

CVD Coated Grade for Steel Turning

Environmentally Friendly Product

MC6100 Series

Series
Addition

Bringing the Ultimate High Speed Cutting Performance

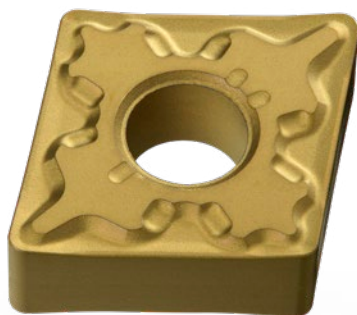
For High Speed Turning
MC6115First Recommendation
MC6125

CVD Coated Grade for Steel Turning

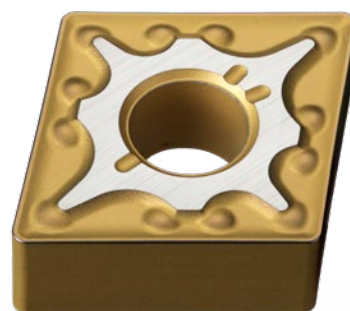
MC6100 Series

Dramatic increase in stability and wear resistance, enabled by utilising the improved coating adhesion and crystal orientation technology.

For High Speed Turning
MC6115



First Recommendation
MC6125



Features

"Super" Nano Texture Technology

The standard Nano Texture Technology has been improved and developed to be an industry leading standard for crystal growth of Al_2O_3 coatings. This Super Nano Texture Technology increases tool life and wear resistance due to the fine, dense crystal growth process.

MC6100

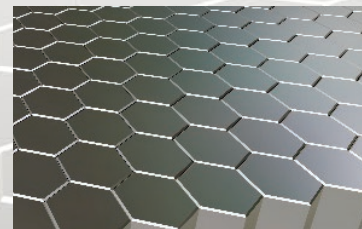
Conventional A



Conventional B



10 times more than conventional inserts



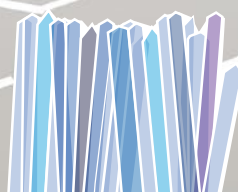
*By Image

The ratio of Al_2O_3 crystal grains with the same orientation



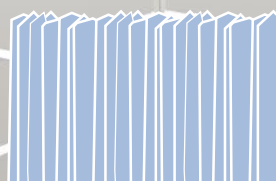
Conventional CVD inserts

Grain size and growth direction are uneven.



Nano Texture

Uniformity of the grain size and growth direction has improved.



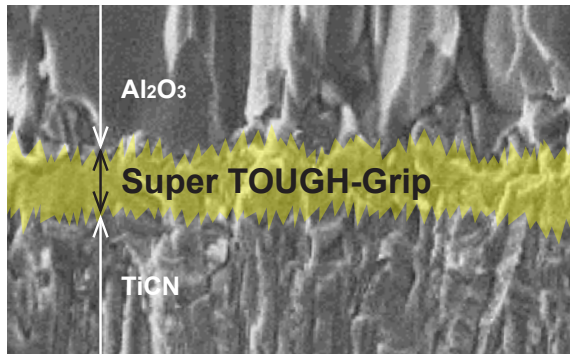
"Super" Nano Texture

Uniformity of the growth direction has drastically improved.

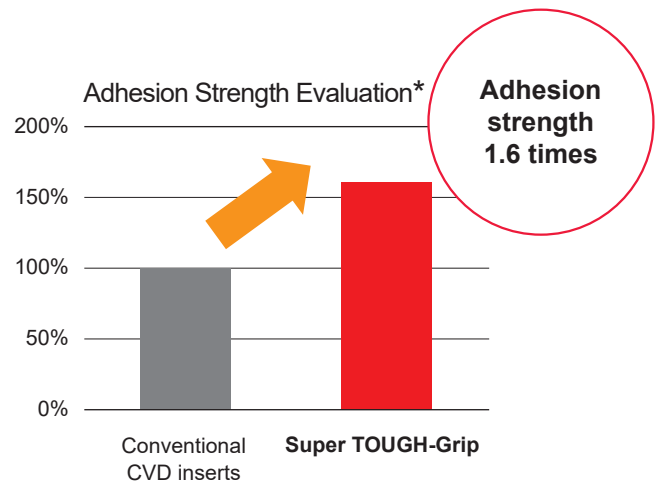
Crystal Orientation

Super TOUGH-Grip

The Super TOUGH-Grip layer has finer crystal grains that enhance the strength of the adhesion between the coating layers.



*By Image



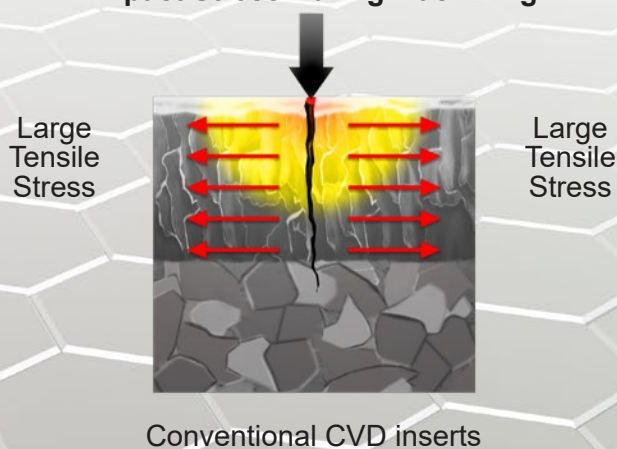
*Adhesion strength measurement is obtained from a scratch test that records the force needed to peel the coating layers.

Protection Against Sudden Fracturing

Cracks that occur during unstable machining are prevented due to the relaxing of the tensile stress in the coating. MC6100 series has an 80% reduction in coating tensile stress compared to conventional CVD inserts.

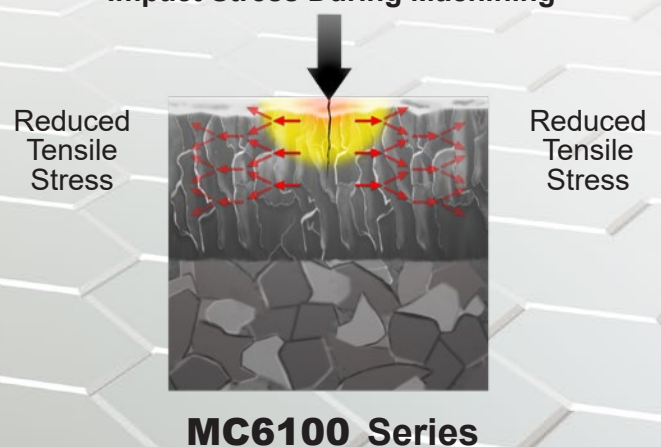
Relaxing of the Tensile Stress

Impact Stress During Machining



Cracks are generated in the surface of coatings during machining. They propagate through the coating into the substrate due to the large tensile stress in the coating structure. This creates one of the main causes of sudden insert breakage.

Impact Stress During Machining



MC6100 series has a much lower level of stress than conventional CVD coatings due to the surface treatment. This divides the force of impacts during machining and protects from sudden fracturing.

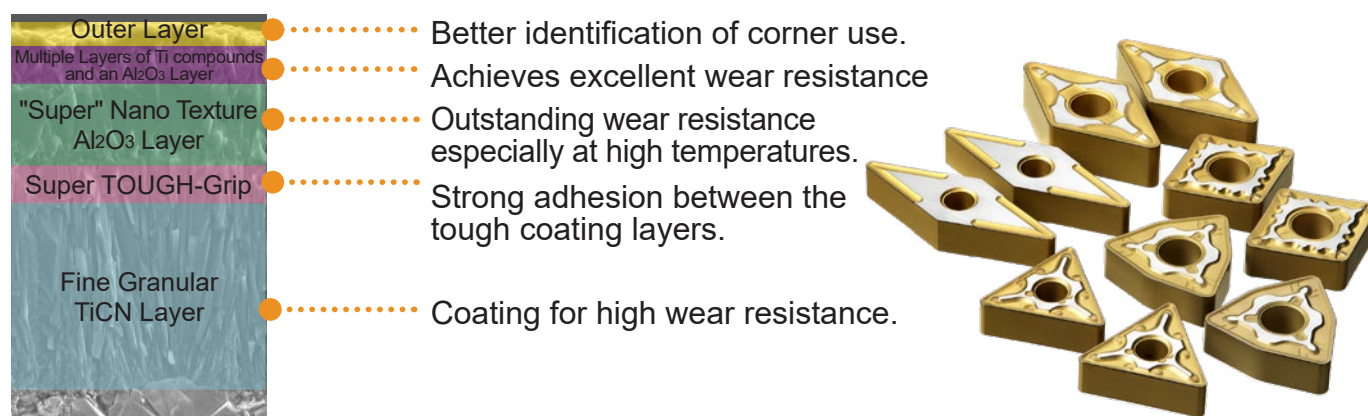
CVD Coated Grade for Steel Turning

MC6125



Please refer to the last page for more information on certified environmentally friendly products.

**First recommended grade for steel turning.
Increasing tool life with stable performance over
a wider range of applications.**

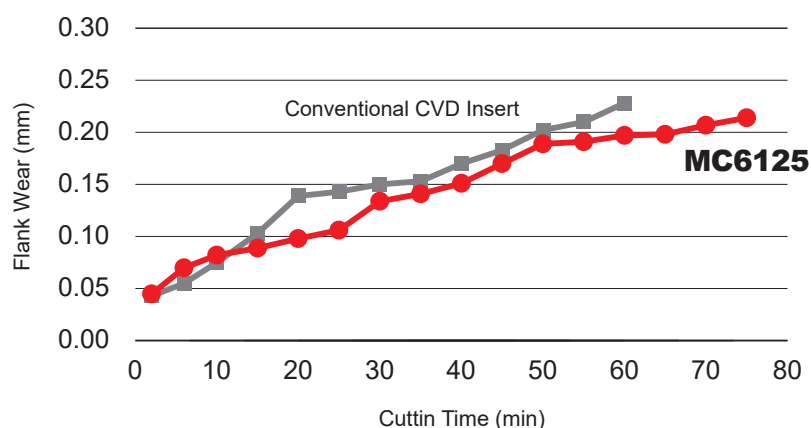


Special Smooth Surface Treatment

MC6125 uses a new surface treatment for the cutting edge for increased stability. Additionally, the seating faces also have a special smooth surface treatment that provides improved clamping stability to enable a wider range of applications.

Machining S45C : Comparison of Wear Resistance

The surface treatment has improved stability and provided longer tool life.



<Cutting Conditions>
Workpiece Material : JIS S45C
Inserts : CNMG120408-MA
Cutting Speed : $v_c = 200$ m/min
Feed per Rev. : $f = 0.3$ mm/rev
Depth of Cut : $a_p = 1.5$ mm
Cutting Mode : Wet Cutting

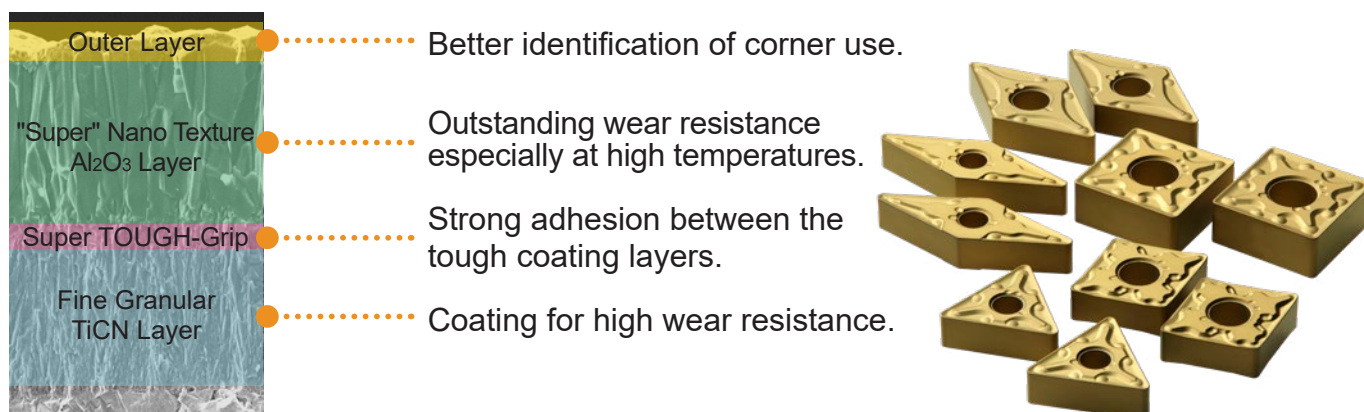
CVD Coated Grade for Steel Turning

MC6115



Please refer to the last page for more information on certified environmentally friendly products.

MC6115 improves high speed machining and process efficiency with a dramatic increase in resistance to wear and heat.



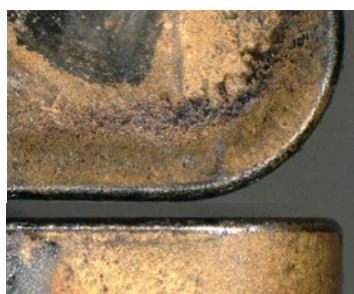
Improved Outer Coating (Layer)

The outer layer of MC6115 restricts chip welding thereby improving the dimensional accuracy and surface roughness of components. This also enables easy recognition of whether the corner can continue machining.

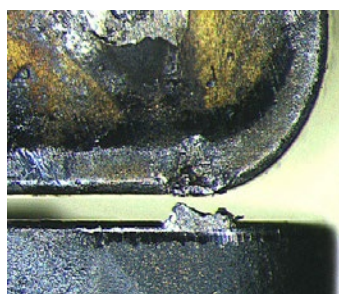
Example when machining Scr420H

When comparing the high edge strength MH breaker with a conventional low resistance chip breaker, it shows that MC6115 accomplishes both high welding and wear resistance.

After 2 Minutes Machining



MC6115 MH Breaker

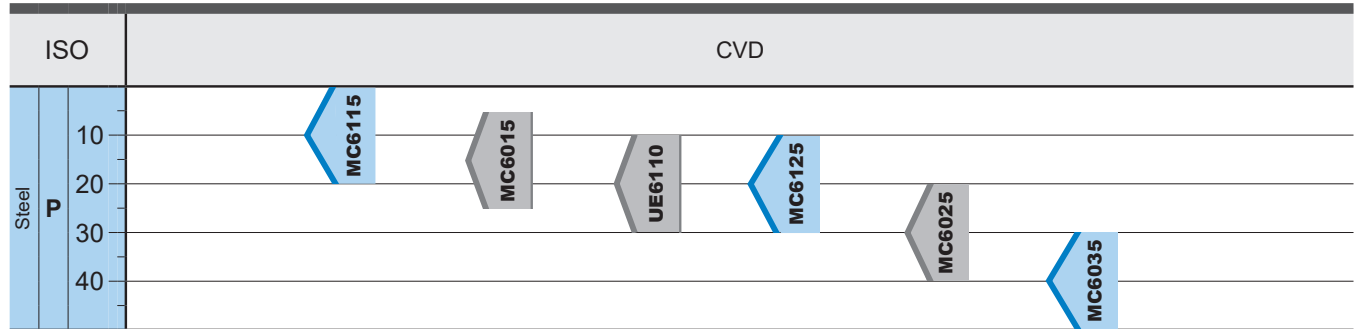


Conventional CVD Insert

<Cutting Conditions>

Workpiece Material	: JIS SCr420H 170HB
Inserts	: CNMG120408-MH
Cutting Speed	: $v_c = 200$ m/min
Feed per Rev.	: $f = 0.3$ mm/rev
Depth of Cut	: $a_p = 1.5$ mm
Cutting Mode	: Dry Cutting

Application Range

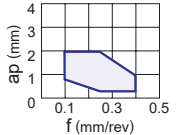
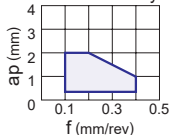
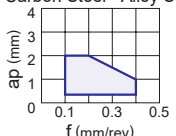
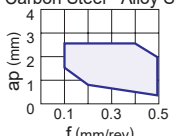


Selection Criteria

Work Material	Cutting Mode	Grade
P	Steel	Continuous Cutting
		Low
		Medium
		High
	Interrupted Cutting	
		MC6115
		MC6125
		MC6035

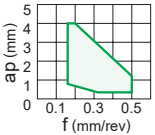
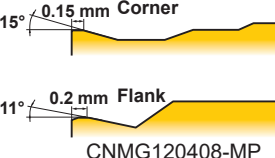
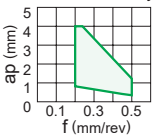
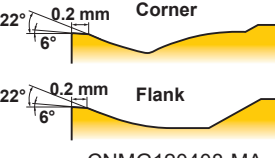
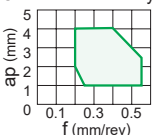
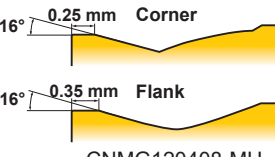
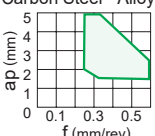
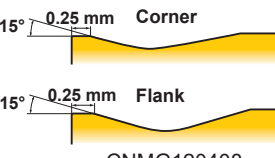
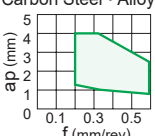
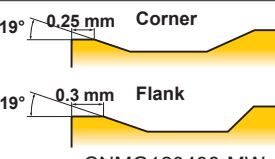
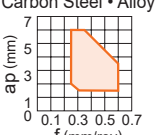
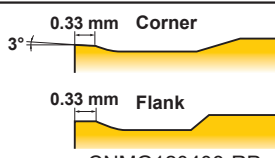
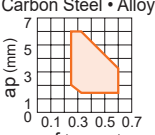
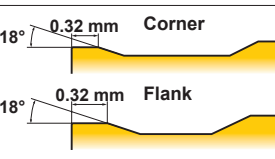
Chip Breaker System for Steel Turning

Negative Inserts

Application	Tolerance	Chip Breaker Name and Picture	Features	Cross Section Geometry
Light Cutting	M	LP 	First recommendation for light cutting of carbon steel and alloy steel Stable chip control in the light cutting range. The curved edge allows smooth chip discharge.	Carbon Steel • Alloy Steel  15° 0.1 mm Corner 11° 0.2 mm Flank CNMG120408-LP
		SH 	Alternative chip breaker for light cutting of carbon steel and alloy steel Can be used at low depth of cuts and high feed rates. The curved edge allows smooth chip discharge. Recommended for workpieces in the 160—250HB range.	Carbon Steel • Alloy Steel  15° Corner 15° 0.2 mm Flank CNMG120408-SH
		SA 	Alternative chip breaker for light cutting of carbon steel and alloy steel Superior chip control at small depth of cuts. Covers copying and back turning with wavy edge. Recommended for workpieces in the 200—300HB range.	Carbon Steel • Alloy Steel  25° 0.3 mm Corner 25° 0.34 mm Flank CNMG120408-SA
		SW 	Wiper insert for light cutting of carbon steel, alloy steel, stainless steel and cast iron In comparison to conventional chip breakers, the surface finish is maintained even if the feed per revolution is doubled. Wiper design for increased productivity and improved surface finish.	Carbon Steel • Alloy Steel  18° 0.15 mm Corner 18° 0.15 mm Flank CNMG120408-SW

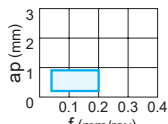
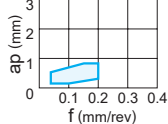
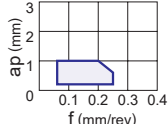
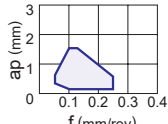
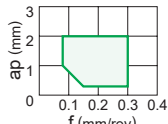
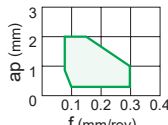
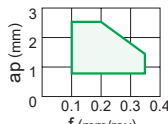
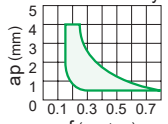
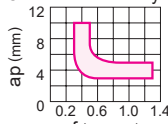
Chip Breaker System for Steel Turning

Negative Inserts

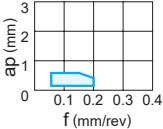
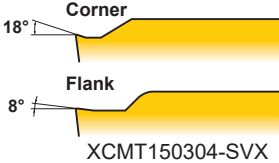
Application	Tolerance	Chip Breaker Name and Picture	Features	Cross Section Geometry	
Medium Cutting	M	MP 	First recommendation for medium cutting of carbon steel and alloy steel Suitable for medium to light cutting. Chip breaker geometry appropriate for copying and back turning. Cutting edge geometry for an optimum balance of sharpness and fracture resistance.	Carbon Steel • Alloy Steel 	 15° 0.15 mm Corner 11° 0.2 mm Flank CNMG120408-MP
		MA 	First recommendation for medium cutting of carbon steel and alloy steel Ideal for general cutting applications. Positive land provides sharp cutting action.	Carbon Steel • Alloy Steel 	 22° 0.2 mm Corner 22° 0.2 mm Flank CNMG120408-MA
		MH 	Alternative chip breaker for medium cutting of carbon steel and alloy steel Flat land offers high edge strength. Good chip control with suitable chip pocket.	Carbon Steel • Alloy Steel 	 16° 0.25 mm Corner 16° 0.35 mm Flank CNMG120408-MH
		Standard 	Alternative chip breaker for medium cutting of carbon steel and alloy steel Flat land offers high edge strength. Flat top breaker shape offers high edge strength.	Carbon Steel • Alloy Steel 	 15° 0.25 mm Corner 15° 0.25 mm Flank CNMG120408
		MW 	Wiper insert for medium cutting carbon steel, alloy steel, stainless steel and cast iron The wiper allows up to two times higher feed. A wide chip pocket prevents chip jamming.	Carbon Steel • Alloy Steel 	 19° 0.25 mm Corner 19° 0.3 mm Flank CNMG120408-MW
Rough Cutting	M	RP 	First recommendation for rough cutting of carbon steel and alloy steel For interrupted cuts and removing scale. Good balance of cutting edge strength and low cutting resistance because of suitable rake angle.	Carbon Steel • Alloy Steel 	 3° 0.33 mm Corner 0.33 mm Flank CNMG120408-RP
		GH 	Alternative chip breaker for rough cutting of carbon steel, alloy steel and cast iron For interrupted cuts and removing scale. A combination of wide land and a large chip pocket allows high feed rates.	Carbon Steel • Alloy Steel 	 18° 0.32 mm Corner 18° 0.32 mm Flank CNMG120408-GH

Chip Breaker System for Steel Turning

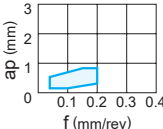
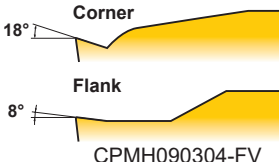
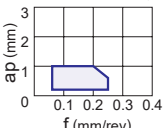
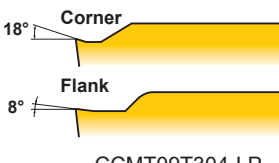
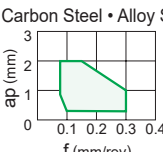
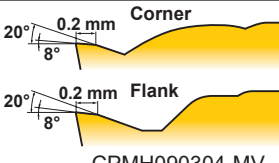
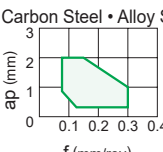
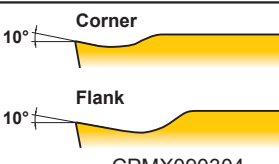
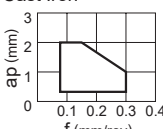
5°, 7° Positive Inserts

Application	Tolerance	Chip Breaker Name and Picture	Features	Cross Section Geometry
Finish Cutting	M	FP 	First recommendation for finishing carbon steel, alloy steel and mild steel Chip breaker protrusion at the corner tip controls chips even at small depth of cut. Maintains the edge strength at the corner and prevents sudden fractures.	Carbon Steel • Alloy Steel  6° Corner 6° Flank CCMT09T304-FP
		FV 	Alternative chip breaker for finishing carbon steel, alloy steel, mild steel and stainless steel Suitable for low depths of cut and low feed rates. Sharp cutting edge and low resistance design achieves excellent cutting performance.	Carbon Steel • Alloy Steel  18° Corner 8° Flank CCMT09T304-FV
Light Cutting	M	LP 	First recommendation for light cutting of carbon steel, alloy steel and mild steel Sharp cutting edge due to a large rake angle. Prevents welding of the insert and controls white turbidity of the surface finish. Chip breaker protrusion suitable for depth of cut area achieves a wide range of chip control.	Carbon Steel • Alloy Steel  18° Corner 8° Flank CCMT09T308-LP
		SW 	Wiper insert for light cutting of carbon steel, alloy steel, mild steel and stainless steel In comparison to conventional chip breakers, the surface finish is maintained even if the feed per revolution is doubled. Positive land improves sharpness.	Carbon Steel • Alloy Steel  20° 0.12 mm Corner 16° 0.12 mm Flank CCMT09T304-SW
Medium Cutting	M	MP 	First recommendation for medium cutting of carbon steel, alloy steel and mild steel Good balance of wear resistance and fracture resistance because of the flat land cutting edge. A wide chip pocket controls increasing of the cutting resistance and reduces vibration and chip jamming even at large depths of cut.	Carbon Steel • Alloy Steel  18° 0.1 mm Corner 18° 0.1 mm Flank CCMT09T308-MP
		MV 	Alternative chip breaker for medium cutting of carbon steel, alloy steel, mild steel and stainless steel A positive insert and the large rake angle achieve sharp cutting edge performance. The double breakers and round shape in the rake face achieve a wide range of chip discharge.	Carbon Steel • Alloy Steel  20° 0.18 mm Corner 20° 0.18 mm Flank CCMH060204-MV
		MW 	Wiper insert for medium cutting of carbon steel, alloy steel, mild steel and stainless steel The wiper allows up to two times higher feed. A wide chip pocket prevents chip jamming.	Carbon Steel • Alloy Steel  18° 0.2 mm Corner 18° 0.2 mm Flank CCMT09T308-MW
		Standard 	Alternative chip breaker for medium cutting of carbon steel, alloy steel, mild steel, stainless steel and cast iron Balance of edge strength and sharpness due to a combination of a flat land and large rake angle.	Carbon Steel • Alloy Steel  15° Flank 0.2 mm RCMX1204M0
Heavy Cutting	M	RR 	Chip breaker for heavy cutting of carbon steel and alloy steel A wide groove chip breaker prevents chips from jamming at large depths of cut. Small dimples improve chip control at small depths of cut.	Carbon Steel • Alloy Steel  28° 0.3 mm RCMX2006M0-RR

7° Positive Inserts

Application	Tolerance	Chip Breaker Name and Picture	Features	Cross Section Geometry
Finish Cutting	M	SVX 	Alternative chip breaker for light cutting of carbon steel and alloy steel Chip control is improved by having a chip breaker geometry suitable for copying.	Carbon Steel • Alloy Steel   XCMT150304-SVX

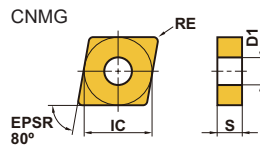
11° Positive Inserts

Application	Tolerance	Chip Breaker Name and Picture	Features	Cross Section Geometry
Finish Cutting	M	FV 	First recommendation for finishing carbon steel, alloy steel, mild steel and stainless steel Suitable for low depths of cut and low feed rates. Sharp cutting edge and low resistance design achieves excellent cutting performance.	Carbon Steel • Alloy Steel   CPMH090304-FV
Light Cutting	M	LP 	First recommendation for light cutting of carbon steel, alloy steel and mild steel Sharp cutting edge due to a large rake angle. Prevents welding of the insert and controls white turbidity of the surface finish. Chip breaker protrusion suitable for depth of cut area achieves a wide range of chip control.	Carbon Steel • Alloy Steel   CCMT09T304-LP
Medium Cutting	M	MV 	First recommendation for medium cutting of carbon steel, alloy steel, mild steel, stainless steel and cast iron A positive insert and large rake angle achieves sharp cutting edge performance. Double chip breaker in the rake face achieve a wide range of chip discharge.	Carbon Steel • Alloy Steel   CPMH090304-MV
		Standard 	Alternative chip breaker for medium cutting of carbon steel, alloy steel and stainless steel Standard, general purpose chip breaker.	Carbon Steel • Alloy Steel   CPMX090304
For Cast Iron	M	Flat Top 	Chip breaker for Heavy cutting of cast iron Flat top. Most effective for unstable machining due to its high edge strength.	Cast Iron   SPMW120308

MC6100 Series

Negative Inserts (With Hole)

M Class



Light	Light	Light	Light	Medium	Medium
LP	SH	SA	SW (Wiper)	MP	MA
					
Medium	Medium	Medium	Rough	Rough	
MH	Standard	MW (Wiper)	RP	GH	
					

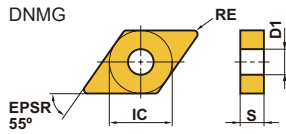
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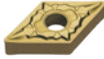
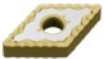
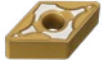
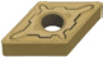
Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
CNMG120404-LP	L	●	●	12.7	4.76	0.4	5.16
CNMG120408-LP	L	●	●	12.7	4.76	0.8	5.16
CNMG120412-LP	L	●	●	12.7	4.76	1.2	5.16
CNMG120404-SH	L	●	●	12.7	4.76	0.4	5.16
CNMG120408-SH	L	●	●	12.7	4.76	0.8	5.16
CNMG120412-SH	L	●	●	12.7	4.76	1.2	5.16
CNMG120404-SA	L	●	●	12.7	4.76	0.4	5.16
CNMG120408-SA	L	●	●	12.7	4.76	0.8	5.16
CNMG120412-SA	L	●	●	12.7	4.76	1.2	5.16
CNMG120404-SW	L	●	●	12.7	4.76	0.4	5.16
CNMG120408-SW	L	●	●	12.7	4.76	0.8	5.16
CNMG120412-SW	L	●	●	12.7	4.76	1.2	5.16
CNMG120404-MP	M	●	●	12.7	4.76	0.4	5.16
CNMG120408-MP	M	●	●	12.7	4.76	0.8	5.16
CNMG120412-MP	M	●	●	12.7	4.76	1.2	5.16
CNMG120416-MP	M	●	●	12.7	4.76	1.6	5.16
CNMG160608-MP	M	●	●	15.875	6.35	0.8	6.35
CNMG160612-MP	M	●	●	15.875	6.35	1.2	6.35
CNMG160616-MP	M	●	●	15.875	6.35	1.6	6.35
CNMG120404-MA	M	●	●	12.7	4.76	0.4	5.16
CNMG120408-MA	M	●	●	12.7	4.76	0.8	5.16
CNMG120412-MA	M	●	●	12.7	4.76	1.2	5.16
CNMG120416-MA	M	●	●	12.7	4.76	1.6	5.16
CNMG160608-MA	M	●	●	15.875	6.35	0.8	6.35
CNMG160612-MA	M	●	●	15.875	6.35	1.2	6.35
CNMG160616-MA	M	●	●	15.875	6.35	1.6	6.35
CNMG190612-MA	M	●	●	19.05	6.35	1.2	7.93
CNMG190616-MA	M	●	●	19.05	6.35	1.6	7.93

Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
CNMG120404-MH	M	●	●	12.7	4.76	0.4	5.16
CNMG120408-MH	M	●	●	12.7	4.76	0.8	5.16
CNMG120412-MH	M	●	●	12.7	4.76	1.2	5.16
CNMG120416-MH	M	●	●	12.7	4.76	1.6	5.16
CNMG160608-MH	M	●	●	15.875	6.35	0.8	6.35
CNMG160612-MH	M	●	●	15.875	6.35	1.2	6.35
CNMG160616-MH	M	●	●	15.875	6.35	1.6	6.35
CNMG190612-MH	M	●	●	19.05	6.35	1.2	7.93
CNMG190616-MH	M	●	●	19.05	6.35	1.6	7.93
CNMG120404	M	●	●	12.7	4.76	0.4	5.16
CNMG120408	M	●	●	12.7	4.76	0.8	5.16
CNMG120412	M	●	●	12.7	4.76	1.2	5.16
CNMG120416	M	●	●	12.7	4.76	1.6	5.16
CNMG160608	M	●	●	15.875	6.35	0.8	6.35
CNMG160612	M	●	●	15.875	6.35	1.2	6.35
CNMG160616	M	●	●	15.875	6.35	1.6	6.35
CNMG190608	M	●	●	19.05	6.35	0.8	7.93
CNMG190612	M	●	●	19.05	6.35	1.2	7.93
CNMG190616	M	●	●	19.05	6.35	1.6	7.93
CNMG120408-MW	M	●	●	12.7	4.76	0.8	5.16
CNMG120412-MW	M	●	●	12.7	4.76	1.2	5.16
CNMG120408-RP	R	●	●	12.7	4.76	0.8	5.16
CNMG120412-RP	R	●	●	12.7	4.76	1.2	5.16
CNMG120416-RP	R	●	●	12.7	4.76	1.6	5.16
CNMG160612-RP	R	●	●	15.875	6.35	1.2	6.35
CNMG160616-RP	R	●	●	15.875	6.35	1.6	6.35
CNMG190612-RP	R	●	●	19.05	6.35	1.2	7.93
CNMG190616-RP	R	●	●	19.05	6.35	1.6	7.93
CNMG120408-GH	R	●	●	12.7	4.76	0.8	5.16
CNMG120412-GH	R	●	●	12.7	4.76	1.2	5.16
CNMG120416-GH	R	●	●	12.7	4.76	1.6	5.16
CNMG160612-GH	R	●	●	15.875	6.35	1.2	6.35
CNMG160616-GH	R	●	●	15.875	6.35	1.6	6.35
CNMG190612-GH	R	●	●	19.05	6.35	1.2	7.93
CNMG190616-GH	R	●	●	19.05	6.35	1.6	7.93

Negative Inserts (With Hole)

M Class



Light	Light	Light			
LP	SH	SA			
					
Medium	Medium	Medium	Medium	Rough	Rough
MP	MA	MH	Standard	RP	GH
					

(mm)

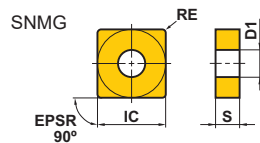
Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
DNMG150404-LP	L	●	●	12.7	4.76	0.4	5.16
DNMG150408-LP	L	●	●	12.7	4.76	0.8	5.16
DNMG150412-LP	L	●	●	12.7	4.76	1.2	5.16
DNMG150604-LP	L	●	●	12.7	6.35	0.4	5.16
DNMG150608-LP	L	●	●	12.7	6.35	0.8	5.16
DNMG150612-LP	L	●	●	12.7	6.35	1.2	5.16
DNMG150404-SH	L	●	●	12.7	4.76	0.4	5.16
DNMG150408-SH	L	●	●	12.7	4.76	0.8	5.16
DNMG150412-SH	L	●	●	12.7	4.76	1.2	5.16
DNMG150604-SH	L	●	●	12.7	6.35	0.4	5.16
DNMG150608-SH	L	●	●	12.7	6.35	0.8	5.16
DNMG150612-SH	L	●	●	12.7	6.35	1.2	5.16
DNMG150404-SA	L	●	●	12.7	4.76	0.4	5.16
DNMG150408-SA	L	●	●	12.7	4.76	0.8	5.16
DNMG150412-SA	L	●	●	12.7	4.76	1.2	5.16
DNMG150604-SA	L	●	●	12.7	6.35	0.4	5.16
DNMG150608-SA	L	●	●	12.7	6.35	0.8	5.16
DNMG150612-SA	L	●	●	12.7	6.35	1.2	5.16

Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
DNMG150404-MP	M	●	●	12.7	4.76	0.4	5.16
DNMG150408-MP	M	●	●	12.7	4.76	0.8	5.16
DNMG150412-MP	M	●	●	12.7	4.76	1.2	5.16
DNMG150416-MP	M	●	●	12.7	4.76	1.6	5.16
DNMG150604-MP	M	●	●	12.7	6.35	0.4	5.16
DNMG150608-MP	M	●	●	12.7	6.35	0.8	5.16
DNMG150612-MP	M	●	●	12.7	6.35	1.2	5.16
DNMG150616-MP	M	●	●	12.7	6.35	1.6	5.16
DNMG150404-MA	M	●	●	12.7	4.76	0.4	5.16
DNMG150408-MA	M	●	●	12.7	4.76	0.8	5.16
DNMG150412-MA	M	●	●	12.7	4.76	1.2	5.16
DNMG150604-MA	M	●	●	12.7	6.35	0.4	5.16
DNMG150608-MA	M	●	●	12.7	6.35	0.8	5.16
DNMG150612-MA	M	●	●	12.7	6.35	1.2	5.16
DNMG150404-MH	M	●	●	12.7	4.76	0.4	5.16
DNMG150408-MH	M	●	●	12.7	4.76	0.8	5.16
DNMG150412-MH	M	●	●	12.7	4.76	1.2	5.16
DNMG150604-MH	M	●	●	12.7	6.35	0.4	5.16
DNMG150608-MH	M	●	●	12.7	6.35	0.8	5.16
DNMG150612-MH	M	●	●	12.7	6.35	1.2	5.16
DNMG150404	M	●	●	12.7	4.76	0.4	5.16
DNMG150408	M	●	●	12.7	4.76	0.8	5.16
DNMG150412	M	●	●	12.7	4.76	1.2	5.16
DNMG150604	M	●	●	12.7	6.35	0.4	5.16
DNMG150608	M	●	●	12.7	6.35	0.8	5.16
DNMG150612	M	●	●	12.7	6.35	1.2	5.16
DNMG150408-RP	R	●	●	12.7	4.76	0.8	5.16
DNMG150412-RP	R	●	●	12.7	4.76	1.2	5.16
DNMG150416-RP	R	●	●	12.7	4.76	1.6	5.16
DNMG150608-RP	R	●	●	12.7	6.35	0.8	5.16
DNMG150612-RP	R	●	●	12.7	6.35	1.2	5.16
DNMG150616-RP	R	●	●	12.7	6.35	1.6	5.16
DNMG150408-GH	R	●	●	12.7	4.76	0.8	5.16
DNMG150412-GH	R	●	●	12.7	4.76	1.2	5.16
DNMG150608-GH	R	●	●	12.7	6.35	0.8	5.16
DNMG150612-GH	R	●	●	12.7	6.35	1.2	5.16

MC6100 Series

Negative Inserts (With Hole)

M Class



Light	Light	Light			
LP	SH	SA			
					
Medium	Medium	Medium	Medium	Rough	Rough
MP	MA	MH	Standard	RP	GH
					

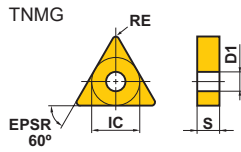
(mm)

Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
SNMG120404-LP	L	●	●	12.7	4.76	0.4	5.16
SNMG120408-LP	L	●	●	12.7	4.76	0.8	5.16
SNMG120412-LP	L	●	●	12.7	4.76	1.2	5.16
SNMG120408-SH	L	●	●	12.7	4.76	0.8	5.16
SNMG120408-SA	L	●	●	12.7	4.76	0.8	5.16

Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
SNMG120404-MP	M	●	●	12.7	4.76	0.4	5.16
SNMG120408-MP	M	●	●	12.7	4.76	0.8	5.16
SNMG120412-MP	M	●	●	12.7	4.76	1.2	5.16
SNMG120404-MA	M	●	●	12.7	4.76	0.4	5.16
SNMG120408-MA	M	●	●	12.7	4.76	0.8	5.16
SNMG120412-MA	M	●	●	12.7	4.76	1.2	5.16
SNMG150608-MA	M	●	●	15.875	6.35	0.8	6.35
SNMG150612-MA	M	●	●	15.875	6.35	1.2	6.35
SNMG190612-MA	M	●	●	19.05	6.35	1.2	7.93
SNMG190616-MA	M	●	●	19.05	6.35	1.6	7.93
SNMG120408-MH	M	●	●	12.7	4.76	0.8	5.16
SNMG120412-MH	M	●	●	12.7	4.76	1.2	5.16
SNMG190612-MH	M	●	●	19.05	6.35	1.2	7.93
SNMG190616-MH	M	●	●	19.05	6.35	1.6	7.93
SNMG120404	M	●	●	12.7	4.76	0.4	5.16
SNMG120408	M	●	●	12.7	4.76	0.8	5.16
SNMG120412	M	●	●	12.7	4.76	1.2	5.16
SNMG150612	M	●	●	15.875	6.35	1.2	6.35
SNMG190612	M	●	●	19.05	6.35	1.2	7.93
SNMG190616	M	●	●	19.05	6.35	1.6	7.93
SNMG120408-RP	R	●	●	12.7	4.76	0.8	5.16
SNMG120412-RP	R	●	●	12.7	4.76	1.2	5.16
SNMG120416-RP	R	●	●	12.7	4.76	1.6	5.16
SNMG150612-RP	R	●	●	15.875	6.35	1.2	6.35
SNMG150616-RP	R	●	●	15.875	6.35	1.6	6.35
SNMG190612-RP	R	●	●	19.05	6.35	1.2	7.93
SNMG190616-RP	R	●	●	19.05	6.35	1.6	7.93
SNMG120408-GH	R	●	●	12.7	4.76	0.8	5.16
SNMG120412-GH	R	●	●	12.7	4.76	1.2	5.16
SNMG120416-GH	R	●	●	12.7	4.76	1.6	5.16
SNMG150612-GH	R	●	●	15.875	6.35	1.2	6.35
SNMG190612-GH	R	●	●	19.05	6.35	1.2	7.93
SNMG190616-GH	R	●	●	19.05	6.35	1.6	7.93

Negative Inserts (With Hole)

M Class



Light	Light	Light			
LP	SH	SA			
Medium	Medium	Medium	Medium	Rough	Rough
MP	MA	MH	Standard	RP	GH

(mm)

Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
TNMG160404-LP	L	●	●	9.525	4.76	0.4	3.81
TNMG160408-LP	L	●	●	9.525	4.76	0.8	3.81
TNMG160412-LP	L	●	●	9.525	4.76	1.2	3.81
TNMG220408-LP	L	●	●	12.7	4.76	0.8	5.16
TNMG220412-LP	L	●	●	12.7	4.76	1.2	5.16
TNMG160404-SH	L	●	●	9.525	4.76	0.4	3.81
TNMG160408-SH	L	●	●	9.525	4.76	0.8	3.81
TNMG220408-SH	L	●	●	12.7	4.76	0.8	5.16
TNMG160404-SA	L	●	●	9.525	4.76	0.4	3.81
TNMG160408-SA	L	●	●	9.525	4.76	0.8	3.81
TNMG160412-SA	L	●	●	9.525	4.76	1.2	3.81
TNMG220408-SA	L	●	●	12.7	4.76	0.8	5.16

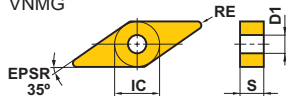
Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
TNMG160404-MP	M	●	●	9.525	4.76	0.4	3.81
TNMG160408-MP	M	●	●	9.525	4.76	0.8	3.81
TNMG160412-MP	M	●	●	9.525	4.76	1.2	3.81
TNMG220408-MP	M	●	●	12.7	4.76	0.8	5.16
TNMG220412-MP	M	●	●	12.7	4.76	1.2	5.16
TNMG160404-MA	M	●	●	9.525	4.76	0.4	3.81
TNMG160408-MA	M	●	●	9.525	4.76	0.8	3.81
TNMG160412-MA	M	●	●	9.525	4.76	1.2	3.81
TNMG220408-MA	M	●	●	12.7	4.76	0.8	5.16
TNMG220412-MA	M	●	●	12.7	4.76	1.2	5.16
TNMG270608-MA	M	●	●	15.875	6.35	0.8	6.35
TNMG270612-MA	M	●	●	15.875	6.35	1.2	6.35
TNMG160404-MH	M	●	●	9.525	4.76	0.4	3.81
TNMG160408-MH	M	●	●	9.525	4.76	0.8	3.81
TNMG160412-MH	M	●	●	9.525	4.76	1.2	3.81
TNMG220408-MH	M	●	●	12.7	4.76	0.8	5.16
TNMG220412-MH	M	●	●	12.7	4.76	1.2	5.16
TNMG160404	M	●	●	9.525	4.76	0.4	3.81
TNMG160408	M	●	●	9.525	4.76	0.8	3.81
TNMG160412	M	●	●	9.525	4.76	1.2	3.81
TNMG220404	M	●	●	12.7	4.76	0.4	5.16
TNMG220408	M	●	●	12.7	4.76	0.8	5.16
TNMG220412	M	●	●	12.7	4.76	1.2	5.16
TNMG160408-RP	R	●	●	9.525	4.76	0.8	3.81
TNMG160412-RP	R	●	●	9.525	4.76	1.2	3.81
TNMG220408-RP	R	●	●	12.7	4.76	0.8	5.16
TNMG220412-RP	R	●	●	12.7	4.76	1.2	5.16
TNMG220416-RP	R	●	●	12.7	4.76	1.6	5.16
TNMG270612-RP	R	●	●	15.875	6.35	1.2	6.35
TNMG270616-RP	R	●	●	15.875	6.35	1.6	6.35
TNMG160408-GH	R	●	●	9.525	4.76	0.8	3.81
TNMG160412-GH	R	●	●	9.525	4.76	1.2	3.81
TNMG220408-GH	R	●	●	12.7	4.76	0.8	5.16
TNMG220412-GH	R	●	●	12.7	4.76	1.2	5.16
TNMG220416-GH	R	●	●	12.7	4.76	1.6	5.16
TNMG270612-GH	R	●	●	15.875	6.35	1.2	6.35
TNMG270616-GH	R	●	●	15.875	6.35	1.6	6.35

MC6100 Series

Negative Inserts (With Hole)

M Class

VNMG



Light	Light		
LP	SH		
Medium	Medium	Medium	Medium
MP	MA	MH	Standard

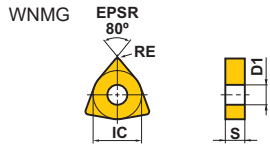
(mm)

Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
VNMG160404-LP	L	●	●	9.525	4.76	0.4	3.81
VNMG160408-LP	L	●	●	9.525	4.76	0.8	3.81
VNMG160404-SH	L	●	●	9.525	4.76	0.4	3.81
VNMG160408-SH	L	●	●	9.525	4.76	0.8	3.81

Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
VNMG160404-MP	M	●	●	9.525	4.76	0.4	3.81
VNMG160408-MP	M	●	●	9.525	4.76	0.8	3.81
VNMG160412-MP	M	●	●	9.525	4.76	1.2	3.81
VNMG160404-MA	M	●	●	9.525	4.76	0.4	3.81
VNMG160408-MA	M	●	●	9.525	4.76	0.8	3.81
VNMG160404-MH	M	●	●	9.525	4.76	0.4	3.81
VNMG160408-MH	M	●	●	9.525	4.76	0.8	3.81
VNMG160404	M	●	●	9.525	4.76	0.4	3.81
VNMG160408	M	●	●	9.525	4.76	0.8	3.81
VNMG160412	M	●	●	9.525	4.76	1.2	3.81

Negative Inserts (With Hole)

M Class



Light	Light	Light	Light	Medium	Medium
LP	SH	SA	SW (Wiper)	MP	MA
					
Medium	Medium	Medium	Rough	Rough	
MH	Standard	MW (Wiper)	RP	GH	
					

(mm)

Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
WNMG080404-LP	L	●	●	12.7	4.76	0.4	5.16
WNMG080408-LP	L	●	●	12.7	4.76	0.8	5.16
WNMG080412-LP	L	●	●	12.7	4.76	1.2	5.16
WNMG080404-SH	L	●	●	12.7	4.76	0.4	5.16
WNMG080408-SH	L	●	●	12.7	4.76	0.8	5.16
WNMG080412-SH	L	●	●	12.7	4.76	1.2	5.16
WNMG080404-SA	L	●	●	12.7	4.76	0.4	5.16
WNMG080408-SA	L	●	●	12.7	4.76	0.8	5.16
WNMG080412-SA	L	●	●	12.7	4.76	1.2	5.16
WNMG080404-SW	L	●	●	12.7	4.76	0.4	5.16
WNMG080408-SW	L	●	●	12.7	4.76	0.8	5.16
WNMG080412-SW	L	●	●	12.7	4.76	1.2	5.16
WNMG080404-MP	M	●	●	12.7	4.76	0.4	5.16
WNMG080408-MP	M	●	●	12.7	4.76	0.8	5.16
WNMG080412-MP	M	●	●	12.7	4.76	1.2	5.16
WNMG080416-MP	M	●	●	12.7	4.76	1.6	5.16
WNMG080404-MA	M	●	●	12.7	4.76	0.4	5.16
WNMG080408-MA	M	●	●	12.7	4.76	0.8	5.16
WNMG080412-MA	M	●	●	12.7	4.76	1.2	5.16
WNMG080416-MA	M	●	●	12.7	4.76	1.6	5.16

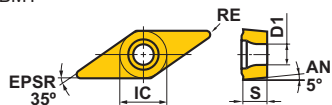
Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
WNMG080404-MH	M	●	●	12.7	4.76	0.4	5.16
WNMG080408-MH	M	●	●	12.7	4.76	0.8	5.16
WNMG080412-MH	M	●	●	12.7	4.76	1.2	5.16
WNMG080404	M	●	●	12.7	4.76	0.4	5.16
WNMG080408	M	●	●	12.7	4.76	0.8	5.16
WNMG080412	M	●	●	12.7	4.76	1.2	5.16
WNMG080408-MW	M	●	●	12.7	4.76	0.8	5.16
WNMG080412-MW	M	●	●	12.7	4.76	1.2	5.16
WNMG080408-RP	R	●	●	12.7	4.76	0.8	5.16
WNMG080412-RP	R	●	●	12.7	4.76	1.2	5.16
WNMG080408-GH	R	●	●	12.7	4.76	0.8	5.16
WNMG080412-GH	R	●	●	12.7	4.76	1.2	5.16

MC6100 Series

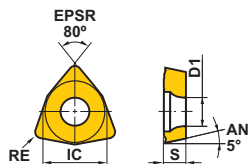
5° Positive Inserts (With Hole)

M Class

VBMT



WBMT



Finish	Light	Light	Medium	Medium
FP	FV	LP	MP	MV
				
Medium				
MV				

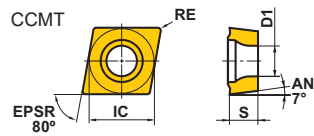
(mm)

Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
NEW VBMT110302-FP	F	●	●	6.35	3.18	0.2	2.9
NEW VBMT110304-FP	F	●	●	6.35	3.18	0.4	2.9
NEW VBMT110308-FP	F	●	●	6.35	3.18	0.8	2.9
NEW VBMT160404-FP	F	●	●	9.525	4.76	0.4	4.4
NEW VBMT160408-FP	F	●	●	9.525	4.76	0.8	4.4
NEW VBMT110304-FV	F		●	6.35	3.18	0.4	2.9
NEW VBMT110308-FV	F		●	6.35	3.18	0.8	2.9
NEW VBMT160404-FV	F		●	9.525	4.76	0.4	4.4
NEW VBMT160408-FV	F		●	9.525	4.76	0.8	4.4
NEW VBMT110304-LP	L	●	●	6.35	3.18	0.4	2.9
NEW VBMT110308-LP	L	●	●	6.35	3.18	0.8	2.9
NEW VBMT160404-LP	L	●	●	9.525	4.76	0.4	4.4
NEW VBMT160408-LP	L	●	●	9.525	4.76	0.8	4.4
NEW VBMT160404-MP	M	●	●	9.525	4.76	0.4	4.4
NEW VBMT160408-MP	M	●	●	9.525	4.76	0.8	4.4
NEW VBMT110304-MV	M		●	6.35	3.18	0.4	2.9
NEW VBMT110308-MV	M		●	6.35	3.18	0.8	2.9
NEW VBMT160404-MV	M		●	9.525	4.76	0.4	4.4
NEW VBMT160408-MV	M		●	9.525	4.76	0.8	4.4

Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
NEW WBMTL30202L-MV	M		●	4.76	2.38	0.2	2.3
NEW WBMTL30202R-MV	M		●	4.76	2.38	0.2	2.3
NEW WBMTL30204L-MV	M		●	4.76	2.38	0.4	2.3
NEW WBMTL30204R-MV	M		●	4.76	2.38	0.4	2.3

7° Positive Inserts (With Hole)

M Class



Finish	Finish	Light	Light
FP	FV	LP	SW
			
			(Wiper)
Medium	Medium	Medium	
MP	MV	MW	
			
		(Wiper)	

(mm)

Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
NEW CCMT060202-FP	F	●	●	6.35	2.38	0.2	2.8
NEW CCMT060204-FP	F	●	●	6.35	2.38	0.4	2.8
NEW CCMT09T302-FP	F	●	●	9.525	3.97	0.2	4.4
NEW CCMT09T304-FP	F	●	●	9.525	3.97	0.4	4.4
NEW CCMT09T308-FP	F	●	●	9.525	3.97	0.8	4.4
NEW CCMT060202-FV	F		●	6.35	2.38	0.2	2.8
NEW CCMT060204-FV	F		●	6.35	2.38	0.4	2.8
NEW CCMT09T302-FV	F		●	9.525	3.97	0.2	4.4
NEW CCMT09T304-FV	F		●	9.525	3.97	0.4	4.4
NEW CCMT09T308-FV	F		●	9.525	3.97	0.8	4.4
NEW CCMT060202-LP	L		●	6.35	2.38	0.2	2.8
NEW CCMT060204-LP	L	●	●	6.35	2.38	0.4	2.8
NEW CCMT060208-LP	L	●	●	6.35	2.38	0.8	2.8
NEW CCMT09T304-LP	L	●	●	9.525	3.97	0.4	4.4
NEW CCMT09T308-LP	L	●	●	9.525	3.97	0.8	4.4
NEW CCMT060202-SW	L	●	●	6.35	2.38	0.2	2.8
NEW CCMT060204-SW	L	●	●	6.35	2.38	0.4	2.8
NEW CCMT09T302-SW	L	●	●	9.525	3.97	0.2	4.4
NEW CCMT09T304-SW	L	●	●	9.525	3.97	0.4	4.4

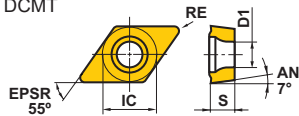
Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
NEW CCMT060202-MP	M	●	●	6.35	2.38	0.2	2.8
NEW CCMT060204-MP	M	●	●	6.35	2.38	0.4	2.8
NEW CCMT060208-MP	M	●	●	6.35	2.38	0.8	2.8
NEW CCMT080302-MP	M	●	●	7.94	3.18	0.2	3.4
NEW CCMT080304-MP	M	●	●	7.94	3.18	0.4	3.4
NEW CCMT080308-MP	M	●	●	7.94	3.18	0.8	3.4
NEW CCMT09T302-MP	M	●	●	9.525	3.97	0.2	4.4
NEW CCMT09T304-MP	M	●	●	9.525	3.97	0.4	4.4
NEW CCMT09T308-MP	M	●	●	9.525	3.97	0.8	4.4
NEW CCMT120404-MP	M	●	●	12.7	4.76	0.4	5.5
NEW CCMT120408-MP	M	●	●	12.7	4.76	0.8	5.5
NEW CCMT120412-MP	M	●	●	12.7	4.76	1.2	5.5
NEW CCMH060202-MV	M		●	6.35	2.38	0.2	2.8
NEW CCMH060204-MV	M		●	6.35	2.38	0.4	2.8
NEW CCMT060204-MW	M	●	●	6.35	2.38	0.4	2.8
NEW CCMT060208-MW	M	●	●	6.35	2.38	0.8	2.8
NEW CCMT09T304-MW	M	●	●	9.525	3.97	0.4	4.4
NEW CCMT09T308-MW	M	●	●	9.525	3.97	0.8	4.4
NEW CCMT120404-MW	M	●	●	12.7	4.76	0.4	5.5
NEW CCMT120408-MW	M	●	●	12.7	4.76	0.8	5.5

MC6100 Series

7° Positive Inserts (With Hole)

M Class

DCMT



Finish	Finish	Light
FP	FV	LP
		
Medium	Medium	
MP	MV	
		

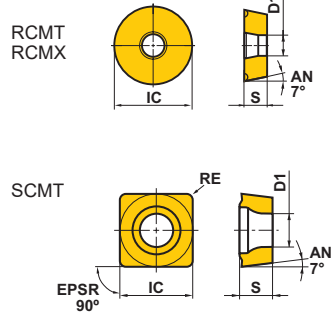
(mm)

Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
NEW DCMT070202-FP	F	●	●	6.35	2.38	0.2	2.8
NEW DCMT070204-FP	F	●	●	6.35	2.38	0.4	2.8
NEW DCMT11T302-FP	F	●	●	9.525	3.97	0.2	4.4
NEW DCMT11T304-FP	F	●	●	9.525	3.97	0.4	4.4
NEW DCMT11T308-FP	F	●	●	9.525	3.97	0.8	4.4
NEW DCMT070202-FV	F	●	●	6.35	2.38	0.2	2.8
NEW DCMT070204-FV	F	●	●	6.35	2.38	0.4	2.8
NEW DCMT070208-FV	F		●	6.35	2.38	0.8	2.8
NEW DCMT11T302-FV	F		●	9.525	3.97	0.2	4.4
NEW DCMT11T304-FV	F	●	●	9.525	3.97	0.4	4.4
NEW DCMT11T308-FV	F	●	●	9.525	3.97	0.8	4.4
NEW DCMT070202-LP	L		●	6.35	2.38	0.2	2.8
NEW DCMT070204-LP	L	●	●	6.35	2.38	0.4	2.8
NEW DCMT070208-LP	L	●	●	6.35	2.38	0.8	2.8
NEW DCMT11T302-LP	L	●	●	9.525	3.97	0.2	4.4
NEW DCMT11T304-LP	L	●	●	9.525	3.97	0.4	4.4
NEW DCMT11T308-LP	L	●	●	9.525	3.97	0.8	4.4
NEW DCMT070202-MP	M	●	●	6.35	2.38	0.2	2.8
NEW DCMT070204-MP	M	●	●	6.35	2.38	0.4	2.8
NEW DCMT070208-MP	M	●	●	6.35	2.38	0.8	2.8
NEW DCMT11T302-MP	M	●	●	9.525	3.97	0.2	4.4
NEW DCMT11T304-MP	M	●	●	9.525	3.97	0.4	4.4
NEW DCMT11T308-MP	M	●	●	9.525	3.97	0.8	4.4
NEW DCMT11T312-MP	M	●	●	9.525	3.97	1.2	4.4
NEW DCMT150404-MP	M	●	●	12.7	4.76	0.4	5.5
NEW DCMT150408-MP	M	●	●	12.7	4.76	0.8	5.5
NEW DCMT150412-MP	M	●	●	12.7	4.76	1.2	5.5

Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
NEW DCMT070202-MV	M	●	●	6.35	2.38	0.2	2.8
NEW DCMT070204-MV	M	●	●	6.35	2.38	0.4	2.8
NEW DCMT070208-MV	M	●	●	6.35	2.38	0.8	2.8
NEW DCMT11T302-MV	M	●	●	9.525	3.97	0.2	4.4
NEW DCMT11T304-MV	M	●	●	9.525	3.97	0.4	4.4
NEW DCMT11T308-MV	M	●	●	9.525	3.97	0.8	4.4

7° Positive Inserts (With Hole)

M Class



Finish	Rough	
Standard	RR	
Medium	Medium	
FP	FV	MP

(mm)

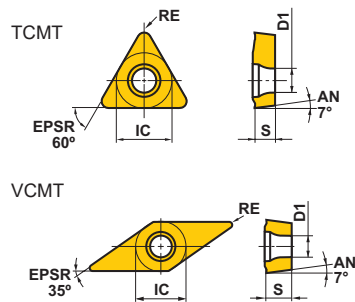
Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
NEW RCMT0602M0	M	●	●	6	2.38	-	2.8
NEW RCMT0803M0	M	●	●	8	3.18	-	3.4
NEW RCMX1003M0	M	●	●	10	3.18	-	3.6
NEW RCMX1204M0	M	●	●	12	4.76	-	4.2
NEW RCMX1606M0	M	●	●	16	6.35	-	5.2
NEW RCMX2006M0	M	●	●	20	6.35	-	6.5
NEW RCMX1606M0-RR	R	●	●	16	6.35	-	5.2
NEW RCMX2006M0-RR	R	●	●	20	6.35	-	6.5

Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
NEW SCMT09T304-FP	F	●	●	9.525	3.97	0.4	4.4
NEW SCMT09T308-FP	F	●	●	9.525	3.97	0.8	4.4
NEW SCMT09T304-FV	F		●	9.525	3.97	0.4	4.4
NEW SCMT09T304-LP	L	●	●	9.525	3.97	0.4	4.4
NEW SCMT09T308-LP	L	●	●	9.525	3.97	0.8	4.4
NEW SCMT09T304-MP	M	●	●	9.525	3.97	0.4	4.4
NEW SCMT09T308-MP	M	●	●	9.525	3.97	0.8	4.4
NEW SCMT120404-MP	M	●	●	12.7	4.76	0.4	5.5
NEW SCMT120408-MP	M	●	●	12.7	4.76	0.8	5.5
NEW SCMT120412-MP	M	●	●	12.7	4.76	1.2	5.5

MC6100 Series

7° Positive Inserts (With Hole)

M Class



Finish	Light	Light	Medium	
FP	FV	LP	MP	
				
Finish	Finish	Light	Medium	Medium
FP	FV	LP	MP	MV
				

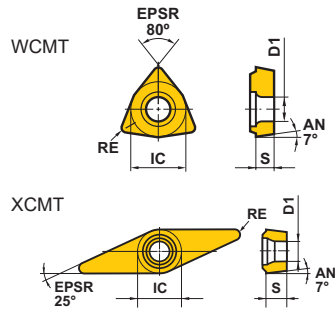
(mm)

Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
NEW TCMT090202-FP	F	●	●	5.56	2.38	0.2	2.5
NEW TCMT090204-FP	F	●	●	5.56	2.38	0.4	2.5
NEW TCMT110202-FP	F	●	●	6.35	2.38	0.2	2.8
NEW TCMT110204-FP	F	●	●	6.35	2.38	0.4	2.8
NEW TCMT16T304-FP	F	●	●	9.525	3.97	0.4	4.4
NEW TCMT110204-FV	F		●	6.35	2.38	0.4	2.8
NEW TCMT16T304-FV	F		●	9.525	3.97	0.4	4.4
NEW TCMT090204-LP	L	●	●	5.56	2.38	0.4	2.5
NEW TCMT090208-LP	L	●	●	5.56	2.38	0.8	2.5
NEW TCMT110204-LP	L	●	●	6.35	2.38	0.4	2.8
NEW TCMT110208-LP	L	●	●	6.35	2.38	0.8	2.8
NEW TCMT16T304-LP	L	●	●	9.525	3.97	0.4	4.4
NEW TCMT16T308-LP	L	●	●	9.525	3.97	0.8	4.4
NEW TCMT090204-MP	M	●	●	5.56	2.38	0.4	2.5
NEW TCMT090208-MP	M	●	●	5.56	2.38	0.8	2.5
NEW TCMT110202-MP	M	●	●	6.35	2.38	0.2	2.8
NEW TCMT110204-MP	M	●	●	6.35	2.38	0.4	2.8
NEW TCMT110208-MP	M	●	●	6.35	2.38	0.8	2.8
NEW TCMT130304-MP	M	●	●	7.94	3.18	0.4	3.4
NEW TCMT16T304-MP	M	●	●	9.525	3.97	0.4	4.4
NEW TCMT16T308-MP	M	●	●	9.525	3.97	0.8	4.4
NEW TCMT16T312-MP	M	●	●	9.525	3.97	1.2	4.4

Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
NEW VCMT110302-FP	F	●	●	6.35	3.18	0.2	2.8
NEW VCMT110304-FP	F	●	●	6.35	3.18	0.4	2.8
NEW VCMT160404-FP	F	●	●	9.525	4.76	0.4	4.4
NEW VCMT160408-FP	F	●	●	9.525	4.76	0.8	4.4
NEW VCMT080202-FV	F		●	4.76	2.38	0.2	2.4
NEW VCMT080204-FV	F		●	4.76	2.38	0.4	2.4
NEW VCMT160404-FV	F	●	●	9.525	4.76	0.4	4.4
NEW VCMT160408-FV	F	●	●	9.525	4.76	0.8	4.4
NEW VCMT080202-LP	L		●	4.76	2.38	0.2	2.4
NEW VCMT080204-LP	L		●	4.76	2.38	0.4	2.4
NEW VCMT110304-LP	L	●	●	6.35	3.18	0.4	2.8
NEW VCMT110308-LP	L	●	●	6.35	3.18	0.8	2.8
NEW VCMT160404-LP	L	●	●	9.525	4.76	0.4	4.4
NEW VCMT160408-LP	L	●	●	9.525	4.76	0.8	4.4
NEW VCMT110304-MP	M	●	●	6.35	3.18	0.4	2.8
NEW VCMT160404-MP	M	●	●	9.525	4.76	0.4	4.4
NEW VCMT160408-MP	M	●	●	9.525	4.76	0.8	4.4
NEW VCMT160412-MP	M	●	●	9.525	4.76	1.2	4.4
NEW VCMT080202-MV	M		●	4.76	2.38	0.2	2.4
NEW VCMT080204-MV	M		●	4.76	2.38	0.4	2.4

7° Positive Inserts (With Hole)

M Class



Medium

MP



Finish

SVX



(mm)

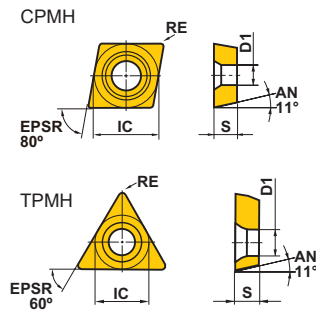
Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
NEW WCMT020102-MP	M	●	●	3.97	1.59	0.2	2.3
NEW WCMT020104-MP	M	●	●	3.97	1.59	0.4	2.3
NEW WCMT040202-MP	M	●	●	6.35	2.38	0.2	2.8
NEW WCMT040204-MP	M	●	●	6.35	2.38	0.4	2.8
NEW WCMT040208-MP	M		●	6.35	2.38	0.8	2.8
NEW WCMT06T304-MP	M	●	●	9.525	3.97	0.4	4.4
NEW WCMT06T308-MP	M	●	●	9.525	3.97	0.8	4.4
NEW WCMTL30202-MP	M	●	●	4.76	2.38	0.2	2.3
NEW WCMTL30204-MP	M	●	●	4.76	2.38	0.4	2.3

Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
NEW XCMT150304-SVX	F		●	6.35	3.18	0.4	2.8
NEW XCMT150308-SVX	F		●	6.35	3.18	0.8	2.8

MC6100 Series

11° Positive Inserts (With Hole)

M Class



Finish	Light	Medium	Medium
FV	LP	Standard	MV
			
Finish	Light	Medium	
FV	LP	MV	
			

(mm)

Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
NEW CPMH080202-FV	F		●	7.94	2.38	0.2	3.5
NEW CPMH080204-FV	F		●	7.94	2.38	0.4	3.5
NEW CPMH090302-FV	F		●	9.525	3.18	0.2	4.5
NEW CPMH090304-FV	F		●	9.525	3.18	0.4	4.5
NEW CPMH090308-FV	F		●	9.525	3.18	0.8	4.5
NEW CPMH080202-LP	L		●	7.94	2.38	0.2	3.5
NEW CPMH080204-LP	L		●	7.94	2.38	0.4	3.5
NEW CPMH090302-LP	L		●	9.525	3.18	0.2	4.5
NEW CPMH090304-LP	L		●	9.525	3.18	0.4	4.5
NEW CPMH090308-LP	L		●	9.525	3.18	0.8	4.5
NEW CPMH080204	M	●	●	7.94	2.38	0.4	3.5
NEW CPMH080208	M	●	●	7.94	2.38	0.8	3.5
NEW CPMH090304	M	●	●	9.525	3.18	0.4	4.5
NEW CPMH090308	M	●	●	9.525	3.18	0.8	4.5
NEW CPMH080204-MV	M		●	7.94	2.38	0.4	3.5
NEW CPMH080208-MV	M		●	7.94	2.38	0.8	3.5
NEW CPMH090304-MV	M		●	9.525	3.18	0.4	4.5
NEW CPMH090308-MV	M		●	9.525	3.18	0.8	4.5

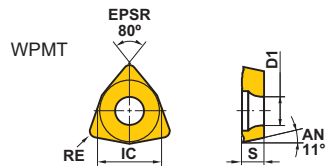
Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
NEW TPMH080202-FV	F		●	4.76	2.38	0.2	2.4
NEW TPMH080204-FV	F		●	4.76	2.38	0.4	2.4
NEW TPMH090202-FV	F		●	5.56	2.38	0.2	2.9
NEW TPMH090204-FV	F		●	5.56	2.38	0.4	2.9
NEW TPMH110302-FV	F		●	6.35	3.18	0.2	3.4
NEW TPMH110304-FV	F		●	6.35	3.18	0.4	3.4
NEW TPMH110308-FV	F		●	6.35	3.18	0.8	3.4
NEW TPMH160302-FV	F		●	9.525	3.18	0.2	4.4
NEW TPMH160304-FV	F		●	9.525	3.18	0.4	4.4
NEW TPMH160308-FV	F		●	9.525	3.18	0.8	4.4
NEW TPMH080202-LP	L		●	4.76	2.38	0.2	2.4
NEW TPMH080204-LP	L		●	4.76	2.38	0.4	2.4
NEW TPMH090202-LP	L		●	5.56	2.38	0.2	2.9
NEW TPMH090204-LP	L		●	5.56	2.38	0.4	2.9
NEW TPMH110302-LP	L		●	6.35	3.18	0.2	3.4
NEW TPMH110304-LP	L		●	6.35	3.18	0.4	3.4
NEW TPMH110308-LP	L		●	6.35	3.18	0.8	3.4
NEW TPMH160302-LP	L		●	9.525	3.18	0.2	4.4
NEW TPMH160304-LP	L		●	9.525	3.18	0.4	4.4
NEW TPMH160308-LP	L		●	9.525	3.18	0.8	4.4
NEW TPMH080202-MV	M		●	4.76	2.38	0.2	2.4
NEW TPMH080204-MV	M		●	4.76	2.38	0.4	2.4
NEW TPMH090202-MV	M		●	5.56	2.38	0.2	2.9
NEW TPMH090204-MV	M		●	5.56	2.38	0.4	2.9
NEW TPMH090208-MV	M		●	5.56	2.38	0.8	2.9
NEW TPMH110302-MV	M		●	6.35	3.18	0.2	3.4
NEW TPMH110304-MV	M		●	6.35	3.18	0.4	3.4
NEW TPMH110308-MV	M		●	6.35	3.18	0.8	3.4
NEW TPMH160304-MV	M		●	9.525	3.18	0.4	4.4
NEW TPMH160308-MV	M		●	9.525	3.18	0.8	4.4

11° Positive Inserts (With Hole)

M Class

Medium

MV



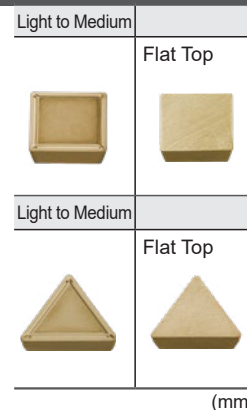
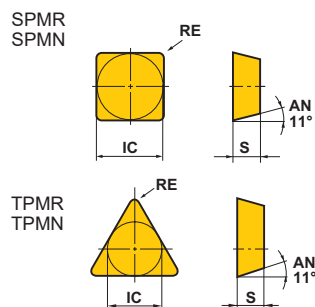
(mm)

Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
NEW WPMT040202-MV	M		●	6.35	2.38	0.2	2.8
NEW WPMT040204-MV	M		●	6.35	2.38	0.4	2.8
NEW WPMT060304-MV	M		●	9.525	3.18	0.4	4.4
NEW WPMT060308-MV	M		●	9.525	3.18	0.8	4.4

MC6100 Series

11° Positive Inserts (Without Hole)

M Class



(mm)

Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
NEW SPMR090304	M	●	●	9.525	3.18	0.4	-
NEW SPMR090308	M	●	●	9.525	3.18	0.8	-
NEW SPMR120304	M	●	●	12.7	3.18	0.4	-
NEW SPMR120308	M	●	●	12.7	3.18	0.8	-
NEW SPMN090308	-	●		9.525	3.18	0.8	-
NEW SPMN120304	-	●		12.7	3.18	0.4	-
NEW SPMN120308	-	●		12.7	3.18	0.8	-
NEW SPMN120312	-	●		12.7	3.18	1.2	-

Order Number	Cutting Area	MC6115	MC6125	IC	S	RE	D1
NEW TPMR110304	M	●	●	6.35	3.18	0.4	-
NEW TPMR110308	M	●	●	6.35	3.18	0.8	-
NEW TPMR160304	M	●	●	9.525	3.18	0.4	-
NEW TPMR160308	M	●	●	9.525	3.18	0.8	-
NEW TPMR160312	M	●	●	9.525	3.18	1.2	-
NEW TPMN110304	-	●		6.35	3.18	0.4	-
NEW TPMN110308	-	●		6.35	3.18	0.8	-
NEW TPMN160304	-	●		9.525	3.18	0.4	-
NEW TPMN160308	-	●		9.525	3.18	0.8	-
NEW TPMN160312	-	●		9.525	3.18	1.2	-
NEW TPMN220404	-	●		12.7	4.76	0.4	-
NEW TPMN220408	-	●		12.7	4.76	0.8	-
NEW TPMN220412	-	●		12.7	4.76	1.2	-

Recommended Cutting Conditions

Negative Inserts (For External Turning)

(mm)

Workpiece Material	Properties	Cutting Range		Priority	Grade	Chip Breaker	Cutting Speed vc (m/min)	Feed f (mm/rev)	Depth of Cut ap
P									
Carbon Steel Alloy Steel	Hardness 180—280HB	●	L	1	MC6115	LP	250—480	0.10—0.40	0.30—2.00
		●	L	2	MC6125	LP	275—425	0.10—0.40	0.30—2.00
		●	L	3	MC6115	SH	250—480	0.10—0.40	0.30—2.00
		●	L	4	MC6125	SH	275—425	0.10—0.40	0.30—2.00
		●	L	5	MC6115	SA	250—480	0.10—0.40	0.30—2.00
		●	L	6	MC6125	SA	275—425	0.10—0.40	0.30—2.00
		●	L	7	MC6115	SW	250—480	0.10—0.50	0.30—2.50
		●	L	8	MC6125	SW	275—425	0.10—0.50	0.30—2.50
		●	M	1	MC6115	MP	230—440	0.16—0.50	0.30—4.00
		●	M	2	MC6125	MP	250—390	0.16—0.50	0.30—4.00
		●	M	3	MC6115	MA	230—440	0.20—0.50	0.30—4.00
		●	M	4	MC6125	MA	250—390	0.20—0.50	0.30—4.00
		●	M	5	MC6115	Std	230—440	0.25—0.60	1.50—5.00
		●	M	6	MC6125	Std	250—390	0.25—0.60	1.50—5.00
		●	M	7	MC6115	MW	230—440	0.20—0.60	0.90—4.00
		●	M	8	MC6125	MW	250—390	0.20—0.60	0.90—4.00
		●	R	1	MC6115	RP	215—415	0.25—0.60	1.50—6.00
		●	R	2	MC6125	RP	235—370	0.25—0.60	1.50—6.00
		●	R	3	MC6115	GH	215—415	0.25—0.60	1.50—6.00
		●	R	4	MC6125	GH	235—370	0.25—0.60	1.50—6.00
		●	L	1	MC6115	LP	250—480	0.10—0.40	0.30—2.00
		●	L	2	MC6125	LP	275—425	0.10—0.40	0.30—2.00
		●	L	3	MC6115	SH	250—480	0.10—0.40	0.30—2.00
		●	L	4	MC6125	SH	275—425	0.10—0.40	0.30—2.00
		●	L	5	MC6115	SA	250—480	0.10—0.40	0.30—2.00
		●	L	6	MC6125	SA	275—425	0.10—0.40	0.30—2.00
		●	L	7	MC6115	SW	250—480	0.10—0.50	0.30—2.50
		●	L	8	MC6125	SW	275—425	0.10—0.50	0.30—2.50
		●	M	1	MC6125	MP	250—390	0.16—0.50	0.30—4.00
		●	M	2	MC6115	MP	230—440	0.16—0.50	0.30—4.00
		●	M	3	MC6125	MA	250—390	0.20—0.50	0.30—4.00
		●	M	4	MC6115	MA	230—440	0.20—0.50	0.30—4.00
		●	M	5	MC6125	MH	250—390	0.20—0.55	1.00—4.00
		●	M	6	MC6115	MH	230—440	0.20—0.55	1.00—4.00
		●	M	7	MC6125	Std	250—390	0.25—0.60	1.50—5.00
		●	M	8	MC6115	Std	230—440	0.25—0.60	1.50—5.00
		●	M	9	MC6125	MW	250—390	0.20—0.60	0.90—4.00
		●	M	10	MC6115	MW	230—440	0.20—0.60	0.90—4.00
		●	R	1	MC6125	RP	235—370	0.25—0.60	1.50—6.00
		●	R	2	MC6115	RP	215—415	0.25—0.60	1.50—6.00
		●	R	3	MC6125	GH	235—370	0.25—0.60	1.50—6.00
		●	R	4	MC6115	GH	215—415	0.25—0.60	1.50—6.00
		✱	L	1	MC6125	LP	275—425	0.10—0.40	0.30—2.00
		✱	L	2	MC6125	SH	275—425	0.10—0.40	0.30—2.00
		✱	L	3	MC6125	SA	275—425	0.10—0.40	0.30—2.00
		✱	M	1	MC6125	MP	250—390	0.16—0.50	0.30—4.00
		✱	M	2	MC6125	MA	250—390	0.20—0.50	0.30—4.00
		✱	M	3	MC6125	MH	250—390	0.20—0.55	1.00—4.00
✱	M	4	MC6125	Std	250—390	0.25—0.60	1.50—5.00		
✱	M	5	MC6125	MW	250—390	0.20—0.60	0.90—4.00		
✱	R	1	MC6125	RP	235—370	0.25—0.60	1.50—6.00		
✱	R	2	MC6125	GH	235—370	0.25—0.60	1.50—6.00		

Note 1) Recommended cutting conditions for 5°/7°/11° positive inserts are provided as a guideline only.

Verify the recommended conditions for each boring bar as cutting conditions for internal machining will vary depending on the length of overhang.

Cutting Conditions : ● : Stable Cutting ● : General Cutting ✱ : Unstable Cutting

Cutting Area : L : Light Cutting M : Medium Cutting R : Rough Cutting

Recommended Cutting Conditions

5° 7° Positive Inserts (For External Turning)

(mm)

Workpiece Material	Properties	Cutting Range	Priority	Grade	Chip Breaker	Cutting Speed vc (m/min)	Feed f (mm/rev)	Depth of Cut ap
P								
Mild Steel	Hardness ≤180HB	●	F	1	MC6115	FP	295–570	0.04–0.20
		●	F	2	MC6115	FV	295–570	0.04–0.20
		●	L	1	MC6115	LP	295–570	0.06–0.25
		●	L	2	MC6115	SW	295–570	0.06–0.24
		●	M	1	MC6115	MP	245–475	0.08–0.30
		●	M	2	MC6115	MV	245–475	0.08–0.30
		●	M	3	MC6115	MW	245–475	0.10–0.35
		✱	F	1	MC6125	FP	320–505	0.04–0.20
		✱	F	2	MC6125	FV	320–505	0.04–0.20
		✱	L	1	MC6125	LP	320–505	0.06–0.25
		✱	L	2	MC6125	SV	320–505	0.06–0.25
		✱	L	3	MC6125	SW	320–505	0.06–0.24
		✱	M	1	MC6125	MP	270–420	0.08–0.30
		✱	M	2	MC6125	MV	270–420	0.08–0.30
		✱	M	3	MC6125	MW	270–420	0.10–0.35
Carbon Steel Alloy Steel	Hardness 180–280HB	●	F	1	MC6115	FP	220–420	0.04–0.20
		●	F	2	MC6115	FV	220–420	0.04–0.20
		●	L	1	MC6115	LP	220–420	0.06–0.25
		●	L	2	MC6115	SW	220–420	0.06–0.24
		●	M	1	MC6125	MP	200–310	0.08–0.30
		●	M	2	MC6115	MP	180–350	0.08–0.30
		●	M	3	MC6125	MV	200–310	0.08–0.30
		●	M	4	MC6115	MV	180–350	0.08–0.30
		●	M	5	MC6115	MW	180–350	0.10–0.35
		✱	F	1	MC6125	FP	240–370	0.04–0.20
		✱	F	2	MC6125	FV	240–370	0.04–0.20
		✱	L	1	MC6125	LP	240–370	0.06–0.25
		✱	L	2	MC6125	SV	240–370	0.06–0.25
		✱	L	3	MC6125	SW	240–370	0.06–0.24
		✱	M	1	MC6125	MP	200–310	0.08–0.30
Carbon Steel Alloy Steel	Hardness 280–350HB	●	F	1	MC6115	FP	155–295	0.04–0.20
		●	F	2	MC6115	FV	155–295	0.04–0.20
		●	L	1	MC6115	LP	155–295	0.06–0.25
		●	M	1	MC6115	MP	130–245	0.08–0.30
		●	M	2	MC6115	MV	130–245	0.08–0.30
		✱	F	1	MC6125	FP	170–265	0.04–0.20
		✱	F	2	MC6125	FV	170–265	0.04–0.20
		✱	L	1	MC6125	LP	170–265	0.06–0.25
		✱	M	1	MC6125	MP	140–220	0.08–0.30
		✱	M	2	MC6125	MV	140–220	0.08–0.30

Note 1) Recommended cutting conditions for 5°/7°/11° positive inserts are provided as a guideline only.

Verify the recommended conditions for each boring bar as cutting conditions for internal machining will vary depending on the length of overhang.

Note 2) Please scan the QR code for a pamphlet of the recommended conditions for the XCMT profile holder insert.



Cutting Conditions : ● : Stable Cutting ● : General Cutting ✱ : Unstable Cutting
Cutting Area : L : Light Cutting M : Medium Cutting R : Rough Cutting

11° Positive Inserts (For External Turning)

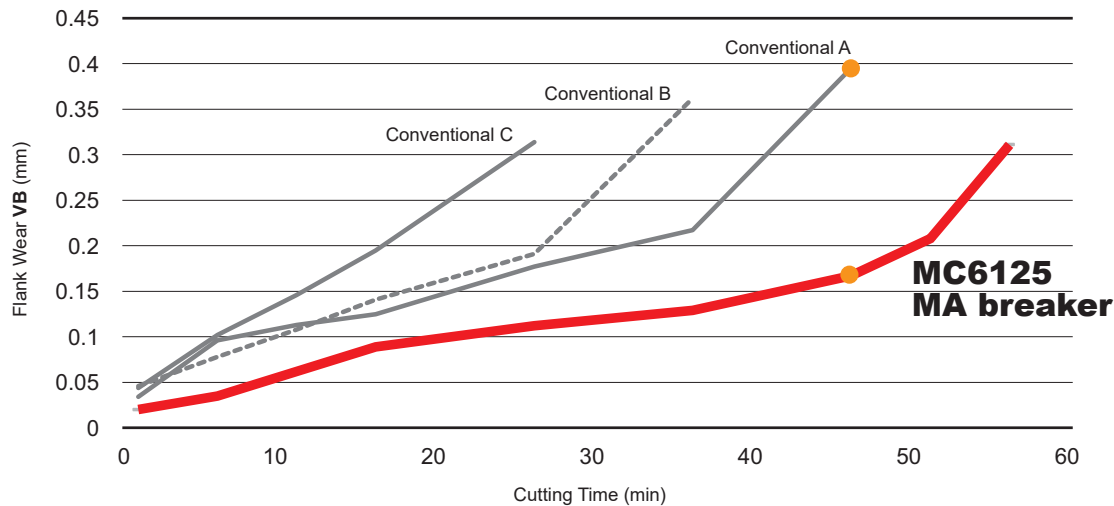
(mm)

Workpiece Material	Properties	Cutting Range		Priority	Grade	Chip Breaker	Cutting Speed vc (m/min)	Feed f (mm/rev)	Depth of Cut ap
P									
Mild Steel	Hardness ≤180HB		F	1	MC6125	FV	320—505	0.04—0.20	0.20—0.90
			L	1	MC6125	LP	320—505	0.06—0.25	0.20—1.00
			L	2	MC6115	R-Std	245—475	0.08—0.30	0.30—2.00
			M	1	MC6125	MV	270—420	0.08—0.30	0.30—2.00
			M	2	MC6115	MV	245—475	0.08—0.30	0.30—2.00
			M	3	MC6125	R-Std	270—420	0.08—0.30	0.30—2.00
			L	1	MC6125	LP	320—505	0.06—0.25	0.20—1.00
			L	2	MC6125	R-Std	270—420	0.08—0.30	0.30—2.00
			M	1	MC6125	MV	270—420	0.08—0.30	0.30—2.00
			M	2	MC6125	R-Std	270—420	0.08—0.30	0.30—2.00
Carbon Steel Alloy Steel	Hardness 180—280HB		F	1	MC6125	FV	240—370	0.04—0.20	0.20—0.90
			L	1	MC6125	LP	240—370	0.06—0.25	0.20—1.00
			L	2	MC6115	R-Std	180—350	0.08—0.30	0.30—2.00
			L	3	MC6125	R-Std	200—310	0.08—0.30	0.30—2.00
			M	1	MC6125	MV	200—310	0.08—0.30	0.30—2.00
			M	2	MC6115	R-Std	180—350	0.08—0.30	0.30—2.00
			M	3	MC6125	R-Std	200—310	0.08—0.30	0.30—2.00
			L	1	MC6125	LP	240—370	0.06—0.25	0.20—1.00
			L	2	MC6125	R-Std	200—310	0.08—0.30	0.30—2.00
			M	1	MC6125	MV	200—310	0.08—0.30	0.30—2.00
			M	2	MC6125	R-Std	200—310	0.08—0.30	0.30—2.00

Cutting Performance

Machining SCr420H : Comparison of Wear Resistance During Continuous Wet Cutting

The thick coating exclusively for MC6125 highly suppresses early wear.



**MC6125
MA Br**

46 min.

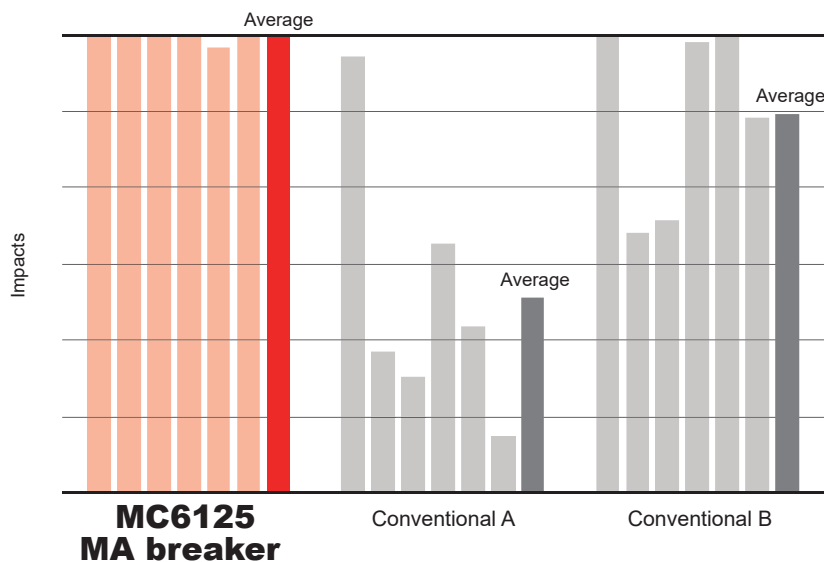


Conventional A 46 min.

<Cutting Conditions>
 Work Material : JIS SCr420H
 Inserts : CNMG120408-
 Cutting Speed : $v_c = 300$ m/min
 Feed per Rev. : $f = 0.3$ mm/rev
 Depth of Cut : $a_p = 1.5$ mm
 Cutting Mode : Wet Cutting

Comparison of Toughness During Interrupted Cutting

Provides stable cutting under severe cutting conditions that are likely to cause sudden fracturing.



**MC6125
MA breaker**

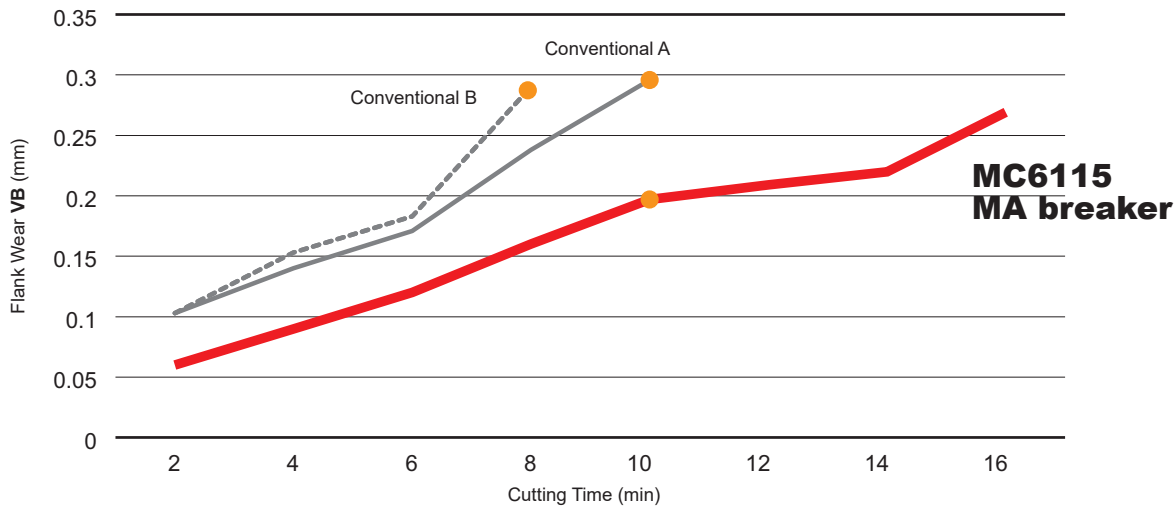
Conventional A

Conventional B

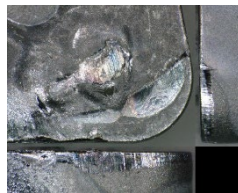
<Cutting Conditions>
 Work Material : JIS SCM440
 Inserts : CNMG120408-
 Cutting Speed : $v_c = 200$ m/min
 Feed per Rev. : $f = 0.25$ mm/rev
 Depth of Cut : $a_p = 1.5$ mm
 Cutting Mode : Wet Cutting

Machining S45C : Comparison of Wear Resistance During Continuous Dry Cutting

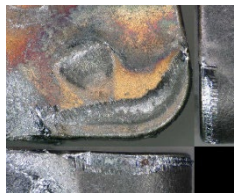
The "Super" Nano Texture Technology increases tool life even when dry cutting by suppressing crater wear.



MC6115 10 min.



Conventional A 10 min.

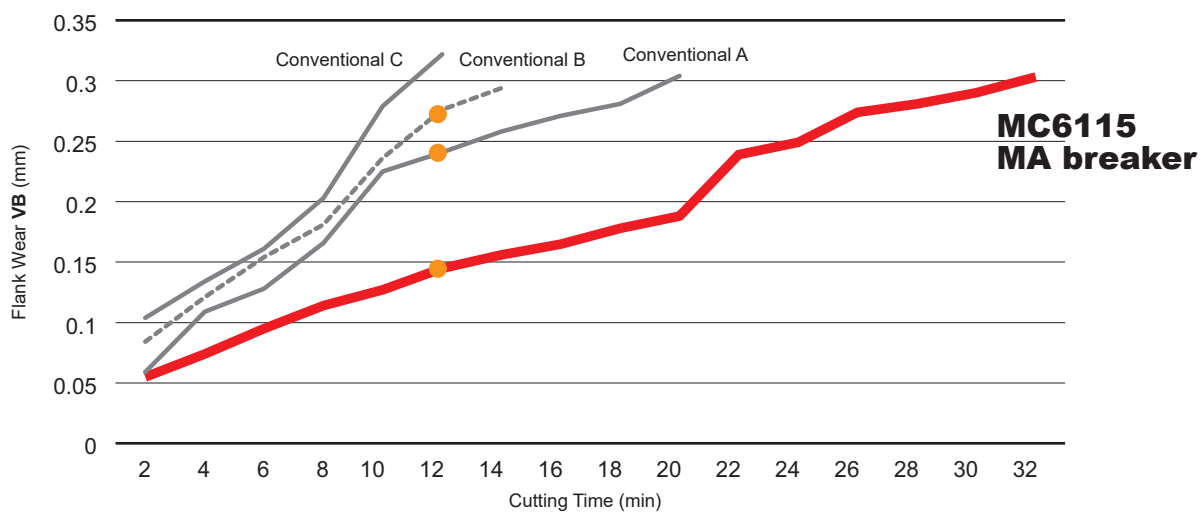


Conventional B 8 min.

<Cutting Conditions>
 Work Material : JIS S45C
 Inserts : CNMG120408-
 Cutting Speed : $v_c=300$ m/min
 Feed per Rev. : $f=0.3$ mm/rev
 Depth of Cut : $a_p=1.5$ mm
 Cutting Mode : Dry Cutting

Machining SUJ2 : Comparison of Wear Resistance During Continuous Wet Cutting

The thick coating provides high flank wear resistance.



MC6115 12 min.



Conventional A 12 min.



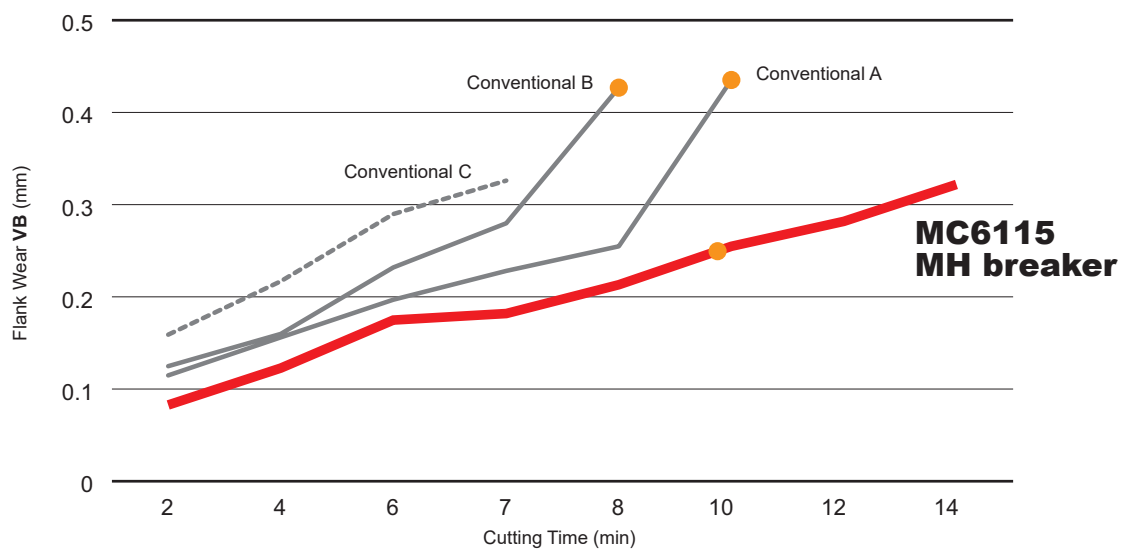
Conventional B 12 min.

<Cutting Conditions>
 Work Material : JIS SUJ2
 Inserts : CNMG120408-
 Cutting Speed : $v_c=300$ m/min
 Feed per Rev. : $f=0.3$ mm/rev
 Depth of Cut : $a_p=1.5$ mm
 Cutting Mode : Wet Cutting

Cutting Performance

Machining SCM440 : Comparison of Wear Resistance During Continuous Wet Cutting

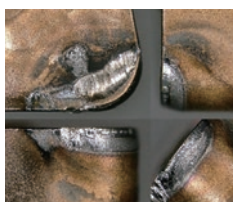
MC6115 with high edge strength chip breaker can also enable excellent wear resistance during high speed turning.



MC6115 10 min.



Conventional A 10 min.



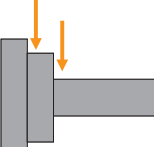
Conventional B 8 min.

<Cutting Conditions>
 Work Material : JIS SCM440
 Inserts : CNMG120408-
 Cutting Speed: $v_c=350$ m/min
 Feed per Rev. : $f=0.3$ mm/rev
 Depth of Cut : $a_p=1.5$ mm
 Cutting Mode : Wet Cutting

Examples of Usage

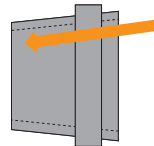
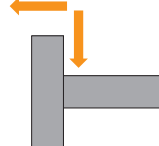
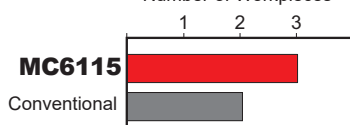
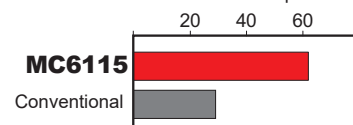
Insert		CNMG120408-MA	WNMG080408-MP
Workpiece Material	JIS S45C		Carbon Steel
			
Component		Hex Bar Parts	Automotive Parts
Application		Interrupted Finish Turning	External Turning and Facing
Cutting Conditions	Cutting Speed v_c (m/min)	150	80
	Feed per Rev. f (mm/rev)	0.2	0.1-0.5
	Depth of Cut a_p (mm)	2.0, 1.6	0.5
Cutting Mode		Wet Cutting	Wet Cutting
Results	Number of Workpieces 500 1000 MC6125  Conventional  Conventional products fractured after chipping but MC6125 formed good chip shapes and achieved a longer tool life.		Number of Workpieces 500 1000 1500 2000 2500 MC6125  Conventional  MC6125 achieved more than 1.3 times longer tool life due to its high wear resistance.

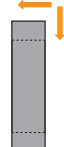
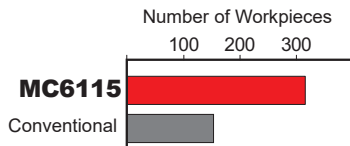
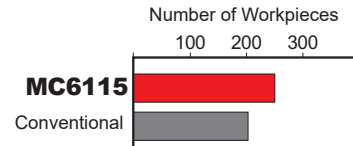
Insert		DNMG150412-SH	CNMG120408-MH
Workpiece Material	JIS S53C		General Structural Steel
			
Component		—	Hun Parts
Application		Interrupted Finish Turning	Face Turning
Cutting Conditions	Cutting Speed v_c (m/min)	200	200→240
	Feed per Rev. f (mm/rev)	0.3	0.25
	Depth of Cut a_p (mm)	1.2	2.0
Cutting Mode		Wet Cutting	Wet Cutting
Results	Number of Workpieces 50 100 150 MC6125  Conventional  MC6125 provided a stable cutting action and achieved 1.5 times more tool life than conventional products.		Number of Workpieces 50 100 150 200 MC6125  Conventional  MC6125 improved efficiency and tool life by increasing the cutting speed.

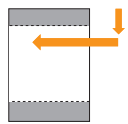
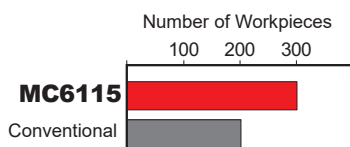
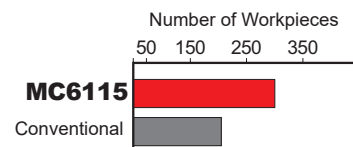
Insert		CNMG120412-RP
Workpiece Material	JIS SCM435	
		
Component		Flange Parts
Application		External Turning and Facing
Cutting Conditions	Cutting Speed v_c (m/min)	200
	Feed per Rev. f (mm/rev)	0.25
	Depth of Cut a_p (mm)	1.5
Cutting Mode		Wet Cutting
Results	Number of Workpieces 50 100 MC6125  Conventional  Conventional products machined an inconsistent number of components. MC6125 was more consistent and improved tool life.	

The application examples are from customers workpieces and can therefore differ from the recommended cutting conditions.

Examples of Usage

Insert		CNMG120408-MA	WNMG080408-MA
Workpiece Material	JIS SCM440		
Component		Heavy Machinery Parts	Automotive Parts
Application		Internal Turning	External Face Turning
Cutting Conditions	Cutting Speed v_c (m/min)	150	290
	Feed per Rev. f (mm/rev)	0.3	0.25
	Depth of Cut a_p (mm)	1.5	1.0
Cutting Mode		Wet Cutting	Wet Cutting
Results	Number of Workpieces		
		Tool life increased x 1.5 on a large workpiece (inner diameter 430 mm)	The excellent wear resistance of MC6115 helped achieve double tool life.

Insert		WNMG080408-MA	WNMG080412-MP
Workpiece Material	JIS SUJ2		
Component		Bearing Parts	Machine Parts
Application		External Face Turning	Face Turning
Cutting Conditions	Cutting Speed v_c (m/min)	198-278	235
	Feed per Rev. f (mm/rev)	0.21-0.3	0.35
	Depth of Cut a_p (mm)	1.0	1.0
	Cutting Mode	Wet Cutting	Wet Cutting
Results	Number of Workpieces		
		The excellent wear resistance of MC6115 helped achieve double tool life.	MC6115 achieved longer tool life compared to a conventional product.

Insert		WNMG080408-MP	WNMG080416-MA	
Workpiece Material	JIS SCr440		JIS S50C	
Component		Hub	Joint Parts	
Application		External Turning and Facing	Internal Turning and Facing	
Cutting Conditions	Cutting Speed v_c (m/min)	300	215	
	Feed per Rev. f (mm/rev)	0.25-0.35	0.25-0.27	
	Depth of Cut a_p (mm)	1-2.5	3.15	
Cutting Mode		Wet Cutting	Wet Cutting	
Results	Number of Workpieces			
		Superior wear resistance compared to conventional products meant tool life was extended.	Excellent wear resistance during rough machining of forged product applications helped achieve 150% tool life.	

The application examples are from customers workpieces and can therefore differ from the recommended cutting conditions.

Insert		DNMG150612-SA	CNMG120408-MP
Workpiece Material	Bearing Steel		JIS SCr440
Component		Bearing Parts	Shaft Parts
Application		External Turning and Facing	Internal Turning
Cutting Conditions	Cutting Speed v_c (m/min)	260	280
	Feed per Rev. f (mm/rev)	0.3-0.35	0.29
	Depth of Cut a_p (mm)	0.5	2.5
Cutting Mode		Wet Cutting	Wet Cutting
Results	Number of Workpieces 50 100 150 200 250 MC6115 Conventional Extreme resistance to chipping achieved 150% tool life and enabled easy identification of wear.		Number of Workpieces 50 150 250 350 MC6115 Conventional Number of components machined increased by 50% due to improved wear resistance.

Insert		WNNMG080408-MP
Workpiece Material	Heated Tool Steel	
Component		Die Casting Parts
Application		Internal Turning
Cutting Conditions	Cutting Speed v_c (m/min)	160
	Feed per Rev. f (mm/rev)	0.25
	Depth of Cut a_p (mm)	2.0
Cutting Mode		Wet Cutting
Results	Number of Workpieces 1 2 3 4 MC6115 Conventional MC6115 gave 1.5 x longer tool life even when machining heat treated materials.	

The application examples are from customers workpieces and can therefore differ from the recommended cutting conditions.

This image shows a full page of a document template designed for writing. At the top left corner, the word "Memo" is printed in a large, bold, black font. A solid black horizontal line runs across the entire width of the page, positioned directly beneath the title. The remainder of the page is filled with evenly spaced, light gray horizontal lines, providing a guide for handwriting or typing. There are no vertical margin lines, bullet points, or other markings present.



CVD Coated Grade for Steel Turning

MC6100 Series

Environmentally Friendly Product

This product has been certified as an environmentally friendly product in the machine tool industry by the Japan Cutting & Wear-resistant Tool Association. This is a product unique to the industry, in harmony with the environment, and with the aim of fulfilling the social responsibilities of the machine tool industry.

The Japan Cutting & Wear-resistant Tool Association evaluates the product's environmental impact during the manufacturing and usage stages and issues a certification according to the evaluation score.



For People, Society and the Earth

More information about MITSUBISHI MATERIALS' efforts to address social and environmental issues can be found in the website below or by scanning the QR code.

<https://mmc.disclosure.site/en/>



For Your Safety

●Don't handle inserts and chips without gloves. ●Please machine within the recommended application range and exchange expired tools with new ones in advance of breakage. ●Please use safety covers and wear safety glasses. ●When using compounded cutting oils, please take fire precautions. ●When attaching inserts or spare parts, please use only the correct wrench or driver. ●When using rotating tools, please make a trial run to check run-out, vibration and abnormal sounds etc.

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(Tools specifications subject to change without notice.)