	10,50	10,10	30,2
11,0	50TG110M	–	–	–	11,00	10,60	30,3
11,5	50TG115M	–	–	–	11,50	11,10	30,5
12,0	–	50TGC120M	–	–	12,00	11,87	30,3
12,0	50TG120M	–	–	–	12,00	11,60	30,6
12,0	–	–	–	50TGCHP120M	11,90	11,87	30,6
12,0	–	–	50TGHP120M	–	12,00	11,75	30,6
12,5	50TG125M	–	–	–	12,50	12,10	30,8
13,0	50TG130M	–	–	–	13,00	12,60	30,9
13,5	50TG135M	–	–	–	13,50	13,10	36,5

NOTE: Inserting the cutting tool less than 2/3 the gripping length into the collet can permanently damage the collet. Full length of the gripping bore must be maintained to achieve maximum accuracy and safety. Collet accuracies are based on size-for-size conditions. Using the collapsible range can influence the accuracy and gripping powers. Never try to stretch the collets by clamping oversized cutting tools.



- Rubber-filled slots seal collet for coolant-fed tool applications.
- Provides Tremendous Grip (3:1 advantage) and accuracy for all drilling applications.
- Industry-standard Erickson™ single-angle collet system.
- 0,13mm (.005") range of collapse.
- 50TG 0,4mm [.016" (1/64)] range of collapse.
- 50TGTC and 50TGCHP 0,13mm (.005") range of collapse.
- 50TGHP 0,25mm (.010") range of collapse.
- Grips on back taper and margin of drill for maximum feed rates and more accurate holes.
- Manufactured to DIN 6499 Class 2 accuracy; see page M103.
- HP design manufactured to DIN 6499 class/accuracy.



ERICKSON™

■ TG50 Series • Inch

D1	50TG standard	50TGC standard — coolant	50TGHP high precision	50TGCHP high precision — coolant	collet capacity max inch	collet capacity min inch	L9
3/64	50TG0047	—	—	—	.0470	.0313	.465
1/16	50TG0062	—	—	—	.0625	.0469	.470
5/64	50TG0078	—	—	—	.0780	.0625	.475
3/32	50TG0094	—	—	—	.0940	.0781	.710
7/64	50TG0109	—	—	—	.1090	.0938	.715
1/8	—	—	50TGHP0125	—	.1250	.1150	.719
1/8	50TG0125	—	—	—	.1250	.1094	.720
1/8	—	—	—	50TGCHP0125	.1250	.1200	.847
9/64	—	50TGC0141	—	—	.1406	.1356	.852
9/64	50TG0141	—	—	—	.1410	.1250	.725
5/32	50TG0156	—	—	—	.1560	.1406	.855
5/32	—	50TGC0156	—	—	.1563	.1513	.857

(continued)

(TG50 Series continued)

D1	50TG standard	50TGC standard — coolant	50TGHP high precision	50TGCHP high precision — coolant	collet capacity max inch	collet capacity min inch	L9
11/64	—	50TGC0172	—	—	.1719	.1669	.861
11/64	50TG0172	—	—	—	.1720	.1563	.860
3/16	—	—	50TGHP0188	—	.1875	.1775	.865
3/16	—	50TGC0188	—	50TGCHP0188	.1875	.1825	.866
3/16	50TG0188	—	—	—	.1880	.1719	.865
13/64	50TG0203	—	—	—	.2030	.1875	.870
13/64	—	50TGC0203	—	—	.2031	.1981	.871
7/32	—	50TGC0219	—	—	.2188	.2138	.876
7/32	50TG0219	—	—	—	.2190	.2031	.875
15/64	50TG0234	—	—	—	.2340	.2188	.880
1/4	—	50TGC0250	—	50TGCHP0250	.2500	.2450	.885
1/4	—	—	50TGHP0250	—	.2500	.2400	1.139
1/4	50TG0250	—	—	—	.2500	.2344	1.139
17/64	—	50TGC0266	—	—	.2656	.2606	.890
17/64	50TG0266	—	—	—	.2660	.2500	1.144
9/32	50TG0281	—	—	—	.2810	.2656	1.148
9/32	—	50TGC0281	—	—	.2813	.2763	.894
19/64	50TG0297	—	—	—	.2970	.2813	1.153
5/16	50TG0312	—	—	—	.3120	.2969	1.158
5/16	—	50TGC0312	—	50TGCHP0312	.3125	.3075	.904
5/16	—	—	50TGHP0312	—	.3125	.3025	1.158
21/64	50TG0328	—	—	—	.3280	.3125	1.163
21/64	—	50TGC0328	—	—	.3281	.3231	.908
11/32	—	50TGC0344	—	—	.3438	.3388	.913
11/32	50TG0344	—	—	—	.3440	.3281	1.167
23/64	50TG0359	—	—	—	.3590	.3438	1.172
23/64	—	50TGC0359	—	—	.3594	.3544	.918
3/8	—	50TGC0375	—	50TGCHP0375	.3750	.3700	.922
3/8	50TG0375	—	—	—	.3750	.3594	1.177
3/8	—	—	50TGHP0375	—	.3750	.3650	1.177
25/64	—	50TGC0391	—	—	.3906	.3856	1.182
25/64	50TG0391	—	—	—	.3910	.3750	1.181
13/32	50TG0406	—	—	—	.4060	.3906	1.186
13/32	—	50TGC0406	—	—	.4063	.4013	1.187
27/64	—	50TGC0422	—	—	.4219	.4169	1.192
27/64	50TG0422	—	—	—	.4220	.4063	1.191
7/16	—	—	50TGHP0438	—	.4375	.4275	1.195
7/16	—	50TGC0438	—	50TGCHP0438	.4375	.4325	1.196
7/16	50TG0438	—	—	—	.4380	.4219	1.196
29/64	50TG0453	—	—	—	.4530	.4375	1.200

(continued)



(TG50 Series continued)

D1	50TG standard	50TGC standard — coolant	50TGHP high precision	50TGCHP high precision — coolant	collet capacity max inch	collet capacity min inch	L9
29/64	—	50TGC0453	—	—	.4531	.4481	1.201
15/32	50TG0469	—	—	—	.4680	.4531	1.205
15/32	—	50TGC0469	—	—	.4688	.4638	1.206
31/64	50TG0484	—	—	—	.4840	.4688	1.209
31/64	—	50TGC0484	—	—	.4844	.4794	1.210
1/2	—	—	50TGHP0500	—	.5000	.4900	1.214
1/2	50TG0500	—	—	—	.5000	.4844	1.214
1/2	—	50TGC0500	—	50TGCHP0500	.5000	.4950	1.215
33/64	—	50TGC0516	—	—	.5156	.5106	1.220
33/64	50TG0516	—	—	—	.5160	.5000	1.209
17/32	50TG0531	—	—	—	.5310	.5156	1.438
17/32	—	50TGC0531	—	—	.5313	.5263	1.438

NOTE: Inserting the cutting tool less than 2/3 the gripping length into the collet can permanently damage the collet. Full length of the gripping bore must be maintained to achieve maximum accuracy and safety. Collet accuracies are based on size-for-size conditions. Using the collapsible range can influence the accuracy and gripping powers. Never try to stretch the collets by clamping oversized cutting tools.



- An economical way to purchase a group of collets.



ERICKSON

■ TG50 Collet Set • Inch

catalog number	series	quantity	dimensional range	incremental division
S50TG1SET	TG50	32	3/16 - 17/64	1/64
S50TG2SET	TG50	15	3/32 - 17/64	1/32

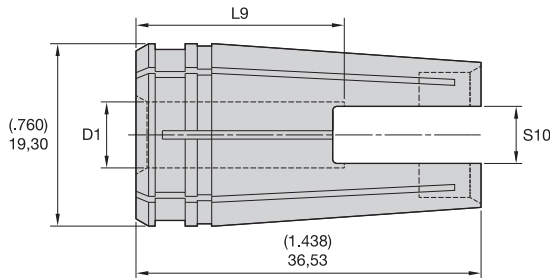


Collets and Sleeves

TG50 Single-Angle Solid Tap Collets



- Rubber-filled slots seal collet for coolant-fed tool applications.
- Can be used in all standard TG collet chucks.
- Provides Tremendous Grip (3:1 advantage) and accuracy for tapping applications.
- Slot in back of collets acts as a drive for the tap square.
- Industry-standard Erickson™ single-angle collet system.
- Manufactured to DIN 6499 Class 2 accuracy; see page M103.



ERICKSON™

TG50 Solid Tap Collet • Metric DIN and ISO

tap size	50TGST solid tap — non-coolant	collet series	D1	S10	L9
M1 & M1,8 & M3 & M3,5	50TGST025021M	TG50	2,5	2,1	17,0
M2,5 & M4	50TGST028021M	TG50	2,8	2,1	17,0
M3 & M4	50TGST032025M	TG50	3,2	2,5	17,0
M3 & M5	50TGST035027M	TG50	3,5	2,7	17,0
M4 & M5	50TGST040032M	TG50	4,0	3,2	17,0
M4 & M6	50TGST045034M	TG50	4,5	3,4	17,0
M5	50TGST050040M	TG50	5,0	4,0	17,0
M5 & M6 & M7 & M8	50TGST060049M	TG50	6,0	4,9	17,0
M6	50TGST063050M	TG50	6,3	4,9	17,0
M10	50TGST070055M	TG50	7,0	5,5	17,0
M7	50TGST071056M	TG50	7,1	5,6	17,0
M8	50TGST080062M	TG50	8,0	6,2	17,0
M12	50TGST090070M	TG50	9,0	7,0	17,0
M10	50TGST100080M	TG50	10,0	8,0	17,0
M14	50TGST110090M	TG50	11,0	9,0	17,0
M16	50TGST120090M	TG50	12,0	9,0	17,0

(continued)

(TG50 Single-Angle Solid Tap Collets continued)

■ TG50 Solid Tap Collet • Inch/Metric ANSI

mm	tap size		50TGST solid tap — non-coolant	50TGSTC solid tap — coolant	collet series	D1	S10	L9
	in							
M3 & M3,15 & M3,5	#0-#6 & 1/8		50TGST6	—	TG50	.141	.110	.775
M4	#8 & 5/32		50TGST8	—	TG50	.168	.131	.775
M4,5 & M5	#10 & 3/16		50TGST10	—	TG50	.194	.152	.900
—	#12 & 7/32		50TGST12	—	TG50	.220	.165	.807
M6 & M6,3	#14 & 1/4		50TGST025	50TGSTC025	TG50	.255	.191	.838
—	1/16P & 1/8P(SS)		50TGST006P	—	TG50	.313	.234	.775
M7 & M8	5/16		50TGST031	50TGSTC031	TG50	.318	.238	.868
—	7/16		50TGST043	50TGSTC043	TG50	.323	.242	.963
M12 & M12,5	1/2		50TGST050	50TGSTC050	TG50	.367	.275	.932
M10	3/8		50TGST037	50TGSTC037	TG50	.381	.286	.900
M14	9/16		50TGST056	50TGSTC056	TG50	.429	.322	.937
—	1/8P(LS)		50TGST012P	—	TG50	.438	.328	.775
M16	5/8		50TGST062	—	TG50	.480	.360	.876

NOTE: Inserting the cutting tool less than 2/3 of the gripping length into the collet can influence the coolant sealing performance and permanently damage the collet.

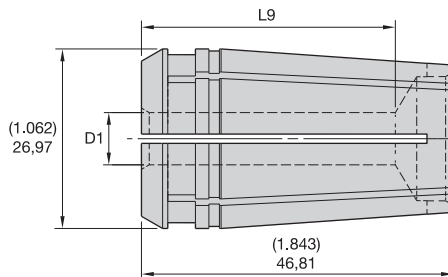
Full length of the gripping bore needs to be maintained to achieve maximum accuracy and safety.

Collet accuracies are based on size-for-size conditions. Using the collapsible range can influence the accuracy and gripping powers.

Never try to stretch the collets by clamping oversized cutting tools.



- Provides Tremendous Grip (3:1 advantage) and accuracy for all drilling applications.
- Industry-standard Erickson™ single-angle collet system.
- 75TG 0,4mm [.016" (1/64)] range of collapse.
- 75TGC and 75TGCHP 0,13mm (.005") range of collapse.
- 75TGHP 0,25mm (.010") range of collapse.
- Grips on back taper and margin of drill for maximum feed rates and more accurate holes.
- Manufactured to DIN 6499 Class 2 accuracy; see page M103.
- HP design manufactured to DIN 6499 class/accuracy.



ERICKSON™

■ TG75 Series • Metric

D1	75TG standard	75TGC standard – coolant	75TGHP high precision	75TGCHP high precision – coolant	collet capacity max mm	collet capacity min mm	L9
3,0	75TG030M	–	–	–	3,00	2,60	18,6
3,5	75TG035M	–	–	–	3,50	3,10	18,8
4,0	75TG040M	–	–	–	4,00	3,60	22,1
4,0	–	–	75TGHP040M	–	4,00	3,75	22,1
4,5	75TG045M	–	–	–	4,50	4,10	22,3
5,0	75TG050M	–	–	–	5,00	4,60	22,5
5,5	75TG055M	–	–	–	5,50	5,10	22,6
6,0	–	75TGC060M	–	–	6,00	5,87	22,8
6,0	75TG060M	–	–	–	6,00	5,60	22,8
6,0	–	–	75TGHP060M	–	6,00	5,75	22,8
6,0	–	–	–	75TGCHP060M	6,00	5,87	22,8
6,5	75TG065M	–	–	–	6,50	6,10	37,7
7,0	75TG070M	–	–	–	7,00	6,60	37,8
7,5	75TG075M	–	–	–	7,50	7,10	38,0
8,0	–	75TGC080M	–	75TGCHP080M	8,00	7,87	25,9
8,0	–	–	75TGHP080M	–	8,00	7,75	38,1

(continued)

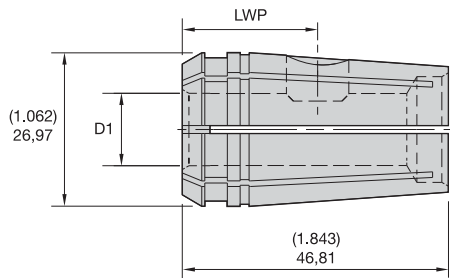
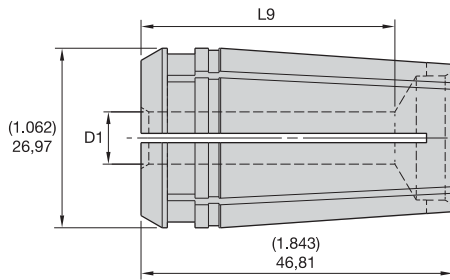
(TG75 Series continued)

D1	75TG standard	75TGC standard – coolant	75TGHP high precision	75TGCHP high precision – coolant	collet capacity max mm	collet capacity min mm	L9
8,0	75TG080M	–	–	–	8,00	7,60	38,1
8,5	75TG085M	–	–	–	8,50	8,10	38,3
9,0	75TG090M	–	–	–	9,00	8,60	38,4
9,5	75TG095M	–	–	–	9,50	9,10	38,6
10,0	–	–	–	75TGCHP100M	10,00	9,87	38,7
10,0	–	–	75TGHP100M	–	10,00	9,75	38,7
10,0	75TG100M	–	–	–	10,00	9,60	38,7
10,0	–	75TGC100M	–	–	10,00	9,87	38,7
10,5	75TG105M	–	–	–	10,50	10,10	38,8
11,0	75TG110M	–	–	–	11,00	10,60	39,0
11,5	75TG115M	–	–	–	11,50	11,10	39,1
12,0	–	75TGC120M	–	–	12,00	11,87	39,3
12,0	75TG120M	–	–	–	12,00	11,60	39,3
12,0	–	–	75TGHP120M	–	12,00	11,75	39,3
12,0	–	–	–	75TGCHP120M	12,00	11,87	39,3
12,5	75TG125M	–	–	–	12,50	12,10	39,4
13,0	75TG130M	–	–	–	13,00	12,60	39,6
13,5	75TG135M	–	–	–	13,50	13,10	39,7
14,0	–	75TGC140M	–	75TGCHP140M	14,00	13,87	39,9
14,0	–	–	75TGHP140M	–	14,00	13,75	46,8
14,0	75TG140M	–	–	–	14,00	13,60	46,8
14,5	75TG145M	–	–	–	14,50	14,10	46,8
15,0	75TG150M	–	–	–	15,00	14,60	46,8
15,5	75TG155M	–	–	–	15,50	15,10	46,8
16,0	–	75TGC160M	–	75TGCHP160M	16,00	15,87	40,5
16,0	75TG160M	–	–	–	16,00	15,60	46,8
16,0	–	–	75TGHP160M	–	16,00	15,75	46,8
16,5	75TG165M	–	–	–	16,50	16,10	46,8
17,0	75TG170M	–	–	–	17,00	16,60	46,8
17,5	75TG175M	–	–	–	17,50	17,10	46,8
18,0	–	75TGC180M	–	75TGCHP180M	18,00	17,87	41,1
18,0	75TG180M	–	–	–	18,00	17,60	46,8
18,0	–	–	75TGHP180M	–	18,00	17,75	46,8
19,0	75TG190M	–	–	–	19,00	18,60	46,8
19,5	75TG195M	–	–	–	19,50	19,10	46,8
20,0	75TG200M	–	–	–	20,00	19,60	46,8
20,0	–	75TGC200M	–	75TGCHP200M	20,00	19,87	46,8
20,0	–	–	75TGHP200M	–	20,00	19,75	46,8

NOTE: Inserting the cutting tool less than 2/3 the gripping length into the collet can permanently damage the collet. Full length of the gripping bore must be maintained to achieve maximum accuracy and safety. Collet accuracies are based on size-for-size conditions. Using the collapsible range can influence the accuracy and gripping powers. Never try to stretch the collets by clamping oversized cutting tools.


Collets and Sleeves

- Provides Tremendous Grip (3:1 advantage) and accuracy for all drilling applications.
- Industry-standard Erickson™ single-angle collet system.
- 75TG and 75TGC 0,4mm [.016" (1/64)] range of collapse.
- 75TGCHP and 75TGNP 0,13mm (.005") range of collapse.
- 75TGHP 0,25mm (.010") range of collapse.
- Grips on back taper and margin of drill for maximum feed rates and more accurate holes.
- Manufactured to DIN 6499 Class 2 accuracy; see page M103.
- HP design manufactured to DIN 6499 class/accuracy.



TG Collet – NP



TG Collet – NP

ERICKSON™

■ TG75 Series • Inch

D1	75TG standard	75TGC standard – coolant	75TGHP high precision	75TGCHP high precision – coolant	75TGNP milling – non-pullout	collet capacity max inch	collet capacity min inch	L9	LWP
1/16	75TG0062	–	–	–	–	.0620	.0469	.485	–
5/64	75TG0078	–	–	–	–	.0780	.0625	.490	–
3/32	75TG0094	–	–	–	–	.0940	.0781	.725	–
7/64	75TG0109	–	–	–	–	.1090	.0938	.730	–

(continued)

(TG75 Series continued)

D1	75TG standard	75TGC standard – coolant	75TGHP high precision	75TGCHP high precision – coolant	75TGNP milling – non-pullout	collet capacity max inch	collet capacity min inch	L9	LWP
1/8	75TG0125	–	–	–	–	.1250	.1094	.735	–
1/8	–	–	75TGHP0125	–	–	.1250	.1150	.735	–
9/64	75TG0141	–	–	–	–	.1410	.1250	.740	–
5/32	75TG0156	–	–	–	–	.1560	.1406	.872	–
11/64	75TG0172	–	–	–	–	.1720	.1563	.877	–
3/16	–	–	75TGHP0188	–	–	.1875	.1775	.881	–
3/16	75TG0188	–	–	–	–	.1880	.1719	.881	–
13/64	75TG0203	–	–	–	–	.2030	.1875	.886	–
7/32	75TG0219	–	–	–	–	.2190	.2031	.891	–
15/64	75TG0234	–	–	–	–	.2340	.2188	.895	–
1/4	–	–	–	75TGCHP0250	–	.2500	.2450	1.000	–
1/4	–	75TGC0250	–	–	–	.2500	.2450	1.001	–
1/4	–	–	75TGHP0250	–	–	.2500	.2400	1.480	–
1/4	75TG0250	–	–	–	–	.2500	.2344	1.481	–
17/64	–	75TGC0266	–	–	–	.2656	.2606	1.006	–
17/64	75TG0266	–	–	–	–	.2660	.2500	1.486	–
9/32	75TG0281	–	–	–	–	.2810	.2656	1.490	–
9/32	–	75TGC0281	–	–	–	.2813	.2763	1.010	–
19/64	–	75TGC0297	–	–	–	.2969	.2919	1.015	–
19/64	75TG0297	–	–	–	–	.2970	.2813	1.495	–
5/16	75TG0312	–	–	–	–	.3120	.2969	1.500	–
5/16	–	75TGC0312	–	–	–	.3125	.3075	1.020	–
5/16	–	–	75TGHP0312	–	–	.3125	.3025	1.499	–
21/64	75TG0328	–	–	–	–	.3280	.3125	1.505	–
21/64	–	75TGC0328	–	–	–	.3281	.3231	1.024	–
11/32	–	75TGC0344	–	–	–	.3438	.3281	1.029	–
11/32	75TG0344	–	–	–	–	.3440	.3281	1.509	–
23/64	75TG0359	–	–	–	–	.3590	.3438	1.514	–
23/64	–	75TGC0359	–	–	–	.3594	.3544	1.034	–
3/8	–	–	–	75TGCHP0375	–	.3750	.3700	1.038	–
3/8	–	–	75TGHP0375	–	–	.3750	.3650	1.518	–
3/8	–	75TGC0375	–	–	–	.3750	.3700	1.518	–
3/8	75TG0375	–	–	–	–	.3750	.3594	1.519	–
3/8	–	–	–	–	75TGNP0375	.3750	–	–	.703
25/64	–	75TGC0391	–	–	–	.3906	.3856	1.523	–
25/64	75TG0391	–	–	–	–	.3910	.3750	1.521	–
13/32	75TG0406	–	–	–	–	.4060	.3906	1.526	–
13/32	–	75TGC0406	–	–	–	.4063	.4013	1.528	–
27/64	–	75TGC0422	–	–	–	.4219	.4169	1.533	–
27/64	75TG0422	–	–	–	–	.4220	.4063	1.531	–
7/16	–	–	75TGHP0438	–	–	.4375	.4275	1.535	–
7/16	–	75TGC0438	–	75TGCHP0438	–	.4375	.4325	1.537	–
7/16	75TG0438	–	–	–	–	.4380	.4219	1.536	–
29/64	75TG0453	–	–	–	–	.4530	.4375	1.540	–
29/64	–	75TGC0453	–	–	–	.4531	.4481	1.542	–
15/32	–	75TGC0469	–	–	–	.4688	.4638	1.547	–
15/32	75TG0469	–	–	–	–	.4690	.4531	1.545	–
31/64	75TG0484	–	–	–	–	.4840	.4688	1.549	–

(continued)

Collets and Sleeves

(TG75 Series continued)

D1	75TG standard	75TGC standard – coolant	75TGHP high precision	75TGCHP high precision – coolant	75TGNP milling – non-pullout	collet capacity max inch	collet capacity min inch	L9	LWP
31/64	–	75TGC0484	–	–	–	.4844	.4794	1.551	–
1/2	75TG0500	–	–	–	–	.5000	.4844	1.554	–
1/2	–	–	75TGHP0500	–	–	.5000	.4900	1.554	–
1/2	–	75TGC0500	–	75TGCHP0500	–	.5000	.4950	1.556	–
1/2	–	–	–	–	75TGNP0500	.5000	–	–	.828
33/64	75TG0516	–	–	–	–	.5156	.5000	1.559	–
33/64	–	75TGC0516	–	–	–	.5156	.5106	1.561	–
17/32	75TG0531	–	–	–	–	.5310	.5156	1.563	–
17/32	–	75TGC0531	–	–	–	.5313	.5263	1.565	–
35/64	–	75TGC0547	–	–	–	.5469	.5419	1.570	–
35/64	75TG0547	–	–	–	–	.5470	.5313	1.843	–
9/16	75TG0562	–	–	–	–	.5620	.5469	1.843	–
9/16	–	75TGC0562	–	75TGCHP0562	–	.5625	.5575	1.575	–
9/16	–	–	75TGHP0562	–	–	.5625	.5525	1.843	–
37/64	75TG0578	–	–	–	–	.5780	.5625	1.843	–
37/64	–	75TGC0578	–	–	–	.5781	.5731	1.579	–
19/32	–	75TGC0594	–	–	–	.5938	.5888	1.584	–
19/32	75TG0594	–	–	–	–	.5940	.5781	1.843	–
39/64	75TG0609	–	–	–	–	.6090	.5938	1.843	–
39/64	–	75TGC0609	–	–	–	.6094	.6044	1.589	–
5/8	–	75TGC0625	–	75TGCHP0625	–	.6250	.6200	1.594	–
5/8	75TG0625	–	–	–	–	.6250	.6094	1.843	–
5/8	–	–	75TGHP0625	–	–	.6250	.6150	1.843	–
5/8	–	–	–	–	75TGNP0625	.6250	–	–	.859
41/64	–	75TGC0641	–	–	–	.6406	.6356	1.598	–
41/64	75TG0641	–	–	–	–	.6410	.6250	1.843	–
21/32	75TG0656	–	–	–	–	.6560	.6406	1.843	–
21/32	–	75TGC0656	–	–	–	.6563	.6513	1.603	–
43/64	–	75TGC0672	–	–	–	.6719	.6669	1.608	–
43/64	75TG0672	–	–	–	–	.6720	.6563	1.843	–
11/16	–	75TGC0688	–	75TGCHP0688	–	.6875	.6825	1.612	–
11/16	75TG0688	–	–	–	–	.6880	.6719	1.843	–
45/64	75TG0703	–	–	–	–	.7030	.6875	1.843	–
45/64	–	75TGC0703	–	–	–	.7031	.6981	1.617	–
23/32	–	75TGC0719	–	–	–	.7188	.7138	1.622	–
23/32	75TG0719	–	–	–	–	.7190	.7031	1.843	–
47/64	75TG0734	–	–	–	–	.7340	.7188	1.843	–
47/64	–	75TGC0734	–	–	–	.7344	.7294	1.843	–
3/4	–	–	75TGHP0750	–	–	.7500	.7400	1.843	–
3/4	–	75TGC0750	–	75TGCHP0750	–	.7500	.7450	1.843	–
3/4	75TG0750	–	–	–	–	.7500	.7344	1.843	–
3/4	–	–	–	–	75TGNP0750	.7500	–	–	.922

- An economical way to purchase a group of collets.



TG Collet

ERICKSON

■ TG75 Collet Set • Inch

catalog number	series	quantity	dimensional range	incremental division
S75TG1SET	TG75	45	1/16 - 3/4	1/64
S75TG2SET	TG75	23	1/16 - 3/4	1/32
S75TG3SET	TG75	33	1/4 - 3/4	1/64
S75TG4SET	TG75	17	1/4 - 3/4	1/32



TG Collet — NP

■ TG75 NP-Out Collet Set • Inch

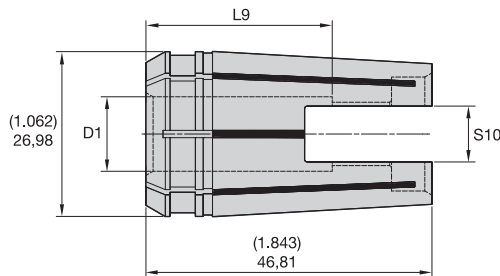
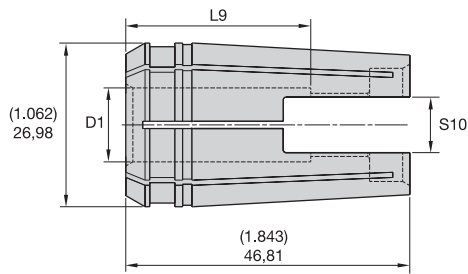
catalog number	series	quantity	dimensional range	incremental division
S75TGNPSET	TG75	4	3/8 - 3/4	1/8

Collets and Sleeves

TG75 Single-Angle Solid Tap Collets



- Rubber-filled slots seal collet for coolant-fed tool applications.
- Can be used in all standard TG collet chucks.
- Provides Tremendous Grip (3:1 advantage) and accuracy for all drilling applications.
- Industry-standard Erickson™ single-angle collet system.
- 0,13mm (.005") range of collapse.
- Grips on back taper and margin of drill for maximum feed rates and more accurate holes.
- Slot in back of collets acts as a drive for the tap square.
- Manufactured to DIN 6499 Class 2 accuracy; see page M103.



Coolant Type (Bonded)

Collets and Sleeves

ERICKSON™

■ TG75 Solid Tap Collet • Solid Tap Coolant • Inch/Metric ANSI

mm	tap size		75TGST solid tap	75TGSTC solid tap – coolant	collet series	D1	S10	L9
		in						
M3 & M3,15 & M3,5	0-#6 & 1/8		75TGST6	–	TG75	.141	.110	.775
M4	8 & 5/32		75TGST8	–	TG75	.168	.131	.775
M4,5 & M5	10 & 3/16		75TGST10	–	TG75	.194	.152	.900
–	12 & 7/32		75TGST12	–	TG75	.220	.165	.807
M6 & M6,3	14 & 1/4		75TGST025	75TGSTC025	TG75	.255	.191	.838
–	1/16P & 1/8P(SS)		75TGST006P	–	TG75	.313	.234	.775
M7 & M8	5/16		75TGST031	75TGSTC031	TG75	.318	.238	.868
–	7/16		75TGST043	75TGSTC043	TG75	.323	.242	.963

(continued)



(TG75 Single-Angle Solid Tap Collets continued)

mm	tap size		75TGST solid tap	75TGSTC solid tap – coolant	collet series	D1	S10	L9
	in							
M12 & M12,5	1/2		75TGST050	75TGSTC050	TG75	.367	.275	.932
M10	3/8		75TGST037	75TGSTC037	TG75	.381	.286	.900
M14	9/16		75TGST056	–	TG75	.429	.322	1.087
–	1/8P(LS)		75TGST012P	–	TG75	.438	.328	.775
M16	5/8		75TGST062	75TGSTC062	TG75	.480	.360	1.031
M18	11/16		75TGST068	75TGSTC068	TG75	.542	.406	.968
–	1/4P		75TGST025P	–	TG75	.563	.421	.775
–	3/4		75TGST075	75TGSTC075	TG75	.590	.442	.906
M20	13/16		75TGST081	–	TG75	.652	.489	.906
–	1/2P		75TGST050P	–	TG75	.688	.515	.775
M22	7/8		75TGST087	75TGSTC087	TG75	.697	.523	.843
–	3/8P		75TGST037P	–	TG75	.700	.531	.775

NOTE: Inserting the cutting tool less than 2/3 of the gripping length into the collet can influence the coolant sealing performance and permanently damage the collet.

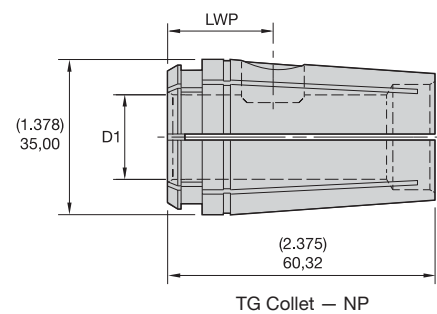
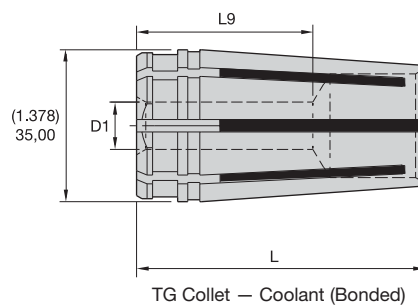
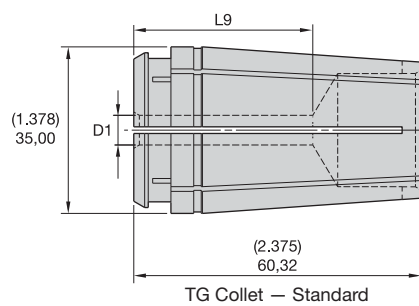
Full length of the gripping bore needs to be maintained to achieve maximum accuracy and safety.

Collet accuracies are based on size-for-size conditions. Using the collapsible range can influence the accuracy and gripping powers.

Never try to stretch the collets by clamping oversized cutting tools.



- Provides Tremendous Grip (3:1 advantage) and accuracy for all drilling applications.
- Industry-standard Erickson™ single-angle collet system.
- 100TG 0,4mm [.016" (1/64)] range of collapse.
- 100TGC and 100TGCHP 0,13mm (.005") range of collapse.
- 100TGHP 0,25mm (.010") range of collapse.
- Grips on back taper and margin of drill for maximum feed rates and more accurate holes.
- Manufactured to DIN 6499 Class 2 accuracy; see page M103.
- HP design manufactured to DIN 6499 class/accuracy.



ERICKSON™

■ TG100 Series • Metric

D1	100TG standard	100TGC standard – coolant	100TGHP high precision	100TGCHP high precision – coolant	100TGNP milling – non-pullout	collet capacity max mm	collet capacity min mm	L9	LWP
3,0	100TG030M	–	–	–	–	3,00	2,60	18,2	–
3,5	100TG035M	–	–	–	–	3,50	3,10	21,5	–
4,0	100TG040M	–	–	–	–	4,00	3,60	21,7	–
4,5	100TG045M	–	–	–	–	4,50	4,10	21,8	–
5,0	100TG050M	–	–	–	–	5,00	4,60	22,0	–
5,5	100TG055M	–	–	–	–	5,50	5,10	22,1	–
6,0	–	100TGC060M	–	–	–	6,00	5,87	22,3	–
6,0	100TG060M	–	–	–	–	6,00	5,60	22,3	–
6,0	–	–	100TGHP060M	–	–	6,00	5,87	22,3	–
6,0	–	–	–	–	100TGNP060M	6,00	–	–	16,0

(continued)

(TG100 Series continued)

D1	100TG standard	100TGC standard – coolant	100TGHP high precision	100TGCHP high precision – coolant	100TGNP milling – non-pullout	collet capacity max mm	collet capacity min mm	L9	LWP
6,5	100TG065M	–	–	–	–	6,50	6,10	37,6	–
7,0	100TG070M	–	–	–	–	7,00	6,60	37,8	–
7,5	100TG075M	–	–	–	–	7,50	7,10	37,9	–
8,0	–	100TGC080M	–	–	–	8,00	7,87	34,9	–
8,0	100TG080M	–	–	–	–	8,00	7,60	38,1	–
8,0	–	–	100TGHP080M	–	–	8,00	7,87	38,1	–
8,5	100TG085M	–	–	–	–	8,50	8,10	38,2	–
9,0	100TG090M	–	–	–	–	9,00	8,60	38,4	–
9,5	100TG095M	–	–	–	–	9,50	9,10	38,5	–
10,0	–	100TGC100M	–	100TGCHP100M	–	10,00	9,87	38,5	–
10,0	–	–	100TGHP100M	–	–	10,00	9,87	38,7	–
10,0	100TG100M	–	–	–	–	10,00	9,60	38,7	–
10,5	100TG105M	–	–	–	–	10,50	10,10	38,8	–
11,5	100TG115M	–	–	–	–	11,50	11,10	39,1	–
12,0	–	100TGC120M	–	100TGCHP120M	–	12,00	11,87	39,1	–
12,0	100TG120M	–	–	–	–	12,00	11,60	39,3	–
12,0	–	–	–	–	100TGNP120M	12,00	–	–	18,0
12,5	100TG125M	–	–	–	–	12,50	12,10	39,4	–
13,0	100TG130M	–	–	–	–	13,00	12,60	39,6	–
13,5	100TG135M	–	–	–	–	13,50	13,10	39,7	–
14,0	–	–	100TGHP140M	–	–	14,00	13,87	39,9	–
14,0	100TG140M	–	–	–	–	14,00	13,60	39,9	–
14,0	–	100TGC140M	–	100TGCHP140M	–	14,00	13,87	43,7	–
14,5	100TG145M	–	–	–	–	14,50	14,10	40,0	–
15,0	100TG150M	–	–	–	–	15,00	14,60	40,2	–
15,5	100TG155M	–	–	–	–	15,50	15,10	40,3	–
16,0	100TG160M	–	–	–	–	16,00	15,60	40,5	–
16,0	–	100TGC160M	–	100TGCHP160M	–	16,00	15,87	44,3	–
16,0	–	–	–	–	100TGNP160M	16,00	–	–	20,5
16,5	100TG165M	–	–	–	–	16,50	16,10	40,6	–
17,0	100TG170M	–	–	–	–	17,00	16,60	40,8	–
17,5	100TG175M	–	–	–	–	17,50	17,10	40,9	–
23,0	100TG230M	–	–	–	–	23,00	22,60	60,3	–
23,5	100TG235M	–	–	–	–	23,50	23,10	60,3	–
24,0	100TG240M	–	–	–	–	24,00	23,60	60,3	–
24,5	100TG245M	–	–	–	–	24,50	24,10	60,3	–
25,0	–	100TGC250M	–	100TGCHP250M	–	25,00	24,87	50,0	–
25,0	100TG250M	–	–	–	–	25,00	24,60	60,3	–
25,0	–	–	100TGHP250M	–	–	25,00	24,87	60,3	–
25,0	–	–	–	–	100TGNP250M	25,00	–	–	22,0
25,5	100TG255M	–	–	–	–	25,50	25,10	60,3	–

(continued)

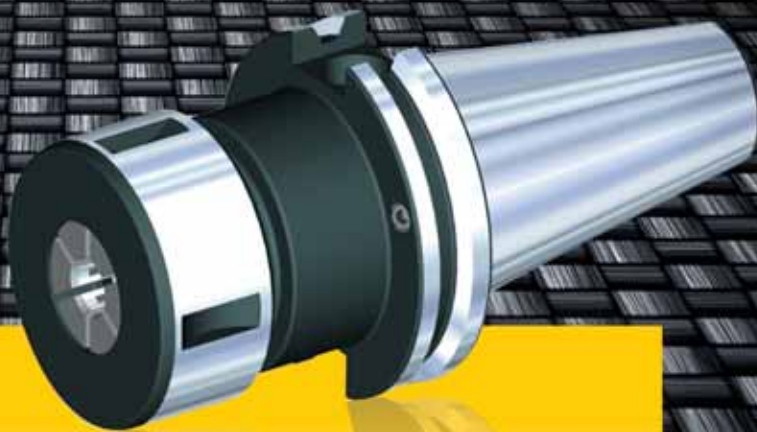


(TG100 Series continued)

D1	100TG standard	100TGC standard – coolant	100TGHP high precision	100TGCHP high precision – coolant	100TGNP milling – non-pullout	collet capacity max mm	collet capacity min mm	L9	LWP
18,0	100TG180M	–	–	–	–	18,00	17,60	41,1	–
18,0	–	–	100TGHP180M	–	–	18,00	17,87	41,1	–
18,0	–	100TGC180M	–	100TGCHP180M	–	18,00	17,87	44,9	–
18,5	100TG185M	–	–	–	–	18,50	18,10	41,2	–
19,0	100TG190M	–	–	–	–	19,00	18,60	41,4	–
19,5	100TG195M	–	–	–	–	19,50	19,10	60,3	–
20,0	–	100TGC200M	–	100TGCHP200M	–	20,00	19,87	48,5	–
20,0	100TG200M	–	–	–	–	20,00	19,60	60,3	–
20,0	–	–	100TGHP200M	–	–	20,00	19,87	60,3	–
20,0	–	–	–	–	100TGNP200M	20,00	–	–	23,0
20,5	100TG205M	–	–	–	–	20,50	20,10	60,3	–
21,0	100TG210M	–	–	–	–	21,00	20,60	60,3	–
22,0	100TG220M	–	–	–	–	22,00	21,60	60,3	–
22,5	100TG225M	–	–	–	–	22,50	22,10	60,3	–

NOTE: Inserting the cutting tool less than 2/3 of the gripping length into the collet can influence the coolant sealing performance and permanently damage the collet.
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ERICKSON™

Count on Kennametal ERICKSON products for consistent, high-quality performance, even in the most challenging environments.

When you buy Kennametal ERICKSON products, you can be sure you're buying the best the industry has to offer. The Kennametal ERICKSON portfolio — including Steep Taper, HSK, and collets and sleeve products — offers high productivity, increased accuracy, and application flexibility unmatched by anyone.

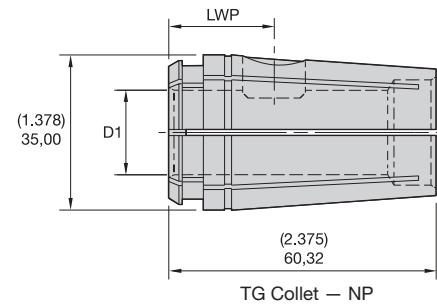
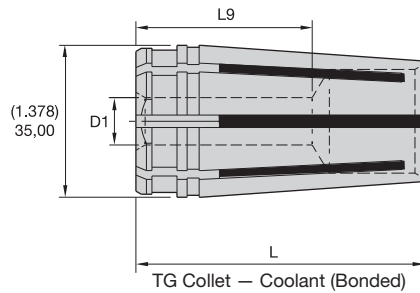
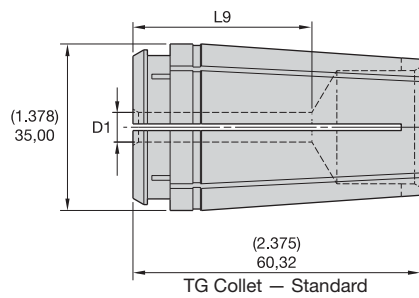
With one of the broadest product offerings in the industry, Kennametal ERICKSON tools can be used in a variety of machining applications ranging from low-speed, heavy-milling jobs to high-speed operations greater than 20,000 RPMs.

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- Provides Tremendous Grip (3:1 advantage) and accuracy for all drilling applications.
- Industry-standard Erickson™ single-angle collet system.
- 100TG 0,4mm [.016" (1/64)] range of collapse.
- 100TGC and 100TGCHP 0,13mm (.005") range of collapse.
- 100TGHP 0,25mm (.010") range of collapse.
- Grips on back taper and margin of drill for maximum feed rates and more accurate holes.
- Manufactured to DIN 6499 Class 2 accuracy; see page M103.
- HP design manufactured to DIN 6499 class/accuracy.



TG Collet — NP

ERICKSON™

TG100 Series • Inch

D1	100TG standard	100TGC standard – coolant	100TGHP high precision	100TGCHP high precision – coolant	100TGNP milling – non-pullout	collet capacity max inch	collet capacity min inch	L9	LWP
3/32	100TG0094	–	–	–	–	.0940	.0781	.707	–
7/64	100TG0109	–	–	–	–	.1090	.0938	.712	–
1/8	100TG0125	–	–	–	–	.1250	.1094	.844	–
1/8	–	–	100TGHP0125	–	–	.1250	.1150	.844	–
9/64	100TG0141	–	–	–	–	.1410	.1250	.848	–
5/32	100TG0156	–	–	–	–	.1563	.1410	.853	–
11/64	100TG0172	–	–	–	–	.1720	.1563	.858	–
3/16	–	–	100TGHP0188	–	–	.1875	.1775	.862	–
3/16	100TG0188	–	–	–	–	.1880	.1719	.862	–
13/64	100TG0203	–	–	–	–	.2030	.1875	.867	–

(continued)

(TG100 Series continued)

D1	100TG standard	100TGC standard – coolant	100TGHP high precision	100TGCHP high precision – coolant	100TGNP milling – non-pullout	collet capacity max inch	collet capacity min inch	L9	LWP
7/32	100TG0219	–	–	–	–	.2190	.2031	.872	–
15/64	100TG0234	–	–	–	–	.2340	.2188	.876	–
1/4	–	100TGC0250	–	–	–	.2500	.2450	1.356	–
1/4	–	–	100TGHP0250	–	–	.2500	.2400	1.461	–
1/4	100TG0250	–	–	–	–	.2500	.2344	1.480	–
17/64	–	100TGC0266	–	–	–	.2656	.2606	1.360	–
17/64	100TG0266	–	–	–	–	.2660	.2500	1.485	–
9/32	100TG0281	–	–	–	–	.2810	.2656	1.489	–
9/32	–	100TGC0281	–	–	–	.2813	.2763	1.365	–
19/64	–	100TGC0297	–	–	–	.2969	.2919	1.370	–
19/64	100TG0297	–	–	–	–	.2970	.2813	1.494	–
5/16	100TG0312	–	–	–	–	.3120	.2969	1.499	–
5/16	–	100TGC0312	–	–	–	.3125	.3075	1.374	–
5/16	–	–	100TGHP0312	–	–	.3125	.3025	1.499	–
21/64	100TG0328	–	–	–	–	.3280	.3125	1.503	–
21/64	–	100TGC0328	–	–	–	.3281	.3231	1.379	–
11/32	–	100TGC0344	–	–	–	.3438	.3388	1.384	–
11/32	100TG0344	–	–	–	–	.3440	.3281	1.508	–
23/64	100TG0359	–	–	–	–	.3590	.3438	1.513	–
23/64	–	100TGC0359	–	–	–	.3594	.3544	1.388	–
3/8	–	100TGC0375	–	–	–	.3750	.3700	1.393	–
3/8	–	–	–	100TGCHP0375	–	.3750	.3700	1.511	–
3/8	–	–	100TGHP0375	–	–	.3750	.3650	1.518	–
3/8	100TG0375	–	–	–	–	.3750	.3594	1.518	–
3/8	–	–	–	–	100TGNP0375	.3750	–	–	.703
25/64	–	100TGC0391	–	–	–	.3906	.3856	1.516	–
25/64	100TG0391	–	–	–	–	.3910	.3750	1.522	–
13/32	100TG0406	–	–	–	–	.4060	.3906	1.527	–
13/32	–	100TGC0406	–	–	–	.4063	.4013	1.520	–
27/64	–	100TGC0422	–	–	–	.4219	.4169	1.525	–
27/64	100TG0422	–	–	–	–	.4220	.4063	1.532	–
7/16	–	100TGC0438	–	100TGCHP0438	–	.4375	.4325	1.530	–
7/16	–	–	100TGHP0438	–	–	.4375	.4275	1.536	–
7/16	100TG0438	–	–	–	–	.4380	.4219	1.536	–
29/64	100TG0453	–	–	–	–	.4530	.4375	1.541	–
29/64	–	100TGC0453	–	–	–	.4531	.4481	1.534	–
15/32	–	100TGC0469	–	–	–	.4688	.4638	1.539	–
15/32	100TG0469	–	–	–	–	.4690	.4531	1.546	–
31/64	100TG0484	–	–	–	–	.4840	.4688	1.550	–
31/64	–	100TGC0484	–	–	–	.4844	.4794	1.544	–
1/2	–	100TGC0500	–	100TGCHP0500	–	.5000	.4950	1.549	–
1/2	–	–	100TGHP0500	–	–	.5000	.4900	1.555	–
1/2	100TG0500	–	–	–	–	.5000	.4844	1.555	–
1/2	–	–	–	–	100TGNP0500	.5000	–	–	.828

(continued)

Collets and Sleeves

(TG100 Series continued)

D1	100TG standard	100TGC standard – coolant	100TGHP high precision	100TGCHP high precision – coolant	100TGNP milling – non-pullout	collet capacity max inch	collet capacity min inch	L9	LWP
33/64	–	100TGC0516	–	–	–	.5156	.5106	1.553	–
33/64	100TG0516	–	–	–	–	.5160	.5000	1.560	–
17/32	100TG0531	–	–	–	–	.5310	.5156	1.564	–
17/32	–	100TGC0531	–	–	–	.5313	.5263	1.558	–
35/64	–	100TGC0547	–	–	–	.5469	.5419	1.720	–
35/64	100TG0547	–	–	–	–	.5470	.5313	1.569	–
9/16	100TG0562	–	–	–	–	.5620	.5469	1.574	–
9/16	–	–	100TGHP0562	–	–	.5625	.5525	1.574	–
9/16	–	100TGC0562	–	100TGCHP0562	–	.5625	.5575	1.724	–
37/64	100TG0578	–	–	–	–	.5780	.5625	1.579	–
37/64	–	100TGC0578	–	–	–	.5781	.5731	1.729	–
19/32	–	100TGC0594	–	–	–	.5938	.5888	1.734	–
19/32	100TG0594	–	–	–	–	.5940	.5781	1.583	–
39/64	100TG0609	–	–	–	–	.6090	.5938	1.588	–
39/64	–	100TGC0609	–	–	–	.6094	.6044	1.738	–
5/8	100TG0625	–	–	–	–	.6250	.6094	1.593	–
5/8	–	–	100TGHP0625	–	–	.6250	.6150	1.593	–
5/8	–	100TGC0625	–	100TGCHP0625	–	.6250	.6200	1.743	–
5/8	–	–	–	–	100TGNP0625	.6250	–	–	.875
41/64	–	100TGC0641	–	–	–	.6406	.6356	1.748	–
41/64	100TG0641	–	–	–	–	.6410	.6250	1.597	–
21/32	100TG0656	–	–	–	–	.6560	.6406	1.602	–
21/32	–	100TGC0656	–	–	–	.6563	.6513	1.752	–
43/64	–	100TGC0672	–	–	–	.6719	.6669	1.757	–
43/64	100TG0672	–	–	–	–	.6720	.6563	1.607	–
11/16	–	–	100TGHP0688	–	–	.6875	.6775	1.612	–
11/16	–	100TGC0688	–	100TGCHP0688	–	.6875	.6825	1.762	–
11/16	100TG0688	–	–	–	–	.6880	.6719	1.612	–
45/64	100TG0703	–	–	–	–	.7030	.6875	1.612	–
45/64	–	100TGC0703	–	–	–	.7031	.6981	1.767	–
23/32	–	100TGC0719	–	–	–	.7188	.7138	1.771	–
23/32	100TG0719	–	–	–	–	.7190	.7031	1.621	–
47/64	100TG0734	–	–	–	–	.7340	.7188	1.625	–
47/64	–	100TGC0734	–	–	–	.7344	.7294	1.776	–
3/4	100TG0750	–	–	–	–	.7500	.7348	1.630	–
3/4	–	–	100TGHP0750	–	–	.7500	.7400	1.630	–
3/4	–	100TGC0750	–	100TGCHP0750	–	.7500	.7450	1.781	–
3/4	–	–	–	–	100TGNP0750	.7500	–	–	.938
49/64	–	100TGC0766	–	–	–	.7656	.7606	1.904	–
49/64	100TG0766	–	–	–	–	.7660	.7500	2.375	–
25/32	100TG0781	–	–	–	–	.7810	.7656	2.375	–
25/32	–	100TGC0781	–	–	–	.7813	.7763	1.908	–
51/64	–	100TGC0797	–	–	–	.7969	.7919	1.913	–
51/64	100TG0797	–	–	–	–	.7970	.7813	2.375	–
13/16	100TG0812	–	–	–	–	.8120	.7969	2.375	–
13/16	–	100TGC0812	–	–	–	.8125	.8075	1.917	–

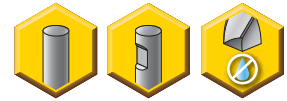
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(TG100 Series continued)

D1	100TG standard	100TGC standard – coolant	100TGHP high precision	100TGCHP high precision – coolant	100TGNP milling – non-pullout	collet capacity max inch	collet capacity min inch	L9	LWP
53/64	100TG0828	–	–	–	–	.8280	.8125	2.375	–
53/64	–	100TGC0828	–	–	–	.8281	.8231	1.922	–
27/32	–	100TGC0844	–	–	–	.8438	.8388	1.927	–
27/32	100TG0844	–	–	–	–	.8440	.8281	2.375	–
55/64	100TG0859	–	–	–	–	.8590	.8438	2.375	–
7/8	–	100TGC0875	–	100TGCHP0875	–	.8750	.8700	1.936	–
7/8	–	–	100TGHP0875	–	–	.8750	.8650	2.375	–
7/8	100TG0875	–	–	–	–	.8750	.8594	2.375	–
7/8	–	–	–	–	100TGNP0875	.8750	–	2.375	.938
57/64	–	100TGC0891	–	–	–	.8906	.8856	1.941	–
57/64	100TG0891	–	–	–	–	.8910	.8750	2.375	–
29/32	100TG0906	–	–	–	–	.9060	.8906	2.375	–
29/32	–	100TGC0906	–	–	–	.9063	.9013	1.946	–
59/64	–	100TGC0922	–	–	–	.9219	.9169	1.950	–
59/64	100TG0922	–	–	–	–	.9220	.9063	2.375	–
15/16	–	100TGC0938	–	–	–	.9375	.9325	1.955	–
15/16	100TG0938	–	–	–	–	.9380	.9219	2.375	–
61/64	100TG0953	–	–	–	–	.9530	.9375	2.375	–
61/64	–	100TGC0953	–	–	–	.9531	.9481	1.960	–
31/32	–	100TGC0969	–	–	–	.9688	.9638	1.964	–
31/32	100TG0969	–	–	–	–	.9690	.9531	2.375	–
63/64	100TG0984	–	–	–	–	.9840	.9688	2.375	–
63/64	–	100TGC0984	–	–	–	.9844	.9794	1.969	–
1	100TG1000	–	–	–	–	1.0000	.9844	2.375	–
1	–	100TGC1000	–	100TGCHP1000	–	1.0000	.9950	2.375	–
1	–	–	100TGHP1000	–	–	1.0000	.9900	2.375	–
1	–	–	–	–	100TGNP1000	1.0000	–	–	.938

NOTE: Inserting the cutting tool less than 2/3 of the gripping length into the collet can influence the coolant sealing performance and permanently damage the collet.
Full length of the gripping bore needs to be maintained to achieve maximum accuracy and safety.
Collet accuracies are based on size-for-size conditions. Using the collapsible range can influence the accuracy and gripping powers.
Never try to stretch the collets by clamping oversized cutting tools.

- An economical way to purchase a group of collets.



TG Collet

ERICKSON™

■ TG100 Collet Set • Inch

catalog number	series	quantity	dimensional range	incremental division
S100TG1SET	TG100	59	3/32-1	1/64
S100TG2SET	TG100	30	3/32 - 1	1/32
S100TG3SET	TG100	41	3/8 - 1	1/64
S100TG4SET	TG100	21	3/8 - 1	1/32



TG Collet — NP

■ TG100 NP-Out Collet Set • Inch

catalog number	series	quantity	dimensional range	incremental division
S100TGNPSET	TG100	6	3/8-1	1/8





KenFeed™ Mini

Small High-Feed Milling Cutter for Machining Small and Medium Components

Roughing operations through the latest milling strategies up to 55 HRC. Specially suited for small parts or machines with lower power capacity. The KenFeed Mini delivers higher productivity with reduced tooling costs.

- Able to machine many materials and applications.
- Higher feed rates and/or HSM capabilities.
- Grade/geometry selection offers the best performance, even in hardened steel, stainless steel, and titanium materials.
- Improved tool life and MRR. Able to machine deep cavities with higher performance.

To learn more, scan here.
For instructions on how to scan, please see page xxxiii.

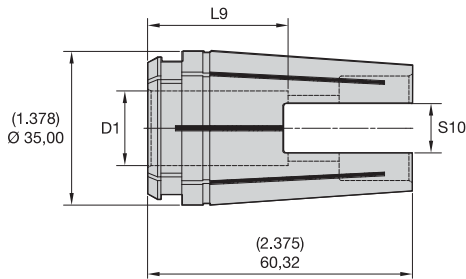


Experience the advantages at your Authorized Kennametal Distributor or at www.kennametal.com.

www.kennametal.com



- Rubber-filled slots seal collet for coolant-fed tool applications.
- Can be used in all standard TG collet chucks.
- Provides Tremendous Grip (3:1 advantage) and accuracy for tapping applications.
- Slot in back of collets acts as a drive for the tap square.
- Industry-standard Erickson™ single-angle collet system.
- Manufactured to DIN 6499 Class 2 accuracy; see page M103.



ERICKSON™

■ TG100 Solid Tap Collet • Metric DIN and ISO

tap size	catalog number	collet series	D1	S10	L9
M9 & M12	100TGST090071M	TG100	9,0	7,1	30,0
M10	100TGST100080M	TG100	10,0	8,0	30,0
M14	100TGST110090M	TG100	11,0	9,0	30,0
M16	100TGST120090M	TG100	12,0	9,0	30,0
M18	100TGST140110M	TG100	14,0	11,0	30,0
M20	100TGST160120M	TG100	16,0	12,0	30,0
M22 & M24	100TGST180145M	TG100	18,0	14,5	30,0

■ TG100 Solid Tap Collet • Solid Tap Coolant • Inch/Metric ANSI

tap size		100TGST solid tap	100TGSTC solid tap – coolant	collet series	D1	S10	L9
mm	in						
M3 & M3,15 & M3,5	#0-#6 & 1/8	100TGST6	—	TG100	.141	.110	.141
M4	#8 & 5/32	100TGST8	—	TG100	.168	.131	.168
M4,5 & M5	#10 & 3/16	100TGST10	—	TG100	.194	.152	.194
—	#12 & 7/32	100TGST12	—	TG100	.220	.165	.220
M6 & M6,3	#14 & 1/4	100TGST025	—	TG100	.255	.191	.812
—	1/16P & 1/8P(SS)	100TGST006P	—	TG100	.313	.234	.812
M7 & M8	5/16	100TGST031	100TGSTC031	TG100	.318	.238	.868
—	7/16	100TGST043	100TGSTC043	TG100	.323	.242	.963
M12 & M12,5	1/2	100TGST050	100TGSTC050	TG100	.367	.275	.932
M10	3/8	100TGST037	100TGSTC037	TG100	.381	.286	.900
M14	9/16	100TGST056	—	TG100	.429	.322	1.087
—	1/8P(LS)	100TGST012P	—	TG100	.438	.328	.812
M16	5/8	100TGST062	100TGSTC062	TG100	.480	.360	1.087
M18	11/16	100TGST068	—	TG100	.542	.406	1.244

(continued)

(TG100 Single-Angle Solid Tap Collets continued)

mm	tap size		100TGST solid tap	100TGSTC solid tap — coolant	collet series	D1	S10	L9
		in						
—		1/4P	100TGST025P	—	TG100	.563	.421	.812
—		3/4	100TGST075	100TGSTC075	TG100	.590	.442	1.213
M20		13/16	100TGST081	—	TG100	.652	.489	.652
—		1/2P	100TGST050P	—	TG100	.688	.515	.812
M22		7/8	100TGST087	—	TG100	.697	.523	.697
M22		7/8	—	100TGSTC087	TG100	.697	.523	1.369
—		3/8P	100TGST037P	—	TG100	.700	.531	.812
M24		15/16	100TGST094	—	TG100	.760	.570	.760
M25		1	—	100TGSTC100	TG100	.800	.600	1.313
M25		1	100TGST100	—	TG100	.800	.600	.800
M27		1 1/16 & 1 1/8	100TGST112	—	TG100	.896	.672	.896
—		3/4P	100TGST075P	—	TG100	.906	.679	.812

NOTE: Inserting the cutting tool less than 2/3 of the gripping length into the collet can influence the coolant sealing performance and permanently damage the collet.

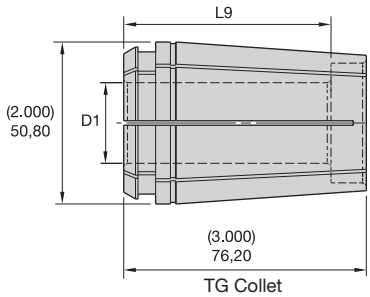
Full length of the gripping bore needs to be maintained to achieve maximum accuracy and safety.

Collet accuracies are based on size-for-size conditions. Using the collapsible range can influence the accuracy and gripping powers.

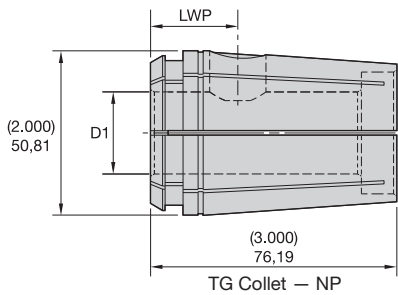
Never try to stretch the collets by clamping oversized cutting tools.



- Provides Tremendous Grip (3:1 advantage) and accuracy for all drilling applications.
- Industry-standard Erickson™ single-angle collet system.
- 0,4mm [.016" (1/64")] range of collapse.
- Grips on back taper and margin of drill for maximum feed rates and more accurate holes.
- Manufactured to DIN 6499 Class 2 accuracy; see page M103.



TG Collet



TG Collet – NP

ERICKSON™

■ TG150 Series • Metric

D1	150TG standard	150TGNP standard – non-pullout	collet capacity max mm	collet capacity min mm	L9	LWP
12,0	150TG120M	–	12,0	11,6	44,0	–
13,0	150TG130M	–	13,0	12,6	44,0	–
14,0	150TG140M	–	14,0	13,6	44,0	–
14,5	150TG145M	–	14,5	14,1	44,0	–
15,0	150TG150M	–	15,0	14,6	54,0	–
16,0	150TG160M	–	16,0	15,6	54,0	–
18,0	150TG180M	–	18,0	17,6	54,0	–
19,0	150TG190M	–	19,0	18,6	76,2	–
20,0	150TG200M	–	20,0	19,6	76,2	–
21,0	150TG210M	–	21,0	20,6	76,2	–

(continued)

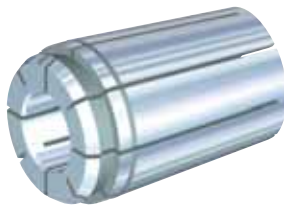
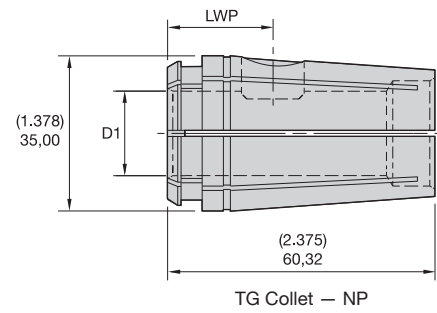
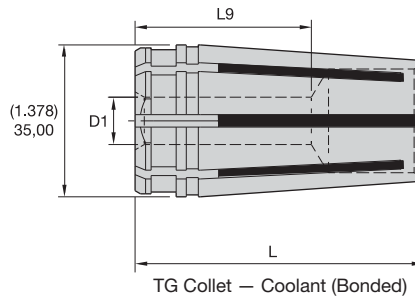
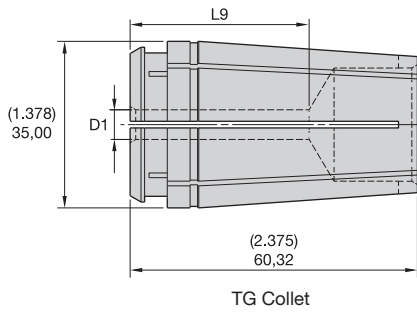
(TG150 Series continued)

D1	150TG standard	150TGNP standard – non-pullout	collet capacity max mm	collet capacity min mm	L9	LWP
22,0	150TG220M	–	22,0	21,6	76,2	–
25,0	150TG250M	–	25,0	24,6	76,2	–
25,0	–	150TGNP250M	25,0	–	–	22
25,5	150TG255M	–	25,5	25,1	76,2	–
26,0	150TG260M	–	26,0	25,6	76,2	–
27,0	150TG270M	–	27,0	26,6	76,2	–
28,0	150TG280M	–	28,0	27,6	76,2	–
30,0	150TG300M	–	30,0	29,6	76,2	–
32,0	150TG320M	–	32,0	31,6	76,2	–
32,0	–	150TGNP320M	32,0	–	–	22
34,0	150TG340M	–	34,0	33,6	76,2	–
35,0	150TG350M	–	35,0	34,6	76,2	–
36,0	150TG360M	–	36,0	35,6	76,2	–
38,0	150TG380M	–	38,0	37,6	76,2	–
40,0	150TG400M	–	40,0	39,6	76,2	–

NOTE: Inserting the cutting tool less than 2/3 of the gripping length into the collet can influence the coolant sealing performance and permanently damage the collet.
 Full length of the gripping bore needs to be maintained to achieve maximum accuracy and safety.
 Collet accuracies are based on size-for-size conditions. Using the collapsible range can influence the accuracy and gripping powers.
 Never try to stretch the collets by clamping oversized cutting tools.



- Provides Tremendous Grip (3:1 advantage) and accuracy for all drilling applications.
- Industry-standard Erickson™ single-angle collet system.
- 150TG 0,4mm [.016" (1/64)] range of collapse.
- 150TGCHP and 150TGNP 0,13mm (.005") range of collapse.
- Grips on back taper and margin of drill for maximum feed rates and more accurate holes.
- Manufactured to DIN 6499 Class 2 accuracy; see page M103.
- HP design manufactured to DIN 6499 class/accuracy.



TG Collet



TG Collet – Coolant (Bonded)



TG Collet – NP



TG150 Series • Inch

D1	150TG standard	150TGCHP high precision – coolant	150TGNP milling – non-pullout	collet capacity max inch	collet capacity min inch	L9	LWP
3/8	150TG0375	–	–	.3750	.3594	2.000	–
25/64	150TG0391	–	–	.3906	.3750	2.000	–
13/32	150TG0406	–	–	.4063	.3906	2.000	–
27/64	150TG0422	–	–	.4219	.4063	2.000	–
7/16	150TG0438	–	–	.4375	.4219	2.000	–
29/64	150TG0453	–	–	.4531	.4375	2.000	–
15/32	150TG0468	–	–	.4688	.4531	2.000	–
31/64	150TG0484	–	–	.4844	.4688	2.000	–
1/2	150TG0500	–	–	.5000	.4844	2.560	–
1/2	–	–	150TGNP0500	.5000	–	–	.828
33/64	150TG0516	–	–	.5156	.5000	2.560	–
17/32	150TG0531	–	–	.5313	.5156	2.560	–

(continued)

(TG150 Series continued)

D1	150TG standard	150TGCHP high precision – coolant	150TGNP milling – non-pullout	collet capacity max inch	collet capacity min inch	L9	LWP
35/64	150TG0547	—	—	.5469	.5313	2.560	—
9/16	150TG0562	—	—	.5625	.5469	2.560	—
37/64	150TG0578	—	—	.5781	.5625	2.560	—
19/32	150TG0594	—	—	.5938	.5781	2.560	—
39/64	150TG0609	—	—	.6094	.5938	2.560	—
5/8	150TG0625	—	—	.6250	.6094	2.560	—
5/8	—	—	150TGNP0625	.6250	—	—	.875
41/64	150TG0641	—	—	.6406	.6250	2.560	—
21/32	150TG0656	—	—	.6563	.6406	2.560	—
43/64	150TG0672	—	—	.6719	.6563	2.560	—
11/16	150TG0688	—	—	.6875	.6719	2.560	—
45/64	150TG0703	—	—	.7031	.6875	2.560	—
23/32	150TG0719	—	—	.7188	.7031	2.560	—
47/64	150TG0734	—	—	.7344	.7188	2.560	—
3/4	150TG0750	—	—	.7500	.7344	2.560	—
3/4	—	—	150TGNP0750	.7500	—	—	.938
49/64	150TG0766	—	—	.7656	.7500	2.560	—
25/32	150TG0781	—	—	.7813	.7656	2.560	—
51/64	150TG0797	—	—	.7969	.7813	2.560	—
13/16	150TG0812	—	—	.8125	.7969	2.560	—
53/64	150TG0828	—	—	.8281	.8125	2.560	—
27/32	150TG0844	—	—	.8438	.8281	2.560	—
55/64	150TG0859	—	—	.8594	.8438	2.560	—
7/8	150TG0875	—	—	.8750	.8594	2.560	—
7/8	—	—	150TGNP0875	.8750	—	—	.938
57/64	150TG0891	—	—	.8906	.8750	2.560	—
29/32	150TG0906	—	—	.9063	.8906	2.560	—
59/64	150TG0922	—	—	.9219	.9063	2.560	—
15/16	150TG0938	—	—	.9375	.9219	2.560	—
61/64	150TG0953	—	—	.9531	.9375	2.560	—
31/32	150TG0969	—	—	.9688	.9531	2.560	—
63/64	150TG0984	—	—	.9844	.9688	2.560	—
1	150TG1000	—	—	1.0000	.9844	2.560	—
1	—	150TGCHP1000	—	—	—	—	—
1	—	—	150TGNP1000	1.0000	—	—	1.063
1 1/64	150TG1016	—	—	1.0156	1.0000	2.560	—
1 1/32	150TG1031	—	—	1.0313	1.0156	2.560	—
1 3/64	150TG1047	—	—	1.0469	1.0313	2.560	—
1 1/16	150TG1062	—	—	1.0625	1.0469	2.560	—
1 5/64	150TG1078	—	—	1.0781	1.0625	2.560	—
1 3/32	150TG1094	—	—	1.0938	1.0781	2.560	—
1 7/64	150TG1109	—	—	1.1094	1.0938	2.560	—
1 9/64	150TG1141	—	—	1.1200	1.1094	2.560	—
1 1/8	150TG1125	—	—	1.1250	1.1200	2.560	—
1 5/32	150TG1156	—	—	1.1563	1.1250	2.560	—
1 11/64	150TG1172	—	—	1.1719	1.1563	2.560	—
1 3/16	150TG1187	—	—	1.1875	1.1719	2.560	—
1 13/64	150TG1203	—	—	1.2031	1.1875	2.560	—

(continued)



(TG150 Series continued)

D1	150TG standard	150TGCHP high precision — coolant	150TGNP milling — non-pullout	collet capacity max inch	collet capacity min inch	L9	LWP
1 7/32	150TG1219	—	—	1.2188	1.2031	2.560	—
1 15/64	150TG1234	—	—	1.2344	1.2188	2.560	—
1 1/4	150TG1250	—	—	1.2500	1.2344	2.560	—
1 1/4	—	—	150TGNP1250	1.2500	—	—	1.063
1 1/4	—	150TGCHP1250	—	—	—	—	—
1 17/64	150TG1266	—	—	1.2656	1.2500	2.560	—
1 9/32	150TG1281	—	—	1.2813	1.2656	2.560	—
1 19/64	150TG1297	—	—	1.2969	1.2813	2.560	—
1 5/16	150TG1312	—	—	1.3125	1.2969	2.560	—
1 21/64	150TG1328	—	—	1.3281	1.3125	2.560	—
1 11/32	150TG1344	—	—	1.3438	1.3281	2.560	—
1 23/64	150TG1359	—	—	1.3594	1.3438	2.560	—
1 3/8	150TG1375	—	—	1.3750	1.3594	2.560	—
1 25/64	150TG1391	—	—	1.3906	1.3750	2.560	—
1 13/32	150TG1406	—	—	1.4063	1.3906	2.560	—
1 27/64	150TG1422	—	—	1.4219	1.4063	2.560	—
1 7/16	150TG1438	—	—	1.4375	1.4219	2.560	—
1 29/64	150TG1453	—	—	1.4531	1.4375	2.560	—
1 15/32	150TG1469	—	—	1.4688	1.4531	2.560	—
1 1/2	150TG1500	—	—	1.5000	1.4688	2.560	—
1 1/2	—	—	150TGNP1500	1.5000	—	—	1.063
1 1/2	—	150TGCHP1500	—	—	—	—	—
1 31/32	150TG1484	—	—	1.9688	1.5000	2.560	—

NOTE: Inserting the cutting tool less than 2/3 of the gripping length into the collet can influence the coolant sealing performance and permanently damage the collet.
 Full length of the gripping bore needs to be maintained to achieve maximum accuracy and safety.
 Collet accuracies are based on size-for-size conditions. Using the collapsible range can influence the accuracy and gripping powers.
 Never try to stretch the collets by clamping oversized cutting tools.

- An economical way to purchase a group of collets.



TG Collet

ERICKSON

■ TG150 Collet Set • Metric

catalog number	series	quantity	dimensional range	incremental division
150TGS000M	TG150	3	25mm - 40mm	25 & 32 & 40

■ TG150 Collet Set • Inch

catalog number	series	quantity	dimensional range	incremental division
S150TG1SET	TG150	65	1/2 - 1 1/2	1/64
S150TG2SET	TG150	33	1/2 - 1 1/2	1/32
S150TG4SET	TG150	25	3/4 - 1 1/2	1/32

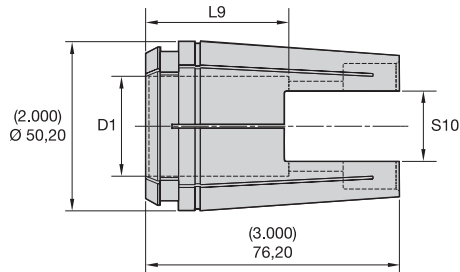


TG Collet — NP

■ TG150 NP-Out Collet Set • Inch

catalog number	series	quantity	dimensional range	incremental division
S150TGNPSET	TG150	7	1/2 - 1 1/2	1/8 (1/2-1) & 1/4 (1 1/4-1 1/2)

- Can be used in all standard TG collet chucks.
- Provides Tremendous Grip (3:1 advantage) and accuracy for tapping applications.
- Slot in back of collets acts as a drive for the tap square.
- Industry-standard Erickson™ single-angle collet system.



ERICKSON™

■ TG150 Solid Tap Collet • Metric DIN and ISO

*** Metric DIN and ISO only available in TG50 and TG100 series ***

■ TG150 Solid Tap Collet • Inch/Metric ANSI

tap size		150TGST solid tap	collet series	D1	S10	L9
mm	in					
—	3/4	150TGST075	TG150	.590	.442	1.213
—	1/2P	150TGST050P	TG150	.688	.515	.812
—	3/8P	150TGST037P	TG150	.700	.531	.812
M25	1	150TGST100	TG150	.800	.600	1.463
M27	1 1/16 & 1 1/8	150TGST112	TG150	.896	.672	1.650
—	3/4P	150TGST075P	TG150	.906	.679	.906
M30	1 3/16 & 1 1/4	150TGST125	TG150	1.021	.766	1.750
M33	1 5/16 & 1 3/8	150TGST137	TG150	1.108	.831	1.687
—	1P	150TGST100P	TG150	1.125	2.142	.906
M36	1 7/16 & 1 1/2	150TGST150	TG150	1.233	.925	1.625
M39	1 5/8	150TGST162	TG150	1.305	.979	1.625
—	1 1/4P	150TGST125P	TG150	1.313	2.085	.963
M42	1 3/4	150TGST175	TG150	1.430	1.072	1.500
—	1 1/2P	150TGST150P	TG150	1.500	1.898	1.150

NOTE: Inserting the cutting tool less than 2/3 of the gripping length into the collet can influence the coolant sealing performance and permanently damage the collet.
 Full length of the gripping bore needs to be maintained to achieve maximum accuracy and safety.
 Collet accuracies are based on size-for-size conditions. Using the collapsible range can influence the accuracy and gripping powers.
 Never try to stretch the collets by clamping oversized cutting tools.



The Kennametal Solution

Kennametal Global Engineered Solutions. Coordinated global resources with world-class manufacturing, process development, and implementation capabilities.

No matter how small or large your project.

- Whether it's a single tailored tool or the development of a comprehensive manufacturing process, Kennametal's team can manage the development, personnel training, and successful implementation of the complete solution.

Regardless of where you're located, Kennametal is everywhere you are.

- With Kennametal's team, you receive globally coordinated manufacturing, process development, implementation, and optimization support and key alliances with machine tool builders and other leading technology manufacturers that ensure a complete solution.

Experience the advantages at your Authorized Kennametal Distributor or at www.kennametal.com.

www.kennametal.com



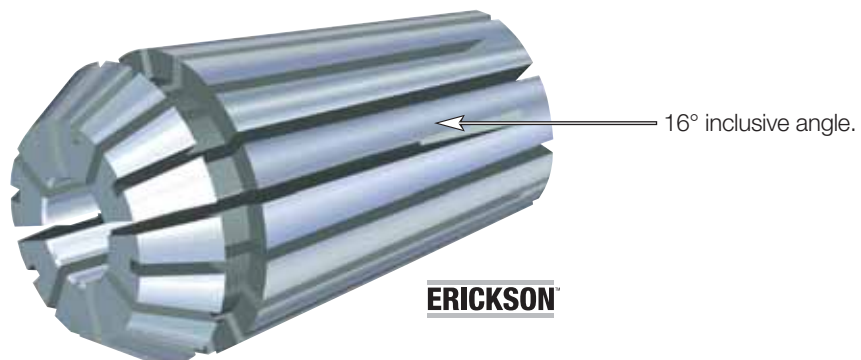
ER DIN 6499 Single-Angle Collets

Primary Application

The standard ER Collets are manufactured according to DIN 6499-B (16° inclusive angle) standard and are available in a variety of styles, ER8, ER11, ER16, ER20, ER25, ER32, and ER40, with sizes ranging from 0,5–26mm (.0197–1.0000"). Applications of light end milling, drilling, tapping, reaming, and boring solution are applicable.

Features and Benefits

- DIN 6499 Class 2 accuracy.
- 16° inclusive taper angle taper for approximately 2:1 grip.
- Dedicated versions for tapping — driving off the square of the tap.



How Do Catalog Numbers Work?

Each character in our catalog number signifies a specific trait of that product. Use the following key columns and corresponding images to easily identify which attributes apply.



40ERC160M

ERICKSON

40

System Size

- 11 = ER11
- 16 = ER16
- 20 = ER20
- 25 = ER25
- 32 = ER32
- 40 = ER40

ER

Collet Style

ER-DIN 6499 =
Single angle

C

Special Feature
(optional)

TC =
Solid tapping
(square for drive)

TCT =
Solid tapping
with tension only

160

Collet Bore Size

metric (xx.x)

- 010** = 1mm
- 160** = 16mm
- 245** = 24,5mm

inch (x.xxx)

- 0125** = 1/8"
- 0500** = 1/2"
- 1000** = 1"

M

Identification
Value

M =
Collet bore size built
to metric values

(blank) =
Collet bore size built
to metric values



ER • Single Angle

- Provides good grip and accuracy for all drilling applications.
- Wide clamping range.
- Available in both inch and metric bores.
- 1mm (.040") range of collapse.
- Manufactured to DIN 6499.
- Accuracy to DIN 6499 Class 2.

ERICKSON



ERTC • Single-Angle Tap Collet

- Designed to grip taps on shank and square to eliminate slippage.
- Fits all standard ER-style collet chucks.
- 0,13mm (.005") range of collapse.

ERICKSON



ERTCT • Single-Angle Tap Collet with Axial Compensation

- Designed to grip taps on shank and square to eliminate slippage.
- Tension only, cost effective solution for machines that require axial compensation for tapping.
- Fits all standard ER-style collet chucks.

ERICKSON





HARVI IITM

A New Dimension

The next generation high-performance end mill, HARVI II dramatically improves metal removal rates without reducing tool life.

- Best suited for applications in the aerospace, medical, die and mold, automotive, and general engineering markets.
- Outstanding performance in stainless steel, titanium, INCONEL®, and other high-temperature alloys and steels.
- Increased metal removal rates in roughing and finishing operations.

*To learn more, scan here.
For instructions on how to scan, please see page xxxiii.*

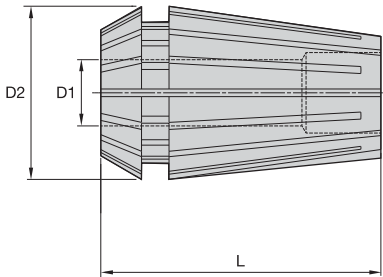


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www.kennametal.com



- Provides approximately 2:1 grip advantage.
- Wide clamping range for all drilling applications.
- ER8 and ER11 0,5mm (.020") range of collapse.
- ER16, ER20, ER25, ER32, and ER40 1mm (.040") range of collapse.
- Available in both metric and inch sizes.
- Manufactured to DIN 6499 Class 2 accuracy; see page M103.



ERICKSON

■ ER Collets • Metric

D1	ER8 D2 = 8,5mm L = 13,5mm	ER11 D2 = 11,5mm L = 18mm	ER16 D2 = 17mm L = 27,5mm	ER20 D2 = 21mm L = 31,5mm	ER25 D2 = 26mm L = 34mm	ER32 D2 = 33mm L = 40mm	ER40 D2 = 41mm L = 46mm	collet capacity max mm	collet capacity min mm
1,0	8ER010M	11ER010M	16ER010M	20ER010M	—	—	—	1,00	0,50
1,5	8ER015M	11ER015M	16ER015M	—	—	—	—	1,50	1,00
2,0	—	—	16ER020M	20ER020M	25ER020M	—	—	2,00	1,00
2,0	8ER020M	11ER020M	—	—	—	—	—	2,00	1,50
2,5	—	—	16ER025M	—	—	—	—	2,50	1,50
2,5	8ER025M	11ER025M	—	—	—	—	—	2,50	2,00
3,0	—	—	16ER030M	20ER030M	25ER030M	32ER030M	—	3,00	2,00
3,0	8ER030M	11ER030M	—	—	—	—	—	3,00	2,50
3,5	—	—	16ER035M	—	—	—	—	3,50	2,50
3,5	8ER035M	11ER035M	—	—	—	—	—	3,50	3,00
4,0	—	—	16ER040M	20ER040M	25ER040M	32ER040M	40ER040M	4,00	3,00
4,0	8ER040M	11ER040M	—	—	—	—	—	4,00	3,50
4,5	—	—	16ER045M	—	—	—	—	4,50	3,50
4,5	8ER045M	11ER045M	—	—	—	—	—	4,50	4,00
5,0	—	—	16ER050M	20ER050M	25ER050M	32ER050M	40ER050M	5,00	4,00
5,0	8ER050M	11ER050M	—	—	—	—	—	5,00	4,50
5,5	—	—	16ER055M	—	—	—	—	5,50	4,50
5,5	—	11ER055M	—	—	—	—	—	5,50	5,00
6,0	—	—	16ER060M	20ER060M	25ER060M	32ER060M	40ER060M	6,00	5,00
6,0	—	11ER060M	—	—	—	—	—	6,00	5,50
6,5	—	—	16ER065M	—	—	—	—	6,50	5,50
6,5	—	11ER065M	—	—	—	—	—	6,50	6,00
7,0	—	—	16ER070M	20ER070M	25ER070M	32ER070M	40ER070M	7,00	6,00
7,0	—	11ER070M	—	—	—	—	—	7,00	6,50
7,5	—	—	16ER075M	—	—	—	—	7,50	6,50
8,0	—	—	16ER080M	20ER080M	25ER080M	32ER080M	40ER080M	8,00	7,00

(continued)

(ER Single-Angle Standard Collets continued)

D1	ER8 D2 = 8,5mm L = 13,5mm	ER11 D2 = 11,5mm L = 18mm	ER16 D2 = 17mm L = 27,5mm	ER20 D2 = 21mm L = 31,5mm	ER25 D2 = 26mm L = 34mm	ER32 D2 = 33mm L = 40mm	ER40 D2 = 41mm L = 46mm	collet capacity max mm	collet capacity min mm
8,5	—	—	16ER085M	—	—	—	—	8,50	7,50
9,0	—	—	16ER090M	20ER090M	25ER090M	32ER090M	40ER090M	9,00	8,00
9,5	—	—	16ER095M	—	—	—	—	9,50	8,50
10,0	—	—	16ER100M	20ER100M	25ER100M	32ER100M	40ER100M	10,00	9,00
11,0	—	—	—	20ER110M	25ER110M	32ER110M	40ER110M	11,00	10,00
12,0	—	—	—	20ER120M	25ER120M	32ER120M	40ER120M	12,00	11,00
13,0	—	—	—	20ER130M	25ER130M	32ER130M	40ER130M	13,00	12,00
14,0	—	—	—	—	25ER140M	32ER140M	40ER140M	14,00	13,00
15,0	—	—	—	—	25ER150M	32ER150M	40ER150M	15,00	14,00
16,0	—	—	—	—	25ER160M	32ER160M	40ER160M	16,00	15,00
17,0	—	—	—	—	—	32ER170M	40ER170M	17,00	16,00
18,0	—	—	—	—	—	32ER180M	40ER180M	18,00	17,00
19,0	—	—	—	—	—	32ER190M	40ER190M	19,00	18,00
20,0	—	—	—	—	—	32ER200M	40ER200M	20,00	19,00
21,0	—	—	—	—	—	—	40ER210M	21,00	20,00
22,0	—	—	—	—	—	—	40ER220M	22,00	21,00
23,0	—	—	—	—	—	—	40ER230M	23,00	22,00
24,0	—	—	—	—	—	—	40ER240M	24,00	23,00
25,0	—	—	—	—	—	—	40ER250M	25,00	24,00
26,0	—	—	—	—	—	—	40ER260M	26,00	25,00

(continued)



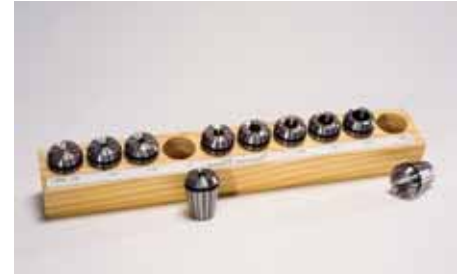
(ER Single-Angle Standard Collets continued)

■ ER Collets • Inch

D1	ER16 D2 = .669 L = 1.083	ER20 D2 = .827 L = 1.240	ER25 D2 = 1.024 L = 1.339	ER32 D2 = 1.299 L = 1.575	ER40 D2 = 1.614 L = 1.811	collet capacity max inch	collet capacity min inch
1/16	16ER0062	20ER0062	25ER0062	—	—	.0625	.0425
3/32	—	20ER0094	—	—	—	.0938	.0538
3/32	16ER0094	—	25ER0094	—	—	.0938	.0738
1/8	16ER0125	20ER0125	25ER0125	32ER0125	40ER0125	.1250	.0850
5/32	16ER0156	20ER0156	25ER0156	32ER0156	40ER0156	.1563	.1163
3/16	16ER0188	20ER0188	25ER0188	32ER0188	40ER0188	.1875	.1475
7/32	16ER0219	20ER0219	25ER0219	32ER0219	40ER0219	.2188	.1788
1/4	16ER0250	20ER0250	25ER0250	32ER0250	40ER0250	.2500	.2100
9/32	16ER0281	20ER0281	25ER0281	32ER0281	40ER0281	.2813	.2413
5/16	16ER0312	20ER0312	25ER0312	32ER0312	40ER0312	.3125	.2725
11/32	16ER0344	20ER0344	25ER0344	32ER0344	40ER0344	.3438	.3038
3/8	16ER0375	20ER0375	25ER0375	32ER0375	40ER0375	.3750	.3350
13/32	16ER0406	20ER0406	25ER0406	32ER0406	40ER0406	.4063	.3663
7/16	—	20ER0438	25ER0438	32ER0438	40ER0438	.4375	.3975
15/32	—	20ER0469	25ER0469	32ER0469	40ER0469	.4688	.4288
1/2	—	20ER0500	25ER0500	32ER0500	40ER0500	.5000	.4600
17/32	—	—	25ER0531	32ER0531	40ER0531	.5313	.4913
9/16	—	—	—	32ER0562	40ER0562	.5625	.5225
9/16	—	—	25ER0562	—	—	.5626	.5225
19/32	—	—	25ER0594	32ER0594	40ER0594	.5938	.5538
5/8	—	—	25ER0625	32ER0625	40ER0625	.6250	.5850
21/32	—	—	—	32ER0656	40ER0656	.6563	.6163
11/16	—	—	—	32ER0688	40ER0688	.6875	.6475
23/32	—	—	—	32ER0719	40ER0719	.7188	.6788
3/4	—	—	—	32ER0750	40ER0750	.7500	.7100
25/32	—	—	—	32ER0781	40ER0781	.7813	.7413
13/16	—	—	—	32ER0812	40ER0812	.8125	.7725
27/32	—	—	—	—	40ER0844	.8438	.8038
7/8	—	—	—	—	40ER0875	.8750	.8350
29/32	—	—	—	—	40ER0906	.9063	.8663
15/16	—	—	—	—	40ER0938	.9375	.8975
31/32	—	—	—	—	40ER0969	.9688	.9288
1	—	—	—	—	40ER1000	1.0000	.9600

NOTE: Inserting the cutting tool less than 2/3 the gripping length into the collet can permanently damage the collet.
Full length of the gripping bore must be maintained to achieve maximum accuracy and safety.
Collet accuracies are based on size-for-size conditions.
Never try to stretch the collets by clamping oversized cutting tools.

- An economical way to purchase a set of collets.



ERICKSON

■ ER Collet Set • Metric

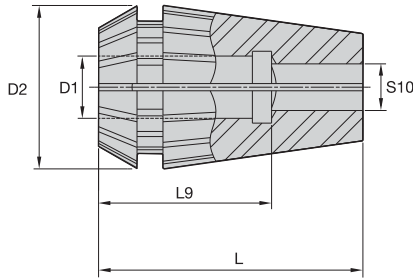
order number	catalog number	series	quantity	dimensional range	incremental division
1025864	8ERS000M	ER8	9	1mm - 5mm	.5
1020872	11ERS000M	ER11	13	1mm - 7mm	.5
1135892	16ERS000M	ER16	10	1mm - 10mm	1
1025865	20ERS000M	ER20	12	2mm - 13mm	1
1123858	25ERS000M	ER25	15	2mm - 16mm	1
1135911	32ERS000M	ER32	18	3mm - 20mm	1
1126252	40ERS000M	ER40	23	4mm - 26mm	1

■ ER Collet Set • Inch

order number	catalog number	series	quantity	dimensional range	incremental division
2269968	16ERS000SET2	ER16	12	1/16 - 13/32	1/32
2269969	20ERS000SET1	ER20	8	1/16 - 1/2	1/16
2269970	20ERS000SET2	ER20	15	1/16 - 1/2	1/32
2269971	25ERS000SET1	ER25	10	1/16 - 5/8	1/16
2269972	25ERS000SET2	ER25	19	1/16 - 5/8	1/32
2269973	32ERS000SET1	ER32	12	1/8 - 13/16	1/16
2269974	32ERS000SET2	ER32	23	1/8 - 13/16	1/32
2269975	40ERS000SET1	ER40	15	1/8 - 1	1/16
2269976	40ERS000SET2	ER40	29	1/8 - 1	1/32

NOTE: ER collet sets come complete with protective tray.

- Square in back of collet acts as a drive for the tap square.
- Can be used in all standard ER collet chucks.
- Available in metric and inch sizes.



ERICKSON™

■ ER Solid Tap Collet • Metric DIN and ISO

tap size	ER16 D2 = 17mm L = 27,5mm	ER20 D2 = 21mm L = 31,5mm	ER25 D2 = 26mm L = 34mm	ER32 D2 = 33mm L = 40mm	ER40 D2 = 41mm L = 46mm	D1	S10	L9
M4 & M6	16ERTC045034M	20ERTC045034M	25ERTC045034M	32ERTC045034M	—	4,5	3,4	18
—	16ERTC055043M	20ERTC055043M	25ERTC055043M	32ERTC055043M	—	5,5	4,3	18
M5 & M6 & M7 & M8	16ERTC060049M	20ERTC060049M	25ERTC060049M	32ERTC060049M	—	6,0	4,9	18
M10	16ERTC070055M	20ERTC070055M	25ERTC070055M	32ERTC070055M	40ERTC070055M	7,0	5,5	18
M8	16ERTC080062M	20ERTC080062M	25ERTC080062M	32ERTC080062M	40ERTC080062M	8,0	6,2	22
M12	16ERTC090070M	20ERTC090070M	25ERTC090070M	32ERTC090070M	40ERTC090070M	9,0	7,0	22
M10	—	20ERTC100080M	25ERTC100080M	32ERTC100080M	40ERTC100080M	10,0	8,0	25
M14	—	20ERTC110090M	25ERTC110090M	32ERTC110090M	40ERTC110090M	11,0	9,0	25
M16	—	—	25ERTC120090M	32ERTC120090M	40ERTC120090M	12,0	9,0	25
M18	—	—	—	32ERTC140110M	40ERTC140110M	14,0	11,0	25
—	—	—	25ERTC140110M	—	—	14,0	11,0	25
M20	—	—	—	32ERTC160120M	—	16,0	12,0	25
—	—	—	25ERTC160120M	—	—	16,0	12,0	25
M20	—	—	—	—	40ERTC160120M	16,0	12,0	25
M22 & M24	—	—	—	32ERTC180145M	40ERTC180145M	18,0	14,5	25
M27 & M30	—	—	—	32ERTC200160M	40ERTC200160M	20,0	16,0	28
M30	—	—	—	—	40ERTC220180M	22,0	18,0	28

(continued)

(ER Single-Angle Solid Tap Collets continued)

■ ER Solid Tap Collet • Inch/Metric ANSI

tap size		ER16	ER20	ER25	ER32	ER40	D1	S10	L9
mm	in	D2 = .669 L = 1.083	D2 = .827 L = 1.240	D2 = 1.024 L = 1.339	D2 = 1.299 L = 1.575	D2 = 1.614 L = 1.811			
M4	8 & 5/32	16ERTC8	20ERTC8	25ERTC8	32ERTC8	—	.168	.131	.710
M4,5 & M5	10 & 3/16	16ERTC10	20ERTC10	25ERTC10	32ERTC10	—	.194	.152	.710
—	12 & 7/32	16ERTC12	20ERTC12	25ERTC12	32ERTC12	—	.220	.165	.710
M6 & M6,3	14 & 1/4	16ERTC025	20ERTC025	25ERTC025	32ERTC025	40ERTC025	.255	.191	.710
M7 & M8	5/16	—	20ERTC031	25ERTC031	32ERTC031	40ERTC031	.318	.238	.866
—	7/16	—	20ERTC043	25ERTC043	32ERTC043	40ERTC043	.323	.242	.866
M12 & M12,5	1/2	—	20ERTC050	25ERTC050	32ERTC050	40ERTC050	.367	.275	.866
M10	3/8	—	20ERTC037	25ERTC037	32ERTC037	40ERTC037	.381	.286	.866
M14	9/16	—	—	25ERTC056	32ERTC056	40ERTC056	.429	.322	.984
M16	5/8	—	—	25ERTC062	32ERTC062	40ERTC062	.480	.360	.984
M18	11/16	—	—	—	32ERTC069	40ERTC069	.542	.406	.984
—	3/4	—	—	—	32ERTC075	—	.590	.422	.984
—	3/4	—	—	—	—	40ERTC075	.590	.442	.984
M20	13/16	—	—	—	32ERTC081	40ERTC081	.652	.489	.984
M22	7/8	—	—	—	—	40ERTC087	.697	.523	.984
M24	15/16	—	—	—	—	40ERTC093	.760	.570	1.100
M25	1	—	—	—	—	40ERTC100	.800	.600	1.100

NOTE: Inserting the cutting tool less than 2/3 the gripping length into the collet can permanently damage the collet.

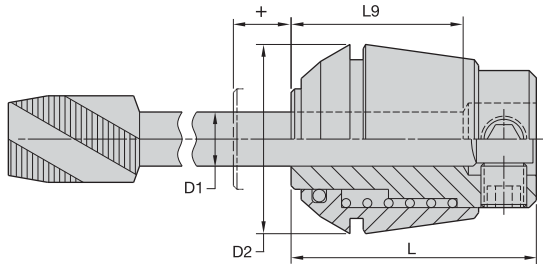
Full length of the gripping bore must be maintained to achieve maximum accuracy and safety.

Collet accuracies are based on size-for-size conditions. Using the collapsible range can influence the accuracy and gripping powers.

Never try to stretch the collets by clamping oversized cutting tools.



- Tension feature for applications that need synchronized tapping.
- Adjustable screws in back of collet act as a drive for the tap square.
- Can be used in all standard ER collet chucks.
- Available in inch sizes.



ERICKSON™

■ ER T-Only Tap Collet • Inch/Metric ANSI

tap size		ER12	ER16	ER20	ER25	ER32	ER40	D1	
mm	in	D2 = 11,4mm L = 21,5mm	D2 = 17mm L = 27,5mm	D2 = 21mm L = 31,5mm	D2 = 26mm L = 34mm	D2 = 33mm L = 40mm	D2 = 41mm L = 46mm	mm	in
M3 & M3,15 & M3,5	#0-#6 & 1/8	12ERTCT6	16ERTCT6	20ERTCT6	25ERTCT6	—	—	3,58	.141
M4	#8 & 5/32	—	16ERTCT8	20ERTCT8	25ERTCT8	32ERTCT8	—	4,27	.168
M4,5 & M5	#10 & 3/16	—	16ERTCT10	20ERTCT10	25ERTCT10	32ERTCT10	—	4,93	.194
—	#12 & 7/32	—	—	20ERTCT12	25ERTCT12	32ERTCT12	—	5,59	.220
M6 & M6,3	#14 & 1/4	—	—	20ERTCT025	25ERTCT025	32ERTCT025	40ERTCT025	6,48	.255
M7 & M8	5/16	—	—	—	25ERTCT031	32ERTCT031	40ERTCT031	8,08	.318
—	7/16	—	—	—	25ERTCT043	32ERTCT043	40ERTCT043	8,20	.323
M12 & M12,5	1/2	—	—	—	25ERTCT050	32ERTCT050	40ERTCT050	9,32	.367
M10	3/8	—	—	—	25ERTCT037	32ERTCT037	40ERTCT037	9,68	.381
M14	9/16	—	—	—	—	32ERTCT056	40ERTCT056	10,90	.429
—	1/8P(LS)	—	—	—	—	32ERTCT012P	—	11,10	.437
M16	5/8	—	—	—	—	32ERTCT062	40ERTCT062	12,19	.480
M18	11/16	—	—	—	—	—	40ERTCT069	13,77	.542
—	3/4	—	—	—	—	—	40ERTCT075	14,99	.590
M20	13/16	—	—	—	—	—	40ERTCT081	16,56	.652
M22	7/8	—	—	—	—	—	40ERTCT087	17,70	.697

NOTE: 12ERTCT6 fits ER11 chucks.

Full length of the gripping bore must be maintained to achieve maximum accuracy and safety.



Solid Carbide TF Drills

B/K 105 Solid Carbide Drills are ideal for high metal removal rates and excellent hole quality in aluminum as well as in short-hole titanium applications.

Three Cutting Edges

- Higher feed rates than with two-edged drills.

Three-Flute Design

- Rapid chip evacuation.
- Three-margin lands deliver better hole quality and straightness than two-flute drills.

Wear-Resistant Carbide Grade

- High tool life in abrasive materials such as aluminum die cast alloys.

Customization

- Intermediate diameters available as semi-standards.
- Length variations and step drills available as customized solutions.

Experience the advantages at your Authorized Kennametal Distributor or at www.kennametal.com.

www.kennametal.com



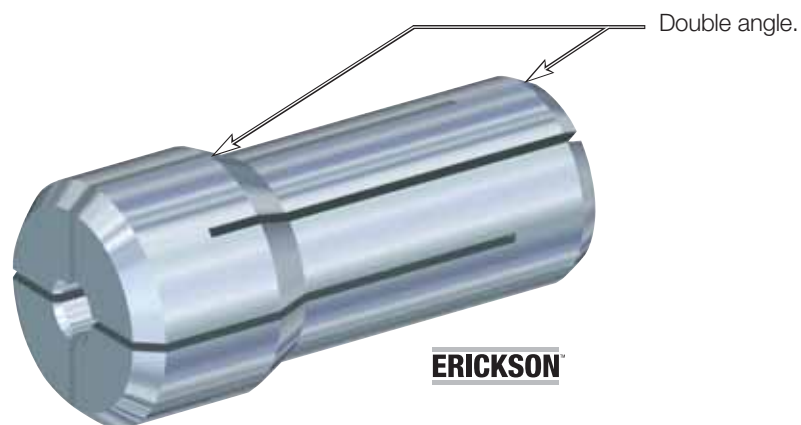
ERICKSON™ • DA Double-Angle Collets

Primary Application

DA – Double-Angle Collets are well-known in the industry as an economical collet system allowing reaching in to areas where other systems have clearance issues. These collets are manufactured according to the original ERICKSON standard styles, DA000, DA100, DA180, DA200, and DA300, with clamping sizes ranging from 0,5–20mm (.0197–.7500"). They are ideal for end milling, drilling, tapping, reaming, and boring solutions.

Features and Benefits

- Original ERICKSON standard.
- Versatile double-angle design providing approximately 1:1 grip.
- Bonded style available for through-coolant applications.
- Non-pullout style to captivate Weldon®-style end mills.
- Dedicated versions for tapping — driving off the square of the tap.



- Industry-standard Erickson™ double-angle collet system.

180DAC160M

ERICKSON

<h3>180</h3> <p>System Size</p> <p>100 = DA100 180 = DA180 200 = DA200 300 = DA300</p>	<h3>DA</h3> <p>Collet Style</p> <p>DA = Erickson Double Angle</p>	<h3>C</h3> <p>Special Feature (optional)</p> <p>C = Coolant style bonded NP = Non-pullout Weldon® (end mill design)</p>	<h3>160</h3> <p>Collet Bore Size</p> <p>metric (xx.x) 010 = 1mm 160 = 16mm inch (x.xxx) 0125 = 1/8" 0500 = 1/2"</p>	<h3>M</h3> <p>Identification Value</p> <p>M = Collet bore size built to metric values (blank) = Collet bore size built to inch values</p>
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DA • Double Angle

- 0,8mm [.031" (1/32")] maximum range of collapse dependent on collet capacity.

ERICKSON™



DAC • Double-Angle Coolant

- Rubber-filled slots seal coolant-fed tool applications.
- Suitable for coolant pressure up to 70 bar (1000 psi).
- Fits all standard DA-style collet chucks.
- 0,13mm (.005") range of collapse.

ERICKSON™



DANP • Double-Angle Non-Pullout, Weldon® Style

- Designed to grip end mills with Weldon-style shanks.
- Positive retention and drive provided by drive wedge in collet.
- Eliminates inaccuracy created by solid end mill adapters.
- Fits all standard DA-style collet chucks.
- 0,13mm (.005") range of collapse.

ERICKSON™



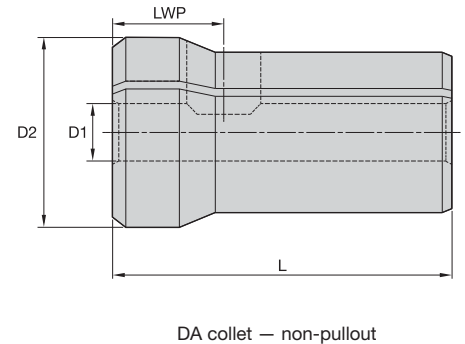
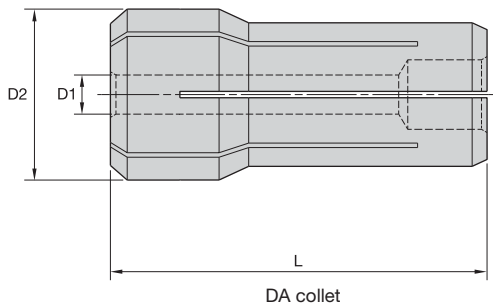
DA-J, K, & L • Double-Angle Solid Tap

- Provides positive drive for taps.

ERICKSON™



- For bonded collet DAC only — rubber-filled slots seal collet for coolant-fed tool applications.
- Provides 1:1 grip for most drilling, reaming, and tapping applications.
- Industry-standard Erickson™ double-angle collet system.
- 000DA 0,25mm (.010") to 0,38mm (.015") range of collapse dependent on collet capacity.
- 300DA, 200DA, 100DA, and 180DA 0,30mm (.012") to 0,80 mm (.031") range of collapse dependent on collet capacity.
- 200 DAC, 100DAC, 180DAC, and 180DANP 0,13mm (.005") range of collapse.
- 0,025mm (.001") TIR collet accuracy.



■ DA Collet • Metric

collet capacity		000DA standard	300DA standard	200DA standard	200DA standard – coolant	100DA standard	100DA standard – coolant	180DA standard	180DA standard – coolant	180DA standard – non-pullout	LWP
D1	max mm	D2 = L =	D2 = L =	D2 = L =	D2 = L =	D2 = L =	D2 = L =	D2 = L =	D2 = L =	D2 = L =	
1,0	1,0	8,50mm 16,76mm	9,53mm 25,406mm	13,69mm 30,16mm	13,69mm 30,16mm	19,53mm 36,53mm	19,53mm 36,53mm	26,29mm 41,28mm	26,29mm 41,28mm	26,29mm 41,28mm	–
1,3	1,3	000DA010M 000DA012M	300DA010M –	200DA010M –	–	–	–	–	–	–	–
1,5	1,5	000DA015M	300DA015M	200DA015M	–	–	–	–	–	–	–
1,8	1,8	000DA017M	–	–	–	–	–	–	–	–	–
2,0	2,0	000DA020M	300DA020M*	200DA020M	–	–	–	–	–	–	–
2,3	2,3	000DA022M	–	–	–	–	–	–	–	–	–
2,5	2,5	000DA025M	300DA025M	200DA025M	–	100DA025M	–	–	–	–	–
2,8	2,8	000DA027M	–	–	–	–	–	–	–	–	–
3,0	3,0	000DA030M	300DA030M	200DA030M	–	100DA030M	–	180DA030M	–	–	–
3,3	3,3	000DA032M	–	–	–	–	–	–	–	–	–

*0,8mm is the maximum value depending on the selection of collet.

(continued)

(DA Double-Angle Standard Collets continued)

collet capacity		000DA standard	300DA standard	200DA standard	200DA standard – coolant	100DA standard	100DA standard – coolant	180DA standard	180DA standard – coolant	180DA standard – non-pullout	LWP
D1	max mm	D2 = 8,50mm L = 16,76mm	D2 = 9,53mm L = 25,406mm	D2 = 13,69mm L = 30,16mm	D2 = 13,69mm L = 30,16mm	D2 = 19,53mm L = 36,53mm	D2 = 19,53mm L = 36,53mm	D2 = 26,29mm L = 41,28mm	D2 = 26,29mm L = 41,28mm	D2 = 26,29mm L = 41,28mm	
3,5	3,5	000DA035M	300DA035M	200DA035M	–	100DA035M	–	180DA035M	–	–	–
3,8	3,8	000DA037M	–	–	–	–	–	–	–	–	–
4,0	4,0	000DA040M	300DA040M	200DA040M	–	100DA040M	–	180DA040M	–	–	–
4,5	4,5	–	300DA045M	200DA045M	–	100DA045M	–	180DA045M	–	–	–
5,0	5,0	–	300DA050M	200DA050M	–	100DA050M	–	180DA050M	–	–	–
5,5	5,5	–	300DA055M	200DA055M	–	100DA055M	–	180DA055M	–	–	–
6,0	6,0	–	300DA060M	200DA060M	200DAC060M	100DA060M	100DAC060M	180DA060M	180DAC060M	–	–
6,5	6,5	–	–	200DA065M	–	100DA065M	–	180DA065M	–	–	–
7,0	7,0	–	–	200DA070M	–	100DA070M	–	180DA070M	–	–	–
7,5	7,5	–	–	200DA075M	–	100DA075M	–	180DA075M	–	–	–
8,0	8,0	–	–	200DA080M	200DAC080M	100DA080M	100DAC080M	180DA080M	180DAC080M	–	–
8,5	8,5	–	–	200DA085M	–	100DA085M	–	180DA085M	–	–	–
9,0	9,0	–	–	200DA090M	–	100DA090M	–	180DA090M	–	–	–
9,5	9,5	–	–	200DA095M	–	100DA095M	–	180DA095M	–	–	–
10,0	10,0	–	–	200DA100M	200DAC100M	100DA100M	100DAC100M	180DA100M	180DAC100M	–	–
10,0	10,0	–	–	–	–	–	–	–	–	180DANP100M	12,5
10,5	10,5	–	–	–	–	100DA105M	–	180DA105M	–	–	–
11,0	11,0	–	–	–	–	100DA110M	–	180DA110M	–	–	–
11,5	11,5	–	–	–	–	100DA115M	–	180DA115M	–	–	–
12,0	12,0	–	–	–	–	100DA120M	–	180DA120M	–	–	–
12,0	12,0	–	–	–	–	–	–	–	–	180DANP120M	12,5
12,0	12,0	–	–	–	–	–	100DAC120M	–	180DAC120M	–	–
12,5	12,5	–	–	–	–	100DA125M	–	180DA125M	–	–	–
13,0	13,0	–	–	–	–	100DA130M	–	180DA130M	–	–	–
13,5	13,5	–	–	–	–	100DA135M	–	180DA135M	–	–	–
14,0	14,0	–	–	–	–	100DA140M	100DAC140M	180DA140M	180DAC140M	–	–
14,5	14,5	–	–	–	–	–	–	180DA145M	–	–	–
15,0	15,0	–	–	–	–	–	–	180DA150M	–	–	–
15,5	15,5	–	–	–	–	–	–	180DA155M	–	–	–
16,0	16,0	–	–	–	–	–	–	–	180DAC160M	–	–
16,0	16,0	–	–	–	–	–	–	–	–	180DANP160M	16,1
16,0	16,0	–	–	–	–	–	–	180DA160M	–	–	–
16,5	16,5	–	–	–	–	–	–	180DA165M	–	–	–
17,0	17,0	–	–	–	–	–	–	180DA170M	–	–	–
17,5	17,5	–	–	–	–	–	–	180DA175M	–	–	–
18,0	18,0	–	–	–	–	–	–	180DA180M	180DAC180M	–	–
18,5	18,5	–	–	–	–	–	–	180DA185M	–	–	–
19,0	19,0	–	–	–	–	–	–	180DA190M	–	–	–
19,5	19,5	–	–	–	–	–	–	180DA195M	–	–	–
20,0	20,0	–	–	–	–	–	–	180DA200M	180DAC200M	–	–

(continued)

(DA Double-Angle Standard Collets continued)

■ DA200 Collet • Inch

D1	collet capacity max inch	300DA standard D2 = .375 L = 1.000	300DA standard – coolant D2 = .375 L = 1.000	200DA standard D2 = .539 L = 1.188	200DA standard – coolant D2 = .539 L = 1.188	100DA standard D2 = .769 L = 1.438	100DA standard – coolant D2 = .769 L = 1.438	180DA standard D2 = 1.035 L = 1.625	180DA standard – coolant D2 = 1.035 L = 1.625	180DA standard – non-pullout D2 = 1.035 L = 1.625	LWP
1/32	.031	300DA0031	–	–	–	–	–	–	–	–	–
3/64	.047	300DA0047	–	200DA0047	–	100DA0047	–	180DA0047	–	–	–
1/16	.063	300DA0062	–	200DA0062	–	100DA0062	–	180DA0062	–	–	–
5/64	.078	300DA0078	–	200DA0078	–	100DA0078	–	180DA0078	–	–	–
3/32	.094	300DA0094	–	200DA0094	–	100DA0094	–	180DA0094	–	–	–
7/64	.109	300DA0109	–	200DA0109	–	100DA0109	–	180DA0109	–	–	–
1/8	.125	300DA0125	300DAC0125	200DA0125	200DAC0125	100DA0125	100DAC0125	180DA0125	–	–	–
9/64	.141	300DA0141	300DAC0141	200DA0141	200DAC0141	–	–	180DA0141	–	–	–
9/64	.141	–	–	–	–	100DA0141	100DAC0141	–	–	–	–
5/32	.156	300DA0156	300DAC0156	200DA0156	200DAC0156	100DA0156	100DAC0156	180DA0156	–	–	–
11/64	.172	300DA0172	300DAC0172	200DA0172	200DAC0172	100DA0172	100DAC0172	180DA0172	–	–	–
3/16	.188	300DA0188	300DAC0188	200DA0188	200DAC0188	100DA0188	100DAC0188	180DA0188	–	–	–
13/64	.203	300DA0203	300DAC0203	200DA0203	–	100DA0203	100DAC0203	180DA0203	–	–	–
7/32	.219	300DA0219	300DAC0219	200DA0219	–	100DA0219	100DAC0219	180DA0219	–	–	–
15/64	.234	300DA0234	300DAC0234	200DA0234	200DAC0234	100DA0234	100DAC0234	180DA0234	–	–	–
1/4	.250	300DA0250	300DAC0250	200DA0250	200DAC0250	100DA0250	100DAC0250	180DA0250	180DAC0250	–	–
17/64	.266	–	–	200DA0266	200DAC0266	100DA0266	100DAC0266	180DA0266	180DAC0266	–	–
9/32	.281	–	–	200DA0281	200DAC0281	100DA0281	100DAC0281	180DA0281	180DAC0281	–	–
19/64	.297	–	–	200DA0297	–	100DA0297	100DAC0297	180DA0297	180DAC0297	–	–
5/16	.312	–	–	–	–	100DA0312	100DAC0312	–	–	–	–
5/16	.313	–	–	200DA0312	200DAC0312	–	–	180DA0312	180DAC0312	–	–
21/64	.328	–	–	200DA0328	200DAC0328	100DA0328	100DAC0328	180DA0328	180DAC0328	–	–
11/32	.344	–	–	200DA0344	200DAC0344	100DA0344	100DAC0344	180DA0344	180DAC0344	–	–
23/64	.359	–	–	200DA0359	–	100DA0359	100DAC0359	180DA0359	180DAC0359	–	–
3/8	.375	–	–	200DA0375	200DAC0375	100DA0375	100DAC0375	–	180DAC0375	–	–
3/8	.375	–	–	–	–	–	–	–	–	180DANP0375	.484
25/64	.391	–	–	200DA0391	200DAC0391	100DA0391	100DAC0391	180DA0391	180DAC0391	–	–
13/32	.406	–	–	–	–	100DA0406	100DAC0406	180DA0406	180DAC0406	–	–
27/64	.422	–	–	–	–	100DA0422	100DAC0422	180DA0422	180DAC0422	–	–
7/16	.438	–	–	–	–	100DA0438	100DAC0438	180DA0438	180DAC0438	–	–
29/64	.453	–	–	–	–	100DA0453	100DAC0453	180DA0453	180DAC0453	–	–
15/32	.469	–	–	–	–	100DA0469	100DAC0469	180DA0469	180DAC0469	–	–
31/64	.484	–	–	–	–	100DA0484	100DAC0484	180DA0484	180DAC0484	–	–
1/2	.500	–	–	–	–	100DA0500	100DAC0500	180DA0500	180DAC0500	–	–
1/2	.500	–	–	–	–	–	–	–	–	180DANP0500	.484
33/64	.516	–	–	–	–	100DA0516	100DAC0516	180DA0516	180DAC0516	–	–
17/32	.531	–	–	–	–	100DA0531	100DAC0531	180DA0531	180DAC0531	–	–
35/64	.547	–	–	–	–	100DA0547	100DAC0547	180DA0547	180DAC0547	–	–
9/16	.562	–	–	–	–	100DA0562	100DAC0562	–	–	–	–
9/16	.563	–	–	–	–	–	–	180DA0562	180DAC0562	–	–
37/64	.578	–	–	–	–	–	–	180DA0578	180DAC0578	–	–
19/32	.594	–	–	–	–	–	–	180DA0594	180DAC0594	–	–
39/64	.609	–	–	–	–	–	–	180DA0609	180DAC0609	–	–
5/8	.625	–	–	–	–	–	–	180DA0625	180DAC0625	–	–
5/8	.625	–	–	–	–	–	–	–	–	180DANP0625	.633
41/64	.641	–	–	–	–	–	–	180DA0641	180DAC0641	–	–
21/32	.656	–	–	–	–	–	–	180DA0656	180DAC0656	–	–
43/64	.672	–	–	–	–	–	–	180DA0672	180DAC0672	–	–



(continued)

(DA Double-Angle Standard Collets continued)

	collet capacity max D1 inch	300DA standard D2 = .375 L = 1.000	300DA standard – coolant D2 = .375 L = 1.000	200DA standard D2 = .539 L = 1.188	200DA standard – coolant D2 = .539 L = 1.188	100DA standard D2 = .769 L = 1.438	100DA standard – coolant D2 = .769 L = 1.438	180DA standard D2 = 1.035 L = 1.625	180DA standard – coolant D2 = 1.035 L = 1.625	180DA standard – non-pullout D2 = 1.035 L = 1.625	LWP
11/16	.688	–	–	–	–	–	–	180DA0688	180DAC0688	–	–
45/64	.703	–	–	–	–	–	–	180DA0703	180DAC0703	–	–
23/32	.719	–	–	–	–	–	–	180DA0719	180DAC0719	–	–
47/64	.734	–	–	–	–	–	–	180DA0734	180DAC0734	–	–
3/4	.750	–	–	–	–	–	–	–	–	180DANP0750	.664
3/4	.750	–	–	–	–	–	–	180DA0750	180DAC0750	–	–



- An economical way to purchase a set of collets.



ERICKSON

■ DA Collet Set • Metric

order number	catalog number	series	quantity	dimensional range	incremental division
1293409	000DAS000M	DA000	13	1mm - 4mm	.25
1297410	300DAS000M	DA300	11	1mm - 6mm	.5
1296078	200DAS000M	DA200	19	1mm - 10mm	.5
1294736	100DAS000M	DA100	24	2,5mm - 14mm	.5
1191011	180DAS000M	DA180	35	3mm - 20mm	.5

■ DA Collet Set • Inch

order number	catalog number	series	quantity	dimensional range	incremental division
1289026	S303SET	DA300	8	3/64 - 1/4	1/32 (3/32-1/4) + 3/64 & 5/64
1289027	S304SET	DA300	9	1/8 - 1/4	1/64
1289028	S305SET	DA300	5	1/8 - 1/4	1/32
1288983	S203SET	DA200	9	1/8 - 3/8	1/32
1288984	S204SET	DA200	17	1/8 - 3/8	1/64
1288923	S103SET	DA100	11	1/4 - 9/16	1/32
1288925	S104SET	DA100	21	1/4 - 9/16	1/64
1288963	S183SET	DA180	17	1/4 - 3/4	1/32
1288964	S184SET	DA180	33	1/4 - 3/4	1/64

Collets and Sleeves



Difficult-to-Cut Materials Are No Match for Kennametal's High-Torque Shrink Fit System!

Two lines available to address all your High Torque (HT) and General Purpose (GP) requirements.

- HT line is ideal for heavy roughing operations that require higher clamping torque levels (30–50% higher than the GP line).
- Increase productivity and reduce costs with a shrinking and cooling process that takes 30 seconds or less!
- Precision engineered system ensures precise concentricity, greater balancing quality, optimized bore sizes, and superior metal removal rates.
- Increased accuracies when machining difficult to cut materials common to the aerospace industry.



To learn more, scan here.

For instructions on how to scan, please see page xxxiii.

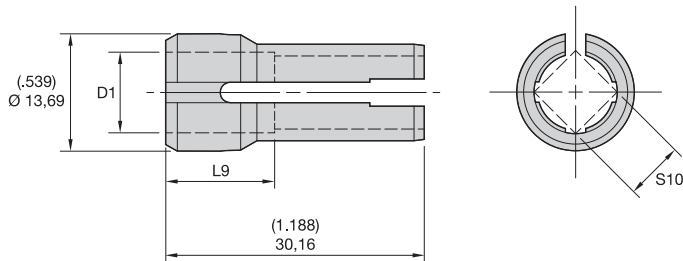


Visit www.kennametal.com or contact your local Authorized Kennametal Distributor.

www.kennametal.com



- Provides positive retention for tapping applications.
- Design of slots in back of collet acts as a drive for the tap square.
- Can be used in all standard J-series double-angle collet chucks.
- Industry-standard Erickson™ double-angle collet system.



ERICKSON

■ DA-J Tap Collet • Metric DIN

tap size	order number	catalog number	collet series	D1	S10	L9
M1 & M1,8 & M3 & M3,5	1274924	JTC025021M	J	2,5	2,1	13,0
M3 & M5	1274926	JTC035027M	J	3,5	2,7	13,0
M4 & M6	1274928	JTC045034M	J	4,5	3,4	13,0
M5 & M6 & M7 & M8	1274931	JTC060049M	J	6,0	4,9	13,0
M10	1274932	JTC070055M	J	7,0	5,5	13,0
M8 & M10 & M11	1228732	JTC080063M	J	8,1	6,3	13,0

■ DA-J Tap Collet • Metric ISO

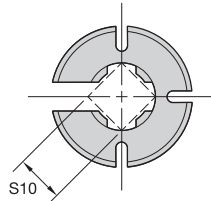
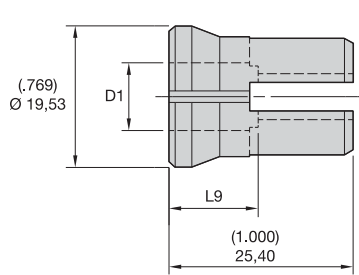
tap size	order number	catalog number	collet series	D1	S10	L9
M2,5 & M4	1274925	JTC028021M	J	2,8	2,1	13,0
M2,2 & M2,5	1228728	JTC028022M	J	2,8	2,2	13,0
M3 & M4	1228729	JTC032025M	J	3,2	2,5	13,0
M3,5 & M4,5	1274927	JTC036028M	J	3,6	2,8	13,0
M4 & M5	1228730	JTC040032M	J	4,0	3,2	13,0
M4,5 & M6	1274929	JTC045036M	J	4,5	3,6	13,0
12UNC/UNF	1274930	JTC056045M	J	5,6	4,5	—
M7	1274933	JTC071056M	J	7,1	5,6	13,0
M8 & M10 & M11	1228732	JTC080063M	J	8,1	6,3	13,0
M9 & M12	1228733	JTC090071M	J	9,0	7,1	13,0

■ DA-J Tap Collet • Inch/Metric ANSI

tap size		order number	catalog number	collet series	D1	S10	L9
mm	in						
M3 & M3,15 & M3,5	0-#6 & 1/8	1016411	JTC6	J	.141	.110	.500
M4	8 & 5/32	1016464	JTC8	J	.168	.131	.500
M4,5 & M5	10 & 3/16	1016467	JTC10	J	.194	.152	.500
—	12 & 7/32	1016470	JTC12	J	.220	.165	.500
M6 & M6,3	14 & 1/4	1016473	JTC025	J	.255	.191	.500
M7 & M8	5/16	1016529	JTC031	J	.318	.238	.500
—	7/16	1016532	JTC043	J	.323	.242	.500
M12 & M12,5	1/2	1016585	JTC050	J	.367	.275	.500
M10	3/8	1016589	JTC037	J	.381	.286	.500

NOTE: Inserting the cutting tool less than 2/3 the gripping length into the collet can permanently damage the collet. Full length of the gripping bore must be maintained to achieve maximum accuracy and safety. Collet accuracies are based on size-for-size conditions. Using the collapsible range can influence the accuracy and gripping powers. Never try to stretch the collets by clamping oversized cutting tools.

- Provides positive drive for tapping applications.
- Design of slots in back of collet acts as a drive for the tap square.
- Can be used in all standard K-series double-angle collet chucks.
- Industry-standard Erickson™ double-angle collet system.



ERICKSON™

■ DA-K Tap Collet • Metric DIN

tap size	order number	catalog number	collet series	D1	S10	L9
M1 & M1,8 & M3 & M3,5	1280271	KTC025021M	K	2,5	2,1	13,0
M3 & M5	1280273	KTC035027M	K	3,5	2,7	13,0
M4 & M6	1280274	KTC045034M	K	4,5	3,4	13,0
M5 & M6 & M7 & M8	1280275	KTC060049M	K	6,0	4,9	13,0
M10	1280277	KTC070055M	K	7,0	5,5	13,0
M10	1192315	KTC100080M	K	10,0	8,0	13,0
M14	1280279	KTC110090M	K	11,0	9,0	13,0
M16	1280280	KTC120090M	K	12,0	9,0	13,0

■ DA-K Tap Collet • Metric ISO

tap size	order number	catalog number	collet series	D1	S10	L9
M2,5 & M4	1280272	KTC028021M	K	2,8	2,1	13,0
M3,5 & 4,5	1192306	KTC036028M	K	3,6	2,8	13,0
M4 & M5	1192307	KTC040032M	K	4,0	3,2	13,0
M4,5 & M6	1192308	KTC045036M	K	4,5	3,6	13,0
M5	1192309	KTC050040M	K	5,0	4,0	13,0
M7	1192312	KTC071056M	K	7,1	5,6	13,0
M8 & M10 & M11	1192313	KTC080063M	K	8,0	6,3	13,0
M9 & M12	1192314	KTC090071M	K	9,0	7,1	13,0
M14	1192316	KTC112090M	K	11,2	9,0	13,0

(continued)

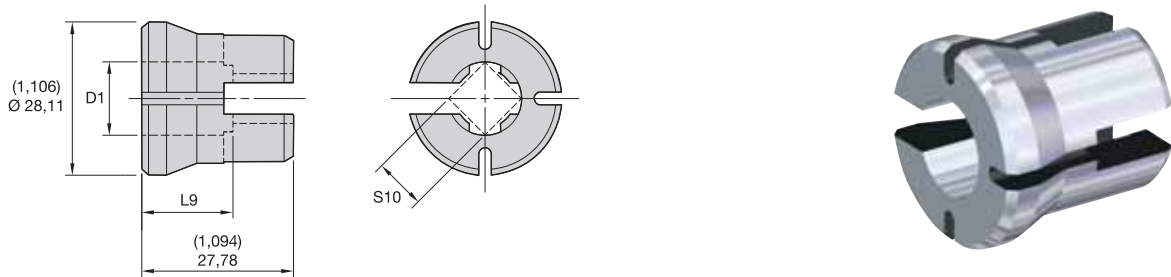
(DA-K Series Double-Angle Solid Tap Collets continued)

■ DA-K Tap Collet • Inch/Metric ANSI

tap size		order number	catalog number	collet series	D1	S10	L9
mm	in						
M3 & M3,15 & M3,5	0-#6 & 1/8	1016412	KTC6	K	.141	.110	.480
M4	8 & 5/32	1016465	KTC8	K	.168	.131	.480
M4,5 & M5	10 & 3/16	1016468	KTC10	K	.194	.152	.480
—	12 & 7/32	1016471	KTC12	K	.220	.165	.480
M6 & M6,3	14 & 1/4	1016524	KTC025	K	.255	.191	.480
M7 & M8	5/16	1016530	KTC031	K	.318	.238	.480
—	7/16	1016533	KTC043	K	.323	.242	.480
M12 & M12,5	1/2	1016586	KTC050	K	.367	.275	.480
M10	3/8	1016590	KTC037	K	.381	.286	.480
M14	9/16	1016592	KTC056	K	.429	.322	.480

NOTE: Inserting the cutting tool less than 2/3 the gripping length into the collet can permanently damage the collet.
Full length of the gripping bore must be maintained to achieve maximum accuracy and safety.
Collet accuracies are based on size-for-size conditions. Using the collapsible range can influence the accuracy and gripping powers.
Never try to stretch the collets by clamping oversized cutting tools.

- Provides positive drive for tapping applications.
- Design of slots in back of collet acts as a drive for the tap square.
- Can be used in all standard L-series double-angle collet chucks.
- Industry-standard Erickson™ double-angle collet system.



ERICKSON™

■ DA-L Tap Collet • Metric DIN

tap size	order number	catalog number	collet series	D1	S10	L9
M5 & M6 & M7 & M8	1192328	LTC060049M	L	6,0	4,9	15,0
M10	1109575	LTC070055M	L	7,0	5,5	15,0
M10	1117803	LTC100080M	L	10,0	8,0	15,0
M14	1281835	LTC110090M	L	11,0	9,0	15,0
M16	1281837	LTC120090M	L	12,0	9,0	15,0
M18	1281838	LTC140110M	L	14,0	11,0	15,0
M20	1281839	LTC160120M	L	16,0	12,0	15,0
M22 & M24	1109574	LTC180145M	L	18,0	14,5	15,0

■ DA-L Tap Collet • Metric ISO

tap size	order number	catalog number	collet series	D1	S10	L9
—	1192329	LTC063050M	L	6,3	4,9	15,0
M7	1192330	LTC071056M	L	7,1	5,6	15,0
M8 & M10 & M11	1117802	LTC080063M	L	8,0	6,3	15,0
M9 & M12	1093758	LTC090071M	L	9,0	7,1	15,0
(1/4BSPF)	1192331	LTC109082M	L	10,9	8,2	—
(1/8NPT) (ANSI)	1192332	LTC111085M	L	11,1	8,5	—
M14	1281836	LTC112090M	L	11,2	9,0	15,0
M16 (3/8BSP)	1192333	LTC125100M	L	12,5	10,0	15,0
M18 & M20	1192335	LTC140112M	L	14,0	11,2	15,0
(1/4NPT) (ANSI)	1192336	LTC143107M	L	14,3	10,7	—
M22	1192337	LTC160125M	L	16,0	12,5	15,0
M24	1192338	LTC180140M	L	18,0	14,0	15,0

(continued)

(DA-L Series Double-Angle Solid Tap Collets continued)

■ DA-L Tap Collet • Inch/Metric ANSI

tap size		order number	catalog number	collet series	D1	S10	L9
mm	in						
M3 & M3,15 & M3,5	0-#6 & 1/8	1016413	LTC6	L	.141	.110	.560
M4	8 & 5/32	1016466	LTC8	L	.168	.131	.560
M4,5 & M5	10 & 3/16	1016469	LTC10	L	.194	.152	.560
—	12 & 7/32	1016472	LTC12	L	.220	.165	.560
M6 & M6,3	14 & 1/4	1016525	LTC025	L	.255	.191	.560
M7 & M8	5/16	1016531	LTC031	L	.318	.238	.560
—	7/16	1016584	LTC043	L	.323	.242	.560
M12 & M12,5	1/2	1016587	LTC050	L	.367	.275	.560
M10	3/8	1016591	LTC037	L	.381	.286	.560
M14	9/16	1016593	LTC056	L	.429	.322	.560
M16	5/8	1016658	LTC062	L	.480	.360	.560
M18	11/16	1016660	LTC069	L	.542	.406	.560
—	3/4	1016663	LTC075	L	.590	.442	.560
M20	13/16	1016705	LTC081	L	.652	.489	.560
M22	7/8	1016708	LTC087	L	.697	.523	.560

NOTE: Full length of the gripping bore must be maintained to achieve maximum accuracy and safety.
 Collet accuracies are based on size-for-size conditions. Using the collapsible range can influence the accuracy and gripping powers.
 Never try to stretch the collets by clamping oversized cutting tools.



RC Rapid Quick-Change Tap Adapters • Tapping

Primary Application

ERICKSON RC Rapid Quick-Change Tap Adapters are convenient for hand changes with taps within seconds. No wrenches or locknuts are required. For this positive drive tap adapter, simply hold the tap in place with internal locking balls and drive on the tap square.

Features and Benefits

- Compact Rapid Change by hand design.
- Solid positive drive.
- Coolant through the tap design.



- Rapid-change style.
- Solid-positive drive.
- Coolant capability by using cutting tool with coolant feature.
- For taps with DIN, ISO, and ANSI specifications.



ERICKSON

RC1	TA	025	021	M	010
System Size	Collet Style	Collet Bore Size	Collet Drive Size	Identification Value	Tap Size
RC1 = RC1 RC2 = RC2 RC3 = RC3	TA = Tap Adapter	metric (xx.x) 025 = 2,5mm 110 = 11mm 245 = 24,5mm inch (x.xxx) 0125 = 1/8" 0500 = 1/2"	metric (xx.x) 010 = 1mm 160 = 16mm 245 = 24,5mm inch (x.xxx) 0125 = 1/8" 0500 = 1/2" 1000 = 1"	M = Sleeve bore size built to metric values IN = Sleeve bore size built to inch values	metric (xx.x) 010 = 1mm 160 = 16mm 245 = 24,5mm inch (x.xxx) 0125 = 1/8" 0500 = 1/2" 1000 = 1"

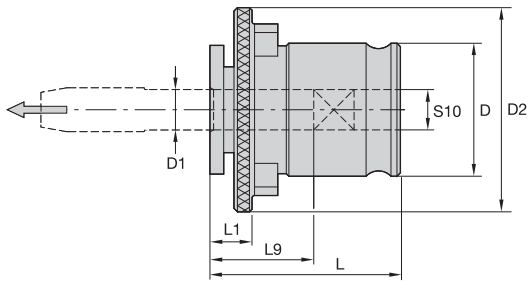


Quick-Change Tap Adapters

RC-Style Solid Tap Adapters



- Rapid Change style.
- Solid-positive drive.
- Coolant capability by using cutting tool with coolant feature.
- For taps with DIN, ISO, and ANSI specifications.



ERICKSON™

RC Solid Tap Adapter • Metric DIN

tap size DIN	RC1 D = 19mm D2 = 30mm L = 28mm L1 = 7mm L9 = 17mm	RC2 D = 31mm D2 = 48mm L = 46mm L1 = 11mm L9 = 30mm	RC3 D = 48mm D2 = 70mm L = 70mm L1 = 14mm L9 = 44mm	D1	S10
M1 & M1.8 & M3 & M3.5	RC1TA025021M010	—	—	2,5	2,1
M2.5 & M4	RC1TA028021M020	—	—	2,8	2,1
M3 & M5	RC1TA035027M030	—	—	3,5	2,7
M3.5	RC1TA040030M035	—	—	4,0	3,0
M4 & M6	RC1TA045034M040	—	—	4,5	3,4
M4	—	RC2TA045034M040	—	4,5	3,4
M5 & M6 & M7 & M8	RC1TA060049M050	RC2TA060049M050	—	6,0	4,9
M10	RC1TA070055M100	RC2TA070055M100	—	7,0	5,5
M8	RC1TA080062M080	RC2TA080062M080	—	8,0	6,2
M12	RC1TA090070M120	RC2TA090070M120	—	9,0	7,0
M10	RC1TA100080M100	RC2TA100080M100	—	10,0	8,0
M14	RC1TA110090M140	RC2TA110090M140	RC3TA110090M140	11,0	9,0
M16	—	—	RC3TA120090M160	12,0	9,0
M16	—	RC2TA120090M160	—	12,9	9,0
M18	—	RC2TA140110M180	RC3TA140110M180	14,0	11,0
M20	—	RC2TA160120M200	RC3TA160120M200	16,0	12,0
M22 & M24	—	RC2TA180145M220	—	18,0	4,5
—	—	—	RC3TA180140M240	18,0	14,0
M22 & M24	—	—	RC3TA180145M240	18,0	14,5
M27	—	—	RC3TA200160M300	20,0	16,0
M30	—	—	RC3TA220180M300	22,0	18,0
M33	—	—	RC3TA250200M360	25,0	20,0
M36	—	—	RC3TA280220M360	28,0	22,0

(continued)

Quick-Change Tap Adapters

(RC-Style Solid Tap Adapters continued)

■ RC Solid Tap Adapter • Metric ISO

tap size	RC1	RC2	RC3	D1	S10
	D = 19mm D2 = 30mm L = 28mm L1 = 7mm L9 = 17mm	D = 31mm D2 = 48mm L = 46mm L1 = 11mm L9 = 30mm	D = 48mm D2 = 70mm L = 70mm L1 = 14mm L9 = 44mm		
M3	RC1TA023018M030	—	—	2,24	1,80
M2.2 & M2.5	RC1TA028023M025	—	—	2,80	2,24
M3 & M4	RC1TA032025M030	—	—	3,15	2,50
M3.5 & M4.5	RC1TA036028M035	—	—	3,55	2,80
M4 & M5	RC1TA040032M040	—	—	4,00	3,15
M4.5 & M6	RC1TA045036M060	RC2TA045036M060	—	4,50	3,55
M5	RC1TA050040M050	RC2TA050040M050	—	5,00	4,00
—	RC1TA056045M000	—	—	5,60	4,50
M6 & M8	RC1TA063050M060	RC2TA063050M060	—	6,30	5,00
M7	RC1TA071056M070	RC2TA071056M070	—	7,10	5,60
M8 & M10 & M11	RC1TA080063M080	RC2TA080063M080	—	8,00	6,30
M9 & M12	RC1TA090071M090	—	—	9,00	7,10
M9 & M12	—	RC2TA090071M090	—	9,00	7,10
M14	RC1TA112090M140	RC2TA112090M140	RC3TA112090M140	11,20	9,00
M16	—	RC2TA125100M160	—	12,50	10,00
M18 & M20	—	RC2TA140112M180	—	14,00	11,20
M22	—	RC2TA160125M220	RC3TA160125M220	16,00	12,50
M24	—	RC2TA180140M240	—	18,00	14,00
M33	—	—	RC3TA224180M330	22,40	18,00

(continued)



(RC-Style Solid Tap Adapters continued)

■ RC Solid Tap Adapter • Inch/Metric ANSI

tap size		RC1 D = .750 D2 = 1.180 L = 1.100 L1 = .280	RC2 D = 1.220 D2 = 1.890 L = 1.810 L1 = .430	RC3 D = 1.890 D2 = 2.760 L = 2.760 L1 = .550	D1	S10
mm	in					
M3 & M3,18 & M3,5	#0 - #6 UNC/UNF	T11006	—	—	.141	.110
M4	#8 UNC/UNF	T11007	—	—	.168	.131
M4,5 & M5	#10 UNC/UNF	T11008	—	—	.194	.152
—	#12 UNC/UNF	T11009	—	—	.220	.165
M6 & M6,3	1/4 UNC/UNF	T11010	—	—	.255	.191
—	—	T110166	—	—	.313	.234
M7 & M8	5/16 UNC/UNF	T11012	T21018	—	.318	.238
—	7/16 UNC/UNF	T11014	T21020	—	.323	.242
M12 & M12,5	1/2 UNC/UNF	T11015	T21021	—	.367	.275
M10	3/8 UNC/UNF	T11013	T21019	—	.381	.286
M14	9/16 UNC/UNF	T110155	T21022	—	.429	.322
—	—	T110177	—	—	.438	.328
M16	5/8 UNC/UNF	—	T21023	—	.480	.360
M18	11/16 UNC/UNF	—	T21024	—	.542	.406
—	—	—	T210288	—	.563	.421
—	3/4 UNC/UNF	—	T21025	—	.590	.442
M20	13/16 UNC/UNF	—	T21026	T31031	.652	.489
—	—	—	T210300	T310387	.688	.515
M22	7/8 UNC/UNF	—	T21027	T31032	.697	.523
—	—	—	T210299	—	.700	.531
M24	15/16 UNC/UNF	—	—	T31033	.760	.570
M25	1 UNC/UNF	—	—	T31034	.800	.600
M27	1 1/8 UNC/UNF	—	—	T31035	.896	.672
—	—	—	—	T310388	.906	.679
—	1 1/4 UNC/UNF	—	—	T31036	1.021	.766
M30	1 3/8 UNC/UNF	—	—	T31037	1.108	.831
—	—	—	—	T310389	1.125	.843

Quick-Change Tap Adapters

- An economical way to purchase a set of RC tap adapters.
- Rapid Change style.
- Solid-positive drive.
- Coolant capability by using cutting tool with coolant feature.



ERICKSON

■ RC Solid Tap Adapter Set • Inch

catalog number	series	quantity	dimensional range
T1SET	RC1	10	#0 - 9/16
T2SET	RC2	10	5/16 - 7/8



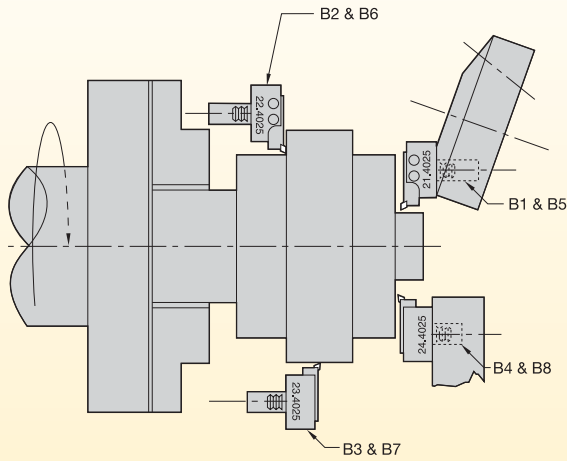


VDI Toolholders

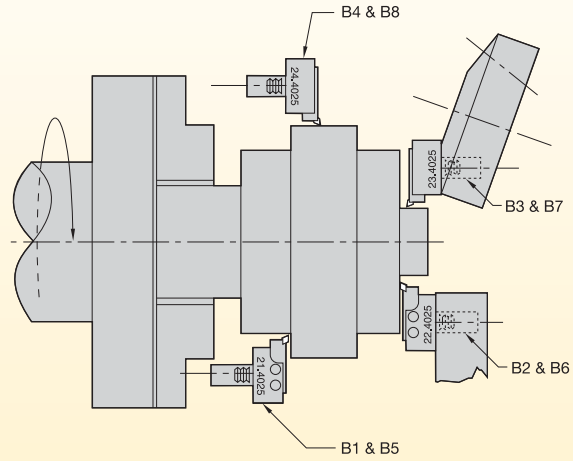
VDI Toolholders .....	.K1-K13
Tooling Selection Guide .....	.K2
VDI Form A1 • Rectangular Blank .....	.K3
VDI Form A2 • Round Blank .....	.K3
VDI Form B1 • Right-Hand Short .....	.K4
VDI Form B2 • Left-Hand Short .....	.K4
VDI Form B3 • Right-Hand Short Inverted .....	.K5
VDI Form B4 • Left-Hand Short Inverted .....	.K5
VDI Form B5 • Right-Hand Long .....	.K6
VDI Form B6 • Left-Hand Long .....	.K6
VDI Form B7 • Right-Hand Long Inverted .....	.K7
VDI Form B8 • Left-Hand Long Inverted .....	.K7
VDI Form C1 • Square Right Hand .....	.K8
VDI Form C2 • Square Left Hand .....	.K8
VDI Form C3 • Square Right-Hand Inverted .....	.K9
VDI Form C4 • Square Left-Hand Inverted .....	.K9
VDI Form E1 • Boring Bar Internal Coolant .....	.K10
VDI Form E2 • Boring Bar Dual Coolant .....	.K11
VDI Form E3 • Collet Chuck • DIN 6388 .....	.K12
VDI Form E4 • Collet Chuck • ER .....	.K12
VDI Form Z2 • Steel Plug .....	.K13

Tooling Selection Guide

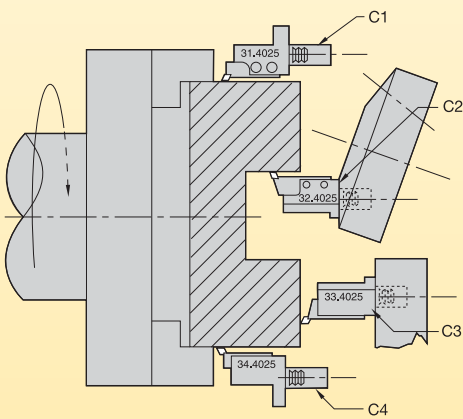
Left-Hand (Clockwise) Spindle Rotation



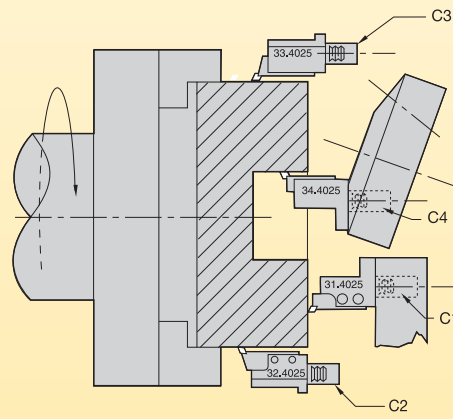
Right-Hand (Counter-Clockwise) Spindle Rotation



Left-Hand (Clockwise) Spindle Rotation

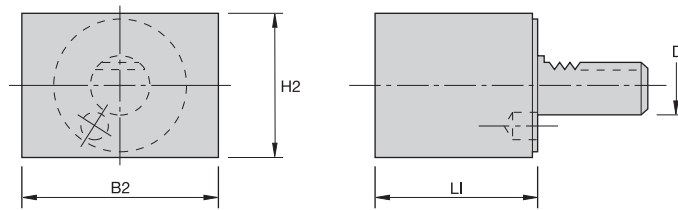


Right-Hand (Counter-Clockwise) Spindle Rotation

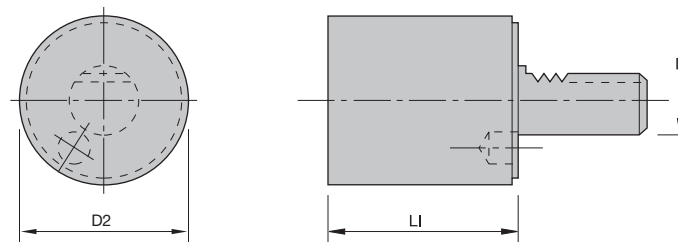


- C1 — Right-hand form C1.
- C2 — Left-hand form C2.
- C3 — Right-hand inverted form C3.
- C4 — Left-hand inverted form C4.
- B1 — Right-hand short form B1.
- B2 — Left-hand short form B2.

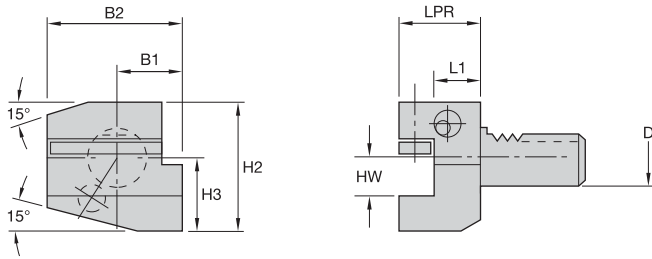
- B3 — Right-hand short inverted form B3.
- B4 — Left-hand short inverted form B4.
- B5 — Right-hand long form B5.
- B6 — Left-hand long form B6.
- B7 — Right-hand long inverted form B7.
- B8 — Left-hand long inverted form B8.


■ VDI Form A1 • Rectangular Blank

catalog number	D	L1	B2	H2
VDIA1M2065	20,00	65,00	100,00	60,00
VDIA1M3085	30,00	85,00	130,00	76,00
VDIA1M40100	40,00	100,00	151,00	96,00
VDIA1M50125	50,00	125,00	160,00	120,00
VDIA1M60160	60,00	160,00	165,00	125,00

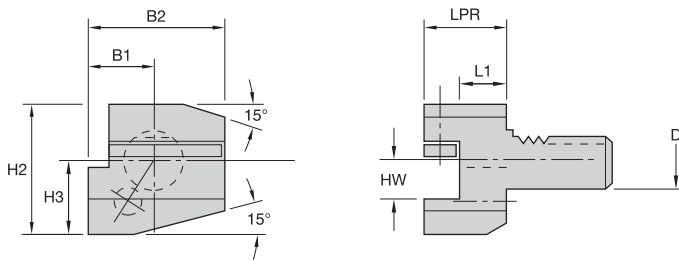

■ VDI Form A2 • Round Blank

catalog number	D	D2	L1
VDIA2M2070	20,00	50,00	70,00
VDIA2M30100	30,00	68,00	100,00
VDIA2M30240	30,00	68,00	240,00
VDIA2M40120	40,00	83,00	120,00
VDIA2M40320	40,00	83,00	320,00
VDIA2M50135	50,00	98,00	135,00
VDIA2M50400	50,00	98,00	400,00
VDIA2M60150	60,00	123,00	150,00
VDIA2M60480	60,00	123,00	480,00



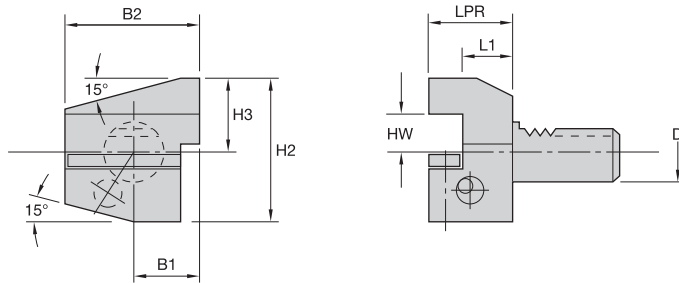
■ VDI Form B1 • Right-Hand Short

catalog number	D	B2	B1	HW	H2	H3	L1	LPR
VDIB1M161224	16,00	42,00	23,00	12,00	42,00	22,00	13,00	24,00
VDIB1M161234	16,00	42,00	23,00	12,00	42,00	22,00	23,00	34,00
VDIB1M201630	20,00	55,00	30,00	16,00	55,00	30,00	16,00	30,00
VDIB1M201640	20,00	55,00	30,00	16,00	55,00	30,00	26,00	40,00
VDIB1M251630	25,00	55,00	30,00	16,00	55,00	30,00	16,00	30,00
VDIB1M302040	30,00	70,00	35,00	20,00	66,00	38,00	22,00	40,00
VDIB1M302060	30,00	70,00	35,00	20,00	66,00	38,00	42,00	60,00
VDIB1M402544	40,00	85,00	42,50	25,00	80,50	48,00	22,00	44,00
VDIB1M503255	50,00	100,00	50,00	32,00	95,00	60,00	30,00	55,00
VDIB1M603260	60,00	125,00	62,50	32,00	105,00	62,50	30,00	60,00

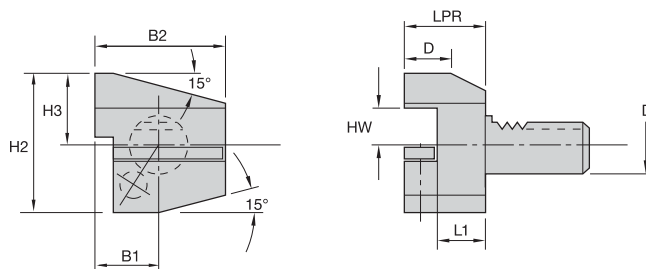


■ VDI Form B2 • Left-Hand Short

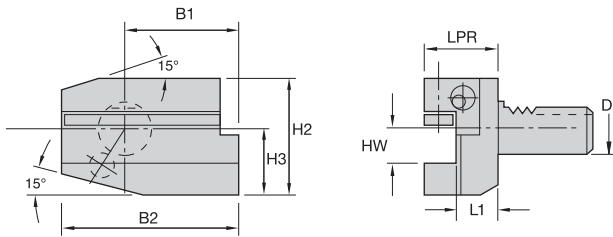
catalog number	D	B2	B1	HW	H2	H3	L1	LPR
VDIB2M161224	16,00	42,00	23,00	12,00	42,00	22,00	13,00	24,000
VDIB2M161234	16,00	42,00	23,00	12,00	42,00	22,00	23,00	34,000
VDIB2M201630	20,00	55,00	30,00	16,00	55,00	30,00	16,00	30,000
VDIB2M201640	20,00	55,00	30,00	16,00	55,00	30,00	26,00	40,000
VDIB2M251630	25,00	55,00	30,00	16,00	55,00	30,00	16,00	30,000
VDIB2M302040	30,00	70,00	35,00	20,00	66,00	38,00	22,00	40,000
VDIB2M302060	30,00	70,00	35,00	20,00	66,00	38,00	42,00	60,000
VDIB2M402544	40,00	85,00	42,50	25,00	80,50	48,00	22,00	44,000
VDIB2M503255	50,00	100,00	50,00	32,00	95,00	60,00	30,00	55,000
VDIB2M603260	60,00	125,00	62,50	32,00	105,00	62,50	30,00	60,000


■ VDI Form B3 • Right-Hand Short Inverted

catalog number	D	B2	B1	HW	H2	H3	L1	LPR
VDIB3M161224	16,00	42,00	23,00	12,00	42,00	22,00	13,00	24,000
VDIB3M161234	16,00	42,00	23,00	12,00	42,00	22,00	23,00	34,000
VDIB3M201630	20,00	55,00	30,00	16,00	55,00	30,00	16,00	30,000
VDIB3M201640	20,00	55,00	30,00	16,00	55,00	30,00	26,00	40,000
VDIB3M251630	25,00	55,00	30,00	16,00	55,00	30,00	16,00	30,000
VDIB3M302040	30,00	70,00	35,00	20,00	73,00	38,00	22,00	40,000
VDIB3M302060	30,00	70,00	35,00	20,00	73,00	38,00	42,00	60,000
VDIB3M402544	40,00	85,00	42,50	25,00	90,50	48,00	22,00	44,000
VDIB3M503255	50,00	100,00	50,00	32,00	110,00	60,00	30,00	55,000
VDIB3M603260	60,00	125,00	62,50	32,00	125,00	62,50	30,00	60,000

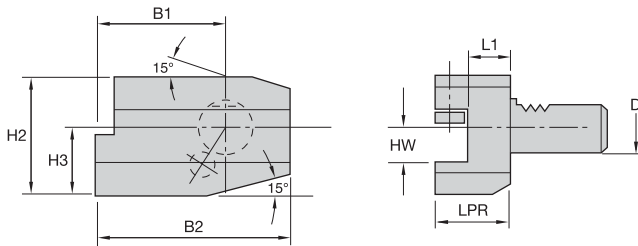

■ VDI Form B4 • Left-Hand Short Inverted

catalog number	D	B2	B1	HW	H2	H3	L1	LPR
VDIB4M161224	16,00	42,00	23,00	12,00	42,00	22,00	13,00	24,000
VDIB4M161234	16,00	42,00	23,00	12,00	42,00	22,00	23,00	34,000
VDIB4M201630	20,00	55,00	30,00	16,00	55,00	30,00	16,00	30,000
VDIB4M201640	20,00	55,00	30,00	16,00	55,00	30,00	26,00	40,000
VDIB4M251630	25,00	55,00	30,00	16,00	55,00	30,00	16,00	30,000
VDIB4M302040	30,00	70,00	35,00	20,00	73,00	38,00	22,00	40,000
VDIB4M302060	30,00	70,00	35,00	20,00	73,00	38,00	42,00	60,000
VDIB4M402544	40,00	85,00	42,50	25,00	90,50	48,00	22,00	44,000
VDIB4M503255	50,00	100,00	50,00	32,00	110,00	60,00	30,00	55,000
VDIB4M603260	60,00	125,00	62,50	32,00	125,00	62,50	30,00	60,000



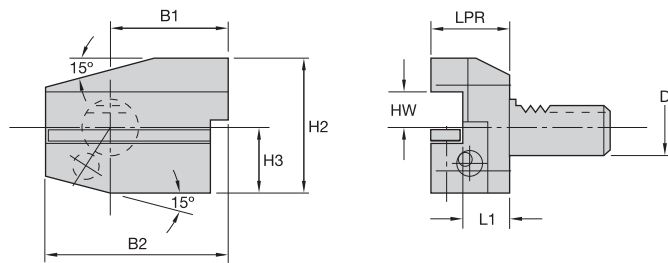
■ VDI Form B5 • Right-Hand Long

catalog number	D	B2	B1	HW	H2	H3	L1	LPR
VDIB5M201630	20,00	75,00	50,00	16,00	55,00	30,00	16,00	30,00
VDIB5M201640	20,00	75,00	50,00	16,00	55,00	30,00	26,00	40,00
VDIB5M302040	30,00	100,00	65,00	20,00	66,00	38,00	22,00	40,00
VDIB5M402044	40,00	118,00	75,50	20,00	80,50	48,00	22,00	44,00
VDIB5M402544	40,00	118,00	75,50	25,00	80,50	48,00	22,00	44,00
VDIB5M503255	50,00	130,00	80,00	32,00	95,00	60,00	30,00	55,00
VDIB5M603260	60,00	145,00	82,50	32,00	105,00	62,50	30,00	60,00

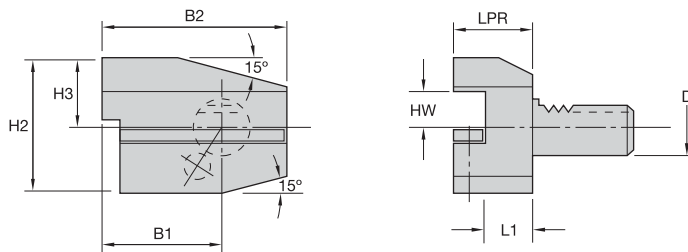


■ VDI Form B6 • Left-Hand Long

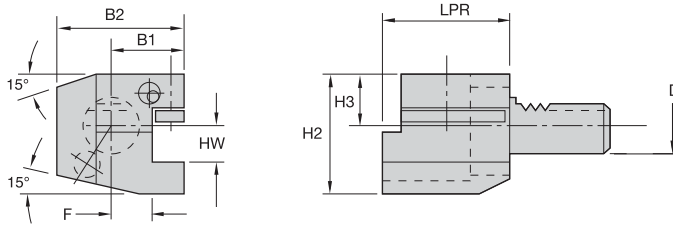
catalog number	D	B2	B1	HW	H2	H3	L1	LPR
VDIB6M201630	20,00	75,00	50,00	16,00	55,00	30,00	16,00	30,00
VDIB6M201640	20,00	75,00	50,00	16,00	55,00	30,00	26,00	40,00
VDIB6M302040	30,00	100,00	65,00	20,00	66,00	38,00	22,00	40,00
VDIB6M402044	40,00	118,00	75,50	20,00	80,50	48,00	22,00	44,00
VDIB6M402544	40,00	118,00	75,50	25,00	80,50	48,00	22,00	44,00
VDIB6M503255	50,00	130,00	80,00	32,00	95,00	60,00	30,00	55,00
VDIB6M603260	60,00	145,00	82,50	32,00	105,00	62,50	30,00	60,00


■ VDI Form B7 • Right-Hand Long Inverted

catalog number	D	B2	B1	HW	H2	H3	L1	LPR
VDIB7M201630	20,00	75,00	50,00	16,00	55,00	30,00	16,00	30,00
VDIB7M201640	20,00	75,00	50,00	16,00	55,00	30,00	26,00	40,00
VDIB7M302040	30,00	100,00	65,00	20,00	73,00	38,00	22,00	40,00
VDIB7M402044	40,00	118,00	75,50	20,00	80,50	48,00	22,00	44,00
VDIB7M402544	40,00	118,00	75,50	25,00	80,50	48,00	22,00	44,00
VDIB7M503255	50,00	130,00	80,00	32,00	110,00	60,00	30,00	55,00
VDIB7M603260	60,00	145,00	82,50	32,00	125,00	62,50	30,00	60,00

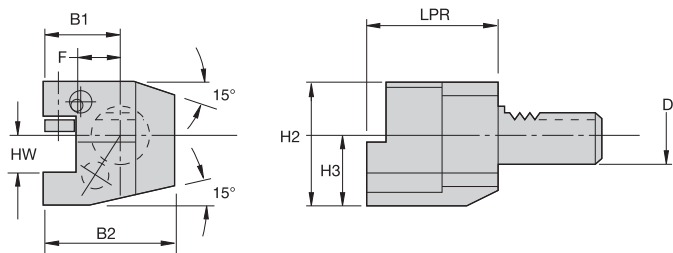

■ VDI Form B8 • Left-Hand Long Inverted

catalog number	D	B2	B1	HW	H2	H3	L1	LPR
VDIB8M201630	20,00	75,00	50,00	16,00	55,00	30,00	16,00	30,00
VDIB8M201640	20,00	75,00	50,00	16,00	55,00	30,00	26,00	40,00
VDIB8M302040	30,00	100,00	65,00	20,00	73,00	38,00	22,00	40,00
VDIB8M402044	40,00	118,00	75,50	20,00	80,50	48,00	22,00	44,00
VDIB8M402544	40,00	118,00	75,50	25,00	80,50	48,00	22,00	44,00
VDIB8M503255	50,00	130,00	80,00	32,00	110,00	60,00	30,00	55,00
VDIB8M603260	60,00	145,00	82,50	32,00	125,00	62,50	30,00	60,00



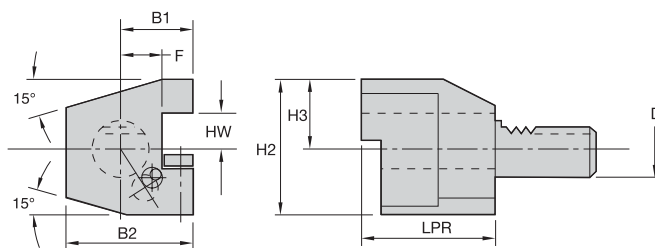
■ VDI Form C1 • Square Right Hand

catalog number	D	B2	B1	F	HW	H2	H3	LPR
VDIC1M201650	20,00	65,00	40,00	26,00	16,00	55,00	30,00	50,00
VDIC1M201655	20,00	52,00	27,00	13,00	16,00	55,00	30,00	55,00
VDIC1M302070	30,00	70,00	36,00	17,00	20,00	70,00	38,00	70,00
VDIC1M402585	40,00	85,00	42,50	21,00	25,00	80,50	48,00	85,00
VDIC1M5032100	50,00	100,00	50,00	26,00	32,00	95,00	60,00	100,00
VDIC1M6032125	60,00	125,00	62,50	33,00	32,00	105,00	62,50	125,00

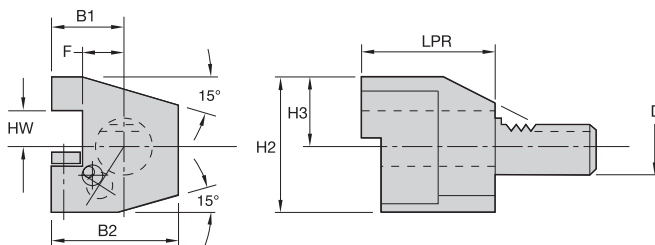


■ VDI Form C2 • Square Left Hand

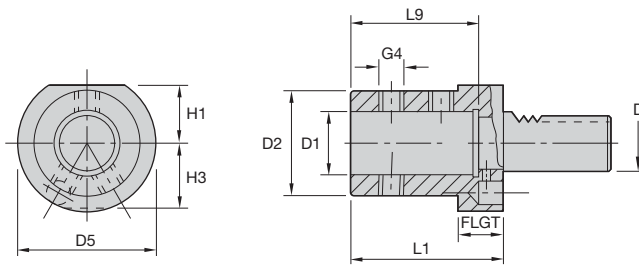
catalog number	D	B2	B1	F	HW	H2	H3	LPR
VDIC2M201650	20,00	65,00	40,00	26,00	16,00	55,00	30,00	50,00
VDIC2M201655	20,00	65,00	40,00	26,00	16,00	55,00	30,00	55,00
VDIC2M302070	30,00	76,00	41,00	23,00	20,00	66,00	38,00	70,00
VDIC2M402585	40,00	90,00	47,50	25,50	25,00	80,50	48,00	85,00
VDIC2M5032100	50,00	105,00	55,00	30,50	32,00	95,00	60,00	100,00
VDIC2M6032125	60,00	125,00	62,50	33,00	32,00	105,00	62,50	125,00


■ VDI Form C3 • Square Right-Hand Inverted

catalog number	D	B2	B1	F	HW	H2	H3	LPR
VDIC3M201650	20,00	65,00	40,00	26,00	16,00	55,00	30,00	50,00
VDIC3M201655	20,00	52,00	27,00	13,00	16,00	55,00	30,00	55,00
VDIC3M302070	30,00	70,00	35,00	17,00	20,00	73,00	38,00	70,00
VDIC3M402585	40,00	85,00	42,50	21,00	25,00	90,50	48,00	85,00
VDIC3M5032100	50,00	100,00	50,00	26,00	32,00	110,00	60,00	100,00
VDIC3M6032125	60,00	125,00	62,50	33,00	32,00	125,00	62,50	125,00

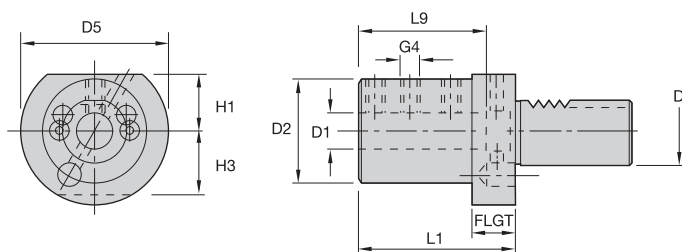

■ VDI Form C4 • Square Left-Hand Inverted

catalog number	D	B2	B1	F	HW	H2	H3	LPR
VDIC4M201650	20,00	65,00	40,00	26,00	16,00	55,00	30,00	50,00
VDIC4M201655	20,00	65,00	40,00	26,00	16,00	55,00	30,00	55,00
VDIC4M302070	30,00	76,00	41,00	23,00	20,00	73,00	38,00	70,00
VDIC4M402585	40,00	90,00	47,50	25,50	25,00	90,50	48,00	85,00
VDIC4M5032100	50,00	105,00	55,00	30,50	32,00	110,00	60,00	100,00
VDIC4M6032125	60,00	125,00	62,50	33,00	32,00	125,00	62,50	125,00

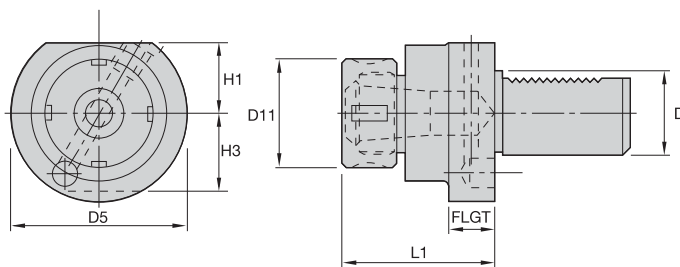


■ VDI Form E1 • Boring Bar Internal Coolant

catalog number	D	D1	D2	G4	D5	H1	H3	L1	L9	FLGT
VDIE1M2020	20,00	20,00	40,00	M10 X 1.0	50,00	25,00	23,00	67,00	54,00	18,00
VDIE1M2025	20,00	25,00	45,00	M12 X 1.0	50,00	25,00	23,00	71,00	59,00	18,00
VDIE1M3020	30,00	20,00	40,00	M10 X 1.0	68,00	28,00	30,00	67,00	54,00	22,00
VDIE1M3025	30,00	25,00	45,00	M12 X 1.0	68,00	28,00	30,00	71,00	59,00	22,00
VDIE1M3032	30,00	32,00	52,00	M12 X 1.0	68,00	28,00	30,00	75,00	63,00	22,00
VDIE1M3040	30,00	40,00	60,00	M16 X 1.0	68,00	28,00	30,00	85,00	75,00	22,00
VDIE1M4020	40,00	20,00	40,00	M10 X 1.0	83,00	32,50	41,50	67,00	55,00	22,00
VDIE1M4025	40,00	25,00	45,00	M12 X 1.0	83,00	32,50	41,50	75,00	59,00	22,00
VDIE1M4032	40,00	32,00	52,00	M12 X 1.0	83,00	32,50	41,50	75,00	63,00	22,00
VDIE1M4040	40,00	40,00	65,00	M16 X 1.0	83,00	32,50	41,50	90,00	73,00	22,00
VDIE1M5020	50,00	20,00	40,00	M10 X 1.0	98,00	35,00	49,00	67,00	54,00	30,00
VDIE1M5025	50,00	25,00	45,00	M12 X 1.0	98,00	35,00	49,00	80,00	59,00	30,00
VDIE1M5032	50,00	32,00	52,00	M12 X 1.0	98,00	35,00	49,00	80,00	63,00	30,00
VDIE1M5040	50,00	40,00	65,00	M16 X 1.0	98,00	35,00	49,00	90,00	75,00	30,00
VDIE1M5050	50,00	50,00	70,00	M16 X 1.0	98,00	35,00	49,00	100,00	83,00	30,00
VDIE1M6020	60,00	20,00	40,00	M10 X 1.0	123,00	42,50	61,50	66,00	54,00	30,00
VDIE1M6025	60,00	25,00	45,00	M12 X 1.0	123,00	42,50	61,50	71,00	59,00	30,00
VDIE1M6032	60,00	32,00	52,00	M12 X 1.0	123,00	42,50	61,50	75,00	63,00	30,00
VDIE1M6040	60,00	40,00	60,00	M16 X 1.0	123,00	42,50	61,50	85,00	73,00	30,00
VDIE1M6050	60,00	50,00	70,00	M16 X 1.0	123,00	42,50	61,50	95,00	83,00	30,00

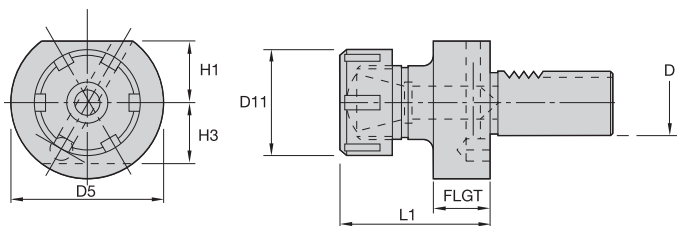

■ VDI Form E2 • Boring Bar Dual Coolant

catalog number	D	D1	D2	G4	D5	H1	H3	L1	L9	FLGT
VDIE2M2010	20,00	10,00	40,00	M6	50,00	25,00	23,00	50,00	41,00	18,00
VDIE2M2012	20,00	12,00	40,00	M8	50,00	25,00	23,00	50,00	41,00	18,00
VDIE2M2016	20,00	16,00	40,00	M8	50,00	25,00	23,00	50,00	41,00	18,00
VDIE2M2020	20,00	20,00	50,00	M8	50,00	25,00	23,00	50,00	41,00	18,00
VDIE2M2025	20,00	25,00	50,00	M8	50,00	25,00	23,00	60,00	51,00	18,00
VDIE2M208	20,00	8,00	40,00	M6	50,00	25,00	23,00	50,00	41,00	18,00
VDIE2M3010	30,00	10,00	55,00	M6	68,00	28,00	30,00	60,00	52,00	22,00
VDIE2M3012	30,00	12,00	55,00	M8	68,00	28,00	30,00	60,00	52,00	22,00
VDIE2M3016	30,00	16,00	55,00	M8	68,00	28,00	30,00	60,00	52,00	22,00
VDIE2M3020	30,00	20,00	55,00	M8	68,00	28,00	30,00	60,00	52,00	22,00
VDIE2M3025	30,00	25,00	55,00	M8	68,00	28,00	30,00	60,00	52,00	22,00
VDIE2M3032	30,00	32,00	68,00	M8	50,00	28,00	30,00	75,00	62,00	—
VDIE2M308	30,00	8,00	55,00	M6	68,00	28,00	30,00	60,00	52,00	22,00
VDIE2M4010	40,00	10,00	55,00	M8	83,00	32,50	41,50	75,00	62,00	22,00
VDIE2M4012	40,00	12,00	55,00	M8	83,00	32,50	41,50	75,00	62,00	22,00
VDIE2M4016	40,00	16,00	55,00	M10	83,00	32,50	41,50	75,00	62,00	22,00
VDIE2M4020	40,00	20,00	55,00	M10	83,00	32,50	41,50	75,00	62,00	22,00
VDIE2M4025	40,00	25,00	55,00	M10	83,00	32,50	41,50	75,00	62,00	22,00
VDIE2M4032	40,00	32,00	83,00	M10	83,00	32,50	41,50	75,00	62,00	22,00
VDIE2M4040	40,00	40,00	83,00	M10	83,00	32,50	41,50	90,00	77,00	22,00
VDIE2M408	40,00	8,00	55,00	M8	83,00	32,50	41,50	75,00	62,00	22,00
VDIE2M5010	50,00	10,00	55,00	M6	98,00	35,00	49,00	75,00	61,00	30,00
VDIE2M5012	50,00	12,00	55,00	M8	98,00	35,00	49,00	75,00	61,00	30,00
VDIE2M5016	50,00	16,00	68,00	M10	98,00	35,00	49,00	90,00	78,00	30,00
VDIE2M5020	50,00	20,00	68,00	M12	98,00	35,00	49,00	90,00	78,00	30,00
VDIE2M5025	50,00	25,00	68,00	M12	98,00	35,00	49,00	90,00	78,00	30,00
VDIE2M5032	50,00	32,00	68,00	M12	98,00	35,00	49,00	90,00	78,00	30,00
VDIE2M5040	50,00	40,00	98,00	M12	98,00	35,00	49,00	90,00	78,00	—
VDIE2M5050	50,00	50,00	98,00	M12	98,00	35,00	49,00	100,00	86,00	—
VDIE2M508	50,00	8,00	55,00	M6	98,00	35,00	49,00	80,00	61,00	30,00
VDIE2M6010	60,00	10,00	68,00	M8	123,00	42,50	61,50	90,00	76,00	30,00
VDIE2M6012	60,00	12,00	68,00	M8	123,00	42,50	61,50	90,00	76,00	30,00
VDIE2M6016	60,00	16,00	68,00	M10	123,00	42,50	61,50	90,00	76,00	30,00
VDIE2M6020	60,00	20,00	68,00	M12	123,00	42,50	61,50	90,00	76,00	30,00
VDIE2M6025	60,00	25,00	68,00	M12	123,00	42,50	61,50	90,00	76,00	30,00
VDIE2M6032	60,00	32,00	68,00	M12	123,00	42,50	61,50	90,00	76,00	30,00
VDIE2M6040	60,00	40,00	98,00	M12	123,00	42,50	61,50	90,00	76,00	30,00
VDIE2M6050	60,00	50,00	98,00	M12	123,00	42,50	61,50	100,00	86,00	30,00



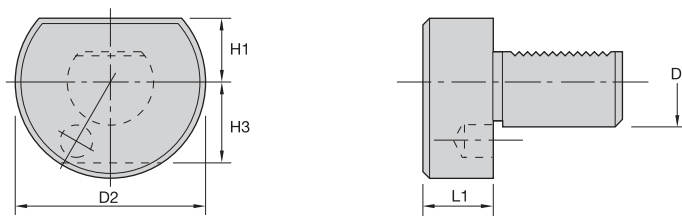
■ VDI Form E3 • Collet Chuck • DIN 6388

catalog number	D	D5	D11	H1	H3	FLGT	L1
VDIE3M2016	20,00	50,00	43,00	25,00	23,00	18,00	57,00
VDIE3M2020	20,00	50,00	50,00	25,00	23,00	18,00	62,00
VDIE3M3025	30,00	68,00	60,00	28,00	30,00	22,00	75,00
VDIE3M4025	40,00	83,00	60,00	32,50	41,50	22,00	75,00
VDIE3M4032	40,00	83,00	72,00	32,50	41,50	22,00	90,00
VDIE3M5025	50,00	98,00	60,00	35,00	49,00	30,00	75,00
VDIE3M5032	50,00	98,00	72,00	35,00	49,00	30,00	90,00
VDIE3M6032	60,00	123,00	72,00	42,50	61,50	30,00	90,00



■ VDI Form E4 • Collet Chuck • ER

catalog number	D	D5	D11	H1	H3	FLGT	L1
VDIE4M1616	16,00	40,00	32,00	18,00	20,00	13,00	36,00
VDIE4M2016	20,00	50,00	32,00	25,00	23,00	18,00	42,00
VDIE4M2025	20,00	68,00	42,00	25,00	23,00	18,00	50,00
VDIE4M3025	30,00	68,00	42,00	28,00	30,00	22,00	57,00
VDIE4M3032	30,00	68,00	50,00	28,00	30,00	22,00	62,00
VDIE4M3040	30,00	83,00	63,00	28,00	30,00	22,00	70,00
VDIE4M4025	40,00	83,00	42,00	32,50	41,50	22,00	57,00
VDIE4M4032	40,00	83,00	50,00	32,50	41,50	22,00	62,00
VDIE4M4040	40,00	83,00	63,00	32,50	41,50	22,00	75,00
VDIE4M5040	50,00	98,00	63,00	35,00	49,00	30,00	75,00
VDIE4M6040	60,00	123,00	63,00	42,50	61,50	30,00	75,00



■ VDI Form Z2 • Steel Plug

catalog number	D	D2	L1	H1	H3
VDIZ2M20	20,00	50,00	16,00	23,00	23,00
VDIZ2M30	30,00	68,00	16,00	28,00	30,00
VDIZ2M40	40,00	83,00	20,00	32,50	41,50
VDIZ2M50	50,00	98,00	20,00	35,00	49,00
VDIZ2M60	60,00	123,00	20,00	42,50	61,50

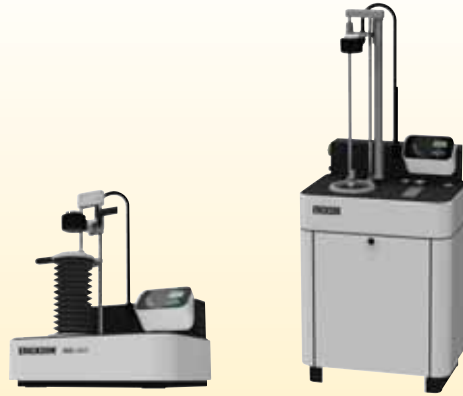




Accessories

Shrink Fit Unit Offering	L2
Induction Shrink Fit Unit TTISG3400EU	L4-L7
Induction Shrink Fit Unit TTISG3400NA	L4-L7
Induction Shrink Fit Unit TTISG3400CCEU	L8-L11
Induction Shrink Fit Unit TTISG3400CCNA	L8-L11
Shrink Fit Axial Adjustment Gages	L12-L13
Balance Screw Sets	L14
HC Hydraulic Chuck Test Pins	L14
HC Hydraulic Chuck Cleaning Brushes	L15
Collet Extractors TG	L15
TG Round Flush-Face Locknuts	L16
TG Balanceable Round Locknuts	L16
Coolant Disk Assemblies	L17
TG Standard Round and Hex Locknuts	L18
ER Standard Short and Slim Locknuts	L19
ER Slim Coolant and Hex Locknuts	L20
ER Coolant Hex and Standard Round Locknuts	L21
ER Coolant Round Locknuts	L22
Coolant Locknut Sealing Disks and Disk Sets	L23-L29
ER16	L23
ER20	L24
ER25	L25
ER32	L26-L27
ER40	L28-L29
DA 01 Double Angle Locknuts	L30
DA 04 Double Angle Locknuts	L31
DA 08 Double Angle Locknuts	L31
Stop Screws	L32
Coolant and Blank Caps	L34
Extended Caps	L35
Shell Mill Adapter Lock Screws	L36-L37
Shell Mill Coolant Lock Screws	L38
Tightening Fixtures	L38-L41
KM Vise Mounts	L38
KM4X and HSK Vise Mounts	L39
HSK Universal Mounts and Sleeves	L40
7/24 Steep Taper Vise and Universal Mounts	L41
P-KM and HSK Spindle Plugs	L42
KM, HSK, and 7/24 Steep Taper Spindle Wipers	L43
HSK Coolant Supply Units and Wrenches	L44
Retention Knobs	L45-L50
Socket Wrenches	L51
KM Manual Torque Wrenches	L52
KM-LOC II and KM-LOC Wrenches	L53
T-Handle Hex Wrench Sets	L54
Universal Bit Drivers	L55
Driver Bits	L55
Open-Ended Wrenches	L56
Pin Spanner and Hook Spanner Wrenches	L57
Rapid and Rapid Plus Wrenches	L58

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		EMEA, Asia, South America	TTISG3400EU	TTISG3400CCEU
		North America	TTISG3400NA	TTISG3400CCNA
input	generator power		10 kW	10 kW
	compressed air supply required		4 bar (58 psi)	4 bar (58 psi)
	supply power needed (3 phase)		3 x 400V/16A (EU) 3 x 480V/16A (NA)	3 x 400V/16A (EU) 3 x 480V/16A (NA)
	cooling process		water	water
capability	number of cooling stations		1	1
	HSS shank diameters range/capacity		6-32 (50mm) (1/4-1-1/4"[2"])	6-32 (50mm) (1/4-1-1/4"[2"])
	carbide shank diameters range/capacity		3-32 (50mm) (1/8-1-1/4"[2"])	3-32 (50mm) (1/8-1-1/4"[2"])
	process controlled		semi automated	fully automated
output	process time		45 sec	45 sec
	cost		high	highest
			best	top machine

** Unit needs transformer.

Accessories

To learn more, *scan here.*

For instructions on how to scan, please see page xxxiii.





Difficult-to-Cut Materials Are No Match for Kennametal's High Torque Shrink Fit System!

**Two lines available to address all your High Torque (HT)
and General Purpose (GP) requirements.**

- HT line is ideal for heavy roughing operations that require higher clamping torque levels (30–50% higher than the GP line).
- Increase productivity and reduce costs with a shrinking and cooling process that takes 30 seconds or less!
- Precision engineered system ensures precise concentricity, greater balancing quality, optimized bore sizes, and superior metal removal rates.
- Increased accuracies when machining difficult to cut materials common to the aerospace industry.

Visit www.kennametal.com or contact your local Authorized Kennametal Distributor.



www.kennametal.com



Induction Shrink Fit Unit TTISG3400EU and TTISG3400NA

The TTISG3400EU and TTISG3400NA is a top of the line unit that Kennametal offers with manual processes and integral, enclosed water-cooling system. Built for Europe/ROW and the North American market, fully CE and FC approved for Europe/ROW and fully UL® and CSA approved for North America with direct 400V, 16A for Europe/ROW or with direct 480V, 16A for North America.
3-phase electrical supply capability - no transformer needed.



- 10 kW high-frequency generator — maximum 5 seconds heat cycle.
- 3 x 400V/16A Europe/ROW or 480/16A North America electrical supply needed.
- No air pressure supply needed.
- 560mm (22") D, 800mm (31.5") W, 950mm (37.5") H.
- Shrinking capacity carbide Ø 3–32mm (1/8–1-1/4") with supplied coil.
- Shrinking capacity HSS Ø 6–32mm (1/4–1-1/4") with supplied coil.
- Maximum toolholder gage length for cooling 160mm (6.3") for HSK63 toolholder.
- Maximum toolholder length for heating 400mm (15.75") for HSK63 toolholder.
- Shrink fit holder till outside geometry 65mm with extra Inver coil.
- Long life expectancy of toolholders while using pre-programmed parameters.
- Manual over-ride of pre-programmed parameters, time and power, to allow shrinking of special toolholder designs.
- Integrated coolant sprayer with coolant sleeve for consistent cooling down of the adapter within 25 seconds. (Complete toolchange process 30 seconds).
- Manual retreat of the toolholder after the cooling and cleaning process is finished.
- No drying action – no compressed air.

Accessories

- One permanent induction coil Ø 6–32mm (1/8–1-1/4").
- Four heating coil stop plates covering range of Ø 3–32mm (1/8–1-1/4").
- One disk holding clip.
- One heating coil stop (optional).
- Operation manual.

Essential accessories:

- Electrical transformer, if 480V/16A 3-phase power not available for North America.
- Toolholder setting pot (V-flange, HSK, KM™).
- Liquid cooling; no cooling pots required.



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■ Shrink Fit Unit Complete

order number	catalog number	description
5275128	TTISG3400EU	induction shrink unit 400V/16A (CE and FC approved) for Europe/ROW
5275038	TTISG3400NA	induction shrink unit 480V/16A (UL and CSA approved) for North America

(continued)

(Induction Shrink Fit Unit TTISG3400EU and TTISG3400NA continued)

- These pots are essential to locate toolholder in Shrink Fit Units.



■ Toolholder Setting Pots (essential accessories)

order number	catalog number	description
3387728	TTISG3200LPCCV30	30V flange adapter (BT, CV, DV, etc.)
3387729	TTISG3200LPCCV40	40V flange adapter (BT, CV, DV, etc.)
3387730	TTISG3200LPCCV50	50V flange adapter (BT, CV, DV, etc.)
3853186	TTISG3200LPCCKM50	KM50™ flange adapters
3853187	TTISG3200LPCCKM63	KM63™ flange adapters
3853188	TTISG3200LPCCKM80	KM80™ flange adapters
3387731	TTISG3200LPCCHSK32	32 HSK flange adapters
3387732	TTISG3200LPCCHSK40	40 HSK flange adapters
3387763	TTISG3200LPCCHSK50	50 HSK flange adapters
3387764	TTISG3200LPCCHSK63	63 HSK flange adapters
3387765	TTISG3200LPCCHSK80	80 HSK flange adapters
3387766	TTISG3200LPCCHSK100	100 HSK flange adapters

NOTE: Retention knobs do not need to be removed on the V-flange design pots.

- Used on column to find edge at the front of extra slim/special toolholders for the coil positioning stop.



■ Shrink Fit • Coil Stop (not included, optional accessory)

order number	catalog number	description
1779396	TTCS	coil stop block

- Easy, quick connection from supplied coil to larger capacity coil.



■ Shrink Fit • Heating Coil (TTHC0332M included in TTISG3400CCEU and TTISG3400CCNA unit purchase)

order number	catalog number	description
2641533	TTHC0332M	induction coil Ø 3–32mm (1/8–1/4")



- Shields to protect cutting tool from heat soak and used as an automated stop for the coil.

■ Shrink Fit • Heating Coil Stop Plates (included with TTISG3400EU and TTISG3400NA)



order number	catalog number	description
3003874	TTHCSP0306M	coil stop plates Ø 3,0 to 5,9mm (.125" - .232")
3003875	TTHCSP0612M	coil stop plates Ø 6,0 to 12,0mm (.233" - .472")
2614114	TTHCSP1220M	coil stop plates Ø12,1 to 22,0mm (.473" - .866")
2613902	TTHCSP2032M	coil stop plates Ø 22,1 to 32,0mm (.867" - 1.260")

- Clip holds stop plates in position within the heating coil.

■ Heating Coil Holding Clip (included in TTISG3400EU and TTISG3400NA purchase)



order number	catalog number	description
3003876	TTHCHC0332M	holding clip

- Split shields can be used for cutting tools with larger cutting diameters than the holding/shrinking diameter.
- Shields to protect cutting tool from heat soak.

- Shields are designed for 400/480V version — will work in 208V version with manual alignment.

■ Shrink Fit • Heating Coil Split Stop Plates (not included — optional accessory)



order number	catalog number	description
3648695	TT3200HCSSP0306M	coil stop plates Ø 3,0 to 5,9mm (.125" - .232")
3648696	TT3200HCSSP0612M	coil stop plates Ø 6,0 to 12,0mm (.233" - .472")
3648697	TT3200HCSSP1220M	coil stop plates Ø12,1 to 22,0mm (.473" - .866")
3648698	TT3200HCSSP2032M	coil stop plates Ø 22,1 to 32,0mm (.867" - 1.260")

(continued)



(Induction Shrink Fit Unit TTISG3400EU and TTISG3400NA continued)

- Safe holding of stop plates, cutting tools — will have to be placed on a bench top.

■ Shrink Fit • Accessory Tray (not included — optional accessory)



order number	catalog number	description
3648699	TT3200CCTRAY	3200 CC accessory tray

- Safe holding of cutting tools.

■ Shrink Fit • Accessory Cutting Tool Tray (not included — optional accessory)



order number	catalog number	description
1850281	TTCCTRAY	3200 CC accessory tray



Induction Shrink Fit Unit TTISG3400CCEU and TTISG3400CCNA

The TTISG3400CCEU and TTISG3400CCNA is a top of the line unit that Kennametal offers with fully automated processes and integral, enclosed water-cooling system. Built for Europe/ROW and the North American market, fully CE and FC approved for Europe/ROW and fully UL® and CSA approved for North America, with direct 400V, 16A for Europe/ROW or with direct 480V 16A for North America. 3-phase electrical supply capability — no transformer needed.



- 10kW high frequency generator – max. 5 second heat cycle.
- Europe/ROW: 3 x 400V/16A electrical supply needed.
- North America: 3 x 480V/16A electrical supply needed.
- 4 bar (90 psi) air pressure supply needed.
- 560mm (22") D, 800mm (31.5") W, 1950mm (77") H.
- Shrinking capacity carbide Ø 3–32mm (1/8–1-1/4") with supplied coil.
- Shrinking capacity HSS Ø 6–32mm (1/4–1-1/4") with supplied coil.
- Second coil available to extend range to Ø 50mm (2").
- Maximum toolholder length for cooling 400mm (15.75") for HSK63 toolholders.
- Maximum toolholder length for heating 680mm (26.78") for HSK63 toolholders.
- Virtually hands free automated system.
- Long life expectancy of toolholders while using pre-programmed parameters.
- Manual over-ride of pre-programmed parameters, time and power, to allow shrinking of special toolholder designs.
- Integrated coolant sprayer for consistent cooling down of the adapter within 25 seconds. (Complete toolchange process 30 seconds).
- Automatic retreat of the toolholder after the cooling and cleaning process is finished.

Accessories

- One induction coil Ø 3–32mm (1/8–1-1/4").
- Four heating coil stop plates covering range of Ø 3–32mm (1/8–1-1/4").
- One disk holding clip.
- One heating coil stop (optional).
- Operating manual.

Essential accessories:

- Electrical transformer, if 480V/16A for North America 3-phase power not available.
- Toolholder setting pot (V-flange, HSK, KM™).
- Liquid cooling: no coolant pots required.



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■ Shrink Fit Unit Complete

order number	catalog number
5275129	TTISG3400CCEU
5275039	TTISG3400CCNA

NOTE: TTISG3400CCEU (for Europe/ROW): 400V/16A. Fully CE and FC approved.
TTISG3400CCNA (for North America): 480V/16A. Fully UL and CSA approved.

(continued)

(Induction Shrink Fit Unit TTISG3400CCEU and TTISG3400CCNA continued)

- These pots are essential to locate toolholder in Shrink Fit Units.



■ Toolholder Setting Pots (essential accessories)

order number	catalog number	description
3387728	TTISG3200LCPCCV30	30V flange adapter (BT, CV, DV, etc.)
3387729	TTISG3200LCPCCV40	40V flange adapter (BT, CV, DV, etc.)
3387730	TTISG3200LCPCCV50	50V flange adapter (BT, CV, DV, etc.)
3853186	TTISG3200LPCCKM50	KM50™ flange adapters
3853187	TTISG3200LPCCKM63	KM63™ flange adapters
3853188	TTISG3200LPCCKM80	KM80™ flange adapters
3387731	TTISG3200LPCCHSK32	32 HSK flange adapters
3387732	TTISG3200LPCCHSK40	40 HSK flange adapters
3387763	TTISG3200LPCCHSK50	50 HSK flange adapters
3387764	TTISG3200LPCCHSK63	63 HSK flange adapters
3387765	TTISG3200LPCCHSK80	80 HSK flange adapters
3387766	TTISG3200LPCCHSK100	100 HSK flange adapters

NOTE: Retention knobs do not need to be removed on the V-flange design pots.

- Used on column to find edge at the front of extra slim/special toolholders for the coil positioning stop.



■ Shrink Fit • Coil Stop (not included, optional accessory)

order number	catalog number	description
1779396	TTCS	coil stop block

- Easy, quick connection from supplied coil to larger capacity coil.



■ Shrink Fit • Heating Coil (TTHC0332M included in TTISG3400CCEU and TTISG3400CCNA unit purchase)

order number	catalog number	description
2641533	TTHC0332M	induction coil Ø 3–32mm (1/8–1-1/4")
2229225	TTHC3250M	induction coil Ø 40–50mm (1-1/2–2")

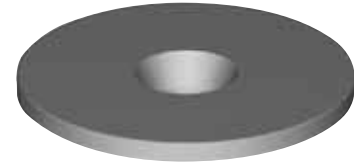
(continued)



(Induction Shrink Fit Unit TTISG3400CCEU and TTISG3400CCNA continued)

- Shields to protect cutting tool from heat soak and used as an automated stop for the coil.

■ Shrink Fit • Heating Coil Stop Plates (included with TTISG3400CCEU and TTISG3400CCNA)



order number	catalog number	description
3003874	TTHCSP0306M	coil stop plates Ø 3,0 to 5,9mm (.125" – .232")
3003875	TTHCSP0612M	coil stop plates Ø 6,0 to 12,0mm (.233" – .472")
2614114	TTHCSP1220M	coil stop plates Ø12,1 to 22,0mm (.473" – .866")
2613902	TTHCSP2032M	coil stop plates Ø 22,1 to 32,0mm (.867" – 1.260")

- Clip holds stop plates in position within the heating coil.

■ Heating Coil Holding Clip (included in TTISG3400CCEU and TTISG3400CCNA purchase)



order number	catalog number	description
3003876	TTHCHC0332M	holding clip

Accessories

- Split shields can be used for cutting tools with larger cutting diameters than the holding/shrinking diameter.
- Shields are designed for 400/480V version — will work in 208V version with manual alignment.
- Shields to protect cutting tool from heat soak.

■ Shrink Fit • Heating Coil Split Stop Plates (not included — optional accessory)



order number	catalog number	description
3648695	TT3200HCSSP0306M	coil stop plates Ø 3,0 to 5,9mm (.125" – .232")
3648696	TT3200HCSSP0612M	coil stop plates Ø 6,0 to 12,0mm (.233" – .472")
3648697	TT3200HCSSP1220M	coil stop plates Ø12,1 to 22,0mm (.473" – .866")
3648698	TT3200HCSSP2032M	coil stop plates Ø 22,1 to 32,0mm (.867" – 1.260")

(continued)

(Induction Shrink Fit Unit TTISG3400CCEU and TTISG3400CCNA continued)

- Safe holding of stop plates, cutting tools — will have to be placed on a bench top.

■ Shrink Fit • Accessory Tray (not included — optional accessory)



order number	catalog number	description
3648699	TT3200CTRAY	3200 CC accessory tray

- Safe holding of cutting tools.

■ Shrink Fit • Accessory Cutting Tool Tray (not included — optional accessory)



order number	catalog number	description
1850281	TTCCTRAY	3200 CC accessory tray



Shrink Fit Axial Adjustment Gages

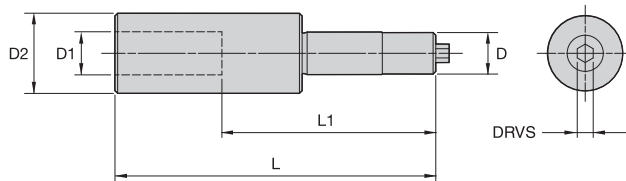
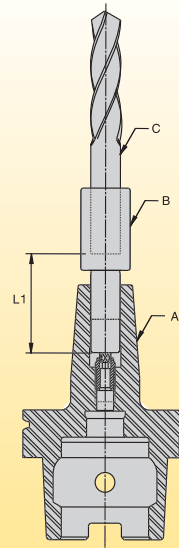
Cutting tool length adjustment is performed using a special axial adjusting gage (B) before shrinking the cutting tool into the toolholder.

An axial adjustment gage is placed in the toolholder (A) along with the cutting tool (C). Length difference of the setting gage (L1) is calculated into the required tool assembly length.

The whole assembly then can be placed into a length presetter for adjustment.

Rotating the gage moves the axial stop screw and presets the assembled tool to the required length. Remove the gage; the cutting tool can then be shrunk into the toolholder.

In some cases, there are two different gage options for the D bore size. The only difference is the DRVS hex drive size to accommodate a recent DIN standard change.



Accessories

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■ TTAAG • Metric

order number	catalog number	D	D1	D2	L	L1	DRVS
2441761	TTAAG03M	3	3	20	50	40	3mm
2456185	TTAAG04M	4	4	20	52	40	4mm
2456186	TTAAG05M	5	5	20	55	40	3mm
1801298	TTAAG06M	6	6	25	110	80	2,5mm
1775603	TTAAG08M	8	8	25	112	80	3mm
1775604	TTAAG10M	10	10	30	117	80	4mm
1775605	TTAAG12M	12	12	30	117	80	4mm
3110267	TTAAG12MX1	12	12	30	117	80	5mm
1775606	TTAAG14M	14	14	30	117	80	4mm
3110268	TTAAG14MX1	14	14	30	117	80	5mm
5086814	TTAAG16MX1	16	16	30	120	80	5mm
1775608	TTAAG16M	16	16	30	120	80	6mm
5086815	TTAAG18MX1	18	18	30	120	80	5mm
1775609	TTAAG18M	18	16	30	120	80	6mm
5086816	TTAAG20MX1	20	20	40	120	80	5mm
1775610	TTAAG20M	20	20	40	120	80	8mm
5086817	TTAAG25MX1	25	25	40	124	80	5mm
1784105	TTAAG25M	25	25	40	124	80	8mm
5086818	TTAAG32MX1	32	32	40	124	80	5mm
1775611	TTAAG32M	32	32	40	124	80	8mm

(continued)

(TTAAG continued)

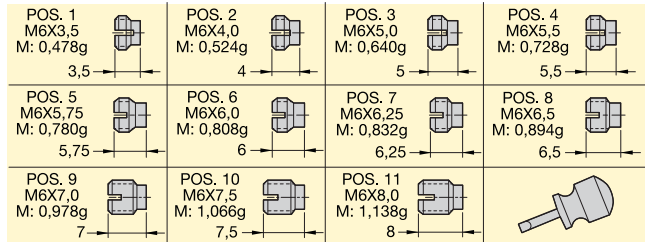


■ TTAAG • Inch

order number	catalog number	D	D1	D2	L	L1	DRVS
1765666	TTAAG025	1/4	.250	.984	4.33	3.15	2.5mm
1765669	TTAAG031	5/16	.313	.984	4.41	3.15	3mm
1765670	TTAAG038	3/8	.375	1.181	4.61	3.15	4mm
1765671	TTAAG044	7/16	.438	1.181	4.41	3.15	4mm
3110269	TTAAG044X1	7/16	.438	1.181	4.41	3.15	5mm
1765702	TTAAG050	1/2	.500	1.181	4.61	3.15	4mm
3110270	TTAAG050X1	1/2	.500	1.181	4.61	3.15	5mm
1765703	TTAAG056	9/16	.563	1.181	4.61	3.15	4mm
3110271	TTAAG056X1	9/16	.563	1.181	4.61	3.15	5mm
1765704	TTAAG062	5/8	.625	1.181	4.72	3.15	6mm
1765705	TTAAG068	11/16	.688	1.181	4.72	3.15	6mm
1765707	TTAAG075	3/4	.750	1.575	4.72	3.15	8mm
1765708	TTAAG088	7/8	.875	1.575	4.72	3.15	8mm
1765709	TTAAG100	1	1.000	1.575	4.88	3.15	8mm
1765710	TTAAG125	1 1/4	1.250	1.850	4.88	3.15	8mm



- Standard balance screw set is used on HPMC bearing milling chuck.
- Total number of screws in each set is 110.
- All are M6 screws.
- Eleven different lengths from 3,5–8mm.
- Eleven different weights, 10 of each, varying between 0,047–1,138 grams.
- Set comes complete in a divider box and screwdriver.
- For high-performance milling choices.



■ Balance Screw Set

order number	catalog number
3367391	HPMCBALSCREWSET

- It is important to periodically check the clamping function on a hydraulic chuck with a test pin for clamping clarity.
- The clamping grip can be checked quickly and easily by placing the correct test pin in the chuck bore and the turning the clamp screw to the limit stop. The chuck is functioning correctly if the testing pin cannot be moved by hand.



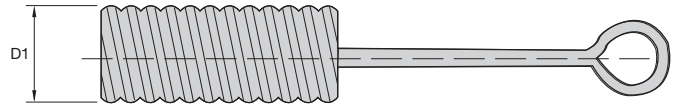
■ HC Test Pin • Metric

order number	catalog number	D
1191037	280.200	6
1191039	280.202	10
1191040	280.203	12
1245409	280.204	14
1191041	280.205	16
1245410	280.206	18
1191042	280.207	20
1245411	280.208	25
1191043	280.209	32

■ HC Test Pin • Inch

order number	catalog number	D
1247566	280.262	3/8
1247570	280.264	1/2
1247572	280.266	5/8
1247575	280.268	3/4
1247577	280.269	1

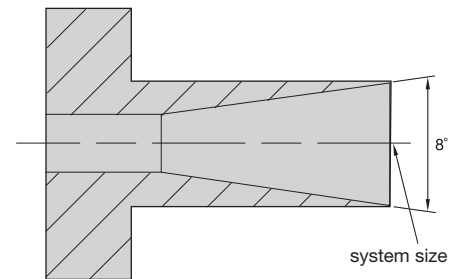
- Hydraulic chucks are maintenance-free and deliver a long service life. A non-abrasive cleaning brush is recommended to help maintain the performance and accuracy of the clamping bore of the hydraulic chuck and reducing sleeves.


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■ Cleaning Brush

order number	catalog number	D1	
		mm	in
1138729	192.950	6	1/4
1138736	192.951	8	5/16
1138744	192.952	10	3/8
1138752	192.953	12	1/2
1138759	192.954	14	9/16
1138766	192.955	16	5/8
1138914	192.956	18	11/16
1138853	192.957	20	3/4
1138922	192.958	25	1
1138930	192.959	32	1 1/4

- Assists with collet extraction from locknut.



Accessories

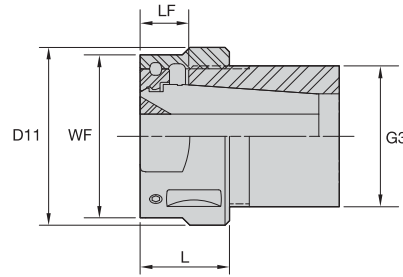

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■ TG • CE

order number	catalog number	system size
1106809	50TGCE	TG50
1106812	75TGCE	TG75
1106813	100TGCE	TG100
1106814	150TGCE	TG150

- TG flush mount, coolant-capable locknuts, and coolant disks/caps can be used on all standard TG collet chucks to seal standard TG collets.
- Face is completely flush.
- Includes the original ball bearing race design.
- External diameter is the same as existing global round TG locknut.

- Operated by a standard open-ended wrench or the original hook-style wrench.
- TG flush mount coolant capable locknuts and coolant disks/caps are interchangeable with existing designs.
- Utilizes standard TG collets.



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■ TG Locknut • Round Flush Face

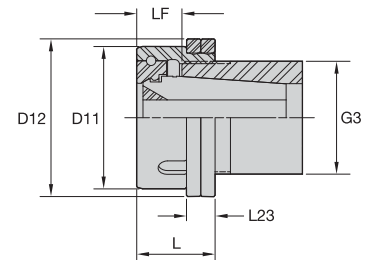
order number	catalog number	D11		L		LF		WF		G3	wrench size	Nm	ft. lbs.
		mm	in	mm	in	mm	in	mm	in				
2980879	LNATGF050M	38	1.50	18,3	.72	10,6	.42	34	1.34	15/16-20 UNEF	HSW34M	81	60
2980880	LNATGF075M	50	1.97	23,4	.92	13,0	.51	46	1.81	1 1/2-12 ACME	HSW45M	150	110
2980881	LNATGF100M	60	2.36	30,2	1.19	16,4	.65	55	2.17	1 7/8-12 ACME	HSW58M	203	150

NOTE: Locknut wrench must be ordered separately.
WF = Open-ended wrench size.



Accessories

- Balanceable and interchangeable locknuts can be ordered separately as an option to the original standard locknut supplied on collet chucks.



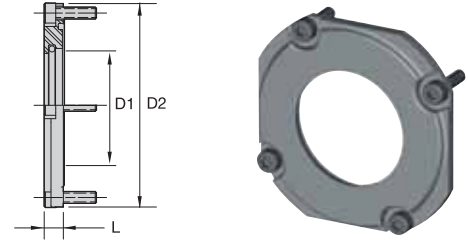
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■ TG Locknut Round • Balanceable

order number	catalog number	D11		D12		L		L23		LF		G3	wrench size	Nm	ft. lbs.	balance ring set
		mm	in	mm	in	mm	in	mm	in	mm	in					
1020465	HPVLNA050G	38,0	1.50	42,5	1.67	20,0	.79	10,05	.40	9,7	.38	15/16-20 UNEF	HSW34M	81	60	SHVBR0325M
1091592	HPVLNA075G	50,0	1.97	56,5	2.22	25,0	.98	12,05	.47	14,4	.57	1 1/2-12 ACME	HSW45M	150	110	SHVBR0445M
1020466	HPVLNA100G	60,0	2.36	66,5	2.62	33,0	1.30	12,05	.47	19,1	.75	1 7/8-12 ACME	HSW58M	203	150	SHVBR0545M

Note: Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten according to torque recommendations.
Collet chuck technical section, see pages M98–M99.
Locknut wrench must be ordered separately.
Balance rings are supplied with locknut and adjustment directions.

- TG coolant disk cap assemblies are used in conjunction with the TG flush-style locknuts and collet chucks to seal standard TG collets.
- Utilizes the ER coolant disks.
- High-pressure coolant up to 150 bar (1,500 psi).
- Withstands most of today's coolants.
- Seals against chip packing and machined contaminants.



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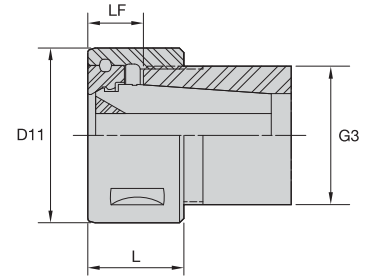
■ TG Nut • Coolant Disk Assembly



order number	catalog number	D1		D2		L		lock screw	locknut reference	ER coolant disk reference	Nm	ft. lbs.
		mm	in	mm	in	mm	in					
2980882	TG050CDA	21,0	.827	40	1.6	5,7	.22	MS311	LNATGF050M	ER25	25	18
2980893	TG075CDA	27,0	1.063	50	2.0	5,7	.22	MS1488	LNATGF075M	ER32	25	18
2980894	TG100CDA	33,5	1.319	60	2.4	5,7	.22	MS1488	LNATGF100M	ER40	25	18

NOTE: Tighten the four assembly screws to the recommended tightening torque.
 Assembly screws to locknuts are supplied with the appropriate wrench.
 ER coolant disks must be ordered separately; see page L23.
 Collet must be loaded into locknut first. Before loading into the chuck body, insert the cutting tool, then tighten to torque recommendations.
 Collet chuck technical section, see page M98.
 Locknut wrench must be ordered separately.

- Standard and replaceable locknuts are usually supplied as the standard option with the original collet chuck.



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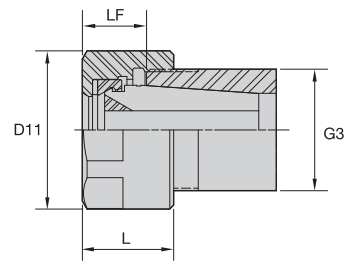
■ TG Locknut • Round

order number	catalog number	D11		L		LF		G3	locknut wrench	Nm	ft. lbs.
		mm	in	mm	in	mm	in				
1013486	LNA075M	50,0	1.97	25,0	.98	14,4	.57	1 1/2-12 ACME	HSW45M	136	100
1013485	LNA100M	60,0	2.36	33,0	1.30	19,1	.75	1 7/8-12 ACME	HSW58M	203	150
1013484	LNA150M	85,0	3.35	37,0	1.46	18,0	.71	2 5/8-12 ACME	HSW80M	271	200
1020326	NPA150	88,3	3.48	34,9	1.38	18,6	.73	2 5/8-12 ACME	PSW350	271	200

NOTE: Locknut wrench must be ordered separately.



Accessories



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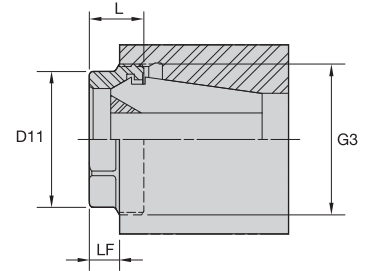
■ TG Locknut • Hex

order number	catalog number	D11		L		LF		G3	locknut wrench	WF	Nm	ft. lbs.
		mm	in	mm	in	mm	in					
1020290	NPA050	30,2	1.19	21,4	.84	14,6	.58	15/16-20 2B	OEW106	1 1/16	102	75
4134686	LN050M	34,0	1.34	19,0	.75	9,8	.38	15/16-20 UNEF	OEW30M	30mm	136	100
1020289	NPA075	53,2	2.09	28,4	1.12	19,7	.78	1 1/2-12 ACME	OEW188	1 7/8	136	100
1020331	NPA100	61,9	2.44	35,7	1.41	25,1	.99	1 7/8-12 ACME	OEW225	2 1/4	203	150

NOTE: Locknut wrench must be ordered separately.
WF = Open-ended wrench size.



- Standard and replaceable locknuts are supplied as the standard option with the original short-style collet chuck.



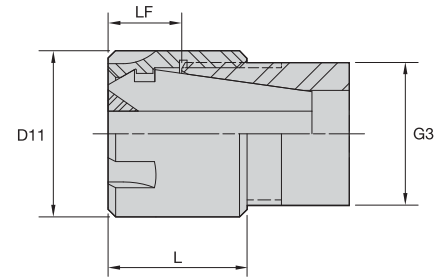
ERICKSON

■ ER Locknut • Short



order number	catalog number	collet series	D11		L		LF		G3	locknut wrench	wrench size	Nm	ft. lbs.
			mm	in	mm	in	mm	in					
2978768	LNECSER32M	ER32	35,9	1.41	14,4	.57	8	.32	M40 x 1.5	OEWS32M	32	136	100
2978769	LNECSER40M	ER40	46,0	1.81	16,0	.63	8	.32	M50 x 1.5	OEWS168	1 11/16	176	130

NOTE: Locknut wrench must be ordered separately.



Accessories

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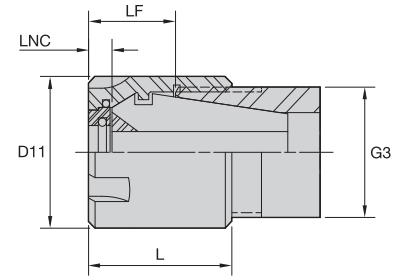
■ ER Locknut • Slim



order number	catalog number	collet series	D11		L		LF		G3	locknut wrench	counterbore collet torque (Nm)	straight collet torque (Nm)	counterbore collet torque (in. lbs.)	straight collet torque (in. lbs.)
			mm	in	mm	in	mm	in						
1024642	LER08M	ER08	12	.47	10,8	.43	6,1	.24	M10 X .75	ER08WEM	5	5	42	42
1024643	LER11M	ER11	16	.63	12,0	.47	7,5	.30	M13 X .75	ER11WEM	12	16	106	142
1016342	LER16M	ER16	22	.87	18,4	.72	11,5	.45	M19 X 1	ER16WEM	24	24	212	212
1799219	LER20M	ER20	28	1.10	19,0	.75	11,5	.45	M24 X 1	ER20WEM	28	28	248	248

NOTE: Locknut wrench must be ordered separately.

- Interchangeable with slim locknuts.
- Must be ordered separately.
- Used in conjunction with ER coolant-sealing disks for high-pressure coolant applications up to 150 bar (2,000 psi). Must be ordered separately; see page L23.



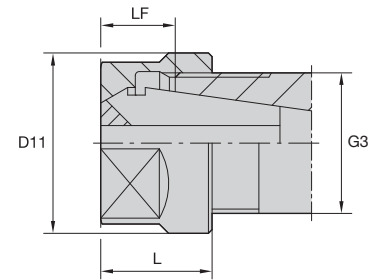
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■ ER Locknut • Slim Coolant

order number	catalog number	collet series	D11		L		LNC		LF		G3	locknut wrench	Nm in. lbs.	
			mm	in	mm	in	mm	in	mm	in				
2255307	LABER16M	ER16	22	.87	22	.87	4,5	.18	11,5	.45	M19 X 1	ER16WEM	24	212
2398953	LABER20M	ER20	28	1.10	24	.94	5,0	.20	13,0	.51	M24 X 1	ER20WEM	28	248

NOTE: Locknut wrench must be ordered separately.

- Standard and replaceable locknuts are usually supplied as the standard option with the original collet chuck.



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■ ER Locknut • Hex

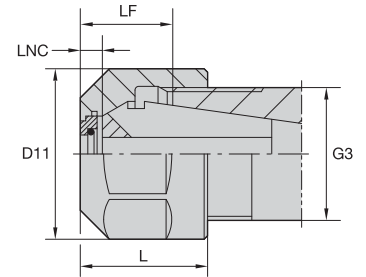
order number	catalog number	collet series	D11		L		LF		G3	locknut wrench	wrench size	Nm ft. lbs.		counterbore collet torque (Nm)	straight collet torque (Nm)	counterbore collet torque (ft. lbs.)	straight collet torque (ft. lbs.)
			mm	in	mm	in	mm	in									
3062811	LNHSER16M	ER16	28,0	1.10	17,5	.69	10,5	.41	M22 X 1.5	OEW25M	25mm	56	42	40	56	30	42
3062812	LNHSER20M	ER20	34,0	1.34	19,0	.75	11,5	.45	M25 X 1.5	OEW30M	30mm	80	59	32	80	24	59

NOTE: Locknut wrench must be ordered separately.

Accessories



- Interchangeable with standard locknuts.
- Must be ordered separately.
- Used in conjunction with ER coolant-sealing disks for high-pressure coolant applications up to 150 bar (2,000 psi). Must be ordered separately; see page L23.

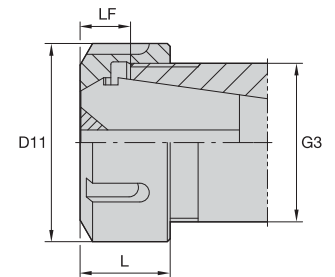

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■ ER Locknut Hex • Coolant

order number	catalog number	collet series	D11		L		LNC		LF		G3	locknut wrench	wrench size	counterbore collet torque (Nm)	straight collet torque (Nm)	counterbore collet torque (ft. lbs.)	straight collet torque (ft. lbs.)
			mm	in	mm	in	mm	in	mm	in							
1854738	LNHABER16M	ER16	28,0	1.10	22,5	.89	5,0	.20	15,5	.61	M22 X 1.5	OEW25M	25mm	40	56	30	42
1859410	LNHABER20M	ER20	34,0	1.34	24,0	.94	5,0	.20	16,5	.65	M25 X 1.5	OEW30M	30mm	32	80	24	59

NOTE: Locknut wrench must be ordered separately.

- Standard and replaceable locknuts are usually supplied as the standard option with the original collet chuck.



Accessories

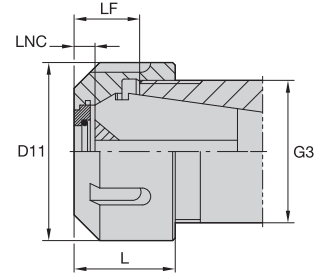
ERICKSON

■ ER Locknut • Round

order number	catalog number	collet series	D11		L		LF		G3	locknut wrench	Nm	ft. lbs.
			mm	in	mm	in	mm	in				
3063113	LNSER25M	ER25	42	1.65	20	.79	12	.47	M32 X 1.5	ER25WM	104	77
3063114	LNSER32M	ER32	50	1.97	23	.89	13	.51	M40 X 1.5	ER32WM	136	100
3063115	LNSER40M	ER40	63	2.48	26	1.00	15	.59	M50 X 1.5	ER40WM	176	130

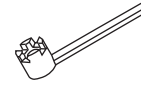
NOTE: Locknut wrench must be ordered separately.

- Interchangeable with standard locknuts; must be ordered separately.
- Used in conjunction with ER coolant-sealing disks for high-pressure coolant applications up to 150 bar (2,000 psi). Must be ordered separately; see page L23.



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■ ER Locknut Round • Coolant

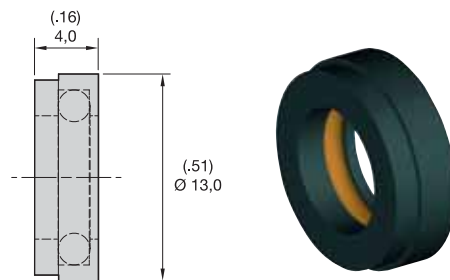


order number	catalog number	collet series	D11		L		LNC		LF		G3	locknut wrench	Nm	ft. lbs.
			mm	in	mm	in	mm	in	mm	in				
1127154	LNABER25M	ER25	42	1.65	25,0	.98	5	.20	17	.67	M32 X 1.5	ER25WM	104	77
1128857	LNABER32M	ER32	50	1.97	27,5	1.08	5	.20	18	.71	M40 X 1.5	ER32WM	136	100
1125692	LNABER40M	ER40	63	2.48	30,5	1.20	5	.20	20	.79	M50 X 1.5	ER40WM	176	130

NOTE: Locknut wrench must be ordered separately.



- 0,5mm (.020") range of sealing per disk.
- High-pressure coolant up to 150 bar (2,000 psi).
- Accommodates both metric- and inch-sized cutting tool shanks.
- Standard-sized replaceable O-rings.



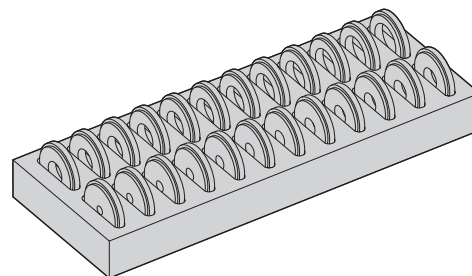
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■ ER16 Locknut Coolant Seal Disk

order number	catalog number	collet series	range metric	range inch	range fraction
1128244	CDER16035M	ER16	3,0–3,5	.1181–.1387	1/8
1122128	CDER16040M	ER16	3,5–4,0	.1378–.1575	5/32
1125973	CDER16045M	ER16	4,0–4,5	.1575–.1772	–
1125741	CDER16050M	ER16	4,5–5,0	.1772–.1969	3/16
1260100	CDER16055M	ER16	5,0–5,5	.1969–.2165	7/32
1130781	CDER16060M	ER16	5,5–6,0	.2165–.2362	–
1260101	CDER16065M	ER16	6,0–6,5	.2362 - .2559	1/4
1260102	CDER16070M	ER16	6,5–7,0	.2559–.2756	–
1260103	CDER16075M	ER16	7,0–7,5	.2756–.2953	9/32
1124948	CDER16080M	ER16	7,5–8,0	.3150–.3347	5/16
1254499	CDER16085M	ER16	8,0–8,5	.3150–.3347	–
1120977	CDER16090M	ER16	8,5–9,0	.3347–.3543	11/32
1260104	CDER16095M	ER16	9,0–9,5	.3543–.3740	3/8
1128201	CDER16100M	ER16	9,5–10,0	.3740–.3937	–

Accessories

- An economical way to purchase a group of coolant disks.



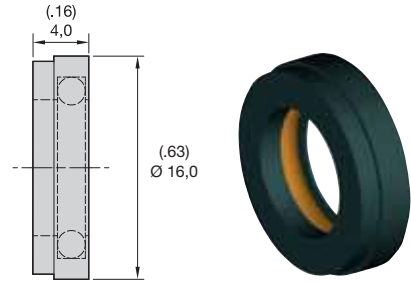
ERICKSON

■ ER16 Locknut Coolant Seal Disk Set

order number	catalog number	collet series	quantity	dimensional range	incremental division
1148501	CDER16000M	ER16	14	3,5mm–10mm	.5mm

NOTE: ER coolant disk sets come complete with wooden protective tray.

- 0,5mm (.020") range of sealing per disk.
- High-pressure coolant up to 150 bar (2,000 psi).
- Accommodates both metric- and inch-sized cutting tool shanks.
- Standard-sized, replaceable O-rings.



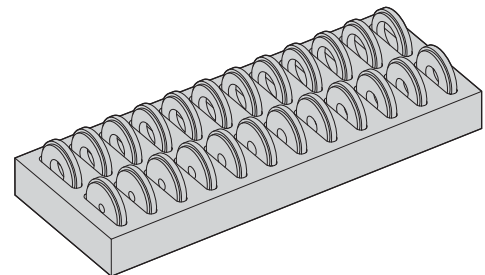
ERICKSON™

■ ER20 Locknut Coolant Seal Disk

order number	catalog number	collet series	range metric	range inch	range fraction
1882862	CDER20030M	ER20	2,5–3,0	.0984–.1181	–
2046541	CDER20035M	ER20	3,0–3,5	.1181–.1387	1/8
2046542	CDER20040M	ER20	3,5–4,0	.1378–.1575	5/32
1785844	CDER20045M	ER20	4,0–4,5	.1575–.1772	–
2046613	CDER20050M	ER20	4,5–5,0	.1772–.1969	3/16
2046614	CDER20055M	ER20	5,0–5,5	.1969–.2165	7/32
1600448	CDER20060M	ER20	5,5–6,0	.2165–.2362	–
2046615	CDER20065M	ER20	6,0–6,5	.2362–.2559	1/4
1821042	CDER20070M	ER20	6,5–7,0	.2559–.2756	–
2046616	CDER20075M	ER20	7,0–7,5	.2756–.2953	9/32
1568338	CDER20080M	ER20	7,5–8,0	.3150–.3347	5/16
2046617	CDER20085M	ER20	8,0–8,5	.3150–.3347	–
1567466	CDER20090M	ER20	8,5–9,0	.3347–.3543	11/32
2046618	CDER20095M	ER20	9,0–9,5	.3543–.3740	3/8
1747032	CDER20100M	ER20	9,5–10,0	.3740–.3937	–
2046619	CDER20105M	ER20	10,0–10,5	.3937–.4134	13/32
1923780	CDER20110M	ER20	10,5–11,0	.4314–.4330	–
2046620	CDER20115M	ER20	11,0–11,5	.4330–.4528	7/16
1883015	CDER20120M	ER20	11,5–12,0	.4528–.4724	15/32
2046621	CDER20125M	ER20	12,0–12,5	.4724–.4921	–
2046622	CDER20130M	ER20	12,5–13,0	.4921–.5118	1/2

Accessories

- An economical way to purchase a group of coolant disks.



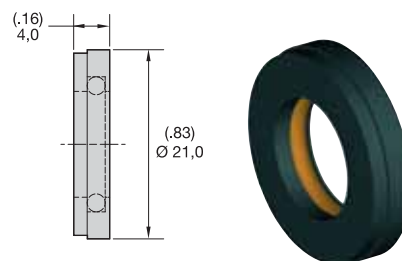
ERICKSON™

■ ER20 Locknut Coolant Seal Disk Set

order number	catalog number	collet series	quantity	dimensional range	incremental division
1720848	CDER20000M	ER20	20	3,5mm–13mm	.5mm

NOTE: ER coolant disk sets come complete with wooden protective tray.

- 0,5mm (.020") range of sealing per disk.
- High-pressure coolant up to 150 bar (2,000 psi).
- Accommodates both metric- and inch-sized cutting tool shanks.
- Standard-sized, replaceable O-rings.



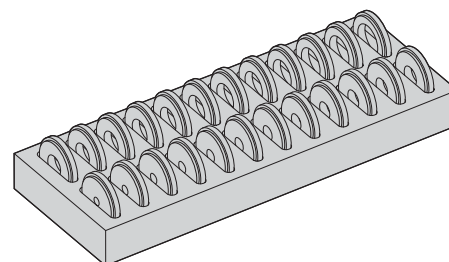
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■ ER25 Locknut Coolant Seal Disk

order number	catalog number	collet series	range metric	range inch	range fraction
1820323	CDER25035M	ER25	3,0 - 3,5	.1181 - .1387	1/8
1136043	CDER25040M	ER25	3,5 - 4,0	.1378 - .1575	5/32
1260105	CDER25045M	ER25	4,0 - 4,5	.1575 - .1772	—
1130194	CDER25050M	ER25	4,5 - 5,0	.1772 - .1969	3/16
1260106	CDER25055M	ER25	5,0 - 5,5	.1969 - .2165	7/32
1127146	CDER25060M	ER25	5,5 - 6,0	.2165 - .2362	—
1260107	CDER25065M	ER25	6,0 - 6,5	.2263 - .2559	1/4
1126670	CDER25070M	ER25	6,5 - 7,0	.2559 - .2756	—
1260108	CDER25075M	ER25	7,0 - 7,5	.2756 - .2953	9/32
1126607	CDER25085M	ER25	8,0 - 8,5	.3150 - .3347	—
1126599	CDER25080M	ER25	7,5 - 8,0	.3150 - .3347	—
1129478	CDER25090M	ER25	8,5 - 9,0	.3347 - .3543	11/32
1260109	CDER25095M	ER25	9,0 - 9,5	.3543 - .3740	3/8
1126613	CDER25100M	ER25	9,5 - 10,0	.3740 - .3937	—
1124966	CDER25105M	ER25	10,0 - 10,5	.3937 - .4134	13/32
1126677	CDER25110M	ER25	10,5 - 11,0	.4134 - .4330	—
1260110	CDER25115M	ER25	11,0 - 11,5	.4330 - .4528	7/16
1125474	CDER25120M	ER25	11,5 - 12,0	.4528 - .4724	15/32
1260111	CDER25125M	ER25	12,0 - 12,5	.4724 - .4921	—
1129141	CDER25130M	ER25	12,5 - 13,0	.4921 - .5118	1/2
1260112	CDER25135M	ER25	13,0 - 13,5	.5118 - .5315	17/32
1125481	CDER25140M	ER25	13,5 - 14,0	.5315 - .5512	—
1260113	CDER25145M	ER25	14,0 - 14,5	.5512 - .5709	9/16
1260114	CDER25150M	ER25	14,5 - 15,0	.5709 - .5906	37/64
1260115	CDER25155M	ER25	15,0 - 15,5	.5906 - .6102	19/32
1128486	CDER25160M	ER25	15,5 - 16,0	.6102 - .6300	5/8

Accessories

- An economical way to purchase a group of coolant disks.



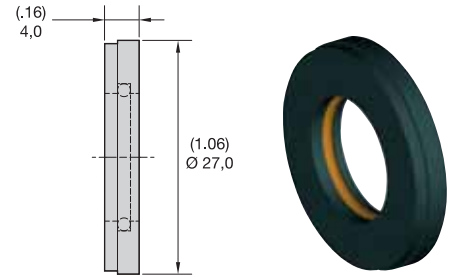
ERICKSON

■ ER25 Locknut Coolant Seal Disk Set

order number	catalog number	collet series	quantity	dimensional range	incremental division
1254501	CDER25000M	ER25	26	3,5mm-16mm	.5mm

NOTE: ER coolant disk sets come complete with wooden protective tray.

- 0,5mm (.020") range of sealing per disk.
- High-pressure coolant up to 150 bar (2,000 psi).
- Accommodates both metric- and inch-sized cutting tool shanks.
- Standard-sized, replaceable O-rings.

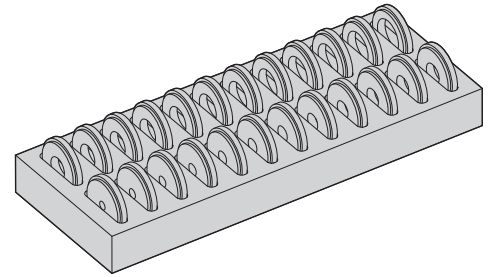


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■ ER32 Locknut Coolant Seal Disk

order number	catalog number	collet series	range metric	range inch	range fraction
1120969	CDER32035M	ER32	3,0–3,5	.1181–.1387	1/8
1125347	CDER32040M	ER32	3,5–4,0	.1378–.1575	5/32
1260116	CDER32045M	ER32	4,0–4,5	.1575–.1772	–
1148555	CDER32050M	ER32	4,5–5,0	.1772–.1969	3/16
1260117	CDER32055M	ER32	5,0–5,5	.1969–.2165	7/32
1121104	CDER32060M	ER32	5,5–6,0	.2165–.2362	–
1120661	CDER32065M	ER32	6,0–6,5	.2362–.2559	1/4
1131561	CDER32070M	ER32	6,5–7,0	.2559–.2756	–
1260118	CDER32075M	ER32	7,0–7,5	.2756–.2953	9/32
1132831	CDER32080M	ER32	7,5–8,0	.3150–.3347	5/16
1260119	CDER32085M	ER32	8,0–8,5	.3347–.3543	–
1122258	CDER32090M	ER32	8,5–9,0	.3543–.3740	11/32
1260120	CDER32095M	ER32	9,0–9,5	.3740–.3937	3/8
1136052	CDER32100M	ER32	9,5–10,0	.3937–.4134	–
1260121	CDER32105M	ER32	10,0–10,5	.4134–.4330	13/32
1135241	CDER32110M	ER32	10,5–11,0	.4330–.4528	–
1260122	CDER32115M	ER32	11,0–11,5	.4528–.4724	7/16
1128840	CDER32120M	ER32	11,5–12,0	.4724–.4921	15/32
1125490	CDER32125M	ER32	12,0–12,5	.4921–.5118	–
1126728	CDER32130M	ER32	12,5–13,0	.5118–.5315	1/2
1260123	CDER32135M	ER32	13,0–13,5	.5315–.5512	17/32
1132848	CDER32140M	ER32	13,5–14,0	.5512–.5709	–
1127692	CDER32145M	ER32	14,0–14,5	.5709–.5905	9/16
1232472	CDER32150M	ER32	14,5–15,0	.5905–.6102	–
1260124	CDER32155M	ER32	15,0–15,5	.6102–.6300	19/32
1125023	CDER32160M	ER32	15,5–16,0	.6300–.6496	5/8
1260125	CDER32165M	ER32	16,0–16,5	.6496–.6693	–
1260126	CDER32170M	ER32	16,5–17,0	.6693–.6890	21/32
1260127	CDER32175M	ER32	17,0–17,5	.6890–.7087	11/16
1126732	CDER32180M	ER32	17,5–18,0	.7087–.7284	–
1260128	CDER32185M	ER32	18,0–18,5	.7284–.7480	23/32
1155337	CDER32190M	ER32	18,5–19,0	.7480–.7677	3/4
1260129	CDER32195M	ER32	19,0–19,5	.7677–.7874	–
1124951	CDER32200M	ER32	19,5–20,0	.7874–.8071	25/32

- An economical way to purchase a group of coolant disks.



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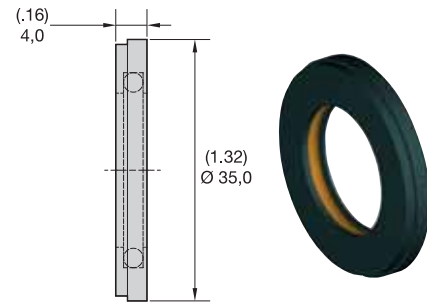
■ ER32 Locknut Coolant Seal Disk Set

order number	catalog number	collet series	quantity	dimensional range	incremental division
1123496	CDER32000M	ER32	34	3,5mm–20mm	.5mm

NOTE: ER coolant disk sets come complete with wooden protective tray.



- 0,5mm (.020") range of sealing per disk.
- High-pressure coolant up to 150 bar (2,000 psi).
- Accommodates both metric- and inch-sized cutting tool shanks.
- Standard-sized, replaceable O-rings.



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■ ER40 Locknut Coolant Seal Disk

order number	catalog number	collet series	range metric	range inch	range fraction
1260131	CDER40035M	ER40	3,0–3,5	.1181–.1387	1/8
1260132	CDER40040M	ER40	3,5–4,0	.1378–.1575	5/32
1260133	CDER40045M	ER40	4,0–4,5	.1575–.1772	–
1260134	CDER40050M	ER40	4,5–5,0	.1772–.1969	3/16
1260135	CDER40055M	ER40	5,0–5,5	.1969–.2165	7/32
1128810	CDER40060M	ER40	5,5–6,0	.2165–.2362	–
1260136	CDER40065M	ER40	6,0–6,5	.2362–.2559	1/4
1128828	CDER40070M	ER40	6,5–7,0	.2559–.2756	–
1260137	CDER40075M	ER40	7,0–7,5	.2756–.2953	9/32
1126684	CDER40080M	ER40	7,5–8,0	.3150–.3347	5/16
1260138	CDER40085M	ER40	8,0–8,5	.3150–.3347	–
1129486	CDER40090M	ER40	8,5–9,0	.3347–.3543	11/32
1260139	CDER40095M	ER40	9,0–9,5	.3543–.3740	3/8
1128834	CDER40100M	ER40	9,5–10,0	.3740–.3937	–
1260140	CDER40105M	ER40	10,0–10,5	.3937–.4134	13/32
1125622	CDER40110M	ER40	10,5–11,0	.4134–.4330	–
1260141	CDER40115M	ER40	11,0–11,5	.4330–.4528	7/16
1125678	CDER40120M	ER40	11,5–12,0	.4528–.2724	15/32
1260142	CDER40125M	ER40	12,0–12,5	.4724–.4921	–
1260143	CDER40130M	ER40	12,5–13,0	.4921–.5118	1/2
1260144	CDER40135M	ER40	13,0–13,5	.5118–.5315	17/32
1128841	CDER40140M	ER40	13,5–14,0	.5315–.5512	–
1260145	CDER40145M	ER40	14,0–14,5	.5512–.5709	9/16
1128848	CDER40150M	ER40	14,5–15,0	.5709–.5905	–
1260146	CDER40155M	ER40	15,0–15,5	.5905–.6102	19/32
1125686	CDER40160M	ER40	15,5–16,0	.6102–.6300	5/8
1260147	CDER40165M	ER40	16,0–16,5	.6300–.6496	–
1125623	CDER40170M	ER40	16,5–17,0	.6496–.6693	21/32

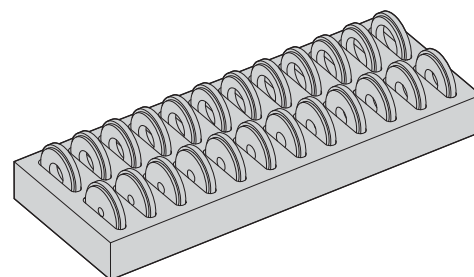
(continued)



(ER40 Locknut Coolant Seal Disk continued)

order number	catalog number	collet series	range metric	range inch	range fraction
1260148	CDER40175M	ER40	17,0–17,5	.6693–.6890	11/16
1128856	CDER40180M	ER40	17,5–18,0	.6890–.7087	—
1260149	CDER40185M	ER40	18,0–18,5	.7087–.7248	23/32
1260150	CDER40190M	ER40	18,5–19,0	.7284–.7480	3/4
1260151	CDER40195M	ER40	19,0–19,5	.7480–.7677	—
1128845	CDER40200M	ER40	19,5–20,0	.7677–.7874	25/32
1260152	CDER40205M	ER40	20,0–20,5	.7874–.8071	—
1260153	CDER40215M	ER40	21,0–21,5	.7874–.8465	27/32
1129413	CDER40210M	ER40	20,5–21,0	.8071–.8268	13/16
1121616	CDER40220M	ER40	21,5–22,0	.8465–.8661	—
1254500	CDER40230M	ER40	22,5–23,0	.8858–.9055	29/32
1260154	CDER40225M	ER40	23,0–23,5	.9055–.9252	—
1260155	CDER40235M	ER40	23,0–23,5	.9055–.9252	—
1260156	CDER40240M	ER40	23,5–24,0	.9252–.9449	15/16
1260157	CDER40245M	ER40	24,0–24,5	.9449–.9646	—
1128850	CDER40250M	ER40	24,5–25,0	.9646–.9843	31/32
1971143	CDER40255M	ER40	25,0–25,5	.9843–1.0039	1
1124539	CDER40260M	ER40	25,5–26,0	1.0039–1.0236	—

- An economical way to purchase a group of coolant disks.

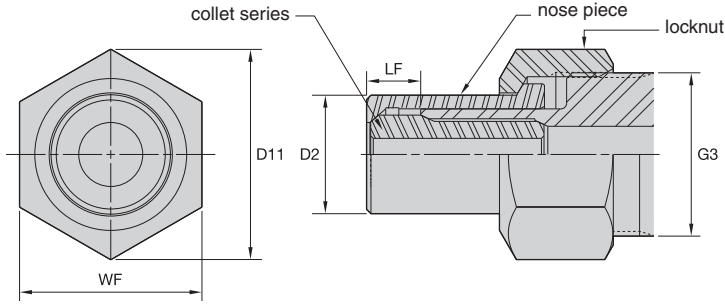


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■ ER40 Locknut Coolant Seal Disk Set

order number	catalog number	collet series	quantity	dimensional range	incremental division
1260130	CDER40000M	ER40	46	3,5mm–26mm	.5mm

NOTE: ER coolant disk sets come complete with wooden protective tray.



■ DA01 Locknut Hex

order number	catalog number	collet series	D11	WF	G3
1021948	LN101	DA100	1.73	1.50	1.375-12 UNF
1021950	LN181	DA180	2.02	1.75	1.625-12 UN
1022884	LN201	DA200	1.44	1.25	1.125-16 UN
1022886	LN301	DA300	.86	.75	.625-18 UNF

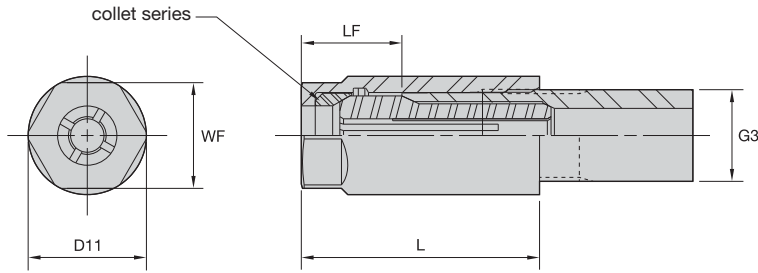
NOTE: Locknut and nose piece need to be ordered separately.
Locknut wrench to be ordered separately.

■ DA01 Nose Piece

order number	catalog number	collet series	D2	LF
1021918	NP101	DA100	1.06	.51
1022702	NP181	DA180	1.33	.35
1021920	NP201	DA200	.81	.37
1022726	NP301	DA300	.51	.35

NOTE: Locknut and nose piece need to be ordered separately.

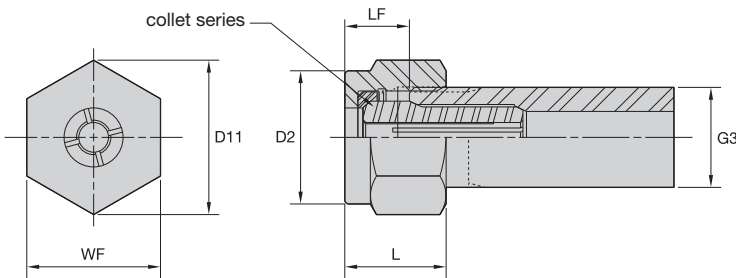




■ DA04 Double Angle Locknuts

order number	catalog number	collet series	D11	L	LF	WF	G3
1013469	LNA104M	DA100	1.06	1.51	.62	.94	.9375-20 UNEF
1013470	LNA184M	DA180	1.44	1.60	.49	1.18	1.250-16 UN
1013489	LNAL04M	L	1.50	1.28	.40	1.25	1.313-16 UN
1013488	LNAK04M	K	1.06	1.19	.37	.94	.9375-20 UNEF
1013472	LNA304M	DA300	.56	1.13	.48	.50	.4375-32 UN
1013471	LNA204M	DA200	.85	1.42	.47	.75	.6875-20 UN
1013440	LN000M	DA000	.40	.89	.18	.35	M9 X .9

NOTE: Locknut needs to be ordered separately.



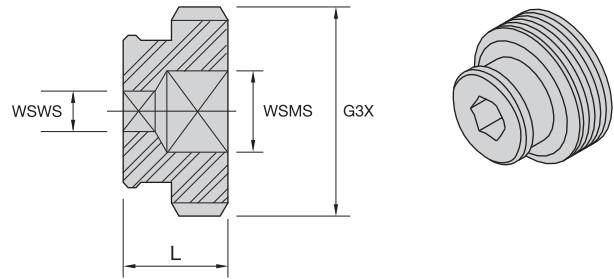
Accessories

■ DA08 Double Angle Locknuts

order number	catalog number	collet series	D11	D2	L	LF	WF	G3
1013467	LNA108M	DA100	1.44	1.24	.91	.58	1.25	1.000-14 UNS
1013439	LNA208M	DA200	1.08	.93	.75	.48	.94	.750-16 UNF
1013468	LNA308M	DA300	.77	.66	.73	.43	.67	.5625-18 UNF

NOTE: Locknut needs to be ordered separately.

- Replacement stop screws.
- Coolant, blank, and extended caps are available for added capabilities.



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■ Stop Screw

order number	catalog number	L		WSWS wrench size	WSMS wrench size	G3X
		mm	in			
1019943	SS031031G	7,9	.31	4mm & 5/32	—	5/16-24UNF LH
1019975	SS038031G	7,9	.31	4mm & 5/32	—	3/8-24UNF LH
1019977	SS044038G	9,5	.38	4mm & 5/32	—	7/16-20UNF LH
1019979	SS050038G	9,5	.38	4mm & 5/32	—	1/2-20UNF LH
1019981	SS056041G	9,5	.38	4mm & 5/32	—	9/16-18UNF LH
1019983	SS062041G	9,5	.38	4mm & 5/32	—	5/8-18UNF LH
1019985	SS075041G	10,3	.41	4mm & 5/32	—	3/4-16UNF LH
1019987	SS081041G	10,3	.41	4mm & 5/32	8mm & 5/16	13/16-16UN LH
1019989	SS094041G	10,3	.41	4mm & 5/32	8mm & 5/16	15/16-16UN LH
1019991	SS112041G	10,3	.41	4mm & 5/32	8mm & 5/16	1 1/8-16UN LH
1020023	SS125050G	12,7	.50	4mm & 5/32	8mm & 5/16	1 1/4-12UNF LH
1020017	SS162062G	15,8	.62	4mm & 5/32	8mm & 5/16	1 5/8-12UN LH
1020049	SS175062G	15,8	.62	4mm & 5/32	8mm & 5/16	1 3/4-12UN LH





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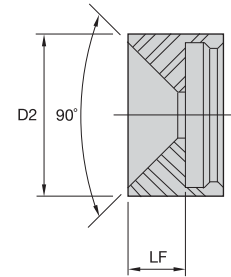
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- Stop screw caps can easily be snapped onto their respective stop screws, referenced in the first column in respective tables below, for added capabilities.



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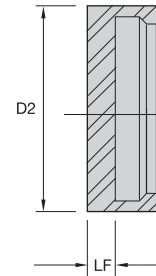
■ Coolant Cap



order number	catalog number	D2		LF		stop screw reference
		mm	in	mm	in	
1021134	SSCC031	6,5	.25	2,4	.09	SS031031G
1021138	SSCC044	9,5	.37	3,0	.12	SS044038G
1021140	SSCC050	11,0	.43	3,0	.12	SS050038G
1021142	SSCC056	12,0	.47	4,0	.16	SS056041G
1092046	SSCC062	14,0	.55	4,5	.18	SS062041G
1021154	SSCC075	17,0	.67	6,0	.24	SS075041G
1021156	SSCC081	17,0	.67	6,0	.24	SS081041G
1021158	SSCC094	21,8	.86	8,5	.33	SS094041G
1021160	SSCC112	24,5	.97	9,8	.38	SS112041G
1021162	SSCC125	29,0	1.14	12,0	.47	SS125050G
1021176	SSCC162	37,0	1.46	15,5	.61	SS162062G
1021178	SSCC175	42,0	1.65	18,5	.73	SS175062G

NOTE: For use with through-coolant applications for improved sealing.

Accessories



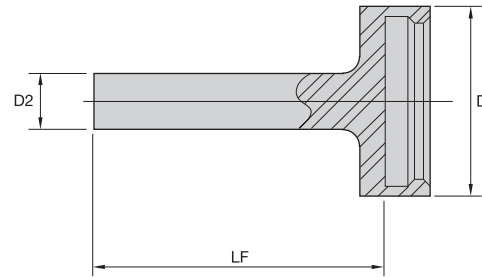
■ Blank Cap



order number	catalog number	D2		LF		stop screw reference
		mm	in	mm	in	
1021180	SSC031	6,5	.26	2,2	.09	SS031031G
1021204	SSC044	9,5	.37	2,2	.09	SS044038G,SS0500384
1021206	SSC056	12,0	.47	2,2	.09	SS075041G,SS056041G,SS062041G
1021208	SSC081	17,0	.67	2,2	.09	SS081041G,SS094041G

NOTE: A solid cap for small-diameter cutting tools with no through-coolant capability.

- Stop screw caps can easily be snapped onto their respective stop screws, referenced in the first column in respective tables below, for added capabilities.



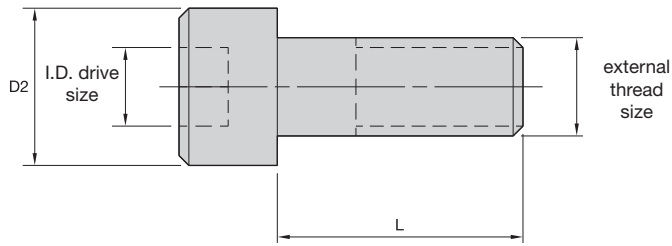
■ Extended Cap



order number	catalog number	D		D2		LF		stop screw reference
		mm	in	mm	in	mm	in	
1021216	SSC038081	8,1	.32	8,1	.32	20,5	.81	SS038031G
1021220	SSC056066	12,0	.47	5,0	.20	16,7	.66	SS094041G,SS075041G,SS056041G
1021222	SSC081103	17,0	.67	5,0	.20	26,2	1.03	SS094041G,SS081041G
1021254	SSC112150	24,5	.96	12,0	.47	38,1	1.50	SS150062G,SS125050G,SS112041G

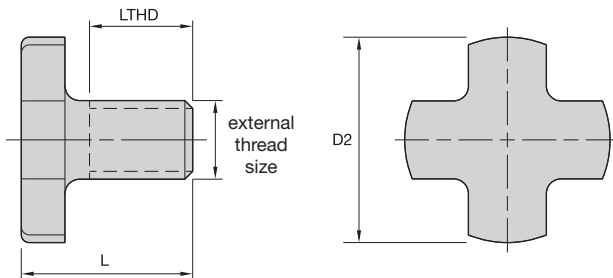
NOTE: For greater access and reaching inside collet cavities.





■ SM Cap Lock Screw • Metric

order number	catalog number	external thread size	D2	L	I.D. drive size
1905810	MS1294	M8X1.25	13,0	25,0	6mm
1129648	MS1234	M10X1.5	16,0	25,0	8mm

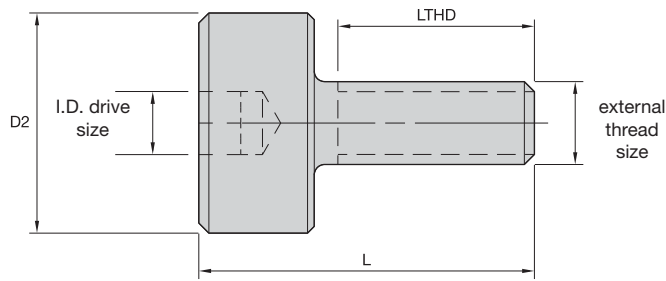


■ SM Lock Screw • Metric

order number	catalog number	external thread size	D2	L	LTHD
1147969	KLS27MPKG	M12X1.75	34,8	29,9	17,5
1736199	KLS32M	M16X2.0	41,8	34,9	20,5
1016374	KLS40M	M20X2.5	51,8	39,9	24,0
1178775	KLS50M	M24X3	62,8	47,9	28,5

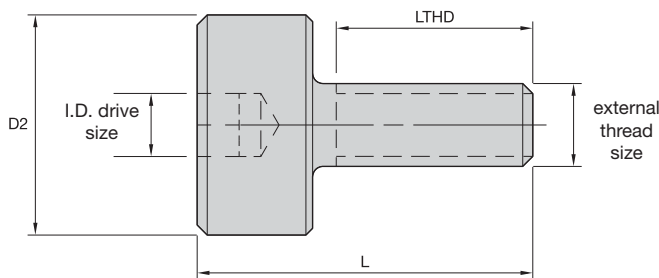
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(SM Lock Screws continued)



■ SM Round Lock Screw • Metric

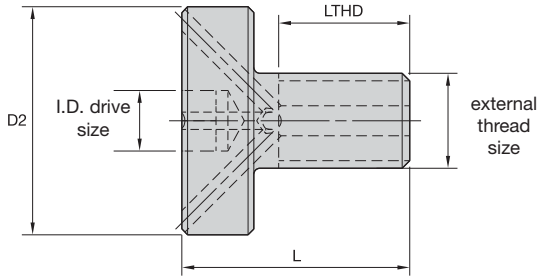
order number	catalog number	external thread size	D2	L	LTHD	I.D. drive size
4078806	KLSS27M	M12X1.75	35,0	30,9	22,0	10mm
4078807	KLSS32M	M16X2.0	42,0	37,9	26,0	14mm
4078808	KLSS40M	M20X2.5	52,0	44,9	30,0	17mm



■ SM Lock Screw • Inch

order number	catalog number	external thread size	D2	L	LTHD	I.D. drive size
1020548	KLS05	.250-28 UNF	.656	1.000	.656	3/16
1020550	KLS07	.375 - 24 UNF	.875	1.062	.687	1/4
1020552	KLS10	.500 - 20 UNF	1.188	1.187	.812	5/16
1020574	KLS12	.625 - 18 UNF	1.500	1.535	1.040	5/16
1020576	KLS15	3/4 - 16 UNF	1.875	1.516	1.016	3/8
1020578	KLS20	1.000 - 14 UNS	—	—	—	9/16

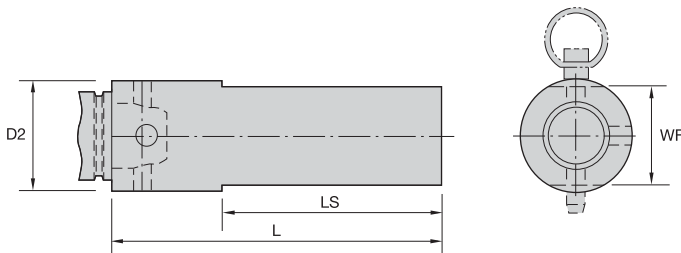
- Coolant lock screw to convert a standard shell mill adapter into a through-coolant version.



■ SM Lock Screw Coolant • Inch

order number	catalog number	external thread size	D2	L	LTHD	I.D. drive size
1151259	KLSSH10	.500-20 UNF	1.2	1.2	.8	5/16
1151260	KLSSH12	.625-18 UNF	1.5	1.5	1.0	5/16
1151261	KLSSH15	.750-16 UNF	1.9	1.5	1.0	3/8
1151262	KLSSH20	1.000-14 UNS	2.5	1.5	1.0	9/16
1151315	KLSSH25	1.000-14 UNS	3.1	2.0	1.5	9/16

- Vise mount pot to hold KM toolholders for tightening/locking operations.



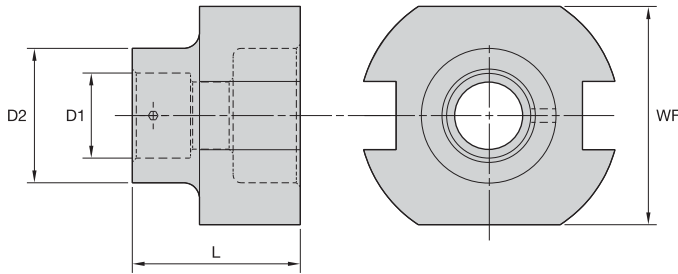
■ TF • KM Vise Mount

order number	catalog number	system size	D2		L		LS		WF	
			mm	in	mm	in	mm	in	mm	in
1021816	KM40TF	KM40	50,80	2.00	152,4	6.00	101,6	4.00	44,45	1.750
1021817	KM50TF	KM50	63,50	2.50	152,4	6.00	101,6	4.00	57,15	2.250
1021818	KM63TF	KM63	76,20	3.00	152,4	6.00	101,6	4.00	69,15	2.750
2606542	KM80TF	KM80	88,90	3.50	152,4	6.00	101,6	4.00	85,73	3.375

Accessories



- Vise mount pot to hold HSK toolholders for tightening/locking operations.



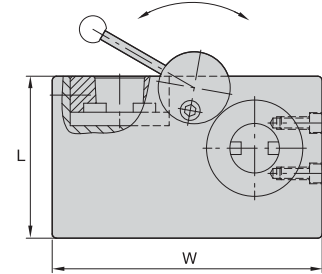
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■ TF • KM4X and HSK Vise Mount

order number	catalog number	D1		D2		L		WF		wrench size clamp screw
		mm	in	mm	in	mm	in	mm	in	
1013573	TFHSK32A	32,0	1.26	50,8	2.00	63,5	2.50	82,5	3.25	3mm & 1/8
1013584	TFHSK40A	40,0	1.57	60,0	2.36	63,5	2.50	82,5	3.25	4mm & 5/32
1013586	TFHSK63A	63,0	2.48	98,4	3.87	69,9	2.75	82,5	3.25	8mm & 5/16
1013587	TFHSK80A	80,0	3.15	108,0	4.25	120,7	4.75	82,5	3.25	8mm & 5/16
1013588	TFHSK100A	100,0	3.94	135,0	5.31	139,7	5.50	82,5	3.25	8mm & 5/16



- Universal vise to hold HSK forms A, C, and E toolholders for tightening/locking operations.
- Permits simultaneous access to the rear and front end of the toolholders.
- Replaces up to 15 separate tightening fixtures.
- Holds tools in the horizontal or vertical position.
- Can be used either right or left handed.
- Rigid aluminum construction with bolt holes to secure to bench.

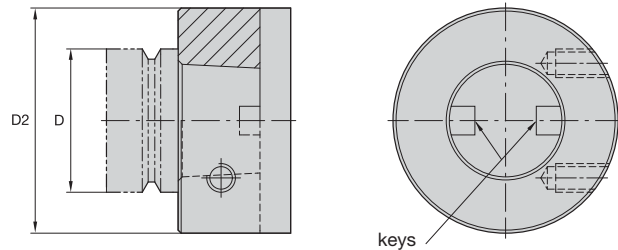


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■ TF • HSK Universal Mount

order number	catalog number	CSWS	L		W	
			mm	in	mm	in
1254135	UTAV	ALL	160	6.30	260	10.24

- For HSK forms A and C, insert sleeve into fixture.
- For HSK form E, remove the drive keys before inserting the sleeve adapter.
- Sleeve adapters are made from hardened steel with removable keys.
- For sizes HSK32 and HSK40, a larger cam disk must be ordered when used in a horizontal position.



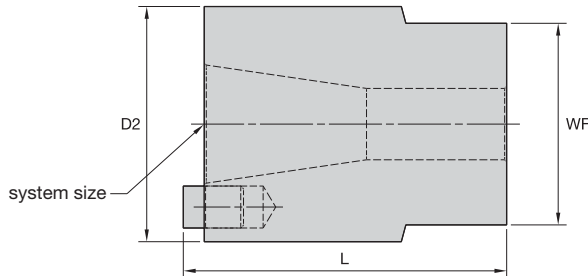
■ TF • HSK Universal Sleeve

order number	catalog number	system size	D		D2	
			mm	in	mm	in
1254136	HSK32AS	32	32,0	1.26	98,0	3.86
1254137	HSK40AS	40	40,0	1.57	98,0	3.86
1254158	HSK50AS	50	50,0	1.97	98,0	3.86
1254159	HSK63AS	63	63,0	2.48	98,0	3.86
1254160	HSK80AS	80	80,0	3.15	98,0	3.86
1254161	HSK100AS	100	100,0	3.94	98,0	3.86

cam disks needed to support HSK32 and HSK40

catalog number • sleeve	size reference • HSK	order number • cam disk	catalog number • cam disk
HSK32AS	HSK32	2241080	536.150
HSK40AS	HSK40	2241080	536.150

- Vise mount pot to hold steep taper toolholders for tightening/locking operations.

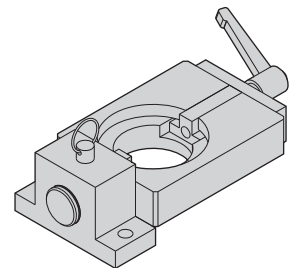


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■ TF • ST Vise Mount

order number	catalog number	system size	D2		L		WF	
			mm	in	mm	in	mm	in
1013620	TF30	30	88,9	3.50	109,5	4.31	76,2	3.00
1013636	TF40	40	88,9	3.50	122,2	4.81	76,2	3.00
1013638	TF50	50	133,4	5.25	165,1	6.50	114,3	4.50

- Universal vise to hold 30, 35, 40, 45, and 50 7/24 steep taper toolholders for tightening/locking operations.
- Permits simultaneous access to the retention knob and locknut.
- Replaces up to five separate tightening fixtures.
- Holds tools in the horizontal or vertical position.
- Can be used either right or left handed.
- Holds most 7/24 tapers including ANSI, ISO, DIN, V-flange, BT, and NMTB.
- Handle position is easily changed with a simple button push.
- No setups, bushings, or spare parts required.
- 400 Nm (300 ft. lbs.) maximum torque capacity.



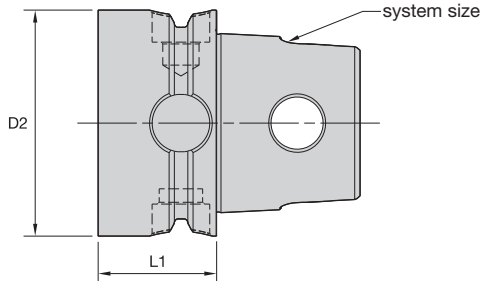
Accessories

ERICKSON

■ TF • ST Universal Mount

order number	catalog number	system size
1013591	UTV5030	30, 35, 40, 45, & 50

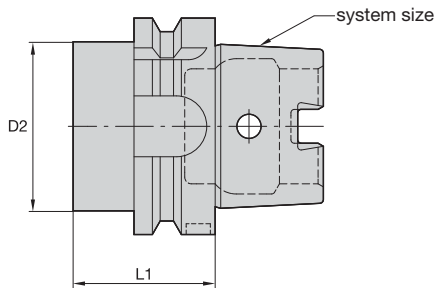
- Prevents machine tool spindle from becoming contaminated when not in use.



■ Spindle Plug • KM™

order number	catalog number	system size	D2		L1	
			mm	in	mm	in
1019237	KM32P	KM32	32	1.26	25	.98
1144452	KM40P	KM40	40	1.57	27	1.06
1144501	KM50P	KM50	50	1.97	31	1.22
1019945	KM63TSP	KM63TS	63	2.48	33	1.30
1144328	KM80P	KM80	80	3.15	37	1.46

- Prevents machine tool spindle from becoming contaminated when not in use.

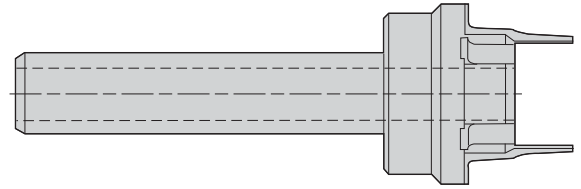


ERICKSON™

■ P-HSK • Form A

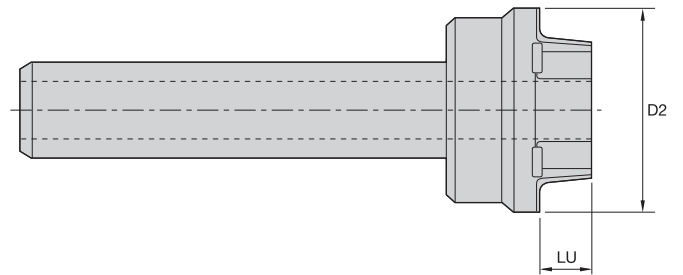
order number	catalog number	system size	D2		L1		kg
			mm	in	mm	in	
1256061	HSK63AP	63	50	1.97	42,3	1.66	0,7
1307767	HSK100AP	100	80	3.15	45,3	1.78	0,7

- Cleans taper and face of machine spindle and tool adapter.


■ SW-KM

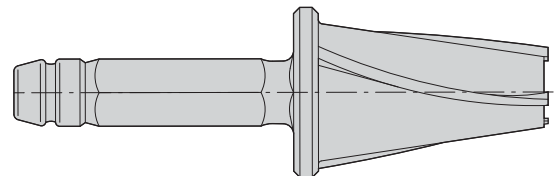
order number	catalog number	system size
1727267	KMSW32	32
1606113	KMSW40	40
1612900	KMSW50	50
1612922	KMSW63	63
1612923	KMSW80	80

- Cleans taper and face of machine spindle and tool adapter.


ERICKSON
■ SW-HSK

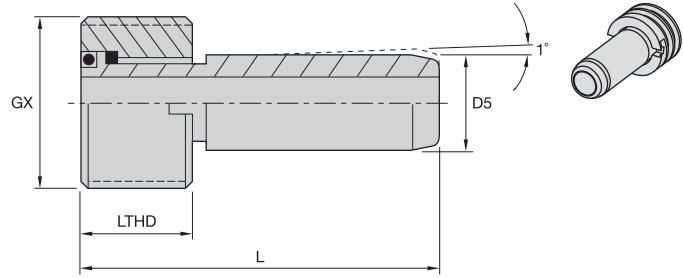
order number	catalog number	system size	D2		LU	
			mm	in	mm	in
1518662	HSK32SW	32	45	1.77	11	.43
1518630	HSK40SW	40	45	1.77	14	.55
1514497	HSK50SW	50	53	2.09	17	.67
1518677	HSK63SW	63	66	2.60	22	.87
1518681	HSK100SW	100	103	4.06	35	1.38

- Cleans taper of machine spindle and tool adapter.


ERICKSON
■ SW-ST

order number	catalog number	system size
1288838	SW30	30
1288842	SW40	40
1192562	SW50	50

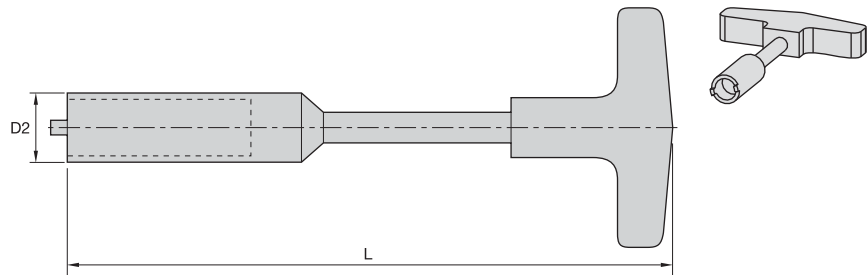
- Designed in accordance with DIN 69893.
- Withstand coolant pressure up to 80 bar (1,160 psi).
- Directs flow of coolant through the tool and avoids spindle mechanism contamination from flow-back.
- Standard-sized replaceable O-rings.



■ HSK Coolant Supply Unit • Assembly

order number	catalog number	system size	D5		L		LTHD		GX	Nm	ft. lbs.
			mm	in	mm	in	mm	in			
1132083	193.158	40A & 40E	8,0	.3	29,5	1.2	7,5	.30	M12 X 1	10	7
1132144	193.159	50A & 50E & 63F	10,0	.4	32,7	1.3	9,5	.37	M16 X 1	15	11
1132145	193.160	63A & 63T & 80F	12,0	.5	36,2	1.4	11,5	.45	M18 X 1	20	14
1132146	193.161	80A	14,0	.6	40,2	1.6	13,5	.53	M20 X 1.5	25	18
1132147	193.162	100A	16,0	.6	43,6	1.7	15,5	.61	M24 X 1.5	30	22

- Designed to lock and unlock the HSK coolant supply units.



■ HSK Wrench

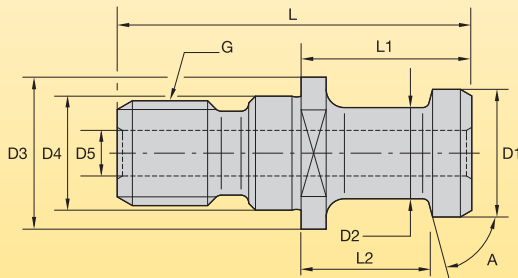
order number	catalog number	CSWS	D2		L		Nm	ft. lbs.
			mm	in	mm	in		
1176487	170.195	40A & 40E	13,0	.51	120	4.72	10	7
1132992	170.196	50A & 50E & 63F	14,5	.57	114	4.49	15	11
1134161	170.197	63A & 63T & 80F	16,5	.65	122	4.80	20	14
1127524	170.198	80A	19,0	.75	130	5.12	25	18
1132993	170.199	100A	22,0	.87	141	5.55	30	22



WARNING

Retention knobs are available in various styles and are not always interchangeable because all are machine and spindle specific. The proper retention knob must be used at all times with the appropriate adapter, according to machine specifications as provided by the machine's original manufacturer. Failure to use the correct retention knob, or to adequately install and tighten the correct retention knob, may result in an adapter loosening. Using a combination of metric and non-metric components can result in an inadequate coupling of the adapter to the spindle during machining, causing the component to fail.

While Kennametal has endeavored to obtain accurate and up-to-date information regarding retention knob selection based on individual machine tool builder specifications, we cannot guarantee that the information and specifications contained in this catalog are complete and that they have not been modified or superseded by the manufacturer. **You, the machine tool operator, are ultimately responsible for proper selection and use of retention knobs.** The purchase of retention knobs from Kennametal is subject to Kennametal's Standard Terms and Conditions of Sale.





Machining center manufacturers use numerous types and styles of retention knobs. Kennametal has listed some of the most popular retention knobs in the industry on the next few pages.

If a retention knob is not shown, please contact your Kennametal Representative or call Kennametal Customer Service and have the following information available:

machine builder	machine builder's drawing and/or numbers		machine model number	
taper size	G thread		A angle	
D1	D2	D3	D4	D5
L	L1	L2	through coolant needed?	O-ring needed?

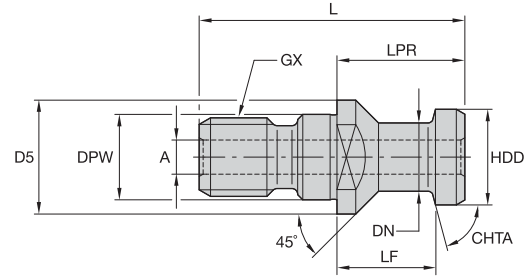
The machine builder should recommend the required tightening torque for the retention knobs. This information is not always available.

Kennametal has referenced a suggested maximum torque setting and offers a specialized socket just for retention knobs. Please see these socket wrench sizes listed against each knob.

	taper size	suggested torque max (ft. lbs.)	suggested torque max (Nm)	
	30	40	54	
	40	85	115	
	50	110	149	



- Metric thread.
- Piloted.
- Through coolant.



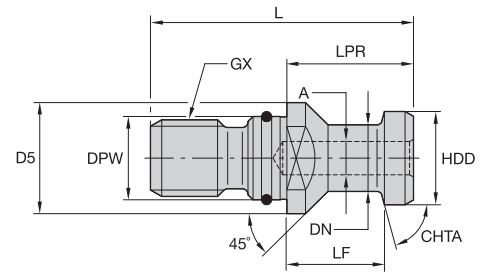
■ RK DIN 69872 Form A • Metric



order number	catalog number	system size	GX	A	CHTA	D5	DN	DPW	HDD	LF	LPR	L	wrench socket	Nm
1192424	RK40DVM	40	M16 X 2	7,05	75°	23	13,95	16,97	18,97	20,0	26,00	54	RKW40	115
1192430	RK50DVM	50	M24 X 3	11,55	75°	36	20,95	24,97	27,97	25,0	34,00	74	RKW50M	143

NOTE: WF = Width over flats for open-ended wrench or socket wrench.
For socket wrench, see page L51.

- Metric thread.
- Piloted with O-ring.
- No through coolant.



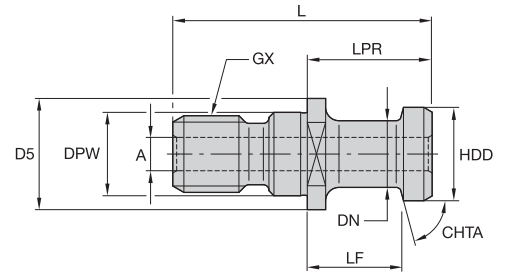
■ RK DIN 69872 Form B • Metric



order number	catalog number	system size	GX	A	CHTA	D5	DN	DPW	HDD	LF	LPR	L	wrench socket	Nm
1192423	RK40DVBM	40	M16 X 2	7,05	75°	22,9	13,95	16,97	18,97	20	26	54	RKW40	115
1192429	RK50DVBM	50	M24 X 3	11,55	75°	35,9	20,95	24,97	27,97	25	34	74	RKW50M	143

NOTE: WF = Width over flats for open-ended wrench or socket wrench.
For socket wrench, see page L51.

- Metric thread.
- Piloted.
- Through coolant.



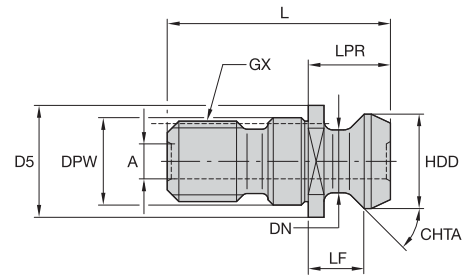
■ RK ISO 7388/2 Type A • Metric



order number	catalog number	system size	GX	A	CHTA	D5	DN	DPW	HDD	LF	LPR	L	wrench socket	Nm
1285460	RK40ISAM	40	M16 X 2	7,05	75°	22,9	13,95	16,99	18,95	20	26	54	RKW40	115
1285502	RK50ISAM	50	M24 X 3	11,55	75°	35,9	20,95	24,99	27,95	25	34	74	RKW50M	143

NOTE: WF = Width over flats for open-ended wrench or socket wrench.
For socket wrench, see page L51.

- Metric thread.
- Piloted.
- Through coolant.



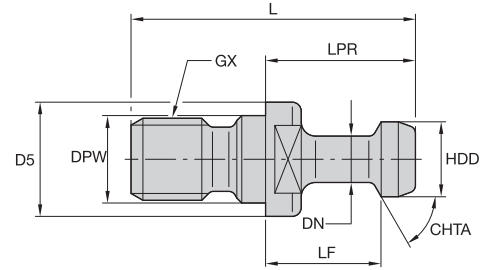
■ RK • ISO 7388/2 Type B • Metric



order number	catalog number	system size	GX	A	CHTA	D5	DN	DPW	HDD	LF	LPR	L	wrench socket	Nm
1192425	RK40ISBM	40	M16 X 2	7,5	45°	22	12,80	16,99	18,80	11,0	16,25	44,50	RKW40	115
1192431	RK50ISBM	50	M24 X 3	11,7	45°	36	19,45	24,99	28,95	17,8	25,40	65,50	RKW50M	143

NOTE: WF = Width over flats for open-ended wrench or socket wrench.
For socket wrench, see page L51.

- Metric thread.
- Piloted.
- No through coolant.



■ RK BT-MAS-Style with Pilot • Metric

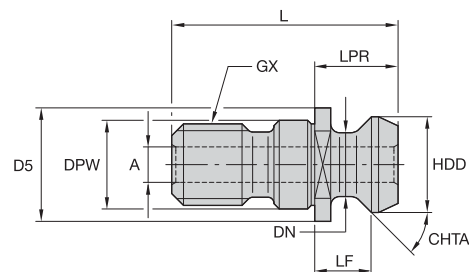


order number	catalog number	system size	GX	CHTA	D5	DN	DPW	HDD	LF	LPR	L	wrench socket	Nm
1192417	RK30BT1M	30	M12 X 1.75	45°	16,4	6,95	12,49	10,95	17,95	22,95	43,0	RKW30	54
1285416	RK30BT2M	30	M12 X 1.75	60°	16,4	6,95	12,49	10,95	17,95	22,95	43,0	RKW30	54
1192419	RK40BT1M	40	M16 X 2	45°	22,9	9,95	16,99	14,95	27,95	34,95	60,0	RKW40	115
1192420	RK40BT2M	40	M16 X 2	60°	22,9	9,95	16,99	14,95	27,95	34,95	60,0	RKW40	115
1285441	RK40BT3M	40	M16 X 2	90°	22,9	9,95	16,99	14,95	27,95	34,95	60,0	RKW40	115
1192426	RK50BT1M	50	M24 X 3	45°	37,9	16,95	24,99	22,95	34,95	44,95	85,0	RKW50M	143
1192427	RK50BT2M	50	M24 X 3	60°	37,9	16,95	24,99	22,95	34,95	44,95	85,0	RKW50M	143
1285482	RK50BT3M	50	M24 X 3	90°	37,9	16,95	24,99	22,95	34,95	44,95	85,0	RKW50M	143

NOTE: WF = Width over flats for open-ended wrench or socket wrench.
For socket wrench, see page L51.



- Metric thread.
- Piloted.
- Through coolant.



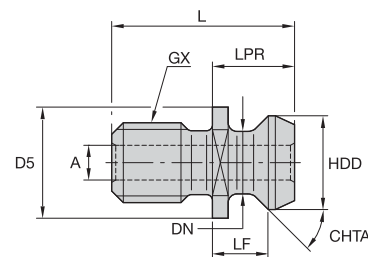
■ RK Short CV with Pilot • Metric



order number	catalog number	system size	GX	A	CHTA	D5	DN	DPW	HDD	LF	LPR	L	wrench socket	Nm
1192422	RK40CV3M	40	M16 X 2	7,14	45°	23,63	12,45	16,98	18,80	11,18	16,26	41,26	RKW40	115
1026734	RK50HPCV	50	M24 X 3	11,89	45°	36,32	20,83	24,99	28,96	17,78	25,40	65,41	RKW50	143

NOTE: WF = width over flats for open-ended wrench or socket wrench.
For socket wrench, see page L51.

- Metric thread.
- No pilot.
- Through coolant.



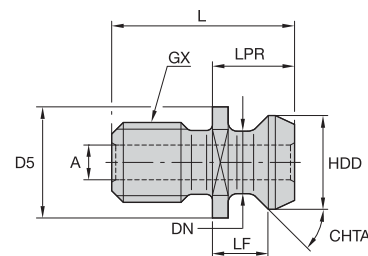
■ RK Short CV without Pilot • Metric



order number	catalog number	system size	GX	A	CHTA	D5	DN	HDD	LF	LPR	L	wrench socket	Nm
1192421	RK40CV1M	40	M16 X 2	6,95	45°	22,5	12,4	18,8	11,20	16,30	38,1	RKW40	115
1285478	RK50AV1M	50	M24 X 3	11,55	45°	37,0	19,6	29,1	17,95	25,55	60,0	RKW50M	143

NOTE: WF = width over flats for open-ended wrench or socket wrench.
For socket wrench, see page L51.

- Inch thread.
- No pilot.
- Through coolant.



■ RK Short CV without Pilot • Inch

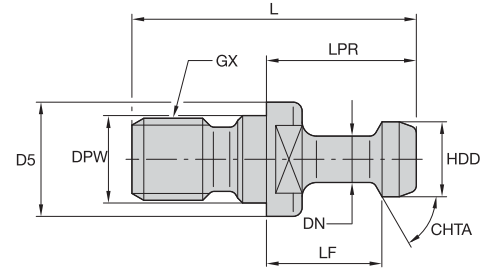


order number	catalog number	system size	GX	A	CHTA	D5	DN	HDD	LF	LPR	L	wrench socket	ft. lbs.
1026590	RK40CV	40	5/8 - 11	.281	45°	.900	.490	.740	.440	.640	1.500	RKW40	85
1026690	RK50CV	50	1 - 8	.500	45°	1.400	.820	1.140	.700	1.000	2.300	RKW50	110

NOTE: WF = width over flats for open-ended wrench or socket wrench.
For socket wrench, see page L51.



- Inch thread.
- Piloted.
- No through coolant.



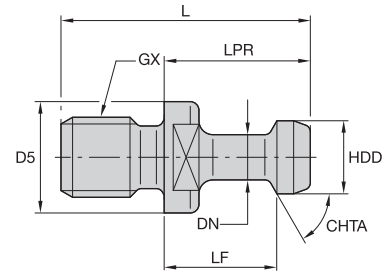
■ RK BT-MAS Style with Pilot • Inch



order number	catalog number	system size	GX	CHTA	D5	DN	DPW	HDD	LF	LPR	L	wrench socket	ft. lbs.
1026729	RK31114	40	5/8 - 11	45°	.938	.392	.636	.589	.988	1.264	2.250	RKW40	85
1025459	RK31114B	40	5/8 - 11	90°	.938	.392	.636	.589	.988	1.264	2.250	RKW40	85
1021844	RK31118	50	1 - 8	45°	1.438	.668	1.026	.903	1.384	1.778	3.355	RKW50	110
1021800	RK31118B	50	1 - 8	90°	1.438	.668	1.026	.903	1.384	1.778	3.355	RKW50	110

NOTE: WF = Width over flats for open-ended wrench or socket wrench.
For socket wrench, see page L51.

- Inch thread.
- Piloted.
- No through coolant.



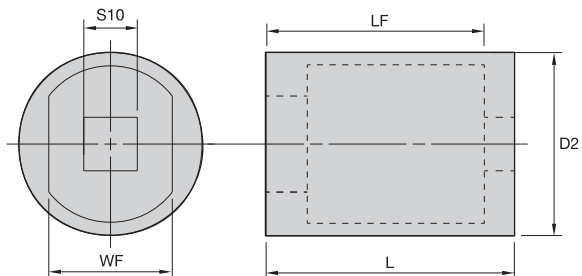
■ RK BT-MAS-Style without Pilot • Inch



order number	catalog number	system size	GX	CHTA	D5	DN	HDD	LF	LPR	L	wrench socket	ft. lbs.
1026730	RK32114	40	5/8 - 11	45°	.903	.392	.588	.990	1.266	2.125	RKW40	85

NOTE: WF = Width over flats for open-ended wrench or socket wrench.
For socket wrench, see page L51.

- Socket wrench with standard 1/2" drive to tighten retention knobs.


■ RK Socket • Metric

order number	catalog number	system size	D2	L	LF	S10		WF	Nm
						mm	in		
2407089	RKW40M	40	31,8	31,8	19,0	12,7	.50	18,1	115
2407091	RKW50M	50	44,5	60,3	47,6	12,7	.50	30,2	150

■ RK Socket • Inch

order number	catalog number	system size	D2	L	LF	S10	WF	ft. lbs.
2407088	RKW40	40	1.25	1.94	1.44	.50	.76	85
2407090	RKW50	50	1.75	1.63	1.12	.50	1.26	110

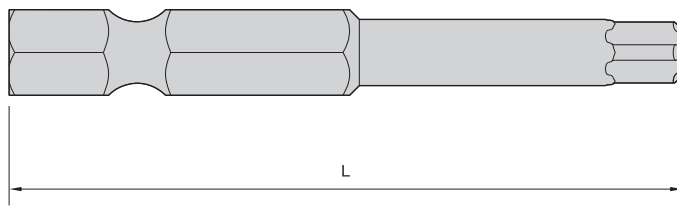




■ **KM Manual Torque Wrenches**

order number	catalog number	KM size	wrench type	adapter	adapter drive size	drive bit	driver hex size	driver bit size	torque (ft. lbs.)	torque (Nm)
1930183	TWT256R	12 & 1612	ratchet	—	—	BTE25IP	1/4"	25IP	5 - 6	7 - 8
1851809	TWT278R	16 & 2016	ratchet	—	—	BTE27IP	1/4"	27IP	7 - 8	10 - 11
3663411	TW515R	20 & 2520	ratchet	30137	3/8"	301.361	5/16"	5mm	14 - 16	19 - 22
2432682	TW628R	25 & 3225	ratchet	30137	3/8"	301.362	5/16"	6mm	25 - 30	34 - 40
1291313	TW58	32	solid	—	—	301.361	5/16"	5mm	6 - 8	8 - 11
1099387	TW610	40	solid	—	—	301.362	5/16"	6mm	9 - 12	12 - 16
1291314	TW58R	32	ratchet	30137	3/8"	301.361	5/16"	5mm	6 - 8	8 - 11
1291316	TW610R	40	ratchet	30137	3/8"	301.362	5/16"	6mm	9 - 12	12 - 16
1291318	TW623R	50	ratchet	AHB375M10	3/8"	—	—	10mm	20 - 25	27 - 34
1291312	TW1237R	63	ratchet	AHB500M12	1/2"	—	—	12mm	35 - 40	47 - 54
1121108	TW1460R	80	ratchet	EBM14	1/2"	—	—	14mm	58 - 63	79 - 85

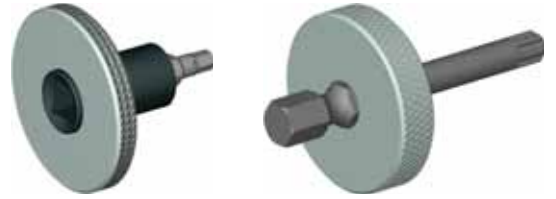
NOTE: All KM manual torque wrenches come complete with adapter and driver bit.



■ **Drive Bits**

order number	catalog number	KM size	L	driver hex size	driver bit size
2244316	BT25IP	12 & 1612	25	1/4"	25IP
2244318	BTE25IP	12 & 1612	50	1/4"	25IP
2244317	BT27IP	16 & 2016	25	1/4"	27IP
2244319	BTE27IP	16 & 2016	50	1/4"	27IP
3389747	301.361	20 & 2520	28,6	5/16"	5mm

(KM Manual Torque Wrenches continued)



■ Thumbwheels

order number	catalog number	KM size	driver	driver bit size
2906898	TBWL25IP	12 & 1612	1/4" Hex	25IP
2906899	TBWL27IP	16 & 2016	1/4" Hex	27IP
3746472	TBWL5H	20 & 2520	3/8" Square	5mm
3336459	TBWL6H	25 & 3225	3/8" Square	6mm



■ KM LOC and KM LOC II Wrench

wrench catalog number	drive hex bit			
	KM32	KM40	KM50	KM63
914-15	986-6 = hex size 6mm	986-8 = hex size 8mm	986-10 = hex size 10mm	986-10 = hex size 10mm



Accessories

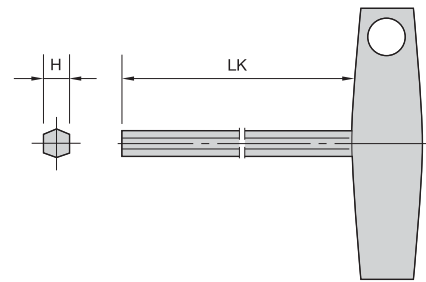
order number	drive hex bit catalog number
1863666	986-6
1131354	986-8
1131361	986-10

NOTE: Wrench and drive hex bit must be ordered separately.



■ Hex Wrench Set • Metric

order number	catalog number	wrench set description
1192354	MW-9	set contains (mm) 1,27; 1,5; 2,0; 2,5; 3,0; 4,0; 5,0; 6,0; and 8,0



■ T-Handle Hex Wrench • Metric

order number	catalog number	hex size
1138748	170.135	5mm
1138755	170.136	6mm

Accessories



■ T-Handle Wrench Set • Inch

order number	catalog number	wrench description
1192321	KW-7A	set contains sizes: 5/64, 3/32, 7/64, 1/8, 5/32, 3/16, and 7/32



■ Universal Bit Driver

order number	catalog number
1963869	driver

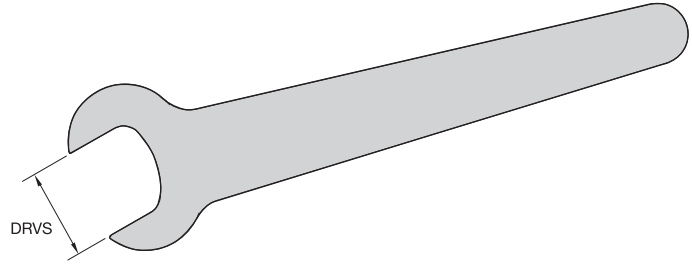


■ Driver Bit

order number	catalog number	hex size	Torx size	Torx Plus size
1138851	170.179	2,5mm	—	—
1150198	170.180	3mm	—	—
1138857	170.181	4mm	—	—
1962981	BT6	—	6	—
1963853	BT7	—	7	—
1963855	BT8	—	8	—
1963854	BT9	—	9	—
1963856	BT10	—	10	—
1138814	170.175	—	15	—
1138822	170.176	—	20	—
1994654	170.258	—	25	—
1984243	170.256	—	27	—
2244316	BT25IP	—	—	25IP
2244317	BT27IP	—	—	27IP



- Standard open-ended wrenches.



ERICKSON™

■ Wrench OEW • Metric

order number	catalog number	DRVS
1284020	OEW9M	9mm
1284011	OEW13M	13mm
1174217	OEW16M	16mm
1197387	OEW19M	19mm
1192371	OEW24M	24mm
1186649	OEW25M	25mm
1284014	OEW30M	30mm
1284015	OEW32M	32mm

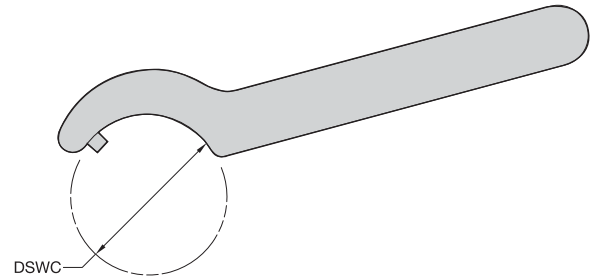
■ Wrench OEW • Inch

order number	catalog number	DRVS
1025533	OEW044	7/16
1025544	OEW050	1/8
1025546	OEW062	5/8
1025547	OEW068	11/16
1025548	OEW075	3/4
1025550	OEW088	7/8
1025551	OEW094	15/16
1025552	OEW100	1
1025553	OEW106	1 1/16
1025574	OEW112	1 1/8
1025575	OEW119	1 3/16
1025576	OEW125	1 1/4
1025674	OEW138	1 3/8
1025581	OEW150	1 1/2
1025582	OEW162	1 5/8
1025583	OEW168	1 11/16
1025604	OEW175	1 3/4
1025605	OEW188	1 7/8
1025607	OEW225	2 1/4
1025608	OEW250	2 1/2

Accessories



- Standard pin spanner wrenches.



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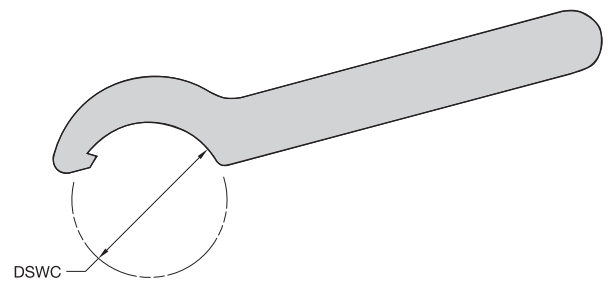
■ Wrench PSW • Metric

order number	catalog number	DSWC
3367387	PSW52M	58,0mm - 62,0mm
1284310	PSW58M	52,0mm - 55,0mm
1192392	PSW68M	68,0mm - 75,0mm
1284311	PSW80M	80,0mm - 90,0mm

■ Wrench PSW • Inch

order number	catalog number	DSWC
1013497	PSW350	3 1/2

- Standard hook spanner wrenches.



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■ Wrench HSW • Metric

order number	catalog number	DSWC
1273813	HSW25M	25,0mm - 28,0mm
1273814	HSW34M	34,0mm - 36,0mm
1192229	HSW45M	45,0mm - 50,0mm
1192230	HSW58M	58,0mm - 62,0mm
1273815	HSW68M	68,0mm - 75,0mm
1192231	HSW80M	80,0mm - 90,0mm



■ **Rapid and Rapid Plus Wrenches**

order number	catalog number	driver	length	Rapid KM size	Rapid Plus KM size
2030659	12146032300	3/8" Square	250	KM40™	—
2030660	12146032400	1/2" Square	250	KM50™	KM40 and KM50
2030661	12146032500	1/2" Square	400	KM63™	KM63

■ **Drive Sockets**

order number	catalog number	driver	hex size	Rapid KM size	Rapid Plus KM size
2031858	12146032600	3/8" Square	10	KM40	—
2031859	12146032700	1/2" Square	12	KM50	—
2031860	12146032800	1/2" Square	17	KM63	KM40
2067373	12146033500	1/2" Square	22	—	KM50 and KM63

NOTE: Wrench and drive socket must be ordered separately.





ERICKSON™ & KM™

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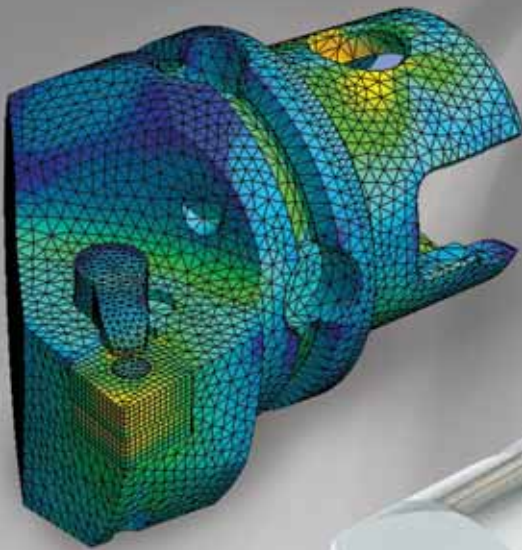
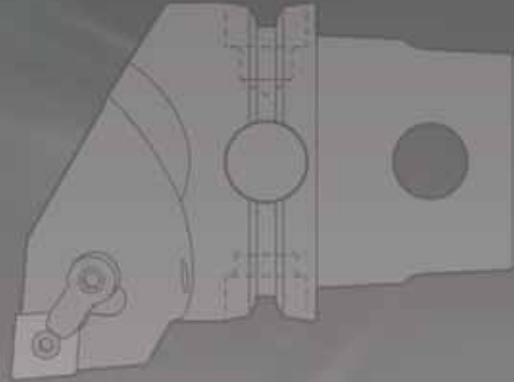
For hydraulic chucks — ERICKSON and KM — the industry names you can trust.

- Most accurate chuck, $\leq 3\mu\text{m}$ (.0001"), achieves maximum performance from your cutting edge.
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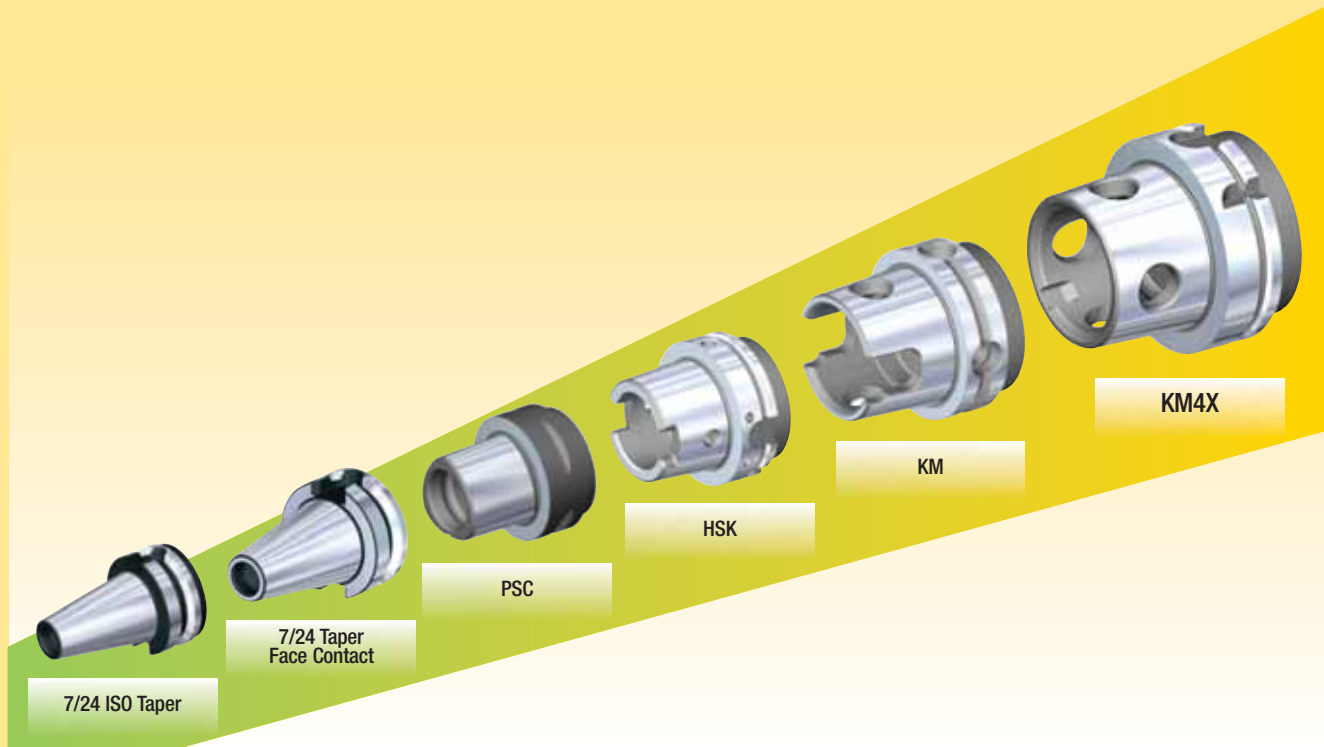
The Correct Spindle Connection and Application Guide

The Spindle Connection

Several different types of spindle connection have been developed or optimized over the last few decades. The 7/24 ISO taper became one of the most popular systems in the market. It has been successfully used in many applications, but its accuracy and high-speed limitations prevent it from growing further due to only having one surface of contact around the gage diameter/uppermost cone. The recent combination of face contact with 7/24 solid taper provides higher accuracy in the Z-axis direction, but this also presents some disadvantages, namely the loss in stiffness at higher speeds or high side loads. Most of these tools on the market are solid and the spindles have relatively low clamping force.

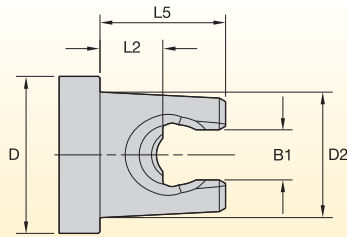
In 1985, WIDIA™ (Krupp WIDIA) and Kennametal initiated a joint program to further develop the concept of taper and face contact interface and a universal quick-change system — now known as KM™ and recently standardized as ISO 26622. The KM system has a very strong design, utilizing three surfaces of contact, the flange face, and lower as well as upper ring of contact of the cone. The polygonal taper-face connection, known as PSC, is now also standardized as ISO 26623, and in the early 1990s, the HSK system started being employed on machines in Europe and later became DIN 69893 and later ISO 12164 with two rings of contact. KM4X™ is the next generation of KM targeted at heavy-duty machining due to the combination of high interference and high clamping forces.

Technical Information



Taper Specifications

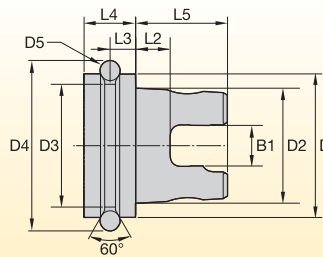
KM Micro™ and KM™ Mini



	D	D2	B1	L2	L5
KM12	12,0 .427	10,0 .394	4,2 .167	6,7 .264	13,0 .512
KM1612	16,0 .630	10,0 .394	4,2 .167	6,7 .264	13,0 .512
KM16	16,0 .630	12,0 .472	4,9 .193	7,1 .280	14,3 .562
KM2016	20,0 .787	12,0 .472	4,9 .193	7,1 .280	14,3 .562
KM20	20,0 .787	16,0 .630	6,6 .260	10,0 .394	18,0 .709
KM2520	25,0 .984	16,0 .630	6,6 .260	10,0 .394	18,0 .709
KM25	25,0 .984	20,0 .787	8,0 .314	10,0 .394	20,0 .787
KM3225	32,0 1.260	20,0 .787	8,0 .314	10,0 .394	20,0 .787

Taper Specifications

KM™ — ISO 26622-1

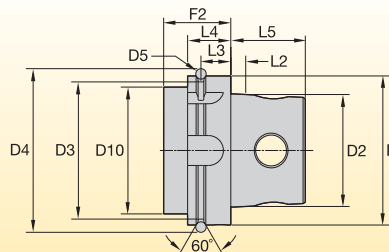


	D	D2	D3	D4	D5	L5	L2	L3	L4	B1
KM32TS	32,0 1.260	24,0 .945	29,0 1.142	36,45 1.435	3,5 0.138	20,0 0.787	8,0 1.102	4,9 0.193	10,0 0.394	9,0 0.354
KM40TS	40,0 1.575	30,0 1.181	37,0 1.457	44,45 1.750	3,5 0.138	25,0 0.984	11,0 0.433	5,89 0.232	12,0 0.472	10,1 0.398
KM50TS	50,0 1.969	40,0 1.575	42,7 1.681	59,4 2.339	7,0 0.276	32,0 1.260	12,0 0.472	8,9 0.350	16,0 .0630	14,1 0.555
KM63TS	63,0 2.480	50,0 1.969	55,7 2.193	72,4 2.850	7,0 0.276	40,0 1.575	18,0 0.709	9,9 0.390	18,0 0.709	16,1 0.634
KM80TS	80,0 3.150	64,0 2.520	72,7 2.862	89,4 3.520	7,0 .0276	45,0 1.772	18,5 0.728	11,0 0.433	22,0 0.866	20,1 0.791

NOTE: Valid for all KM styles including XMZ and ATC.

Taper Specifications

KM4X™



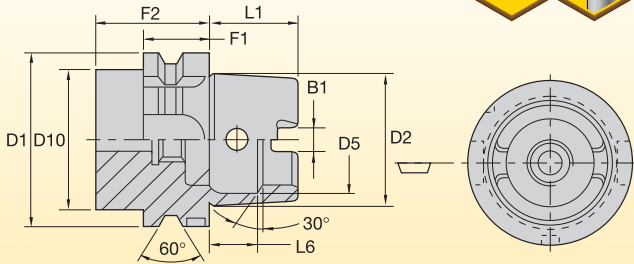
	D	D2	D3	D4	D5	D10 (max)	F2 (min)	L2	L3	L4	L5
KM4X63	63,0 2.480	48,0 1.890	55,0 2.165	72,2 2.843	7,0 .276	53,0 2.087	42,0 1.654	6,3 .248	18,0 .709	26,0 1.024	32,0 1.260
KM4X100	100,0 3.937	75,0 2.953	92,0 3.622	109,7 4.319	7,0 .276	85,0 3.346	45,0 1.772	10,0 .394	20,0 .787	29,0 1.142	50,0 1.969

NOTE: Valid for all KM styles including XMZ and ATC.



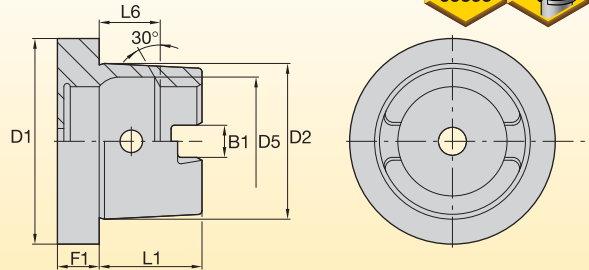
Taper Specifications

HSK — DIN 69893 Part 1, Form A



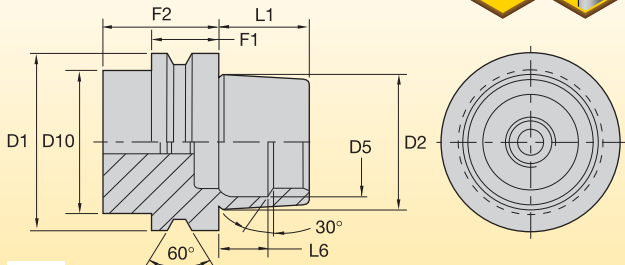
	D1 mm (h10)	D2 mm (ref)	D5 mm (h11)	D10 mm (max)	L1 mm (-0,2)	L6 mm (js10)	B1 mm (±0,04)	F1 mm (-0,1)	F2 mm (min)
40A	40	30	25,50	34	20	11,42	8,05	20	35
50A	50	38	32	42	25	14,13	10,53	26	42
63A	63	48	40	53	32	18,13	12,54	26	42
80A	80	60	50	67	40	22,85	16,04	26	42
100A	100	75	63	85	50	28,56	20,02	29	45

HSK — DIN 69893 Part 1, Form C



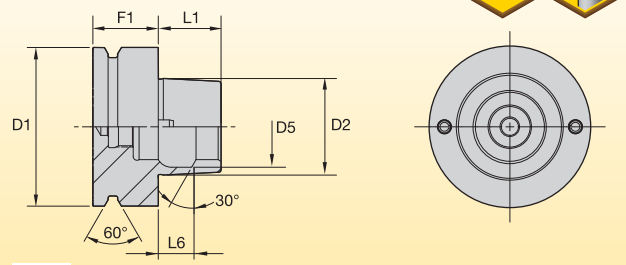
	D1 mm (h10)	D2 mm (ref)	D5 mm (h11)	L1 mm (-0,2)	L6 mm (js10)	B1 mm (±0,04)	F1 mm (-0,1)
32C	32	24	21	16	8,92	7,05	10
40C	40	30	25,50	20	11,42	8,05	10
50C	50	38	32	25	14,13	10,53	12,5
63C	63	48	40	32	18,13	12,54	12,5

HSK — DIN 69893 Part 5, Form E



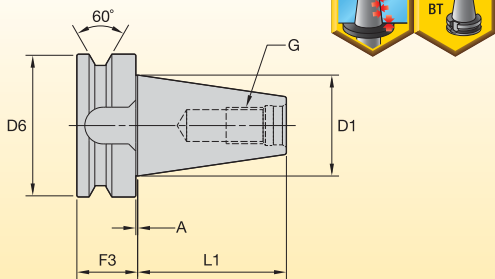
	D1 mm (h10)	D2 mm (ref)	D5 mm (h11)	D10 mm (max)	L1 mm (-0,2)	L6 mm (js10)	F1 mm (-0,1)	F2 mm (min)
40E	40	30	25,5	34	20	11,42	20	35
50E	50	38	32	42	25	14,13	26	42

HSK — DIN 69893 Part 1, Form F (with Pin)



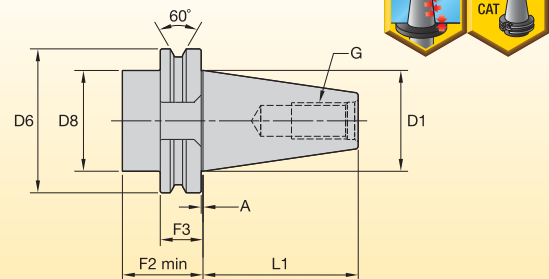
	D1 mm (h10)	D2 mm (ref)	D5 mm (h11)	L1 mm (-0,2)	L6 mm (js10)	F1 mm (-0,1)
63F (pin)	63	38	32	25	14,13	26
80F (pin)	80	48	40	32	18,13	26

BTKV — Taper Face



	D1	D6	L1	F3	A	G
40	44,45 (1.750)	63,00 (2.480)	65,40 (2.575)	27,00 (1.063)	1,00 (0,039)	M16 thread
50	69,85 (2.750)	100,00 (3.937)	101,80 (4.008)	38,00 (1.496)	1,50 (0,059)	M24 thread

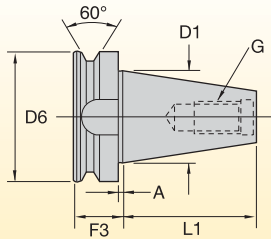
CVKV — Taper Face



	D1	D6	D8	L1	F2	F3	A	G
40	44,45 (1.750)	63,05 (2.500)	44,45 (1.750)	68,25 (2.687)	35,00 (1.375)	19,05 (0,750)	1,00 (0,039)	5/8-11 thread
50	69,85 (2.750)	98,41 (3.875)	69,85 (2.750)	101,60 (4.000)	35,00 (1.375)	35,00 (1.375)	1,50 (0,059)	1-8 thread

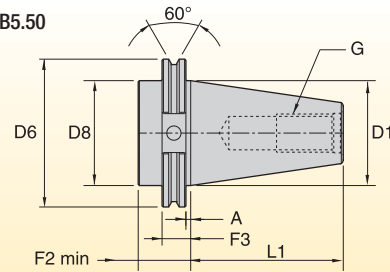
Taper Specifications

BT — JIS B6339



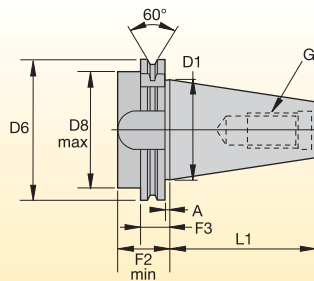
	D1	D6	L1	F3	A	G
30	31,75 (1.250)	46,00 (1.811)	48,40 (1.906)	22,00 (.866)	2,00 (.079)	M12 thread
35	38,10 (1.500)	53,00 (2.087)	56,50 (2.224)	24,00 (.945)	2,00 (.079)	M12 thread
40	44,45 (1.750)	63,00 (2.480)	65,40 (2.575)	27,00 (1.063)	2,00 (.079)	M16 thread
45	57,15 (2.250)	85,00 (3.346)	82,80 (3.260)	33,00 (1.299)	3,00 (.118)	M20 thread
50	69,85 (2.750)	100,00 (3.937)	101,80 (4.008)	38,00 (1.496)	3,00 (.118)	M24 thread

CAT (CV) — ANSI B5.50



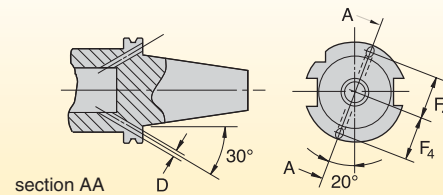
	D1	D6	D8	L1	F2	F3	A	G
30	31,75 (1.250)	46,02 (1.812)	31,75 (1.250)	47,63 (1.875)	35,00 (1.375)	19,05 (.750)	3,18 (.125)	1/2-13 thread
40	44,45 (1.750)	63,05 (2.500)	44,45 (1.750)	68,25 (2.687)	35,00 (1.375)	19,05 (.750)	3,18 (.125)	5/8-11 thread
45	57,15 (2.250)	82,50 (3.250)	57,15 (2.250)	82,55 (3.250)	35,00 (1.375)	19,05 (.750)	3,18 (.125)	3/4-10 thread
50	69,85 (2.750)	98,41 (3.875)	69,85 (2.750)	101,60 (4.000)	35,00 (1.375)	19,05 (.750)	3,18 (.125)	1-8 thread
60	107,95 (4.250)	139,70 (5.500)	107,95 (4.250)	161,93 (6.375)	38,10 (1.500)	19,05 (.750)	3,18 (.125)	1 1/7 thread

DV — DIN 69871



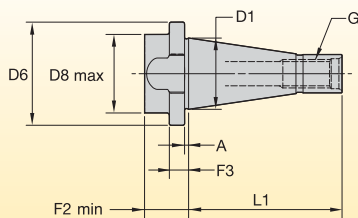
	D1	D6	D8 max	L1	F2 min	F3	A	G
30	31,75 (1.250)	49,95 (1.967)	45,00 (1.772)	47,65 (1.876)	35,00 (1.378)	19,05 (.750)	3,20 (.126)	M12 thread
40	44,45 (1.750)	63,00 (2.480)	50,00 (1.969)	68,25 (2.687)	35,00 (1.378)	19,05 (.750)	3,20 (.126)	M16 thread
45	57,15 (2.250)	82,00 (3.228)	63,00 (2.480)	82,55 (3.250)	35,00 (1.378)	19,05 (.750)	3,20 (.126)	M20 thread
50	69,85 (2.750)	97,45 (3.827)	80,00 (3.150)	101,60 (4.000)	35,00 (1.378)	19,05 (.750)	3,20 (.126)	M24 thread

Form B — Flange Coolant Entry Ports



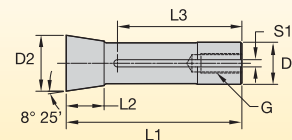
	D	F4 ±0.004
30	4,00 (.157)	21,00 (.827)
40	4,00 (.157)	27,00 (1.063)
45	5,00 (.197)	35,00 (1.378)
50	6,00 (.236)	42,00 (1.654)

QC — ERICKSON™ Quick Change



	D1	D6	D8 max	L1	F2 min	F3	A	G
30	31,75 (1.250)	46,03 (1.812)	35,05 (1.380)	68,33 (2.690)	19,81 (.780)	10,69 (.421)	1,96 (.077)	1/2" - 13 UNC - 2B
40	44,45 (1.750)	63,50 (2.500)	50,80 (2.000)	93,73 (3.690)	20,83 (.820)	9,88 (.389)	1,93 (.076)	5/8" - 11 UNC - 2B
50	69,85 (2.750)	88,90 (3.500)	73,66 (2.900)	127,00 (5.000)	30,73 (1.210)	15,09 (.594)	3,58 (.141)	1" - 8 UNC - 2B

R8 — Bridgeport

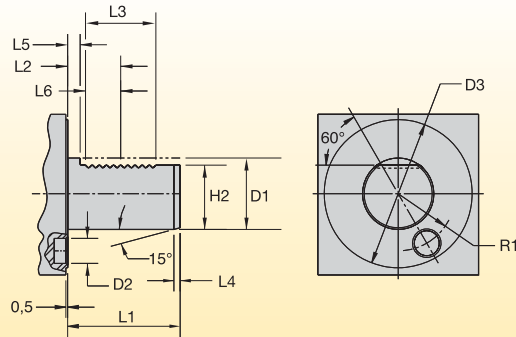


	D1	D2	L1	L2	L3	S1	G
R8	.469	1.241	4.000	.938	2.750	.157	7/16-20 UNF - 2B



Shank Specifications

VDI — DIN 69880



	D1	D2	D3	L1	L2	L3	L4	L5	L6	H2	R1
30	30,00 1.181	14,00 0.551	68,00 2.677	55,00 2.165	29,70 1.169	40,00 1.575	2,00 0.079	7,00 0.276	20,00 0.787	27,00 1.063	25,00 0.984
40	40,00 1.575	14,00 0.551	83,00 3.268	63,00 2.480	29,70 1.169	40,00 1.575	3,00 0.118	7,00 0.276	20,00 0.787	36,00 1.417	32,00 1.260
50	50,00 1.969	16,00 0.630	98,00 3.858	78,00 3.071	35,70 1.406	48,00 1.890	3,00 0.118	8,00 0.315	24,00 0.945	45,00 1.772	37,00 1.457
60	60,00 2.362	16,00 0.630	123,00 4.843	94,00 3.701	43,70 1.720	56,00 2.205	4,00 0.157	10,00 0.394	28,00 1.102	55,00 2.165	48,00 1.890



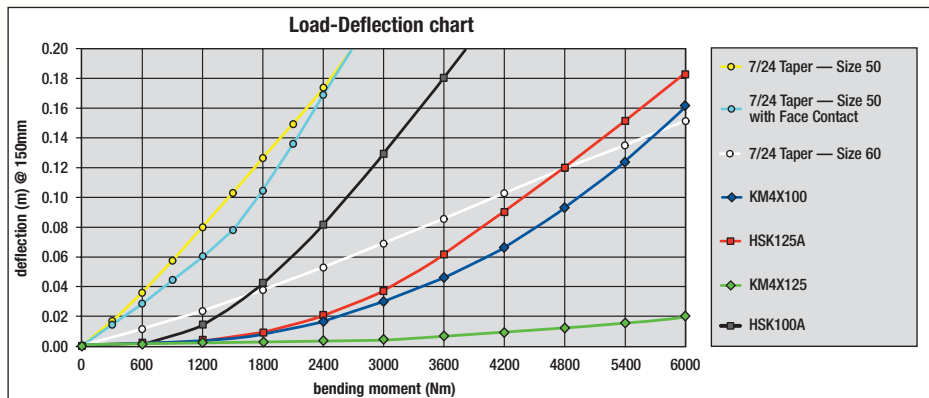


KM4X™

The Latest Innovation in Spindle Interface Technology!

Dramatically increase your metal removal rates when machining high-temperature alloys!

- Run jobs at significantly faster feeds and speeds than is achievable with other spindle interfaces.
- Unique use of clamping force and interference level increases clamping capability 2 to 3 times.
- You experience lower cost of ownership, increased throughput, and superior results.



To learn more, *scan here.*

For instructions on how to scan, please see page xxxiii.



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www.kennametal.com



The Importance of a Strong Connection

Many component materials are switching to lighter, high-strength materials, like titanium, to increase fuel efficiency. To save time and money, machinists are challenged to maximize metal removal rates at low cutting speeds and considerably higher cutting forces. Machine tool builders must also provide greater stiffness and damping in their spindles to minimize undesirable vibrations that deteriorate tool life and part quality.

Though these advances contribute to greater productivity, the weakest point is often the spindle connection itself, which needs high torque and must overcome high-bending applications.

Our response to this traditionally weak point has been the proven KM™ system, and now we are introducing the next generation KM4X™. The combination of the KM4X's high clamping force and interference level lead to a robust connection and extremely high stiffness and bending load capacity for unmatched performance in titanium machining.

Current Spindle Connections

To fulfill the increasing demand for high productivity, an important element to consider is the tool/spindle connection. This interface must be able to withstand high loads and maintain rigidity throughout the machining process. In most cases, the connection determines how much material can be removed on a given operation until high tool deflection or chatter result.

High-performance machining is accomplished using high feeds and depths of cut. Because of advances in cutting tools, there is a need for spindle connections that utilize available power.

Several different types of spindle connections were developed and/or optimized over the last few decades. Due to its strong cost/benefit position, the 7/24 ISO taper became one of the most popular systems on the market. It has been successfully used in many applications, but its accuracy and high-speed limitations prevent it from becoming a more advanced and productive system.

The advent of face contact represented a major step over the standard 7/24 taper. Combining face contact with a 7/24 solid taper provides higher accuracy. However, this also presents some disadvantages. Loss of stiffness at higher speeds or high side loads are some of the major flaws apparent in this system. Most of these tools are solid, and the spindles have relatively low clamping force.

This results in limited connection stiffness, as radial interference needs to be minimal. The required tolerances to achieve consistent face contact are thus very tight, leading to high manufacturing costs.

Choosing What's Right

With more materials that are tougher to machine and require considerably higher cutting forces from the machine tool, choosing the spindle interface wisely to maximize cutting edge performance is key to success.

The KM spindle connections greatly outperform the conventional 7/24 steep taper and its face taper contact derivatives HSK and PSC systems. KM4X is the best large, heavy-duty spindle connection for rigidity because it has superb balance between bending and torsion capabilities from the machine tool.

7/24 ISO Taper



- One surface contact.
- Relatively low stiffness.
- Possible runout due to taper fitment.
- Low axial accuracy.

7/24 Taper Face Contact



- Two surface contact.
- Higher static and dynamic stiffness.
- Higher axial and radial accuracy.
- Rigid system.

HSK



- Two surface contact.
- Higher axial and radial accuracy.
- Less mass — faster quick change and higher speeds.
- Higher stiffness than 7/24 tapers.

KMTS (ISO)



- Three surface contact.
- Superior static and dynamic stiffness.
- Static and rotating applications.
- Higher speed.
- Higher stiffness than HSK and 7/24 tapers.

KM4X



- Three surface contact.
- Superior static and dynamic stiffness.
- Static and rotating applications.
- Highest maximum speed.
- ISO (HSK) Gripper.

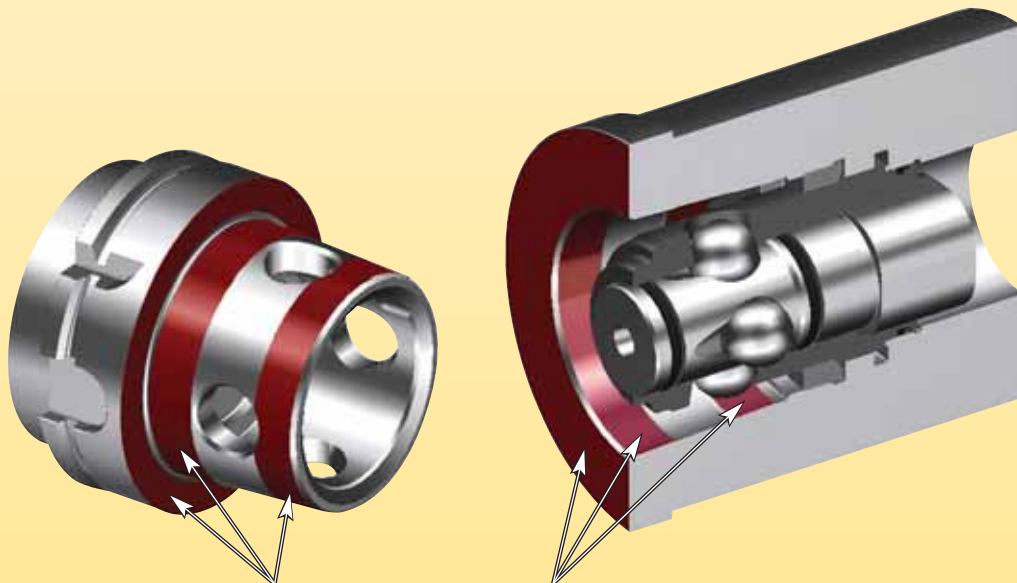
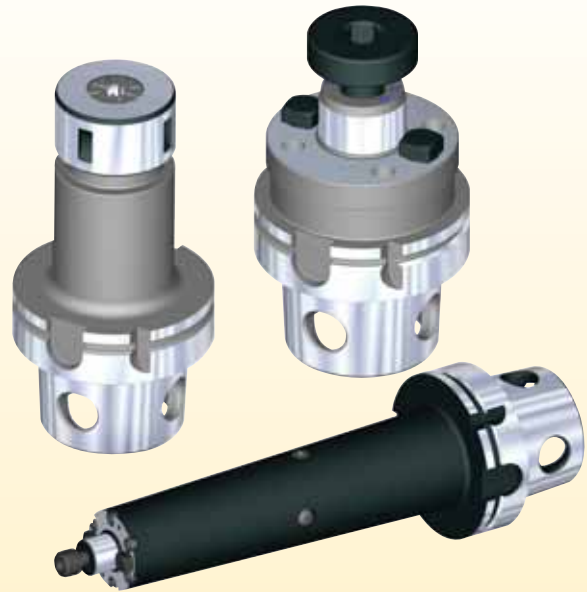
KM4X™ — The Next Generation Spindle Connection System

As a global tooling supplier and a true customer support partner, we recognize the need to offer tooling products for all spindle interfaces and make available solutions to provide the best cutting edges to gain maximum productivity at the spindle system connection.

KM4X is the latest version of the KM™ spindle interface targeted at heavy-duty machining operations and is a top choice for machining large, structural tough-to-machine materials like titanium for the aerospace industry.

The Latest Innovation in Spindle Interface Technology

- KM4X offers the most rigid connection able to withstand extremely high bending due to a combination of high interference and high clamping forces.
- KM4X provides 3x more bending capacity than comparable face contact systems.
- KM is the only connection that maintains stiffness at elevated rotational speeds and is suitable for a range of applications from low speeds with high torque to very high spindle speeds with low torque.
- KM4X maintains a better balance between bending and torsion capabilities.
- The ability to retrofit KM4X to an existing machine tool offers the added advantage of increasing throughput.
- Heavy-duty, rigid configuration with evenly distributed clamping force.
- Simple design enables front-loaded spindle configuration.
- Balanced-by-design for high spindle speed capacity.



KM4X three-surface contact for improved stability and accuracy.
Optimized clamping force distribution and interference fit provides higher stiffness.

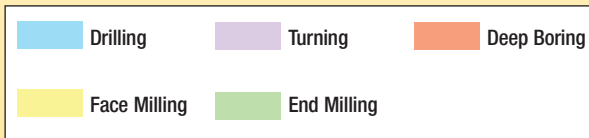
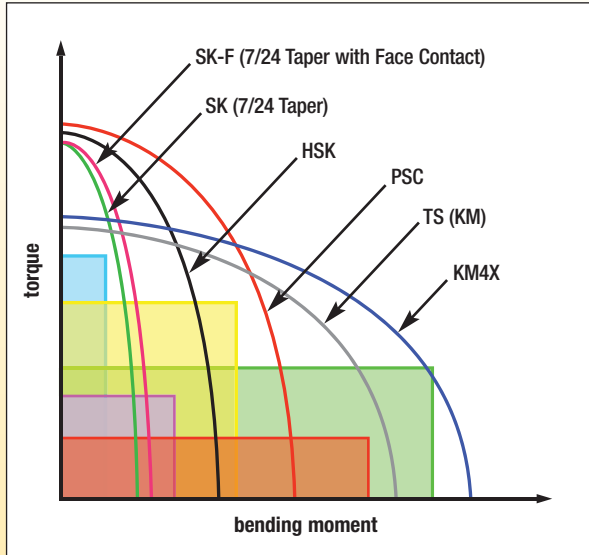


Why Bending Load Capacity Is Important

When machining tough materials like titanium, cutting speeds are relatively low due to thermal effects on cutting tools. Over the years, machine tool builders responded to this issue by improving stiffness and damping on spindles and machine structures. Spindles have been designed with abundant torque at low rotational speeds. Nevertheless, the spindle connection has remained the weak link in the system.

The spindle connection must provide torque and bending load capacity compatible with the machine tool specifications and the requirements for higher productivity. It becomes obvious that in end-milling applications where the projection lengths are typically greater, the limiting factor is the bending load capacity of the spindle interface.

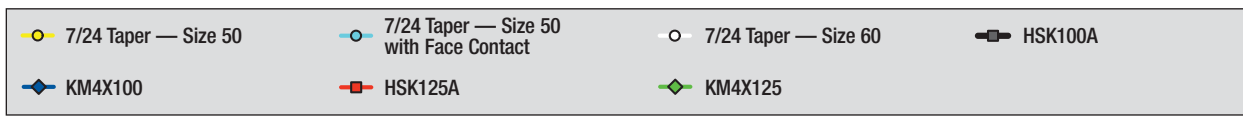
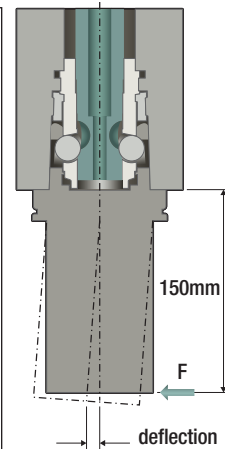
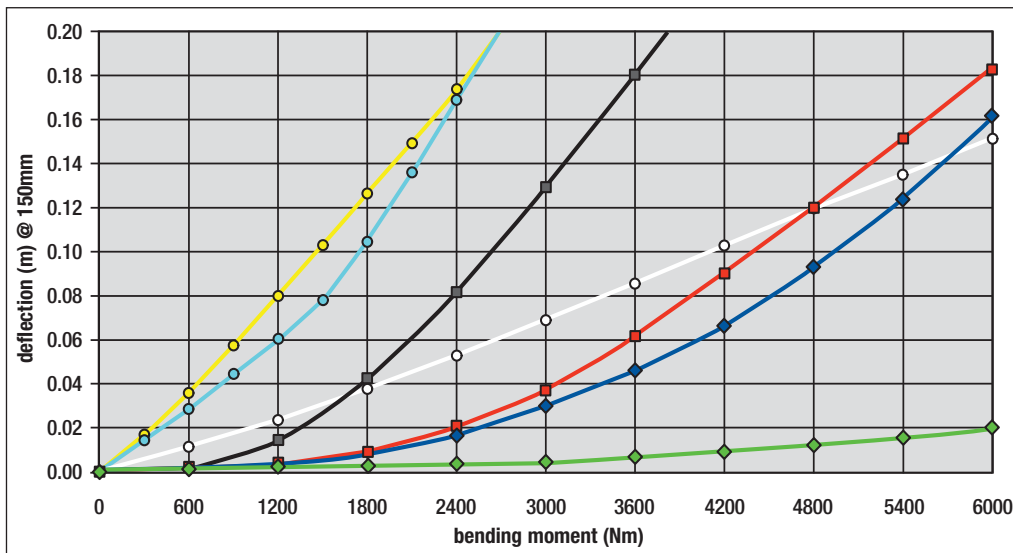
The lines on the chart to the right represent the load capacity of HSK, PSC, and KM4X. The shaded areas represent the typical requirements for heavy-duty applications in various machining processes. KM4X is the only system that can deliver the torque and bending capacity required for achieving high-performance machining. Some systems may be able to transmit considerable amounts of torque, but the cutting forces also generate bending moments that exceed the interface's limits before torque limits are exceeded.



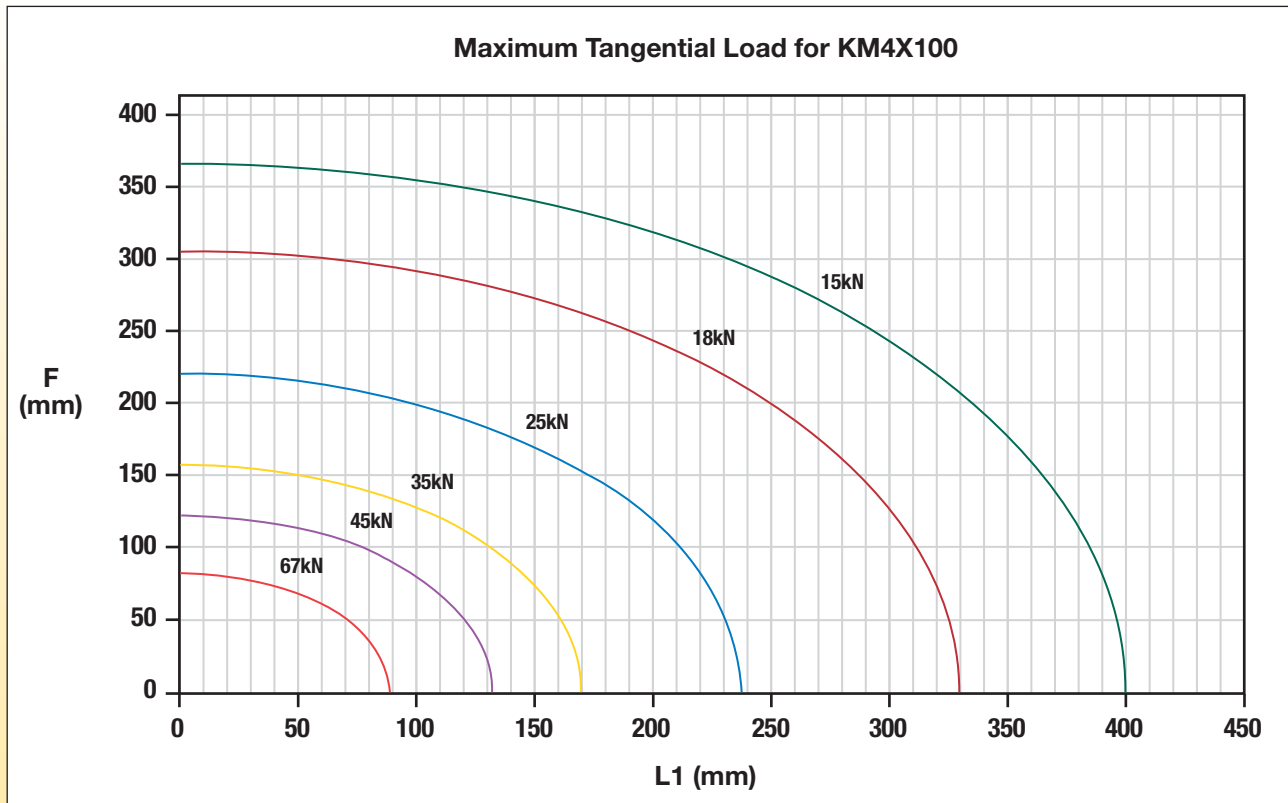
IMPORTANT

Information shown on the following charts was developed exclusively for use with KM tooling in static conditions. Do not use for any other tooling system because the results will not apply. To account for cutting force fluctuations in dynamic conditions, a reduction of 20–30% should be applied to the loads shown in charts.

Chart shows load-deflection comparison of steep taper with and without face contact — HSK and KM4X.



Technical Information



The KM4X system is the best large, heavy-duty connection. A weak connection can fail to deliver the desired cutting edge performance. KM4X superior rigidity equals maximum productivity.

IMPORTANT

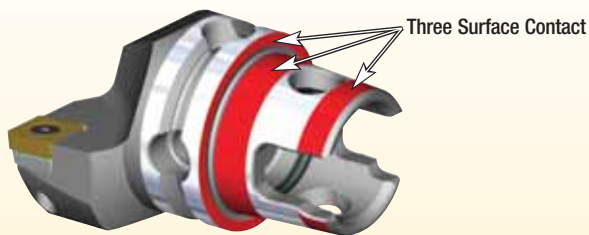
Information shown on the following charts was developed exclusively for use with KM tooling in static conditions. Do not use for any other tooling system because the results will not apply. To account for cutting force fluctuations in dynamic conditions, a reduction of 20–30% should be applied to the loads shown in charts.



The KM Coupling

The KM Quick Change Clamping System is the first step in achieving maximum machine output. Please refer to the Kennametal Machine Utilization Strategy for more information on how we can help you increase your machine throughput. The KM joint achieves rigidity and stiffness by combining unique design elements in both the shank of the tool and the clamping mechanism. The KM joint was developed as a system and takes full advantage of both the tool shank and the mechanism to obtain maximum benefits from the space utilized.

Face and Taper Contact



KM tooling is designed to have simultaneous taper and face contact. Previous efforts to achieve this were concentrated on steep taper applications. However, due to the relatively large angle of the taper, extremely tight tolerances are required on the gage diameters of both the tool and receptacle. The KM taper was designed to avoid these tight tolerances by selecting shallower taper angles that enable elastic deformation of both the taper shank and receptacle during clamping. It also permits larger interference levels* to be used while still achieving taper and face contact during clamping. These interference levels, when combined with the proper clamping force, provide superior static and dynamic stiffness. The system's interference capability enables the use of lower tolerance levels for gage diameters.

The taper and face contact feature provides a radial and axial repeatability of $\pm 2,5 \mu\text{m}$ ($\pm .0001''$) for a specific cutting unit in a specific clamping unit. When more than one unit is utilized, the manufacturing and component tolerances of each must be considered. Pre-gaging cutting units before they are used enables the deviations of each tool tip location to be recorded. These deviations can be compensated for by the machine tool control offsets. Checking for deviations prior to use means the first part manufactured will be a good part.

*The difference between the gage diameters of the receptacle and the taper shank.

Rigidity

All KM tooling is designed around a short 10:1 tapered shank. Extensive testing of many different lengths, angles, and interference levels provided the optimum combination of dimensions with regard to maximum stiffness. The taper is self-centering, promoting easy tool loading in both manual and automatic applications.

The three-zone contact and the ball track clamping mechanism produces a coupling that closely approaches the ultimate rigidity of a solid piece.

Clamping Mechanism

The KM clamping mechanism is housed inside of the taper shank, which contains two angled holes that function as ball tracks. A cylindrical ball canister fits inside of the taper shank, where wedge shaped forms on a central lock rod force two hardened steel balls outward. The steel balls interact with the angled holes in the tapered shank to produce clamping force. The combination of the angle in the taper shank, the angle of the canister holes, and the lock rod angle produce a measured mechanical advantage that varies between 3.5:1–7:1. The standard manual side activation mechanism has a mechanical advantage of 3.5:1 and fits into the system size diameter.

Locking Sequence

The clamping sequence starts by inserting the cutting unit into the female taper of the clamping unit. The cutting unit first makes contact at a standoff from the face of approximately 0,25mm (.010"). The cutting unit advances until the gage face makes contact with the clamping unit face, where a small amount of elastic deformation takes place at the front of the female taper as locking force is applied. The final amount of torque applied enables the tail of the cutting unit to clamp securely between the steel balls and the clamping unit inside diameter.

Sealed Coolant

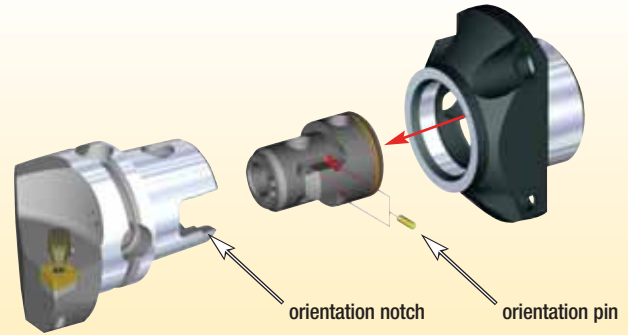
Sealed through-the-tool coolant is offered on all standard KM tooling and clamping units. The coolant is sealed using O-rings in both the cutting units and clamping units. This feature ensures that coolant is directed as close as possible to the cutting edge while preventing contaminants from entering the clamping mechanism. Standard Viton® O-rings are utilized on KM.

Fail-Safe Tool Orientation

A unique feature of KM clamping is the ability to ensure that the KM cutting unit can only be installed in one orientation. The direction of this orientation feature can be changed within the clamping unit. To allow greater flexibility, standard KM clamping units are shipped without this feature installed. For more details on this feature, refer to the KM operating instructions section.

Metric Slotted Pins:

- KM32TS — 2,5mm x 4mm Long
- KM40TS — 3mm x 6mm Long
- KM50TS — 4mm x 8mm Long
- KM63TS — 5mm x 10mm Long
- KM80TS — 5mm x 10mm Long
- KM63XMZ — 5mm x 10mm Long
- KM80ATC — 5mm x 10mm Long



Accuracy and Repeatability

Accuracy and repeatability of the coupling are shown in the table below. Accuracy is measured over a gage insert in different cutting units changed in and out of a clamping unit. Accuracy will decrease with inserts of varying tolerances and nose radii. Station-to-station accuracy on a turret requires that all clamping units be set in the same position on the machine tool mechanically or that variations are recorded as offsets in the machine control. Repeatability is measured over the nose radius of a cutting unit through many cycles of changing the cutting unit in and out of a clamping unit.

	accuracy	repeatability
axial	0,13mm (+/- .005")	0,0025mm (+/- .0001")
radial	0,13mm (+/- .005")	0,0025mm (+/- .0001")
cutting edge height	0,4mm (+/- .016")	0,025mm (+/- .001")

Summary

KM coupling offers a very rigid joint with a high degree of repeatability while maintaining a compact envelope. This permits a high degree of versatility without sacrificing cutting performance.



HSK Quick-Reference Identification

HSK hollow-stub taper shanks are a widely used DIN standard for machine tools. HSK tools have a simultaneous 1:10 taper, which generates two surface contact areas: face and taper. Compared with traditional steep-taper shanks, HSK shanks are shorter, hollow, and clamp from the inside. They also incorporate drive keys that engage milled key-slots in machine spindles and offer higher static and dynamic stiffness than standard steep taper tooling.

HSK tooling includes seven toolholder shank forms: A, B, C, D, E, F, and T. Various machine-spindle receivers are available for each. However, the choice of form depends on application requirements such as torque and spindle speed.



HSK-A
 for general-machining service

Form A

Form A for automatic tool change is the most common shank, typically used on new machining centers and for general service. Form A has a drive slot in the small end of the tapered shank and features coolant through the center, using a coolant tube thread mount inside the shank cavity. In many applications, wrench access holes are provided through the taper as an option for manual clamping and automatic tool change shanks. Form A shanks have mounting holes for an electronic chip.

There are eight different sizes of form A ranging from 32–160mm (1.260–6.299") flange diameter.



HSK-B
 greater flange support than form A
 for heavier work

Form B

Form B is also for automatic tool change. It is similar in appearance to form A but dimensionally different. Form B provides greater flange support for heavy machining, even though its taper shank size is smaller than form A. This style of shanks have drive slots in the flange and drive keys in the taper. Coolant for form B is fed through ports in the flange. Mounting holes for an electronic chip are also a feature of form B.

For form B there are seven different shank sizes from 40–160mm (1.575–6.299") flange diameter.



HSK-C
 similar to form A but for manual tool
 change applications

Forms C and D

Forms C and D for manual tool changes are variations of forms A and B, but the gripper groove and chip holes are eliminated. These two forms always have their access holes through the taper for manual clamping. These manual forms are typically used on transfer lines and non-rotating applications for NC lathes.



HSK-D
 similar to form B but for manual tool
 change applications

There are six different shank sizes for form C ranging from 32–100mm (1.260–3.937") flange diameter. Form D has five different shank sizes from 40–100mm (1.575–3.937") flange diameter.

(continued)

HSK Quick-Reference Identification *(continued)*



HSK-E
balanced-by-design for higher speeds



HSK-F
balanced-by-design with greater flange support for higher speeds



HSK-T

Forms E and F

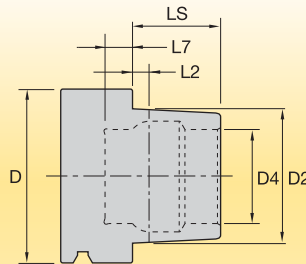
Forms E and F with automatic tool change are also variations of forms A and B. These forms are intended for high-speed machining. Design features, such as drive slots, the orientation notch, and chip holes, have been removed to help eliminate imbalance. As a result, these forms are driven by the locking taper and are suitable only for light machining applications such as high-speed metalcutting and woodworking machines.

Form E offers five different shank sizes ranging from 25–63mm (.984–2.480") flange diameter. There are three shank sizes for form F from 50–80mm (1.969–3.150") diameter on the flange.

Form T

Form T shanks are similar to form A, but with tighter key ways for turning. This gives form T improved repeatability over form A. These shanks have new centerline technology for variance and high productivity. They are also available in a wide range of standard toolholders.

HSK Primary Offering



flange diameter D										
forms A and T	form B	form C	form D	form E	form F	D2 mm	D4 mm	LS mm	L2 mm	L7 mm
-	-	-	-	25	-	19	14	13	2,5	6
32	40	32	40	32	-	24	17	16	3,2	8
40	50	40	50	40	50	30	21	20	4	8
50	63	50	63	50	63	38	26	25	5	10
63	80	63	80	63	80	48	34	32	6,3	10
80	100	80	100	-	-	60	42	40	8	12,5
100	125	100	-	-	-	75	53	50	10	12,5
125	160	-	-	-	-	95	67	63	12,5	16
160	-	-	-	-	-	120	85	80	16	16

 Kennametal primary offering
 Secondary styles available upon request



7/24 Taper Face Contact V-Flange — Tooling to Fit the BIG-PLUS™ Spindle

The 7/24 Taper Face Contact Spindle Interface, is being found on machining centers and multitasking machines. The basic principle of this system takes the standard 7/24 steep-taper tool and adds material to the back face of the toolholder flange as well as to the front face of the spindle. This is controlled so that the two parts have both face and taper contact when locked into position. The distinctive features of the system are the lead-in chamfers on the drive slots and ground back V-flange. The surface contact creates a system with higher static and dynamic stiffness compared to a regular 7/24 taper and increased axial and radial accuracy.

Capable of being utilized in a variety of machining applications ranging from low-speed, heavy milling applications to high speeds greater than 20,000 RPM. The systems accuracy, repeatability, and stability should be equal or greater to the performance of current equivalent Taper Face tooling on the market in all applications.

Technology

With the Taper Face System, toolholders are axially supported on the taper and flange face, which brings about higher rigidity and precision than a conventional 7/24 toolholder. The system utilizes elastic deformation of the machine spindle to achieve simultaneous fitting of both the taper and flange face. Although the tapers are fit prior to clamping the mechanism, the faces are not yet secured because of a small amount of clearance between them. When the toolholder is pulled in by the drawbar mechanism, the machine spindle expands by elastic deformation and the faces are fit, completing the simultaneous fit between both taper and face. This synchronized fit prevents additional axial displacement of the taper providing high accuracy and superior surface finish in operations such as face milling, compared to the industry standard 7/24 V-flange.



Taper face tool's axial position is maintained even at high rotational speed.

Offering

Kennametal supports both the CAT (CV) ANSI B5.50 and BT JIS B6339 versions in 40 and 50 taper sizes:

- Two surface contact.
- Higher static and dynamic stiffness.
- Higher axial and radial accuracy.
- Rigid system.



- CVKV40
- CVKV50



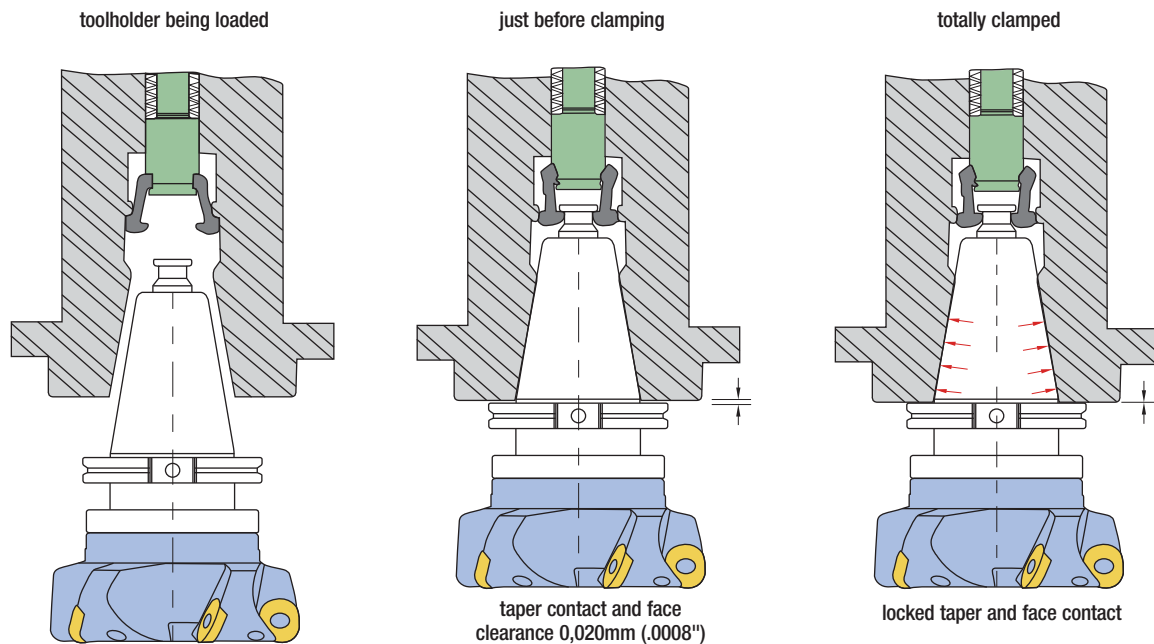
- BTKV40
- BTKV50

Clamping Mechanism

In some cases, standard 7/24 steep-taper tooling can be used in a face contact 7/24 taper spindle. However, the combination does not offer the same stability or advantages of face contact. As a caution, some spindles have a safety switch that shuts the spindle down if face contact is not achieved. In these cases, tools will need taper face contact for the spindle to operate.

Similar to all interfaces with face contact, special care should be taken regarding the cleanliness of the mating faces as high contact pressures are present. Adequate filtration systems for coolant must be used.

Locking Principle



Steep Taper V-Flange



Steep taper Form B coolant

Taper Size

Taper size should be chosen with realistic considerations. When selecting cutting parameters, keep in mind that a machine with a 30 taper spindle will not achieve the same heavy cuts or use cutters as large those on a 50 taper machine.

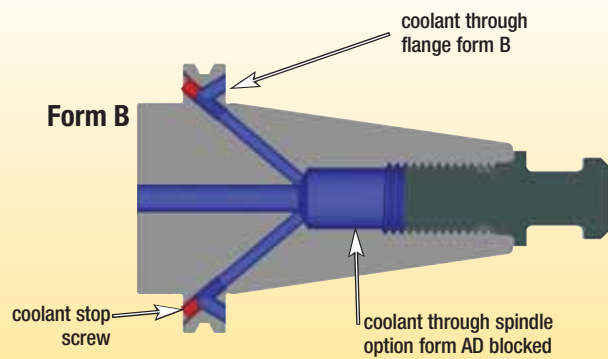
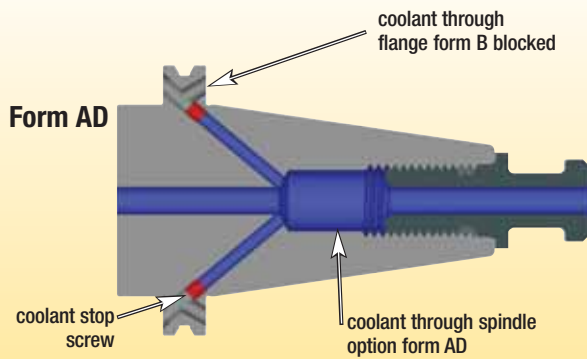
Pull-Back System

When troubleshooting a problem, assume that the toolholder is at fault is not the correct course of action. The spring pack, drawbar, gripper, and retention knob are major components for the successful operation of a machine tool because wear or breakage of these parts is a major concern.

- **Spring pack** — Can become weak or out of adjustment. This can cause chatter during a milling operation, which causes damage to the adapter taper, spindle taper, cutter, or workpiece.
- **Gripper fingers** — If worn, they may not grip the retention knob correctly, enabling the adapter to move, resulting in chatter and damage to the adapter.
- **Retention knob** — A worn or incorrect retention knob will not enable proper gripping for pull back on the taper. This is a very serious safety hazard due to the movement of the adapter. Using an improper knob may result in a lack of any detectable gripping force.

Form B Coolant

Spindles are now running at higher rates — quickly burning seals, making it difficult to seal coolant as it passes through the drawbar. One option is to direct the coolant around the spindle bearings and enter through the spindle face and toolholder flange.



Kennametal™ toolholders are positioned in the AD coolant form with self-sealing, nylon-coated screws. The coolant screws are designed to completely seal the tool and prevent coolant leakage under pressures up to 1500 psi. However, if form B coolant is desired, the coolant stop screws must be backed out into the form B position.

Form B toolholders can be converted back through the drawbar form AD by simply threading the coolant stop screw and stopping below the flange coolant entry hole. Changing coolant form can be achieved many times before it is necessary to replace the coolant stop screw.

All form B capable tooling is supplied with a label designating the required screw components for each steep taper size and information necessary for selecting a wrench to adjust the coolant stop screws.

IMPORTANT

When choosing a desired coolant form, the correct retention knob should be used in conjunction with the coolant form applied.

<p>Form AD</p>					
<p>Form B</p>			40	(2x) MS2221S	2,5mm
			50	(2x) MS1296S	3mm



Form AD
(through-coolant hole)

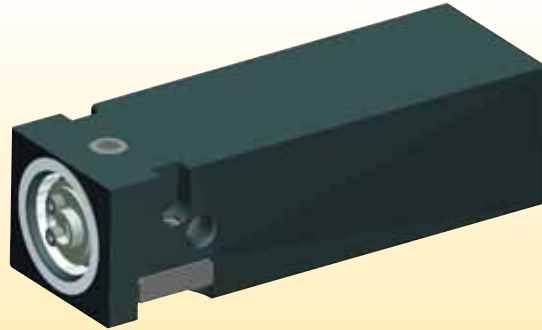


Form B
(no hole through or half hole)

Manual Clamping System

Characteristics

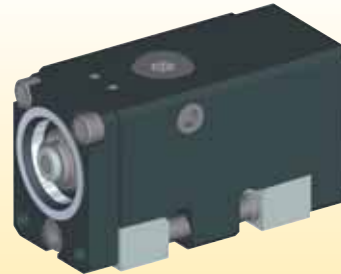
- KM Manual Quick Change tooling is the most economical way to reduce downtime for setup and tool change and is an important first step toward further automation. The machine tool builder or the customer can easily install KM Manual Quick Change tooling.
- All KM manual clamping units require approximately three turns of the activation screw and a specified amount of torque to lock the cutting tool.
- The KM Manual Quick Change clamping mechanism is rigid and compact, with an easily accessible activation screw. The high mechanical advantage of the ball track makes it simple to apply the required locking force.
- All KM Manual Quick Change clamping units accept external and internal cutting tools. Right- or left-hand tooling can be used interchangeably, and cutting tools can be inverted if required. KM Manual Quick Change clamping units support through-the-tool coolant.



- The KM Manual Quick Change clamping mechanism can adapt to a wide variety of machine tool mounting configurations including flange mounts, square, round, and VDI shanks.

KM-LOC™ Clamping System

KM-LOC is an evolutionary step from the conventional KM manual clamping system, the KM-LOC device employs a cam and a pre-loaded disk spring pack to provide positive, stop-to-stop locking and unlocking in only 140° of movement. The spring pack supplies the correct clamping force while the cam permits quick and easy clamping/unclamping in less than one turn, and without using a torque wrench. The KM-LOC clamping device is compact to adapt to a wide variety of machine tool mounting configurations, including flange mounts, square, round, and VDI shanks. The new KM-LOC clamping device offers all the features and benefits of our industry-proven modular KM Quick Change Tooling System and reduces the time required for manual tool changes.



KM-LOC II™ Clamping System

The KM-LOC II clamping device is the latest addition to the Kennametal KM modular quick-change tooling family. An evolutionary step from the conventional KM manual clamping system, the KM-LOC II employs a cam and a preloaded disk spring pack to provide positive, stop-to-stop locking and unlocking in only 145° of movement.

The spring pack supplies the correct clamping force without using a torque wrench, while the cam permits quick and easy clamping/unclamping in less than one half of a turn. The KM-LOC II clamping device is compact to adapt to a wide variety of machine tool mounting configurations including flange mounts, square, round, and VDI shanks.

The KM-LOC II is capable of handling through-the-tool coolant pressure of 100 bar (1500 psi), and the design permits lubrication of internal components without disassembly. The design also enables the external installation of an orientation screw that restricts the cutting tool to a single orientation.



The latest KM-LOC II clamping device offers all of the features and benefits of our industry-proven modular KM Quick Change Tooling System and reduces the time required for manual tool changes.

Rapid Clamping System

Characteristics

KM Rapid is a compact quick-change clamping system providing outstanding repeatability while, at the same time, allowing fast manual locking and unlocking. KM cutting units are locked and unlocked with only a 115° turn of the actuation cam with no torque wrench required for clamping and unclamping. A stop pin limits the angle of rotation, and actuation is available from the side only.

The KM Rapid, with internal through-the-tool coolant capabilities, is best used in stationary applications on turning centers in high-volume production.

KM Rapid permits the external installation of an orientation screw to restrict the clamping unit to accept the cutting unit in only one orientation.



KM Rapid offers two main standard styles:

- Flange mount holders, fastening with four socket head cap screws and an additional orientation pin, can be used on turrets axially or radially.
- VDI shank tool holders, according to DIN 69880, in axial and right-angle styles for I.D. and O.D. turning applications.

Rapid Plus Clamping System

Characteristics

The KM Rapid Plus clamping system provides approximately 20% more locating face force versus the KM Rapid. It is designed for retrofitting in dedicated applications enabling cutting units to be locked and unlocked with only a 180° turn of the actuation cam. Actuation is available from the top only.

The Rapid Plus cartridge design allows use in smaller but slightly longer receivers, such as Multifix™ and Parat™ adapters.



Automatic Clamping System • Spring-Pack Activated

Characteristics

Automatic KM clamping systems enable tools to be locked or unlocked with the push of a button by the machine operator or changed automatically by the machine tool. These units also allow tools to be changed quickly and provide a high level of automation at a moderate cost.

Operation

The pull on the lock rod for the automatic KM clamping unit is provided by disk springs that are an integral part of the clamping unit. Release is accomplished by pushing on the back of the clamping unit with a hydraulic cylinder mounted on the turret assembly. Many machine tool builders design and build the turrets for their machines to be equipped with the KM Automatic Clamping Units.



KM™ Manual Clamping Units

KM Manual clamping units require a torque wrench to operate. Using the proper torque wrench value is critical. Tighter is not better because over tightening can cause damage.

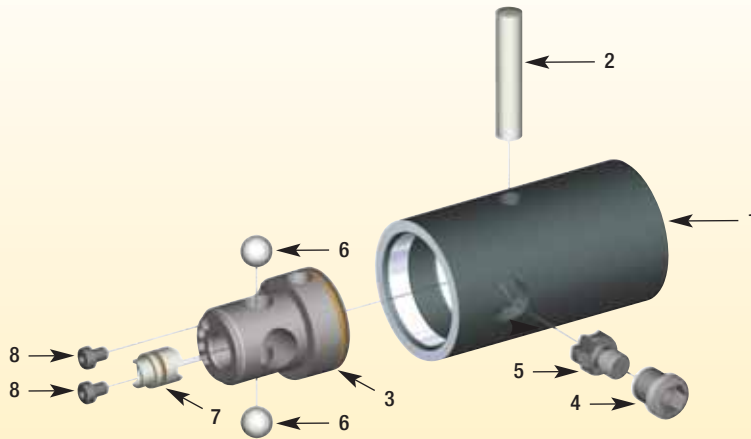
The specific operating torque of the KM manual clamping units is listed on each unit.

The KM connection must be kept clean and free from nicks and burrs. KM plugs are available to ensure cleanliness when a cutting unit is not engaged in the clamping unit.

When a KM head is unlocked, the head will bump-off. KM's 10:1 taper is self-locking, and therefore, requires a mechanical release. This is accomplished within the design of the KM System and does not require operator intervention.

After the head has been released, you will need to turn the torque screw another 3/4–1-1/2 turns. This rotation will feel free of resistance. When the free turning motion stops, the head can be pulled from the clamping unit. Do not turn the torque screw further, as damage can occur to the lockrod and/or bump-off pin.

KM Manual Clamping System • Single-Pin Design



KM Manual Clamping Components • Functional Definitions

1. Clamping Unit Body

- Primary component of the clamping unit assembly, less additional hardware.

2. Canister Pin

- Secures ball canister to clamping unit body.

3. Pin Canister

- Main component of KM clamping mechanism holds and locates the locking balls and bump-off pin.

4. Torque Screw

- Rotation moves the lockrod:
 - a. Clockwise rotation advances lockrod, securing cutting unit (not shown).
 - b. Counterclockwise rotation retracts lockrod, releasing cutting unit (not shown).

5. Lockrod

- Dual function:
 - a. Acts as a wedge when advanced between locking balls, causing them to move outward in the ball canister and pushing the locking balls into the ball tracks of the cutting unit (not shown).
 - b. Acts as a wedge when retracted using a raised, tapered key to force the bump-off pin against the cutting unit (not shown).

6. Locking Balls (2)

- Precision, chrome alloy-steel hardened balls used to transmit pull-back force to the cutting unit.

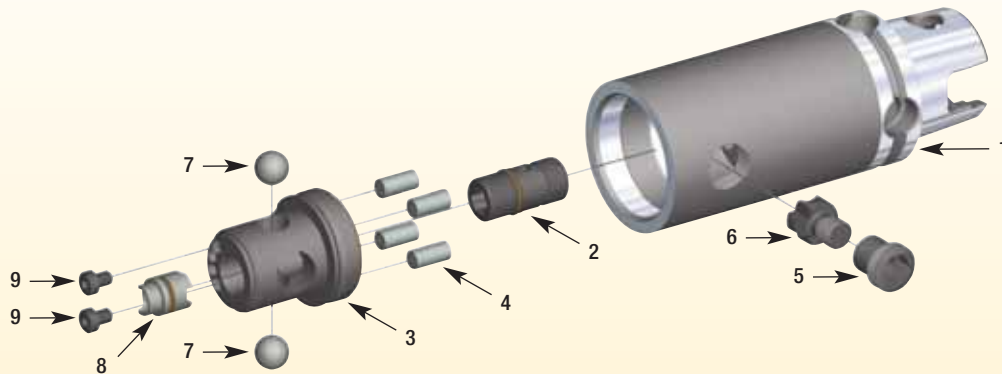
7. Bump-Off Pin

- Dual function:
 - a. Releases cutting unit from the clamping mechanism.
 - b. Prevents lockrod from rotating.

8. Bump-Off Pin Retention Screws (2)

- Secures bump-off pin in ball canister.

KM™ Manual Clamping System • Four-Pin Design



KM Manual Clamping Components • Functional Definitions

1. Clamping Unit Body

- Primary component of the clamping unit assembly, less additional hardware.

2. Canister Screw

- Secures screw canister to clamping unit body.

3. Screw Canister

- Main component of KM clamping mechanism holds and locates the locking balls and bump-off pin.

4. Canister Pins (4)

- Prevents canister from rotating.

5. Torque Screw

- Rotation moves the lockrod:
 - a. Clockwise rotation advances lockrod, securing cutting unit (not shown).
 - b. Counterclockwise rotation retracts lockrod, releasing cutting unit (not shown).

6. Lockrod

- Dual function:
 - a. Acts as a wedge when advanced between locking balls, causing them to move outward in the ball canister and pushing the locking balls into the ball tracks of the cutting unit (not shown).
 - b. Acts as a wedge when retracted using a raised, tapered key to force the bump-off pin against the cutting unit (not shown).

7. Locking Balls (2)

- Precision, chrome alloy-steel hardened balls used to transmit pull-back force to the cutting unit.

8. Bump-Off Pin

- Dual function:
 - a. Releases cutting unit from the clamping mechanism.
 - b. Prevents lockrod from rotating.

9. Bump-Off Pin Retention Screws (2)

- Secures bump-off pin in ball canister.

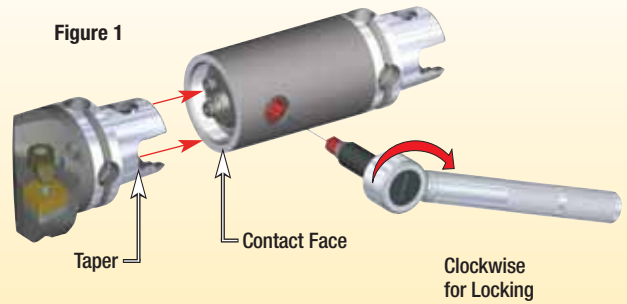


KM Manual Clamping Operating Instructions (KM32–KM80)

Locking

Before inserting the KM cutting unit into the clamping mechanism (Figure 1), clean the contact face and taper.

KM Manual clamping units require a torque wrench for proper operation. Turning the torque screw clockwise locks the cutting unit in position. For maximum safety, tighten the torque screw to the specified torque. Using a torque wrench ensures that the proper clamping forces are exerted.



KM Manual Clamping System • Operating Torque

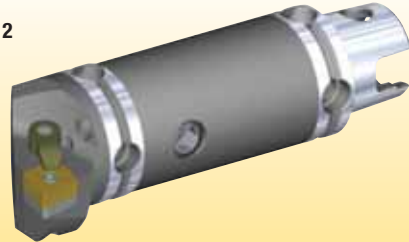
KM size	torque (ft. lbs.)	torque (Nm)	actuation drive size
KM32	7–9	10–12	5mm
KM40	9–12	12–16	6mm
KM50	20–25	27–34	10mm
KM63	35–40	47–54	12mm
KM80	58–63	79–85	14mm

CAUTION
 Over tightening can cause damage to the clamping mechanism.

Operating Position

With the balls locked in position, and the face and self-locking taper fully engaged, the cutting unit and clamping unit are rigidly secured together (Figure 2).

Figure 2

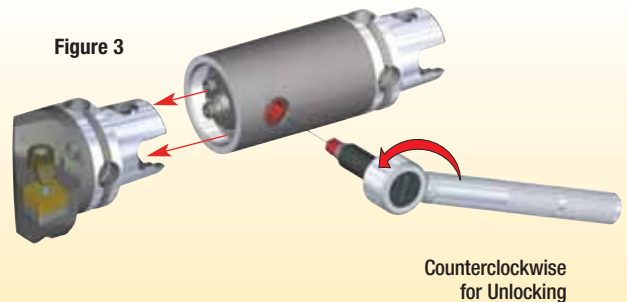


Unlocking

Rotate the torque screw counterclockwise until initial resistance is felt. In this position, the locking balls are free of the cutting unit, but the taper interference is still holding the KM unit in the clamping unit. At this point, the bump-off pin is in position to free the cutting unit from the interference fit.

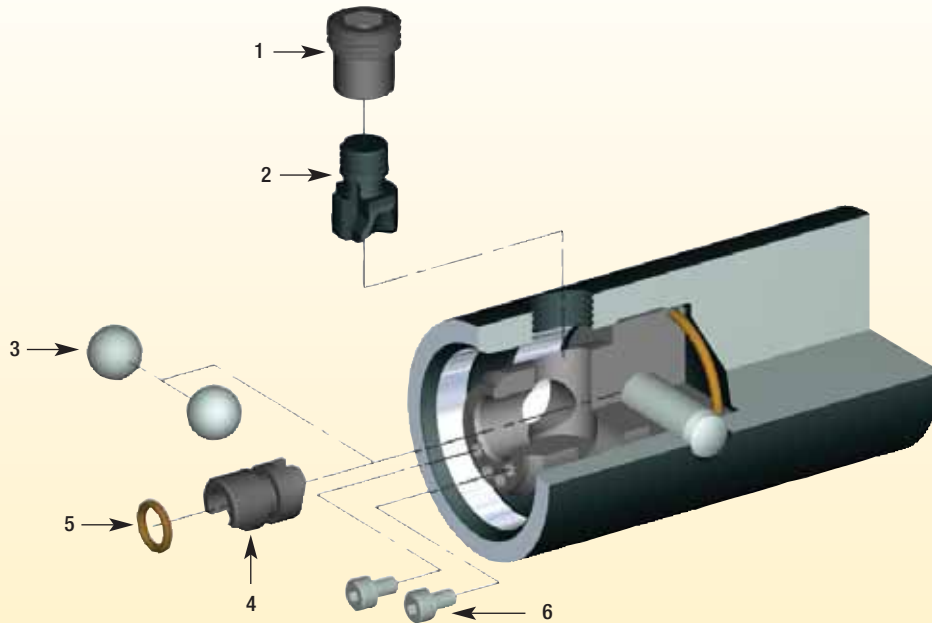
Continue to rotate the torque screw slowly until the cutting unit is no longer making face contact (Figure 3) and is released from the taper. The torque screw will stop rotating and more resistance will be felt. Do not turn the torque screw any further.

Figure 3



CAUTION
 Continuing to rotate the torque screw may damage the clamping components.

KM Manual Repair Package Components (KM32–KM80)



KM Manual Repair Package Components • Functional Definitions

1. Torque Screw
2. Lockrod
3. Locking Balls (2x)
4. Bump-Off Pin
5. O-Ring
6. Bump-Off Pin Retention Screws (2x)

Operator Maintenance:

All KM Clamping Units showing damage must be replaced or rebuilt. Burrs and nicks should be removed by stoning and/or polishing.

- Use KM Plugs to protect clamping units when not in use.
- Use KM spindle wipers to clean clamping units.

KM Manual Repair Packages

catalog number	3S order number	3L order number
KM32-PKG 3S or 3L	1023697	1023698
KM40-PKG 3S or 3L	1023699	1023700
KM50-PKG 3S or 3L	1023726	1023725
KM63-PKG 3S or 3L	1013701	1013702
KM80-PKG 3S or 3L	1144980	1023701



KM™ Manual Clamping Unit • Disassembly Procedures

1. Remove the two socket-head cap screws that retain the bump-off pin (see Frame 1).
2. Grip the exposed end of the bump-off pin with pliers and pull straight out. Some resistance may be felt due to the O-ring seal around the bump-off pin (see Frame 2).
3. Using the appropriate metric hex wrench, remove the torque screw. The lockrod should come out with the torque screw. Separate the torque screw from the lockrod, remembering the lockrod has left-hand threads (see Frame 3 on next page).
4. Remove the locking balls from within the canister. Grease can cause them to stick inside. Pushing the balls one at a time towards the center of the canister then turning the clamping unit upside down and tapping it against your palm will usually dislodge them. If you must hit the clamping unit harder, be certain you do not damage the gage or locking face of the unit. A small magnetic screwdriver also works well (see Frame 4 on next page).
5. Normally, no further disassembly should be attempted. If the clamping unit body or canister has been damaged, it should be replaced with a new unit. You can also contact your Kennametal Sales office for instructions on how to send the unit to a Kennametal Repair facility.

Tools Required

- Hex wrenches.
- Pliers.
- Kennametal recommends and uses GLEITMO™ 805.
- Clean towels or shop rags.
- Solvent or degreaser that does not leave residue (used to clean inside the taper and canister). Should the unit become contaminated, you can use a degreasing agent or something similar to clean the surfaces.

KM size	hex size
KM32	2mm
KM40	2,5mm
KM50	3mm
KM63	5mm
KM80	5mm

CAUTION

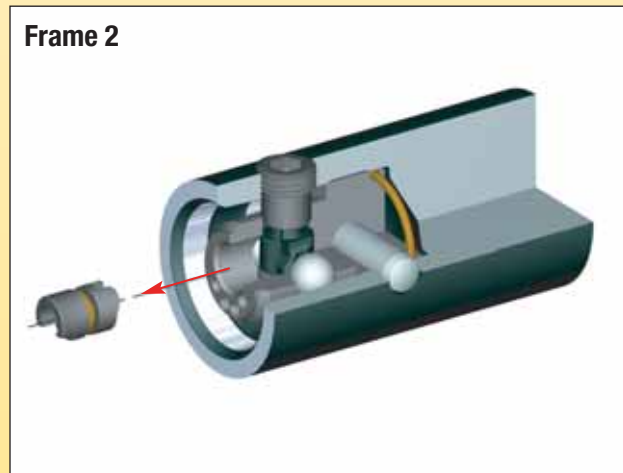
DO NOT USE silicone cleaner or WD-40™-type lubricants.

lubricant	order number	size
GLEITMO 805 grease	1567575	500g cartridge
GLEITMO 805 grease	1567577	1000g tin

Frame 1



Frame 2

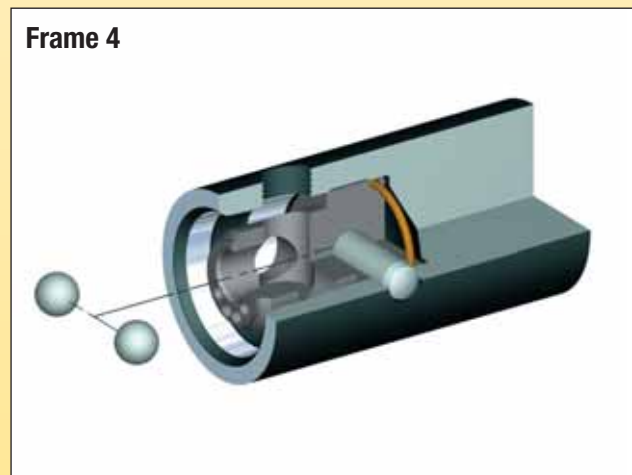
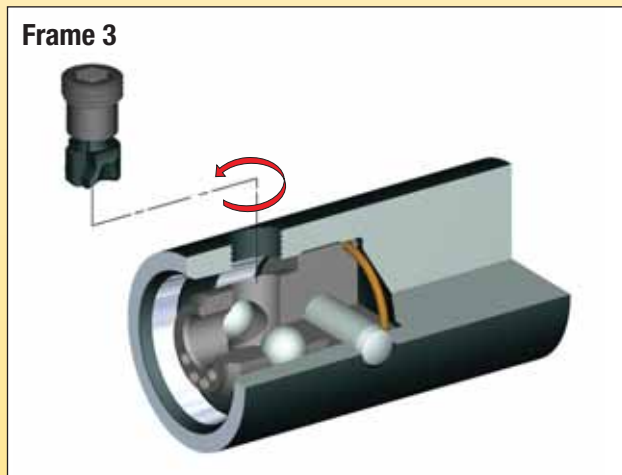


(continued)

KM™ Manual Clamping Unit • Disassembly Procedures *(continued)*

6. Clean locking balls, torque screw, lockrod, and bump-off pin of all grease and inspect for wear, burrs, or obvious damage. If rebuilding the unit with a repair parts package, we recommend using all new components contained in the kit. If you are not using the repair package, but are retiming or adjusting the unit, inspect the external threads on the torque screw and lockrod, the locking ball contact surfaces on the lockrod, and the mating surfaces between the lockrod and bump-off pin. Discard any components of questionable condition and replace with new ones. Note the condition of the raised taper key on the lockrod as you will need this later.
7. Inspect inside the KM taper for damage and/or contamination. Clean the taper and canister with solvent. Allow the unit to dry before reassembling. Inspect the torque screw threads in the body for damage.
8. If the unit is equipped for through-coolant capability, you may want to verify that the coolant passages are clear. Clean if required.

KM size	torque screw hex size
KM32	5mm
KM40	6mm
KM50	10mm
KM63	12mm
KM80	14mm



KM™ Manual Clamping Unit • Assembly/Timing Procedures

1. Place a small amount of GLEITMO™ 805 grease into the canister where the locking balls make contact, paying particular attention to the inner top surface of the locking ball bores.
2. Lightly coat both locking balls with grease. Insert the balls, one at a time, into the canister's central bore until it bottoms, then move the ball outward into the locking ball bores, not the torque screw hole (see Frame 5).
3. Lightly coat the threads of the lockrod and torque screw with grease and thread them together finger tight (left-hand threads). The torque screw and lockrod must remain tightly together during the reassembly procedure and rotated as one piece throughout (see Frame 6).
4. Make sure the balls are pushed radially into the bores. Using the metric Allen or T-handle wrench, thread the torque screw lockrod assembly into the body until it makes soft contact with the balls. Be certain the torque screw and lockrod rotate together by looking down into the canister as you thread them. If the lockrod and torque screw become unthreaded, you should remove them, re-tighten, and start Step 4 again.
5. Look into the canister through the bump-off pin bore and note the raised key on the lockrod. Position the key facing outward through the bump-off pin bore, centering it in the bore by backing out the torque screw only enough to properly align the key.
6. Place a KM cutting unit into the clamping unit. If cutting unit does not drop into place, go to Step 7. If the cutting unit drops into place, remove it, push the balls radially back out into the ball bores, and turn the torque screw/lockrod assembly inward a full turn (360°). Repeat Step 6 as many times as necessary until the unit does not drop into the taper.

Tools Required

- Hex wrenches.
- Pliers.
- Kennametal recommends and uses GLEITMO™ 805.
- Clean towels or shop rags.

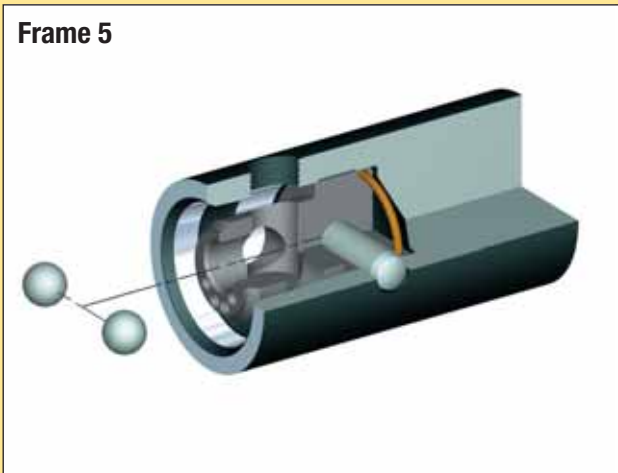
CAUTION

DO NOT USE silicone cleaner or WD-40™-type lubricants.

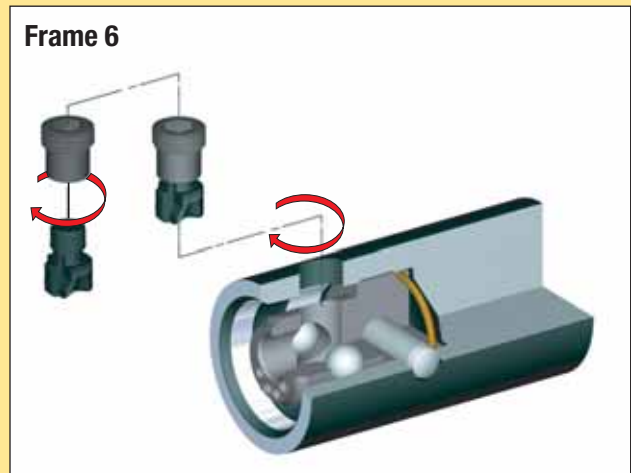
lubricant	order number	size
GLEITMO 805 grease	1567575	500g cartridge
GLEITMO 805 grease	1567577	1000g tin

KM size	torque screw hex size
KM32	5mm
KM40	6mm
KM50	10mm
KM63	12mm
KM80	14mm

Frame 5



Frame 6



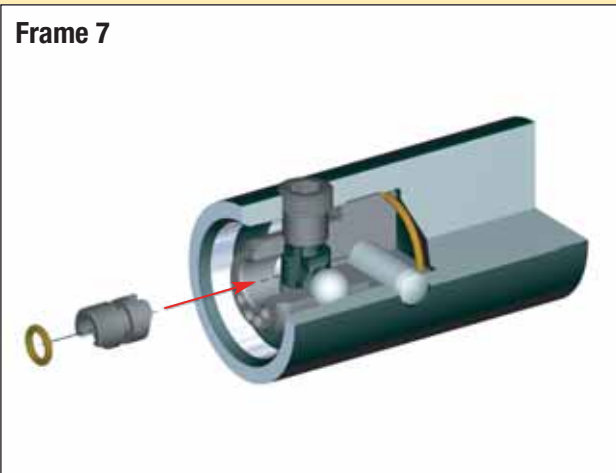
(continued)

KM™ Manual Clamping Unit • Assembly/Timing Procedures *(continued)*

7. Thread the torque screw/lockrod assembly outward one full turn (360°), making sure the raised key faces outward. Place a KM cutting unit into the clamping unit. It should drop into the taper easily. If it does not, repeat Step 7.
8. Insert the bump-off pin without its O-ring into the bore, being certain the angled surface of the bump-off pin will ride on the angled surface of the lockrod (see Frame 7).
9. When the bump-off pin is properly seated, its largest diameter should be below the end of the canister — it should not rotate. The pin is rotationally restrained by the lockrod key, in the bump-off pin keyway.
10. If all is correct, remove the bump-off pin, install its O-ring, lightly coat with grease paying particular attention to the slot, and reinstall into the bore.
11. Reinstall the socket-head cap screws that retain the bump-off pin (see Frame 8). Check for proper operation of the unit by pushing down on the end of the bump-off pin with your finger while tightening and loosening the torque screw through its full travel. You should feel the bump-off pin move in and out as the direction of the torque screw changes.
12. As a final check, rotate the torque screw outward until it stops. Install a KM cutting unit and tighten the torque screw to the proper torque required for locking. Ensure that there is no air gap between the locking faces of the cutting unit and the clamping unit. Loosen the torque screw. Initially, resistance will be felt while loosening the screw, and again when bumping off the tool from the taper. Only use light force to loosen the screw after the tool has been bumped off. Do not force the torque screw loose after tool bump-off or damage may result. Remove the cutting unit and install protective plastic or steel plug.

KM size	hex size
KM32	2mm
KM40	2,5mm
KM50	3mm
KM63	5mm
KM80	5mm

Frame 7



Frame 8



KM-LOC™ Clamping Units

Operating Instructions

All KM-LOC Clamping Units utilize disk springs to develop the correct clamping force. This clamping system does not require a torque wrench to achieve proper clamping force. The KM-LOC System provides consistent clamping forces designed to last 50,000 cycles.

KM-LOC Locking Sequence

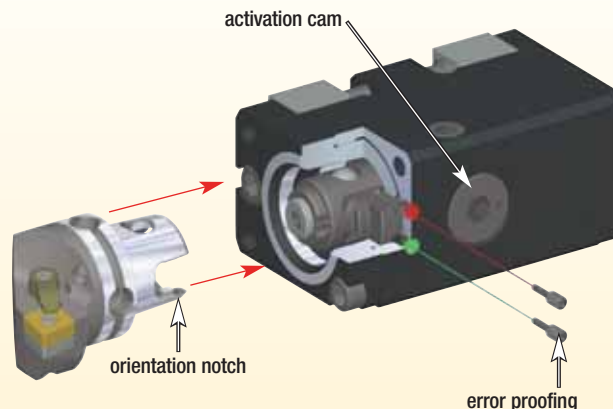
Always ensure that the KM cutting unit and clamping unit are free of dirt and contaminants. When installing the cutting head into the clamping unit, note the key relations of the male and female tapers. The flange face will have about 1mm (.040") standoff from the gage face before lock up. If the amount of standoff is greater than this, the unit is either error proofed or the tapers are contaminated. Rotate the head 180° for correct, free-state standoff.

Next, insert a wrench with the properly sized metric bit into the cam socket. Rotating the cam socket clockwise 140° (where it will stop) locks the head into the clamping unit. The dimples on both the cam and clamping unit body are aligned when a positive stop is reached.

KM-LOC Unlocking Sequence

Remove chips or foreign material from around the cutting unit flange and clamping body. Insert the metric bit into the cam and rotate counterclockwise to unlock the unit. During this procedure, the lockrod will make contact with the inside of the cutting unit (this could feel like a positive stop), continue the counterclockwise turn until the head moves apart from the gage face.

When unlocked, a KM head will bump off. The KM System utilizes a 10:1 self-locking taper that requires a mechanical release.



KM-LOC Activation Drive Size

KM system size	drive size
KM32	6mm
KM40	8mm
KM50	10mm
KM63	10mm

(continued)

KM-LOC™ Clamping Units *(continued)*

The KM-LOC

Under normal use, the KM-LOC unit is designed to last 50,000 cycles. The KM-LOC units are greased at the factory during assembly. To keep the unit functioning properly, it should be periodically greased and, if operating under normal conditions, done regularly every six months.

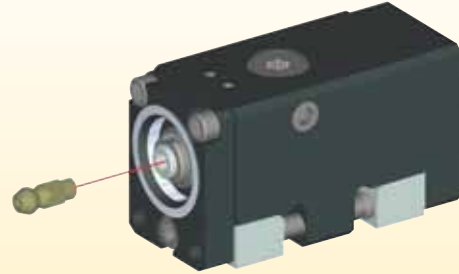
How to Grease the KM-LOC

Remove the M6 sealing screw from the front face of the lockrod and thread the grease fitting into the tapped hole. A grease fitting is in the spare parts package included with every KM-LOC clamping unit.

Approximate grease amounts are as follows:

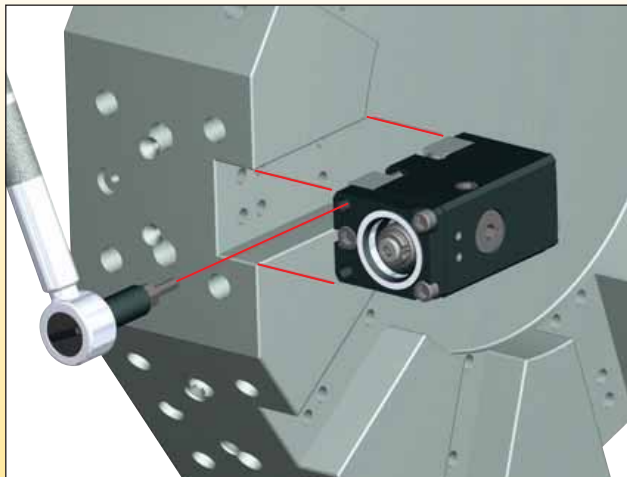
- KM32™0.2–0.3 fl. oz.
- KM40™0.3–0.4 fl. oz.
- KM50™0.5–0.6 fl. oz.
- KM63™0.5–0.6 fl. oz.

Kennametal uses and recommends GLEITMO™ 805, a white, high-performance grease paste.



lubricant	order number	size
GLEITMO 805 grease	1567575	500g cartridge
GLEITMO 805 grease	1567577	1000g tin

KM-LOC™ Mounting Wedges • Tightening Torque



NOTE: Use a hex bit socket.

catalog number	wedge screw hex size	ft. lbs.	Nm
KM32CLSR/L2050K	4mm	10–14	14–18
KM32CLSR/L1250B	4mm	10–14	14–18
KM32CLSR/L1250C	4mm	10–14	14–18
KM32CLSR/L1650C	4mm	10–14	14–18



KM-LOC II Clamping Units

Operating Instructions

The KM-LOC II clamping system employs a cam and a pre-loaded disk spring pack to provide positive, stop-to-stop locking/unlocking in only 145° of movement. This clamping system does not require a torque wrench to achieve proper clamping force. The KM-LOC II clamping system provides consistent clamping forces designed to last 50,000 cycles.

KM-LOC II Locking Sequence

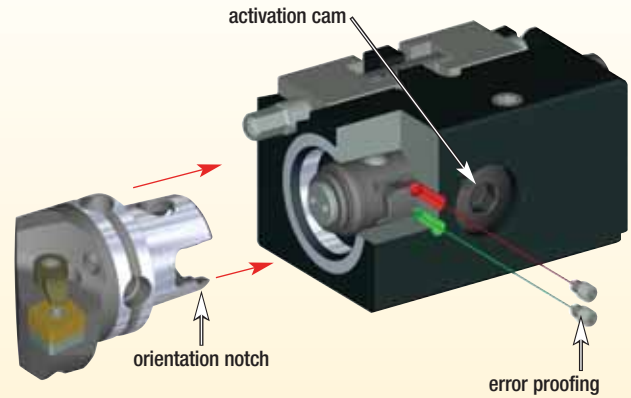
Always ensure that the KM cutting unit and clamping unit are free of dirt and contaminants. When installing the cutting head into the clamping unit, note the key relations of the male and female tapers. The flange face will have about 1mm (.040") standoff from the gage face before lock up. If the amount of standoff is greater than this, the unit is either error proofed or the tapers are contaminated. Rotate the head 180° for correct, free-state standoff.

Next, insert a wrench with the properly sized metric bit into the cam socket. Rotating the cam socket clockwise 145° (where it will stop) locks the head into the clamping unit. The dimples on both the cam and clamping unit body are aligned when a positive stop is reached.

KM-LOC II Unlocking Sequence

Remove chips or foreign material from around the cutting unit flange and clamping body. Insert the metric bit into the cam and rotate counterclockwise to unlock the unit. During this procedure, the lockrod will make contact with the inside of the cutting unit (this could feel like a positive stop), continue the counterclockwise turn until the head moves apart from the gage face.

When unlocked, a KM head will bump off. The KM System utilizes a 10:1 self-locking taper that requires a mechanical release.



KM-LOC II Activation Drive Size

KM system size	drive size
KM32	6mm
KM40	8mm
KM50	10mm
KM63	10mm

(continued)

KM-LOC II Clamping Units *(continued)*

The KM-LOC II

Under normal use, the KM-LOC II unit is designed to last 50,000 cycles. The KM-LOC II units are greased at the factory during assembly. To keep the unit functioning properly, it should be periodically greased and, if operating under normal conditions, done regularly every six months.

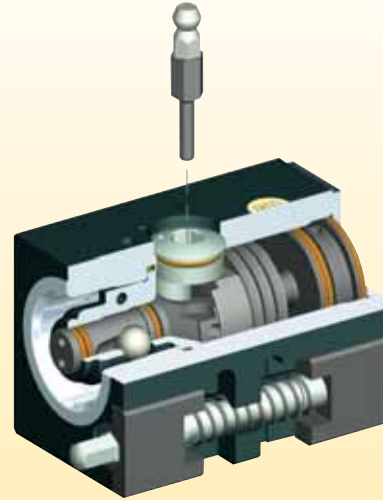
How to Grease the KM-LOC II

Remove the standard M4 socket-set screw from the bottom of the cam hex, and thread the grease assembly into the tapped hole. An assembled grease fitting and adapter are in the spare parts package included with every clamping unit.

Approximate grease amounts are as follows:

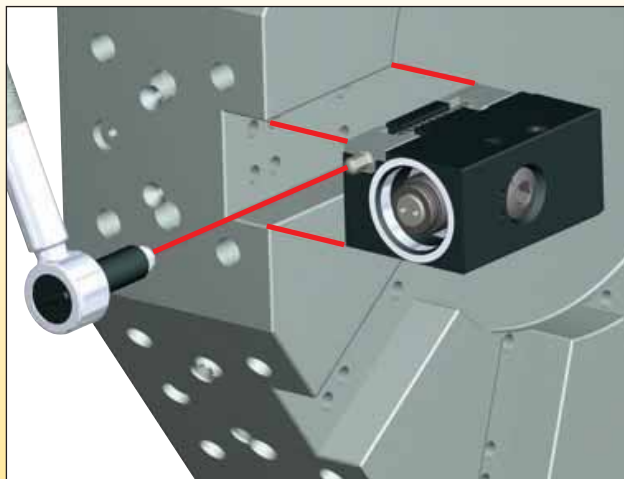
- KM32™0.2–0.3 fl. oz.
- KM40™0.3–0.4 fl. oz.
- KM50™0.5–0.6 fl. oz.
- KM63™0.5–0.6 fl. oz.

Kennametal uses and recommends GLEITMO™ 805, a white, high-performance grease paste.



lubricant	order number	size
GLEITMO 805 grease	1567575	500g cartridge
GLEITMO 805 grease	1567577	1000g tin

KM-LOC II Mounting Wedges • Tightening Torque



NOTE: Use a six-point socket.

catalog number	wedge screw hex size	ft. lbs.	Nm
KM40 CL2SR/L 1260B	6	30–34	41–46
KM40 CL2SR/L 1660C	7	43–47	58–64
KM40 CL2SR/L 1660D	7	43–47	58–64
KM40 CL2SR/L 2060D	7	43–47	58–64
KM40 CL2SR/L 2560M	7	43–47	58–64
KM40 CL2SR/L 3260P	7	43–47	58–64
KM50 CL2SR/L 1675D	7	43–47	58–64
KM50 CL2SR/L 2075D	8	58–62	79–84
KM50 CL2SR/L 2575M	7	43–47	58–64
KM50 CL2SR/L 2575P	7	43–47	58–64
KM63 CL2SR/L 2090E	8	58–62	79–84
KM63 CL2SR/L 3290P	8	58–62	79–84



KM Rapid Clamping Units

Operating Instructions

The KM Rapid clamping system is a compact quick-change tooling system that does not require a torque wrench to achieve proper clamping force. The KM Rapid clamping unit spring pack supplies the correct clamping force while the cam permits quick and easy locking/unlocking of the KM cutting unit.



KM Rapid Locking Sequence

At the “unlock” position, which is marked on the housing, the cutting unit can be removed or fitted in the clamping unit. By moving the cam clockwise, the locking balls are pushed outwards and the face stand-off gets closed. Moving the cam further pushes the locking balls further outward and generates clamping force at the locating face. The handling force moves past the maximum position, then slightly back, to reach the “lock” position.

KM Rapid Unlocking Sequence

To unlock the cutting unit, turn the cam counterclockwise. In this position, the locking balls are free of the cutting unit, but the taper interference is still holding the KM cutting unit in the clamping unit. By turning the cam further to overcome the interference, the cutting unit will be released and can be removed. In any case, do not try to push too hard against the unlocking point because it will result in damage to the locating pin and the cam.

The entire locking and unlocking sequence takes a few seconds.

KM Rapid Plus Clamping Units

Operating Instructions

The KM Rapid Plus clamping system is a compact cartridge quick-change tooling system that does not require a torque wrench to achieve proper clamping force. The KM Rapid Plus clamping unit spring pack supplies the correct clamping force while the cam permits quick and easy locking/unlocking of the KM cutting unit.



KM Rapid Plus Locking Sequence

At the “unlock” position, the cutting head can be removed or fitted in the clamping unit. By moving the eccentric shaft clockwise, the axial lockrod is moving, the clamping balls are pushed outward, and the face stand-off is closed. Moving the eccentric shaft further pushes the locking ball over the axial lockrod further outward and generates clamping force at the locating face. The handling force moves past the maximum position, then slightly back, to reach the “lock” position. Do not move the cam further at this position.

KM Rapid Plus Unlocking Sequence

To unlock the cutting unit, turn the eccentric shaft counterclockwise. In this position, the locking balls are free of the clamping unit, but the taper interference is still holding the cutting unit in the clamping unit. By turning the eccentric shaft further to overcome the interference, the cutting head will be released and can be removed.

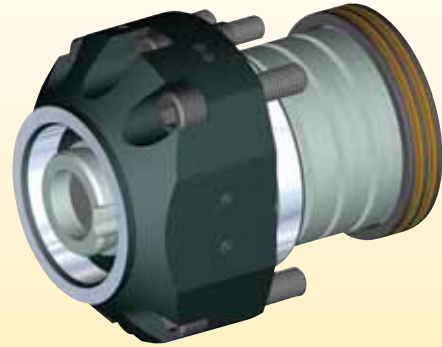
The entire locking and unlocking sequence takes a few seconds.

Automatic Clamping System

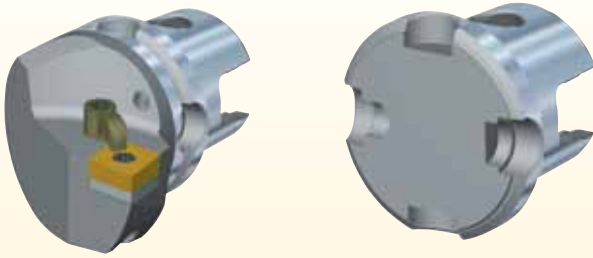
Operating Instructions

The KM automatic clamping system uses a disk spring package to supply force to the lock rod — driving the locking balls and providing clamping force to the cutting unit. The mechanical advantage of the clamping mechanism is designed specifically for a given spring force to supply proper clamping force. Once the cutting unit is clamped in the KM automatic clamping unit, it is securely held in place until released by applying force to the end of the spring end cap. In most cases, this is accomplished using a hydraulic cylinder. KM automatic clamping units contain sealed coolant ports as well as a system for distributing air through the unit.

Air serves two functions: (1) air is used to clean the taper and face area during tool change; (2) it is also used to detect improper tool change. Air is routed to the intersection of the taper and the face. If the faces of the cutting unit and the clamping unit do not totally seal after a tool change, air will continue to escape and can be used to detect a tool change fault. KM automatic clamping units are available in several configurations for application on a wide variety of machines.



KM-TS™ • Kennametal Modular Tool Changing



Automatic tool changer configuration

KM-TS is engineered to provide machine tool builders the capability to design a machine around a very rigid and proven system while maintaining full automation. It is the ultimate in flexible tooling systems and is equipped with four holes in the V-groove.

The next generation of multifunction mill-turn machines demand flexible and high-tech tooling systems. Previously, the V-groove in the KM system permitted automatic tool changing but without the capability for tool identification chips.

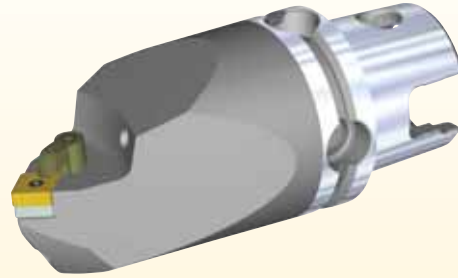
Tool Changing Location Features

- Two horizontally opposed holes in the V-groove for the tool changer and storage in the tool magazine. Within these two holes are counterbored holes that can be used for tool orientation.
- Two vertically oriented holes in the V-groove for tool identification chip and balancing.

Additional New Features

- A standard hardness of 50–54 HRC makes the tool durable enough to withstand the forces generated during high-speed tool changes and enables long-term use.
- Optimal toughness from the taper to the insert pocket seat ensures maximum protection against wear at all contact points and the highest stability under high cutting loads.
- The KM-TS tools have a silver, satin-finished surface that provides durability and long-lasting appearance.

Summary of Benefits



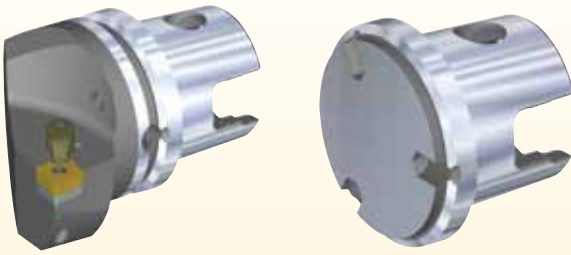
- A proven spindle interface for Daewoo®, Nakamura-Tome™, Takisawa™, and many other builders.
- Full compatibility with KM63™ and Kennametal UT63™ tools and adapters.
- Use with manual and fully automatic tool changing on lathes and modern mill/turn machines.
- Precision-ground tool taper and locating face.
- Optimal coolant supplied directly onto the cutting point, guaranteeing the highest-level of performance (see chart below).
- For dry machining, the coolant hole can be easily closed with a screw.

order number	description
1975161	M5 Coolant Nozzle



O-ring		
KM size	catalog number	order number
KM32TS	OR00614070V90	1850414
KM40TS	OR00739070V90	1179959
KM50TS	OR00987103V90	1284041
KM63TS	OR01234139V90	1608616
KM80TS	OR01734139V90	1586813

KM63XMZ™



Automatic tool changer configuration

KM63XMZ has been engineered to work specifically on Mazak® INTEGREX® Mark IV Series of Integrex machines. The Mazak INTEGREX combines a high-powered turning center and a full-function machining center to produce parts in a single setup. KM63XMZ is an integral part of the success and ingenuity of these machines.

A standard hardness of 50–54 HRC enables long-term use and durability to withstand the forces generated during high-speed tool changes. KM63XMZ standard material provides optimal toughness from the taper to the insert pocket seat. This ensures maximum protection against wear at all contact points and the highest stability under high cutting loads. The tools have a silver, satin-finished surface that provides a durable and long-lasting appearance.

Conventional machine tools require multiple setups, extra manpower for part handling, in-process inventory, larger floor space, and increased tooling and workholding expenses.

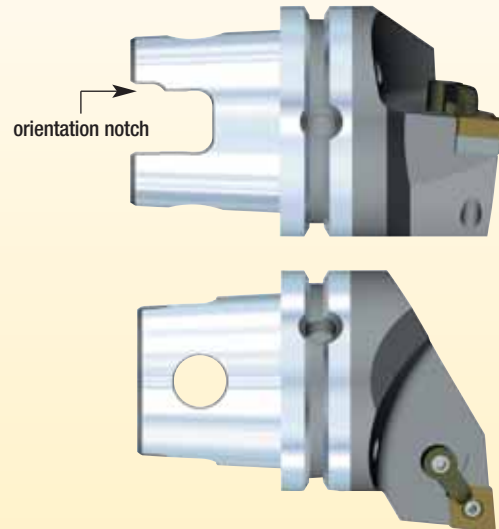
- KM63XMZ will help reduce your overall manufacturing cost with multitask piece part processing.
- KM63XMZ will optimize your machining operations — however challenging your particular application!
- The world's most economical, rigid, and accurate modular quick-change tooling!
- Dramatically reduce your machine downtime and increase productivity!
- Large product selection for your machining needs!
- Special design tools available for unique applications!
- A proven tooling system for multitasking machines like the Mazak INTEGREX Machine Tool System!

O-ring		
KM size	catalog number	order number
KM63XMZ	OR01237103V90	1979353

KM63XMZ Tool Orientation Specification

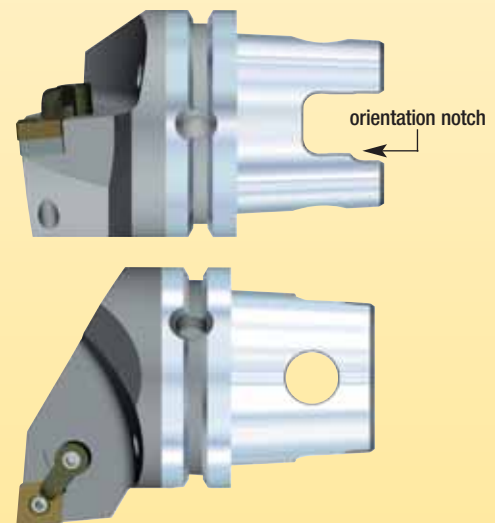
Left-Hand Orientation

For turning clockwise toward the main spindle.
Catalog Number: KM63XMZMCLNLF12Y



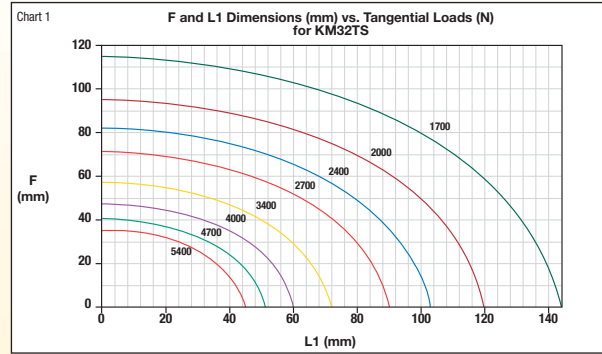
Right-Hand Orientation

For turning counterclockwise toward the main spindle.
Catalog Number: KM63XMZMCLNR12Y



Operating Conditions

The KM tooling joint is an extremely rigid and stable system that is specifically designed to supply consistent results. As with any mechanical coupling, KM has limits that, if exceeded, could result in mechanical damage to the joint and/or its components. To help you stay within these limits, Kennametal has established maximum safe tangential loads for each system size. These loads are described as a certain amount of force at the standard "F" and "L1" dimensions for each given system size.



Example

IMPORTANT

Information shown on the following charts was developed exclusively for use with KM tooling in static conditions. Do not use for any other tooling system because the results will not apply. To account for cutting force fluctuations in dynamic conditions, a reduction of 20–30% should be applied to the loads shown in charts.

Example of Calculation:

Where: P = rated tangential load
K = empirical coefficient depending on
KM system size and the units of measure

KM32™ K=190200
KM40™ K=383600
KM50™ K=887400
KM63™ K=1718000
KM80™ K=3085800

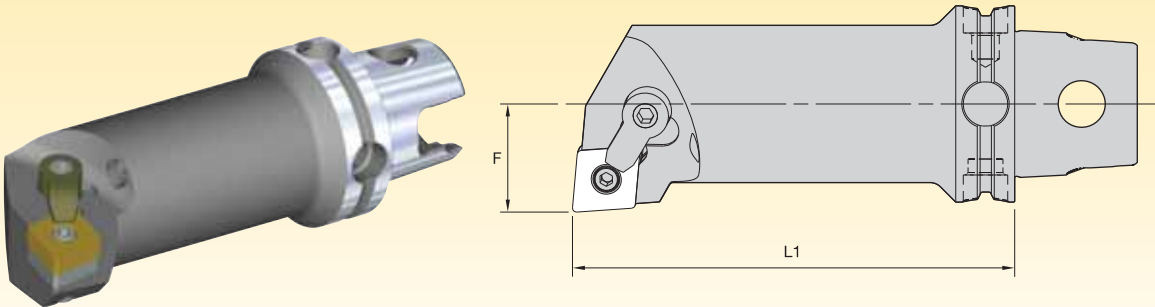
Given: The KM integral shank boring bar, ordering code
KM40TS S32G-MCLNR12

Dimensions: L1 = 90mm (3.543")
F = 22mm (0.866")

Required: What is maximum permissible tangential load?

$$P = \frac{K}{\sqrt{(0.8 L1)^2 + F^2}}$$

$$P = \frac{383600}{\sqrt{(0.8 \times 90)^2 + 22^2}} = 5095 \text{ N}$$



(continued)

Operating Conditions *(continued)*

IMPORTANT

Information shown on the following charts was developed exclusively for use with KM tooling in static conditions. Do not use for any other tooling system because the results will not apply. To account for cutting force fluctuations in dynamic conditions, a reduction of 20–30% should be applied to the loads shown in charts.

The following example illustrates how to use Charts 1, 3, 5, 7, and 9

Given: KM40™ integral shank boring bar, ordering code KM40TS-S32G-MCLNR12

Dimensions: KM40 integral shank boring bar, ordering code KM40TS-S32G-MCLNR12 — L1 = 90mm, F = 22mm

Required: What is maximum permissible tangential load?

Solution: To determine the tangential load:

- Determine the correct chart to use. (This is a KM40 tool, so use Chart 3).
- Find the intersection point of the two lines that correspond to the dimensions L1 = 90mm, F = 22mm. These two lines intersect just above the 6670 N (1500 lbs) curve.
- The permissible tangential load is the approximate load at the point of intersection. The point of intersection is at approximately 6890 N (1550 lbs).

As you can see from the calculation, the actual value is 6790 N (1528 lbs). Small variations are to be expected from reading the approximate location on the chart but should be inconsequential.

Safe cutting conditions are achieved when the actual tangential load that is being put on the KM tooling does not exceed the maximum permissible tangential force. To help you determine the approximate value of your actual tangential force, Charts 2, 4, 6, and 8 have been developed (pages K26–K35). They show the relationship between depth of cut and feed rate at various tangential forces.

They are recommended when using standard CNMG and TNMG insert geometries to machine plain carbon steels (AISI 1000 series), most alloy steels (AISI 4000 series), and some tool and stainless steels (H11, 316).

The following example illustrates how to use Charts 2, 4, 6, 8, and 10

Given: KM40 integral shank boring bar, ordering code KM40TS-S32G-MCLNR12
feed rate: 0.016 IPR
depth of cut: .200" (doc)

Required: What is approximate tangential force?

Solution: To determine the tangential force:

- Determine the correct chart to use. (This is a KM40 tool, so use Chart 4).
- Find the intersection point of the two lines that correspond to the 0.016 IPR feed rate and the .200" doc.
- The approximate tangential force is the force at the point of intersection. The point of intersection is at approximately 4450 N (1000 lbs).

Please remember that these are approximate values and should be used only as a reference. If there is any doubt whether these charts are accurate enough, the actual cutting force should be calculated.

These charts were designed to determine conditions within the limits of the various KM tooling system sizes. However, in actual cutting conditions, there are many other limitations, such as insert strength or excessive overhangs, that may limit the cutting forces to values far lower than those represented in the charts.



Operating Conditions • KM32TS™ • Metric

IMPORTANT

Information shown on the following charts was developed exclusively for use with KM tooling in static conditions. Do not use for any other tooling system because the results will not apply. To account for cutting force fluctuations in dynamic conditions, a reduction of 20–30% should be applied to the loads shown in charts.

Chart 1

F and L1 Dimensions (mm) vs. Tangential Loads (N) for KM32TS

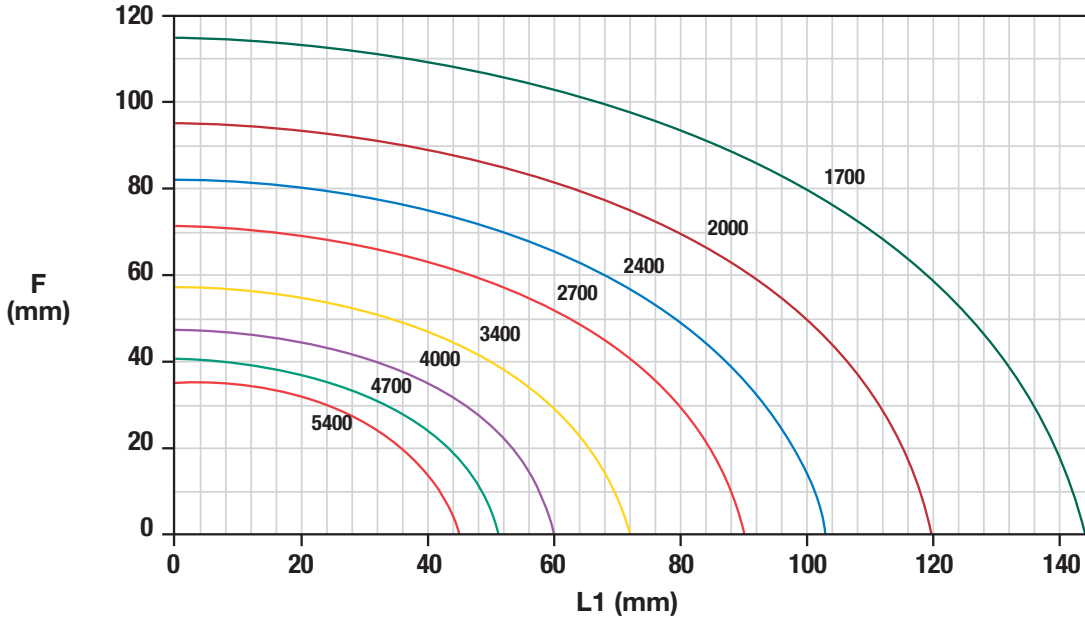
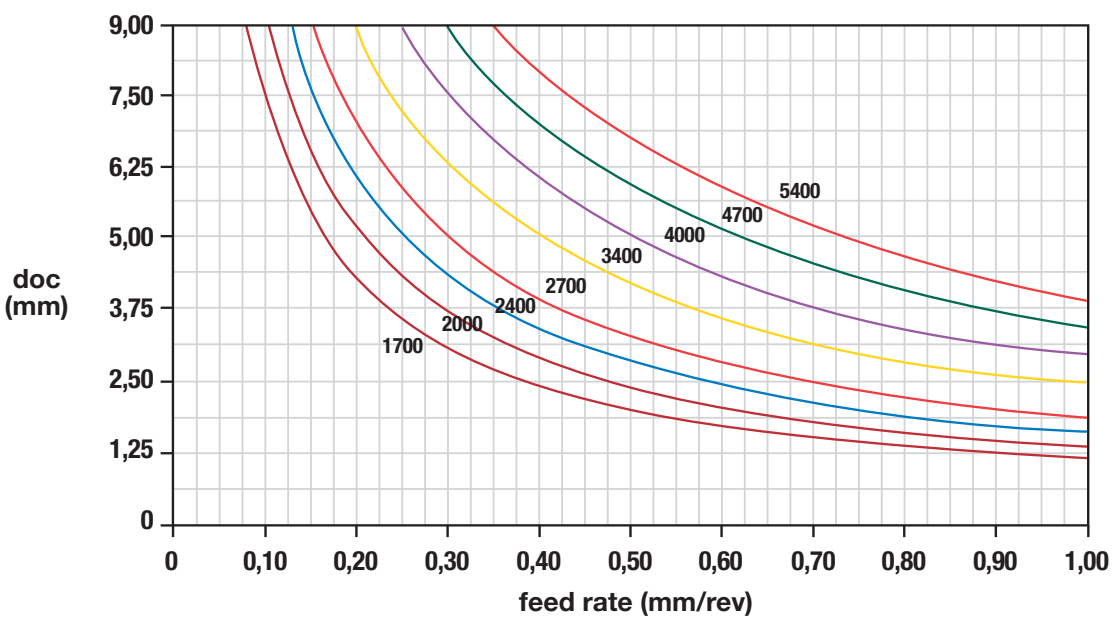


Chart 2

Depth of Cut (mm) and Feed Rate (mm/rev) vs. Tangential Forces (N) for KM32TS



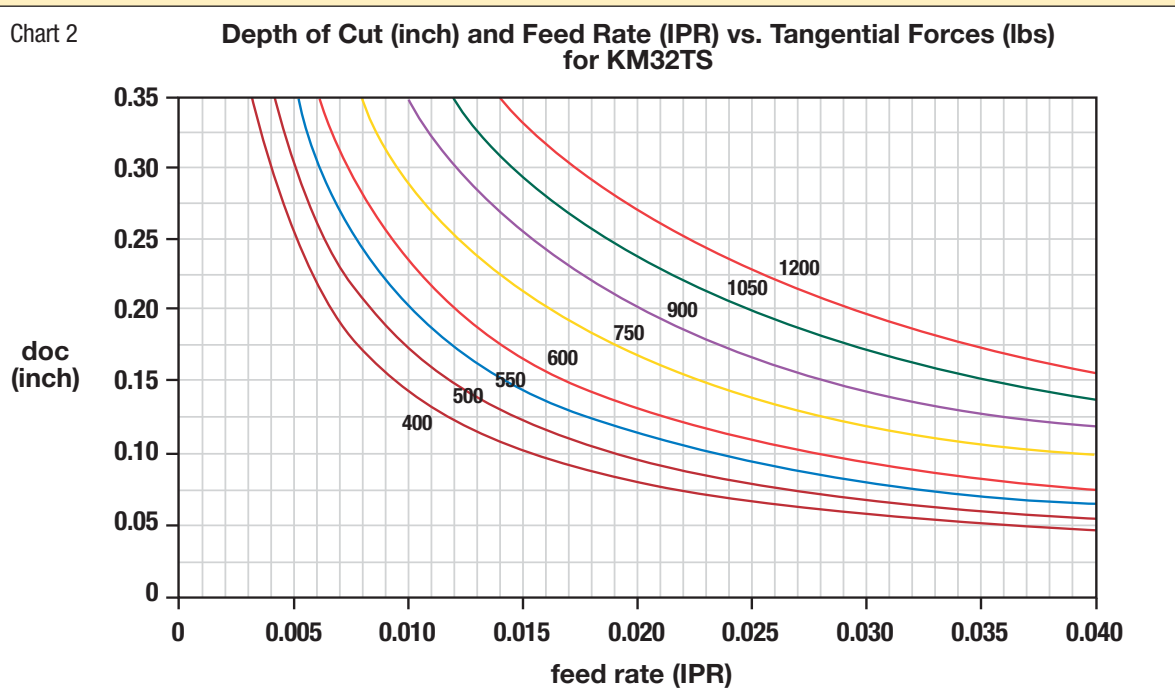
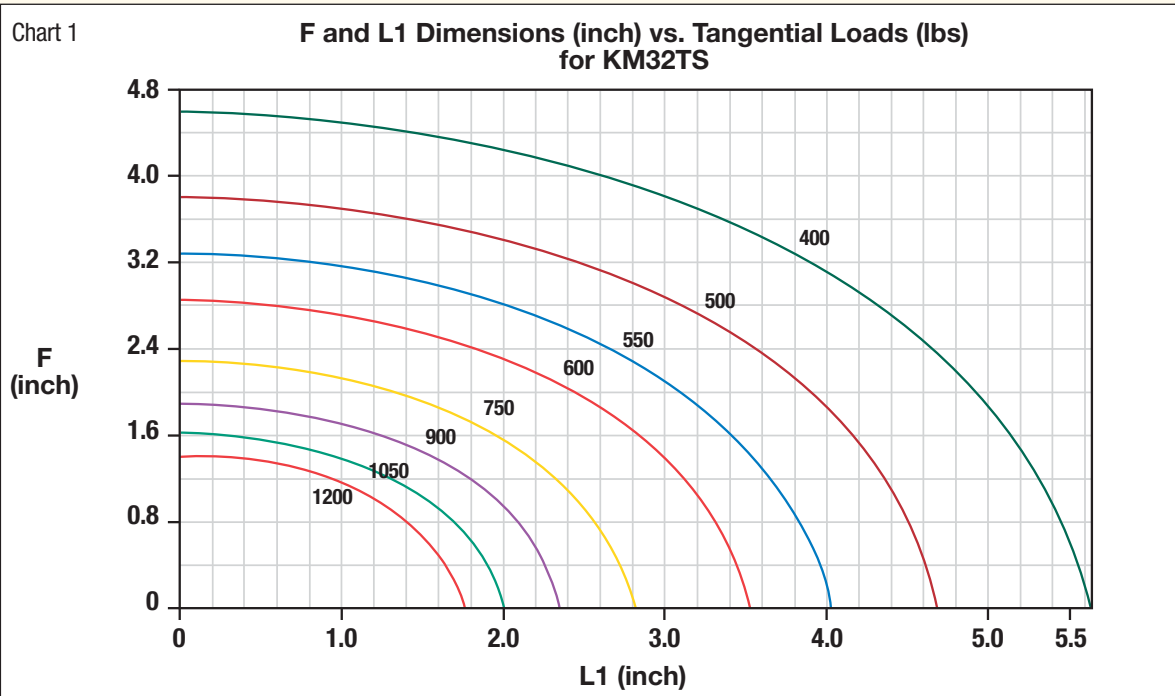
Technical Information



Operating Conditions • KM32TS™ • Inch

IMPORTANT

Information shown on the following charts was developed exclusively for use with KM tooling in static conditions. Do not use for any other tooling system because the results will not apply. To account for cutting force fluctuations in dynamic conditions, a reduction of 20–30% should be applied to the loads shown in charts.



Operating Conditions • KM40TS™ • Metric

IMPORTANT

Information shown on the following charts was developed exclusively for use with KM tooling in static conditions. Do not use for any other tooling system because the results will not apply. To account for cutting force fluctuations in dynamic conditions, a reduction of 20–30% should be applied to the loads shown in charts.

Chart 3

F and L1 Dimensions (mm) vs. Tangential Loads (N) for KM40TS

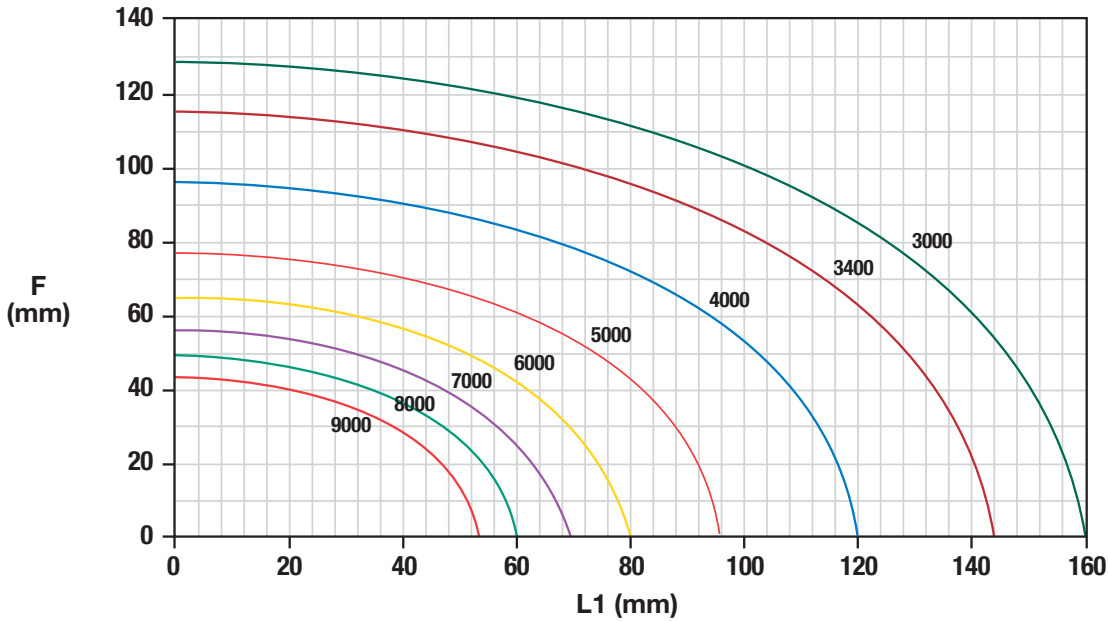
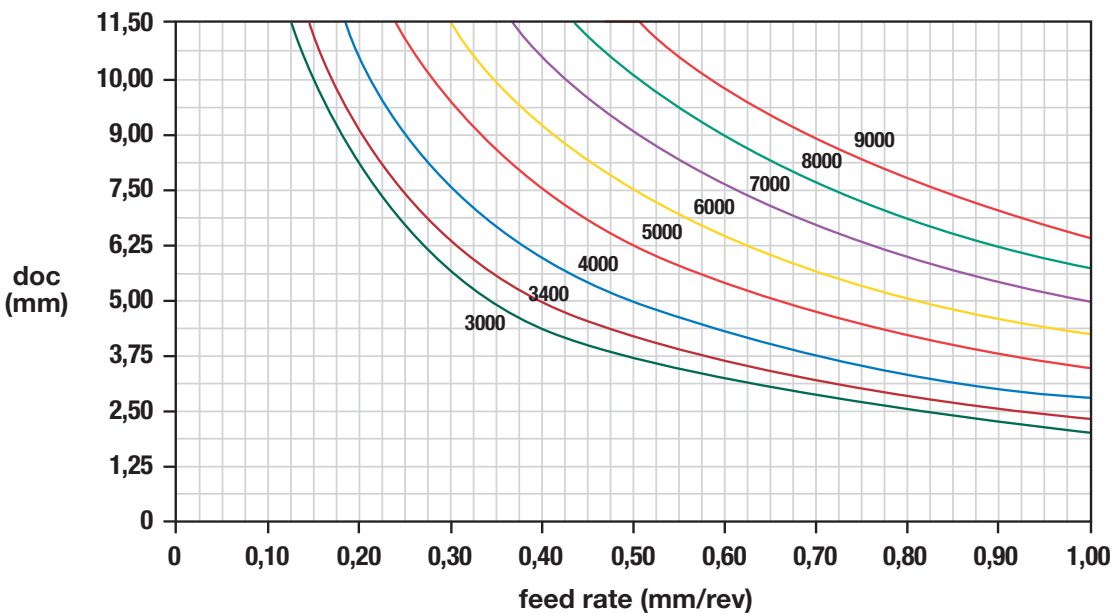


Chart 4

Depth of Cut (mm) and Feed Rate (mm/rev) vs. Tangential Forces (N) for KM40TS



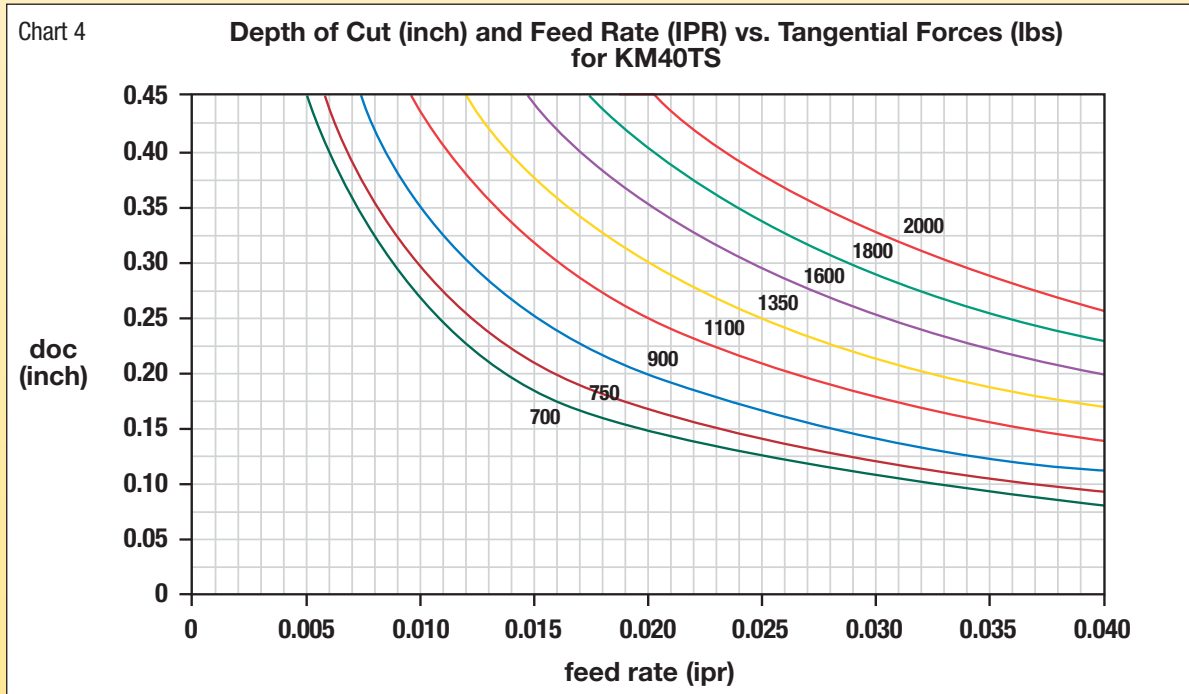
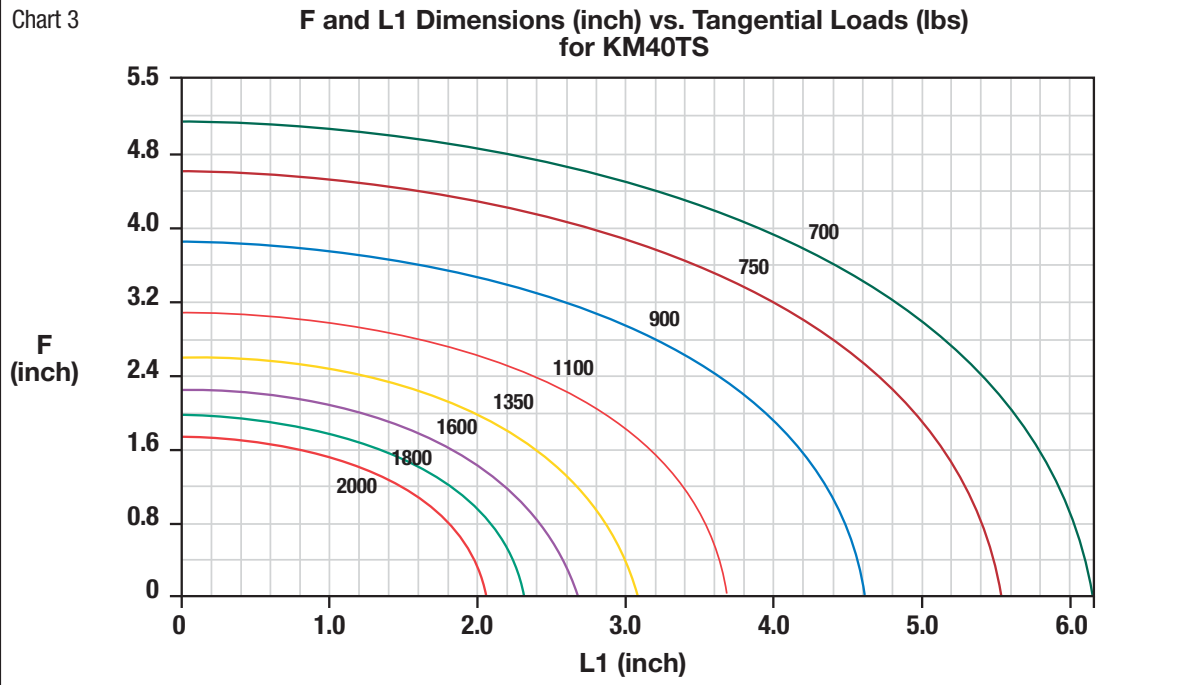
Technical Information



Operating Conditions • KM40TS™ • Inch

IMPORTANT

Information shown on the following charts was developed exclusively for use with KM tooling in static conditions. Do not use for any other tooling system because the results will not apply. To account for cutting force fluctuations in dynamic conditions, a reduction of 20–30% should be applied to the loads shown in charts.



Operating Conditions • KM50TS™ • Metric

IMPORTANT

Information shown on the following charts was developed exclusively for use with KM tooling in static conditions. Do not use for any other tooling system because the results will not apply. To account for cutting force fluctuations in dynamic conditions, a reduction of 20–30% should be applied to the loads shown in charts.

Chart 5

F and L1 Dimensions (mm) vs. Tangential Loads (N) for KM50TS

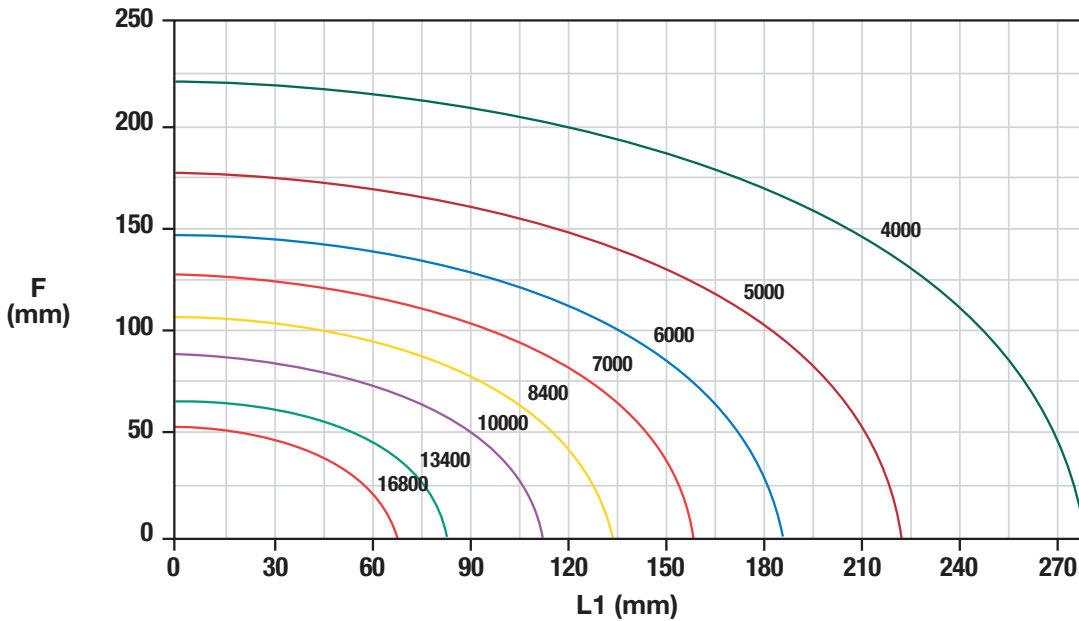
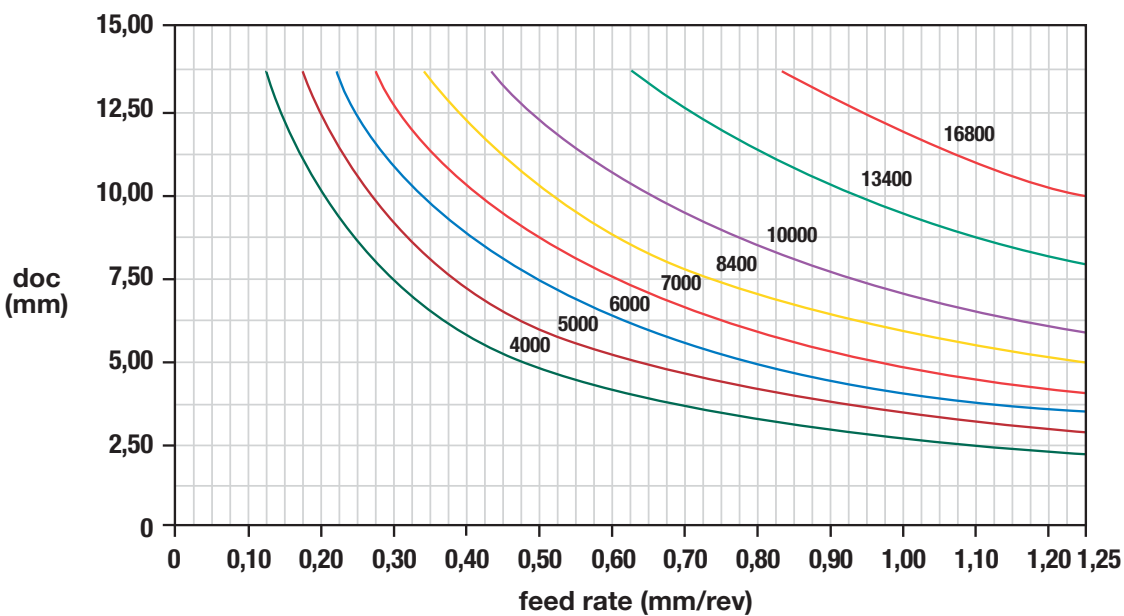


Chart 6

Depth of Cut (mm) and Feed Rate (mm/rev) vs. Tangential Forces (N) for KM50TS



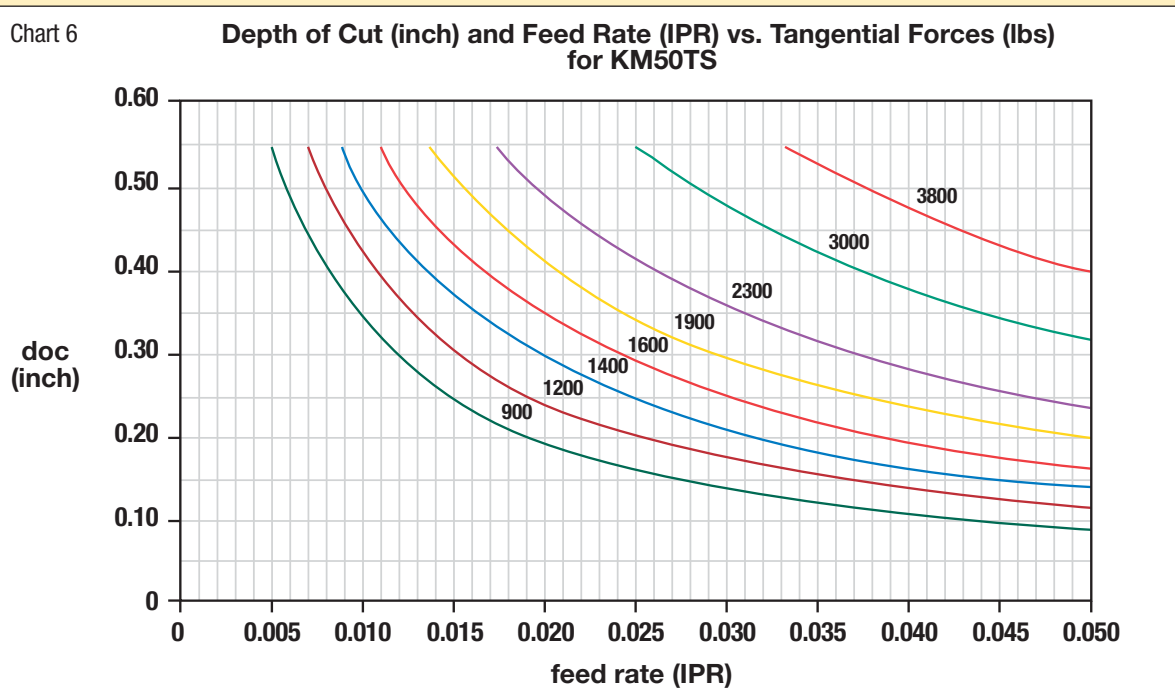
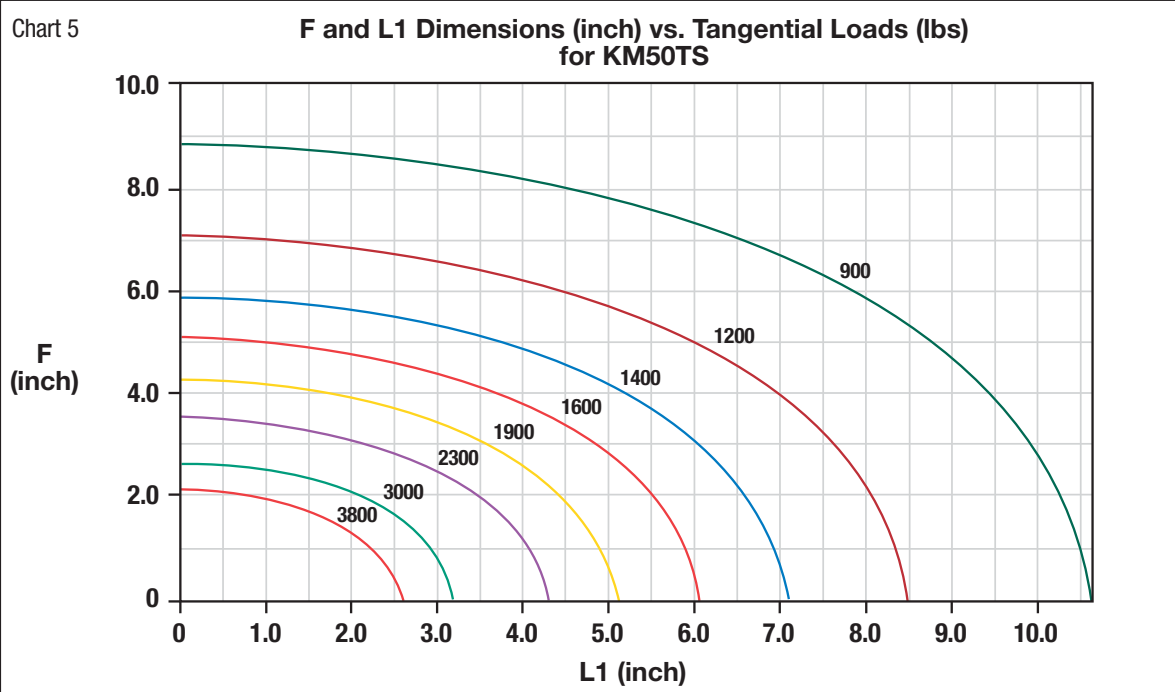
Technical Information



Operating Conditions • KM50TS™ • Inch

IMPORTANT

Information shown on the following charts was developed exclusively for use with KM tooling in static conditions. Do not use for any other tooling system because the results will not apply. To account for cutting force fluctuations in dynamic conditions, a reduction of 20–30% should be applied to the loads shown in charts.



Operating Conditions • KM63TS™ and KM63XMZ™ • Metric

IMPORTANT

Information shown on the following charts was developed exclusively for use with KM tooling in static conditions. Do not use for any other tooling system because the results will not apply. To account for cutting force fluctuations in dynamic conditions, a reduction of 20–30% should be applied to the loads shown in charts.

Chart 7

F and L1 Dimensions (mm) vs. Tangential Loads (N) for KM63TS and KM63XMZ

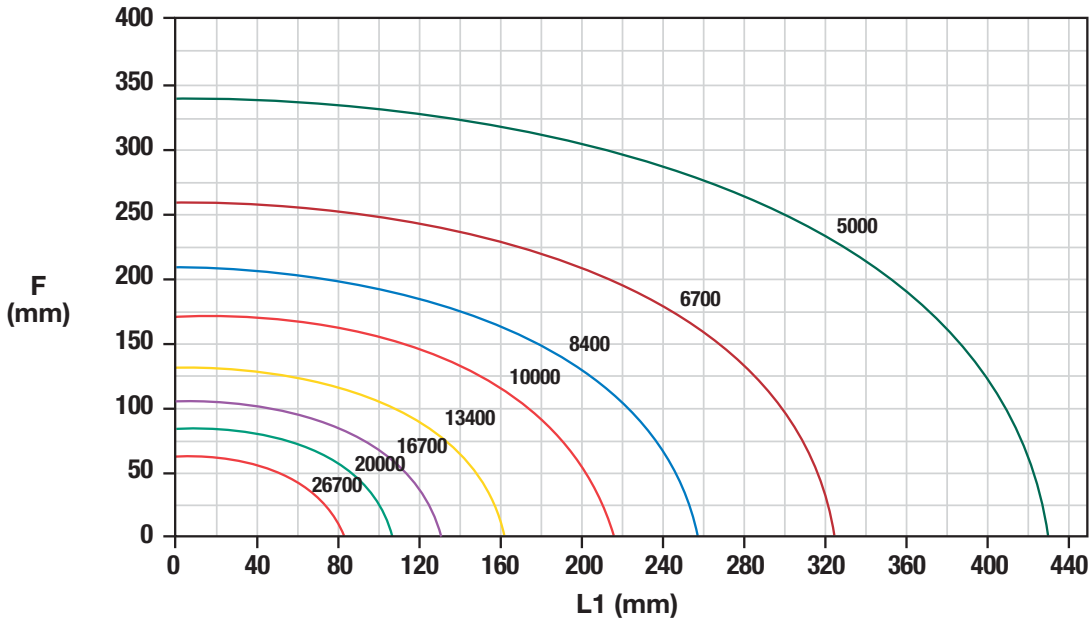
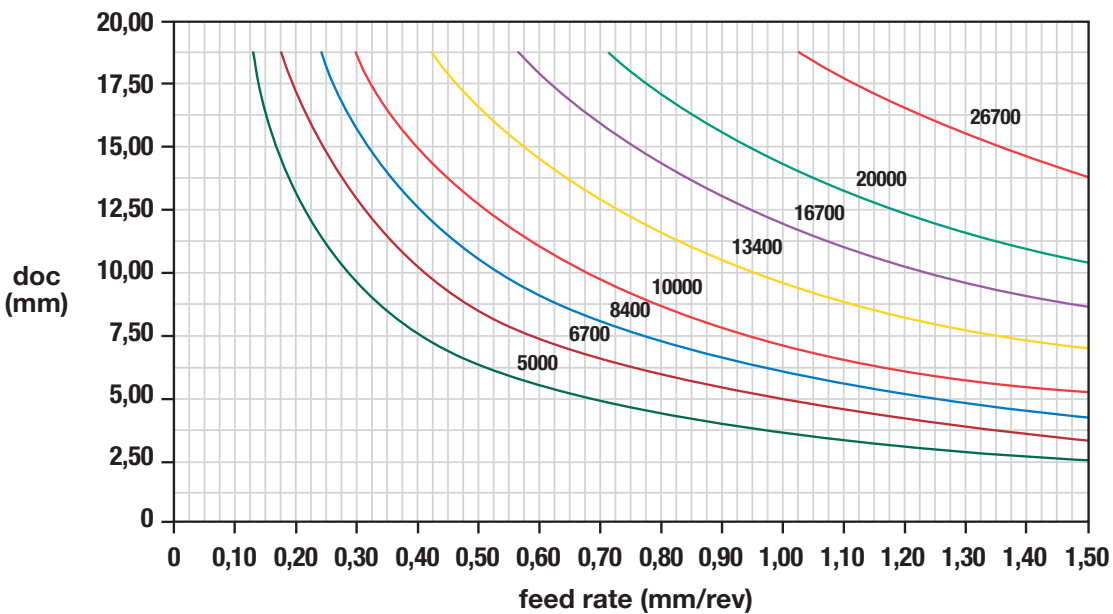


Chart 8

Depth of Cut (mm) and Feed Rate (mm/rev) vs. Tangential Forces (N) for KM63TS and KM63XMZ



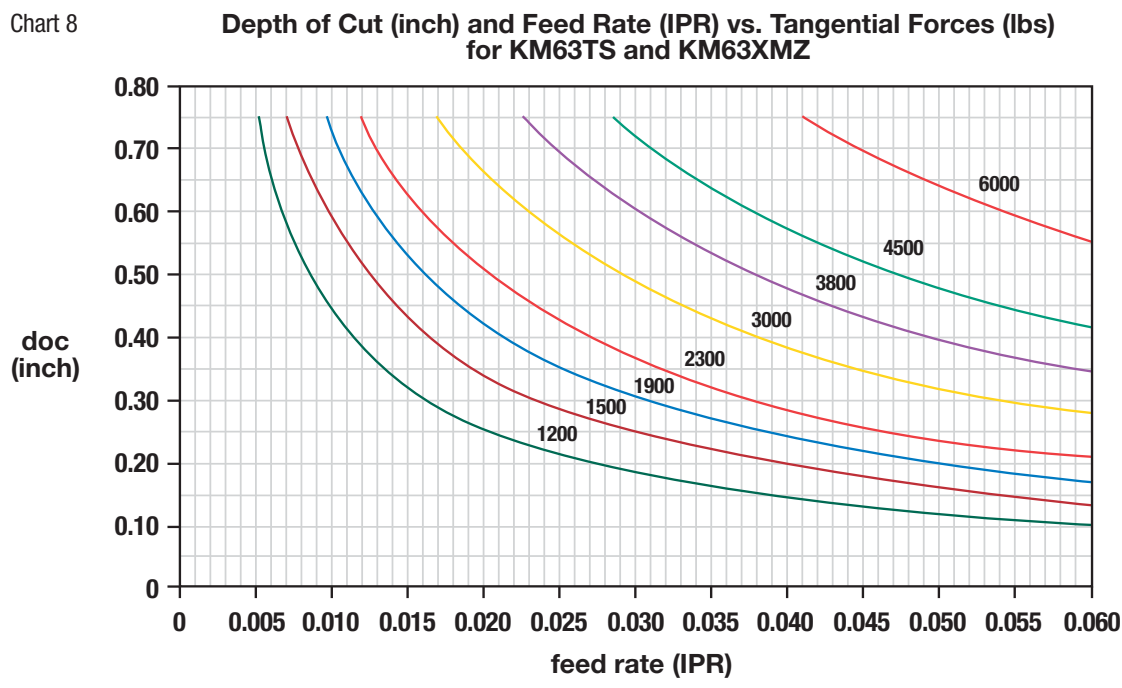
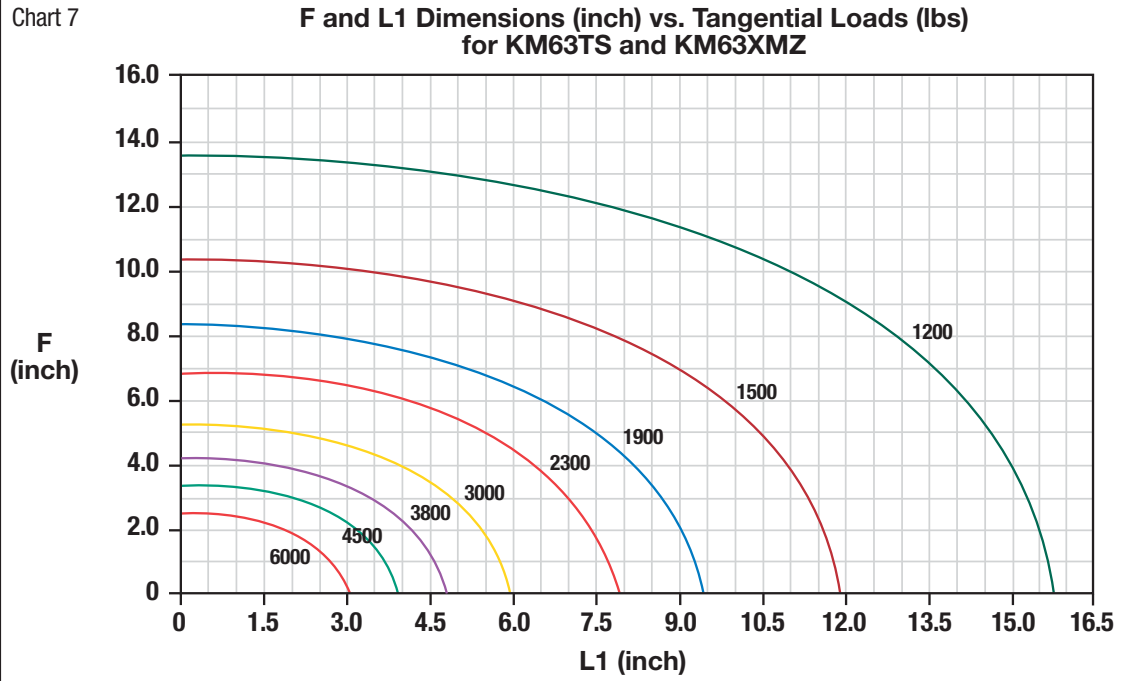
Technical Information



Operating Conditions • KM63TS™ and KM63XMZ™ • Inch

IMPORTANT

Information shown on the following charts was developed exclusively for use with KM tooling in static conditions. Do not use for any other tooling system because the results will not apply. To account for cutting force fluctuations in dynamic conditions, a reduction of 20–30% should be applied to the loads shown in charts.



Operating Conditions • KM80TS™ and KM80ATC™ • Metric

IMPORTANT

Information shown on the following charts was developed exclusively for use with KM tooling in static conditions. Do not use for any other tooling system because the results will not apply. To account for cutting force fluctuations in dynamic conditions, a reduction of 20–30% should be applied to the loads shown in charts.

Chart 9

F and L1 Dimensions (mm) vs. Tangential Loads (N) for KM80TS and KM80ATC

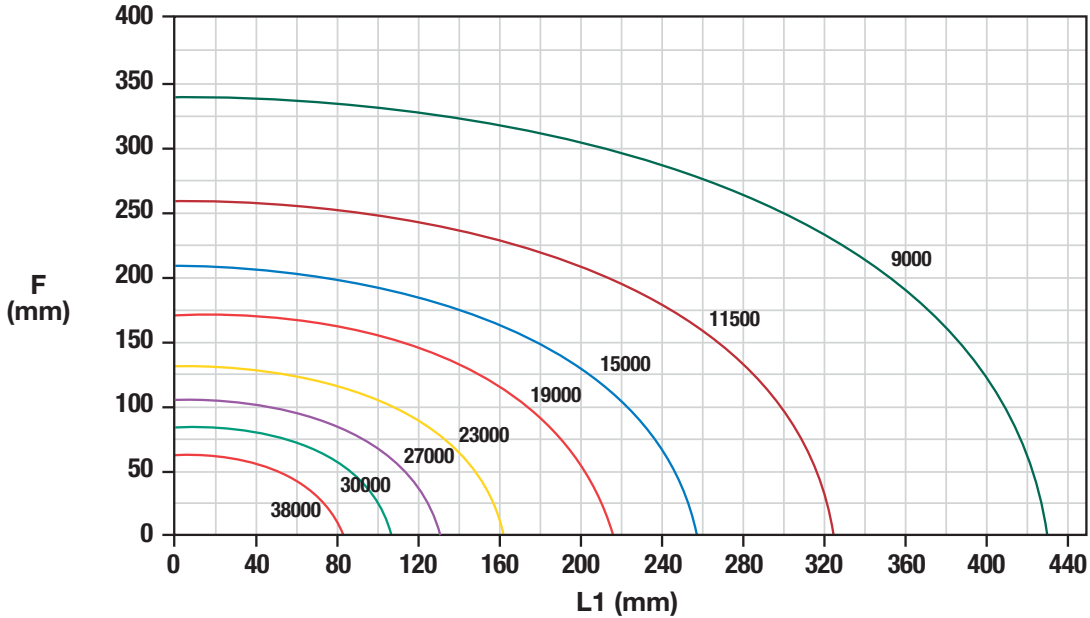
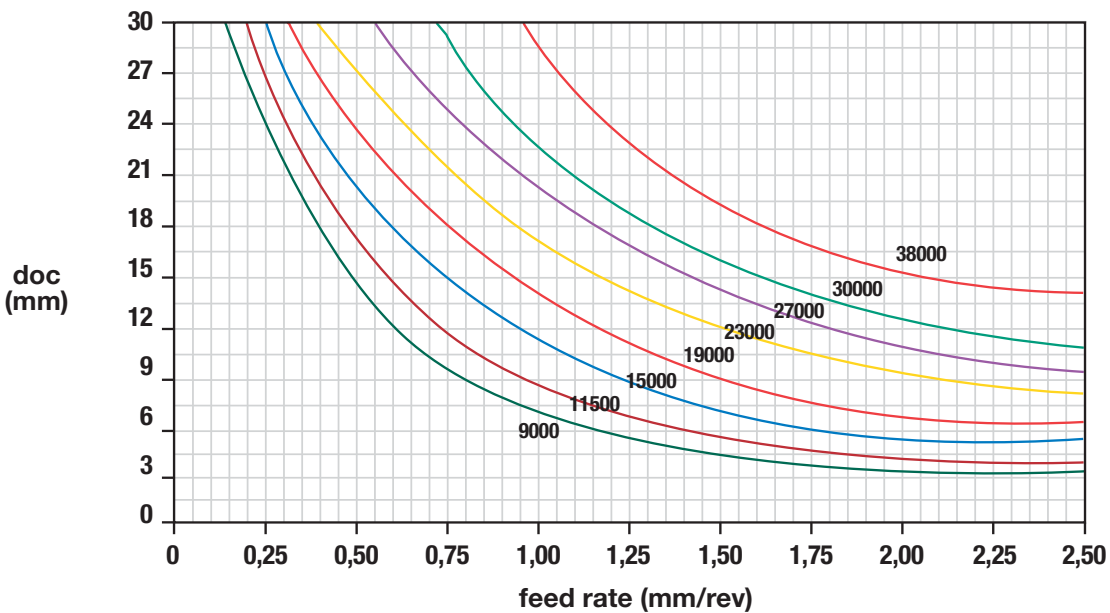


Chart 10

Depth of Cut (mm) and Feed Rate (mm/rev) vs. Tangential Forces (N) for KM80TS and KM80ATC



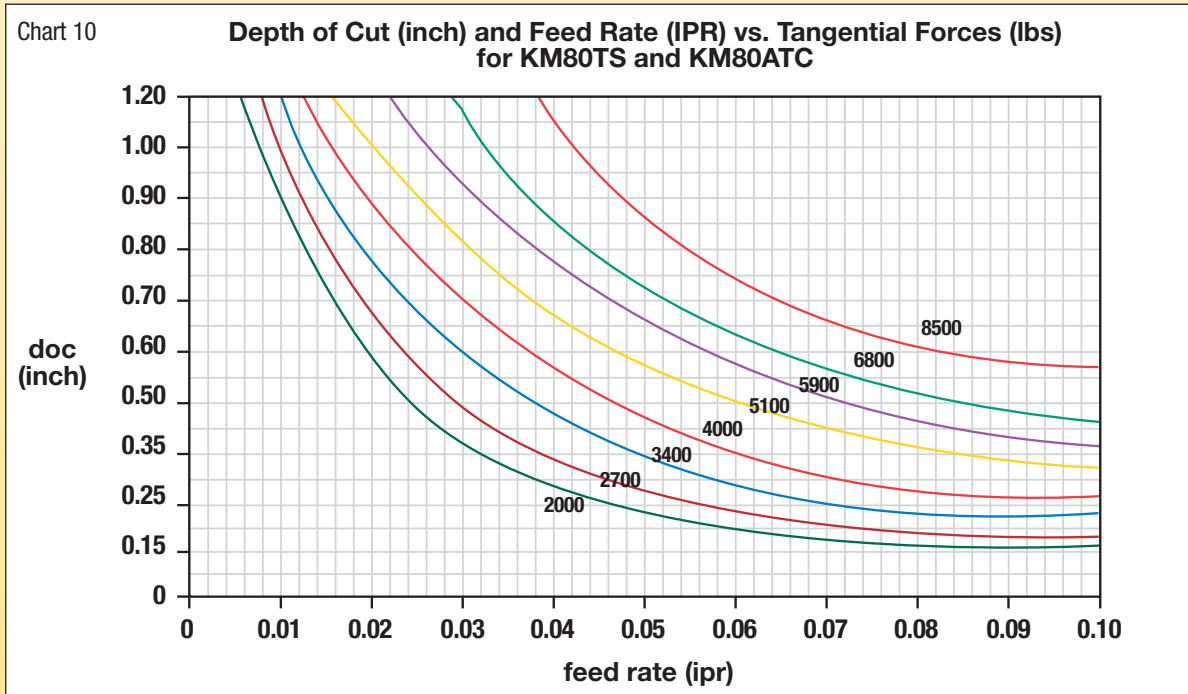
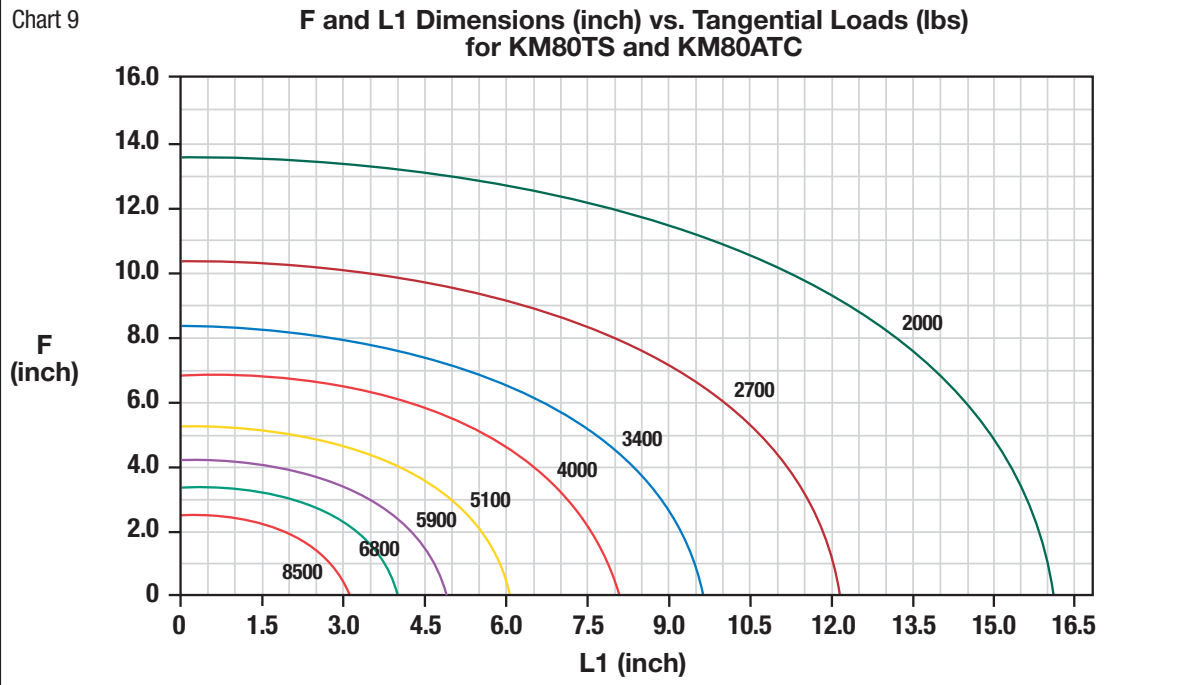
Technical Information



Operating Conditions • KM80TS™ and KM80ATC™ • Inch

IMPORTANT

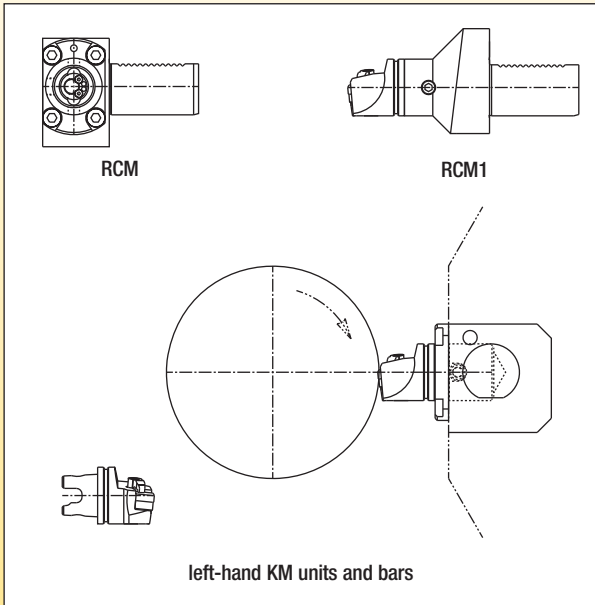
Information shown on the following charts was developed exclusively for use with KM tooling in static conditions. Do not use for any other tooling system because the results will not apply. To account for cutting force fluctuations in dynamic conditions, a reduction of 20–30% should be applied to the loads shown in charts.



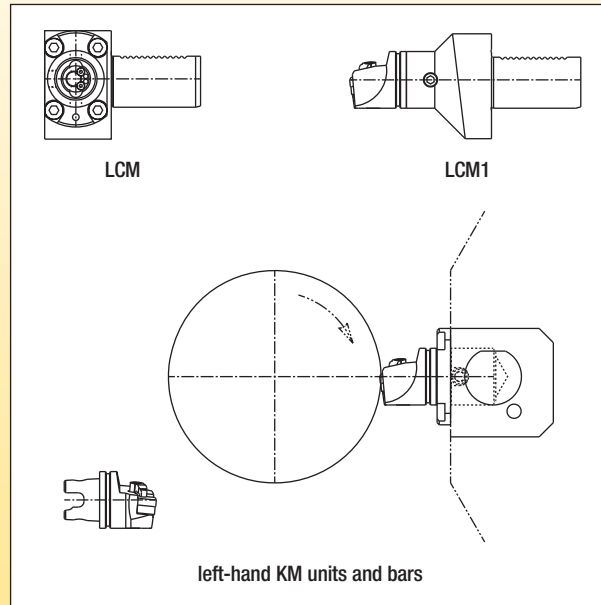
VDI Application Guide

Clockwise Spindle Rotation

VDI Clamp Wedge • Top

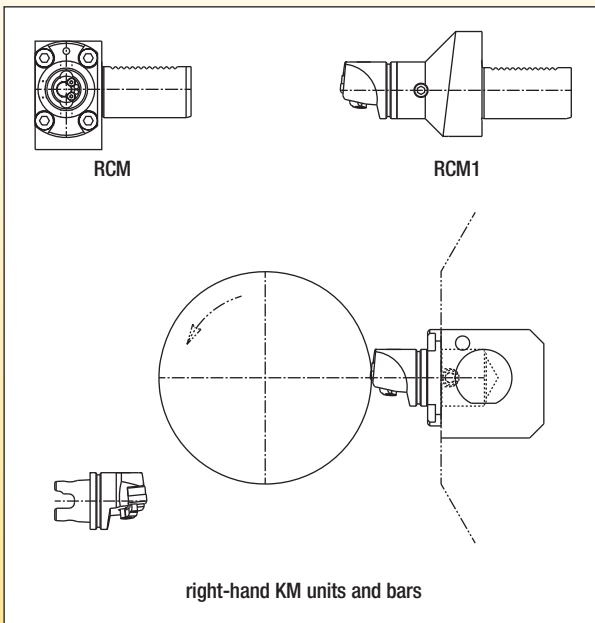


VDI Clamp Wedge • Bottom

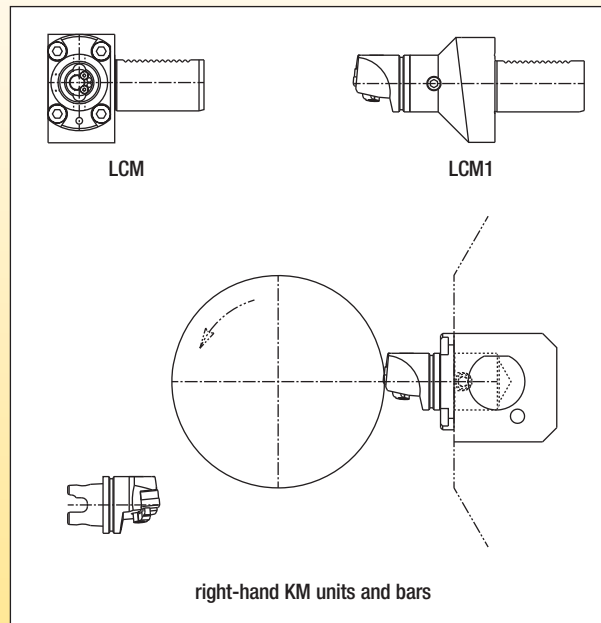


Counterclockwise Spindle Rotation

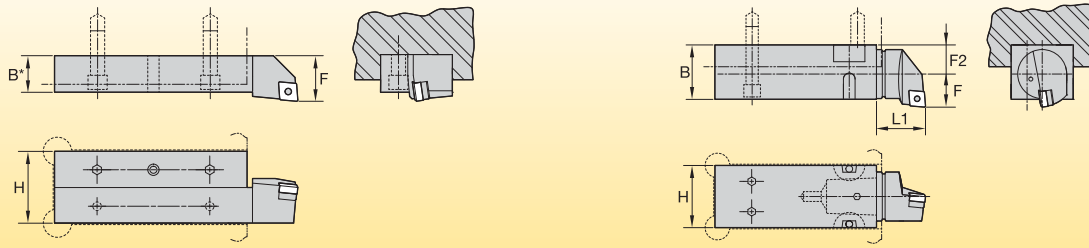
VDI Clamp Wedge • Top



VDI Clamp Wedge • Bottom



Mounting Details • NCM Square Shank Conversion



KM Toolholder Replacement — Square Shank Toolholder — Style MCLNL shown

Toolholder Replacements • Metric

KM replacement unit	square shank equivalent	B*	B	H	L1	F	F2
KM32-NCM4040	20 x 20	20	40	40	45	22	23
KM32-NCM5040	25 x 25	25	40	50	45	22	23
KM40-NCM5044	25 x 25	25	44	50	40	27	23
KM40-NCM6444	32 x 32	32	44	64	40	27	23
KM50-NCM6454	32 x 32	32	54	64	50	35	28

*For MCLNR/L holders.

Toolholder Replacements • Inch

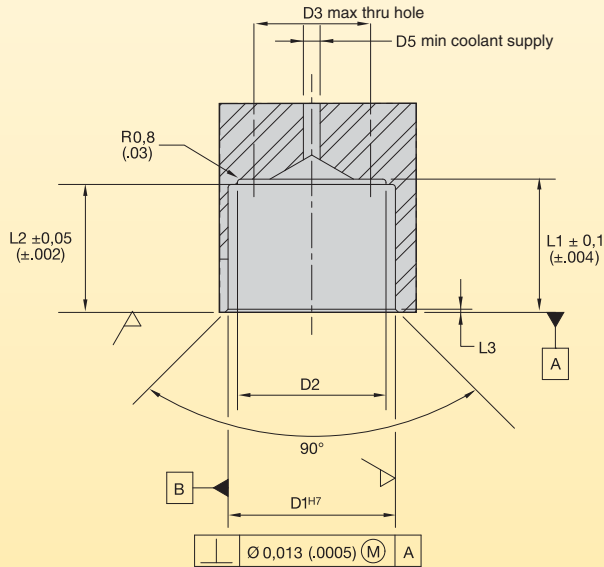
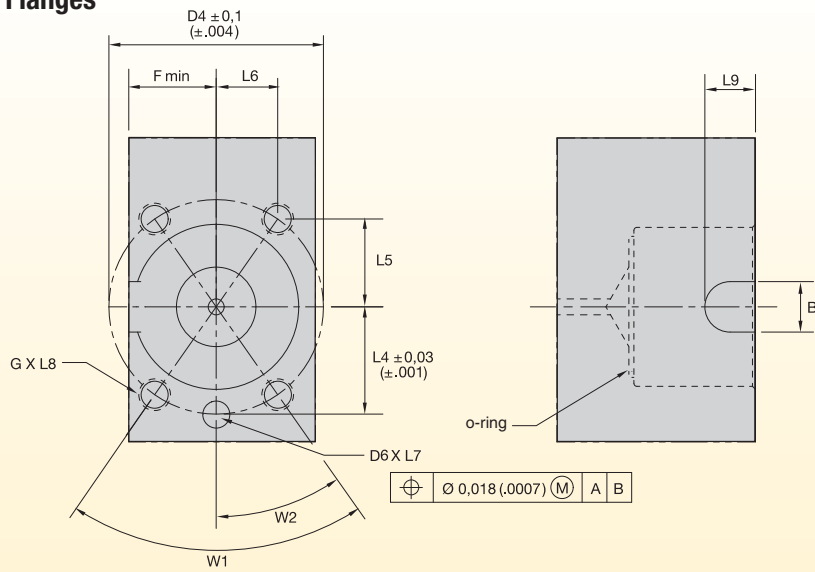
KM replacement unit	square shank equivalent	B*	B	H	L1	F	F2
KM32-NCM2425	3/4 x 3/4	3/4	1.562	1.500	1.378	0.866	0.884
KM32-NCM3225	1 x 1	1	1.562	2.000	1.378	0.866	0.884
KM40-NCM3228	1 x 1	1	1.750	2.000	1.575	1.063	0.937
KM40-NCM4028	1-1/4 x 1-1/4	1-1/4	1.750	2.500	1.575	1.063	0.937
KM50-NCM4034	1-1/4 x 1-1/4	1-1/4	2.125	2.500	1.969	1.378	1.122

*For MCLNR/L holders.

NOTE: F equals the dimension from the centerline of the KM cutting unit over the nose radius of the gage insert.
F2 equals the dimension from the back of the clamping unit to the centerline of the KM cutting unit (see column F2 above).
The offset is identical with most KM cutting units, except for positive lead angle units and neutral units.



KM Manual NCM-F Flanges

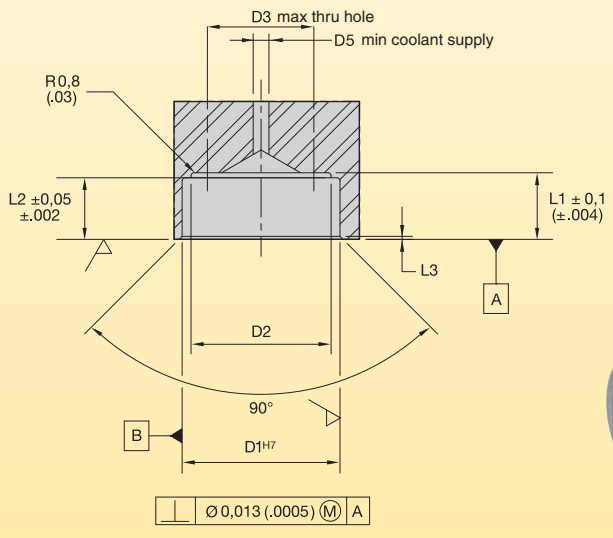
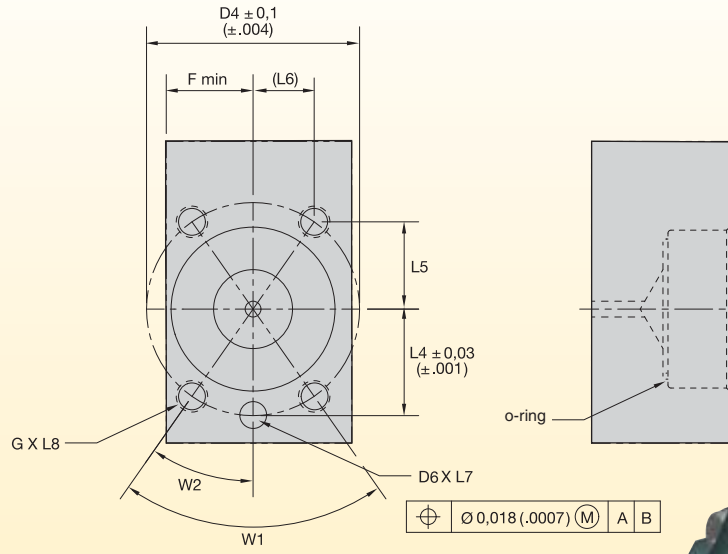


Technical Information

KM size	D1	D2	D3	D4	D5	D6	F	L1	L2	L3	L4	L5	L6	L7	L8	L9	B	G	W1	W2	O-ring
KM32	32,02	30,30	24,00	43,00	4,00	6,370/ 6,348	18,01	26,37	25,20	0,50	21,50	17,61	12,33	11,18	11,00	11,51	11,00	M6	70°	35°	OR00987103V75
	1.261	1.193	0.945	1.693	0.157	.2508/ .2499	0.709	1.038	0.992	0.020	0.847	0.693	0.486	0.440	0.433	0.453	0.433				
KM40	40,02	35,51	29,01	54,00	5,00	6,370/ 6,348	22,00	31,88	30,61	0,80	27,00	22,12	15,49	11,18	18,01	12,75	12,70	M8	70°	35°	OR01174103V75
	1.575	1.398	1.142	2.126	0.197	.2508/ .2499	0.866	1.255	1.205	0.031	1.063	0.871	0.610	0.440	0.709	0.502	0.500				
KM50	50,03	42,80	37,01	67,01	6,50	7,958/ 7,935	27,51	39,88	38,61	1,00	33,50	27,44	19,22	12,70	18,01	18,24	17,50	M10	70°	35°	OR1487103V75
	1.970	1.685	1.457	2.638	0.256	.3133/ .3124	1.083	1.570	1.070	0.039	1.319	1.080	0.757	0.500	0.709	0.718	0.689				
KM63	63,03	53,90	48,01	81,99	8,00	14,079/ 14,054	35,99	46,89	45,62	1,50	41,00	31,70	25,99	19,99	35,00	23,50	21,49	M12	78°42'	39°21'	OR01925103V75
	2.481	2.122	1.890	3.228	0.315	.5543/ .5533	1.417	1.846	1.796	0.059	1.614	1.248	1.023	0.787	1.378	0.925	0.846				
KM80	80,03	66,60	60,00	105,00	9,00	16,079/ 16,054	45,00	58,39	57,12	1,50	52,50	41,61	32,01	25,00	50,00	23,50	23,00	M16	75°8'	37°34'	OR02425103V75
	3.151	2.622	2.362	4.134	0.354	.6330/ .6320	1.772	2.300	2.249	0.059	2.067	1.638	1.260	0.984	1.969	0.925	0.906				

NOTE: Contact Kennametal for the latest dimensional data.

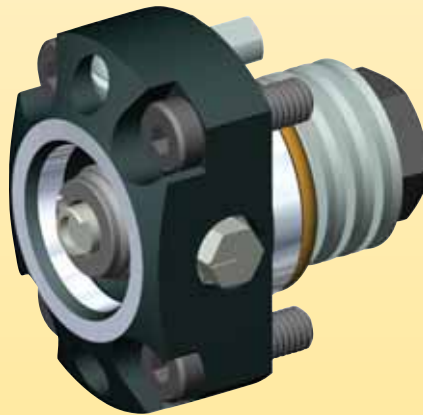
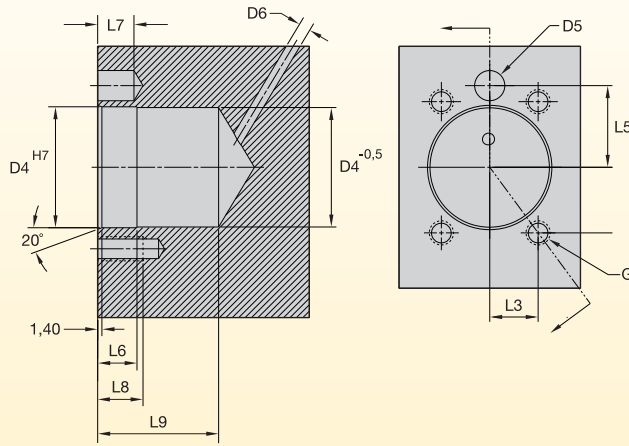
KM LOC-II™ CL2NS/T-EF Flanges • KM Manual NCM-EF Flanges



KM size	D1	D2	D3	D4	D5	D6	F	L1	L2	L3	L4	L5	L6	L7	L8	G	W1	W2	O-ring
KM32	32,02 1.261	30,30 1.193	24,00 0.945	43,00 1.693	4,00 0.157	6,370/6,348 .2508/.2499	18,01 0.709	13,87 0.546	12,70 0.500	0,50 0.020	21,50 0.847	17,61 0.693	12,33 0.486	11,18 0.440	11,00 0.433	M6	70°	35°	OR00987103V75
KM40	40,02 1.575	35,51 1.398	29,01 1.142	54,00 2.126	5,00 0.197	6,370/6,348 .2508/.2499	22,00 0.866	16,89 0.665	15,62 0.615	0,80 0.031	27,00 1.063	22,12 0.871	15,49 0.610	11,18 0.440	18,01 0.709	M8	70°	35°	OR01174103V75
KM50	50,03 1.97	42,80 1.685	37,01 1.457	67,01 2.638	6,50 0.256	7,958/7,935 .3133/.3124	27,51 1.083	21,87 0.861	20,60 0.811	1,00 0.039	33,50 1.319	27,44 1.080	19,22 0.757	12,70 0.500	18,01 0.709	M10	70°	35°	OR1487103V75
KM63	63,03 2.481	53,90 2.122	48,01 1.890	81,99 3.228	8,00 0.315	14,079/14,054 .5543/.5533	35,99 1.417	21,87 0.861	20,60 0.811	1,50 0.059	41,00 1.614	31,70 1.248	25,99 1.023	19,99 0.787	30,00 1.181	M12	78°42'	39°21'	OR01925103V75
KM80	80,03 3.151	66,60 2.622	60,00 2.362	105,00 4.134	9,00 0.354	16,079/16,054 .6330/.6320	45,00 1.772	26,89 1.059	25,62 1.009	1,50 0.059	52,50 2.067	41,61 1.638	32,01 1.260	25,00 0.984	50,00 1.969	M16	75°8'	37°34'	OR02425103V75



KM Rapid RNS-EF

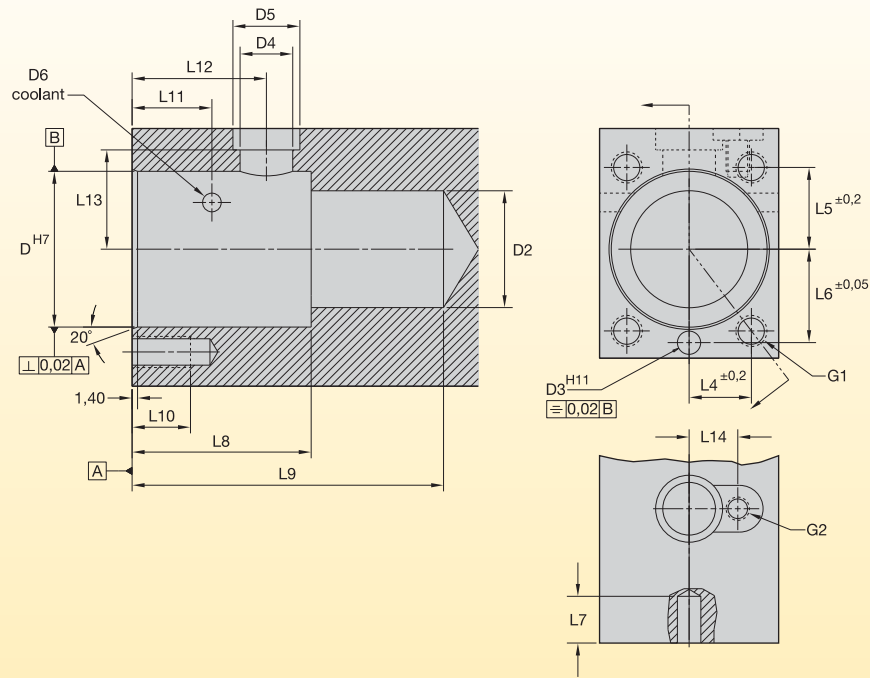


Technical Information

KM size	D4	D5 H11	D6	L3	L4	L5	L6	L7	L8	L9 min	G
KM40	40	10	5	16	21,7	27	13	12	15	44	M8
KM50	50	12	6,5	20	28,7	35	16	14	20	46	M10
KM63	63	14	8	26	31,7	41	20	16	24	52	M12

NOTE: Chart values shown are metric.

KM Rapid Plus RPNT-F

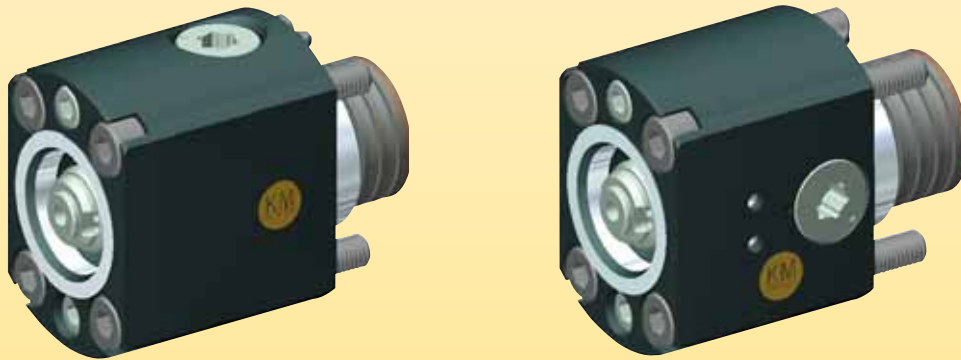
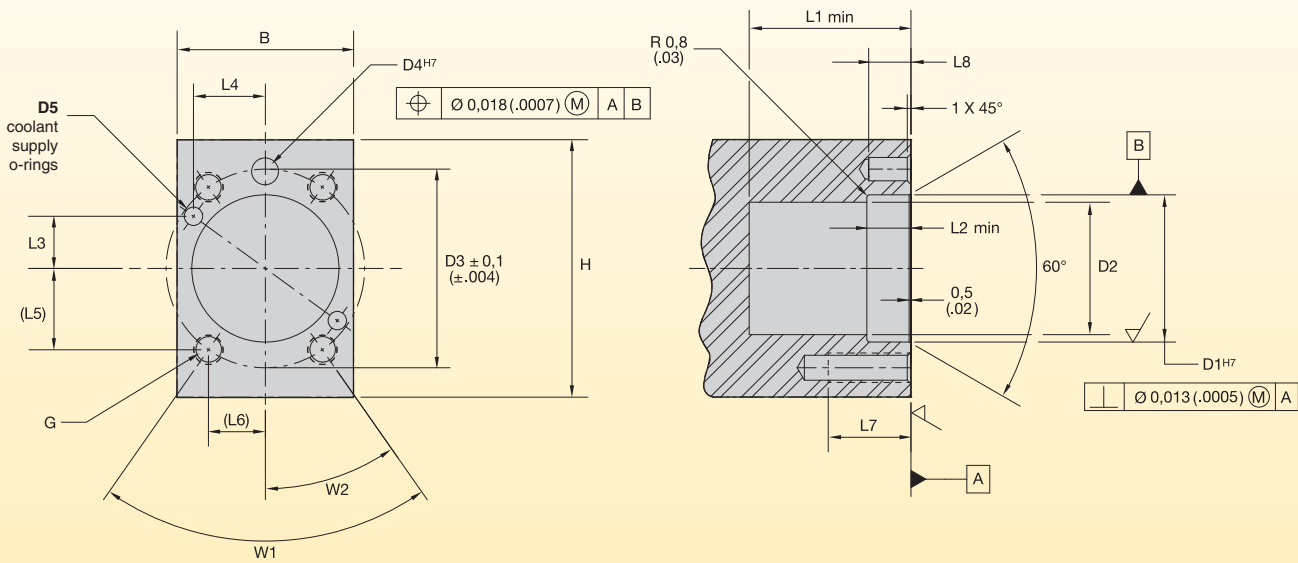


KM size	D	D2	D3	D4	D5	D6	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	G1	G2	screw DIN-ISO 7380
KM40	40	30	6	13.5	17.2	5	16	21	24	12	46	80	15	20.5	34.5	25.5	12.5	M8	M6	M6x6
KM50	50	40	6	18.5	22.2	8	20	25.5	29.2	12	59	105	25	26	43.8	33.5	16.5	M10	M8	M8x10
KM63	63	45	10	24.5	28.5	8	26	31.7	38.5	20	18	120	30	35	58.5	41.3	19.5	M12	M8	M8x10

NOTE: Chart values shown are metric.



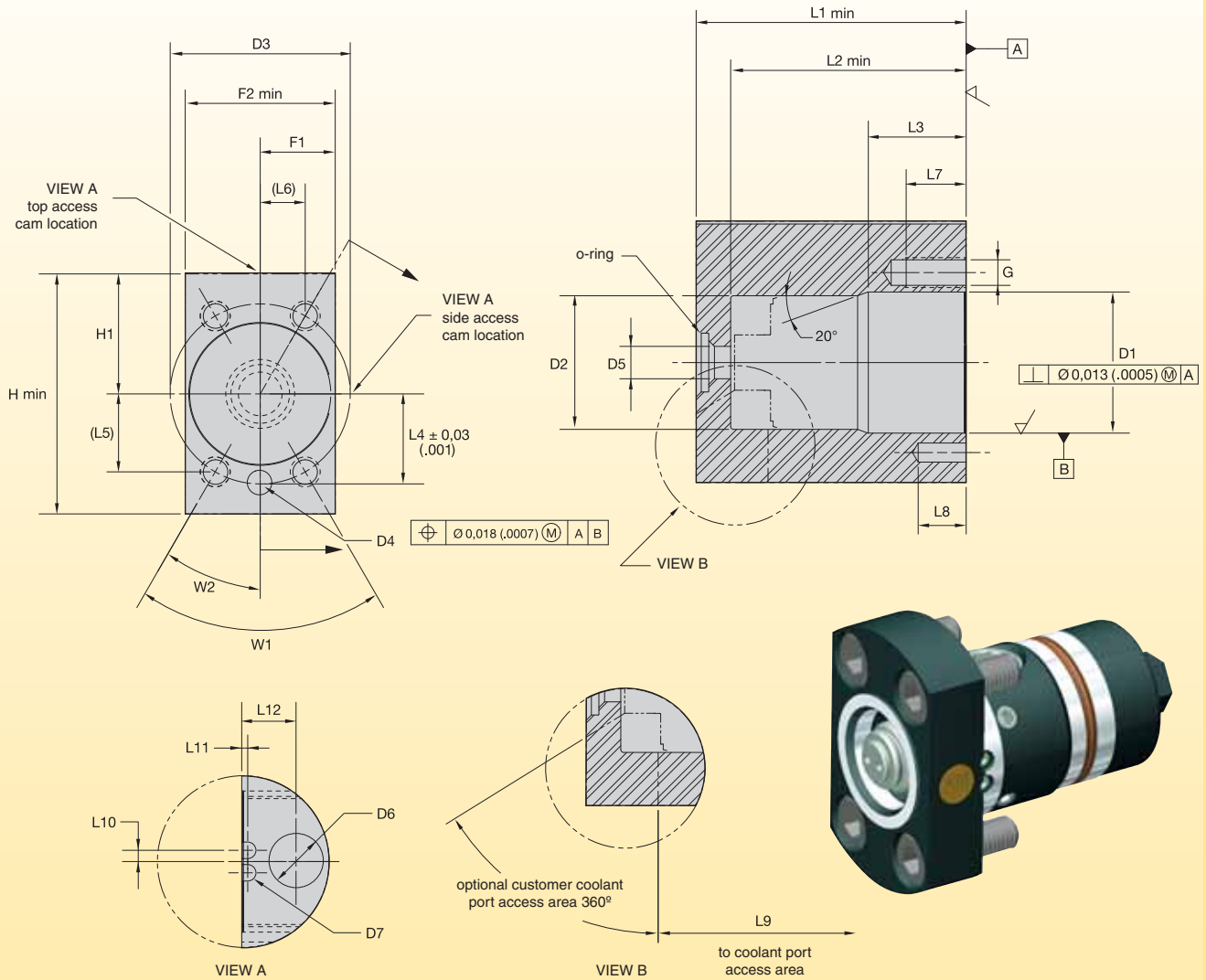
KM-LOC™ CLNS/T-EF



Technical Information

KM size	D1	D2	D3	D4	L1	L2	L3	L4	L5	L6	L7	L8	B	G	H	W1	W2	O-ring
KM32	32,00	30,00	43,00	6,35	30,00	10,00	11,30	16,15	17,6	12,30	19,50	11,50	40,00	M6	60,00	70°	35°	OR00145070V75
	1.260	1.181	1.693	0.250	1.181	0.394	0.445	0.646	0.693	0.484	0.768	0.453	1.575					
KM40	40,00	36,00	54,00	6,35	44,00	12,00	14,18	19,56	22,10	15,50	22,50	11,50	48,00	M8	70,00	70°	35°	OR00176070V75
	1.575	1.417	2.126	0.250	1.732	0.472	0.558	0.770	0.870	0.610	0.886	0.453	1.890					
KM50	50,00	47,00	67,00	7,95	49,00	14,00	18,25	23,90	27,40	19,20	25,50	13,00	58,00	M10	85,00	70°	35°	OR00208070V75
	1.969	1.850	2.638	0.313	1.929	0.551	0.719	0.941	1.079	0.756	1.004	0.512	2.283					

KM LOC-II™ CL2NS/T-BC Boring Cartridge

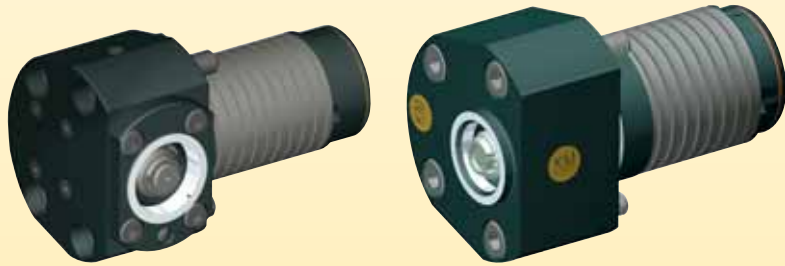
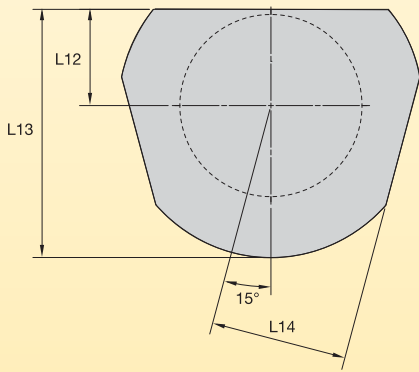
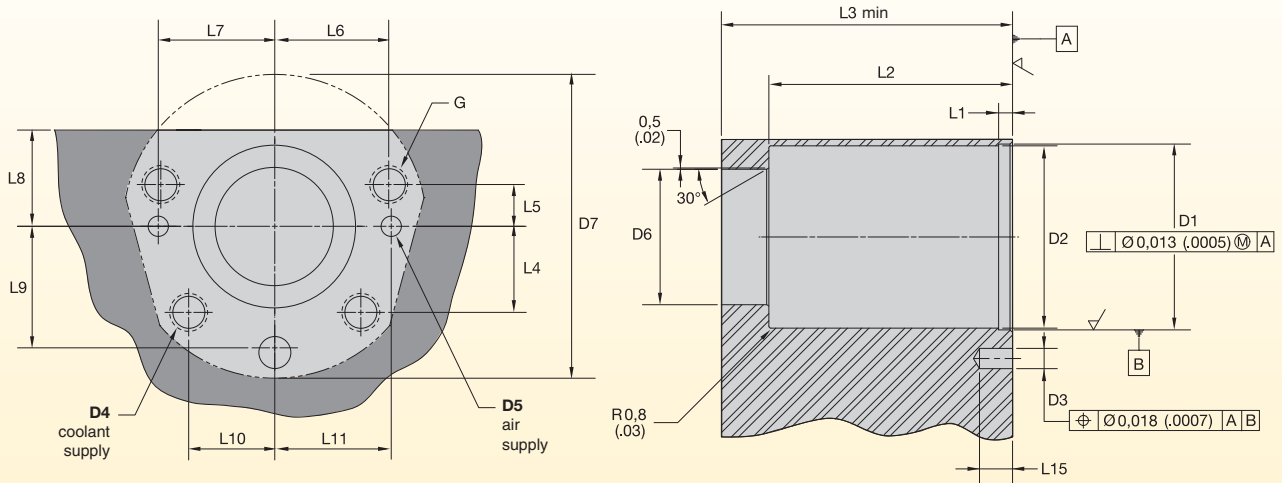


KM size	D1	D2	D3	D4	D5	D6	D7	F	F1	H	H1	L1	L2
KM40	47,04 1.852	44,54 1.754	60,00 2.362	6,36 0.250	10,80 0.425	15,00 0.591	5,50 0.217	50,00 1.969	25,00 0.984	80,00 3.150	40,00 1.575	90,00 3.543	78,50 3.091
KM50	58,29 2.295	54,10 2.130	74,00 2.913	7,94 0.313	10,80 0.425	18,00 0.709	6,50 0.256	64,00 2.520	32,00 1.260	96,00 3.780	48,00 1.890	100,00 3.937	88,00 3.465
KM63	74,04 2.915	69,92 2.753	94,00 3.701	14,04 0.553	12,80 0.504	20,00 0.787	6,50 0.256	78,00 3.071	39,00 1.535	122,00 4.803	61,00 2.402	115,00 4.528	100,80 1.535

KM size	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	G	W1	W2	O-ring
KM40	32,75 1.289	30,00 1.181	25,98 1.023	15,00 0.591	20,00 0.787	16,00 0.630	65,50 2.579	3,75 0.148	2,00 0.079	18,10 0.713	M10	60	30	OR00614070V90
KM50	38,00 1.496	37,00 1.457	32,04 1.261	18,50 0.728	21,00 0.827	16,00 0.630	75,75 2.982	5,30 0.209	6,75 0.266	24,25 0.955	M12	60	30	OR00614070V90
KM63	47,20 1.858	47,00 1.850	40,70 1.602	23,50 0.925	20,00 0.787	16,00 0.630	87,50 3.445	6,45 0.254	5,00 0.197	26,00 1.024	M16	60	30	OR00739070V90



KM RACA and NAC

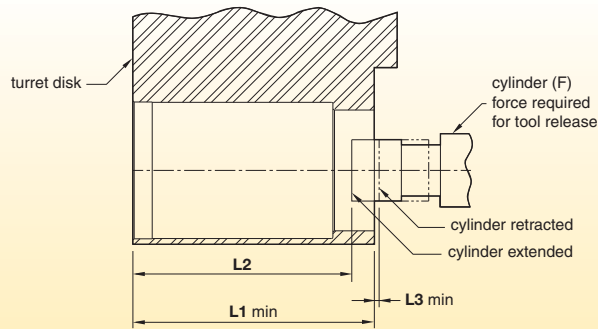


Technical Information

KM size	D1	D2	D3	D4	D5	D6	D7	L1	L2	L3	L4
KM32	52,00	51,60	10,08	5,00	5,00	47,08	85,00	9,00	72,00	85,00	24,00
	2.047	2.032	0.397	0.196	0.196	1.853	3.346	0.354	2.835	3.346	0.945
KM40	62,00	61,70	10,08	7,70	7,70	55,08	100,00	10,00	78,50	95,00	30,00
	2.441	2.421	0.397	0.303	0.303	2.168	3.937	0.394	3.091	3.74	1.181
KM50	72,00	71,70	12,08	8,00	8,00	65,08	120,00	10,00	97,00	115,00	34,00
	2.835	2.815	0.475	0.315	0.315	2.562	4.724	0.394	3.819	4.528	1.339
KM63	85,00	84,60	16,08	9,50	9,50	75,08	140,00	12,00	124,50	145,00	35,35
	3.346	3.327	0.633	0.374	0.374	2.956	5.512	0.472	4.902	5.709	1.392

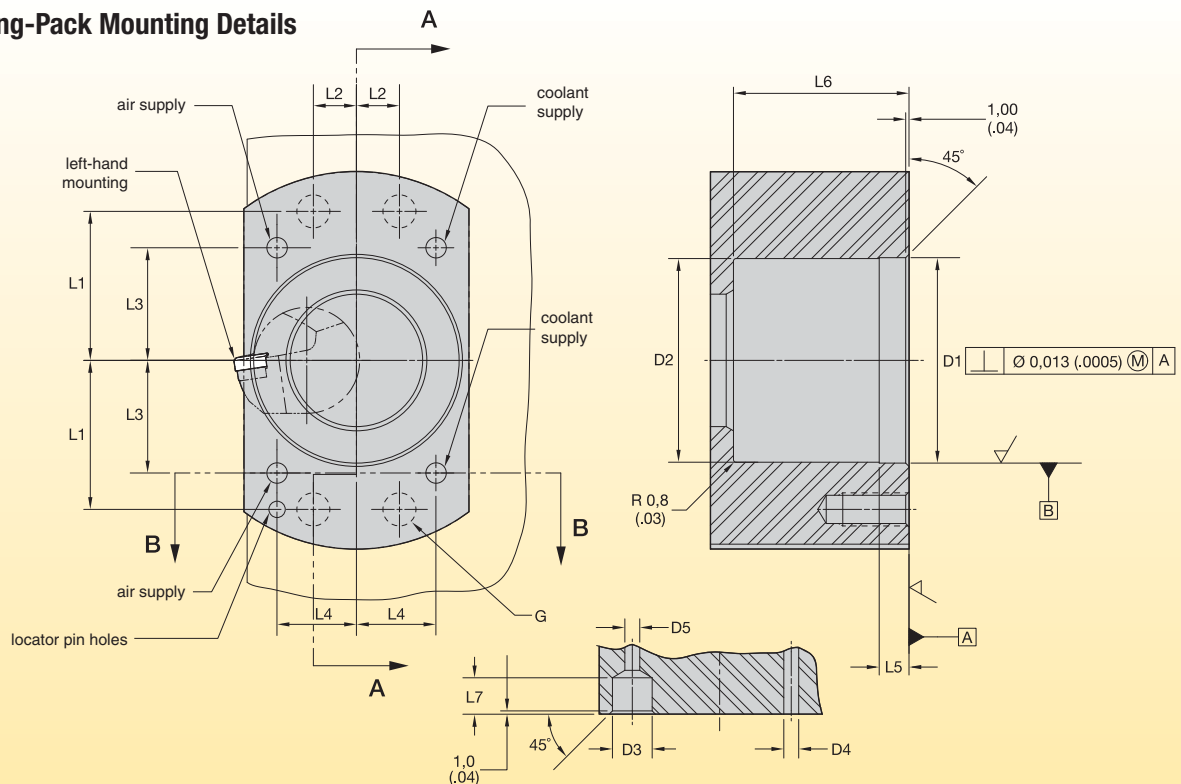
KM size	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15	G
KM32	11,50	32,00	32,00	27,50	34,00	24,00	32,00	27,50	70,00	38,00	14,50	M8-1,25x20 (.79) deep
	0.453	1.260	1.260	1.083	1.339	0.945	0.945	1.083	2.756	1.496	0.571	
KM40	15,00	37,00	39,50	33,00	40,00	26,50	39,50	34,00	84,00	46,00	22,00	M10-1,5x25 (.98) deep
	0.591	1.457	1.555	1.299	1.575	1.043	1.043	1.339	3.307	1.811	0.866	
KM50	16,50	45,00	46,00	42,00	48,00	34,00	46,00	42,00	102,00	54,00	22,00	M12-1,75x25 (.98) deep
	0.650	1.772	1.811	1.654	1.890	1.339	1.339	1.654	4.016	2.126	0.866	
KM63	18,80	51,70	55,00	46,00	55,00	42,15	55,00	47,00	117,00	65,00	24,00	M16-2,0x30 (1.18) deep
	0.740	2.035	2.165	1.811	2.165	1.659	1.659	1.850	4.606	2.559	0.945	

KM RACA and NACA Spring-Pack Cylinder



KM size	L1	L2	L3
KM32	85,00	76,50	3,00
	3.346	3.012	0.118
KM40	95,00	83,20	3,00
	3.740	3.276	0.118
KM50	115,00	103,00	3,00
	4.528	4.055	0.118
KM63	145,00	131,00	3,00
	5.709	5.157	0.118

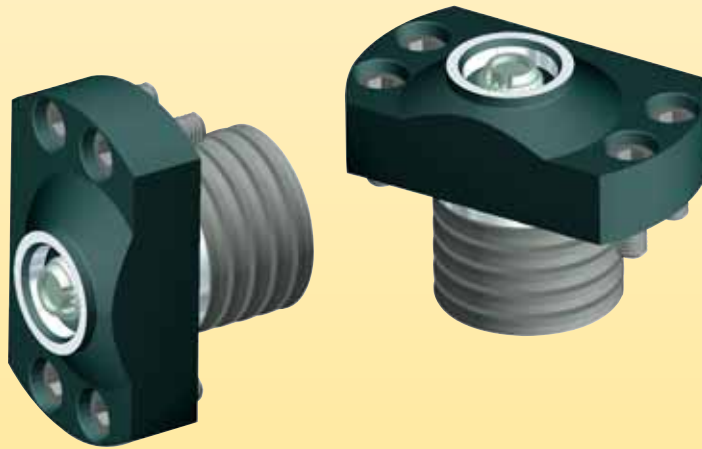
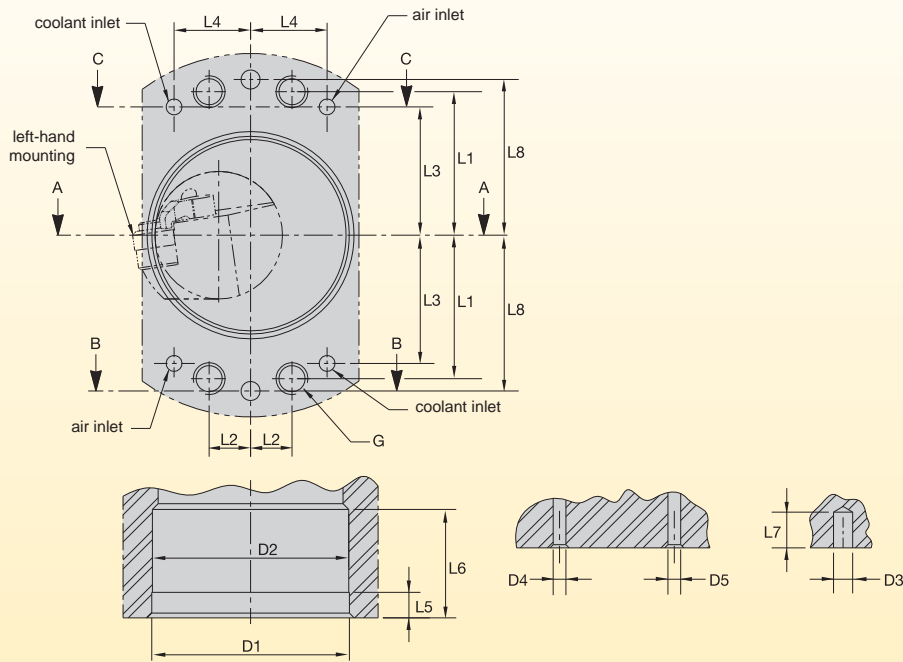
NCA Spring-Pack Mounting Details



KM size	D1	D2	D3	D4	D5	L1	L2	L3	L4	L5	L6	L7	G
KM32-NCA-DS31	51,00	50,50	8,00	3,20	3,20	36,00	10,50	27,50	19,50	6,00	44,00	9,00	M8-1,25x20 (.79) deep
	2.008	1.988	0.315	0.126	0.126	1.417	0.413	1.083	0.768	0.236	1.732	0.354	
KM40-NCA-DS40	62,00	61,50	12,00	4,50	4,50	45,00	13,00	34,01	24,00	9,00	53,01	11,00	M10-1,5x20 (.79) deep
	2.441	2.421	0.472	0.177	0.177	1.772	0.512	1.339	0.945	0.354	2.087	0.433	
KM50-NCA-DS50	78,00	71,50	15,00	5,50	5,50	56,00	16,00	42,00	28,00	6,00	74,00	12,00	M12-1,75x30 (1.18) deep
	3.071	2.815	0.591	0.217	0.217	2.205	0.630	1.654	1.102	0.236	2.913	0.472	



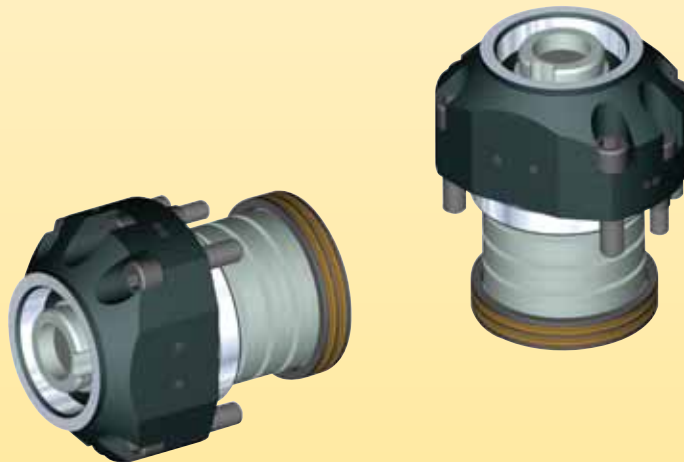
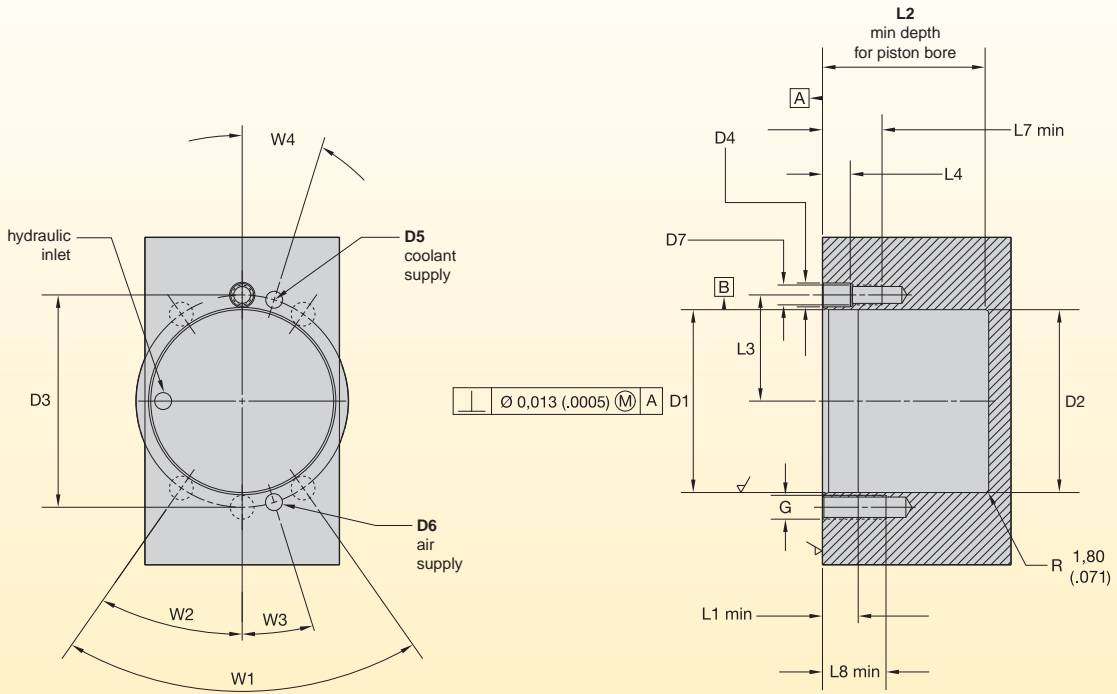
KM32 NCA



Technical Information

KM size	D1	D2	D3	D4	D5	L1	L2	L3	L4	L5	L6	L7	L8	G
KM32-NCA-DS16	51,00 2.008	50,80 2.000	6,04 0.238	5,00 0.197	5,00 0.197	29,37 1.156	10,69 0.421	23,93 0.942	20,09 0.791	20,00 0.787	65,00 2.559	11,20 0.441	32,25 1.270	M8-1,25x15 (.59) deep

XGL – Static



KM size	D1	D2	D3	D4	D5	D6	D7	G	L1	L2	L3	L4	L7	L8	W1	W2	W3	W4
KM80	92,177 3.629	92,177 3.629	107,00 4.213	12,045 .4742	6,35 0.25	6,35 0.25	M10	M12	18,00 0.709	81,95 3.226	53,525 2.107	14,00 0.551	30,00 1.181	32,00 1.26	70°	35°	17°30'	17°30'

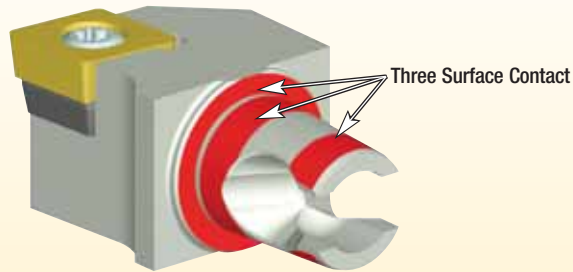


The KM Micro/KM Mini Coupling

The rigidity and stiffness of the patented KM Micro/KM Mini joint is achieved through a combination of unique design elements incorporated in both the shank of the tool and the clamping mechanism. The KM Micro/KM Mini joint was developed as a system and takes full advantage of both the tool shank and the mechanism to obtain maximum benefit from the space utilized.



Face and Taper Contact



KM Micro/KM Mini tooling is designed to have simultaneous taper and face contact. Two alternate methods provide metal-to-metal contact. One method is to manufacture both halves of the coupling holding very close tolerances. The other is to design a small amount of elastic deformation into the assembly. With KM Micro/KM Mini tooling, elastic deformation takes the form of expansion of the female taper (on the clamping unit) as the larger male taper (on the cutting unit) is pulled back during lockup.

Our testing proved that an optimum combination of pull-back force and elastic deformation (rather than a close tolerance) provides greater static and dynamic stiffness and achieves a metal-to-metal fit.

Taper Shank

All KM Micro/KM Mini tooling is designed around a short 10:1 tapered shank. Extensive testing of many different lengths and angles proves this combination provides the maximum stiffness and input forces required for locking/unlocking. The taper is self-centering to promote easy tool loading and unloading.

Clamping Mechanism

The mechanism design consists of two components: the torque screw and the wedge nut. This simple, yet highly effective clamping mechanism allows the user to lock and unlock the cutting unit by simply using a preset torque wrench. This KM Micro/KM Mini clamping mechanism fits inside the taper shank of the KM Micro/KM Mini cutting unit and utilizes a coincidental cone design that maximizes the contact area between the clamping mechanism and the cutting unit. As a result, the cutting unit and clamping mechanism are on a shared axis and provide accurate axial and radial repeatability of $\pm 0.00008''$ (± 2 micron) for a specific cutting unit in a specific clamping unit.

When more than one cutting unit is used, the accuracy of each cutting unit must be considered. Pre-gaging (when changing tools) measures the deviations of each tool from the nominal. These deviations can then be compensated for by the machine tool control offsets.



Locking Sequence

The clamping sequence starts with the insertion of the cutting unit into the female taper of the clamping unit. The cutting unit first makes contact at a stand-off from the gage face of approximately .010" (0,25mm). The torque screw is then activated by a preset torque wrench at a right angle to the centerline of the cutting tool, located behind the gage face of the clamping unit. A small amount of elastic deformation takes place at the front of the female taper as the locking force is applied. As the torque screw is further tightened to the preset torque of 25–30 ft. lbs. (34–40 Nm), (4-1/4 turns), the cutting unit advances until the gage face makes contact with the face of the clamping unit. The final amount of torque applied allows the tail of the cutting unit to spread to clamp securely between the clamping mechanism and the clamping unit inside diameter. Once the proper operational torque is achieved, continuing to rotate the torque screw may damage the clamping components.

Installation

When initially clamping the KM Micro/KM Mini shank in a machine tool slot, it is recommended to have a cutting unit in the shank.

Lubrication

Using the appropriate wrench, back out the torque screw against the positive stop and generously apply grease to the threads and conical surface of the component hardware. Also, apply grease to the female taper surface. This should be done periodically. Recommended grease: GLEITMO™ 805.

lubricant	order number	size
GLEITMO 805 grease	1567575	500g cartridge
GLEITMO 805 grease	1567577	1000g tin

CAUTION
 DO NOT USE silicone cleaner or WD-40™-type lubricants.

Summary

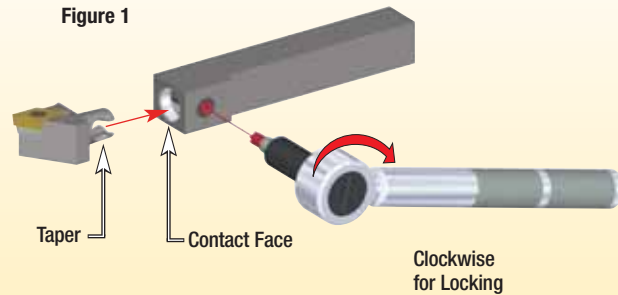
The KM Micro/KM Mini coupling offers a very rigid joint with a high degree of repeatability while maintaining a very compact envelope. This permits a high degree of versatility without sacrificing cutting performance.



KM Micro/KM Mini Clamping Operating Instructions (KM12–KM25)

Locking

Before inserting the KM Micro and KM Mini unit into the clamping mechanism (Figure 1), clean the contact face and taper. KM Micro and KM Mini manual clamping units require a torque wrench for proper operation. Turning the torque screw clockwise locks the cutting unit in position. For maximum safety, tighten the torque screw to the specified torque. Using a torque wrench ensures that the proper clamping forces are exerted.



KM Micro/KM Mini Manual Clamping System • Operating Torque

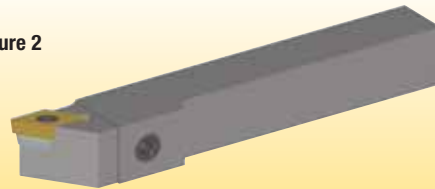
KM size	torque (ft. lbs.)	torque (Nm)	actuation drive size
KM12	5–6	7–8	25IP
KM1612	5–6	7–8	25IP
KM16	7–8	10–11	27IP
KM2016	7–8	10–11	27IP
KM20	14–16	19–22	5mm
KM2520	14–16	19–22	5mm
KM25	25–30	34–40	6mm
KM3225	25–30	34–40	6mm

CAUTION
Over tightening can cause damage to the clamping mechanism.

Operating Position

With the torque screw and nut to the proper torque, coincidental cones locked in position, and the face and self-locking taper fully engaged, the cutting unit and clamping unit are rigidly secured together (Figure 2).

Figure 2

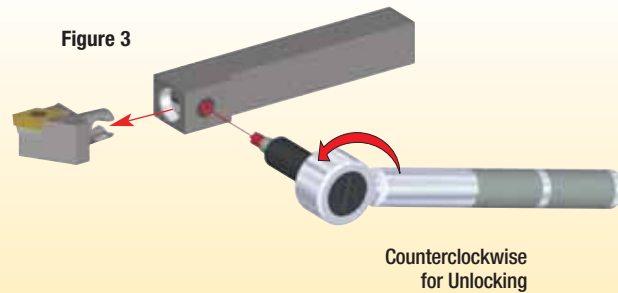


Unlocking

Rotate the torque screw counterclockwise until initial resistance is felt. In this position, the locking cones are free of the cutting unit, but the taper interference is still holding the KM™ unit in the clamping unit. At this point, the bump-off angle is in position to free the cutting unit from the interference fit.

Continue to rotate the torque screw slowly until the cutting unit is no longer making face contact (Figure 3) and is released from the taper. The torque screw will stop rotating and more resistance will be felt. Do not turn the torque screw any further.

Figure 3



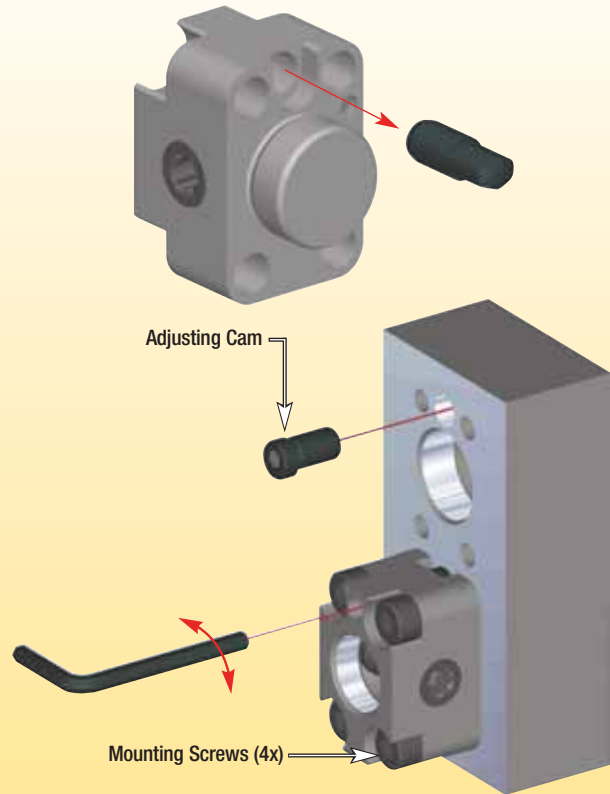
CAUTION
Continuing to rotate the torque screw may damage the clamping components.

Technical Information

KM Micro/KM Mini Center Height Adjustment Feature for Flange Clamping Units

KM Micro flange mounts can adjust insert center height via a cam pin to be purchased separately. To do this:

1. Remove the locating pin that is installed in the flange mount clamping unit.
2. Install the adjusting cam in the toolblock-locating pin hole.
3. Install the flange mount clamping unit to the toolblock, ensuring the cam portion of the adjusting pin locates within the slot on the back side of the flange.
4. To adjust, simply access the hex through the locating pin hole of the flange unit and rotate to set center height with mounting screws loose.
5. Tighten the mounting bolts to the required torque for the specific bolt size.

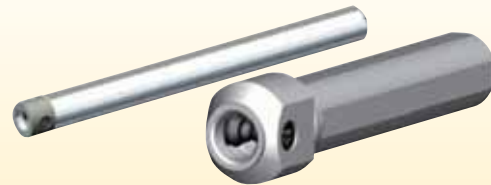


KM size	order number	catalog number
12	1925860	MICROCAM12
16, 25, 3225	1851803	MICROCAM16

What is KM1612/KM2016/KM2520/KM3225 for ID Machining?

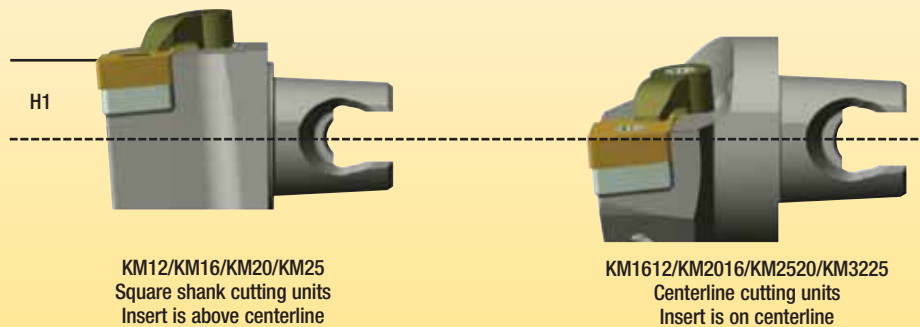
The KM1612/KM2016/KM2520/KM3225 is the ID endworking tooling product line to complement the KM12/KM16/KM20/KM25 OD turning product line.

- Products are through-coolant capable.
- External tapers are the same as KM12/KM16/KM20/KM25.



Round shank clamping units

Major difference is center height location of the insert.

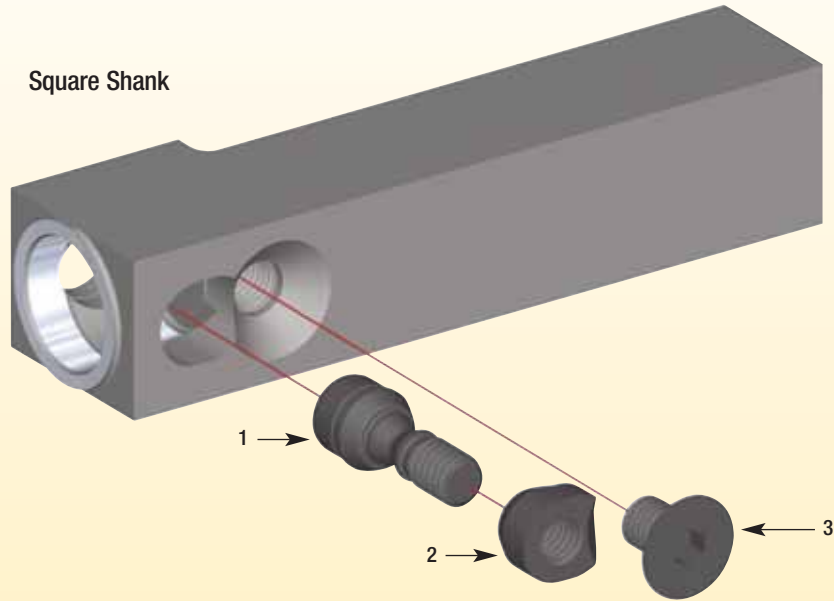


KM12/KM16/KM20/KM25
Square shank cutting units
Insert is above centerline

KM1612/KM2016/KM2520/KM3225
Centerline cutting units
Insert is on centerline



KM Micro/KM Mini Manual Clamping Repair Package Components



KM Manual Clamping Components • Functional Definitions

1. Torque Screw

- Rotation moves the locking cones.
 - Clockwise rotation secures cutting unit.
 - Counterclockwise rotation releases cutting unit.
- Provides bump-off angle.

2. Wedge Nut

- Contains anti-rotation feature.

3. Containment Screw

- Provides unlocking positive stop.
- Provides anchor for wedge nut anti-rotation feature.

Operator Maintenance

All KM Micro/KM Mini clamping units showing damage must be replaced or rebuilt. Burrs and nicks should be removed by stoning and/or polishing.

- Use KM Micro/KM Mini Plugs to protect clamping units when they are not in use.
 - For KM Micro Plugs, see page A117.
 - For KM Mini Plugs, see page A186.

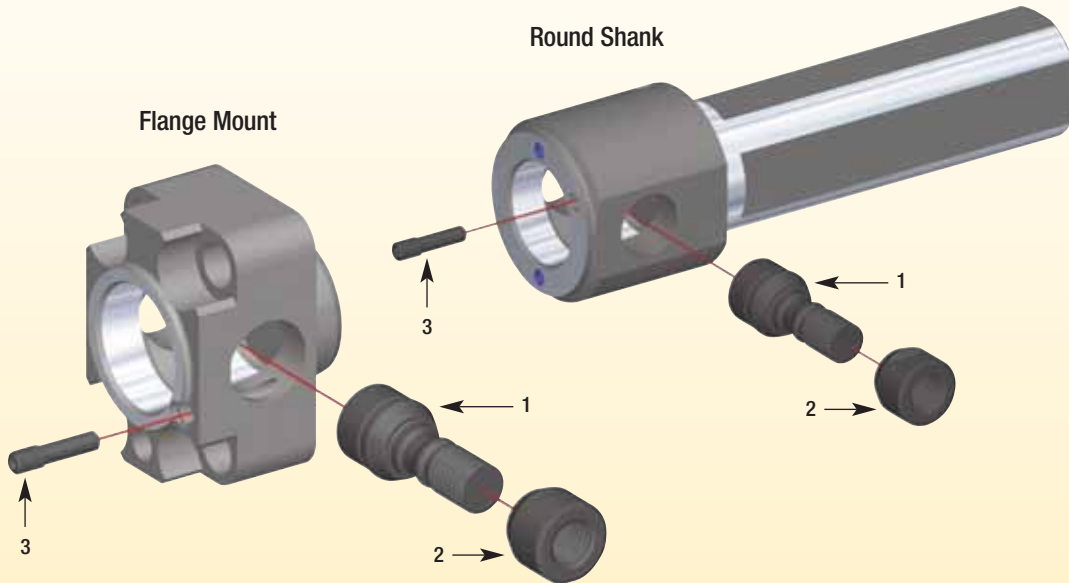
KM Micro/KM Mini Manual Clamping Repair Packages

KM size	catalog number	order number
KM12	KM12NAPKG	3953388
KM16	KM16NAPKG	3953386
KM20	KM20NAPKG	3645146
KM25	KM25NAPKG	3645145

Technical Information



KM Micro/KM Mini Manual Clamping Repair Package Components



KM Manual Clamping Components • Functional Definitions

1. Torque Screw

- Rotation moves the locking cones.
 - Clockwise rotation secures cutting unit.
 - Counterclockwise rotation releases cutting unit.
- Provides bump-off angle.

2. Wedge Nut

- Contains anti-rotation feature.

3. Containment Pin

- Provides unlocking positive stop.
- Provides anchor for wedge nut anti-rotation feature.

Operator Maintenance:

All KM Micro/KM Mini Clamping Units showing damage must be replaced or rebuilt.

Burrs and nicks should be removed by stoning and/or polishing.

- Use KM Micro/KM Mini Plugs to protect clamping units when they are not in use.

For KM Micro Plugs, see page A117.

For KM Mini Plugs, see page A186.

KM Micro/KM Mini Manual Clamping Repair Packages

KM size	catalog number	order number
KM12	KM12NRPKG	1925858
KM1612		
KM16	KM16NRPKG	1851801
KM2016		
KM20	KM2520NRPKG	3645148
KM2520		
KM25	KM25NAPKG	2386037
KM3225	KM3225NRPKG	2656552



KM Micro/KM Mini • Assembly/Disassembly Instructions

1. Apply GLEITMO™ 805 grease generously to threads, cones on torque screw and nut, and bump-off area (behind threads) of the torque screw. Also, apply grease generously to the female taper on the shank.
2. Screw the torque screw and the nut together.
3. Insert the torque screw and nut into the shank (as one unit) as shown in (Frame 1).
4. Install the containment screw as shown (Frame 2).
5. When initially clamping the KM Micro shank in a machine tool slot, it is recommended that a cutting unit be in the shank.
6. Disassembly is the reverse of assembly procedure.

Tools Required

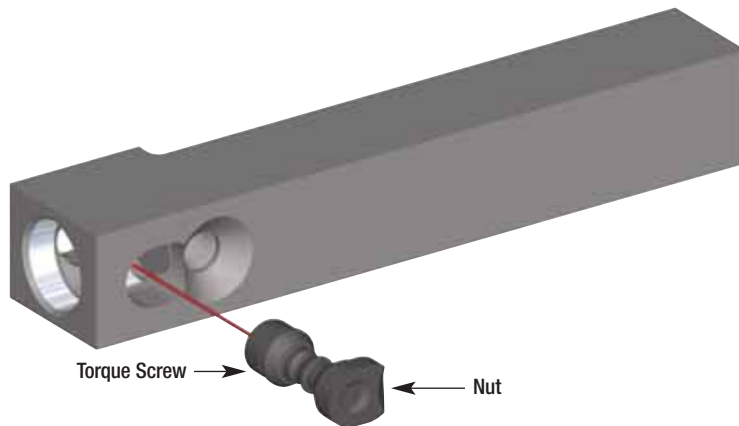
- Hex wrenches.
- Pliers.
- Kennametal recommends and uses GLEITMO™ 805.
- Clean towels or shop rags.
- Solvent or degreaser that does not leave residue (used to clean inside the taper and canister). Should the unit become contaminated, you can use a degreasing agent or something similar to clean the surfaces.

CAUTION
 DO NOT USE silicone cleaner or WD-40™-type lubricants.

lubricant	order number	size
GLEITMO 805 grease	1567575	500g cartridge
GLEITMO 805 grease	1567577	1000g tin



Frame 1



(continued)

Technical Information

KM Micro/KM Mini • Assembly/Disassembly Instructions *(continued)*

Maintenance Schedule

Disassemble the shanks once a month and re-apply new grease. Grease should also be applied 1 or 2 times per week to the torquw screw, nut, and both tapers (internal and external) in the release position without the need to disassemble.

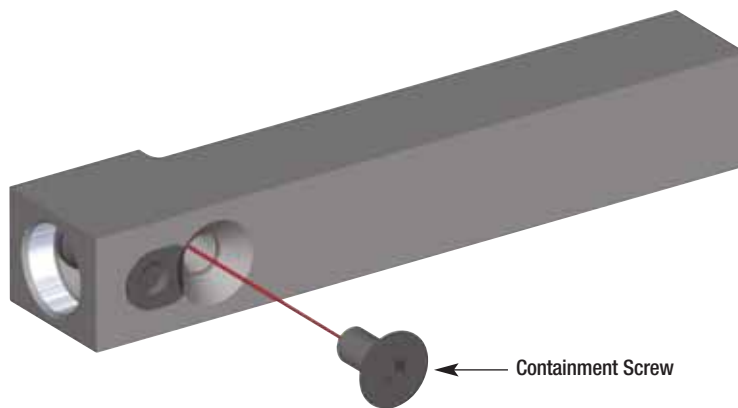
Before re-applying grease, shop air should be used to blow out oil coolant.

If contamination of the grease is evident, then the old grease should be immediately removed and the shank cleaned. Then new grease should be re-applied according to procedure.

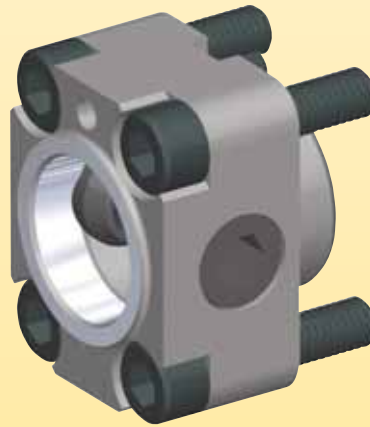
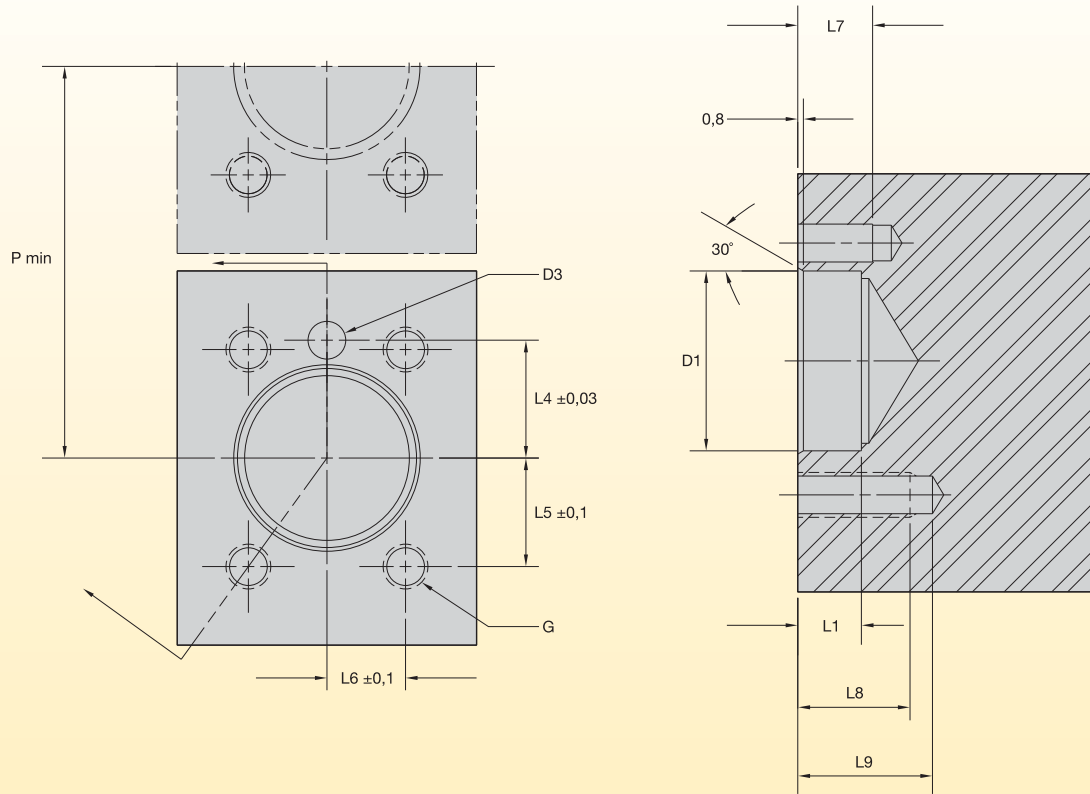
NOTE: Apply grease with a coarse bristle brush to prevent shedding of bristles.

KM size	hex size
KM12	2,5mm
KM16	3mm
KM20	4mm
KM25	5mm

Frame 2



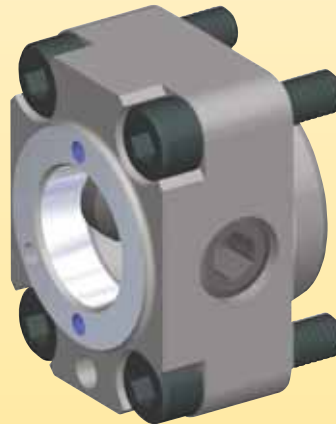
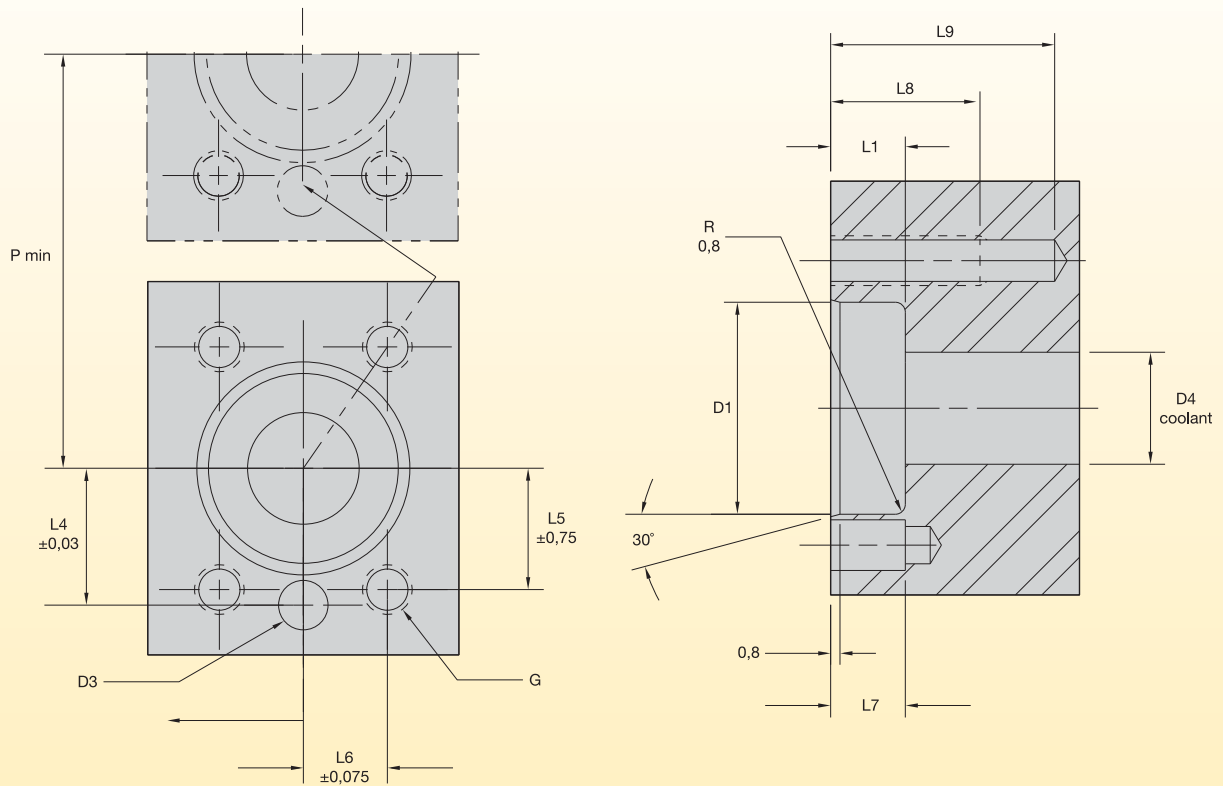
KM Micro/KM Mini NCM-SF



Technical Information

KM size	D1	D3	G	L1	L4	L5	L6	L7	L8	L9	P
KM12	10,025/ 10,050	4,064/ 4,077	M3	5,0	8,25	8,00	5,13	6	8	10,0	22
KM16	14,025/ 14,050	5,055/ 5,075	M4	6,5	10,75	10,25	6,00	10	12	15,0	28
KM20	18,025/ 18,050	5,055/ 5,075	M5	8,0	13,00	12,25	7,75	10	12	15,0	34
KM25	24,025/ 24,050	5,055/ 5,075	M6	8,5	15,75	14,50	10,50	10	15	18,0	40

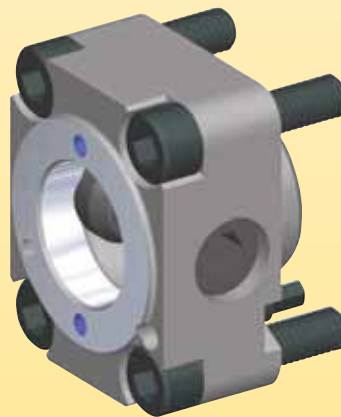
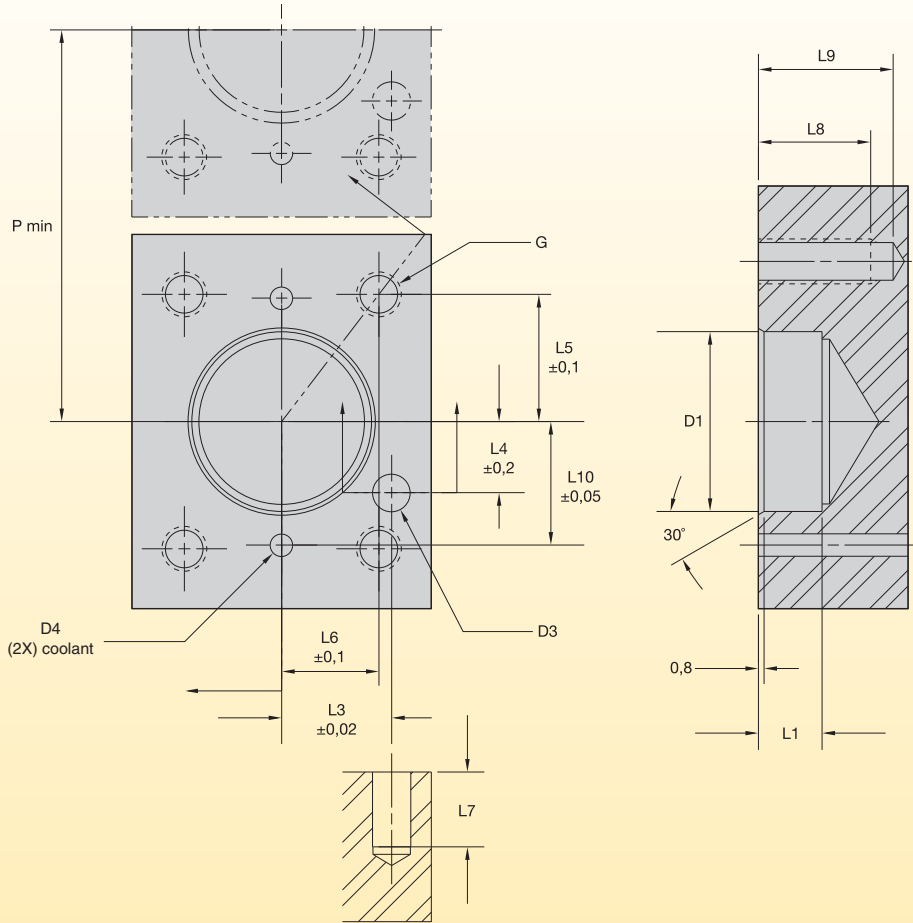
KM Micro/KM Mini NCM-SF with Coolant



KM size	D1	D3	D4	G	L1	L4	L5	L6	L7	L8	L9	P
KM1612	17,025/ 17,050	4,060/ 4,080	6 - 12	M4	6	11,00	9,75	6,75	6	12	18	27,5
KM2016	20,025/ 20,050	5,055/ 5,075	6 - 16	M5	8	13,25	12,00	8,00	7	13	18	34,0
KM2520	26,025/ 26,050	5,055/ 5,075	6 - 22	24.5	8	16,15	14,50	10,00	10	12	18	39,0



KM Mini NCM-SF with Coolant



Technical Information

KM size	D1	D3	D4	G	L1	L3	L4	L5	L6	L7	L8	L9	L10	P
KM3225	24,025/ 24,050	5,106/ 5,126	3	M6	8,5	14,7	9,5	17	13	10	15	18	16,5	45



KM MicroTM Quick Change Tooling System

A smaller, more compact version of the internationally renowned KMTM system.

- Quick-change cutter heads reduce indexing and set-up times by 66%.
- Specially designed for use with automatic and smaller universal lathes.
- Unique flange attachment system increases machine tool capacity.
- KM Micro square shank adapters can be installed quickly and easily in existing tool block adapters.

Experience the advantages at your Authorized Kennametal Distributor or at www.kennametal.com.

www.kennametal.com



Balancing



Kennametal offers a range of balanced and balanced-by-design toolholders capable of extending spindle and tool life and improving part quality at higher machining speeds.



Definitions for Balance

Standard Toolholder

A toolholder that may contain uncorrected features (unbalanced drive slots, notches, locking screws, etc.). Standard toolholders have no compensating features added to correct balance, used in basic, low-speed applications.

Balanced-by-Design

A toolholder designed with compensating features to correct any unbalance caused by uneven drive slots, notches, locking screws, etc. The balanced toolholder is capable of being used in high-speed applications. Small, residual unbalance may result due to normal manufacturing tolerances within the shank standards.

Balanceable

A toolholder with a built-in mechanism that can adjust to correct any unbalance inaccuracies incurred during normal manufacturing. The fully assembled tool (toolholder and cutting tool) can be balanced as a system using a balancing device.

Balanced

A toolholder has been balanced to predetermined specification after manufacture by checking the balance condition with a balancing device. This may be followed by physically removing material from the toolholder, such as holes and/or slots.

When machining at higher speeds, responsible machining practices must be observed. Unbalance is caused by uneven mass distribution in the tool or toolholder. Potential sources of unbalance are movable parts (adjustable cartridges, set screws, spindle spring pack, and clamping mechanisms), manufacturing tolerances, and design.

Forces caused by unbalance increase with the rotational speed squared. Excessive unbalance can cause premature wear to the tool and spindle bearing, which can adversely affect surface finish and accuracy.

(continued)

Balancing *(continued)*

The balance quality is usually specified by the balance grade G, according to ISO 1940-1 and ANSI S2.19 standards.

The balance quality grade (G) was derived from practical experience, which is expressed in millimeters per second (mm/s) and ranges from 0,16–4000. For rotating tooling and general machinery parts, it is usually specified to be G 2.5 or G 6.3. A lower number designates better balance quality.

The permissible residual unbalance can be calculated by the following equation:

$$U_{\text{per}} = \frac{9549 \times G \times M}{n}$$

Where:

U_{per} = permissible unbalance, expressed in gram millimeters (gmm)
G = desired balance grade
M = rotor mass in kilograms (kg)
n = operating speed in rotations per minute (RPM)

Example:

Rotor mass = 2 kg
n = 10,000 RPM
Desired balancing grade = G 6.3

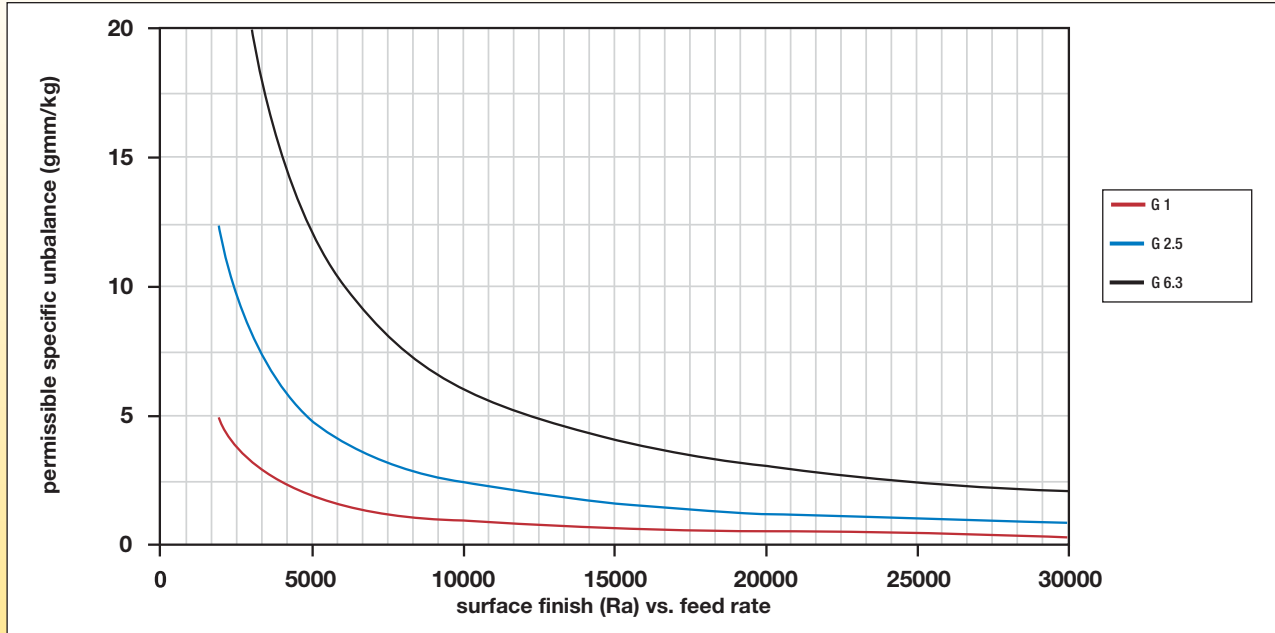
$$U_{\text{per}} = \frac{9549 \times 6.3 \times 2}{10,000} = 12 \text{ gmm}$$

The same value can be obtained from the chart on the following page. It gives the permissible specific unbalance in gram millimeters (gmm) as a function of the rotational speed and the balance quality (G). For the example above, at 10,000 RPM and for grade G 6.3, the maximum residual unbalance would be 6 gmm/kg. The toolholder assembly (including the tool) has a mass equal to 2 kg, the permissible unbalance is [(6 gmm/kg) x 2 kg], which equals 12 gmm.

(continued)



Balancing *(continued)*



From the approach described in ISO 1940-1, the requirements for maximum residual unbalance become very strict as speed increases. For example, a G 2.5 balancing grade can become unpractical at 25,000 RPM for a tool with a mass of 1 kg. The chart shows that the maximum residual unbalance would be 1 gmm, which could be very time consuming to be achieved or even beyond the accuracy of the balancing machine.

Comparing the cutting forces can provide a reference for the balancing requirements. Generally, finishing operations generate lower cutting forces and require a better balance quality. Though rotating components should always be balanced, in most cases it is sufficient to keep the unbalance forces to 5–10% of the cutting forces.

Technical Information

(continued)

Balancing *(continued)*

The permissible residual unbalance can be calculated by the following equation:

$$F = U \times (n/9,549)^2 \text{ (Newtons)}$$

Where:

U = unbalance in gram millimeters (gmm)

N = rotational speed (RPM)

In this particular case, the unbalanced induced force would be $F = 1 \times (25,000/9,549)^2 = 6,9 \text{ N}$. The cutting forces generated are likely to be orders of magnitude greater than that.

Good balancing quality does not necessarily guarantee safe operation at higher speeds. Other variables (spindle connection, type of operation, cutting parameters, machine stiffness, bearing condition, etc.) should always be considered.

Unbalance can be corrected by material removal (drilling, milling, grinding), material addition (set screws), and material redistribution (balancing rings or set screws).

For a given unbalance, the following formula can be used to determine the hole depth (L) necessary to correct for the unbalance*:

* Formula for steel components only.

$$L = \frac{D - \sqrt{D^2 - U \times 1300/d^2}}{2}$$

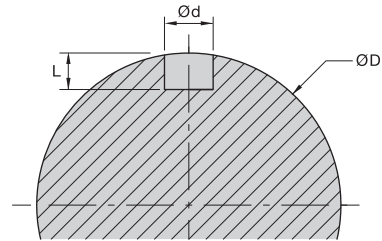
Where:

U = unbalance (gmm)

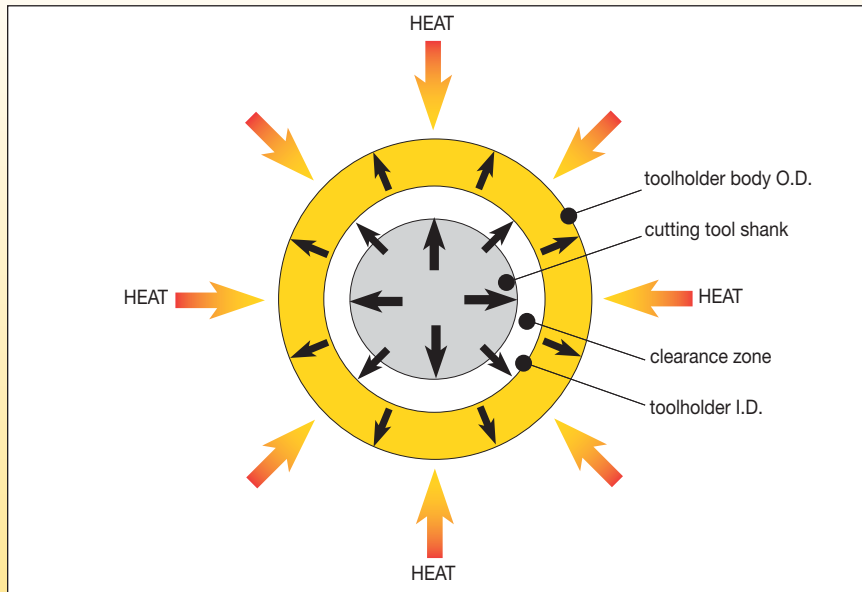
D = diameter of placement (mm)

d = hole diameter (flat bottom) (mm)

L = hole depth (mm)



Shrink Fit



The Concept

Heat shrinking is not a new process in the machine tool industry. However, the concept was only recently implemented as a quick-change toolholding mechanism for clamping cylindrical cutting tools for high-speed machining applications.

The Shrink Fit process begins by applying a quick and precise heat to the holding end of a toolholder. This causes the internal bore, which is slightly smaller than the shank of a cutting tool, to expand, allowing a tool to be inserted. As the toolholder cools, the bore shrinks to create 360° of uniform pressure along the entire length of the bore, resulting in an evenly distributed clamping force that mechanical toolholding cannot beat.

Due to the design, flatted-style, Weldon®, and Whistle Notch™ cutting tool shanks can employ Shrink Fit technology. To gain full benefits of the technology, fully cylindrical tool shanks are recommended. As long as the heating processes are kept within the elastic range of the toolholder material, this clamping operation can be repeated for several thousand cycles.

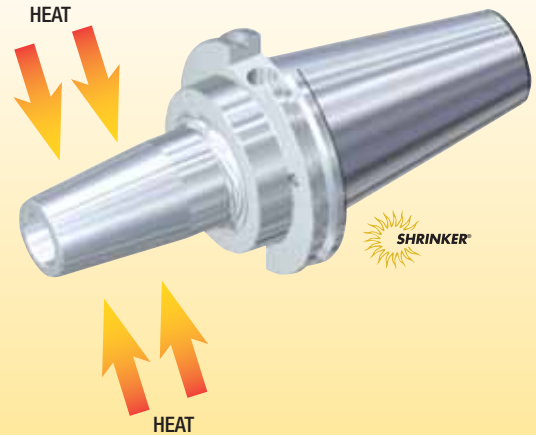
Shrink Fit Tooling Advantages:

- Low runout — cutting tools are gripped 360° along the entire length of the cutting tool shank for an evenly distributed clamping force.
- Clamping forces are greater than collets or hydraulic chucks.
- During testing, tool material properties break down and shear before slippage occurs.
- Slim and short toolholder profile designs are achievable because no moving parts are used.
- Well suited for high-speed operations because their symmetry provides the best possible balance.
- Sealing stop screws are not required — designed interference between the cutting tool and toolholder forms a seal that enables coolant to flow only through designated passages.

These advantages enable Shrink Fit technology to work at greater speeds and feeds, produce better finishes, deliver increased tool and spindle life, and generate more productivity.

Heat-Activating Systems

Shorter cycle time, less cooling downtime, localized heating, and integrated cooling systems are essential for a safe and simple heating system. Shrink Fit heating systems include induction, hot-air, and open-flame methods, with induction being the easiest and fastest of these systems.



Toolholders

- Slim design.
- Balanced.
- Flatted-style, Weldon®, and Whistle Notch™ shanks can be gripped. Optimal results are obtained with smooth, cylindrical shank cutting tools — without flats and/or notches.
- Avoid using carbide tools with polished shanks. This will reduce torque values by 60%.

HT (High Torque) Shrink Fit Toolholders

HT Shrink Fit holders have a high interference level that offers 30–50% greater torque than competitive systems. This line is only to be used with carbide tools because of their low thermal expansion coefficient. These toolholders require a machine with at least 10 kW of power to apply heat quick enough to avoid heating the tool.

GP (General Purpose) Shrink Fit Toolholders

GP toolholders enable the use of all materials and extensions because they have lower interference levels. Operators should use this style if not generating high cutting forces.



Ideal Surface Quality

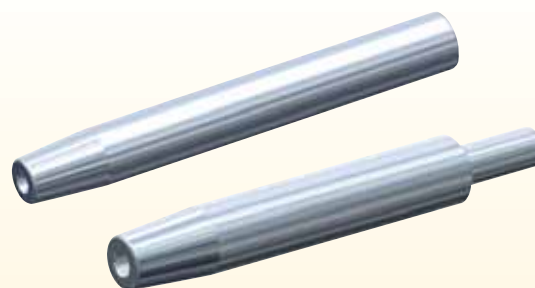
- Metric (ISO standard) $Ra \geq 0,8 \mu m$ surface finish.
- Inch (industry standard) $Ra \geq 32 \mu in$ surface finish.

(continued)



Shrink Fit *(continued)*

Straight shank toolholder extensions are a great complement to the Shrink Fit system. Use caution and do not overheat Slim Line products. Overheating can cause warping or other permanent damage. Toolholder life drastically reduces if activating heat is not properly controlled.



Cutting Tool Requirements

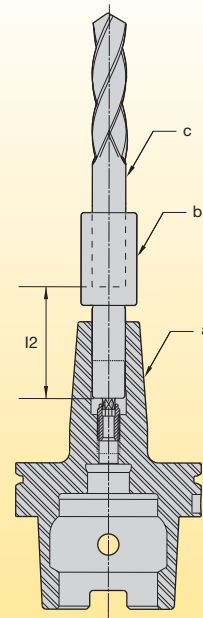
metric (ISO standard)				
cutting tool shank diameters			tolerance	
3mm	2,997	3,000	h4	0.000/-0.003
4mm	3,996	4,000		0.000/-0.004
5mm	4,995	5,000		0.000/-0.005
6mm	5,992	6,000	h6	0.000/-0.008
8mm	7,991	8,000		0.000/-0.009
10mm	9,991	10,000		0.000/-0.009
12mm	11,989	12,000		0.000/-0.011
14mm	13,989	14,000		0.000/-0.011
16mm	15,989	16,000		0.000/-0.011
18mm	17,989	18,000		0.000/-0.011
20mm	19,987	20,000		0.000/-0.013
25mm	24,987	25,000		0.000/-0.013
32mm	31,984	32,000		0.000/-0.016
40mm	39,984	40,000	0.000/-0.016	
50mm	49,984	50,000	0.000/-0.003	

inch (industry standard)				
cutting tool shank diameters			tolerance	
1/8	.1249	.1247		-0.0001/-0.0003
3/16	.1874	.1872		-0.0001/-0.0003
1/4	.2499	.2496		-0.0001/-0.0004
5/16	.3124	.3121		-0.0001/-0.0004
3/8	.3749	.3746		-0.0001/-0.0004
7/16	.4375	.4371		0.0000/-0.0004
1/2	.5000	.4996		0.0000/-0.0004
9/16	.5625	.5621		0.0000/-0.0004
5/8	.6250	.6246		0.0000/-0.0004
11/16	.6875	.6871		0.0000/-0.0004
3/4	.7500	.7495		0.0000/-0.0005
7/8	.8750	.8745		0.0000/-0.0005
1	1.0000	.9995		0.0000/-0.0005
1-1/4	1.2500	1.2495		0.0000/-0.0005
1-1/2	1.5000	1.4995		0.0000/-0.0005
2	2.0000	1.9995		0.0000/-0.0005



Axial Adjustment Gages

Cutting tool length adjustment is performed using a special axial adjusting gage (b) before shrinking the cutting tool into the toolholder. This gage (b) is placed on the toolholder (a) along with the cutting tool (c). The length difference of the setting gage (l2) is calculated into the required tool assembly length. The whole assembly can then be placed into a length presetter for adjustment. Rotating the gage moves the axial stop screw and presets the assembled tool to the required length. After removing the gage, the cutting tool can then be shrunk into the toolholder.





SAFE-LOCK™

SAFE-LOCK™ is a pull-out protection system for high-performance machining, in particular for heavy-duty cutting. This is achieved by helical grooves that are ground into the tool shank. These, together with the respective pin drivers in a shrink fit holder, prevent the tool from being pulled out, even during extreme machining conditions.

By locking the cutting tool in the holder, this pull-out security ensures optimum process reliability in conjunction with shrink fit runout accuracies and rigidity for longer tool life and maintains higher productivity and part accuracies for our customers.

Technical Information





High-Performance Milling Chucks

- Heavy- and fine-milling capabilities.
- Prebalanced G6.3 @ 20,000 RPM — six threaded M6 holes to accept set screws for fine balancing.
- Heavy milling — tighten locknut until O-ring on back face of locknut just touches the flange on the chuck body to achieve runout .0004" 3 x D1.
- Fine milling — tighten as above, then back the locknut off 1/8–1/4 turn to achieve runout .0002" 3 x D1.
- Sub-zero heat treatment for material stability.
- Through-the-toolholder coolant capability using stop screw as sealing device.
- 3/8" axial adjustment stop screw.

Experience the advantages at your Authorized Kennametal Distributor or at www.kennametal.com.

www.kennametal.com



Standard Styles

Kennametal hydraulic chucks provide optimum performance for clamping full-cylindrical straight shanks, such as solid carbide drills and end mills. Activation of the chuck is achieved by turning the piston screw, which pressurizes the hydraulic fluid and exerts force on a thin-walled membrane along the length of the clamping bore. This highly concentric clamping force not only holds the tool shank more securely, but also produces a dampening effect that reduces vibration and helps eliminate microcracking on cutting edges.

A safety stop prevents chuck damage caused by over-tightening either with or without the cutting tool in place. Another unique feature is the special spiral wiper groove in the chuck's clamping bore that securely grips oily tool shanks. All Kennametal hydraulic chucks utilize a range of sealed, cutting-tool-reducing sleeves to maximize chuck versatility. Reducing sleeves can also be used for converting bores from inch to metric and vice versa.



Slim Line

Slim Line hydraulic chucks have a sophisticated shape for universal application and maximum precision. After the chucking process, safety is guaranteed if a minimum clamping force or a transmittable torque (determined according to the clamping diameter) is reached. This is achieved through the clamping screw operation and the stroke of the clamping piston that force the hydraulic oil into the thin-walled expansion chamber with high pressure.



Standard/HP Line

Our proven Standard Line hydraulic chucks have an external adjustment screw for radial alteration up to 3/8" of the cutting-tool length. This feature eliminates the need to remove the cutting tool or retention knob to make fine adjustments. Standard Line chucks are prebalanced and can also be used with SEFAS™ chamfering rings. Please see the toolholder sections of this catalog for information regarding balancing quality.



Trend Line

New Trend Line hydraulic chucks offer maximum precision at an attractive price. This system provides the same accuracy specifications as the Standard Line except with an axial back-up screw through the chuck bore to achieve the 3/8" radial adjustment of the cutting tool length. SEFAS chamfering rings also can be used with our Trend Line chucks.



Basic Line

Basic Line hydraulic chucks have a high-quality runout specification of .0001. These chucks are balanced-by-design for speeds up to 10,000 RPM. Like the Trend Line, Basic Line chucks utilize an axial back-up screw through the chuck bore to achieve a 3/8" radial adjustment. Larger body diameters give this chuck a higher torque transmission (grip) of 220 ft. lbs. Please note that the standard SEFAS chamfering ring cannot be used in this chuck design.



To learn more, scan here.

For instructions on how to scan, please see page xxxiii.



General Design

Function

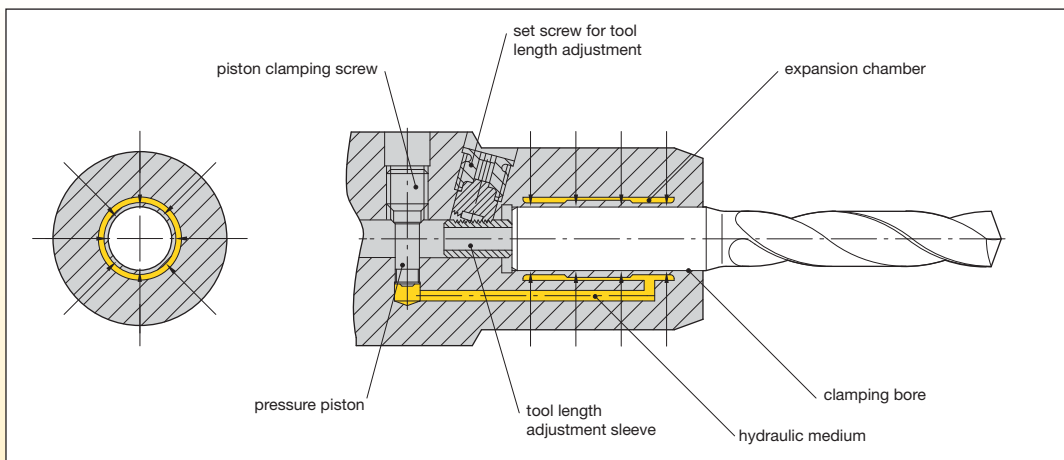
Tightening the piston clamping screw exerts force on the pressure piston, which presses the hydraulic fluid, exerting force on the thin-walled expansion sleeve. This pressure causes the sleeve to compress around the tool shank, creating a highly concentric clamping force.

Effect

The hydraulic clamping system has a dampening effect. Vibration in a mechanical clamping system can cause microcracking on insert cutting edges. This is prevented by the hydraulic expansion chuck and results in higher production quality and up to 4x better tool life.

Accuracy

The accuracy shown is based on a round shank (no flats) with h6 tolerance and no reducing sleeve.



Features

- Turning the external set screw adjusts axial tool length. There is no need to remove the cutting tool or coolant supply unit for standard designs.
- Maintained contact with the tool-length adjusting sleeve ensures that the tool is safely held. 10mm of adjustment is provided.
- A sealed bore and a large hole through the tool-length adjusting screw enable maximum coolant to flow through coolant-fed cutting tools.
- A uniquely designed piston clamping screw prevents damage from overtightening and accidentally actuating the hydraulic mechanism without a tool in the chuck.
- High-performance balanced chucks can be converted to balanceable chucks by adding a set of Kennametal balance rings that compensate for cutter imbalance and optimize performance.
- Wiper grooves inside the bore safely grip oily shanks, sealing the bore to eliminate contamination from chips, dirt, or coolant.
- SEFAS™ chamfering rings can be added to chucks, reducing the need for step drills and secondary chamfering operations.
- A wide assortment of reducer sleeves are available to increase the application range of hydraulic chucks. When using a bushing, the runout could be up to twice as high as the example shown.

(continued)



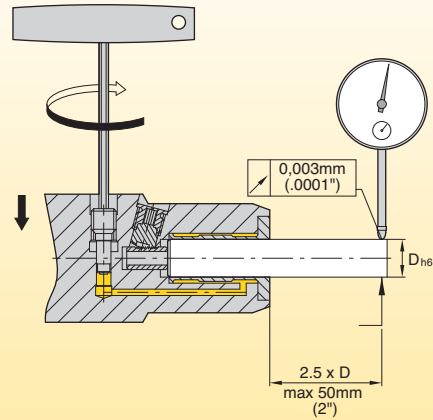
General Design *(continued)*



Application

Hydraulic expansion chucks work best when clamping these style shanks:

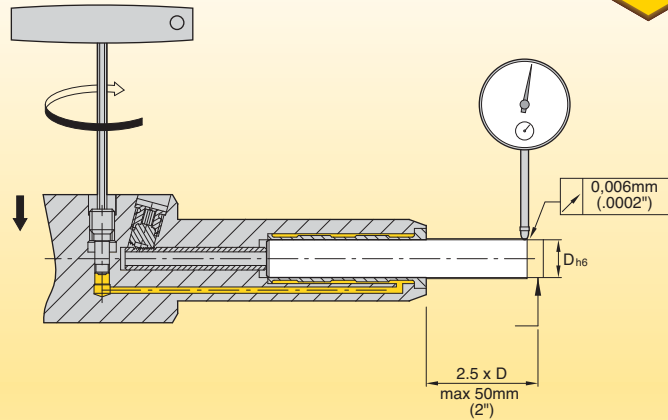
- Shanks to DIN-6535 — forms HA, HB, and HE.
- Shanks to DIN-1835 — forms A and B (with shank tolerance h6 and Ra minimum of 0,3 µm).
- Forms HA and A — plain cylindrical shank, 6–32mm diameter.
- Forms HB and B — Whistle Notch™ shank, 6–20mm maximum diameter.
- Form HE — Whistle Notch shank, 6–20mm maximum diameter. (Kennametal suggests the use of a reducer collet).
- Inch straight shanks:
 - 1/4–5/8" (.0004 under nominal diameter maximum).
 - 3/4–1-1/4" (.0005 under nominal diameter maximum).



Slim Line Design



Weldon® shanks with a maximum diameter of 20mm (3/4") can be gripped without reducer collets. However, Kennametal recommends using reducer collets for all flatted shanks. Highest accuracy is obtained with plain, cylindrical shanks.



Using a sleeve gives higher grip torque:

Formula: $\frac{\text{sleeve bore} \times \text{chuck torque}}{\text{chuck bore}} = \text{assembled torque}$

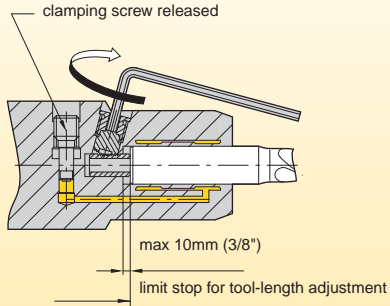
Example: $\frac{12\text{mm (sleeve bore)} \times 220 \text{ Nm}}{20\text{mm (chuck bore)}} = 132 \text{ Nm}$

While chart shows for a 12mm Hydraulic Chuck = 70 Nm approx.
2x grip advantage



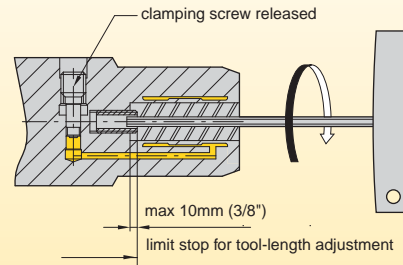
Setting Up New Hydraulic Chucks

Length adjustment for:
Standard/HP Line and Slim/Standard Line



1. Remove all grease from the hydraulic chuck before using.
2. Insert the cutting tool into the clamping bore as far as the stop pin/stop screw will allow.
3. Adjust the cutting tool length with a hex wrench.

Length adjustment for:
Trend Line, Basic Line, and Slim/Trend Line

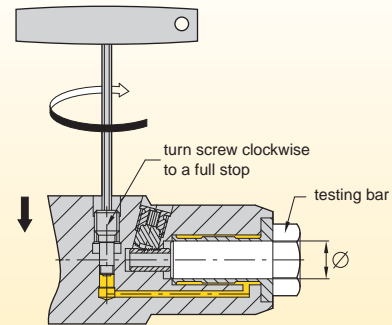


4. Always tighten the clamping screw with a hex wrench as far as the limit stop by hand tightening. Never try to adjust the stop pin when the hydraulic chuck is in the clamped position.
5. The tool is now clamped and ready for use.

Maintenance

Kennametal hydraulic chucks are maintenance-free and deliver long service life. It is important that the clamping function be checked with a test pin on a regular basis. Any dirt in the bore can be removed with a nylon cleaning brush.

- The clamping function can be tested quickly and easily using the test pin.
- Insert the test pin into the clamping bore as far as the stop pin/stop screw allow.
- Tighten the clamping screw with a hex wrench as far as the limit stop by hand tightening.
- The chuck is functioning correctly if the test pin cannot be moved by normal hand pressure.



Reducing sleeves are available; see page J4.



Cleaning brushes are available; see page L15.



Test pins are available; see page L14.



IMPORTANT

Never tamper with the oil-loading orifice (sealed with a cap) as this could destroy the clamping ability of the hydraulic chuck and require it to be sent to Kennametal for service.

In the event of small tool crashes or misuse of the chuck, please contact your local Kennametal Service and Repair Department to have your Kennametal hydraulic chuck serviced or repaired by qualified Kennametal service technicians.

The HPMC (High-Performance Milling Chuck) System

Application

The HPMC System is ideal for holding round shank cutting tools and extensions on various applications because it offers greater versatility. This makes it an excellent choice for end mills, reamers, indexable cutters, drills, straight shank extensions, and boring systems. The HPMC System, with its powerful gripping torque, provides the maximum performance for tough roughing and high metal removal applications, as well as delivering first-rate accuracy for finishing applications — all with the same chuck.

These toolholders are through-coolant capable with the use of supplied backup screws. Threaded holes in the chucks accept set screws for fine balancing, and reducing sleeves allow the same holder to be converted for smaller gripping sizes.



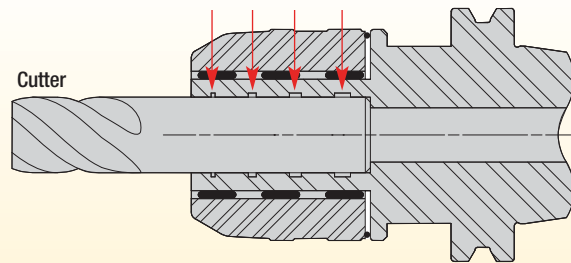
Design

The HPMC System is comprised of an inner chuck body, a needle roller bearing assembly, and a thick-walled outer locknut. The inner chuck body, with radial and axial grooves at the inside bore, acts as a master collet by compressing around the cutting tool, exerting a very strong grip. The chuck bore is compressed by roller bearings as they track up a taper of approximately 4°. The roller bearings are held in a retainer (four per window to maximize contact) at an angle slightly skewed from that of the chuck taper angle. The locknut bearing retainer's wall thickness is greater than that of the chuck body nose. Therefore, as the locknut is rotated clockwise, the roller bearings track in a helical movement, gradually climbing the shallow taper.

There are no threads in the HPMC System. As the two tapers are forced together, a tremendously high, uniform force is created. This squeezes the chuck body inward, conforming it to the cutting tool shank. Radial grooves assist the internal diameter by evenly collapsing inward, which improves gripping torque, accuracy, and prevents fretting. Force continues to be applied until the locknut's back face bottoms out on the chuck's body face. This is the maximum gripping torque position. Oil residue left on cutting tool shanks can cause slippage, but axial grooves minimize this by draining contaminants.

Shallow contact angles produce a self-locking effect, so the chuck will not release during operation. Because of this strong grip, no torque wrench is required. Also, the high gripping force of the HPMC enhances its ability to transmit energy to the machine tool, so vibration, deflection, and runout are minimized. The cutting tool shank offers an advantage over collet chucks because there is no axial drawback as the locknut is tightened.

A single toolholder provides 5–10% more gripping torque for heavy milling, and the same chuck is versatile enough to do finishing work, too.



To get the maximum accuracy out of the HPMC System, tighten the locknut to the face stop and then back off half a turn. As this is done, be sure the O-ring on the back face of the locknut stays in contact with the chuck face.

Stop screws are included with all HPMC Systems for length adjustment or coolant feed. These screws are designed with a cone face and reversible flat face and an O-ring for coolant sealing options.

HPMC Systems are subjected to sub-zero treatment to stabilize the material and prevent pitting on the bearing contact surface. This helps to ensure long, worry-free tool life.

(continued)

The HPMC (High-Performance Milling Chuck) System *(continued)*

Cutting Tool Requirements

The outside diameter of the cutting tool shank and the inside diameter of the HPMC System must be wiped with a clean dry cloth before assembly. Any contamination will increase runout and reduce gripping force.

Carefully monitor the cutting tools used in these chucks so they do not exceed h6 (nominal to $-.0005$ ") on the shank diameter. Use tools as close to nominal as possible. Cutting tool shank roundness should be within $0,003\text{mm}$ ($.0001$ "). Undersized tools cause excessive stress and may cause chuck failure.

Optimal chuck performance is attained when the cutting tool shank is round, without flats. Cutting tools with small flats may be held, but they will increase runout. Whistle and flatted cutting tool shanks are recommended in conjunction with reducing sleeves. For best performance, keep shank flats to a minimum.

The minimum length of engagement is 2x the diameter of the cutting tool shank. Short holding length may cause the tool and/or chuck to break. This could dislodge the cutting tool and result in serious injury to the operator.

The milling chuck should never be tightened without a cutting tool inside the bore. High gripping forces will cause permanent deformation to the inside diameter.

Maintenance Operations

Greasing the needle bearing is the only required maintenance. Follow the procedure below to ensure maintenance is properly performed:

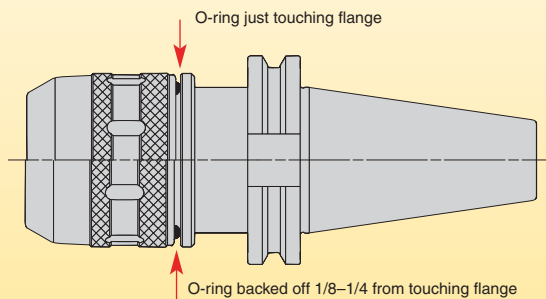
1. Tighten the locknut clockwise to obtain clearance from the retaining ring.
2. Remove the retaining ring from the chuck.
3. Unlock the locknut counterclockwise, and lift the nut assembly from the chuck.
4. Wipe off old grease from the milling chuck and all other components.
5. Recoat the needle bearings in the locknut liberally with a quality, water-resistant grease.
6. Regrease the outside diameter of the milling chuck where the locknut is housed.
7. Reinstall the locknut on the milling chuck body and tighten to gain clearance for reinserting the retaining ring.
8. Tighten and loosen the locknut several times. Recheck the retaining ring for correct fitting.
9. Wipe away any excess grease.

Please contact the Kennametal Service and Repair Department to have your Kennametal products serviced or repaired by qualified Kennametal service technicians.

Setting the Accuracy of the Milling Chuck

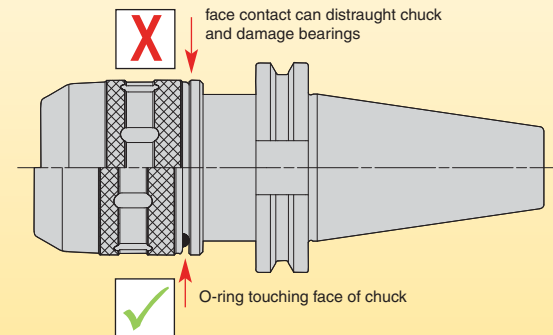
Heavy Milling

- Tighten the locknut all the way down with a milling chuck wrench until the O-ring on the locknut just touches the flange of the milling chuck body (O-ring should not be compressed).
- Accuracy $10\text{--}20\ \mu\text{m}$ ($.0004\text{--}.0008$ ") at 3x diameter up to 50mm (2").



Finish Cut

- Back the locknut off $1/8\text{--}1/4$ of a turn from above position.
- Best accuracy — $5\ \mu\text{m}$ ($.0002$ ") at 3x diameter up to 50mm (2").



CAUTION

DO NOT over tighten the milling chuck without a tool shank inserted. This may cause serious damage to the milling chuck or loss of performance.





Tunable Tooling System (TTS)

Overview

When machining with extended length setups, undesirable regenerative vibrations (chatter) can arise, causing poor surface finish, dimensional control issues, and tool breakage. To avoid chatter, machine operators are generally forced to reduce cutting parameters, which decreases metal removal rates and diminishes productivity.

Cutting force fluctuates when chip thickness varies. This is caused by waves left on the workpiece from the previous pass. These waves may create chatter when the cutting tool and workpiece interact. Continued chatter can further produce variation in cutting force, leading to more vibration. If not addressed, the amplitude of vibration may eventually reach levels that cause the tool to bounce out of the workpiece or even result in catastrophic failure.

This problem can be approached in many different ways. Chatter can be avoided by drastically reducing cutting speeds to increase process damping (friction between flank face and workpiece), which dissipates energy to reduce vibrations. Another approach utilizes milling cutters that have inserts with differential spacing. This minimizes the regenerative effect by creating a disturbance on the wave pattern left on the workpiece. However, this approach provides limited success as chip loads are no longer evenly distributed over the cutting edges and may require the feed rate to be restricted. Also, because the spacing is not even, the surface quality could be negatively affected.

The problem with these solutions is that they do not allow high metal removal rates to be maintained. To uphold high rates, the dynamic stiffness of the system must be increased. Dynamic stiffness is proportional to the product of static stiffness and damping ratio. Static stiffness can be increased through using shorter setups or larger toolholder diameters. Materials with a higher modulus of elasticity can also increase static stiffness.

The Kennametal Tunable Tooling System (TTS) provides a means for maximizing the dynamic stiffness of boring bars and milling adapters by suppressing vibrations with a passive dynamic absorber. TTS is designed with an internal mass that vibrates close to the natural frequency of the most dominant vibration mode in the system. The motion of the internal mass will dissipate energy and prevent chatter. The overall result depends on a machine's dynamic characteristics* and the rigidity of the connection between tool and machine tool. Manufacturing tolerances, preload, and wear may change the dynamic response of a machine and adversely affect overall results.

*Machines from same builder and model are not dynamically identical.

While passive dampening improves the dynamic stiffness of an extended reach tool, the damping mechanism will not perform the same with every machine. Not only does the natural frequency of the tool affect its dynamic stiffness, frequencies inherent to the machine do as well. Because machine tools have their own dynamic signature, a tool that is tuned on one machine may not be tuned on another. Unlike other products on the market that are pretuned, Kennametal tunable boring bars and milling adapters are tunable. They allow users to adjust the passive damper, optimally tuning the tool for a specific machine or setup. This enables extended reach tooling to be retuned to match a machine's dynamic signature, even as it changes over time. A key benefit of Kennametal's tunable boring bars and milling adapters is that they can be optimally tuned for any given setup. While Kennametal standard tunable products come pretuned from the factory, it may be beneficial to further optimize them once installed.

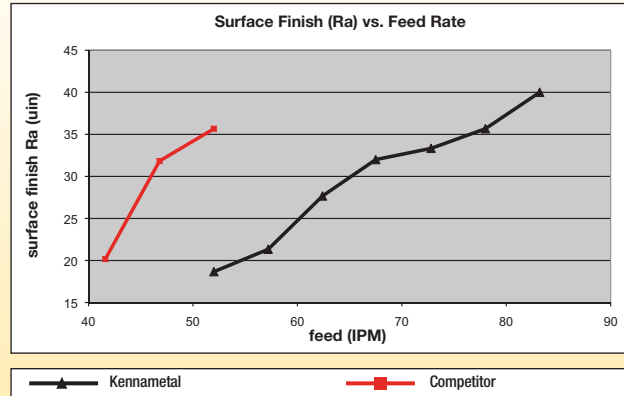


(continued)

Tunable Tooling System (TTS) *(continued)*

With the Kennametal TTS System, longer L:D ratio toolholders can be used for larger DOC, better surface finishes, and longer tool life. When TTS is applied to milling adapters, using greater insert density on milling cutters or increasing ADOC or WOC enables higher MRR. Better surface finishes and tool life can also be expected from these adjustments.

The benefits of using Kennametal's Tunable Systems go beyond increased metal removal rates. In metalcutting tests, a good correlation between dynamic stiffness and vibration levels were measured at the spindle. Vibrations can not only cause premature tool life, but also limit spindle bearing life. Preventing vibration from propagating through the machine promotes longer life for spindle-related components and maintains machine accuracy over time.



Surface finish measurements comparing a pretuned milling adapter from a competitor and a Kennametal's optimally tuned adapter on the spindle. An increase of up to 50% in feed rate for similar surface finish values can be noticed.

Dynamic Stiffness

Figure 1 shows the relative dynamic stiffness of a tunable boring bar as a function of adjusting screw tightness — loose to tightened (left to right).

The chart shows that for the given bar, optimal tuning occurs at about 70% or when the relative performance equals 1.

It is also important to note that performance decreases more severely when the tool is over-tuned, compared to when it is under-tuned. For this reason, it is best to slightly under-tune the system.

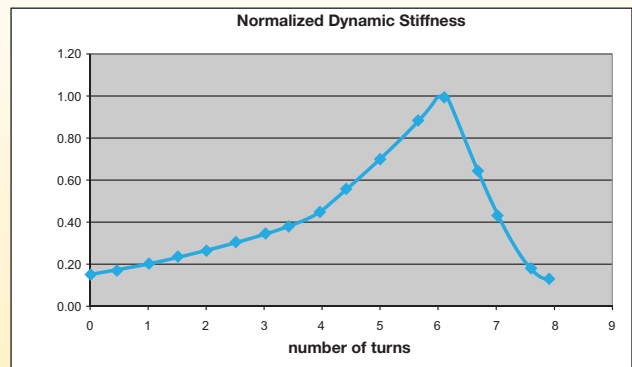
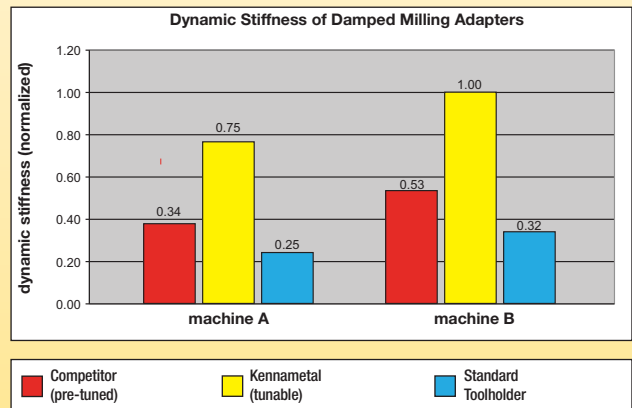


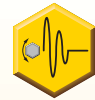
Fig. 1



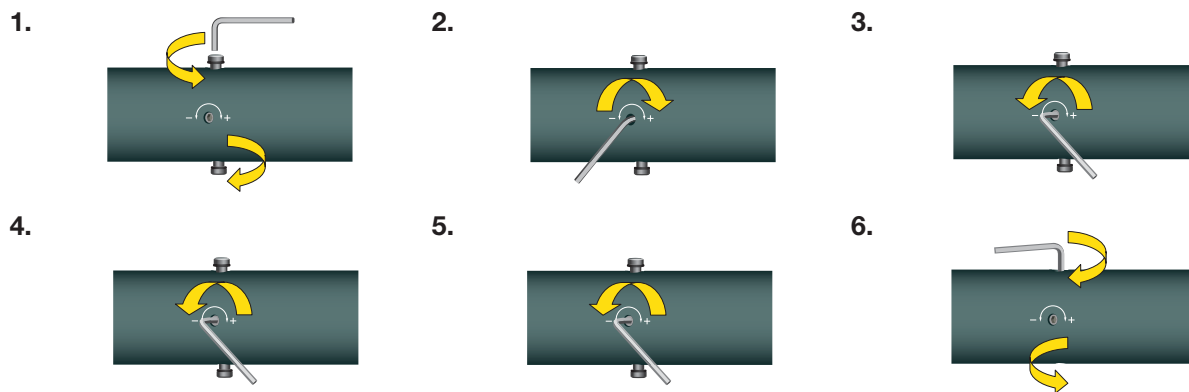
Tunable Milling Adapters

The Kennametal Tuned Tooling System offers a full line of tunable milling adapters capable of performing at maximum output without the hindrance of vibration. Tunable milling adapters are through-coolant capable, and, because the internal damper can be adjusted to alleviate chatter, they provide optimum surface finish and longer tool life.

General Guidelines for Milling with Extended Reach Adapters



1. Loosen both clamping screws.
2. Turn the adjusting screw in the positive direction until it becomes snug. The adjusting screw becomes snug when it locks the tuner mass.
3. Turn the screw one complete turn in the negative direction and take a test cut.
4. Repeat Step 3 until good surface finish is achieved. You may need to use small increments to find an optimal position.
5. Back the adjusting screw off a 1/4–1/2 turn in the negative direction.
6. Tighten both clamping screws and take a test cut to confirm desired results.



*The TTS Milling Adapters will need to be re-tuned if the milling cutter is replaced with another with different mass.

Tunable Boring Bars

The Kennametal complete portfolio of Tunable Boring Bars helps prevent chatter and other problems associated with an internal dampening package designed for deep-hole boring applications.

Advantages

Optimal Rigidity

Eliminates vibration to improve surface quality and tolerance.

Increased Productivity

Larger depth of cut and better chip removal by up to 10:1 (steel) and 15:1 (carbide) length-to-diameter ratio.

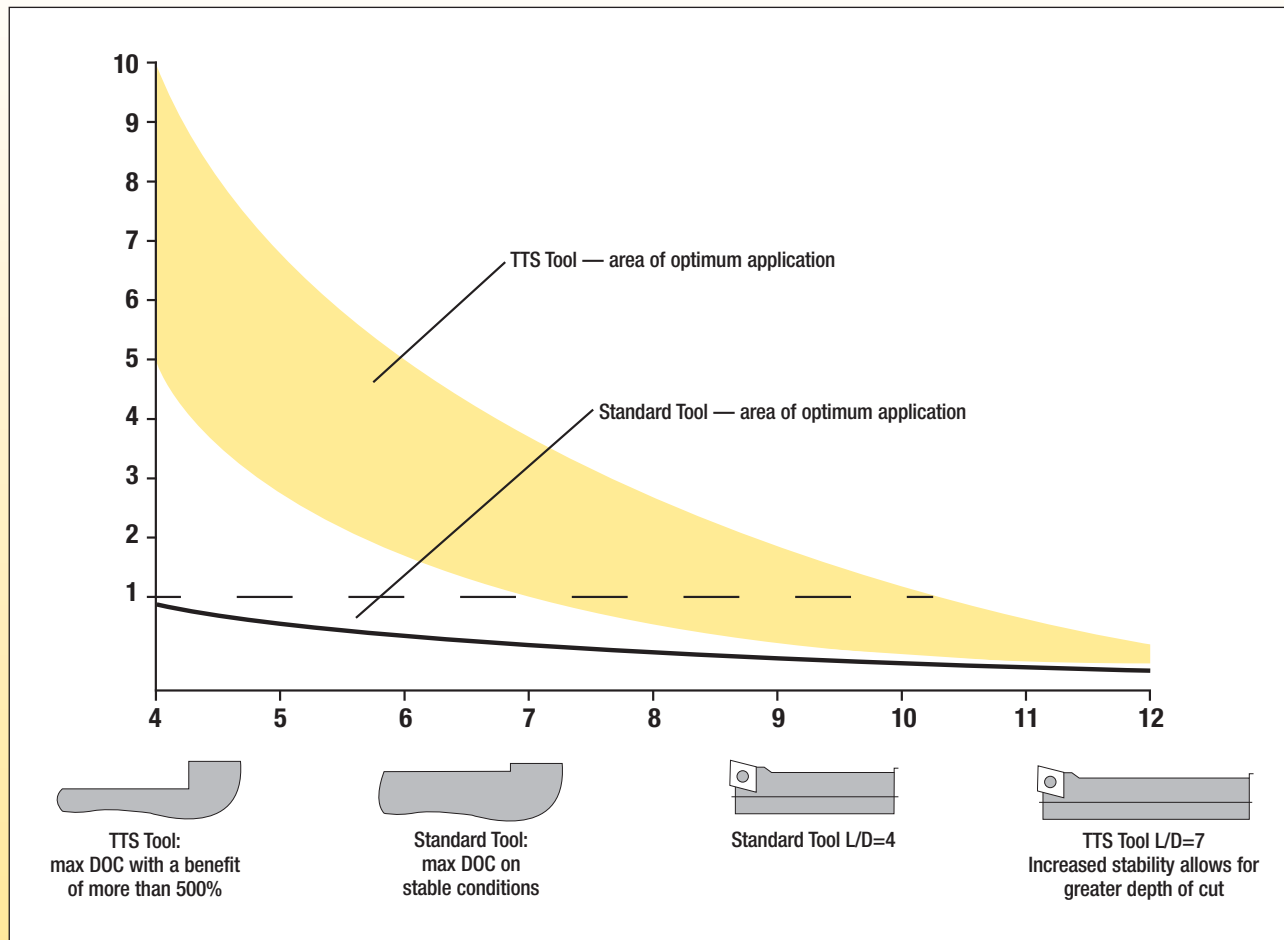
Machining without Chatter or Vibration

Less noise exposure and improved results.

Tunable Damping Mechanism

To account for different vibration behavior, bars can be tuned on the machine, and tools can be adjusted.

Relative Stability



Note: This chart illustrates how KM™ Tunable Boring Bars provide greater stability than standard toolholders, even in larger tool length-to-diameter ratios. Increased stability enables greater depth of cut.



General Guidelines for Boring with Extended Reach Bars

1. Select the largest boring bar diameter possible. Larger diameter bars are stiffer and more stable. Remember to leave enough space for chip evacuation.
2. While larger diameters are more stable, the diameter may also be too large, preventing proper chip evacuation, affecting surface finish, or damaging the bar. Ensure the bar diameter is not so large that it will interfere with chip evacuation.
3. Keep the overhang length of the tunable boring bar as short as possible. For Tunable Boring Bars, select the shortest bar possible.
4. Balance machining parameters to prevent the occurrence of uncontrolled vibrations and resonance.
5. The tool setting angle should be as close as possible to 90°.
6. Make sure the insert is in the correct center position.
7. By choosing a small corner radius you can reduce forces on the workpiece.
8. Use cutting heads with a negative back-rake angle that is as small as possible.
9. Using inserts with a positive chip former is preferred.
10. Change inserts when any flank wear is detected because radial back forces will increase in proportion to wear.

Selecting the Correct Bar

Kennametal offers TTS Boring Bars with KM™ back-ends or straight shanks, KM front-ends, or bolt-on head connections, and they are available in either steel or carbide.

To find the appropriate boring bar, first consider that the length-to-diameter ratio (L:D) should always be kept as small as possible. The smaller the L:D ratio, the greater the stiffness and stability of the bar.

The L:D ratios of Tunable Boring Bars are fixed, where straight shank tunable bar L:D ratios are not. When using straight shank bars, the overhang length should be kept as small as possible.

Please note that only standard pretuned straight shank tunable bars are pretuned at the factory for 10:1 L:D. If the straight shank bar is mounted with less than 10:1 L:D, it may be necessary to retune the bar. This is discussed in more detail in the "Tuning the Bar" section.

Technical Information

Holding Method

The holding method is as critical to performance as selecting and tuning the boring bar. The connection between the boring bar and the machine should be as rigid as possible. Rigid connections enable the tuner mass to function more effectively. The minimum holding length of the bar should be 2.5x the diameter of the bar.

Various connection methods are shown below and listed from most stable to least stable:

Face and Taper Contact with Interference Fit

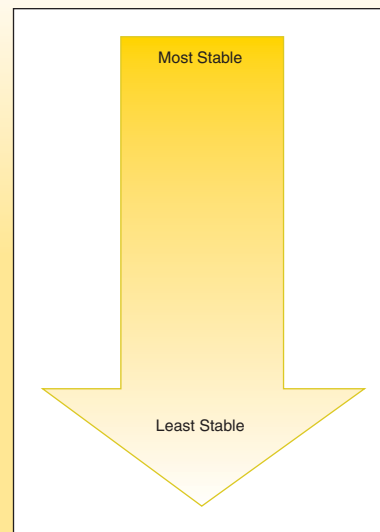
Example: KM Tunable Boring Bar clamped with short overhang
KM clamping unit on turret

Split Sleeve/Full Cylindrical Contact

Example: Straight Shank Tunable Boring Bar with split sleeve

Screw Clamping

Example: Straight Shank Tunable Boring Bar with screw clamping on bar flat



Tuning the Bar

Standard tunable boring bars are pretuned at our factory. Though they may work right out of the box on some machines, for others, they may chatter because of differences in dynamic response. Chatter can be eliminated by optimally tuning the boring bar for a given setup, and the key benefit of our tunable boring bars is that they can be adjusted for any application. Therefore, corrections can be made to put the tool in tune with your machine, optimizing dynamic stiffness and negating chatter.

Several factors influence the required adjusting screw setting on tunable boring bars, including:

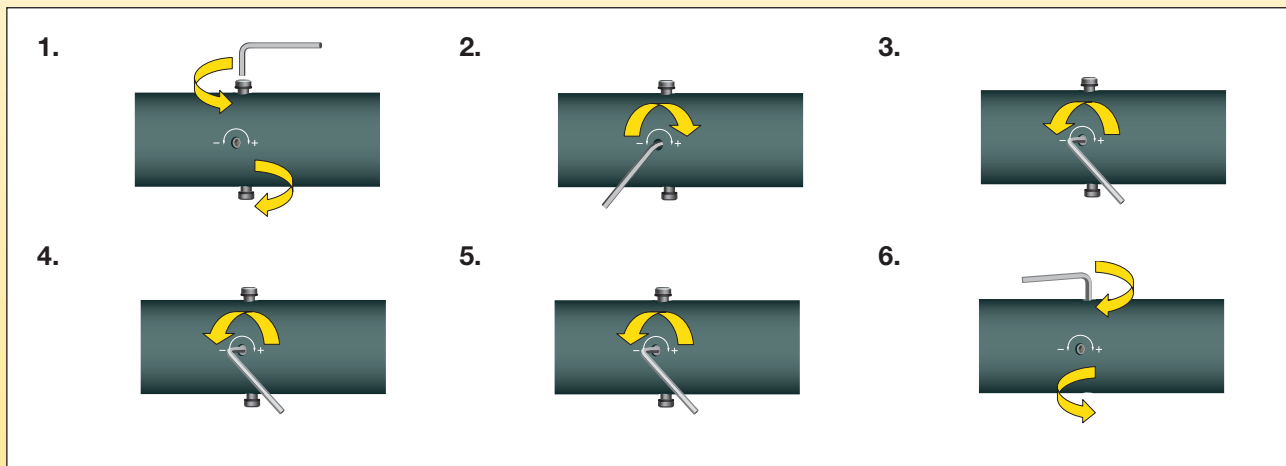
- Overhang and L:D ratio.
- Depth of cut.
- Overall dynamics and rigidity of the machine.

When retuning, it is best to slightly under-tune the bar. For this reason, the tuning process focuses on identifying the adjusting screw setting where chatter starts, and then backing off the screw by a 1/2 turn in the negative direction.

Retuning a Tunable Boring Bar



1. Loosen both clamping screws.
2. Turn the adjusting screw in the positive direction until it becomes snug. The adjusting screw becomes snug when it locks the tuner mass.
3. Turn the screw one complete turn in the negative direction and take a test cut.
4. Repeat Step 3 until chatter is eliminated.
5. (A) Once chatter is eliminated, note that it starts between the current screw setting and one turn in the positive direction. Make 1/4 turn adjustments within this range, taking test cuts for each setting, until you can identify the adjusting screw setting that causes chatter to start. (B) Once the adjusting screw setting that causes chatter is determined, back the adjusting screw off a 1/2 turn in the negative direction.
6. Tighten both clamping screws and take a test cut to confirm desired results.



Screw-On Adapters

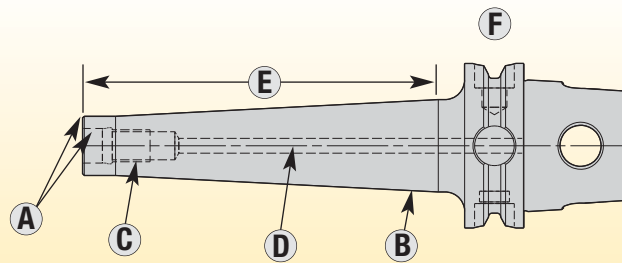
The universal design of Kennametal Screw-On Milling Cutter Adapters enables old and new tool styles to be used interchangeably yet maintain a rigid connection. All adapters offer superior runout accuracy, high metal removal rates, and through-coolant capability. Screw-On Milling Cutter Adapters can be used with Kennametal's wide range of best-in-class inserts to guarantee excellent cutting results, performance, and productivity.

Screw-On products can also be used with a variety of machining applications ranging from low-speed milling applications to rates greater than 20,000 RPM, with the added feature of coolant directed to the cutting edge. The system's accuracy, repeatability, and stability should be equal or greater to the performance of any similar systems on the market today in all applications.



Features, Functions, and Benefits

- All adapters have through-coolant capability.
- All products are stock standard products.
- High accuracy — low runout.
- Stable system for helix, pocket milling, contour cutting, and ramping.
- KM™, HSK, and steep taper prebalanced to G6.3 at 16,000 RPM.
- Extensions and reducers are designed with through-coolant prevision.
- The fine-tuned Screw-On indexable end mill cutters and the KM/ERICKSON™ toolholders together with a wide range of best-in-class inserts ensure excellence in cutting results, performance, and productivity.



- A. Ground pilot and face for high rigidity and accuracy.
- B. Extended shanks have slow taper for added rigidity.
- C. Thread locking system.
- D. Through coolant on all adapters.
- E. Designed for long reach.
- F. Balanced.

Applying Screw-On Adapters

Heavy-Metal Adapters

- Devibration extensions with heavy metal (Densimet™ D176).
- Internal threads with accurate mating surface for best possible concentric and axial runout with the extended tools.
- Through-coolant capability.

Reducers

- Adapter uses Screw-On tools with smaller size.
- Through-coolant capability.
- Mating surface helps generate accurate concentric and axial runout.

Extensions with Weldon® Shank

- Screw-On type extension with Weldon shank, as per DIN 1835-B.
- Shank manufactured as per DIN 1835-B, internal-coolant capability.

Extensions

- Adapter uses Screw-On tools with larger thread size.
- Through-coolant capability.
- Mating surface helps generate accurate concentric and axial runout.

To learn more, [scan here](#).

For instructions on how to scan, please see page xxxiii.



Tightening Torque Milling Head

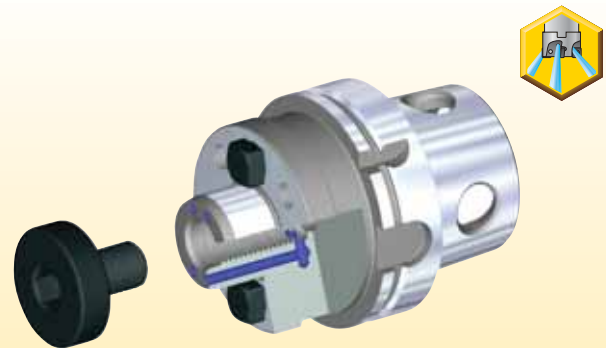
Connecting thread size	Tightening torque	Mounting key size (mm)
M10	40 Nm	15
M12	60 Nm	17
M16	80 Nm	24



Through-Coolant Shell Mill Adapters

Shell mill adapters with high-pressure and high-volume through-coolant capability are now available as standard offerings. Their unique design enables maximum coolant flow to be channeled directly to a tool's cutting edge.

These latest shell mill adapters with through coolant are ideal for holding indexable milling cutters. Together, the toolholder and cutter ensure excellence in tool life, surface quality, and productivity. With this combination, high-pressure or high-volume coolant can dramatically improve surface finishes, reduce tool wear, decrease cutting force, and control chip shape and evacuation. This makes through-coolant shell mill adapters perfect for machining hardened steels and other difficult-to-cut materials like titanium.



Options

- Extended lengths available in standard stocked offering.
- Drive keys upgraded to high-strength material, allowing for high-torque capability.
- Adapters are set for form AD coolant and can be converted to form B flange coolant using adjusting screws.
- No extra components necessary to buy for standard tools.

Coolant Flow Options

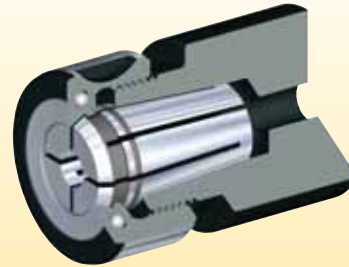
- Through holes in the face of the pilot.
- Through the center.



Collet Chuck Styles

TG Collet Chucks

Primarily for gripping straight shanks, TG collet chucks are the ERICKSON™ industry standard. These chucks offer flexibility for drilling, milling, and tapping applications and are also capable of gripping Whistle Notch™ cutters. TG collet chucks should be used for medium to light operations.

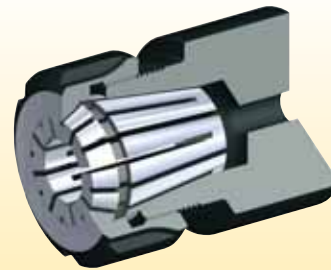


TG collet chucks have a range of dedicated milling and tap collets available. Balanceable locknuts are offered for operating at relatively high speeds. Sealing/coolant locknuts and bonded collets are also available for chucks utilizing through coolant.

- Clamping range of 0,3mm (.016").
- Good rigidity and gripping power of 3:1.
- Good concentricity.

ER Collet Chucks

As the DIN 6499 industry standard, ER collet chucks are designed to grip straight shanks. They are flexible for drilling, light milling, and tapping applications. ER collet chucks are used for medium to light applications at medium speeds.



Dedicated tap collets are available for this style collet chuck. For ER collet chucks using through coolant, sealing and coolant locknuts are available.

- Wide clamping range of 1mm (.040").
- Fair rigidity and gripping power of 2:1.
- Good concentricity.

(continued)

Collet Chuck Styles *(continued)*

DA Collet Chucks

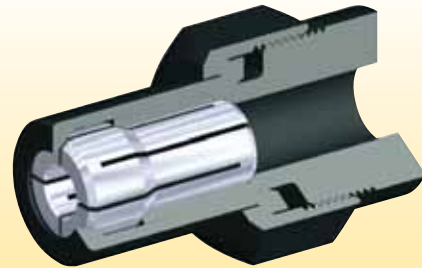
DA collet chucks are an ERICKSON™ industry standard. They are intended for gripping straight shanks, but the DA style also has the ability to grip drill margins. This eliminates center drilling by shortening the drill. DA collet chucks also offer flexibility for drilling, milling, and tapping.

Milling and tap collet styles dedicated to the DA style are available. These chucks can also make use of bonded collets when employing through coolant. DA collet chucks can utilize three styles of locknuts.

- Clamping range of 0,8mm (.031")
- Fair rigidity and gripping power of 1:1.
- Concentricity >0,025mm (.001")

DA — 01 Series
Extended Nose Style

Long nosepiece bearing and compensating locknut delivery offer proper axial position and prevent twisting. This style is ideal when extreme accuracy is required.



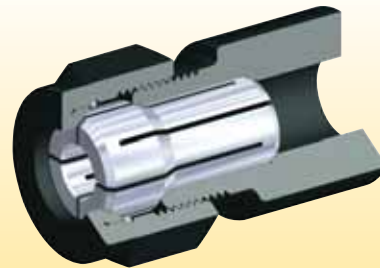
DA — 04 Series
Close Center Style

Designed at the minimum safe outside diameter to solve close center problems. This style should be used where reach and close proximity of workpiece problems are encountered.



DA — 08 Series
Stub Nose Style

This DA style has a compensating nose ring with the locknut that allows collets to find their own axial position and prevent twisting. They should be used when better rigidity is required.



TG • Tremendous Grip

- Provides Tremendous Grip and accuracy for all drilling applications.
- 0,4mm [1/64" (.016")] range of collapse.
- Grips on back taper and margin of drill for maximum feed rates and more accurate holes.
- Manufactured to DIN 6499 Class 2 accuracy.

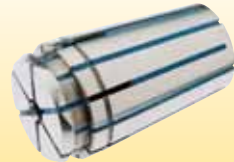
ERICKSON



TGC • Tremendous Grip Coolant

- Rubber-filled slots seal collet for coolant-fed tool applications.
- Suitable for coolant pressure up to 100 bar (1500 psi).
- Unique design features permit easy entry into nosepiece.
- Available from stock in all popular sizes.
- Fits all standard TG-style collet chucks.
- 0,13mm (.005") range collapse.
- Design enables flutes of drills to enter collet, unlike competitive designs.

ERICKSON



TGHP • Tremendous Grip High Precision

- Twice as accurate as standard TG- and ER-style collets.
- Available from stock in all popular sizes.
- Can be used in all standard TG-style collet chucks.
- 0,25mm (.010") range of collapse.
- Manufactured to DIN 6499 Class 1 accuracy.

ERICKSON



TGCHP • Tremendous Grip Coolant High Precision

- Rubber-filled slots seal collet for coolant-fed tool applications.
- Suitable for coolant pressure up to 100 bar (1500 psi).
- Unique design features permit easy entry into nosepiece.
- Available from stock in all popular sizes.
- Fits all standard TG-style collet chucks.
- 0,13mm (.005") range of collapse.
- Manufactured to DIN 6499 Class 1 accuracy.

ERICKSON



TGNP • Tremendous Grip Non-Pullout, Weldon® Style

- Positive retention and drive provided by drive wedge in collet.
- Eliminates inaccuracy created by solid end mill holders.
- 0,13mm (.005") range of collapse.
- Fits all standard TG-style collet chucks.

ERICKSON



TGST • Tremendous Grip Single-Angle Tap Collet

- Designed to grip the tap on the shank and square.
- Fits all standard TG-style collet chucks.
- 0,13mm (.005") range of collapse.

ERICKSON



TGSTC • Tremendous Grip Single-Angle Tap Collet, Coolant Style

- Rubber-filled slots seal collet for coolant-fed tool applications.
- Suitable for coolant pressure up to 70 bar (1000 psi).
- Designed to grip the tap on the shank and square.
- Fits all standard TG-style collet chucks.
- 0,13mm (.005") range of collapse.

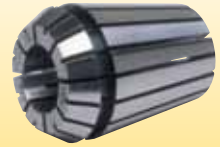
ERICKSON



ER • Single Angle

- Provides good grip and accuracy for all drilling applications.
- Wide clamping range.
- Available in both inch and metric bores.
- 1mm (.040") range of collapse.
- Manufactured to DIN 6499 Class 2 accuracy.

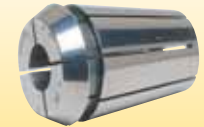
ERICKSON



ERTC • Single-Angle Tap Collet

- Designed to grip taps on shank and square to eliminate slippage.
- Fits all standard ER-style collet chucks.
- 0,13mm (.005") range of collapse.

ERICKSON



ERTCT • Single-Angle Tap Collet with Axial Compensation

- Designed to grip taps on shank and square to eliminate slippage.
- Tension only, cost-effective solution for machines that require axial compensation for tapping.
- Fits all standard ER-style collet chucks.

ERICKSON



DA • Double-Angle

- 0,8mm [1/32" (.031")] range of collapse.

ERICKSON



DAC • Double-Angle Coolant

- Rubber-filled slots seal coolant-fed tool applications.
- Suitable for coolant pressure up to 70 bar (1000 psi).
- Fits all standard DA-style collet chucks.
- 0,13mm (.005") range of collapse.

ERICKSON



DANP • Double-Angle Non-Pullout — Weldon® Style

- Designed to grip end mills with Weldon-style shanks.
- Positive retention and drive provided by drive wedge in collet.
- Eliminates inaccuracy created by solid end mill adapters.
- Fits all standard DA-style collet chucks.
- 0,13mm (.005") range of collapse.

ERICKSON



TG Collet Series

The TG collet series is the first choice when high precision, gripping torque, and versatility are required. These single-angle collet chucks grip at approximately 3:1 for grip torque versus tightening torque without a stop screw.

The taper's slow angle produces a sticking action, so collets must be snapped into the locknut before assembling the locknut onto the chuck. Follow the procedure on page M103 for assembly/disassembly instructions.

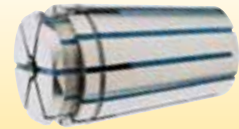
Standard Collet

- 0,40mm (.016") maximum collapse.



Bonded Seal Collet

- 0,13mm (.005") maximum collapse.
- 100 bar (1,500 psi) coolant pressure.



DA Collet Series

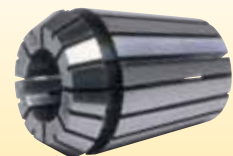
DA-style collet chucks have a grip of approximately 1:1 tightening torque versus grip torque.



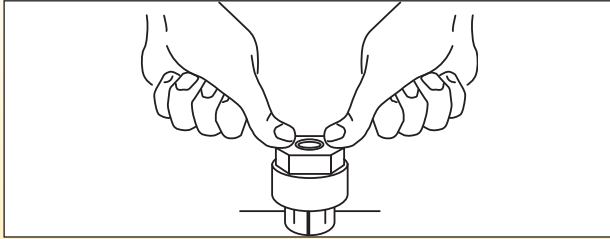
ER Collet Series

The ER collet series is an international standard style used for many applications. Collets from this series are ideal for boring, milling, reaming, tapping, and grinding.

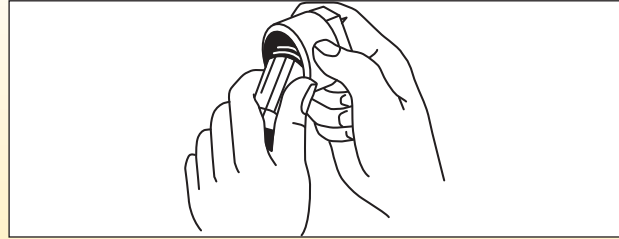
ER collets are manufactured from alloy steel and hardened for long life. They offer a grip of approximately 2:1 tightening torque versus grip torque. See page M103 for assembly/disassembly instructions.



TG and ER Collet Assembly/Disassembly Instructions



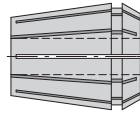
- First, place the locknut with nose ring over collet nose. Apply force on the locknut until it snaps into place. The nose ring is now seated into the collet undercut and should turn freely.



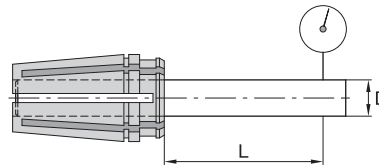
- To remove the collet from the locknut, hold the nut firmly in one hand and apply a bending action on the collet with the other hand until the collet snaps free from the nose ring.

NOTE

Inserting the cutting tool less than 2/3 the gripping length into the collet can permanently damage the collet. The full length of the gripping bore needs to be maintained to achieve maximum accuracy and safety. Collet accuracies are based on size-for-size conditions. Using the collapsible range can influence the accuracy and gripping powers. Never try to stretch collets by clamping oversized cutting tools.

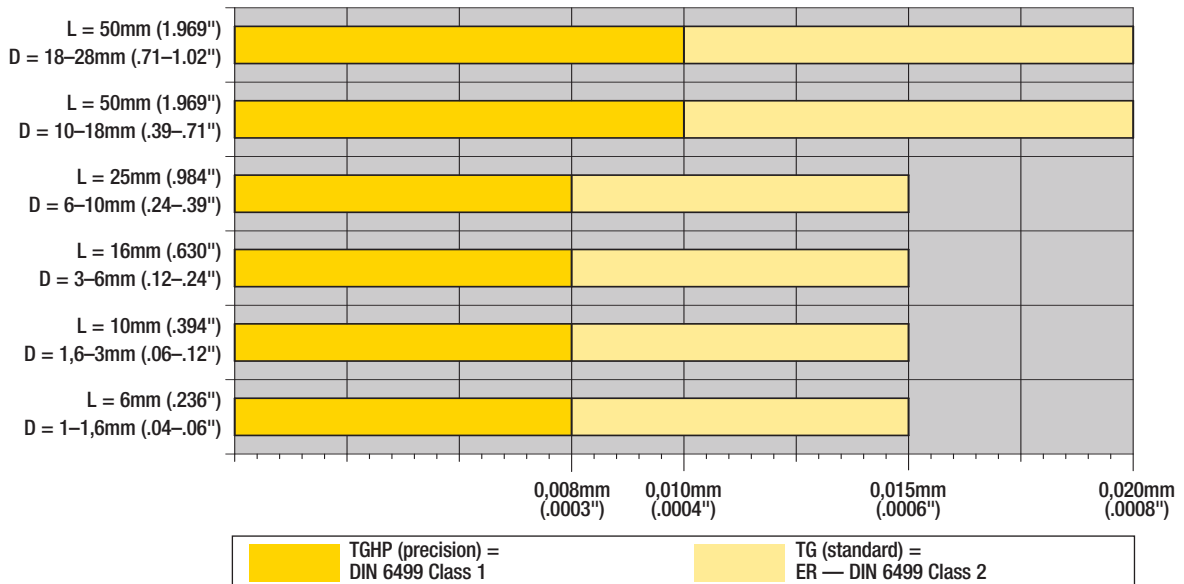


ER-Style Collet



TG-Style Collet

Maximum Runout Error



Gripping Strength Comparison Chart • Metric

ER collet chuck based on ER40		TG collet chuck based on TG100		standard hydraulic		Slim Line hydraulic	
mm	Nm	mm	Nm	mm	Nm	mm	Nm
3	—	3	—	3	—	3	—
4	—	4	—	4	—	4	—
5	—	5	—	5	—	5	—
6	38	6	—	6	12	6	26
8	52	8	115	8	30	8	50
10	70	10	144	10	40	10	80
12	103	12	300	12	70	12	115
14	108	14	312	14	100	14	160
16	118	16	325	16	135	16	200
18	156	18	339	18	180	18	250
20	206	20	384	20	220	20	230
25	255	25	536	25	500	25	—
32	—	32	569	32	700	32	—
40	—	40	—	40	—	40	—
50	—	50	—	50	—	50	—

Gripping Strength Comparison Chart • Inch

ER collet chuck based on ER40		TG collet chuck based on TG100		standard hydraulic		Slim Line hydraulic	
in	ft. lbs.	in	ft. lbs.	in	ft. lbs.	in	ft. lbs.
1/8	—	1/8	—	1/8	—	1/8	—
3/16	—	3/16	—	3/16	—	3/16	—
1/4	28	1/4	—	1/4	9	1/4	19.2
5/16	38	5/16	85	5/16	22	5/16	—
3/8	52	3/8	106	3/8	30	3/8	59
7/16	—	7/16	—	7/16	—	7/16	—
1/2	76	1/2	221	1/2	55	1/2	89
9/16	80	9/16	230	9/16	74	9/16	—
5/8	87	5/8	240	5/8	100	5/8	148
11/16	115	11/16	250	11/16	129	11/16	—
3/4	152	3/4	283	3/4	148	3/4	155
7/8	—	7/8	—	7/8	—	7/8	—
1	188	1	395	1	369	1	—
1 1/4	—	1 1/4	420	1 1/4	516	1 1/4	—
1 1/2	—	1 1/2	—	1 1/2	—	1 1/2	—
2	—	2	—	2	—	2	—

NOTE: Torque values in in. lbs.

Minimum values calculated for maximum bore size and minimum shank size.
Maximum values calculated for minimum bore size and maximum shank size.

Gripping Strength Comparison Chart • Metric

	milling chuck		Shrink Fit			
			standard (Nm)		high torque (Nm)	
	mm	Nm	min	max	min	max
	3	—	3.3	11	—	—
	4	—	5.2	16	—	—
	5	—	6.8	20	—	—
	6	—	19	116	—	—
	8	—	26	176	—	—
	10	—	91	312	—	—
	12	—	132	445	269	582
	14	—	169	546	346	723
	16	—	253	587	444	779
	18	—	304	865	540	1101
	20	1127	412	1049	654	1292
	25	1666	901	1896	1233	2227
	32	2347	1033	2079	1338	2384
	40	—	1907	3482	2432	4007
	50	—	2651	4465	3029	4843

Gripping Strength Comparison Chart • Inch

	milling chuck		Shrink Fit			
			standard (ft. lbs.)		high torque (ft. lbs.)	
	in	ft. lbs.	min	max	min	max
	1/8	—	3.2	13	—	—
	3/16	—	4.6	19	—	—
	1/4	—	13	86	—	—
	5/16	—	18	117	—	—
	3/8	—	53	196	—	—
	7/16	—	65	269	—	—
	1/2	—	111	340	225	455
	9/16	—	160	410	285	535
	5/8	—	172	442	307	576
	11/16	—	262	648	427	814
	3/4	831	336	797	509	970
	7/8	—	363	791	524	951
	1	1229	674	1382	939	1647
	1 1/4	1731	784	1445	1115	1775
	1 1/2	—	1132	1818	1389	2075
	2	—	1942	3049	2357	3465

NOTE: Torque values in in. lbs.
Minimum values calculated for maximum bore size and minimum shank size.
Maximum values calculated for minimum bore size and maximum shank size.



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1135972	25ER130M	J55	1138307	170.003	A411, A500-501, A576-577, C13, C15, C52, C54, C80, C100, C102-103, C124, C129, C136, C150, E7, E28, E30-31, E70, E72-73, F10, F12-15, F48, F50, F52-53, G10, G12-13, G50, G52	1144258	KM32TSS32050M	A262	1144471	KM32TSSDUCR11	A230
1135979	40ERTC140110M	J58	1138307	170.003	A411, A500-501, A576-577, C13, C15, C52, C54, C80, C100, C102-103, C124, C129, C136, C150, E7, E28, E30-31, E70, E72-73, F10, F12-15, F48, F50, F52-53, G10, G12-13, G50, G52	1144259	KM32TSS32070M	A262	1144472	KM32TSSDUCR11	A230
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4156049	KM4X100HPVTT08160M	A622	4160051	KM4X100WN14100M	A628	4160539	KM4X100EM32100M	A630	5090059	HSK100ASFTT18100M	C94
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4160045	KM4X100ER40120M	A627	4160534	KM4X100EM14080M	A630	5089667	CV50ZBSFHDTT200551	F43	5275038	TTISG3400NA	L4
4160047	KM4X100WN06090M	A628	4160535	KM4X100EM16100M	A630	5090056	HSK100ASFTT12095M	C94	5275039	TTISG3400CCU	L4
4160048	KM4X100WN08090M	A628	4160536	KM4X100EM18100M	A630	5090057	HSK100ASFTT14095M	C94	5275129	TTISG3400CCU	L8
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4160050	KM4X100WN12100M	A628	4160538	KM4X100EM25100M	A630						

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192.424	.A629	100DAC0250	.J67	100TG0797	.J36	100TGC0766	.J36
192.425	.A629	100DAC0266	.J67	100TG080M	.J31	100TGC0781	.J36
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000DA012M	.J65	100DAC0297	.J67	100TG0828	.J37	100TGC080M	.J31
000DA015M	.J65	100DAC0312	.J67	100TG0844	.J37	100TGC0812	.J36
000DA017M	.J65	100DAC0328	.J67	100TG0859	.J37	100TGC0828	.J37
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100DA0078	.J67	100DAC0531	.J68	100TG100M	.J31	100TGC140M	.J31
100DA0094	.J67	100DAC0547	.J68	100TG105M	.J31	100TGC160M	.J31
100DA0109	.J67	100DAC0562	.J68	100TG115M	.J31	100TGC180M	.J32
100DA0125	.J67	100DAC060M	.J66	100TG120M	.J31	100TGC200M	.J32
100DA0141	.J67	100DAC080M	.J66	100TG125M	.J31	100TGC250M	.J31
100DA0156	.J67	100DAC100M	.J66	100TG130M	.J31	100TGC	.L15
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100DA0188	.J67	100DAC140M	.J66	100TG140M	.J31	100TGCHP0438	.J35
100DA0203	.J67	100DAS000M	.J69	100TG145M	.J31	100TGCHP0500	.J35
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100DA0531	.J68	100TG0453	.J35	100TGC0328	.J35	100TGHP0875	.J37
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100DA060M	.J66	100TG0500	.J35	100TGC0391	.J35	100TGHP180M	.J32
100DA065M	.J66	100TG050M	.J30	100TGC0406	.J35	100TGHP200M	.J32
100DA070M	.J66	100TG0516	.J36	100TGC0422	.J35	100TGHP250M	.J31
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100DA080M	.J66	100TG0547	.J36	100TGC0453	.J35	100TGNP0500	.J35
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100DA095M	.J66	100TG0578	.J36	100TGC0500	.J35	100TGNP0750	.J36
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100DA125M	.J66	100TG0656	.J36	100TGC0594	.J36	100TGNP250M	.J31
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100DA140M	.J66	100TG0688	.J36	100TGC0625	.J36	100TGST025	.J40
100DAC0125	.J67	100TG0703	.J36	100TGC0641	.J36	100TGST025P	.J41
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100DAC0172	.J67	100TG0734	.J36	100TGC0688	.J36	100TGST037P	.J41
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100TGST100	J41	12HC160M	J5	150TG1125	J45	16ER0125	J56
100TGST100080M	J40	12HC180M	J5	150TG1141	J45	16ER0156	J56
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300DA0125	J67	32ERTC060049M	J58	40ER0969	J56	50TG035M	J14
300DA0141	J67	32ERTC062	J59	40ER1000	J56	50TG0375	J18
300DA0156	J67	32ERTC069	J59	40ER100M	J55	50TG0391	J18
300DA015M	J65	32ERTC070055M	J58	40ER110M	J55	50TG0406	J18
300DA0172	J67	32ERTC075	J59	40ER120M	J55	50TG040M	J14
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300DA0219	J67	32ERTC10	J59	40ER160M	J55	50TG045M	J14
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300DA025M	J65	32ERTC12	J59	40ER190M	J55	50TG0500	J18
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300DA035M	J66	32ERTC140110M	J58	40ER210M	J55	50TG0516	J18
300DA040M	J66	32ERTC160120M	J58	40ER220M	J55	50TG0531	J18
300DA045M	J66	32ERTC180145M	J58	40ER230M	J55	50TG055M	J14
300DA050M	J66	32ERTC200160M	J58	40ER240M	J55	50TG060M	J14
300DA055M	J66	32ERTC8	J59	40ER250M	J55	50TG065M	J14
300DA060M	J66	32HCM0500	J5	40ER260M	J55	50TG070M	J14
300DAC0125	J67	32HCM0562	J5	40ERS000M	J57	50TG075M	J15
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50TGC120M	J15	514.122	A175, A317, A319, A397, A488, A490	75SMC0250	J9	75TG145M	J23
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75TGST062	J29	BT30ER40100M	E11	BT40BER16120M	E36	BT40BHPVTT125630	E25
75TGST068	J29	BT30HCT025295	E7	BT40BER16150M	E36	BT40BHPVTT14090M	E24
75TGST075	J29	BT30HCT038315	E7	BT40BER20060M	E36	BT40BHPVTT14120M	E24
75TGST081	J29	BT30HCT050335	E7	BT40BER20120M	E36	BT40BHPVTT14160M	E24
75TGST087	J29	BT30HCT06075M	E7	BT40BER20150M	E36	BT40BHPVTT16090M	E24
75TGST10	J28	BT30HCT062394	E7	BT40BER25070M	E37	BT40BHPVTT16120M	E24
75TGST12	J28	BT30HCT075413	E7	BT40BER25120M	E37	BT40BHPVTT16160M	E24
75TGST6	J28	BT30HCT08075M	E7	BT40BER25150M	E37	BT40BHPVTT18090M	E24
75TGST8	J28	BT30HCT10080M	E7	BT40BER32070M	E37	BT40BHPVTT18120M	E24
75TGSTC025	J28	BT30HCT12085M	E7	BT40BER32120M	E37	BT40BHPVTT18160M	E24

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BT40BHPVTT20090M	E24	BT40BSC16075M	E50	BT40EM32110M	E44	BT50BHPVTT075787	E67
BT40BHPVTT20120M	E24	BT40BSC16100M	E50	BT40JT33045M	E57	BT50BHPVTT08100M	E66
BT40BHPVTT20160M	E24	BT40BSC22055M	E50	BT40MT1050M	E57	BT50BHPVTT08160M	E67
BT40BHPVTT25100M	E24	BT40BSC22100M	E50	BT40MT2050M	E57	BT50BHPVTT088394	E67
BT40BHPVTT32105M	E24	BT40BSC22150M	E50	BT40MT3070M	E57	BT50BHPVTT088787	E67
BT40BHPVTTHT050354	E27	BT40BSC27055M	E51	BT40MT4095M	E57	BT50BHPVTT100394	E67
BT40BHPVTTHT050630	E27	BT40BSC27100M	E51	BT40RC1067M	E56	BT50BHPVTT100787	E67
BT40BHPVTTHT062354	E27	BT40BSC27150M	E51	BT40RC2094M	E56	BT50BHPVTT10100M	E66
BT40BHPVTTHT062630	E27	BT40BSC32060M	E51	BT40SA100400	E54	BT50BHPVTT10160M	E66
BT40BHPVTTHT075354	E27	BT40BSC32100M	E51	BT40SA125400	E54	BT50BHPVTT12100M	E66
BT40BHPVTTHT075630	E27	BT40BSC40060M	E51	BT40SER32035M	E35	BT50BHPVTT12160M	E66
BT40BHPVTTHT088354	E27	BT40BSC40100M	E51	BT40STRC1074M	E56	BT50BHPVTT125394	E67
BT40BHPVTTHT088630	E27	BT40BSSF075325	E46	BT40STRC2089M	E56	BT50BHPVTT125787	E67
BT40BHPVTTHT100394	E27	BT40BSSF100425	E46	BT40TA1106	E42	BT50BHPVTT14100M	E66
BT40BHPVTTHT100630	E27	BT40BSSF125500	E46	BT40TG075070M	E34	BT50BHPVTT14160M	E66
BT40BHPVTTHT12090M	E26	BT40BST06047M	E55	BT40TG100080M	E34	BT50BHPVTT16100M	E66
BT40BHPVTTHT12120M	E26	BT40BST06067M	E55	BT40TG100100M	E34	BT50BHPVTT16160M	E66
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BT40BHPVTTHT125413	E27	BT40BST06107M	E55	BT40TG150110M	E34	BT50BHPVTT18160M	E66
BT40BHPVTTHT125630	E27	BT40BST08047M	E55	BT50BB104350M	E95	BT50BHPVTT20100M	E66
BT40BHPVTTHT14090M	E26	BT40BST08067M	E55	BT50BB134250M	E95	BT50BHPVTT20160M	E66
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BT40BSMC100600	E52	BT40EM088335	E45	BT50BHPVTT050787	E67	BT50BSM2C16045M	E86
BT40BSMC125236	E52	BT40EM100162	E45	BT50BHPVTT06100M	E66	BT50BSM2C16100M	E86
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BT50BSMC050400	E88	BT50EM12080M	E83	BTKV40BHPVTTHT088400	D7	BTKV50BHPVTT125400	D23
BT50BSMC075177	E88	BT50EM125413	E83	BTKV40BHPVTTHT100400	D7	BTKV50BHPVTT14100M	D22
BT50BSMC075400	E88	BT50EM125600	E83	BTKV40BHPVTTHT12090M	D6	BTKV50BHPVTT16100M	D22
BT50BSMC100177	E88	BT50EM150413	E83	BTKV40BHPVTTHT125425	D7	BTKV50BHPVTT18100M	D22
BT50BSMC100400	E88	BT50EM16080M	E83	BTKV40BHPVTTHT14090M	D6	BTKV50BHPVTT20100M	D22
BT50BSMC100600	E88	BT50EM200531	E83	BTKV40BHPVTTHT16090M	D6	BTKV50BHPVTT25100M	D22
BT50BSMC125177	E88	BT50EM20080M	E83	BTKV40BHPVTTHT18090M	D6	BTKV50BHPVTT32100M	D22
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BT50BSMC150400	E88	BT50EM50130M	E83	BTKV40BKM32050M	D18, D19	BTKV50BHPVTTHT088400	D25
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BT50BSMC27045M	E87	BT50TA1187	E82	BTKV40BSMC075200	D17	BTKV50BKM40065M	D36
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BT50BST12087M	E90	BTKV40BEM031250	D13	BTKV40BTDSDMC22260M	D14	BTKV50BSM2C22045M	D34
BT50BST12137M	E90	BTKV40BEM038250	D13	BTKV40BTDSDMC27260M	D14	BTKV50BSM2C275200	D35
BT50BST12187M	E90	BTKV40BEM050300	D13	BTKV40BTG075070M	D8	BTKV50BSM2C100200	D35
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BT50BSWN25075M	E82	BTKV40BEM088400	D13	BTKV50BB104350M	D37	BTKV50BSM2C22045M	D34
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BT50BTDSDMC32330M	E84	BTKV40BEM18063M	D12	BTKV50BEM10080M	D30	BTKV50BTDSDMC1001250	D33
BT50BWN06063M	E81	BTKV40BEM20063M	D12	BTKV50BEM12080M	D30	BTKV50BTDSDMC1251300	D33
BT50BWN08063M	E81	BTKV40BEM25090M	D12	BTKV50BEM125400	D31	BTKV50BTDSDMC22260M	D32
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BT50BWN20080M	E81	BTKV40BER25120M	D11	BTKV50BEM20080M	D30	BTKV50BTG150150M	D26
BT50BWN25100M	E81	BTKV40BER32070M	D11	BTKV50BEM25105M	D30	CC09	A103
BT50BWN32105M	E81	BTKV40BER32120M	D11	BTKV50BEM32105M	D30	CC11	A103, A110
BT50CS16070M	E89	BTKV40BER40080M	D11	BTKV50BEM40120M	D30	CDER16000M	L23
BT50CS16150M	E89	BTKV40BER40120M	D11	BTKV50BEM50130M	D30	CDER16035M	L23
BT50CS22070M	E89	BTKV40BHPVTT025350	D5	BTKV50BER16100M	D28	CDER16040M	L23
BT50CS22150M	E89	BTKV40BHPVTT031350	D5	BTKV50BER16150M	D28	CDER16045M	L23
BT50CS22200M	E89	BTKV40BHPVTT038350	D5	BTKV50BER20070M	D28	CDER16050M	L23
BT50CS32070M	E89	BTKV40BHPVTT044350	D5	BTKV50BER20150M	D28	CDER16055M	L23
BT50CS32150M	E89	BTKV40BHPVTT050350	D5	BTKV50BER25070M	D29	CDER16060M	L23
BT50CS40070M	E89	BTKV40BHPVTT06090M	D4	BTKV50BER25150M	D29	CDER16065M	L23
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BT50CS50075M	E89	BTKV40BHPVTT08090M	D4	BTKV50BER40080M	D29	CDER16080M	L23
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BT50DA188070M	E80	BTKV40BHPVTT100400	D5	BTKV50BHPVTT025400	D23	CDER16090M	L23
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BT50DA188200M	E80	BTKV40BHPVTT12090M	D4	BTKV50BHPVTT038400	D23	CDER16100M	L23
BT50DC13110M	E80	BTKV40BHPVTT125425	D5	BTKV50BHPVTT044400	D23	CDER20000M	L24
BT50EM050295	E83	BTKV40BHPVTT14090M	D4	BTKV50BHPVTT050400	D23	CDER20030M	L24
BT50EM06063M	E83	BTKV40BHPVTT16090M	D4	BTKV50BHPVTT06100M	D22	CDER20035M	L24
BT50EM06150M	E83	BTKV40BHPVTT18090M	D4	BTKV50BHPVTT062400	D23	CDER20040M	L24
BT50EM075295	E83	BTKV40BHPVTT20090M	D4	BTKV50BHPVTT075400	D23	CDER20045M	L24
BT50EM08063M	E83	BTKV40BHPVTT25100M	D4	BTKV50BHPVTT08100M	D22	CDER20050M	L24
BT50EM100413	E83	BTKV40BHPVTT32105M	D4	BTKV50BHPVTT088400	D23	CDER20055M	L24
BT50EM100600	E83	BTKV40BHPVTTHT050350	D7	BTKV50BHPVTT100400	D23	CDER20060M	L24
BT50EM10080M	E83	BTKV40BHPVTTHT062350	D7	BTKV50BHPVTT10100M	D22		

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CDER20070M	L24	CDER40060M	L28	CKM23LP	A135, A169, A222-223, A225-226, A279-281, A284-287, A315, A360-362, A365-367, A395, A487	CV40BHC14M400	F12
CDER20075M	L24	CDER40065M	L28	CKM24	A521-522, A524-526, A597-599	CV40BHC16M400	F12
CDER20080M	L24	CDER40070M	L28	CKM37	A232	CV40BHC18M400	F12
CDER20085M	L24	CDER40075M	L28	CKM7LP	A134-137, A140-142, A168-171, A173-174, A224, A284-285, A365-366	CV40BHC20M400	F12
CDER20090M	L24	CDER40080M	L28	CM113	A234-235, A303-305, A383-384, A404, A473-476	CV40BHC25M462	F12
CDER20095M	L24	CDER40085M	L28	CM114	A234-235, A303-305, A383-384, A404, A473-476	CV40BHC32M462	F12
CDER20100M	L24	CDER40090M	L28	CM120	A531, A601	CV40BHC8075400	F16
CDER20105M	L24	CDER40095M	L28	CM121	A531, A601	CV40BHC820M400	F16
CDER20110M	L24	CDER40100M	L28	CM146	A88-89, A97, A247, A321-322, A407	CV40BHC820M400	F16
CDER20115M	L24	CDER40105M	L28	CM147	A88-89, A97, A247, A321-322, A407	CV40BHC820M400	F16
CDER20120M	L24	CDER40110M	L28	CM158	A234, A303, A305-306	CV40BHC820M400	F16
CDER20125M	L24	CDER40115M	L28	CM159	A303, A305	CV40BHC820M400	F16
CDER20130M	L24	CDER40120M	L28	CM168	A89	CV40BHC820M400	F16
CDER25000M	L25	CDER40125M	L28	CM169	A89	CV40BHC820M400	F16
CDER25035M	L25	CDER40130M	L28	CM182	A102	CV40BHC820M400	F16
CDER25040M	L25	CDER40135M	L28	CM183	A102	CV40BHC820M400	F16
CDER25045M	L25	CDER40140M	L28	CM209R ASSY	A265, A345, A434, A519, A593	CV40BHC820M400	F16
CDER25050M	L25	CDER40145M	L28	CM212LP	A154	CV40BHC820M400	F16
CDER25055M	L25	CDER40150M	L28	CM213LP	A154	CV40BHC820M400	F16
CDER25060M	L25	CDER40155M	L28	CM234R ASSY	A265-277, A345-357, A434-446, A519-520, A593-596	CV40BHC820M400	F16
CDER25065M	L25	CDER40160M	L28	CM66	A403	CV40BHC820M400	F16
CDER25070M	L25	CDER40165M	L28	CM68	A233	CV40BHC820M400	F16
CDER25075M	L25	CDER40170M	L28	CM71	A232	CV40BHC820M400	F16
CDER25080M	L25	CDER40175M	L29	CM72	A236, A307-308, A321, A385-386, A407, A477, A492, A531, A601	CV40BHC820M400	F16
CDER25085M	L25	CDER40180M	L29	CM73	A235-236, A307-308, A321, A385-386, A407, A477, A492, A531, A601	CV40BHC820M400	F16
CDER25090M	L25	CDER40185M	L29	CM73LP	A153-154, A177	CV40BHC820M400	F16
CDER25095M	L25	CDER40190M	L29	CM74	A153-154, A177, A236, A247, A307-308, A321, A407	CV40BHC820M400	F16
CDER25100M	L25	CDER40195M	L29	CM75	A153-154, A177, A235-236, A307-308, A321, A407	CV40BHC820M400	F16
CDER25105M	L25	CDER40200M	L29	CM79	A232	CV40BHC820M400	F16
CDER25110M	L25	CDER40205M	L29	CM80	A477, A531, A601	CV40BHC820M400	F16
CDER25115M	L25	CDER40210M	L29	CM81	A477, A531, A601	CV40BHC820M400	F16
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CDER25135M	L25	CDER40230M	L29	CSS112175PKG	F73	CV40BHC820M400	F16
CDER25140M	L25	CDER40235M	L29	CSS1225M	.18-9	CV40BHC820M400	F16
CDER25145M	L25	CDER40240M	L29	CSTB25PKG	A95	CV40BHC820M400	F16
CDER25150M	L25	CDER40245M	L29	CSTB4SDPKG	A90	CV40BHC820M400	F16
CDER25155M	L25	CDER40250M	L29	CT11 WG	A107	CV40BHC820M400	F16
CDER25160M	L25	CDER40255M	L29	CT15	A104-106	CV40BHC820M400	F16
CDER32000M	L27	CDER40260M	L29	CV40BB400120	F39	CV40BHC820M400	F16
CDER32035M	L26	CDK16M	A337, C67, C89, C116, E53, E89, G34	CV40BB400600	F39	CV40BHC820M400	F16
CDER32040M	L26	CDK22M	A337, A421, C67, C89, C116, E53, E89, G34	CV40BEM050262	F29	CV40BHC820M400	F16
CDER32045M	L26	CDK27M	A421, A509, C67, C89, C116, E53, G34, G70	CV40BEM062375	F29	CV40BHC820M400	F16
CDER32050M	L26	CDK32M	A421, A509, A548, C67, C89, C116, E53, E89, G34, G70	CV40BEM075375	F29	CV40BHC820M400	F16
CDER32055M	L26	CDK40M	A509, A548, C67, C89, C116, E53, E89, G34, G70	CV40BEM100400	F29	CV40BHC820M400	F16
CDER32060M	L26	CDK50M	C89, C116, E53, E89, G34, G70	CV40BEM125425	F29	CV40BHC820M400	F16
CDER32065M	L26	CDR16M	A337, C67, C89, C116, E53, E89, G34	CV40BER16250	F22	CV40BHC820M400	F16
CDER32070M	L26	CDR22M	A337, A421, C67, C89, C116, E53, E89, G34	CV40BER16500	F22	CV40BHC820M400	F16
CDER32075M	L26	CDR27M	A421, A509, C67, C89, C116, E53, G34, G70	CV40BER20250	F22	CV40BHC820M400	F16
CDER32080M	L26	CDR32M	A421, A509, A548, C67, C89, C116, E53, E89, G34, G70	CV40BER20600	F22	CV40BHC820M400	F16
CDER32085M	L26	CDR32LP	A509, A548, C67, C89, C116, E53, E89, G34, G70	CV40BER25250	F23	CV40BHC820M400	F16
CDER32090M	L26	CDR40M	A509, A548, C67, C89, C116, E53, E89, G34, G70	CV40BER25600	F23	CV40BHC820M400	F16
CDER32095M	L26	CDR50M	C89, C116, E89, G70	CV40BER32275	F23	CV40BHC820M400	F16
CDER32100M	L26	CGS4	A312, A391, A481-482, A564, C39	CV40BER32600	F23	CV40BHC820M400	F16
CDER32105M	L26	CGS5	A482, A564, C39	CV40BER40300	F23	CV40BHC820M400	F16
CDER32110M	L26	CKC3	A155, A178, A237-238, A248, A309-310, A323, A386-388, A408, A478, C40	CV40BER40600	F23	CV40BHC820M400	F16
CDER32115M	L26	CKC4	A155, A178, A309-310, A323, A387-388, A408, A478	CV40BHC025350	F13	CV40BHC820M400	F16
CDER32120M	L26	CKC5	A309-310, A386-388, A478	CV40BHC038375	F13	CV40BHC820M400	F16
CDER32125M	L26	CKM12	A521-522, A524-525, A597-599	CV40BHC050375	F13	CV40BHC820M400	F16
CDER32130M	L26	CKM13	A447-448, A451-452	CV40BHC062400	F13	CV40BHC820M400	F16
CDER32135M	L26	CKM13LP	A358, A360, A363-364	CV40BHC06M350	F12	CV40BHC820M400	F16
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CDER32145M	L26	CKM20LP	A134-142, A166-168, A170-174, A221-223, A226, A240-241, A278-283, A285-288, A314-316, A358, A360, A362-364, A368-370, A393, A395-396, A485, A487	CV40BHC08M350	F12	CV40BHC820M400	F16
CDER32150M	L26	CKM22	A600	CV40BHC100462	F13	CV40BHC820M400	F16
CDER32155M	L26			CV40BHC10M375	F12	CV40BHC820M400	F16
CDER32160M	L26			CV40BHC125462	F13	CV40BHC820M400	F16
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CDER32180M	L26					CV40BHC125462	F12
CDER32185M	L26					CV40BHC125462	F12
CDER32190M	L26					CV40BHC125462	F12
CDER32195M	L26					CV40BHC125462	F12
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CV40BHPVTTHT075600	F9	CV40BWN06M244	F26	CV40ZEM025138	F28	CV50BHCT08M600	F52
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CV50BHPVTT20M400	F44	CV50BSC200240	F76	CV50EM050462	F70	CV50WNA062266	F67
CV50BHPVTT20M800	F44	CV50BSC200400	F77	CV50EM050662	F70	CV50WNA062453	F67
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CV50BHPVTT32M400	F44	CV50BSC250240	F77	CV50EM062575	F70	CV50WNA075450	F67
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HSK100AEM50130M	C110	HSK100AHPVTT125630	C97	HSK100ASM50070M	A631-633	HSK40AEM062300M	C19
HSK100AER16100M	C106	HSK100AHPVTT14095M	C96	HSK100ASMC075225	C115	HSK40AEM08060M	C19
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HSK63AHPVTT031315	C47	HSK63AHPVTTHT20120M	C48	HSK63AST16134M	C69	HSK63TKGMSR50	C38
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HSK63AHPVTT050472	C47	HSK63AHSK63120M	C72	HSK63ATG075115M	C57	HSK63TPCMNN12115	C35
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VDIB5M201630.....	K6	VDIC2M402585.....	K8	VDIE2M2016.....	K11	VDIE3M2016.....	K12
VDIB5M201640.....	K6	VDIC2M5032100.....	K8	VDIE2M2020.....	K11	VDIE3M2020.....	K12
VDIB5M302040.....	K6	VDIC2M6032125.....	K8	VDIE2M2025.....	K11	VDIE3M3025.....	K12
VDIB5M402044.....	K6	VDIC3M201650.....	K9	VDIE2M2025.....	K11	VDIE3M4025.....	K12
VDIB5M402544.....	K6	VDIC3M201655.....	K9	VDIE2M208.....	K11	VDIE3M4032.....	K12
VDIB5M503255.....	K6	VDIC3M201655.....	K9	VDIE2M3010.....	K11	VDIE3M5025.....	K12
VDIB5M603260.....	K6	VDIC3M302070.....	K9	VDIE2M3012.....	K11	VDIE3M5032.....	K12
VDIB6M201630.....	K6	VDIC3M402585.....	K9	VDIE2M3016.....	K11	VDIE3M6032.....	K12
VDIB6M201640.....	K6	VDIC3M5032100.....	K9	VDIE2M3020.....	K11	VDIE4M1616.....	K12
VDIB6M302040.....	K6	VDIC3M6032125.....	K9	VDIE2M3025.....	K11	VDIE4M2016.....	K12
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VDIB6M503255.....	K6	VDIC4M402585.....	K9	VDIE2M4010.....	K11	VDIE4M3032.....	K12
VDIB6M603260.....	K6	VDIC4M5032100.....	K9	VDIE2M4012.....	K11	VDIE4M3040.....	K12
VDIB7M201630.....	K7	VDIC4M6032125.....	K9	VDIE2M4016.....	K11	VDIE4M4025.....	K12
VDIB7M201640.....	K7	VDIE1M2020.....	K10	VDIE2M4016.....	K11	VDIE4M4025.....	K12
VDIB7M302040.....	K7	VDIE1M2025.....	K10	VDIE2M4032.....	K11	VDIE4M5040.....	K12
VDIB7M402044.....	K7	VDIE1M3020.....	K10	VDIE2M4040.....	K11	VDIE4M6040.....	K12
VDIB7M402544.....	K7	VDIE1M3025.....	K10	VDIE2M408.....	K11	VDIZ2M20.....	K13
VDIB7M503255.....	K7	VDIE1M3032.....	K10	VDIE2M5010.....	K11	VDIZ2M30.....	K13
VDIB7M603260.....	K7	VDIE1M3040.....	K10	VDIE2M5012.....	K11	VDIZ2M40.....	K13
VDIB8M201630.....	K7	VDIE1M4020.....	K10	VDIE2M5016.....	K11	VDIZ2M50.....	K13
VDIB8M201640.....	K7	VDIE1M4025.....	K10	VDIE2M5020.....	K11	VDIZ2M60.....	K13
VDIB8M302040.....	K7	VDIE1M4032.....	K10	VDIE2M5025.....	K11	WC4.....	A296
VDIB8M402044.....	K7	VDIE1M4040.....	K10	VDIE2M5032.....	K11		
VDIB8M402544.....	K7	VDIE1M5020.....	K10	VDIE2M5040.....	K11		
VDIB8M503255.....	K7	VDIE1M5025.....	K10	VDIE2M5050.....	K11		

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Application, Geometry, and Feature Icons

Accuracy — 3µm or Less	Accuracy — 5µm or Less	Accuracy — 6µm or Less	Axial Adjustment
Axial Adjustment — End	Axial Adjustment — Side	Balance — G 2.5@ 15,000 min ⁻¹	Balance — G 2.5@ 15,000 min ⁻¹
Balance — G 2.5@ 20,000 min ⁻¹	Balance — G 2.5@ 25,000 min ⁻¹	Balance — G 2.5@ 33,000 min ⁻¹	Balance — G 6.3@ 15,000 min ⁻¹
Balance — G 6.3@ 15,000 min ⁻¹	Balance — G 6.3@ 20,000 min ⁻¹	Balance — G 6.3@ 20,000 min ⁻¹	Balance — G 6.3@ 30,000 min ⁻¹
Balanced-by-Design	Collet — ER DIN 6499	Compensation — None	Compensation — Tension and Compression
Compensation — Tension Only	Coolant — No Coolant	Coolant — Through Coolant	Coolant — Through Coolant 80 bar Maximum
Coolant — Through Coolant 100 bar (1500 psi) Maximum	Coolant — Through Coolant 70 bar (1000 psi) Maximum	Coolant — Through Coolant 1200 psi Maximum	Coolant — Through Coolant 100 bar (1500 psi) Maximum
Coolant — Through Coolant Nozzle	Drilling — No Coolant	Drilling — Through Coolant	Milling — No Coolant
Milling — Side and Face	Milling — Slotting	Milling — Through Coolant	Reaming — Through Coolant
Shank — 1"–8 UNC Drawbar	Shank — 1/2"–13 UNC Drawbar	Shank — 5/8"–11 UNC Drawbar	Shank — Cylindrical Kenbore™
Shank — Cylindrical Plain	Shank — Cylindrical Plain	Shank — Cylindrical ROTAFLEX™	Shank — Cylindrical VDI DIN 69880
Shank — Cylindrical Weldon® ≤h6	Shank — Cylindrical Weldon 2 Flat	Shank — Cylindrical Weldon DIN 1835/B	Shank — Cylindrical Weldon
Shank — Cylindrical Weldon DIN 6535/1835	Shank — Cylindrical Whistle Notch™	Shank — Cylindrical Whistle Notch ≤h6	Shank — Cylindrical Whistle Notch 2°

Application, Geometry, and Feature Icons

Shank — Cylindrical Whistle Notch 5°	Shank — Cylindrical Whistle Notch with Drive and Flange	Shank — Cylindrical Whistle Notch™ DIN 1835/E	Shank — Cylindrical with Flat
Shank — Cylindrical with Flat and Flange	Shank — Cylindrical with Flat and Flange	Shank — Cylindrical with Square	Shank — HSK DIN 69893
Shank — HSK DIN 69893	Shank — HSK DIN 69893 Form A	Shank — HSK DIN 69893 Form A	Shank — HSK DIN 69893 Form C
Shank — HSK DIN 69893 Form C	Shank — HSK DIN 69893 Form E	Shank — HSK DIN 69893 Form E	Shank — HSK DIN 69893 Form F
Shank — HSK DIN 69893 Form F with Pin	Shank — HSK Turning ISO 12164-3	Shank — HSK Turning ISO 12164-3	Shank — KM Micro™
Shank — KM™ Mini	Shank — KM4X™	Shank — KM-ATC™	Shank — KM-TS™ ISO 26622
Shank — KM-TS ISO 26622	Shank — KM-XMZ™	Shank — M16 Drawbar	Shank — M24 Drawbar
Shank — R8 Bridgeport	Shank — Screw-On	Shank — SK BT JIS B 6339	Shank — SK BT Taper Face Contact
Shank — SK CAT(CV) ANSI B5.50	Shank — SK CAT(CV) ANSI B5.50 1"–8 UNC Drawbar	Shank — SK CAT(CV) ANSI B5.50 5/8"–11 UNC Drawbar	Shank — SK CAT(CV) Taper Face Contact
Shank — SK DV DIN 69871	Shank — SK QC Erickson Quick Change 1"–8 UNC Drawbar	Shank — SK QC Erickson Quick Change 5/8"–11 UNC Drawbar	Shank — SK QC ERICKSON™ Quick Change
Speed — 20,000 min ⁻¹ Maximum	Speed — 3,000 min ⁻¹ Maximum	Speed — 30,000 min ⁻¹ Maximum	Speed — 6,000 min ⁻¹ Maximum
Speed — No Rotation	Tapping — Through Coolant	Tapping — Through Coolant 50 bar (725 PSI) Maximum	Tunable

DIN — German Institute for Standardization

ISO — International Standardization Organization



Kennametal Innovations Master Cutting Tools 2013 Catalog

Kennametal is proud to present the Kennametal Innovations Master Cutting Tools 2013 Catalog, featuring all our standard milling, holemaking, and turning products. By compiling our full metalworking portfolio together, and including new application guidelines, tool selectors, and technical information, Kennametal addresses key industry segments and the services that support that vision.

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Once the application is downloaded on your mobile device, launch the application, and select the "convert" tab at the bottom of the screen. Next, choose if you want to convert by competitor grade or geometry.

Once you decide, select a manufacturer from the list, and select the grade or geometry. The application will then display all of Kennametal's comparable grades or geometries in different material types.

If you already know your grade or geometry, you can use the search tab at the bottom of the screen to search by competitor grade or geometry and display the Kennametal equivalent.



Metalcutting Safety

IMPORTANT SAFETY INSTRUCTIONS

Read before using the tools in this catalog!

Projectile and Fragmentation Hazards:

Modern metalcutting operations involve high spindle and cutter speeds and high temperatures and cutting forces. Hot metal chips may fly off the workpiece during metalcutting. Although cutting tools are designed and manufactured to withstand high cutting forces and temperatures, they can sometimes fragment, particularly if they are subjected to over-stress, severe impact, or other abuse.

To avoid injury:

- Always wear appropriate personal protective equipment, including safety goggles, when operating metalcutting machines or working nearby.
- Always make sure all machine guards are in place.

Breathing and Skin Contact Hazards:

Grinding carbide or other advanced cutting tool materials produces dust or mist containing metallic particles. Breathing this dust or mist — especially over an extended period — can cause temporary or permanent lung disease or make existing medical conditions worse. Contact with this dust or mist can irritate eyes, skin, and mucous membranes and may make existing skin conditions worse.

To avoid injury:

- Always wear breathing protection and safety goggles when grinding.
- Provide ventilation control and collect and properly dispose of dust, mist, or sludge from grinding.
- Avoid skin contact with dust or mist.

For more information, read the applicable Material Safety Data Sheet provided by Kennametal and consult General Industry Safety and Health Regulations, Part 1910, Title 29 of the Code of Federal Regulations.

These safety instructions are general guidelines. Many variables affect machining operations. It is impossible to cover every specific situation. The technical information included in this catalog and recommendations on machining practices may not apply to your particular operation. For more information, consult Kennametal's Metalcutting Safety booklet, available free from Kennametal at 724.539.5747 or fax 724.539.5439. For specific product safety and environmental questions, contact our Corporate Environmental Health and Safety Office at 724.539.5066 or fax 724.539.5372.

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