Turning series

Independent research and development of groove type, has applied for a new appearance patent

Material selection table for turning

Coating	Coating grade	Colour	Material Properties	Wear Resistance	Purpose	
PVD Coating	CP11XX		M P	★★★★	◔	Easy to machine steel ，low-carbon steel&Stainless steel For Low speed cutting. Replace XX930.
	CP26XXTM		M P	★★★★	◔	Choice，Stainless steel，Steel， high temperature alloy， Titanium alloy For Strong intermittent machining.
NEW	CP26XXTN		M S	★★★★	◔	First Choice, High-performance, hard to process, suitable for strong intermittent processing.
NEW	CP26XXMT		M S	★★★★★	◕	Good wear resistance, special for difficult processing, Suitable for irregular and continuous processing.
	CP24XX		M H	★★★★	◕	Stainless steel ,Superalloyand HRC45-52 Hardened Steel processing（Vc=100-200m/min）。
	CP24XXF		M S H	★★★★★	◕	Stainless steel, Superalloy, Titanium alloy finish machining, Continuous and slightly intermittent processing.
NEW	CP61XXMS		M S	★★★★★	◕	Processing is preferred Titanium alloy,Superalloy, Stainless steel and Steel Finishing&continuous processing, HRC50-55 quenched steel processing, with strong wear resistance.
NEW	CP11XXFH		M	★★★★★	○	High performance small parts finish machining, good wear resistance, continuous machining.
CVD Coating	CC21XXD		M S	★★★★★	◕	High speed machining of stainless steel and high temperature alloy, Suitable for continuous and slightly intermittent machining with VC = 110-250m / min.
NEW	CC11XXD		P	★★★★★	◕	High speed continuous machining of steel parts, VC = 180-400m / min.
	CC11XXG1		P	★★★★	◔	Intermittent processing and general processing of steel parts are suitable for Vc=150-320 m/min, with excellent continuous and intermittent performance.
	CC11XXG2		P	★★★	○ ◕	High speed continuous machining of steel parts, VC = 180-400m / min.
NEW	CC31XXG		K	★★★★★	◔	Cast iron are machining with strong discontinuity,

○ Continuous processing ： ◕ Irregular processing ： ◔ Intermittent processing

Catalogue

Greatness in Simplicity

Semi

00Cr18Ni5MoSi2
0Cr17Ni4Nb
Vc=50-100m/min


B-1,2
CM.CP2630TN


B-1,2
CM.CP6130MS

420，440
Vc=80-180m/min


CM.CP2630TN


CM.CP6130MS


Vc=150~220m/min
High speed
B-1,2
CM.CC2135D
Vc=150-210m/min

201,303,304,316
Vc=60-160m/min


CM.CP2630TN


CM.CP6130MS


Vc=150~220m/min
High speed
B-1,2
CM.CC2135D
Vc=150-210m/min

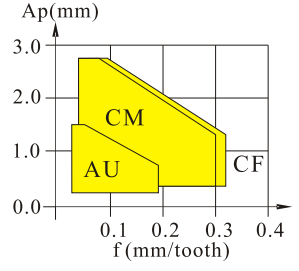
Finishing

Vc=100-180m/min


CM.CP6130MS


B-3,4
CF.CP6130MS


B-5
AU.CP6130MS



Stainless steel

Fine processing ⟷ Semi-finished processing


AU


CM


CF

Small feed volume ⟷ Large feed volume

Linear speed (VC) low high collapse resistance ⟷ Groove type and coating characteristics ⟷ High linear speed (Vc) low resistance


CP2630TN


CP2630MT


CP2430


CP 6130MS


CP1120FH

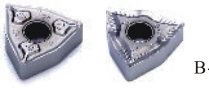

CC2135D

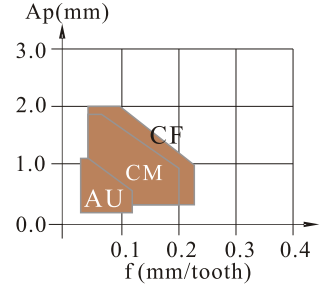
Catalogue

Greatness in Simplicity

Heat-resisting steel

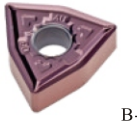
Semi

- Hayness188, Vc=30-50m/min
  -  B-1-4
  - CM&CF.CP2630MT
  -  B-1-4
  - CM&CF.CP6130MS
- 12Cr2MoWSiVTiB, Vc=50-100m/min
  - 
  - CM&CF.CP2630TN
  - 
  - CM&CF.CP6130MS
  -  B-1-4
  - CM.CC2135D
- 1.4848, 1.4837, Vc=50-80m/min
  - 
  - CM&CF.CP2630TN
  - 
  - CM&CF.CP6130MS
  - 
  - CM.CC2135D

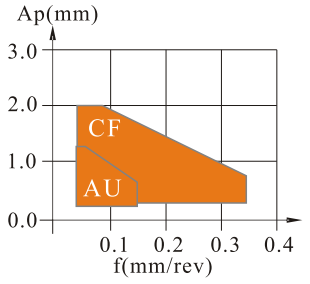


Finishing

Vc=50-100m/min

-  B-3,4
  - CF.CP6130MS
  - CF.CP1130FH
-  B-1,2
  - CM.CP6130MS
  - CM.CP1130FH
-  B-5
  - AU.CP6130MS

Catalogue



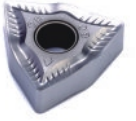
Titanium alloy

Semi Finishing

TC4,TC18
Vc=50-80m/min

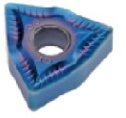
B-3,4

CF.CP6130MS



B-3,4

CF.CP2630TN



B-3,4

CF.CP2430F

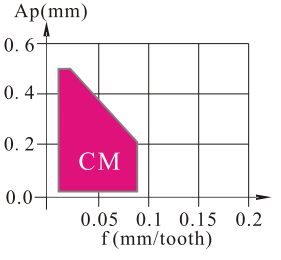
Finishing

HRC40-63
hardened steel

Vc=30-100m/min

B-3,4

CF.CP6130MS



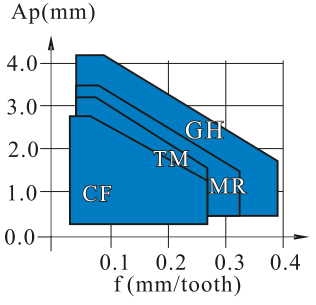
HRC40-63
hardened steel

Passionate pursuit of perfection

Catalogue

Steel

- **Semi Round**
  - 40Cr，42CrMo GCr15 S50C C>0.35%
    - PVD Vc=60-150m/min — Strong continuous / Continuous — CM.CP2630TN — B-1,2
    - CVD Vc=150-280m/min — Irregular / Strong continuous — MR.CC1135G1 — B-8 — MR.CC1135G1 — B-7
    - Vc=200-350m/min — Continuous — MR.CC1135G2 — B-8 — TM.CC1135G2 — B-7 — R/L-ZC.CC1135D — B-10
  - A3,20CrMoTi 20Mn C<0.35%
    - PVD Vc=80-150m/min — Strong continuous — CM.CP2630TN — B-1,2 — CF.CC2135D — B-3,4
    - CVD Vc=150-280m/min — Strong continuous / Irregular — CF. CC1135D — B-3,4
    - Vc=200-350m/min — Continuous — CF.CC1135G2 — B-3,4 — TM.CC1135G2 — R/L-ZC.CC1135D — B-10



- **Finishing**
  - PVD Vc=80-150m/min — Strong continuous — CM.CP2630TN — B-1,2
  - CVD Vc=150-350m/min — Irregular / Continuous — CF.CC1135G2 — B-3,4 — TM.CC1135G2

Catalogue

Finishing Round

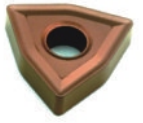
Cast iron
VC=150-280m/min

Gray cast iron
VC=250-400m/min

B-8

MR.CC1135G1

Ductile cast iron
Vermicular cast iron



B-9

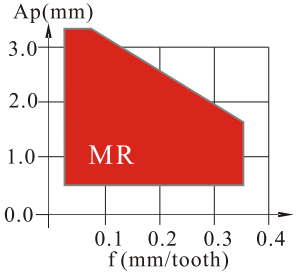
GH.CC3110G

Gray&Ductile cast iron

B-1~4

CF&CM.CC1135D

Nickel base cast iron



Cast iron

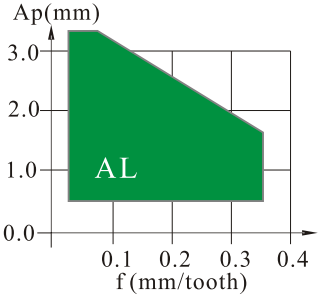
Finishing Round

Molybdenum alloy
VC=250-400m/min

Copper
VC=180-250m/min

B-11,14

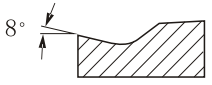
AL.CW20
AL.CP6120

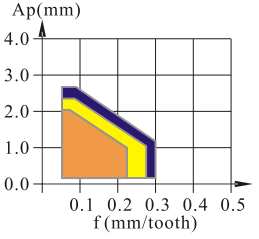


Aluminium alloy

-CM Turning insert

Finishing & Semi-finishing






CP2630TN
CP2630MT


CP6130MS


CP2430

Feature:

Sharp edge, well chip breaking, perfect abrasive resistance,
covering both finishing and semi-finishing.

Application:

Stainless steel, Superalloy, Hardened steel,Low-carbon steel.

CP2630TN: Universal grade .

CP6130MS: High-speed finishing and semi-finishing of stainless steel and superalloy;

CP1130FH: High-speed finishing of stainless steel and superalloy;

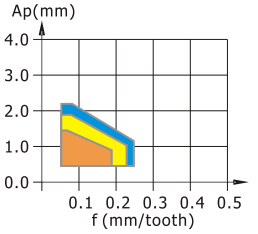
CP2430: Superalloy finishing, Stainless steel and handend steel.

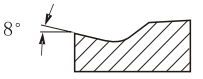
CC2135D: High speed machining of stainless steel and Superalloy,
Vc=150-250m/min(stainless steel).

		PVD				CVD	
		CP2630TN CP2640TN	CP2630MT	CP6130MS	CP2430	CC2135D	parameters Vc (mm/min)
Material group	P Steel	✱	●			●	150-220-280
	P Hardened steel			●			30-50-80
	M Stainless steel	✱	●	●	●		60-120-180
	S Titanium alloy						40-50-60
	S Superalloy	✱	●	●			40-60-80
	CNMG120404, 08, 12-CM	✱	●	●	●	●	Mitsubishi: MS, MA Kyocera: MS Taegutec: PC,MP Sandivik: MM Kennametal: P,MP
	DNMG150404, 08-CM	✱	●	●	●	●	
	DNMG150604, 08-CM	✱	●	●	●	●	
	SNMG120404, 08, 12-CM	✱	●	●	●	●	
	TNMG160404, 08, 12-CM	✱	●	●	●	●	
	VNMG160404, 08,12-CM	✱	●	●	●	●	
	WNMG080404, 08 ,12-CM	✱	●	●	●	●	
	CNMU09T304, 08-CM	✱	●	●	●	●	
	TNMU120304, 08-CM	✱	●	●	●	●	

CM Turning insert

Finishing & Semi-finishing





Feature:

Sharp edge, well chip breaking, perfect abrasive resistance, covering both finishing and semi-finishing.

Application:

Stainless steel, Superalloy, Hardened steel,Low-carbon steel.

CP2630TN: Universal grade .

CP2630MT: High-speed finishing and semi-finishing of stainless steel and superalloy;

CP6130MS: High-speed finishing of stainless steel and superalloy;

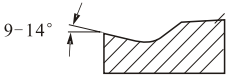
CP2430: Superalloy finishing Stainless steel and handend steel.

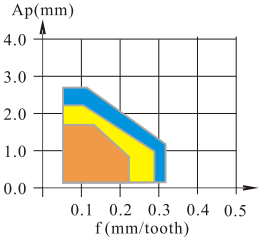
CC2135D: High speed machining of stainless steel and Superalloy, Vc=150-250m/min(stainless steel).

			PVD			CVD	
			CP2630TN	CP2630MT	CP2430 CP2430F	CP6130MS	CC2135D	parameters Vc (mm/min)
Material group	P	Steel	✱	●		●	●	80-150-180
	P	hardened steel			●	●		30-50-80
	M	Stainless steel	✱	●	●	●	●	60-120-160
	S	Titanium alloy	✱	●	●	●		40-50-60
	S	Superalloy	✱	●	●	●	●	40-60-80
CCGT060202, CCMT060202,04, 08-CM			✱	●	●	●	●	Mitsubishi: MS&MA Kyocera: MS Taegutec: PC,MP Sandvik:MM Kennametal: P,MP
CCGT09T302, CCMT09T302,04, 08-CM			✱	●	●	●	●	
CCMT120404, 08, 12-CM			✱	●	●	●	●	
DCGT070202, DCMT070204-CM			✱	●	●	●	●	
DCGT11T302, DCMT11T304-CM			✱	●	●	●	●	
SCMT09T304, 08-CM			✱	●	●	●	●	
TCGT110202, TCMT110204, 08-CM			✱	●	●	●	●	
VBGT110302-CM			✱	●	●	●		
VCGT110302-CM			✱	●	●	●		
VPGT110302-CM			✱	●	●	●		
VBGT160402,VBMT160404,08-CM			✱	●	●	●	●	
VCGT160402-CM			✱	●	●	●		

CF Turning insert

Finishing & Semi-finishing





Material group			PVD					CVD		parameters
			CP1120	CP2630TN CP2640TN	CP2630MT	CP6130MS	CP2430 CP2430F	CC2135D	CC1135D	Vc (mm/min)
Material group	P	Steel	✱	✱	◐		●	✱	◐	60-120-250
	P	hardened steel				●	●			30-50-80
	M	Stainless steel	✱	✱	◐	◐	●	✱		60-120-180
	S	Titanium alloy	✲	✱	◐	◐	●			40-50-60
	S	Superalloy		✱	◐	◐	●	◐		40-60-80
	K	Nickel base cast iron							◐	120-200-300
		CNMG120404-CF		✱	◐	●	●	◐	◐	Mitsubishi : MJ Kyocera : TK Taegutec : ML Sandivik : SF Tungaloy : SS
		CNMG120408,12-CF		✱	◐	●	●	◐	◐	
		DNMG110404&08-CF		✱	◐	●	●	◐	◐	
		DNMG150404&08-CF		✱	◐	●	●	◐	◐	
		DNMG150604&08-CF		✱	◐	●	●	◐	◐	
	NEW	TNGG160401-CF	✱	✱	◐	●	●			
		TNGG160402-CF	✱	✱	◐	●	●			
	NEW	TNGG160404-CF	✱	✱	◐	●	●			
		TNGG160408-CF	✱	✱	◐	●	●			
		TNMG160404&08,12-CF		✱	◐	●	●	✱	◐	
		VNMG12T304&08-CF		✱	◐	●	●	✱	◐	
		VNMG160404&08-CF		✱	◐	●	●	✱	◐	
		WNMG080404-CF		✱	◐	●	●	✱	◐	
		WNMG080408&12-CF		✱	◐	●	●	✱	◐	

(CP1120 is specially used for low carbon steel processing)

Feature:

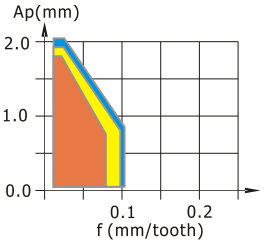
Sharp edge, well chip breaking, special for finishing and semi-finishing.

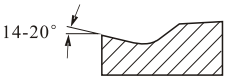
Application:

First choice for Stainless steel, Titanium alloy, Superalloy, Hardened steel, Low-carbon steel.

CF Turning insert

Finishing





Material group			PVD					parameters
			CP1120	CP2630TN	CP6130MS	CP1130FH	CP2430F	Vc (mm/min)
	P	Steel	✱	✱				50-120-180
	P	hardened steel				●	●	30-100-150
	M	Stainless steel	✱	✱	✱	●	●	40-60-80
	S	Titanium alloy	✱	✱	✱	●	●	40-60-80
	S	Superalloy		✱	✱	●	●	200-300-400
		CCGT060201 - CF	✱	✱	✱	✱	✱	Tungaloy : JS Kyocera : GF NTK : CL CP1120= SH730 PR930 TM4,QM3 CP2130B= AH725 PR1225 DM4 CP2430F= PR1535 PR1725
		CCGT060202 - CF	✱	✱	✱	✱	✱	
		CCGT09T301 - CF	✱	✱	✱	✱	✱	
		CCGT09T302 - CF	✱	✱	✱	✱	✱	
		CCGT09T304 - CF	✱	✱	✱	✱	✱	
		DCGT070201 - CF	✱	✱	✱	✱	✱	
		DCGT070202 - CF	✱	✱	✱	✱	✱	
		DCGT11T301 - CF	✱	✱	✱	✱	✱	
		DCGT11T302 - CF	✱	✱	✱	✱	✱	
		DCGT11T304 - CF	✱	✱	✱	✱	✱	
		VBGT110301 - CF	✱	✱	✱	✱	✱	
		VBGT110302 - CF	✱	✱	✱	✱	✱	
		VCGT110301 - CF	✱	✱	✱	✱	✱	
		VCGT110302 - CF	✱	✱	✱	✱	✱	
		VPGT110301 - CF	✱	✱	✱	✱	✱	
		VPGT110302 - CF	✱	✱	✱	✱	✱	

Feature:

Sharp edge, well chip breaking, special for finishing and semi-finishing.

Application:

First choice for Stainless steel, Titanium alloy, Superalloy, Hardened steel, Low-carbon steel.

CP2630TN&MT: General processing materials .

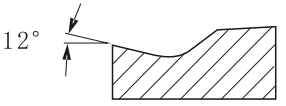
CP6130MS: specially used for processing difficult materials.

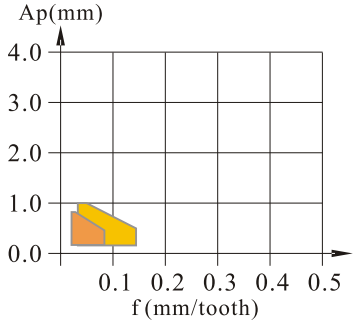
CP1120: Low carbon steel processing, Low speed machining.

CP1120H: Ti alloy processing, stainless steel, Superalloy and steel finishing;

AU Turning insert

Finishing





Feature:

Very sharp edge, well chip breaking, perfect abrasive resistance, special for Finishing.

Application:

Finishing for Stainless steel, Titanium alloy, Superalloy, Steel.

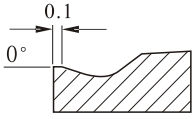
CP2430F&CP6130MS:Stainless steel，Titanium alloy and quenched steel processing, Superalloy finishing.

Negative turning

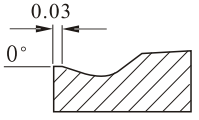
Material group		PVD CP6130MS	PVD CP2430F	parameters Vc (mm/min)
P	Steel			80-150-200
P	hardened steel		●	40-70-100
M	Stainless steel	●	●	60-120-180
S	Titanium alloy	●	●	40-50-60
S	Superalloy	●	●	40-60-80
CNMG120404, 08-AU		●	●	Mitsubishi:MS,SH Kyocera:HQ Taegutec: SF Sandivik:MF
TNMG160404, 08-AU		●	●	
WNMG080404, 08-AU		●	●	

XM1 Turning Insert

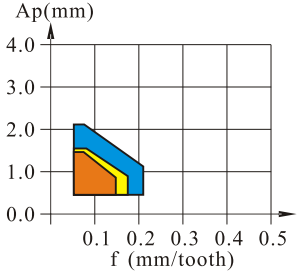
Semi-finishing

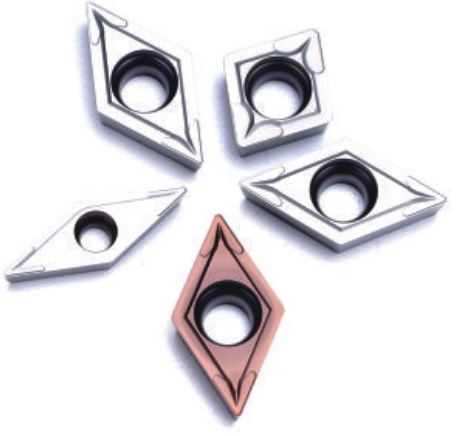


M glass



Gglass





Positive turning

Material group			CP2630TN (PVD)	CP6130MS (PVD)	CP2430 (PVD)	CC2235D (CVD)	parameters Vc (mm/min)
P	Steel		✱	●	●	✱	120-210
P	HRC40-60	Steel		●	●		50-100
K	Cast iron					✱	120-210
M	Stainless steel		✱	●	●		60-180
S	Superalloy		✱	●	●		40-70
G Grinding	CCGT060204, 08-XM1		✱	●	●		Mitsubishi
	CCGT09T304, 08-XM1		✱	●	●		Kyocera :-GK
	CCGT120404, 08, 12-XM1		✱	●	●		Taegutec : -MT
	DCGT070204, 08-XM1		✱	●	●		Tungaloy :-PM
	DCGT11T304, 08-XM1		✱	●	●		
	SCGT09T304, 08-XM1		✱	●	●		
	SCGT120404, 08, 12-XM1		✱	●	●		
	TCGT110204, 08-XM1		✱	●	●		
	TCGT16T304, 08-XM1		✱	●	●		
	VB(C,P)GT110304,08-XM1		✱	●	●		
	VB(C,P)GT160404,08-XM1		✱	●	●		
M Suppress	CCMT060202,04, 08-XM1		✱	●	●	✱	
	CCMT09T304, 08-XM1		✱	●	●	✱	
	CCMT120404, 08, 12-XM1		✱	●	●	✱	
	DCMT070204, 08-XM1		✱	●	●	✱	
	DCMT11T304, 08-XM1		✱	●	●	✱	
	SCMT09T304, 08-XM1		✱	●	●	✱	
	SCMT120404, 08, 12-XM1		✱	●	●	✱	
	TCMT110204, 08-XM1		✱	●	●	✱	
	TCMT16T304, 08-XM1		✱	●	●	✱	
	VB(C)MT110304,08-XM1		✱	●	●	✱	
	VB(C)MT160404,08-XM1		✱	●	●	✱	

CTM Turning insert

Semi-finishing

Feature:

Sharp edge, well chip breaking, semi-finishing.

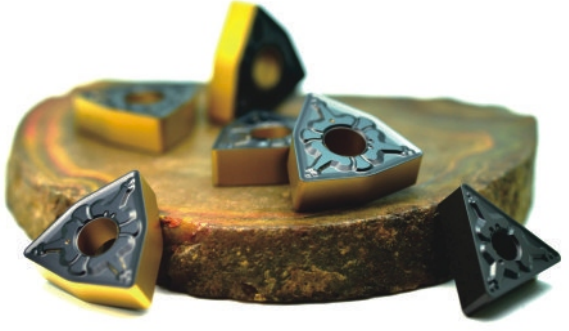
Application: Steel.

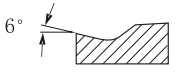
CC1135G1:

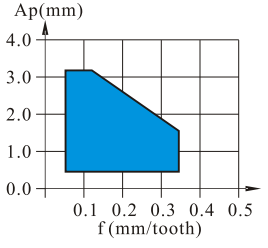
Extremely versatile, good impact resistance

CC1135G2:

Strong wear resistance.



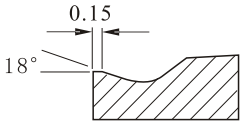


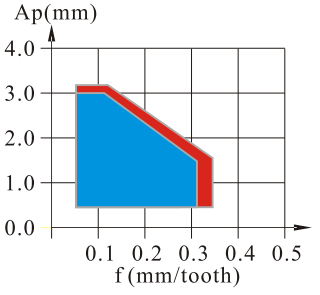


	Negative turning	CVD CC1135G2	CVD CC1135G1	cermet CTP20	parameters Vc (mm/min) CVD CC1135G,CTP20
Material group	P Steel	○	✱	○	180-240-280
	P Steel	○	✱	○	180-220-250
	P HRC40-50 Steel				
	K Cast iron				
	CNMG120404-CTM	○	✱	○	
	CNMG120408-CTM	○	✱	○	
	CNMG120412-CTM	○	✱	○	
	DNMG150404-CTM	○	✱	○	
	DNMG150408-CTM	○	✱	○	
	DNMG150604-CTM	○	✱	○	
	DNMG150608-CTM	○	✱	○	
	SNMG120404-CTM	○	✱	○	Mitsubishi: MA
	SNMG120408-CTM	○	✱	○	Kyocera: PG,PS
	SNMG120412-CTM	○	✱	○	Taegutec: MT
	TNMG160404-CTM	○	✱	○	Tungaloy: TM
	TNMG160408-CTM	○	✱	○	
	TNMG160412-CTM	○	✱	○	
	VNMG160404-CTM	○	✱	○	
	VNMG160408-CTM	○	✱	○	
	VNMG160412-CTM	○	✱	○	
	WNMG080404-CTM	○	✱	○	
	WNMG080408-CTM	○	✱	○	
	WNMG080412-CTM	○	✱	○	

MR Turning insert

Semi-finishing





Feature:

Strong blade., well chip breaking, semi-finishing.

Application:

Intermittent processing of steel parts and cast iron (nodular and nickel base cast iron).

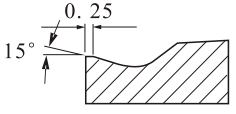
CC1135G1:

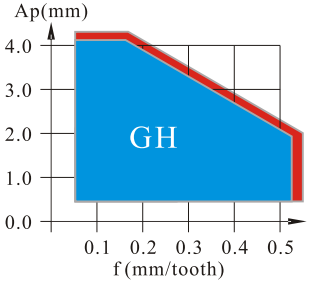
Extremely versatile, good impact resistance

Negative turning		CVD CC1135G1	CVD CC1135G2	parameters Vc (mm/min)	
Material group	P Steel			180-240-280	
	P Steel	✱	○	180-220-250	
	K Cast iron			180-250-400	
	K Ductile iron			150-180-250	
	CNMG120404, 08, 12-MR	✱	○		
	CNMG160608, 12, 16-MR	✱	○		Mitsubishi
	CNMG190616, 24-MR	✱	○		MA
	DNMG110404□08-MR	✱	○		Kyocera
	DNMG150404, 08-MR	✱	○		PS, −GC
	DNMG150604, 08-MR	✱	○		Taegutec
	SNMG120404, 08, 12-MR	✱	○		MG
	SNMG150608, 12, 16, 24-MR	✱	○		Sandivik
	TNMG160404, 08-MR	✱	○		P,-PR,−KM
	TNMG220408, 12-MR	✱	○		Tungaloy
	VNMG160404, 08-MR	✱	○		TM
	WNMG080404, 08 ,12-MR	✱	○		

GH Turning insert

Rough machining





Feature:

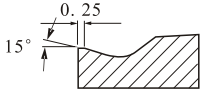
Strong blade.

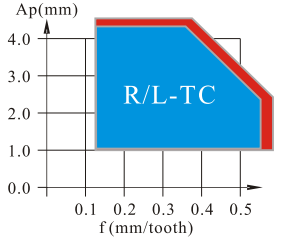
Application:

Rough machining of cast iron and steel parts is preferred.

		CVD		
		CC1135G1	CC3110G	parameters Vc (mm/min)
Material group	P Steel			180-240-280
	P Steel	✱		180-220-250
	K Cast iron	✱	✱	180-250-400
	CNMG1204 08-GH	✱	✱	
	CNMG120412-GH	✱	✱	
	CNMG160612-GH	✱	✱	
	CNMG160616-GH	✱	✱	
	CNMG190616-GH	✱	✱	
	CNMM190616-GH	✱	✱	
	DNMG150408-GH	✱	✱	
	DNMG150608-GH	✱	✱	
	TNMG160408-GH	✱	✱	
	TNMG160412-GH	✱	✱	
	SNMG120408-GH	✱	✱	
	SNMG120412-GH	✱	✱	
	SNMG120416-GH	✱	✱	
	SNMG150612-GH	✱	✱	
	SNMG190612-GH	✱	✱	
	SNMG190616-GH	✱	✱	
	SNMG250724-GH	✱	✱	
	SNMM190616-GH	✱	✱	
	SNMM250924-GH	✱	✱	
	VNMG160408-GH	✱	✱	
	VNMG160412-GH	✱	✱	
	WNMG080408-GH	✱	✱	
	WNMG080412-GH	✱	✱	

Rough machining





		CVD			
		CC1135G2	CC1135D	CTP20	parameters Vc (mm/min)
Material group	P Steel	✱	✱	✱	180-240-280
	P Steel	✱	✱	✱	180-220-250
	K cast iron		❂		180-250-400
	CNMG1204 04R/L-TC	✱		✱	
	CNMG1204 08R/L-TC	✱	✱	✱	
	CNMG120412R/L-TC	✱	✱	✱	
	TNMG160404R/L-TC	✱		✱	
	TNMG160408R/L-TC	✱	✱	✱	
	TNMG160412R/L-TC	✱	✱	✱	
	SNMG120408R/L-TC	✱	✱	✱	
	SNMG120412R/L-TC	✱	✱	✱	
	WNMG080408R/L-TC	✱	✱	✱	
	WNMG080408R/L-TC	✱	✱	✱	
	WNMG080412R/L-TC	✱	✱	✱	

Feature:

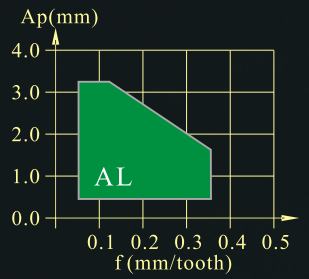
Strong blade.

Application:

Rough machining of steel .

AL Turning insert

Finishing & Semi-finishing



Feature:

Sharp edge, well chip breaking, finishing & semi-finishing.

Application:

Auminium alloy working.

Negative turning		CW20	CP6220	parameters Vc (mm/min)
Material group N	Auminium alloy	✱	✱	250-300-400
Material group N	Nonferrous metal	✱	✱	150-200-280
	CNMG120404, 08, 12-AL	✱	✱	Kyocera: -AH Taegutec:-FL
	DNMG150404, 08-AL	✱	✱	
	DNMG150604, 08-AL	✱	✱	
	TNMG160404, 08-AL	✱	✱	
	VNMG160404, 08-AL	✱	✱	
	WNMG080404, 08 ,12-AL	✱	✱	

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