February 2020
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1/13

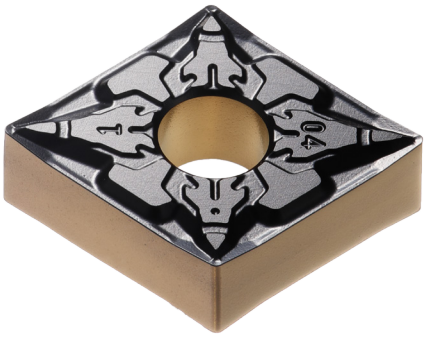
NPN

New Product News

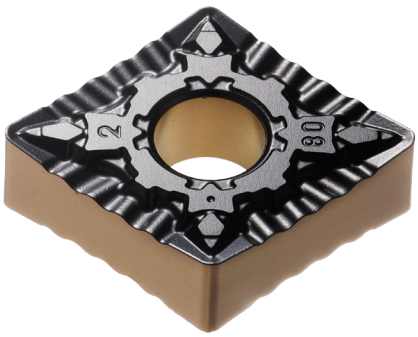
new

T-TURN

New Chip Breakers for Steel Machining: FLP, MLP, MGP, RGP



FLP



MLP

MGP

RGP

ADVANCE MACHINING
TaeguTec Industry 4.0

INDUSTRY 4.0
TaeguTec
Member IMC Group

KEY POINT

TaeguTec has released four new chip breakers from roughing to finishing applications for steel machining.

To meet the market's current requirements in automation and improved productivity, TaeguTec introduces a series of optimized new chip breakers and grades with improved coating:

- Improved stability
- Improved tool life
- Excellent chip control performance
- Wide application range to cover the current line of chip breakers

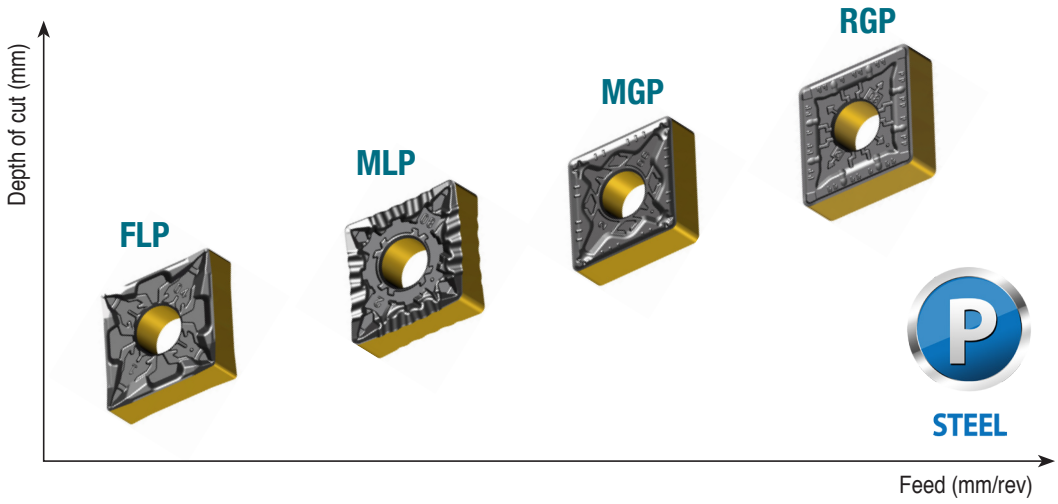
Four new chip breakers have been launched. These inserts are easily distinguished by a new designation system that clearly defines their application range. The new chip breakers deliver optimal machining performance and high reliability in a wider range of operations.

The **FLP** chip breaker (for finishing) minimizes machining load at low depths of cut, has excellent chip control capability due to the wide, stable supporting area, and enables excellent workpiece dimensional accuracy.

The **MLP** chip breaker (for semi-finishing to medium) enables excellent chip control capability due to the side wave edge geometry in highly variable depths of cut, and with a specially designed edge that enables stable machining in a wide range of medium applications.

The **MGP** chip breaker (for medium), characterized by good chip control, is the first recommended machining solution for a wide range of operations. Also, the MGP is designed with cutting edge strength and has a wide support area that promotes stable and reliable machining.

The **RGP** chip breaker (for roughing) is suitable for roughing applications due to its reinforced cutting edge and wide chip groove, and can perform reliably without chipping even in extreme interrupted machining conditions.



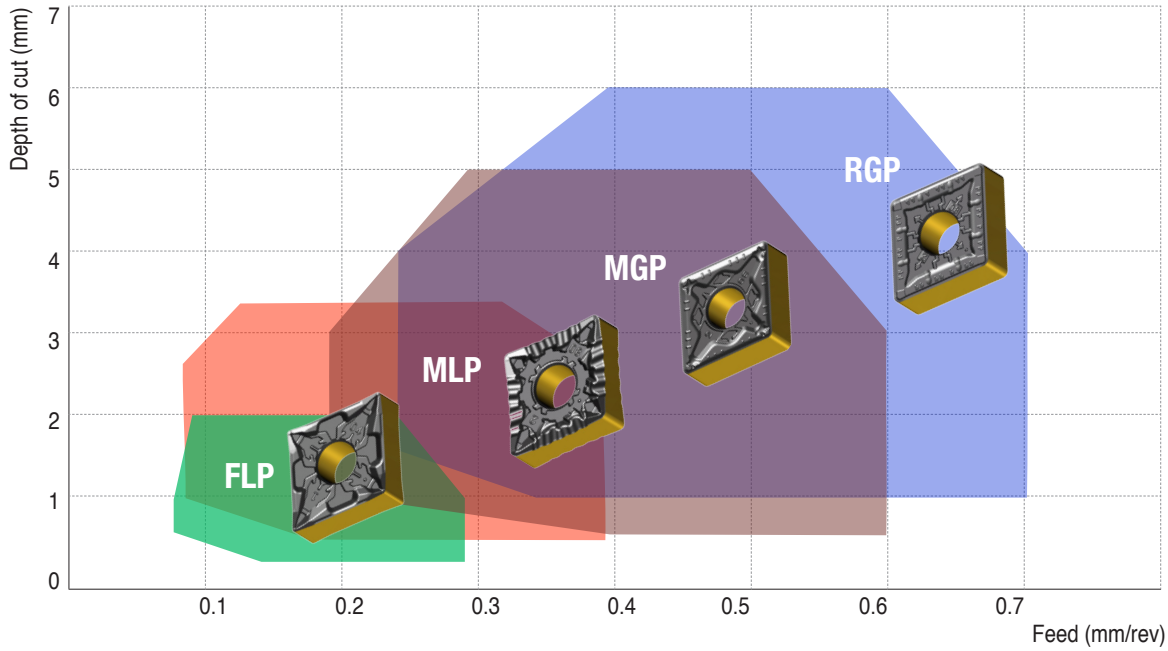
New chip breaker designation

Insert designation system				–	1	2	3
CNMG	12	04	08		F	G	P

1. Applications	
F	Finishing
M	Medium
R	Roughing
H	Heavy Roughing

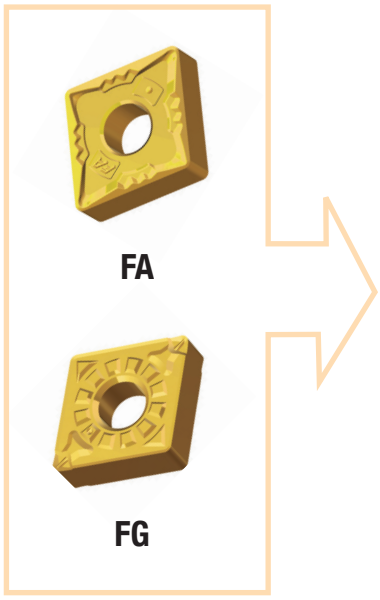
2. Cutting conditions	
L	Light Cutting
G	General Cutting
T	Tough Cutting

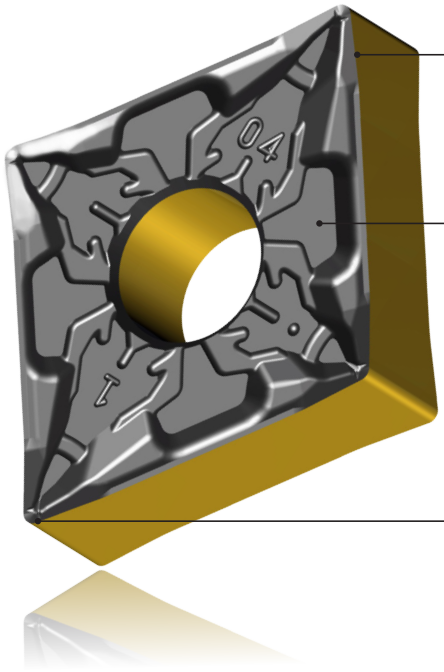
3. Workpiece materials	
P	Steel
M	Stainless Steel
K	Cast Iron
N	Nonferrous & Aluminum
S	High Temperature Alloys
H	Hard Materials



- Insert: CNMG 120408
- Cutting speed (V): 200 m/min
- Material: AISI 4140 (HB230-260)

FLP type





Helical edge geometry

- Low cutting load and excellent chip control

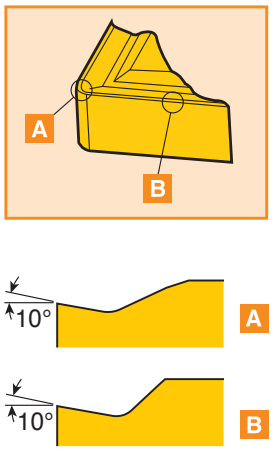
Stable supporting area

- Wide and stable insert for support during operation

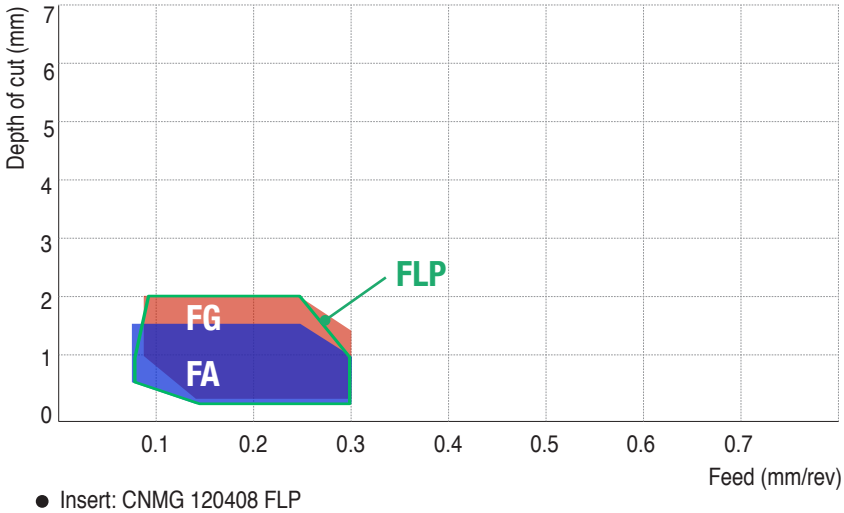
Sharp edge

- Low cutting load
- Excellent chip control at low depths of cut

Edge geometry



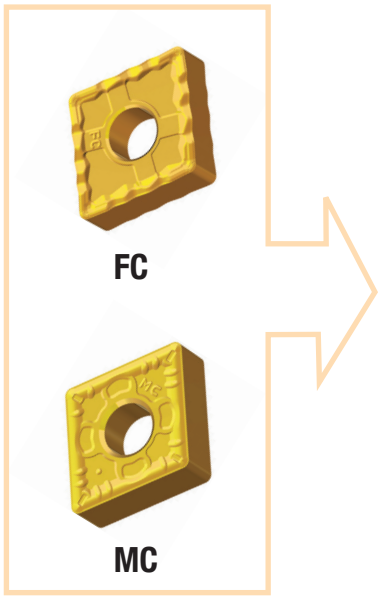
Application range

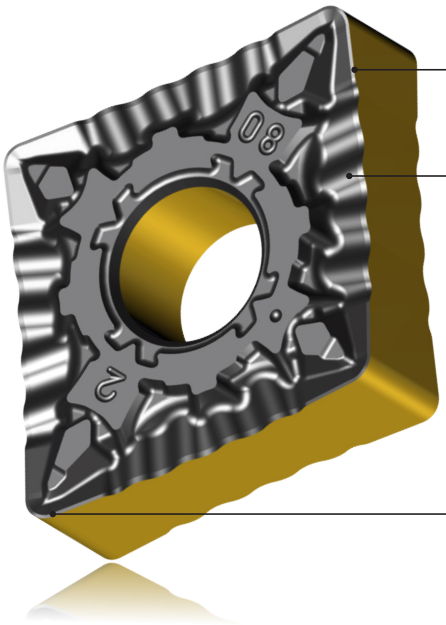


- Insert: CNMG 120408 FLP
- Cutting speed (V): 200 m/min
- Material: AISI 4140 (HB230-260)

✓ FLP type will be available when the current stock of FA, FG types are depleted.

MLP type





Helical edge geometry

- Low cutting load and excellent chip control

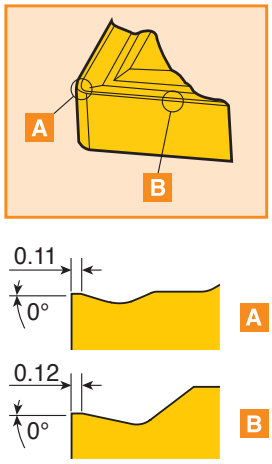
Inclined serrated edge

- Excellent chip control and surface roughness
- Applicable to variable cutting depth of cut

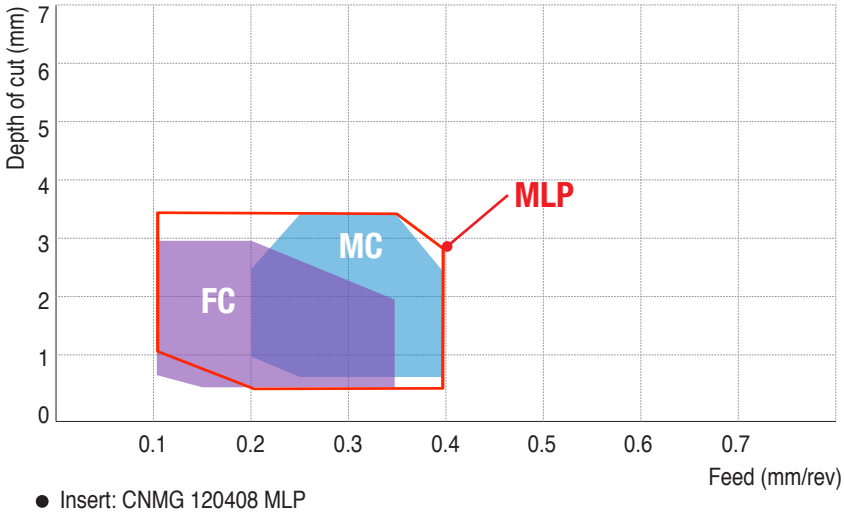
Narrow land and protrusion

- Reinforced cutting edge
- Excellent chip control at low depths of cut

Edge geometry



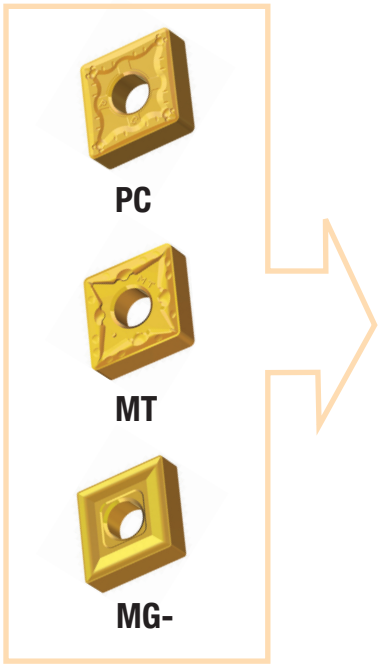
Application range

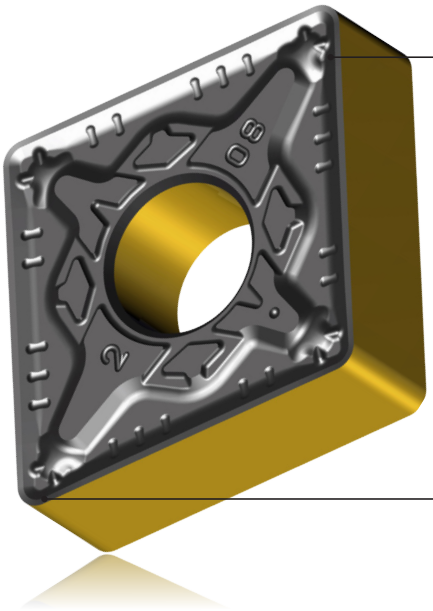


- Insert: CNMG 120408 MLP
- Cutting speed (V): 200 m/min
- Material: AISI 4140 (HB230-260)

✓ MLP type will be available when the existing stock of FC, MC types are depleted.

MGP type





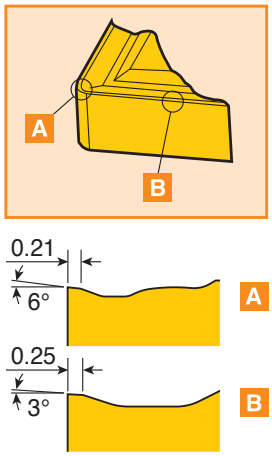
Wide groove and stable cutting edge

- Excellent chip control in deeper depths of cut
- Wide application range and low cutting load
- Stable tool life

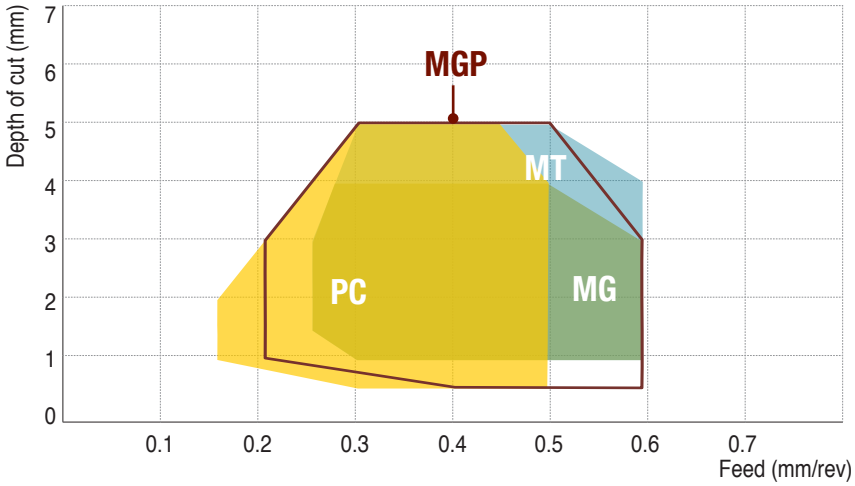
Positive land and wide protrusion for chip control

- Excellent chip control at low depths of cut and low feed cutting conditions
- Stable cutting edge for low cutting resistance

Edge geometry



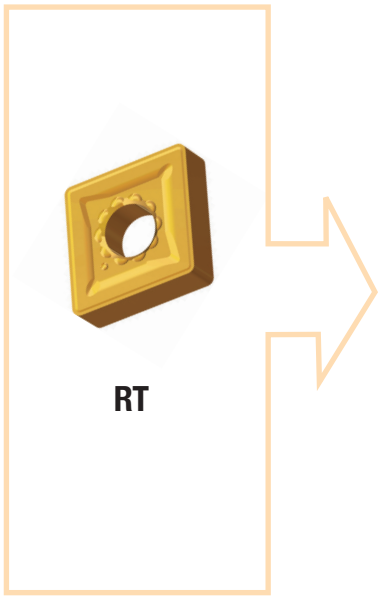
Application range

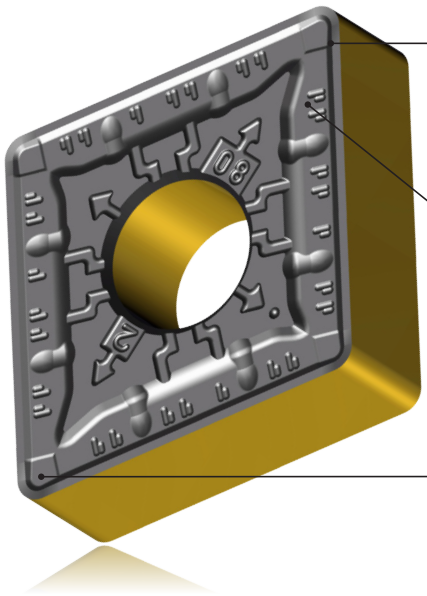


- Insert: CNMG 120408 MGP
- Cutting speed (V): 200 m/min
- Material: AISI 4140 (HB230-260)

✓ MGP type will be available when the current stock of PC, MT, MG- types run out.

RGP type





Variable land width for depth of cut

- Reinforced cutting edge
- Reduced crater wear and built-up-edges

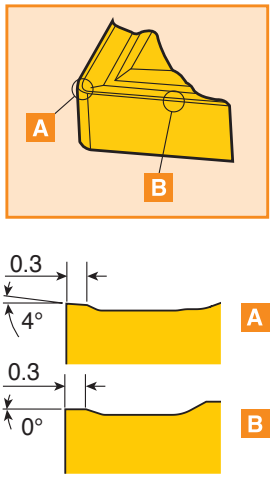
Wide chip groove

- Reduced cutting load for roughing applications
- Stable chip evacuation

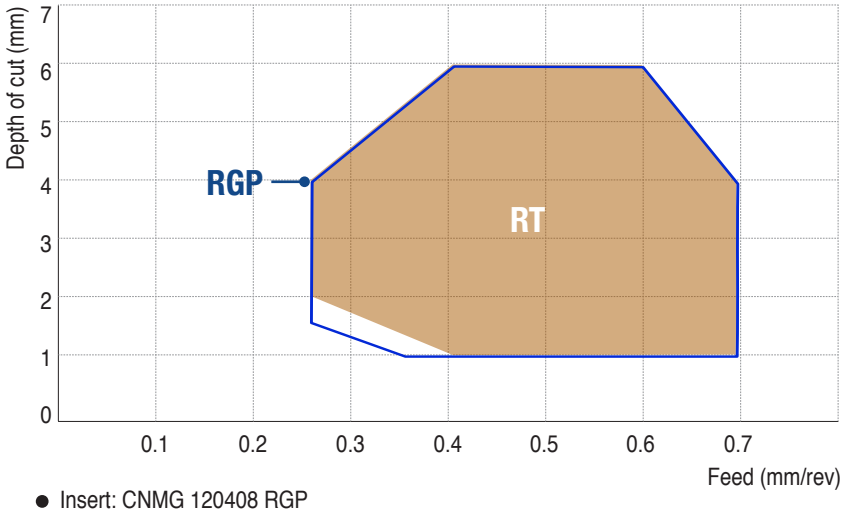
Positive land and rectangle design at the corner

- Stable cutting edge with low cutting load
- Excellent chip control at big depths of cut

Edge geometry



Application range



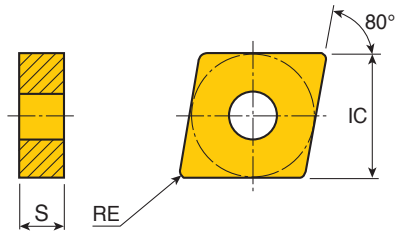
- Insert: CNMG 120408 RGP
- Cutting speed (V): 200 m/min
- Material: AISI 4140 (HB230-260)

✓ RGP type will be available when the current stock of RT type runs out.

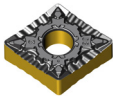
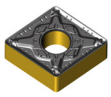
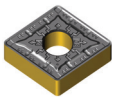
CNMG

T-TURN

Negative 80° rhombic inserts



Size	Dimension (mm)		
	IC	S	RE
12	12.7	4.76	0.4-1.6
19	19.05	6.35	1.6

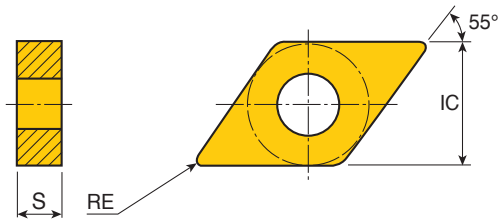
Insert	Designation	ap (mm)	Feed (mm/rev)	Cermet		CVD coated												PVD coated						
				PV3010	CT3000	TT3005	TT7005	TT7015	TT7025	TT8105	TT8115	TT8125	TT8135	TT9215	TT9225	TT9235	TT5100	TT7100	TT5080	TT8020	TT9080	TT3010	TT3020	TT9020	K10
 Finishing	**CNMG 120404 FLP**	0.2-2.0	0.08-0.30								●	●													
	120408 FLP	0.3-2.0	0.10-0.30								●	●													
 Medium	**CNMG 120408 MLP**	0.5-3.5	0.10-0.40								●	●													
	120412 MLP	0.6-3.5	0.15-0.50								●	●													
 Medium	**CNMG 120408 MGP**	0.5-5.0	0.15-0.55								●	●													
	120412 MGP	0.6-5.0	0.17-0.55								●	●													
 Roughing	**CNMG 120408 RGP**	2.5-6.0	0.25-0.70								●	●													
	120412 RGP	2.5-6.0	0.25-0.70								●	●													
	120416 RGP	2.5-6.0	0.30-0.70								●	●													
	190616 RGP	3.0-9.0	0.30-0.85								●	●													

●: Standard items

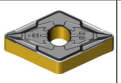
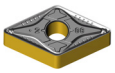
DNMG

T-TURN

Negative 55° rhombic inserts



Size	Dimension (mm)		
	IC	S	RE
15	12.7	6.35	0.4-1.2

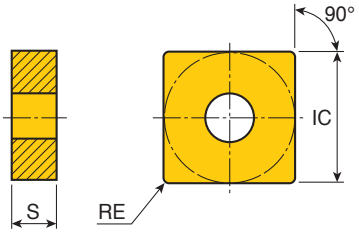
Insert	Designation	ap (mm)	Feed (mm/rev)	Cermet		CVD coated												PVD coated						
				PV3010	CT3000	TT3005	TT7005	TT7015	TT7025	TT8105	TT8115	TT8125	TT8135	TT9215	TT9225	TT9235	TT5100	TT7100	TT5080	TT8020	TT9080	TT3010	TT3020	TT9020	K10
 Finishing	**DNMG 150604 FLP**	0.2-2.0	0.08-0.30								●	●													
	150608 FLP	0.3-2.0	0.10-0.30								●	●													
 Medium	**DNMG 150608 MLP**	0.3-3.5	0.10-0.40								●	●													
	150612 MLP	0.35-3.5	0.15-0.50								●	●													
 Medium	**DNMG 150608 MGP**	0.5-4.0	0.15-0.50								●	●													
	150612 MGP	0.6-4.0	0.17-0.55								●	●													

●: Standard items

SNMG

T-TURN

Negative square inserts



Size	Dimension (mm)		
	IC	S	RE
12	12.7	4.76	0.8

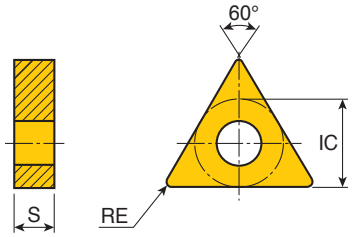
Insert	Designation	ap (mm)	Feed (mm/rev)	Cermet		CVD coated												PVD coated						
				PV3010	CT3000	TT3005	TT7005	TT7015	TT7025	TT8105	TT8115	TT8125	TT8135	TT9215	TT9225	TT9235	TT5100	TT7100	TT5080	TT8020	TT9080	TT3010	TT3020	TT9020	K10
 Medium	**SNMG 120408 MGP**	0.5-5.0	0.15-0.50								●	●													

●: Standard items

TNMG

T-TURN

Negative triangular inserts



Size	Dimension (mm)		
	IC	S	RE
16	9.52	4.76	0.4-1.2

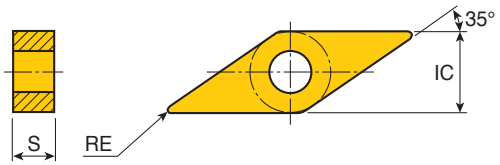
Insert	Designation		ap (mm)	Feed (mm/rev)	Cermet		CVD coated											PVD coated						
					PV3010	CT3000	TT3005	TT7005	TT7015	TT7025	TT8105	TT8115	TT8125	TT8135	TT9215	TT9225	TT9235	TT5100	TT7100	TT5080	TT8020	TT9080	TT3010	TT3020	TT9020	K10
 Finishing	**TNMG**	**160404 FLP**	0.2-2.0	0.08-0.30								●	●												
		160408 FLP	0.3-2.0	0.10-0.30								●	●												
 Medium	**TNMG**	**160404 MLP**	0.25-2.5	0.07-0.30								●	●												
		160408 MLP	0.30-2.5	0.10-0.40								●	●												
		160412 MLP	0.35-2.5	0.15-0.50								●	●												
 Medium	**TNMG**	**160408 MGP**	0.5-4.5	0.15-0.50								●	●												
		160412 MGP	0.6-4.5	0.17-0.55								●	●												

●: Standard items

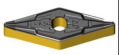
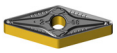
VNMG

T-TURN

Negative 35° rhombic inserts



Size	Dimension (mm)		
	IC	S	RE
16	9.52	4.76	0.4-0.8

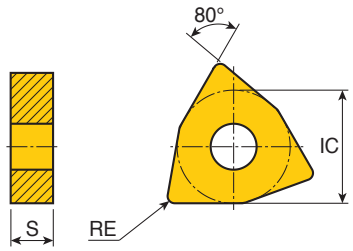
Insert	Designation	ap (mm)	Feed (mm/rev)	Cermet		CVD coated												PVD coated						
				PV3010	CT3000	TT3005	TT7005	TT7015	TT7025	TT8105	TT8115	TT8125	TT8135	TT9215	TT9225	TT9235	TT5100	TT7100	TT5080	TT8020	TT9080	TT3010	TT3020	TT9020	K10
 Finishing	**VNMG 160404 FLP**	0.2-1.5	0.08-0.30								●	●													
	160408 FLP	0.3-1.5	0.10-0.30								●	●													
 Medium	**VNMG 160408 MGP**	0.5-3.0	0.17-0.36								●	●													

●: Standard items

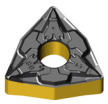
WNMG

T-TURN

Negative 80° trigon inserts



Size	Dimension (mm)		
	IC	S	RE
08	12.7	4.76	0.8-1.6

Insert	Designation	ap (mm)	Feed (mm/rev)	Cermet		CVD coated												PVD coated						
				PV3010	CT3000	TT3005	TT7005	TT7015	TT7025	TT8105	TT8115	TT8125	TT8135	TT9215	TT9225	TT9235	TT5100	TT7100	TT5080	TT8020	TT9080	TT3010	TT3020	TT9020	K10
 Finishing	**WNMG 080408 FLP**	0.3-2.0	0.10-0.30								●	●													
 Medium	**WNMG 080408 MLP**	0.5-3.5	0.10-0.40								●	●													
	080412 MLP	0.6-3.5	0.15-0.50								●	●													
 Medium	**WNMG 080408 MGP**	0.5-4.0	0.15-0.55								●	●													
	080412 MGP	0.6-4.0	0.17-0.55								●	●													
 Roughing	**WNMG 080408 RGP**	2.5-4.0	0.25-0.70								●	●													
	080412 RGP	2.5-4.0	0.25-0.70								●	●													
	080416 RGP	2.5-4.0	0.30-0.75								●	●													

●: Standard items