

AHB

TOOLING & MACHINERY

COMPLETE METALWORKING SOLUTIONS

(800) 991-4225

www.ahbinc.com

ISO Certified

customerservice@ahbinc.com



DIA  EDGE

MC6115 + FP
MC6125 + MP
MC6135 + LP

MC6100 SERIES

ULTIMATE HIGH SPEED
CUTTING PERFORMANCE

 MITSUBISHI MATERIALS U.S.A.

TOOL NEWS | B266A



ABOUT OUR BRAND

Your manufacturing success is our success.

It's simple. We want to provide high-quality cutting tool products that help deliver unparalleled performance and control for you to manufacture precisely perfect products every day.

Our long heritage of building partnerships through cutting tool solutions to metal working manufacturers, like yours, has given Mitsubishi Materials USA a solid reputation as an industry leader. We understand the importance of getting it right the first time by delivering high-quality cutting tool product brands to help overcome machining challenges to improve machining processes.

Your success is our success and is the driving force behind our innovative products. Our product brands, DIAEDGE and MOLDINO, are trusted globally in the metal manufacturing and die & mold industries for delivering expertly-designed manufactured tools of the trade for highly specialized industries like yours.

With the acquisition of MOLDINO Tool Engineering, Ltd, our traditional Mitsubishi Materials USA cutting tool product line is now sold under the DIAEDGE product brand name.

Brands you can trust:

 **MITSUBISHI MATERIALS U.S.A.**

TRUSTED PRODUCT BRANDS

DIAEDGE

 **MOLDINO**

CVD Coated Grade for Steel Turning

MC6100 Series

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

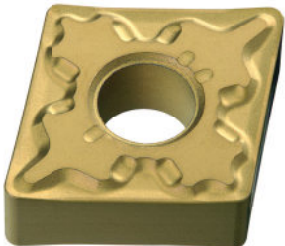
For High Speed Turning
MC6115



First Recommendation
MC6125



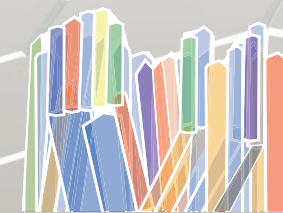
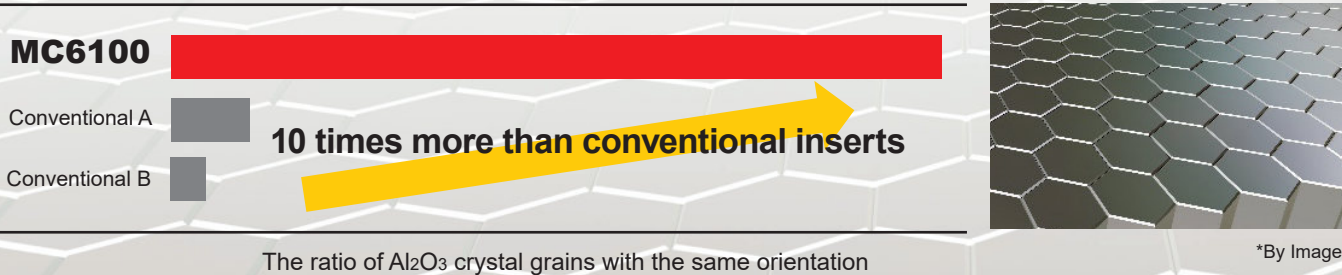
For Fracture Resistance
MC6135



Features

"Super" Nano Texture Technology

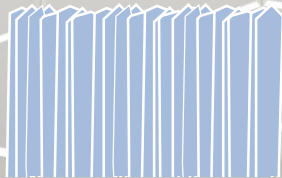
The standard Nano Texture Technology has been improved and developed to be an industry leading standard for crystal growth of Al₂O₃ coatings. This Super Nano Texture Technology increases tool life and wear resistance due to the fine, dense crystal growth process.



Conventional CVD inserts
Grain size and growth direction are uneven.



Nano Texture
Uniformity of the grain size and growth direction has improved.

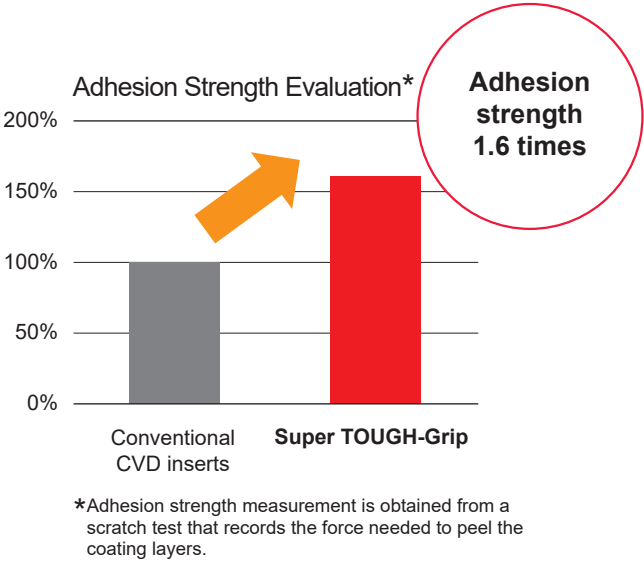
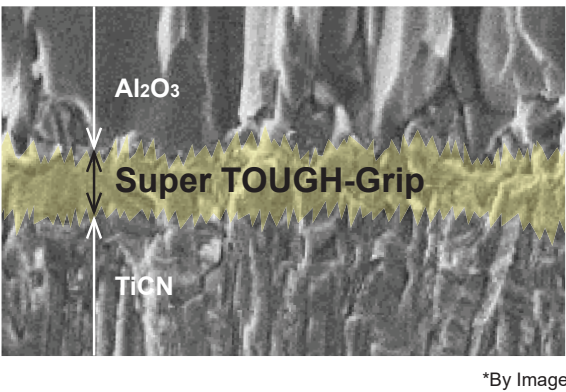


"Super" Nano Texture
Uniformity of the growth direction has drastically improved.

Crystal Orientation

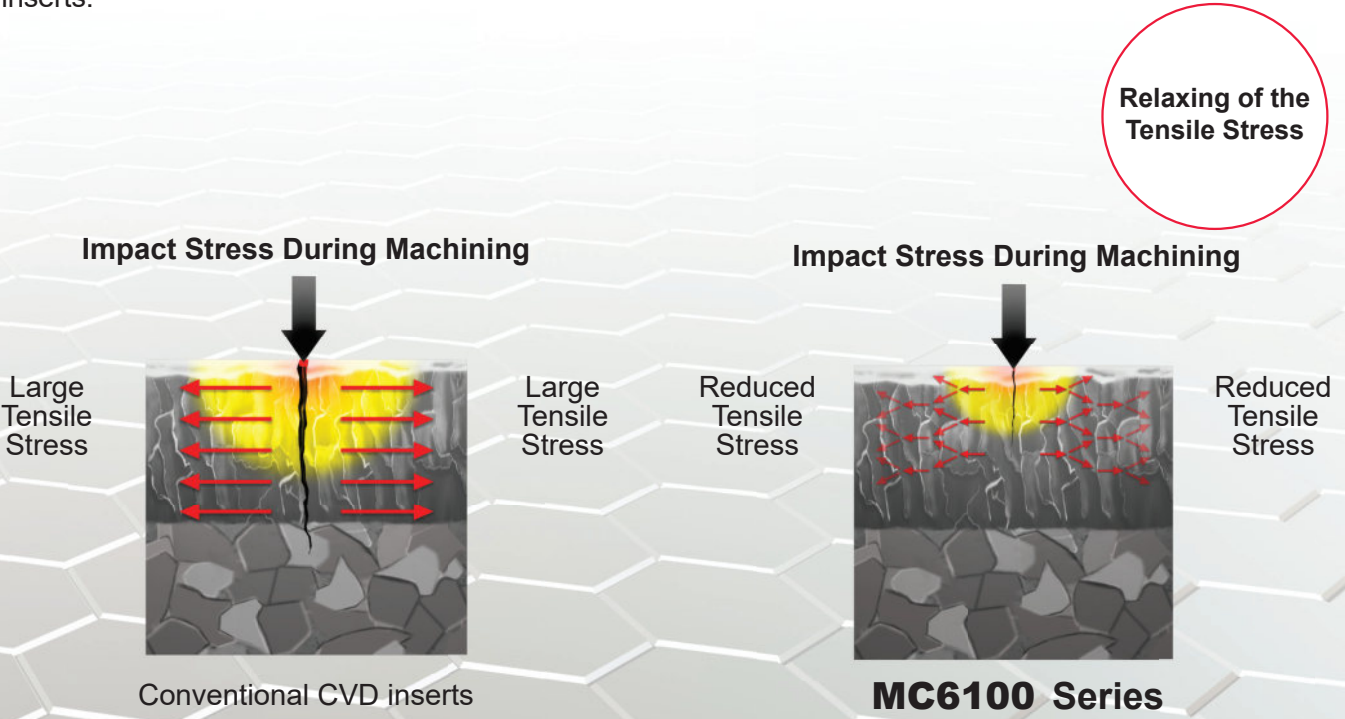
Super TOUGH-Grip

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



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.



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.

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

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

Outer Layer
Multiple Layers of Ti compounds and an Al₂O₃ Layer

"Super" Nano Texture Al₂O₃ Layer

Super TOUGH-Grip

Fine Granular TiCN Layer

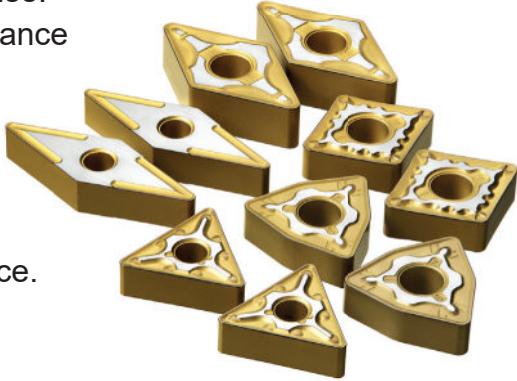
Better identification of corner use.

Achieves excellent wear resistance

Outstanding wear resistance especially at high temperatures.

Strong adhesion between the tough coating layers.

Coating for high wear resistance.

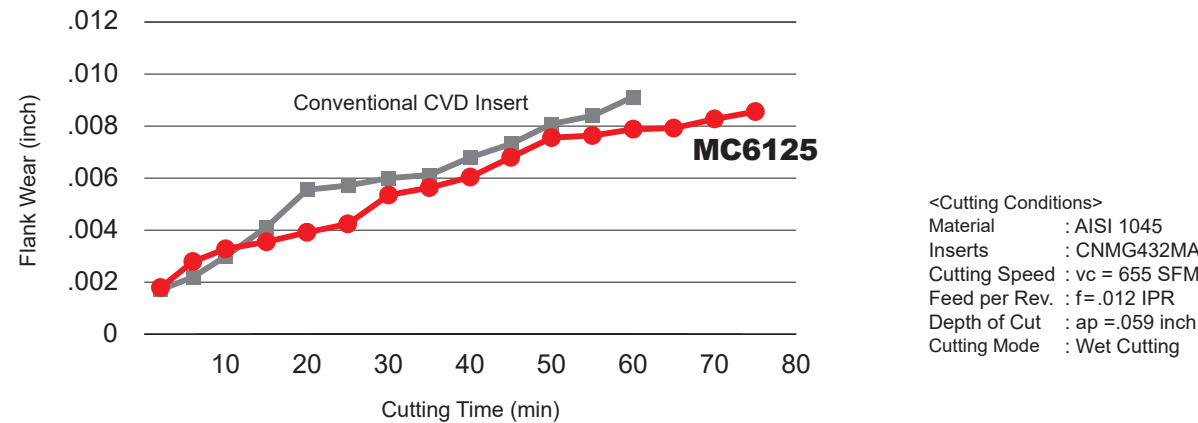


Special Smooth Surface Treatment

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

Machining 1045 : Comparison of Wear Resistance

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



CVD Coated Grade for Steel Turning

MC6115

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

Outer Layer

"Super" Nano Texture Al₂O₃ Layer

Super TOUGH-Grip

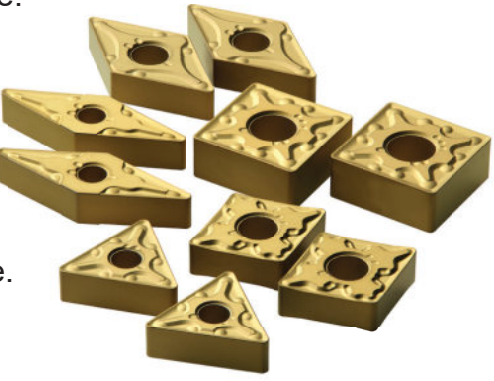
Fine Granular TiCN Layer

Better identification of corner use.

Outstanding wear resistance especially at high temperatures.

Strong adhesion between the tough coating layers.

Coating for high wear resistance.



Improved Outer Coating (Layer)

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

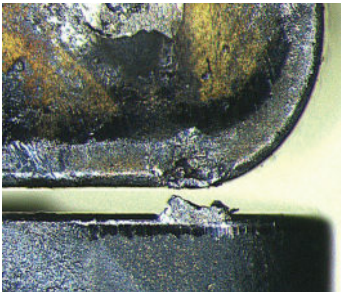
Example when machining 5120H

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

After 2 Minutes Machining



MC6115 MH Chipbreaker



Conventional CVD Insert

<Cutting Conditions>
Material : AISI 5120H 170HB
Inserts : CNMG432MH
Cutting Speed : vc = 655 SFM
Feed per Rev. : f=.012 IPR
Depth of Cut : ap=.059 inch
Cutting Mode : Dry Cutting

CVD Coated Grade for Steel Turning

MC6135 NEW

Optimal versatility for machining continuous through to intermittent applications.

Outer Layer

"Super" Nano Texture
Al₂O₃ Layer

Super TOUGH-Grip

Fine Granular
TiCN Layer

Better identification of corner use.

Outstanding wear resistance especially at high temperatures.

Strong adhesion between the tough coating layers.

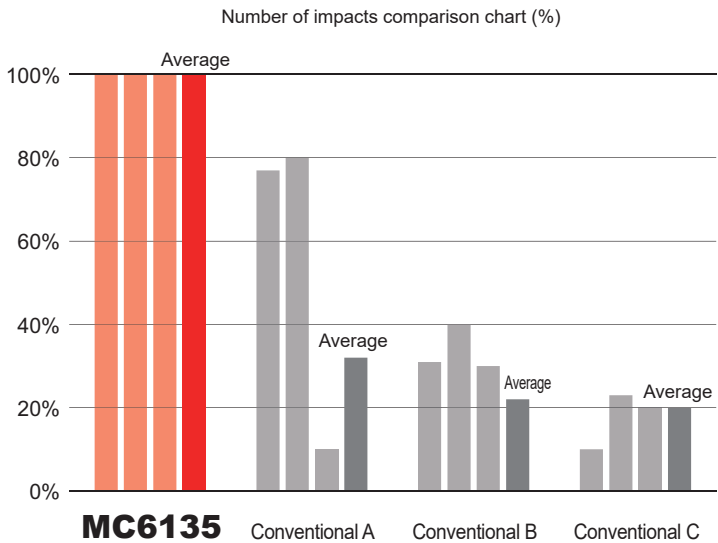
Coating for high wear resistance.

Thinner Coatings Optimized for General Purpose Machining

Industry-leading crystal orientation control technology enables thinner but still impact-resistant coatings provide improved chipping and wear resistance which is optimal for general-purpose use. (50% thinner compared to our conventional coating).

Machining 4140 : Comparison of Toughness During Interrupted Cutting

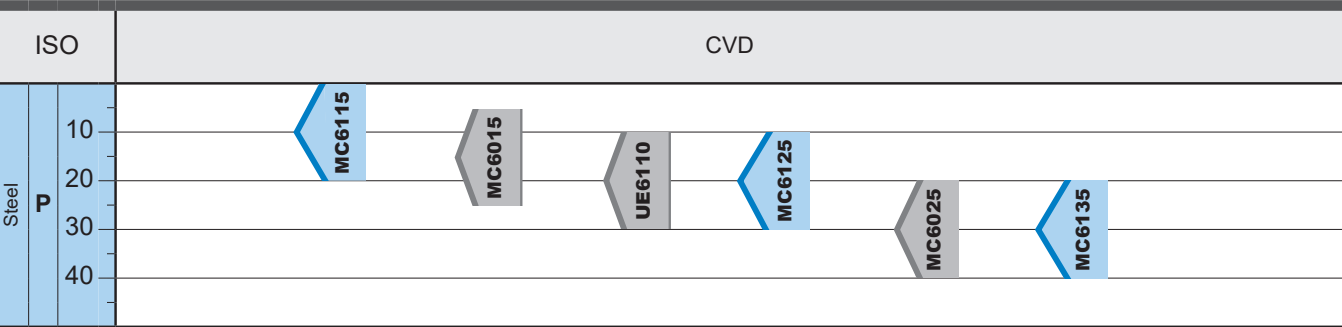
MC6135 shows high stability even during interrupted cutting and can be used over a wide area of applications.



<Cutting Conditions>
Material : AISI 4140
Inserts : CNMG432
Cutting Speed : vc=655 SFM
Feed per Rev. : f=.014 IPR
Depth of Cut : .098 inch
Cutting Mode : Wet Cutting

Pre-set tool life limit or until damage deteriorates the performance.

Application Range



Selection Criteria

Material		Cutting Mode	Grade
P	Steel	Continuous Cutting	MC6115
		Low	
		Medium	MC6125
		High	
		Interrupted Cutting	MC6135


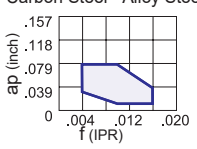

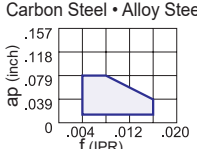

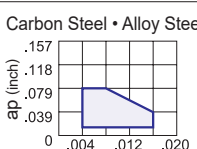

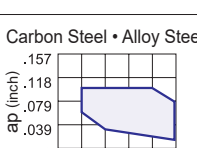

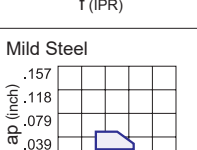

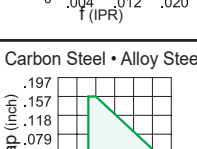
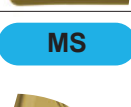
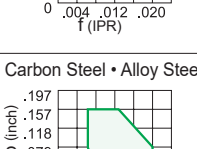
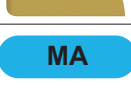
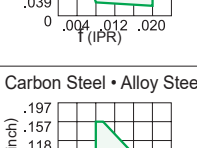

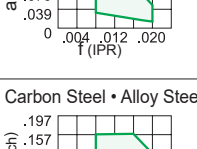
Chipbreaker System for Steel Turning


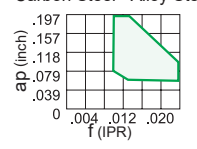

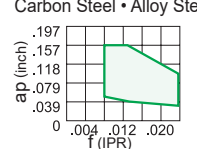

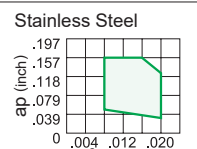

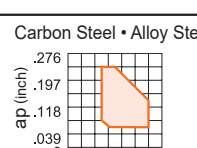

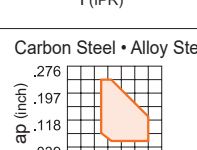

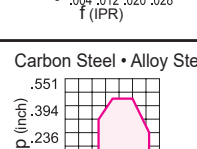
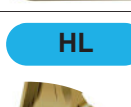
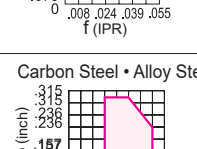

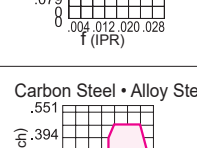
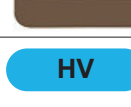
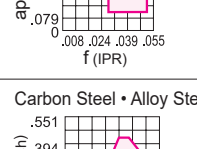
Negative Inserts

Application	Tolerance	Chipbreaker Name and Picture	Features	Cross Section Geometry
Finish Cutting	M	FP 	First recommendation for finishing carbon steel and alloy steel Controls chip clogging during high-feed cutting and prevents chips of soft materials from running onto their surfaces. Large rake angle suppress chatter vibration and deformation in machining of low rigidity workpiece.	Carbon Steel • Alloy Steel ap (inch) .157 .118 .079 .039 f (IPR) 0 .004 .008 .012 .020 20° Corner 20° Flank CNMG432FP
		FH 	First recommendation for finishing carbon steel and alloy steel Stable chip control even at small depths of cut.	Carbon Steel • Alloy Steel ap (inch) .118 .079 .039 f (IPR) 0 .004 .008 .012 .016 12° Corner 12° Flank CNMG432FH
		FS 	Alternative chipbreaker for finishing mild steel Stable chip control even at small depths of cut. Sharp edge gives best performance.	Mild Steel ap (inch) .118 .079 .039 f (IPR) 0 .004 .008 .012 .016 16° Corner 8° Flank CNMG432FS
		FY 	First recommendation for finishing mild steel Effectively controls adhesive chips. Suitable for mild steel finishing.	Mild Steel ap (inch) .118 .079 .039 f (IPR) 0 .004 .008 .012 .016 15° Corner 15° Flank CNMG432FY

Chipbreaker System for Steel Turning


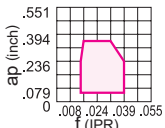

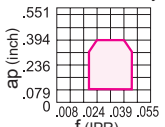
Negative Inserts

Application	Tolerance	Chipbreaker 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 area. The curved edge allows smooth chip discharge.	Carbon Steel • Alloy Steel  15° .004" Corner 11° .008" Flank CNMG432LP
		SH 	Alternative chipbreaker 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 materials in the 160–250HB range.	Carbon Steel • Alloy Steel  15° .008" Corner 15° .008" Flank CNMG432SH
		SA 	Alternative chipbreaker 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 materials in the 200–300HB range.	Carbon Steel • Alloy Steel  25° .012" Corner 25° .013" Flank CNMG432SA
		SW 	Wiper insert for light cutting of carbon steel, alloy steel, stainless steel and cast iron In comparison to conventional chipbreaker, 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° .006" Corner 18° .006" Flank CNMG432SW
		SY 	First recommendation for light cutting of mild steel Effectively controls adhesive chips. Suitable for mild steel light cutting.	Mild Steel  10° .008" Corner 10° .008" Flank CNMG432SY
Medium Cutting	M	MP 	First recommendation for medium cutting of carbon steel and alloy steel Suitable for medium to light cutting. Chipbreaker geometry appropriate for copying and back turning. Cutting edge geometry for an optimum balance of sharpness and fracture resistance.	Carbon Steel • Alloy Steel  15° .006" Corner 11° .008" Flank CNMG432MP
		MS 	Alternative chipbreaker for medium cutting The sharp edge gives best performance. Flat top chipbreaker shape offers high edge strength. Applicable to grades other than MP9005, MP9015, MP9025, MT9015	Carbon Steel • Alloy Steel  25° .020" Corner 25° .020" Flank CNMG432MS
		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° .008" Corner 22° .008" Flank CNMG432MA
		MH 	Alternative chipbreaker 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° .010" Corner 16° .014" Flank CNMG432MH


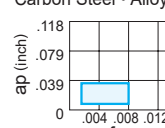

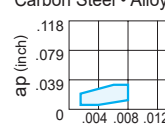

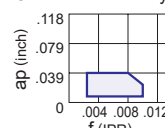

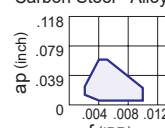

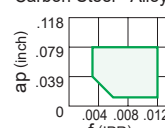

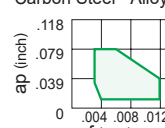
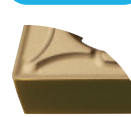
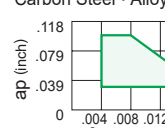

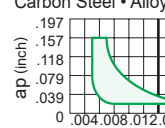

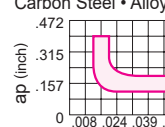
Application	Tolerance	Chipbreaker Name and Picture	Features	Cross Section Geometry
Medium Cutting	M	Standard 	Alternative chipbreaker for medium cutting of carbon steel and alloy steel Flat land offers high edge strength. Flat top chipbreaker shape offers high edge strength.	Carbon Steel • Alloy Steel  15° .010" Corner 15° .010" Flank CNMG432
		MW 	Wiper insert for medium cutting of 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° .010" Corner 19° .012" Flank CNMG432MW
		R/L-ES 	Alternative chipbreaker for medium cutting of stainless steel Good balance of edge strength and sharpness. Right or left hand chipbreaker for unidirectional chip control.	Stainless Steel  15° .006" Flank TNMG321RES
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° .013" Corner 3° .013" Flank CNMG432RP
		GH 	Alternative chipbreaker 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° .013" Corner 18° .013" Flank CNMG432GH
Heavy Cutting	M	HX 	First recommendation for heavy cutting of carbon steel and alloy steel Covers the medium range of the heavy cutting region. Owing to the straight edge and chamfer, it gives a balance of sharpness and strength. Variable land and a wavy chipbreaker for good chip control.	Carbon Steel • Alloy Steel  23° .017" Corner 21° .020" Flank CNMM644HX
		HL 	First recommendation for heavy cutting Alternative chipbreaker for heavy cutting of carbon steel and alloy steel Low resistance due to narrow flat land. Achieves high chip breaking ability.	Carbon Steel • Alloy Steel  15° .013" Flank CNMM644HL
		HR 	Alternative chipbreaker for heavy cutting of carbon steel and alloy steel High cutting edge strength. Excellent chip discharge even with high feed and high depth of cut.	Carbon Steel • Alloy Steel  20° .023" Flank CNMM866HR
		HV 	Alternative chipbreaker for heavy cutting of carbon steel and alloy steel Covers the upper end of the heavy cutting area. Wide land and large chamfer offer high edge strength. A wide chipbreaker prevents chip jamming.	Carbon Steel • Alloy Steel  20° .027" Corner 20° .027" Flank SNMM644HV

Chipbreaker System for Steel Turning

Negative Inserts


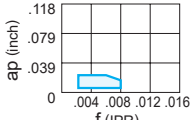
Application	Tolerance	Chipbreaker Name and Picture	Features	Cross Section Geometry
Heavy Cutting	M	HZ 	Alternative chipbreaker for heavy cutting of carbon steel and alloy steel Covers the lower end of the heavy cutting area. Low cutting resistance due to positive land and curved edge. Teardrop dots improve chip control without increasing cutting resistance.	Carbon Steel • Alloy Steel  22° .017" Corner 22° .017" Flank CNMM644HZ
		HM 	Alternative chipbreaker for heavy cutting of carbon steel and alloy steel and stainless steel Flat land provides outstanding balance between cutting edge strength and sharpness.	Carbon Steel • Alloy Steel  16° .013" Flank CNMM644HM

5°, 7° Positive Inserts


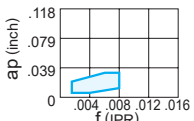

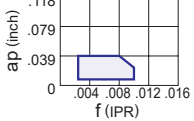

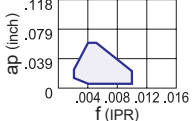

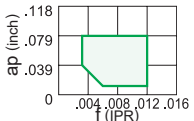

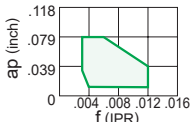

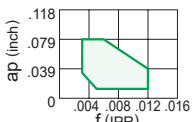

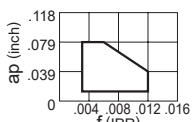
Application	Tolerance	Chipbreaker Name and Picture	Features	Cross Section Geometry
Finish Cutting	M	FP 	First recommendation for finishing carbon steel, alloy steel and mild steel Chipbreaker protrusion at the corner tip controls chips even at small depth of cut. Maintains the edge strength at the corner and prevents sudden fractures.	Carbon Steel • Alloy Steel  6° Corner 6° Flank CCMT32.51FP
		FV 	Alternative chipbreaker 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 CCMT32.51FV
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. Chipbreaker protrusion suitable for depth of cut area achieves a wide range of chip control.	Carbon Steel • Alloy Steel  18° Corner 8° Flank CCMT32.52LP
		SW 	Wiper insert for light cutting of carbon steel, alloy steel, mild steel and stainless steel In comparison to conventional chipbreakers, the surface finish is maintained even if the feed per revolution is doubled. Positive land improves sharpness.	Carbon Steel • Alloy Steel  20° .005" Corner 16° .005" Flank CCMT32.51SW
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° .004" Corner 18° .004" Flank CCMT32.52MP
		MV 	Alternative chipbreaker 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 chipbreaker and round shape in the rake face achieve a wide range of chip discharge.	Carbon Steel • Alloy Steel  20° .007" Corner 20° .007" Flank CCMH21.51MV
		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° .008" Corner 18° .008" Flank CCMT32.52MW
		Standard 	Alternative chipbreaker 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° .008" Flank RCMX1204M0
Heavy Cutting	M	RR 	Chipbreaker for heavy cutting of carbon steel and alloy steel A wide groove chipbreaker prevents chips from jamming at large depths of cut. Small dimples improve chip control at small depths of cut.	Carbon Steel • Alloy Steel  28° .012" Flank RCMX2006M0-RR

Chipbreaker System for Steel Turning

7° Positive Inserts

Application	Tolerance	Chipbreaker Name and Picture	Features	Cross Section Geometry
Finish Cutting	M	SVX 	Alternative chipbreaker for light cutting of carbon steel and alloy steel Chip control is improved by having a chipbreaker geometry suitable for copying.	Carbon Steel • Alloy Steel  18° Corner 8° Flank XCMT221SVX

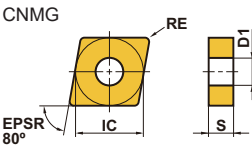
11° Positive Inserts

Application	Tolerance	Chipbreaker 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  18° Corner 8° Flank CPMH321FV
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. Chipbreaker protrusion suitable for depth of cut area achieves a wide range of chip control.	Carbon Steel • Alloy Steel  18° Corner 8° Flank CPMH321LP
		SW 	Wiper insert for light cutting of carbon steel, alloy steel, mild steel and stainless steel In comparison to conventional chipbreakers, the surface finish is maintained even if the feed per revolution is doubled. Positive land improves sharpness.	Carbon Steel • Alloy Steel  20° Corner 16° Flank TPMX1.81.52SW
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° Corner 18° Flank CPMH322MP
		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 chipbreaker in the rake face achieve a wide range of chip discharge.	Carbon Steel • Alloy Steel  20° Corner 20° Flank CPMH321MV
		Standard 	Alternative chipbreaker for medium cutting of carbon steel, alloy steel and stainless steel Standard, general purpose chipbreaker.	Carbon Steel • Alloy Steel  10° Corner 10° Flank CPMH321
		Flat Top 	Chipbreaker for Heavy cutting Flat top. Most effective for unstable machining due to its high edge strength.	Cast Iron  0° Corner SPMN322

MC6100 Series

Negative Inserts (With Hole)

M Class



Finish	Finish	Finish	Finish	Light	Light
FP	FH	FS	FY	LP	SH
Light	Light	Light	Medium	Medium	Medium
SA	SW	SY	MP	MS	MA
(Wiper)					

Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
CNMG430.5FP	F	●	●	●	.500	.187	.008	.203
CNMG431FP	F	●	●	★	.500	.187	.016	.203
CNMG432FP	F	●	●	●	.500	.187	.031	.203
CNMG433FP	F	★	★	★	.500	.187	.047	.203
CNMG430.5FH	F	●	●	●	.500	.187	.008	.203
CNMG431FH	F	★	●	★	.500	.187	.016	.203
CNMG432FH	F	●	●		.500	.187	.031	.203
CNMG431FS	F		★	★	.500	.187	.016	.203
CNMG431FY	F	★	★	★	.500	.187	.016	.203
CNMG432FY	F	★	★	●	.500	.187	.031	.203
CNMG431LP	L	●	●	●	.500	.187	.016	.203
CNMG432LP	L	●	●	●	.500	.187	.031	.203
CNMG433LP	L	●	●	★	.500	.187	.047	.203
CNMG32.51SH	L	★	★		.375	.156	.016	.150
CNMG32.52SH	L	★	★		.375	.156	.031	.150
CNMG431SH	L	●	●	★	.500	.187	.016	.203
CNMG432SH	L	●	●	●	.500	.187	.031	.203
CNMG433SH	L	●	●	★	.500	.187	.047	.203
CNMG431SA	L	●	●	●	.500	.187	.016	.203
CNMG432SA	L	●	●	●	.500	.187	.031	.203
CNMG433SA	L	●	●	★	.500	.187	.047	.203
CNMG431SW	L	●	●		.500	.187	.016	.203
CNMG432SW	L	●	●		.500	.187	.031	.203
CNMG433SW	L	●	●		.500	.187	.047	.203
CNMG431SY	L	★	★	★	.500	.187	.016	.203
CNMG432SY	L	★	★	★	.500	.187	.031	.203

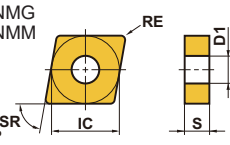
Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
CNMG431MP	M	●	●	●	.500	.187	.016	.203
CNMG432MP	M	●	●	●	.500	.187	.031	.203
CNMG433MP	M	●	●	●	.500	.187	.047	.203
CNMG434MP	M	●	●	●	.500	.187	.063	.203
CNMG542MP	M	●	●	●	.625	.250	.031	.250
CNMG543MP	M	●	●	●	.625	.250	.047	.250
CNMG544MP	M	●	●	★	.625	.250	.063	.250
CNMG322MS	M	●	●		.375	.125	.031	.150
CNMG32.52MS	M	★	★		.375	.156	.031	.150
CNMG431MS	M	●	★	★	.500	.187	.016	.203
CNMG432MS	M	●	●	★	.500	.187	.031	.203
CNMG433MS	M	●	●		.500	.187	.047	.203
CNMG431MA	M	●	●	●	.500	.187	.016	.203
CNMG432MA	M	●	●	●	.500	.187	.031	.203
CNMG433MA	M	●	●	●	.500	.187	.047	.203
CNMG434MA	M	●	●	★	.500	.187	.063	.203
CNMG542MA	M	●	●	●	.625	.250	.031	.250
CNMG543MA	M	●	●	●	.625	.250	.047	.250
CNMG544MA	M	●	●	★	.625	.250	.063	.250
CNMG643MA	M	●	●	●	.750	.250	.047	.312
CNMG644MA	M	●	●	●	.750	.250	.063	.312












● = NEW

● : USA Stock ★ : Stocked in Japan
(10 inserts in one case)

MC6100 Series

Negative Inserts (With Hole)
M Class

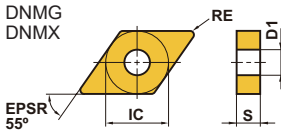














Medium	Medium	Medium	Rough	Rough	
MH	Standard	MW	RP	GH	
					
		(Wiper)			
Heavy	Heavy	Heavy	Heavy	Heavy	Heavy
HX	HL	HR	HV	HZ	HM
					

(inch)

Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
CNMG431MH	M	●	●	●	.500	.187	.016	.203
CNMG432MH	M	●	●	●	.500	.187	.031	.203
CNMG433MH	M	●	●	●	.500	.187	.047	.203
CNMG434MH	M	●	●	★	.500	.187	.063	.203
CNMG542MH	M	●	●	●	.625	.250	.031	.250
CNMG543MH	M	●	●	●	.625	.250	.047	.250
CNMG544MH	M	●	●	●	.625	.250	.063	.250
CNMG643MH	M	●	●	●	.750	.250	.047	.312
CNMG644MH	M	●	●	★	.750	.250	.063	.312
CNMG322	M	★	★	●	.375	.125	.031	.150
CNMG32.51	M	★	★	★	.375	.156	.016	.150
CNMG32.52	M	★	★	★	.375	.156	.031	.150
CNMG431	M	●	●	●	.500	.187	.016	.203
CNMG432	M	●	●	●	.500	.187	.031	.203
CNMG433	M	●	●	●	.500	.187	.047	.203
CNMG434	M	●	●	★	.500	.187	.063	.203
CNMG542	M	●	●	★	.625	.250	.031	.250
CNMG543	M	●	●	●	.625	.250	.047	.250
CNMG544	M	●	●	★	.625	.250	.063	.250
CNMG642	M	●	●	●	.750	.250	.031	.312
CNMG643	M	●	●	●	.750	.250	.047	.312
CNMG644	M	●	●	★	.750	.250	.063	.312
CNMG432MW	M	●	●	●	.500	.187	.031	.203
CNMG433MW	M	●	●	★	.500	.187	.047	.203
CNMG432RP	R	●	●	●	.500	.187	.031	.203
CNMG433RP	R	●	●	●	.500	.187	.047	.203
CNMG434RP	R	●	●	●	.500	.187	.063	.203
CNMG543RP	R	●	●	●	.625	.250	.047	.250
CNMG544RP	R	●	●	★	.625	.250	.063	.250
CNMG643RP	R	●	●	●	.750	.250	.047	.312
CNMG644RP	R	●	●	●	.750	.250	.063	.312
CNMG432GH	R	●	●	●	.500	.187	.031	.203
CNMG433GH	R	●	●	●	.500	.187	.047	.203
CNMG434GH	R	●	●	●	.500	.187	.063	.203
CNMG543GH	R	●	●	●	.625	.250	.047	.250
CNMG544GH	R	●	●	●	.625	.250	.063	.250
CNMG643GH	R	●	●	●	.750	.250	.047	.312
CNMG644GH	R	●	●	★	.750	.250	.063	.312

● : USA Stock ★ : Stocked in Japan
(10 inserts in one case)



Finish	Finish	Finish	Finish	Light	Light
FP	FH	FS	FY	LP	SH
					
Light	Light	Light	Medium	Medium	Medium
SA	SW	SY	MP	MS	MA
					
	(Wiper)				

(inch)

Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
DNMG430.5FP	F	●	●	●	.500	.187	.008	.203
DNMG431FP	F	●	●	★	.500	.187	.016	.203
DNMG432FP	F	●	●	●	.500	.187	.031	.203
DNMG433FP	F	●	●	★	.500	.187	.047	.203
DNMG440.5FP	F	★	★	★	.500	.250	.008	.203
DNMG441FP	F	★	★	★	.500	.250	.016	.203
DNMG442FP	F	★	★	★	.500	.250	.031	.203
DNMG443FP	F	★	★	★	.500	.250	.047	.203
DNMG430.5FH	F	●	●	★	.500	.187	.008	.203
DNMG431FH	F	●	●	●	.500	.187	.016	.203
DNMG432FH	F	●	●	●	.500	.187	.031	.203
DNMG440.5FH	F	★	★	★	.500	.250	.008	.203
DNMG441FH	F	★	★	★	.500	.250	.016	.203
DNMG442FH	F	★	★	★	.500	.250	.031	.203
DNMG432FS	F	●	★	★	.500	.187	.031	.203
DNMG431FY	F	★	★	★	.500	.187	.016	.203
DNMG432FY	F	★	★	●	.500	.187	.031	.203
DNMG442FY	F	★	★	★	.500	.250	.031	.203
DNMG331LP	L	●	●	★	.375	.187	.016	.150
DNMG332LP	L	●	●	●	.375	.187	.031	.150
DNMG431LP	L	●	●	●	.500	.187	.016	.203
DNMG432LP	L	●	●	●	.500	.187	.031	.203
DNMG433LP	L	●	●	●	.500	.187	.047	.203
DNMG441LP	L	●	●	★	.500	.250	.016	.203
DNMG442LP	L	●	●	★	.500	.250	.031	.203
DNMG443LP	L	●	●	★	.500	.250	.047	.203
DNMG331SH	L	★	★	●	.375	.187	.016	.150
DNMG332SH	L	●	●	●	.375	.187	.031	.150
DNMG431SH	L	●	●	★	.500	.187	.016	.203
DNMG432SH	L	●	●	★	.500	.187	.031	.203
DNMG433SH	L	●	●	★	.500	.187	.047	.203
DNMG441SH	L	●	●	●	.500	.250	.016	.203
DNMG442SH	L	●	●	●	.500	.250	.031	.203
DNMG443SH	L	●	●	●	.500	.250	.047	.203
DNMG431SA	L	●	●	●	.500	.187	.016	.203
DNMG432SA	L	●	●	●	.500	.187	.031	.203
DNMG433SA	L	●	●	★	.500	.187	.047	.203
DNMG441SA	L	●	●	★	.500	.250	.016	.203
DNMG442SA	L	●	●	★	.500	.250	.031	.203
DNMG443SA	L	●	●	★	.500	.250	.047	.203

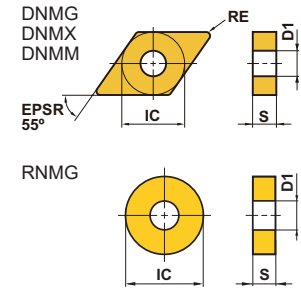
Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
DNMX331SW	L	●	★	●	.375	.187	.016	.150
DNMX332SW	L	●	★	●	.375	.187	.031	.150
DNMX431SW	L	●	★	●	.500	.187	.016	.203
DNMX432SW	L	●	●	●	.500	.187	.031	.203
DNMX433SW	L	●	★	●	.500	.187	.047	.203
DNMX441SW	L	★	★	●	.500	.250	.016	.203
DNMX442SW	L	★	★	●	.500	.250	.031	.203
DNMX443SW	L	★	★	●	.500	.250	.047	.203
DNMG431SY	L	★	★	★	.500	.187	.016	.203
DNMG432SY	L	★	★	★	.500	.187	.031	.203
DNMG442SY	L	★	★	★	.500	.250	.031	.203
DNMG431MP	M	●	●	●	.500	.187	.016	.203
DNMG432MP	M	●	●	●	.500	.187	.031	.203
DNMG433MP	M	●	●	●	.500	.187	.047	.203
DNMG434MP	M	●	●	★	.500	.187	.063	.203
DNMG441MP	M	●	●	★	.500	.250	.016	.203
DNMG442MP	M	●	●	★	.500	.250	.031	.203
DNMG443MP	M	●	●	★	.500	.250	.047	.203
DNMG444MP	M	●	●	★	.500	.250	.063	.203
DNMG332MS	M	●	●	●	.375	.187	.031	.150
DNMG431MS	M	★	★	★	.500	.187	.016	.203
DNMG432MS	M	●	●	●	.500	.187	.031	.203
DNMG433MS	M	★	★	●	.500	.187	.047	.203
DNMG441MS	M	★	★	●	.500	.250	.016	.203
DNMG442MS	M	★	★	●	.500	.250	.031	.203
DNMG443MS	M	★	★	●	.500	.250	.047	.203
DNMG331MA	M	●	●	★	.375	.187	.016	.150
DNMG332MA	M	●	●	●	.375	.187	.031	.150
DNMG333MA	M	★	★	★	.375	.187	.047	.150
DNMG431MA	M	●	●	●	.500	.187	.016	.203
DNMG432MA	M	●	●	●	.500	.187	.031	.203
DNMG433MA	M	●	●	●	.500	.187	.047	.203
DNMG441MA	M	●	●	★	.500	.250	.016	.203
DNMG442MA	M	●	●	★	.500	.250	.031	.203
DNMG443MA	M	●	●	★	.500	.250	.047	.203
DNMG444MA		★	★	●	.500	.250	.063	.203

● = NEW

MC6100 Series

Negative Inserts (With Hole)

M Class



Medium	Medium	Medium	Rough	Rough
MH	Standard	MW	RP	GH
		(Wiper)		
Heavy	Heavy		Medium	
HL	HZ		Standard	

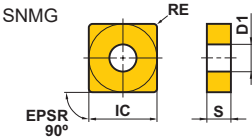
(inch)

Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
DNMG431MH	M	●	●	●	.500	.187	.016	.203
DNMG432MH	M	●	●	●	.500	.187	.031	.203
DNMG433MH	M	●	●	●	.500	.187	.047	.203
DNMG441MH	M	●	●	●	.500	.250	.016	.203
DNMG442MH	M	●	●	★	.500	.250	.031	.203
DNMG443MH	M	●	●	★	.500	.250	.047	.203
DNMG332	M	★	★	●	.375	.187	.031	.150
DNMG431	M	●	●	★	.500	.187	.016	.203
DNMG432	M	●	●	●	.500	.187	.031	.203
DNMG433	M	●	●	★	.500	.187	.047	.203
DNMG434	M	●	●	★	.500	.187	.063	.203
DNMG441	M	●	●	★	.500	.250	.016	.203
DNMG442	M	●	●	★	.500	.250	.031	.203
DNMG443	M	●	●	★	.500	.250	.047	.203
DNMG444	M	★	★	★	.500	.250	.063	.203
DNMX432MW	M	●	●	●	.500	.187	.031	.203
DNMX433MW	M	●	★	●	.500	.187	.047	.203
DNMX442MW	M	★	★	●	.500	.250	.031	.203
DNMX443MW	M	★	★	●	.500	.250	.047	.203
DNMG432RP	R	●	●	●	.500	.187	.031	.203
DNMG433RP	R	●	●	●	.500	.187	.047	.203
DNMG434RP	R	●	●	●	.500	.187	.063	.203
DNMG442RP	R	●	●	★	.500	.250	.031	.203
DNMG443RP	R	●	●	★	.500	.250	.047	.203
DNMG444RP	R	●	●	★	.500	.250	.063	.203
DNMG432GH	R	●	●	★	.500	.187	.031	.203
DNMG433GH	R	●	●	★	.500	.187	.047	.203
DNMG442GH	R	●	●	★	.500	.250	.031	.203
DNMG443GH	R	●	●	★	.500	.250	.047	.203

Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
DNMM432HL	H		★	★	.500	.187	.031	.203
DNMM433HL	H		★	★	.500	.187	.047	.203
DNMM442HL	H		★	★	.500	.250	.031	.203
DNMM443HL	H		★	★	.500	.250	.047	.203
DNMM432HZ	H	★	★	★	.500	.187	.031	.203
DNMM433HZ	H	★	★	★	.500	.187	.047	.203
DNMM442HZ	H	★	★	★	.500	.250	.031	.203
DNMM443HZ	H	★	★	★	.500	.250	.047	.203

Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
RNMG43	M	●	●	★	.472	.187	-	.203

● = NEW



Finish	Finish	Light	Light	Light	Light
FP	FH	LP	SH	SA	SY
Medium	Medium	Medium	Medium	Medium	
MP	MS	MA	MH	Standard	

(inch)

Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
SNMG431FP	F	★	★	★	.500	.187	.016	.203
SNMG432FP	F	★	★	★	.500	.187	.031	.203
SNMG433FP	F	★	★	★	.500	.187	.047	.203
SNMG431FH	F	★	★	●	.500	.187	.016	.203
SNMG432FH	F	★	★	●	.500	.187	.031	.203
SNMG431LP	L	●	●	★	.500	.187	.016	.203
SNMG432LP	L	●	●	●	.500	.187	.031	.203
SNMG433LP	L	●	●	★	.500	.187	.047	.203
SNMG431SH	L	★	★	●	.500	.187	.016	.203
SNMG432SH	L	●	●	●	.500	.187	.031	.203
SNMG433SH	L	★	★	★	.500	.187	.047	.203
SNMG431SA	L	★	★	●	.500	.187	.016	.203
SNMG432SA	L	●	●	★	.500	.187	.031	.203
SNMG433SA	L	★	★	●	.500	.187	.047	.203
SNMG432SY	L	★	★	★	.500	.187	.031	.203
SNMG431MP	M	●	●	★	.500	.187	.016	.203
SNMG432MP	M	●	●	★	.500	.187	.031	.203
SNMG433MP	M	●	●	●	.500	.187	.047	.203
SNMG431MS	M	★	★	●	.500	.187	.016	.203
SNMG432MS	M	★	★	★	.500	.187	.031	.203
SNMG433MS	M	★	★	●	.500	.187	.047	.203
SNMG431MA	M	●	●	★	.500	.187	.016	.203
SNMG432MA	M	●	●	●	.500	.187	.031	.203
SNMG433MA	M	●	●	●	.500	.187	.047	.203
SNMG542MA	M	●	●	★	.625	.250	.031	.250
SNMG543MA	M	●	●	●	.625	.250	.047	.250
SNMG544MA	M	●	●	★	.625	.250	.063	.250
SNMG643MA	M	●	●	★	.750	.250	.047	.312
SNMG644MA	M	●	●	●	.750	.250	.063	.312
SNMG432MH	M	●	●	●	.500	.187	.031	.203
SNMG433MH	M	●	●	●	.500	.187	.047	.203
SNMG643MH	M	●	●	●	.750	.250	.047	.312
SNMG644MH	M	●	●	●	.750	.250	.063	.312

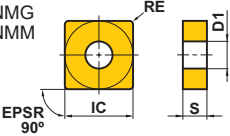
Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
SNMG321	M	★	★	★	.375	.125	.016	.150
SNMG322	M	●	●	★	.375	.125	.031	.150
SNMG431	M	●	●	★	.500	.187	.016	.203
SNMG432	M	●	●	●	.500	.187	.031	.203
SNMG433	M	●	●	★	.500	.187	.047	.203
SNMG434	M	●	★	★	.500	.187	.063	.203
SNMG435	M	★	★	★	.500	.187	.079	.203
SNMG543	M	●	●	●	.625	.250	.047	.250
SNMG544	M	★	●	●	.625	.250	.063	.250
SNMG643	M	●	●	●	.750	.250	.047	.312
SNMG644	M	●	●	●	.750	.250	.063	.312

● = NEW

● : USA Stock ★ : Stocked in Japan
(10 inserts in one case)

MC6100 Series

Negative Inserts (With Hole)
M Class

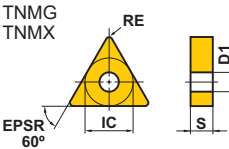


Rough	Rough				
RP	GH				
Heavy	Heavy	Heavy	Heavy	Heavy	Heavy
HX	HL	HR	HV	HZ	HM

(inch)

Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
SNMG432RP	R	●	●	★	.500	.187	.031	.203
SNMG433RP	R	●	●	●	.500	.187	.047	.203
SNMG434RP	R	●	●	●	.500	.187	.063	.203
SNMG543RP	R	●	●	●	.625	.250	.047	.250
SNMG544RP	R	●	●	●	.625	.250	.063	.250
SNMG643RP	R	●	●	●	.750	.250	.047	.312
SNMG644RP	R	●	●	●	.750	.250	.063	.312
SNMG432GH	R	●	●	★	.500	.187	.031	.203
SNMG433GH	R	●	●	★	.500	.187	.047	.203
SNMG434GH	R	●	●		.500	.187	.063	.203
SNMG543GH	R	●	●		.625	.250	.047	.250
SNMG544GH	R	★	★		.625	.250	.063	.250
SNMG643GH	R	●	●		.750	.250	.047	.312
SNMG644GH	R	●	●		.750	.250	.063	.312
SNMM432HX	H		★	★	.500	.187	.031	.203
SNMM433HX	H		★	★	.500	.187	.047	.203
SNMM543HX	H		★	★	.625	.250	.047	.250
SNMM643HX	H	★	★	★	.750	.250	.047	.312
SNMM644HX	H	★	★	★	.750	.250	.063	.312
SNMM646HX	H	★	★	★	.750	.250	.094	.312
SNMM856HX	H	★	★	★	1.000	.313	.094	.359
SNMM866HX	H	★	★	★	1.000	.375	.094	.359
SNMM432HL	H		★	★	.500	.187	.031	.203
SNMM433HL	H		★	★	.500	.187	.047	.203
SNMM543HL	H		★	★	.625	.250	.047	.250
SNMM643HL	H		★	★	.750	.250	.047	.312
SNMM644HL	H		★	★	.750	.250	.063	.312
SNMM646HL	H		★	★	.750	.250	.094	.312
SNMM856HR	H	★	★	●	1.000	.313	.094	.359
SNMM866HR	H	★	★	★	1.000	.375	.094	.359
SNMM644HV	H	★	★	★	.750	.250	.063	.312
SNMM646HV	H	★	★	★	.750	.250	.094	.312
SNMM856HV	H	★	★	★	1.000	.313	.094	.359
SNMM866HV	H	★	●	●	1.000	.375	.094	.359

● : USA Stock ★ : Stocked in Japan
(10 inserts in one case)



Finish	Finish	Finish	Finish	Light	Light
FP	FH	FS	FY	LP	SH
Light	Light	Light	Medium	Medium	Medium
SA	SW	SY	MP	MS	MA
	(Wiper)				

(inch)

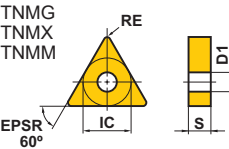
Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
TNMG330.5FP	F	★	★	★	.375	.187	.008	.150
TNMG331FP	F	★	★	★	.375	.187	.016	.150
TNMG332FP	F	●	★	★	.375	.187	.031	.150
TNMG333FP	F	★	★	★	.375	.187	.047	.150
TNMG330.5FH	F	★	★	★	.375	.187	.008	.150
TNMG331FH	F	★	★		.375	.187	.016	.150
TNMG332FH	F	★	★	★	.375	.187	.031	.150
TNMG331FS	F		★	★	.375	.187	.016	.150
TNMG332FS	F		★	★	.375	.187	.031	.150
TNMG331FY	F	★	★	★	.375	.187	.016	.150
TNMG332FY	F	★	★	★	.375	.187	.031	.150
TNMG331LP	L	●	●	●	.375	.187	.016	.150
TNMG332LP	L	●	●	●	.375	.187	.031	.150
TNMG333LP	L	●	●	★	.375	.187	.047	.150
TNMG432LP	L	●	●	★	.500	.187	.031	.203
TNMG433LP	L	●	●	★	.500	.187	.047	.203
TNMG331SH	L	●	●	★	.375	.187	.016	.150
TNMG332SH	L	●	●	★	.375	.187	.031	.150
TNMG432SH	L	●	●		.500	.187	.031	.203
TNMG331SA	L	●	●	★	.375	.187	.016	.150
TNMG332SA	L	●	●	●	.375	.187	.031	.150
TNMG333SA	L	●	●	★	.375	.187	.047	.150
TNMG432SA	L	●	●	●	.500	.187	.031	.203
TNMG433SA	L	●	●		.500	.187	.047	.203
TNMX331SW	L	●	★		.375	.187	.016	.150
TNMX332SW	L	●	●		.375	.187	.031	.150
TNMG331SY	L	★	★	★	.375	.187	.016	.150
TNMG332SY	L	★	★	★	.375	.187	.031	.150









Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
TNMG331MP	M	●	●	★	.375	.187	.016	.150
TNMG332MP	M	●	●	★	.375	.187	.031	.150
TNMG333MP	M	●	●	★	.375	.187	.047	.150
TNMG432MP	M	●	●	●	.500	.187	.031	.203
TNMG433MP	M	●	●	●	.500	.187	.047	.203
TNMG331MS	M	★	★		.375	.187	.016	.150
TNMG332MS	M	●	★	★	.375	.187	.031	.150
TNMG333MS	M	★	★		.375	.187	.047	.150
TNMG432MS	M	●	★		.500	.187	.031	.203
TNMG331MA	M	●	●	●	.375	.187	.016	.150
TNMG332MA	M	●	●	●	.375	.187	.031	.150
TNMG333MA	M	●	●	★	.375	.187	.047	.150
TNMG432MA	M	●	●	●	.500	.187	.031	.203
TNMG433MA	M	●	●	●	.500	.187	.047	.203
TNMG542MA	M	●	●	●	.625	.250	.031	.250
TNMG543MA	M	●	●	●	.625	.250	.047	.250

● = NEW

MC6100 Series

Negative Inserts (With Hole)
M Class



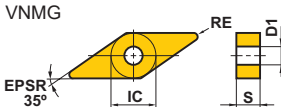
Medium	Medium	Medium	Medium
MH	Standard	MW	ES
			
		(Wiper)	
Rough	Rough	Heavy	Heavy
RP	GH	HL	HZ
			












(inch)

Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
TNMG331MH	M	●	●	★	.375	.187	.016	.150
TNMG332MH	M	●	●	●	.375	.187	.031	.150
TNMG333MH	M	●	●	★	.375	.187	.047	.150
TNMG432MH	M	●	●	●	.500	.187	.031	.203
TNMG433MH	M	●	●	●	.500	.187	.047	.203
TNMG221	M	★	★	★	.250	.125	.016	.089
TNMG222	M	●	●	★	.250	.125	.031	.089
TNMG321	M	●	●	●	.375	.125	.016	.150
TNMG322	M	●	●	●	.375	.125	.031	.150
TNMG331	M	●	●	★	.375	.187	.016	.150
TNMG332	M	●	●	●	.375	.187	.031	.150
TNMG333	M	●	●	★	.375	.187	.047	.150
TNMG334	M	●	★	★	.375	.187	.063	.150
TNMG431	M	●	●	●	.500	.187	.016	.203
TNMG432	M	●	●	●	.500	.187	.031	.203
TNMG433	M	●	●	●	.500	.187	.047	.203
TNMG434	M	●	●	●	.500	.187	.063	.203
TNMG542	M	●	★	●	.625	.250	.031	.250
TNMG543	M	★	●	●	.625	.250	.047	.250
TNMG544	M	●	●	★	.625	.250	.063	.250
TNMX332MW	M	★	★		.375	.187	.031	.150
TNMX333MW	M	●	★		.375	.187	.047	.150
TNMG331RES	M	★	★		.375	.187	.016	.150
TNMG331LES	M	★	★		.375	.187	.016	.150
TNMG332RES	M	★	★		.375	.187	.031	.150
TNMG332LES	M	★	★		.375	.187	.031	.150
TNMG432RES	M	★	★		.500	.187	.031	.203
TNMG432LES	M	★	★		.500	.187	.031	.203

Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
TNMG332RP	R	●	●	★	.375	.187	.031	.150
TNMG333RP	R	●	●	★	.375	.187	.047	.150
TNMG432RP	R	●	●	●	.500	.187	.031	.203
TNMG433RP	R	●	●	●	.500	.187	.047	.203
TNMG434RP	R	●	●	●	.500	.187	.063	.203
TNMG543RP	R	●	●	●	.625	.250	.047	.250
TNMG544RP	R	●	●	●	.625	.250	.063	.250
TNMG332GH	R	●	●	★	.375	.187	.031	.150
TNMG333GH	R	●	●		.375	.187	.047	.150
TNMG432GH	R	●	●	★	.500	.187	.031	.203
TNMG433GH	R	●	●	★	.500	.187	.047	.203
TNMG434GH	R	●	●		.500	.187	.063	.203
TNMG543GH	R	●	●	●	.625	.250	.047	.250
TNMG544GH	R	●	●		.625	.250	.063	.250
TNMM332HL	H		●	★	.375	.187	.031	.150
TNMM333HL	H		★	★	.375	.187	.047	.150
TNMM432HL	H		★	★	.500	.187	.031	.203
TNMM433HL	H		★	★	.500	.187	.047	.203
TNMM434HL	H		★	★	.500	.187	.063	.203
TNMM332HZ	H	★	★	★	.375	.187	.031	.150
TNMM333HZ	H		★	★	.375	.187	.047	.150
TNMM432HZ	H	★	★	★	.500	.187	.031	.203
TNMM433HZ	H	★	★	★	.500	.187	.047	.203
TNMM434HZ	H	★	★	★	.500	.187	.063	.203

● = NEW



Finish	Finish	Finish	Light	Light	Light
FP	FH	FS	LP	SH	SA
					
Medium	Medium	Medium	Medium	Medium	
MP	MS	MA	MH	Standard	
					

(inch)

Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
VNMG330.5FP	F	●	●	●	.375	.187	.008	.150
VNMG331FP	F	●	●	★	.375	.187	.016	.150
VNMG332FP	F	●	●	●	.375	.187	.031	.150
VNMG333FP	F	★	★	★	.375	.187	.047	.150
VNMG330.5FH	F	●	●	●	.375	.187	.008	.150
VNMG331FH	F	★	●	★	.375	.187	.016	.150
VNMG332FH	F	●	●	★	.375	.187	.031	.150
VNMG331FS	F		★	★	.375	.187	.016	.150
VNMG332FS	F		●	●	.375	.187	.031	.150
VNMG331LP	L	●	●	●	.375	.187	.016	.150
VNMG332LP	L	●	●	●	.375	.187	.031	.150
VNMG331SH	L	●	●	★	.375	.187	.016	.150
VNMG332SH	L	●	●	●	.375	.187	.031	.150
VNMG331SA	L	●	★	★	.375	.187	.016	.150
VNMG332SA	L	●	●	●	.375	.187	.031	.150

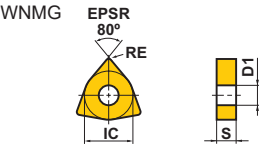
Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
VNMG331MP	M	●	●	●	.375	.187	.016	.150
VNMG332MP	M	●	●	●	.375	.187	.031	.150
VNMG333MP	M	●	●	●	.375	.187	.047	.150
VNMG331MS	M	●	●		.375	.187	.016	.150
VNMG332MS	M	●	●		.375	.187	.031	.150
VNMG331MA	M	●	●	●	.375	.187	.016	.150
VNMG332MA	M	●	●	●	.375	.187	.031	.150
VNMG331MH	M	●	●	●	.375	.187	.016	.150
VNMG332MH	M	●	●	●	.375	.187	.031	.150
VNMG331	M	●	●	★	.375	.187	.016	.150
VNMG332	M	●	●	●	.375	.187	.031	.150
VNMG333	M	●	●	★	.375	.187	.047	.150










● = NEW

● : USA Stock ★ : Stocked in Japan
(10 inserts in one case)

MC6100 Series

Negative Inserts (With Hole)
M Class

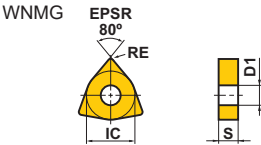










Finish	Finish	Finish	Finish	Light	Light
FP	FH	FS	FY	LP	SH
					
Light	Light	Light			
SA	SW	SY			
					
	(Wiper)				

(inch)

Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
WNMG430.5FP	F	●	★	★	.500	.187	.008	.203
WNMG431FP	F	★	★	★	.500	.187	.016	.203
WNMG432FP	F	●	★	★	.500	.187	.031	.203
WNMG433FP	F	★	★	★	.500	.187	.047	.203
WNMG431FH	F	★	●		.500	.187	.016	.203
WNMG432FH	F	★	★		.500	.187	.031	.203
WNMG431FS	F		★	★	.500	.187	.016	.203
WNMG432FS	F		●	●	.500	.187	.031	.203
WNMG432FY	F	★	★	★	.500	.187	.031	.203
WNMG32.51LP	L	★	★	★	.375	.156	.016	.150
WNMG32.52LP	L	★	★	★	.375	.156	.031	.150
WNMG331LP	L	●	●	★	.375	.187	.016	.150
WNMG332LP	L	●	★	★	.375	.187	.031	.150
WNMG431LP	L	●	●	●	.500	.187	.016	.203
WNMG432LP	L	●	●	●	.500	.187	.031	.203
WNMG433LP	L	●	●	●	.500	.187	.047	.203
WNMG32.51SH	L	★	★		.375	.156	.016	.150
WNMG32.52SH	L	★	★		.375	.156	.031	.150
WNMG331SH	L	●	★		.375	.187	.016	.150
WNMG332SH	L	★	★		.375	.187	.031	.150
WNMG431SH	L	●	●	★	.500	.187	.016	.203
WNMG432SH	L	●	●	●	.500	.187	.031	.203
WNMG433SH	L	●	●	★	.500	.187	.047	.203

● : USA Stock ★ : Stocked in Japan
(10 inserts in one case)



Medium	Medium	Medium	Medium	Medium	Medium
MP	MS	MA	MH	Standard	MW
					
					(Wiper)
Rough	Rough				
RP	GH				
					

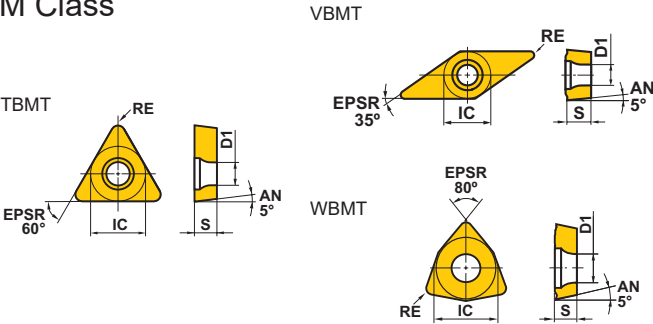
(inch)

Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
WNMG32.51MP	M	★	●	●	.375	.156	.016	.150
WNMG32.52MP	M	★	●	●	.375	.156	.031	.150
WNMG32.53MP	M	★	★	★	.375	.156	.047	.150
WNMG331MP	M	★	●	★	.375	.187	.016	.150
WNMG332MP	M	●	●	●	.375	.187	.031	.150
WNMG333MP	M	★	●	●	.375	.187	.047	.150
WNMG431MP	M	●	●	●	.500	.187	.016	.203
WNMG432MP	M	●	●	●	.500	.187	.031	.203
WNMG433MP	M	●	●	●	.500	.187	.047	.203
WNMG434MP	M	●	●	●	.500	.187	.063	.203
WNMG32.51MS	M	★	★		.375	.156	.016	.150
WNMG32.52MS	M	★	★		.375	.156	.031	.150
WNMG331MS	M	★	★		.375	.187	.016	.150
WNMG332MS	M	★	★		.375	.187	.031	.150
WNMG431MS	M	★	★	★	.500	.187	.016	.203
WNMG432MS	M	★	★	★	.500	.187	.031	.203
WNMG433MS	M	★	★		.500	.187	.047	.203
WNMG32.51MA	M	★	★		.375	.156	.016	.150
WNMG32.52MA	M	★	★		.375	.156	.031	.150
WNMG32.53MA	M	★	★		.375	.156	.047	.150
WNMG331MA	M	●	●	●	.375	.187	.016	.150
WNMG332MA	M	●	●	●	.375	.187	.031	.150
WNMG333MA	M	●	★	★	.375	.187	.047	.150
WNMG431MA	M	●	●	●	.500	.187	.016	.203
WNMG432MA	M	●	●	●	.500	.187	.031	.203
WNMG433MA	M	●	●	●	.500	.187	.047	.203
WNMG434MA	M	●	●		.500	.187	.063	.203
WNMG543MA	M		●	●	.625	.250	.047	.250
WNMG431MH	M	●	●	●	.500	.187	.016	.203
WNMG432MH	M	●	●	●	.500	.187	.031	.203
WNMG433MH	M	●	●	●	.500	.187	.047	.203
WNMG431	M	●	●	●	.500	.187	.016	.203
WNMG432	M	●	●	●	.500	.187	.031	.203
WNMG433	M	●	●	★	.500	.187	.047	.203

● = NEW

MC6100 Series

5° Positive Inserts (With Hole)
M Class



Order Number	Cutting Area	NEW			IC	S	RE	D1
		MC6115	MC6125	MC6135				
TBMT1.210.5FV	F	●	●	●	.156	.063	.008	.091
TBMT1.211FV	F	●	●	●	.156	.063	.016	.091
VBMT220.5FP	F	●	●	●	.250	.125	.008	.114
VBMT221FP	F	●	★	●	.250	.125	.016	.114
VBMT222FP	F	●	★	●	.250	.125	.031	.114
VBMT331FP	F	●	★	●	.375	.187	.016	.173
VBMT332FP	F	★	★	★	.375	.187	.031	.173
VBMT333FP	F	●	●	●	.375	.187	.047	.173
VBMT221FV	F	●	★	★	.250	.125	.016	.114
VBMT222FV	F	●	●	★	.250	.125	.031	.114
VBMT331FV	F	●	●	★	.375	.187	.016	.173
VBMT332FV	F	●	●	★	.375	.187	.031	.173
VBMT221LP	L	●	●	★	.250	.125	.016	.114
VBMT222LP	L	●	●	●	.250	.125	.031	.114
VBMT331LP	L	●	●	★	.375	.187	.016	.173
VBMT332LP	L	●	●	●	.375	.187	.031	.173
VBMT333LP	L	●	●	●	.375	.187	.047	.173
VBMT331MP	M	●	★	●	.375	.187	.016	.173
VBMT332MP	M	●	●	●	.375	.187	.031	.173
VBMT221MV	M	●	●	●	.250	.125	.016	.114
VBMT222MV	M	●	●	●	.250	.125	.031	.114
VBMT331MV	M	●	★	●	.375	.187	.016	.173
VBMT332MV	M	●	●	●	.375	.187	.031	.173

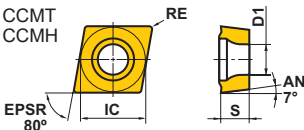
Finish	Light	Light	Medium	Medium
FP	FV	LP	MP	MV
Finish		Medium		
FV		MV		

(inch)

Order Number	Cutting Area	NEW			IC	S	RE	D1
		MC6115	MC6125	MC6135				
WBMT1.51.50.5RMV	M	★	★	★	.187	.094	.008	.091
WBMT1.51.50.5LMV	M	★	★	★	.187	.094	.008	.091
WBMT1.51.51RMV	M	★	★	★	.187	.094	.016	.091
WBMT1.51.51LMV	M	★	★	★	.187	.094	.016	.091

● = NEW

7° Positive Inserts (With Hole)
M Class



Order Number	Cutting Area	NEW			IC	S	RE	D1
		MC6115	MC6125	MC6135				
CCMT21.50.5FP	F	●	●	●	.250	.094	.008	.110
CCMT21.51FP	F	●	●	●	.250	.094	.016	.110
CCMT32.50.5FP	F	●	●	●	.375	.156	.008	.173
CCMT32.51FP	F	●	●	●	.375	.156	.016	.173
CCMT32.52FP	F	●	●	●	.375	.156	.031	.173
CCMT21.50.5FV	F	●	●	●	.250	.094	.008	.110
CCMT21.51FV	F	●	●	●	.250	.094	.016	.110
CCMT32.50.5FV	F	★	★	★	.375	.156	.008	.173
CCMT32.51FV	F	●	●	●	.375	.156	.016	.173
CCMT32.52FV	F	●	●	●	.375	.156	.031	.173
CCMT21.50.5LP	L	●	★	★	.250	.094	.008	.110
CCMT21.51LP	L	●	●	●	.250	.094	.016	.110
CCMT21.52LP	L	●	●	★	.250	.094	.031	.110
CCMT32.50.5LP	L	●	●	●	.375	.156	.008	.173
CCMT32.51LP	L	●	●	●	.375	.156	.016	.173
CCMT32.52LP	L	●	●	●	.375	.156	.031	.173
CCMT21.50.5SW	L	●	★	★	.250	.094	.008	.110
CCMT21.51SW	L	★	★	★	.250	.094	.016	.110
CCMT21.52SW	L	●	●	●	.250	.094	.031	.110
CCMT32.50.5SW	L	●	●	●	.375	.156	.008	.173
CCMT32.51SW	L	●	●	●	.375	.156	.016	.173
CCMT32.52SW	L	●	●	●	.375	.156	.031	.173

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

(inch)

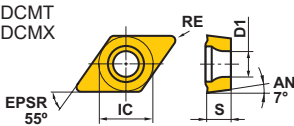
Order Number	Cutting Area	NEW			IC	S	RE	D1
		MC6115	MC6125	MC6135				
CCMT21.50.5MP	M	●	●	●	.250	.094	.008	.110
CCMT21.51MP	M	●	●	●	.250	.094	.016	.110
CCMT21.52MP	M	●	●	●	.250	.094	.031	.110
CCMT2.520.5MP	M	★	★	★	.313	.125	.008	.134
CCMT2.521MP	M	★	★	★	.313	.125	.016	.134
CCMT2.522MP	M	★	★	★	.313	.125	.031	.134
CCMT32.50.5MP	M	●	●	●	.375	.156	.008	.173
CCMT32.51MP	M	●	●	●	.375	.156	.016	.173
CCMT32.52MP	M	●	●	●	.375	.156	.031	.173
CCMT431MP	M	●	●	●	.500	.187	.016	.217
CCMT432MP	M	●	●	●	.500	.187	.031	.217
CCMT433MP	M	★	★	★	.500	.187	.047	.217
CCMH21.50.5MV	M	★	★	★	.250	.094	.008	.110
CCMH21.51MV	M	●	●	●	.250	.094	.016	.110
CCMT21.51MW	M	★	★	●	.250	.094	.016	.110
CCMT21.52MW	M	●	●	★	.250	.094	.031	.110
CCMT32.51MW	M	●	●	●	.375	.156	.016	.173
CCMT32.52MW	M	●	●	●	.375	.156	.031	.173
CCMT431MW	M	★	★	●	.500	.187	.016	.217
CCMT432MW	M	★	★	★	.500	.187	.031	.217

● = NEW

● : USA Stock ★ : Stocked in Japan
(10 inserts in one case)

MC6100 Series

7° Positive Inserts (With Hole)
M Class



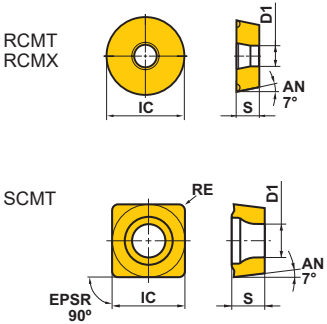
Finish	Finish	Light	Light
FP	FV	LP	SW
			
			(Wiper)
Medium	Medium		
MP	MV		
			

(inch)






Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
DCMT21.50.5FP	F	●	★	★	.250	.094	.008	.110
DCMT21.51FP	F	●	●	●	.250	.094	.016	.110
DCMT32.50.5FP	F	●	★	●	.375	.156	.008	.173
DCMT32.51FP	F	●	●	●	.375	.156	.016	.173
DCMT32.52FP	F	●	●	★	.375	.156	.031	.173
DCMT21.50.5FV	F	★	★	★	.250	.094	.008	.110
DCMT21.51FV	F	★	●	●	.250	.094	.016	.110
DCMT21.52FV	F		●	★	.250	.094	.031	.110
DCMT32.50.5FV	F		●	★	.375	.156	.008	.173
DCMT32.51FV	F	★	●	●	.375	.156	.016	.173
DCMT32.52FV	F	★	●	●	.375	.156	.031	.173
DCMT21.50.5LP	L	●	★	★	.250	.094	.008	.110
DCMT21.51LP	L	●	●	●	.250	.094	.016	.110
DCMT21.52LP	L	★	●	●	.250	.094	.031	.110
DCMT32.50.5LP	L	★	●	★	.375	.156	.008	.173
DCMT32.51LP	L	●	●	●	.375	.156	.016	.173
DCMT32.52LP	L	●	●	●	.375	.156	.031	.173
DCMX21.50.5SW	L	●	●	●	.250	.094	.008	.110
DCMX21.51SW	L	●	●	●	.250	.094	.016	.110
DCMX21.52SW	L	●	●	●	.250	.094	.031	.110
DCMX32.50.5SW	L	●	●	●	.375	.156	.008	.173
DCMX32.51SW	L	●	●	●	.375	.156	.016	.173
DCMX32.52SW	L	●	●	●	.375	.156	.031	.173

Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
DCMT21.50.5MP	M	★	●	★	.250	.094	.008	.110
DCMT21.51MP	M	●	●	●	.250	.094	.016	.110
DCMT21.52MP	M	★	●	●	.250	.094	.031	.110
DCMT32.50.5MP	M	★	●	★	.375	.156	.008	.173
DCMT32.51MP	M	●	●	●	.375	.156	.016	.173
DCMT32.52MP	M	●	●	●	.375	.156	.031	.173
DCMT32.53MP	M	★	●		.375	.156	.047	.173
DCMT431MP	M	●	●	★	.500	.187	.016	.217
DCMT432MP	M	●	★	●	.500	.187	.031	.217
DCMT433MP	M	★	★		.500	.187	.047	.217
DCMT21.50.5MV	M	★	●	★	.250	.094	.008	.110
DCMT21.51MV	M	★	★	●	.250	.094	.016	.110
DCMT21.52MV	M	★	★	●	.250	.094	.031	.110
DCMT32.50.5MV	M	★	●	●	.375	.156	.008	.173
DCMT32.51MV	M	★	●	●	.375	.156	.016	.173
DCMT32.52MV	M	★	★	●	.375	.156	.031	.173

● = NEW



Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
RCMT0602M0	M	★	●		.236	.094	-	.110
RCMT0803M0	M	★	★		.315	.125	-	.134
RCMX1003M0	M	★	★	★	.394	.125	-	.142
RCMX1204M0	M	★	★	★	.472	.187	-	.165
RCMX1606M0	M	★	★	★	.630	.250	-	.205
RCMX2006M0	M	★	★	★	.787	.250	-	.256
RCMX2507M0	M	★	★	★	.984	.313	-	.283
RCMX3209M0	M	★	★	★	1.260	.375	-	.374
RCMX1606M0-RR	R	★	★	★	.630	.250	-	.205
RCMX2006M0-RR	R	★	★	★	.787	.250	-	.256
RCMX2507M0-RR	R	★	★	★	.984	.313	-	.283
RCMX3209M0-RR	R	★	★	★	1.260	.375	-	.374

Medium	Rough	
Standard	RR	
		
Finish	Finish	Medium
FP	FV	MP
		

(inch)

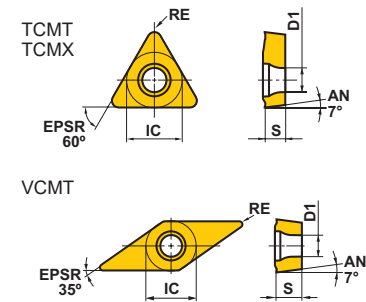
Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
SCMT32.51FP	F	★	★	★	.375	.156	.016	.173
SCMT32.52FP	F	★	★	★	.375	.156	.031	.173
SCMT32.51FV	F		★	★	.375	.156	.016	.173
SCMT32.51LP	L	★	●	★	.375	.156	.016	.173
SCMT32.52LP	L	★	●	★	.375	.156	.031	.173
SCMT32.51MP	M	★	★	●	.375	.156	.016	.173
SCMT32.52MP	M	●	★	●	.375	.156	.031	.173
SCMT431MP	M	★	●	★	.500	.187	.016	.217
SCMT432MP	M	★	★	●	.500	.187	.031	.217
SCMT433MP	M	★	★		.500	.187	.047	.217










● = NEW

● : USA Stock ★ : Stocked in Japan
(10 inserts in one case)

MC6100 Series

7° Positive Inserts (With Hole)
M Class



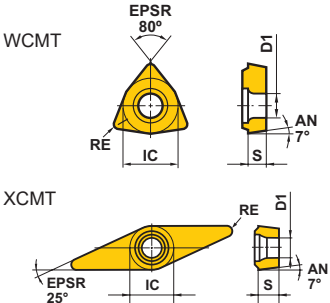
Finish	Finish	Light	Light	Medium
FP	FV	LP	SW	MP
				
Finish	Finish	Light	Medium	Medium
FP	FV	LP	MP	MV
				

(inch)

Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
TCMT1.81.50.5FP	F	★	★	★	.219	.094	.008	.098
TCMT1.81.51FP	F	●	★	★	.219	.094	.016	.098
TCMT21.50.5FP	F	●	★	★	.250	.094	.008	.110
TCMT21.51FP	F	●	●	●	.250	.094	.016	.110
TCMT32.51FP	F	★	★	★	.375	.156	.016	.173
TCMT21.51FV	F		●	●	.250	.094	.016	.110
TCMT32.51FV	F		★	★	.375	.156	.016	.173
TCMT1.81.51LP	L	★	●	★	.219	.094	.016	.098
TCMT1.81.52LP	L	★	★	★	.219	.094	.031	.098
TCMT21.50.5LP	L	●	●	●	.250	.094	.008	.110
TCMT21.51LP	L	●	●	●	.250	.094	.016	.110
TCMT21.52LP	L	★	●	★	.250	.094	.031	.110
TCMT32.51LP	L	●	●	★	.375	.156	.016	.173
TCMT32.52LP	L	●	●	★	.375	.156	.031	.173
TCMX1.81.51SW	L	●	●	●	.219	.094	.016	.098
TCMX21.51SW	L	●	●	●	.250	.094	.016	.110
TCMT1.81.51MP	M	●	★	★	.219	.094	.016	.098
TCMT1.81.52MP	M	★	●	★	.219	.094	.031	.098
TCMT21.50.5MP	M	★	●	★	.250	.094	.008	.110
TCMT21.51MP	M	●	●	●	.250	.094	.016	.110
TCMT21.52MP	M	●	●	●	.250	.094	.031	.110
TCMT2.521MP	M	★	★	●	.313	.125	.016	.134
TCMT32.51MP	M	●	●	●	.375	.156	.016	.173
TCMT32.52MP	M	●	★	●	.375	.156	.031	.173
TCMT32.53MP	M	●	★	★	.375	.156	.047	.173

Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
VCMT1.51.50.5FP	F	●	●	●	.187	.094	.008	.094
VCMT1.51.51FP	F	●	●	●	.187	.094	.016	.094
VCMT220.5FP	F	★	●	★	.250	.125	.008	.110
VCMT221FP	F	●	●	●	.250	.125	.016	.110
VCMT331FP	F	●	●	★	.375	.187	.016	.173
VCMT332FP	F	★	●	★	.375	.187	.031	.173
VCMT1.51.50.5FV	F		★	●	.187	.094	.008	.094
VCMT1.51.51FV	F		★	●	.187	.094	.016	.094
VCMT331FV	F	★	●	●	.375	.187	.016	.173
VCMT332FV	F	★	●	●	.375	.187	.031	.173
VCMT1.51.50.5LP	L	●	●	★	.187	.094	.008	.094
VCMT1.51.51LP	L	●	●	★	.187	.094	.016	.094
VCMT221LP	L	●	●	★	.250	.125	.016	.110
VCMT222LP	L	●	●	★	.250	.125	.031	.110
VCMT331LP	L	●	●	★	.375	.187	.016	.173
VCMT332LP	L	●	●	★	.375	.187	.031	.173
VCMT221MP	M	●	★	●	.250	.125	.016	.110
VCMT331MP	M	●	★	●	.375	.187	.016	.173
VCMT332MP	M	●	★	●	.375	.187	.031	.173
VCMT333MP	M	★	★	★	.375	.187	.047	.173
VCMT1.51.50.5MV	M		●	★	.187	.094	.008	.094
VCMT1.51.51MV	M		★	●	.187	.094	.016	.094

● = NEW



Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
WCMT1.210.5FV	F		●		.156	.063	.008	.091
WCMT1.211FV	F		●		.156	.063	.016	.091
WCMT1.51.50.5FV	F		●		.187	.094	.008	.091
WCMT1.51.51FV	F		●		.187	.094	.016	.091
WCMT21.50.5FV	F		●		.250	.094	.008	.110
WCMT21.51FV	F		●		.250	.094	.016	.110
WCMT32.50.5FV	F		●		.375	.156	.008	.173
WCMT32.51FV	F		●		.375	.156	.016	.173
WCMT1.210.5MP	M	●	●	●	.156	.063	.008	.091
WCMT1.211MP	M	●	●	●	.156	.063	.016	.091
WCMT1.51.50.5MP	M	●	●		.187	.094	.008	.091
WCMT1.51.51MP	M	●	★		.187	.094	.016	.091
WCMT21.50.5MP	M	●	●	●	.250	.094	.008	.110
WCMT21.51MP	M	●	●	●	.250	.094	.016	.110
WCMT21.52MP	M		●	●	.250	.094	.031	.110
WCMT32.51MP	M	●	●	●	.375	.156	.016	.173
WCMT32.52MP	M	●	●	●	.375	.156	.031	.173

Finish	Medium
FV	MP
	
Finish	
SVX	
	

(inch)

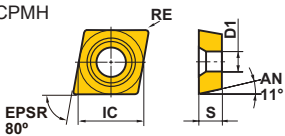
Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
XCMT221SVX	F		●	★	.250	.125	.016	.112
XCMT222SVX	F		★	●	.250	.125	.031	.112

● = NEW

● : USA Stock ★ : Stocked in Japan
(10 inserts in one case)

MC6100 Series

11° Positive Inserts (With Hole)
M Class



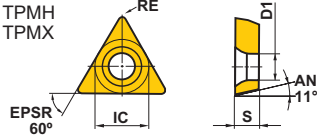
Finish	Finish	Light
FP	FV	LP
Medium	Medium	Medium
MP	MV	Standard

(inch)

Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
CPMH2.51.50.5FP	F		●	●	.313	.094	.008	.138
CPMH2.51.51FP	F		●	●	.313	.094	.016	.138
CPMH320.5FP	F		●	●	.375	.125	.008	.177
CPMH321FP	F		●	●	.375	.125	.016	.177
CPMH322FP	F		●	●	.375	.125	.031	.177
CPMH2.51.50.5FV	F		★	★	.313	.094	.008	.138
CPMH2.51.51FV	F		★	★	.313	.094	.016	.138
CPMH320.5FV	F		★	★	.375	.125	.008	.177
CPMH321FV	F		●	★	.375	.125	.016	.177
CPMH322FV	F		●	★	.375	.125	.031	.177
CPMH2.51.50.5LP	L		★	★	.313	.094	.008	.138
CPMH2.51.51LP	L	●	★	★	.313	.094	.016	.138
CPMH2.51.52LP	L	●	●	●	.313	.094	.031	.138
CPMH320.5LP	L		★	★	.375	.125	.008	.177
CPMH321LP	L	●	★	★	.375	.125	.016	.177
CPMH322LP	L	●	★	★	.375	.125	.031	.177

Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
CPMH2.51.51MP	M	●	●	●	.313	.094	.016	.138
CPMH2.51.52MP	M	●	●	●	.313	.094	.031	.138
CPMH321MP	M	●	●	●	.375	.125	.016	.177
CPMH322MP	M	●	●	●	.375	.125	.031	.177
CPMH2.51.51MV	M		●	●	.313	.094	.016	.138
CPMH2.51.52MV	M		●	●	.313	.094	.031	.138
CPMH321MV	M		●	●	.375	.125	.016	.177
CPMH322MV	M		●	●	.375	.125	.031	.177
CPMH2.51.51	M	●	●		.313	.094	.016	.138
CPMH2.51.52	M	●	●		.313	.094	.031	.138
CPMH321	M	●	●		.375	.125	.016	.177
CPMH322	M	●	●	★	.375	.125	.031	.177

● = NEW



Finish	Finish	Light	Light
FP	FV	LP	SW
Medium			
MV			

(inch)

Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
TPMH1.81.50.5FP	F	●	●	●	.219	.094	.008	.114
TPMH1.81.51FP	F	●	●	●	.219	.094	.016	.114
TPMH220.5FP	F	●	●	●	.250	.125	.008	.134
TPMH221FP	F	●	●	●	.250	.125	.016	.134
TPMH222FP	F	●	●	●	.250	.125	.031	.134
TPMH1.51.50.5FV	F		★	★	.187	.094	.008	.094
TPMH1.51.51FV	F		●	★	.187	.094	.016	.094
TPMH1.81.50.5FV	F		★	★	.219	.094	.008	.114
TPMH1.81.51FV	F		●	★	.219	.094	.016	.114
TPMH220.5FV	F		●	★	.250	.125	.008	.134
TPMH221FV	F	●	●	★	.250	.125	.016	.134
TPMH222FV	F	●	●	★	.250	.125	.031	.134
TPMH320.5FV	F		●	★	.375	.125	.008	.173
TPMH321FV	F	●	●	★	.375	.125	.016	.173
TPMH322FV	F		●	★	.375	.125	.031	.173
TPMH1.51.50.5LP	L		★	★	.187	.094	.008	.094
TPMH1.51.51LP	L		★	★	.187	.094	.016	.094
TPMH1.81.50.5LP	L	●	●	★	.219	.094	.008	.114
TPMH1.81.51LP	L	●	★	★	.219	.094	.016	.114
TPMH220.5LP	L	●	★	★	.250	.125	.008	.134
TPMH221LP	L	●	★	★	.250	.125	.016	.134
TPMH222LP	L	●	★	★	.250	.125	.031	.134
TPMH320.5LP	L	●	★	★	.375	.125	.008	.173
TPMH321LP	L	●	★	●	.375	.125	.016	.173
TPMH322LP	L	●	●	●	.375	.125	.031	.173
TPMX1.81.50.5SW	L	●	●	●	.219	.094	.008	.114
TPMX1.81.51SW	L	●	●	●	.219	.094	.016	.114
TPMX1.81.52SW	L	●	●	●	.219	.094	.031	.114
TPMX220.5SW	L	●	●	●	.250	.125	.008	.134
TPMX221SW	L	●	●	●	.250	.125	.016	.134
TPMX222SW	L	●	●	●	.250	.125	.031	.134

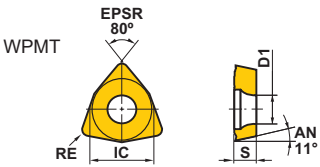
Order Number	Cutting Area	MC6115	MC6125	NEW MC6135	IC	S	RE	D1
TPMH1.51.50.5MV	M		★	★	.187	.094	.008	.094
TPMH1.51.51MV	M		★	★	.187	.094	.016	.094
TPMH1.81.50.5MV	M		★	★	.219	.094	.008	.114
TPMH1.81.51MV	M		★	★	.219	.094	.016	.114
TPMH1.81.52MV	M		★	★	.219	.094	.031	.114
TPMH220.5MV	M		★	★	.250	.125	.008	.134
TPMH221MV	M		★	★	.250	.125	.016	.134
TPMH222MV	M		★	★	.250	.125	.031	.134
TPMH321MV	M		●	●	.375	.125	.016	.173
TPMH322MV	M		●	●	.375	.125	.031	.173

● = NEW

● : USA Stock ★ : Stocked in Japan
(10 inserts in one case)

MC6100 Series

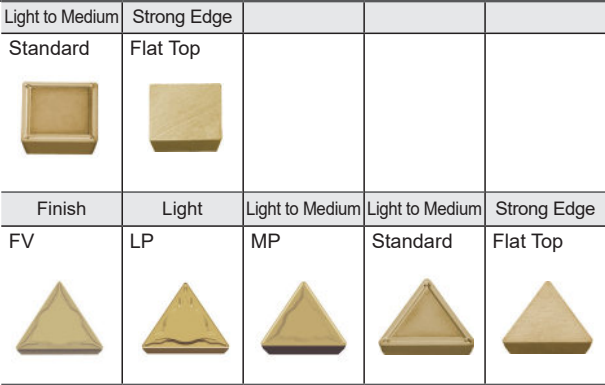
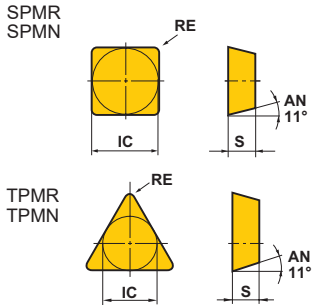
11° Positive Inserts (With Hole)
M Class



Order Number	Cutting Area	(inch)			IC	S	RE	D1
		MC6115	MC6125	MC6135				
WPMT21.50.5MV	M	●	★	NEW	.250	.094	.008	.110
WPMT21.51MV	M	★	●	NEW	.250	.094	.016	.110
WPMT321MV	M	●	★	NEW	.375	.125	.016	.173
WPMT322MV	M	★	★	NEW	.375	.125	.031	.173

● = NEW

11° Positive Inserts (Without Hole)
M Class



Order Number	Cutting Area	(inch)			IC	S	RE	D1
		MC6115	MC6125	MC6135				
SPMR321	M	●	●	★	.375	.125	.016	-
SPMR322	M	●	●	★	.375	.125	.031	-
SPMR421	M	●	●	●	.500	.125	.016	-
SPMR422	M	●	●	●	.500	.125	.031	-
SPMN322	-	●	●	●	.375	.125	.031	-
SPMN421	-	●	●	●	.500	.125	.016	-
SPMN422	-	●	●	●	.500	.125	.031	-
SPMN423	-	●	●	★	.500	.125	.047	-

Order Number	Cutting Area	(inch)			IC	S	RE	D1
		MC6115	MC6125	MC6135				
TPMR321FV	F	●	●	●	.375	.125	.016	-
TPMR221LP	L	●	●	●	.250	.125	.016	-
TPMR222LP	L	●	●	●	.250	.125	.031	-
TPMR321LP	L	●	●	●	.375	.125	.016	-
TPMR322LP	L	●	●	●	.375	.125	.031	-
TPMR221MP	M	●	●	●	.250	.125	.016	-
TPMR222MP	M	●	●	●	.250	.125	.031	-
TPMR321MP	M	●	●	●	.375	.125	.016	-
TPMR322MP	M	●	●	●	.375	.125	.031	-
TPMR221	M	●	●	●	.250	.125	.016	-
TPMR222	M	●	●	★	.250	.125	.031	-
TPMR321	M	●	●	●	.375	.125	.016	-
TPMR322	M	●	●	●	.375	.125	.031	-
TPMR323	M	●	●	●	.375	.125	.047	-
TPMN221	-	●	●	●	.250	.125	.016	-
TPMN222	-	●	●	●	.250	.125	.031	-
TPMN321	-	●	●	●	.375	.125	.016	-
TPMN322	-	●	●	●	.375	.125	.031	-
TPMN323	-	●	●	●	.375	.125	.047	-
TPMN431	-	●	●	●	.500	.187	.016	-
TPMN432	-	●	●	★	.500	.187	.031	-
TPMN433	-	●	●	●	.500	.187	.047	-

● = NEW

● : USA Stock ★ : Stocked in Japan
(10 inserts in one case)

CVD Coated Grade for Steel Turning

Recommended Cutting Conditions

Negative Inserts (For External Turning)

(inch)

Material	Properties	Cutting Range	Priority	Grade	Chipbreaker	Cutting Speed vc (SFM)	Feed f (IPR)	Depth of Cut ap
P								
Mild Steel	Hardness ≤180HB	✚	F	1	MC6125	FY	1260—1985	.004—.009
		✚	F	2	MC6135	FY	1030—1575	.004—.009
		✚	L	1	MC6125	SY	1150—1805	.006—.013
		✚	L	2	MC6135	SY	950—1425	.006—.013
Carbon Steel Alloy Steel	Hardness 180—280HB	●	F	1	MC6115	FP	820—1575	.003—.010
		●	F	2	MC6125	FP	900—1395	.003—.010
		●	L	1	MC6115	LP	820—1575	.004—.016
		●	L	2	MC6125	LP	900—1395	.004—.016
		●	L	3	MC6115	SH	820—1575	.004—.016
		●	L	4	MC6125	SH	900—1395	.004—.016
		●	L	5	MC6115	SA	820—1575	.004—.016
		●	L	6	MC6125	SA	900—1395	.004—.016
		●	L	7	MC6115	SW	820—1575	.004—.020
		●	L	8	MC6125	SW	900—1395	.004—.020
		●	M	1	MC6115	MP	755—1445	.006—.020
		●	M	2	MC6125	MP	820—1280	.006—.020
		●	M	3	MC6115	MA	755—1445	.008—.020
		●	M	4	MC6125	MA	820—1280	.008—.020
		●	M	5	MC6115	Std	755—1445	.010—.024
		●	M	6	MC6125	Std	820—1280	.010—.024
		●	M	7	MC6115	MW	755—1445	.008—.024
		●	M	8	MC6125	MW	820—1280	.008—.024
		●	R	1	MC6115	RP	705—1360	.010—.024
		●	R	2	MC6125	RP	770—1215	.010—.024
		●	R	3	MC6115	GH	705—1360	.010—.024
		●	R	4	MC6125	GH	770—1215	.010—.024
		●	H	1	MC6125	HX	690—1080	.020—.050
		●	H	2	MC6135	HX	560—850	.020—.050
		●	H	3	MC6125	HV	575—885	.023—.050
		●	H	4	MC6135	HV	460—705	.023—.050
		●	F	1	MC6115	FP	820—1575	.003—.010
		●	F	2	MC6125	FP	900—1395	.003—.010
		●	L	1	MC6115	LP	820—1575	.004—.016
		●	L	2	MC6125	LP	900—1395	.004—.016
		●	L	3	MC6115	SH	820—1575	.004—.016
		●	L	4	MC6125	SH	900—1395	.004—.016
		●	L	5	MC6115	SA	820—1575	.004—.016
		●	L	6	MC6125	SA	900—1395	.004—.016
		●	L	7	MC6115	SW	820—1575	.004—.020
		●	L	8	MC6125	SW	900—1395	.004—.020
		●	M	1	MC6125	MP	820—1280	.006—.020
		●	M	2	MC6135	MP	670—1015	.006—.020
		●	M	3	MC6125	MA	820—1280	.008—.020
		●	M	4	MC6135	MA	670—1015	.008—.020
		●	M	5	MC6125	MH	820—1280	.008—.022
		●	M	6	MC6135	MH	670—1015	.008—.022
		●	M	7	MC6125	Std	820—1280	.010—.024
		●	M	8	MC6135	Std	670—1015	.010—.024
		●	M	9	MC6125	MW	820—1280	.008—.024
		●	M	10	MC6135	MW	670—1015	.008—.024

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.

(inch)

Material	Properties	Cutting Range	Priority	Grade	Chipbreaker	Cutting Speed vc (SFM)	Feed f (IPR)	Depth of Cut ap
Carbon Steel Alloy Steel	Hardness 180—280HB	●	R	1	MC6135	RP	620—950	.010—.024
		●	R	2	MC6125	RP	770—1215	.010—.024
		●	R	3	MC6135	GH	620—950	.010—.024
		●	R	4	MC6125	GH	770—1215	.010—.024
		●	H	1	MC6135	HX	560—850	.020—.050
		●	H	2	MC6125	HX	690—1080	.020—.050
		●	H	3	MC6135	HV	460—705	.023—.050
		●	H	4	MC6125	HV	575—885	.023—.050
		✚	F	1	MC6135	FP	805—1215	.003—.010
		✚	F	2	MC6125	FP	985—1525	.003—.010
		✚	L	1	MC6135	LP	740—1115	.004—.016
		✚	L	2	MC6125	LP	900—1395	.004—.016
		✚	L	3	MC6135	SH	740—1115	.004—.016
		✚	L	4	MC6125	SH	900—1395	.004—.016
		✚	L	5	MC6135	SA	740—1115	.004—.016
		✚	L	6	MC6125	SA	900—1395	.004—.016
		✚	M	1	MC6135	MP	670—1015	.006—.020
		✚	M	2	MC6125	MP	820—1280	.006—.020
		✚	M	3	MC6135	MA	670—1015	.008—.020
		✚	M	4	MC6125	MA	820—1280	.008—.020
		✚	M	5	MC6135	MH	670—1015	.008—.022
		✚	M	6	MC6125	MH	820—1280	.008—.022
		✚	M	7	MC6135	Std	670—1015	.010—.024
		✚	M	8	MC6125	Std	820—1280	.010—.024
		✚	M	9	MC6135	MW	670—1015	.008—.024
		✚	M	10	MC6125	MW	820—1280	.008—.024
		✚	R	1	MC6135	RP	620—950	.010—.024
		✚	R	2	MC6125	RP	770—1215	.010—.024
		✚	R	3	MC6135	GH	620—950	.010—.024
		✚	R	4	MC6125	GH	770—1215	.010—.024
		✚	H	1	MC6135	HX	560—850	.020—.050
		✚	H	2	MC6125	HX	690—1080	.020—.050

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

CVD Coated Grade for Steel Turning





























Recommended Cutting Conditions

5° 7° Positive Inserts (For External Turning) (inch)

Material	Properties	Cutting Range		Priority	Grade	Chipbreaker	Cutting Speed vc (SFM)	Feed f (IPR)	Depth of Cut ap
P									
Mild Steel	Hardness ≤180HB	●	F	1	MC6115	FP	970—1870	.002—.008	.008—.035
		●	F	2	MC6115	FV	970—1870	.002—.008	.008—.035
		●	L	1	MC6115	LP	970—1870	.002—.010	.008—.039
		●	L	2	MC6115	SW	970—1870	.002—.009	.008—.059
		●	M	1	MC6115	MP	805—1560	.003—.012	.012—.079
		●	M	2	MC6115	MV	805—1560	.003—.012	.012—.079
		●	M	3	MC6115	MW	805—1560	.004—.014	.031—.098
		✚	F	1	MC6125	FP	1050—1655	.002—.008	.008—.035
		✚	F	2	MC6135	FP	870—1310	.002—.008	.008—.035
		✚	L	1	MC6125	LP	1050—1655	.002—.010	.008—.039
		✚	L	2	MC6135	LP	870—1310	.002—.010	.008—.039
		✚	L	3	MC6125	SW	1050—1655	.002—.009	.008—.059
		✚	M	1	MC6125	MP	885—1380	.003—.012	.012—.079
		✚	M	2	MC6135	MP	720—1080	.003—.012	.012—.079
		✚	M	3	MC6125	MV	885—1380	.003—.012	.012—.079
		✚	M	4	MC6125	MW	885—1380	.004—.014	.031—.098
Carbon Steel Alloy Steel	Hardness 180—280HB	●	F	1	MC6115	FP	720—1380	.002—.008	.008—.035
		●	F	2	MC6125	FP	785—1215	.002—.008	.008—.035
		●	F	3	MC6115	FV	720—1380	.002—.008	.008—.035
		●	L	1	MC6115	LP	720—1380	.002—.010	.008—.039
		●	L	2	MC6125	LP	785—1215	.002—.010	.008—.039
		●	M	1	MC6125	MP	655—1015	.003—.012	.012—.079
		●	M	2	MC6115	MP	590—1150	.003—.012	.012—.079
		●	M	3	MC6125	MV	655—1015	.003—.012	.012—.079
		●	M	4	MC6115	MV	590—1150	.003—.012	.012—.079
		●	M	5	MC6115	MW	590—1150	.004—.014	.031—.098
		✚	F	1	MC6125	FP	785—1215	.002—.008	.008—.035
		✚	F	2	MC6135	FP	640—970	.002—.008	.008—.035
		✚	F	3	MC6125	FV	785—1215	.002—.008	.008—.035
		✚	L	1	MC6125	LP	785—1215	.002—.010	.008—.039
		✚	L	2	MC6135	LP	640—970	.002—.010	.008—.039
		✚	L	3	MC6125	SW	785—1215	.002—.009	.008—.059
		✚	M	1	MC6125	MP	655—1015	.003—.012	.012—.079
		✚	M	2	MC6135	MP	525—805	.003—.012	.012—.079
		✚	M	3	MC6125	MV	655—1015	.003—.012	.012—.079
Carbon Steel Alloy Steel	Hardness 280—350HB	●	F	1	MC6115	FP	510—970	.002—.008	.008—.035
		●	F	2	MC6115	FV	510—970	.002—.008	.008—.035
		●	L	1	MC6115	LP	510—970	.002—.010	.008—.039
		●	M	1	MC6115	MP	425—805	.003—.012	.012—.079
		●	M	2	MC6115	MV	425—805	.003—.012	.012—.079
		✚	F	1	MC6125	FP	560—870	.002—.008	.008—.035
		✚	F	2	MC6135	FP	440—690	.002—.008	.008—.035
		✚	L	1	MC6125	LP	560—870	.002—.010	.008—.039
		✚	L	2	MC6135	LP	440—690	.002—.010	.008—.039
		✚	M	1	MC6125	MP	460—720	.003—.012	.012—.079
		✚	M	2	MC6135	MP	375—575	.003—.012	.012—.079
		✚	M	3	MC6125	MV	460—720	.003—.012	.012—.079

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.

11° Positive Inserts (For External Turning) (inch)

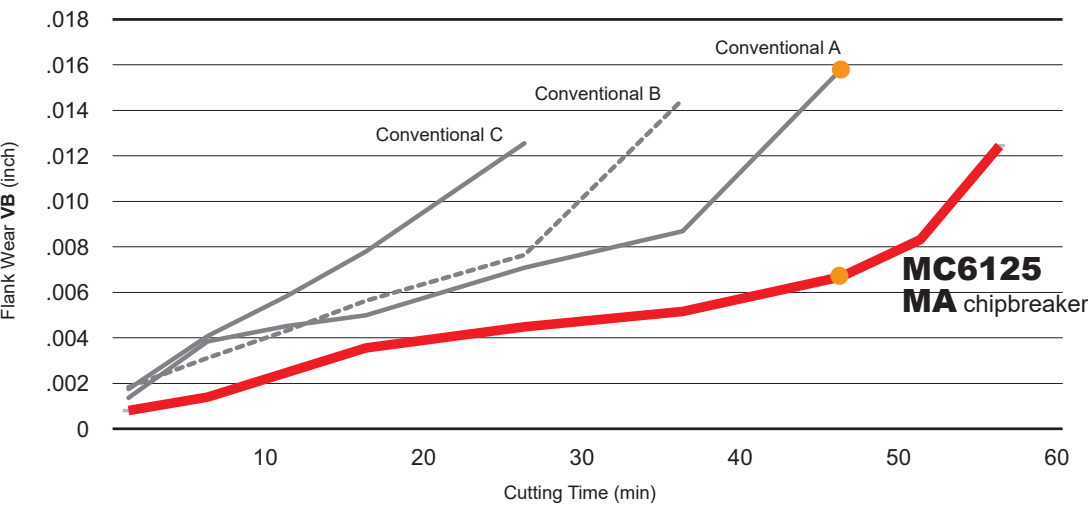
Material	Properties	Cutting Range	Priority	Grade	Chipbreaker	Cutting Speed vc (SFM)	Feed f (IPR)	Depth of Cut ap	
P									
Mild Steel	Hardness ≤180HB		F	1	MC6125	FP	1050—1655	.002—.008	.008—.035
			F	2	MC6125	FV	1050—1655	.002—.008	.008—.035
			L	1	MC6125	LP	1050—1655	.002—.010	.008—.039
			L	2	MC6115	R-Std	805—1560	.003—.012	.012—.079
			M	1	MC6125	MP	885—1380	.003—.012	.012—.079
			M	2	MC6115	MP	805—1560	.003—.012	.012—.079
			M	3	MC6125	MV	885—1380	.003—.012	.012—.079
			M	4	MC6115	MV	805—1560	.003—.012	.012—.079
			L	1	MC6125	LP	1050—1655	.002—.010	.008—.039
			L	2	MC6135	LP	870—1310	.002—.010	.008—.039
			M	1	MC6125	MP	885—1380	.003—.012	.012—.079
			M	2	MC6135	MP	720—1080	.003—.012	.012—.079
			M	3	MC6125	MV	885—1380	.003—.012	.012—.079
			M	4	MC6135	MV	720—1080	.003—.012	.012—.079
Carbon Steel Alloy Steel	Hardness 180—280HB		F	1	MC6125	FP	785—1215	.002—.008	.008—.035
			F	2	MC6125	FV	785—1215	.002—.008	.008—.035
			L	1	MC6125	LP	785—1215	.002—.010	.008—.039
			L	2	MC6115	LP	720—1380	.002—.010	.008—.039
			M	1	MC6125	MP	655—1015	.003—.012	.012—.079
			M	2	MC6125	MV	655—1015	.003—.012	.012—.079
			M	3	MC6115	R-Std	590—1150	.003—.012	.012—.079
			M	4	MC6125	R-Std	655—1015	.003—.012	.012—.079
			L	1	MC6125	LP	785—1215	.002—.010	.008—.039
			L	2	MC6135	LP	640—970	.002—.010	.008—.039
			M	1	MC6125	MP	655—1015	.003—.012	.012—.079
			M	2	MC6135	MP	525—805	.003—.012	.012—.079
			M	3	MC6125	MV	655—1015	.003—.012	.012—.079
			M	4	MC6135	MV	525—805	.003—.012	.012—.079

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

Cutting Performance

Machining 5120H : Comparison of Wear Resistance During Continuous Wet Cutting

The thick coating exclusively for MC6125 effectively suppresses early wear.



MC6125 46 min.
MA chipbreaker

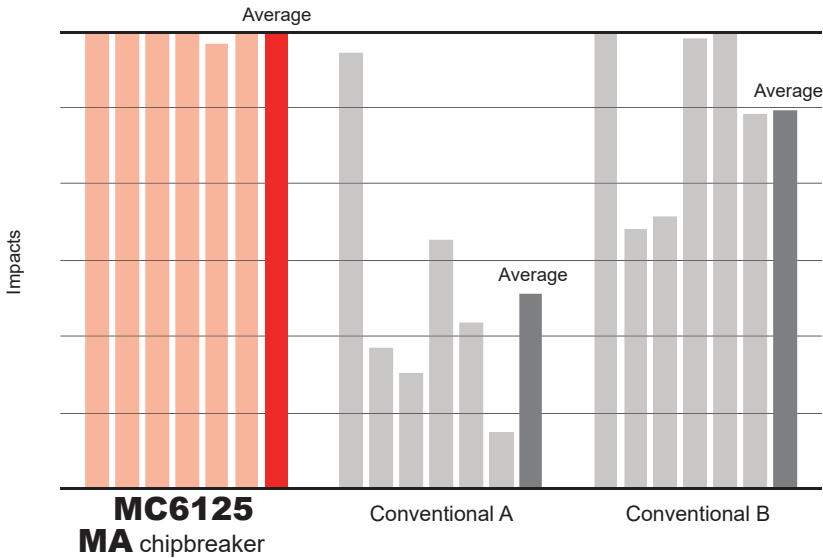


Conventional A 46 min.

<Cutting Conditions>
Material : ANSI 5120H
Inserts : CNMG432-
Cutting Speed : vc=985 SFM
Feed per Rev. : f=.012 IPR
Depth of Cut : ap=.059 inch
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 chipbreaker

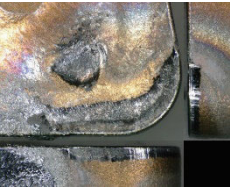
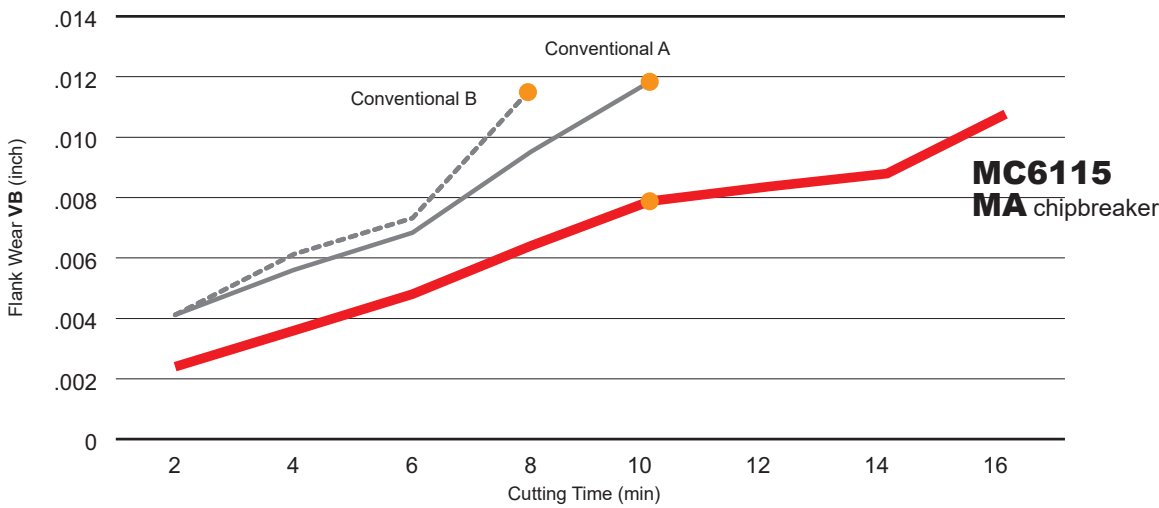
Conventional A

Conventional B

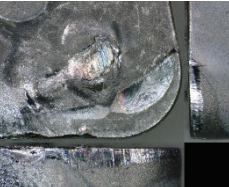
<Cutting Conditions>
Material : AISI 4140
Inserts : CNMG432-
Cutting Speed : vc=655 SFM
Feed per Rev. : f=.010 IPR
Depth of Cut : ap=.059 inch
Cutting Mode : Wet Cutting

Machining 1045 : 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.

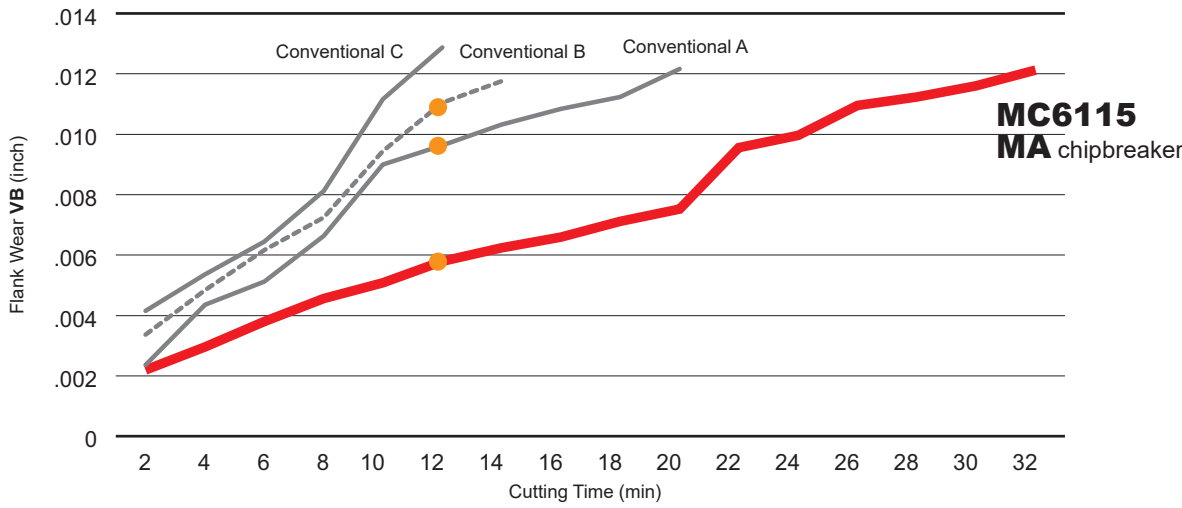


Conventional B 8 min.

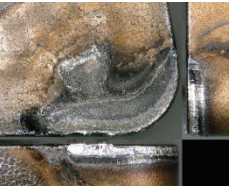
<Cutting Conditions>
Material : AISI 1045
Inserts : CNMG432-
Cutting Speed : vc=985 SFM
Feed per Rev. : f=.012 IPR
Depth of Cut : ap=.059 inch
Cutting Mode : Dry Cutting

Machining 52100 : Comparison of Wear Resistance During Continuous Wet Cutting

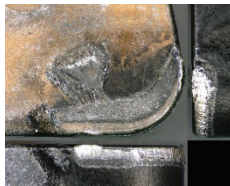
The thick coating provides high flank wear resistance.



MC6115 12 min.



Conventional A 12 min.



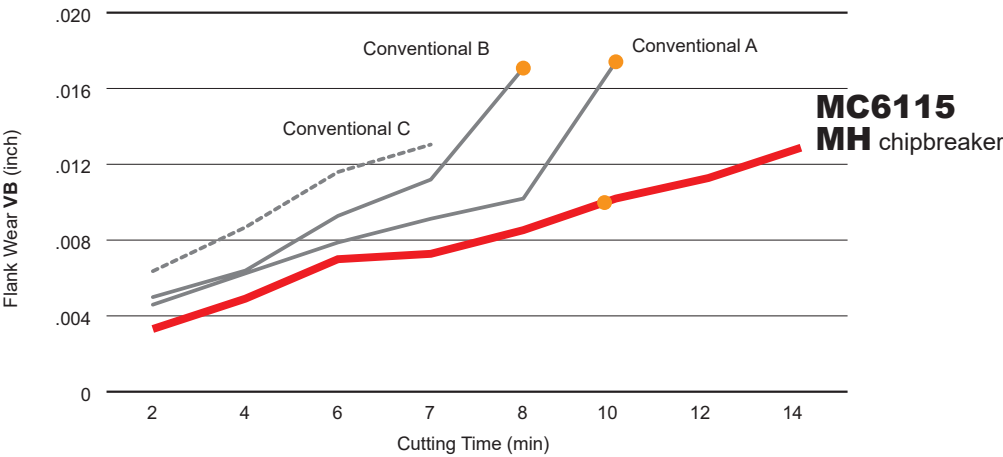
Conventional B 12 min.

<Cutting Conditions>
Material : AISI 52100
Inserts : CNMG432-
Cutting Speed : vc=985 SFM
Feed per Rev. : f=.012 IPR
Depth of Cut : ap=.059 inch
Cutting Mode : Wet Cutting

Cutting Performance

Machining 4140 : Comparison of Wear Resistance During Continuous Wet Cutting







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

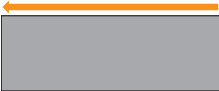







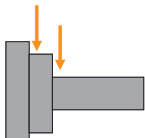
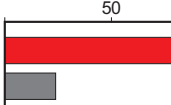
MC6115 10 min. Conventional A 10 min. Conventional B 8 min.

<Cutting Conditions>
Material : AISI 4140
Inserts : CNMG432
Cutting Speed : vc=1150 SFM
Feed per Rev. : f=.012 IPR
Depth of Cut : ap=.059 inch
Cutting Mode : Wet Cutting

Examples of Usage

Insert		CNMG432MA	WNGM432MP
Workpiece		AISI 1045 	Carbon Steel 
Component		Hex Bar Parts	Automotive Parts
Application		Interrupted Finish Turning	External Turning and Facing
Cutting Conditions	Cutting Speed vc (SFM)	490	260
	Feed per Rev. f (IPR)	.008	.004 - .020
	Depth of Cut ap (inch)	.079, .063	.020
Cutting Mode		Wet Cutting	Wet Cutting
Results		<p>Number of Workpieces</p> <p>500 1000</p> <p>MC6125 </p> <p>Conventional </p> <p>Conventional products fractured after chipping but MC6125 formed good chip shapes and achieved a longer tool life.</p>	<p>Number of Workpieces</p> <p>500 1000 1500 2000 2500</p> <p>MC6125 </p> <p>Conventional </p> <p>MC6125 achieved more than 1.3 times longer tool life due to its high wear resistance.</p>

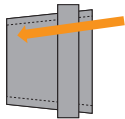
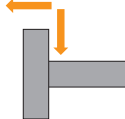
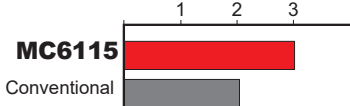
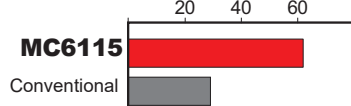
Insert		DNMG433S	CNMG432MH
Workpiece		AISI 1053 	General Structural Steel 
Component		–	Hun Parts
Application		Interrupted Finish Turning	Face Turning
Cutting Conditions	Cutting Speed vc (SFM)	655	655→785
	Feed per Rev. f (IPR)	.012	.010
	Depth of Cut ap (inch)	.047	.079
Cutting Mode		Wet Cutting	Wet Cutting
Results		<p>Number of Workpieces</p> <p>50 100 150</p> <p>MC6125 </p> <p>Conventional </p> <p>MC6125 provided a stable cutting action and achieved 1.5 times more tool life than conventional products.</p>	<p>Number of Workpieces</p> <p>50 100 150 200</p> <p>MC6125 </p> <p>Conventional </p> <p>MC6125 improved efficiency and tool life by increasing the cutting speed.</p>

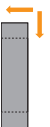

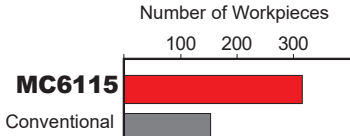
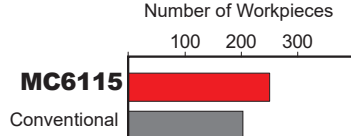
Insert		CNMG433RP						
Workpiece								
Component		Flange Parts						
Application		External Turning and Facing						
Cutting Conditions	Cutting Speed v_c (SFM)	655						
	Feed per Rev. f (IPR)	.010						
	Depth of Cut a_p (inch)	.059						
	Cutting Mode		Wet Cutting					
Results		<div><div>Number of Workpieces</div><div><div>50</div><div>100</div></div><table border="1"><thead><tr><th>Product</th><th>Number of Workpieces</th></tr></thead><tbody><tr><td>MC6125</td><td>~85</td></tr><tr><td>Conventional</td><td>~25</td></tr></tbody></table></div>	Product	Number of Workpieces	MC6125	~85	Conventional	~25
		Product	Number of Workpieces					
MC6125	~85							
Conventional	~25							
Conventional products machined an inconsistent number of components. MC6125 was more consistent and improved tool life.								


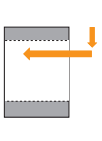
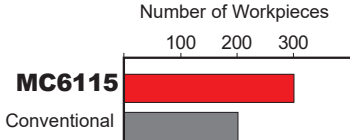
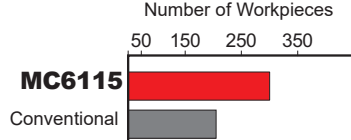
The application examples are from customers workpieces and can therefore differ from the recommended cutting conditions.

CVD Coated Grade for Steel Turning

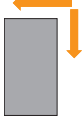
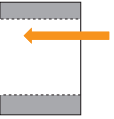
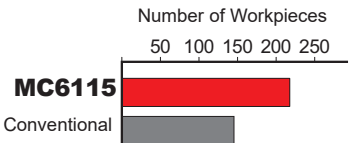
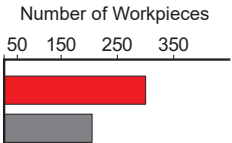
Examples of Usage

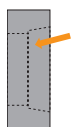
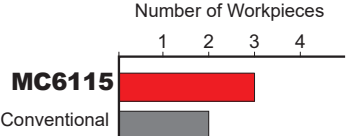
Insert		CNMG432MA	WNMG432MA
Workpiece	AISI 4140		AISI 5140
			
	Heavy Machinery Parts		Automotive Parts
	Internal Turning		External Face Turning
Cutting Conditions	Cutting Speed vc (SFM)	490	950
	Feed per Rev. f (IPR)	.012	.010
	Depth of Cut ap (inch)	.059	.039
Cutting Mode		Wet Cutting	Wet Cutting
Results	Number of Workpieces		Number of Workpieces
			
	Conventional		Conventional
	Tool life increased x 1.5 on a large workpiece (inner diameter 16.929 inch)		The excellent wear resistance of MC6115 helped achieve double tool life.

Insert		WNMG432MA	WNMG433MP
Workpiece	AISI 52100		AISI 5120H
			
	Bearing Parts		Machine Parts
	External Face Turning		Face Turning
Cutting Conditions	Cutting Speed vc (SFM)	650-910	770
	Feed per Rev. f (IPR)	.008-.012	.014
	Depth of Cut ap (inch)	.039	.039
Cutting Mode		Wet Cutting	Wet Cutting
Results	Number of Workpieces		Number of Workpieces
			
	Conventional		Conventional
	The excellent wear resistance of MC6115 helped achieve double tool life.		MC6115 achieved longer tool life compared to a conventional product.

Insert		WNMG432MP	WNMG434MA
Workpiece	AISI 5140		AISI 1049
			
	Hub		Joint Parts
	External Turning and Facing		Internal Turning and Facing
Cutting Conditions	Cutting Speed vc (SFM)	985	705
	Feed per Rev. f (IPR)	.010-.014	.010-.011
	Depth of Cut ap (inch)	.039-.098	.124
Cutting Mode		Wet Cutting	Wet Cutting
Results	Number of Workpieces		Number of Workpieces
			
	Conventional		Conventional
	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		DNMG443SA	CNMG432MP
Workpiece	Bearing Steel		AISI 5140
			
	Bearing Parts		Shaft Parts
	External Turning and Facing		Internal Turning
Cutting Conditions	Cutting Speed vc (SFM)	850	920
	Feed per Rev. f (IPR)	.012-.014	.011
	Depth of Cut ap (inch)	.020	.098
Cutting Mode		Wet Cutting	Wet Cutting
Results	Number of Workpieces		Number of Workpieces
			
	Conventional		Conventional
	Extreme resistance to chipping achieved 150% tool life and enabled easy identification of wear.		Number of components machined increased by 50% due to improved wear resistance.

Insert		WNMG432MP
Workpiece	Heated Tool Steel	
		
	Die Casting Parts	
	Internal Turning	
Cutting Conditions	Cutting Speed vc (SFM)	525
	Feed per Rev. f (IPR)	.010
	Depth of Cut ap (inch)	.079
Cutting Mode		Wet Cutting
Results	Number of Workpieces	
		
	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.



Welcome to our new world-class Machining Technology and Education Center (MTEC) in Mooresville, NC providing year round support and services to North America.



TOOLING PROPOSALS & EVALUATION

We will review your current processes or outline a new process. From this review, we will improve productivity, analyze programming methods and output a solution with programming, tooling and time savings.

MACHINING SIMULATION

Using the latest CAD/CAM software and our cutting tool experience, we will outline a new process using proper machining techniques to maximize tool life and productivity.

TECHNICAL SUPPORT

Dedicated local professionals to answer any of your order, product or technical questions.

TRAINING

We are excited to offer several levels of training with goals to reach our highest level--Craftsman Machining Technology. At MTEC NC, we will train using a combination of classroom and hands-on machine time to develop skills and real-world understanding of materials, tools and applications. In addition to multi-day courses, we will have Machining Technology skills seminars, as well as seminars from our partners to complement our apprentice level courses, our journeyman courses, and up to our craftsman level courses.

PROCESS IMPROVEMENTS

Review of the complete part processing and recommend changes of speed, feed, new tooling, reduction of passes, modifying programming and other solutions to reduce cycle time, save money and be proactive.



ONLINE TRAINING

Our FREE e-learning program offers 11 courses in drilling, milling, turning, threading, tool grades and workpiece materials. Once each course is completed, you will be given the opportunity to print a certificate.

- Basic Drilling
- Basic Milling
- Basic Turning
- Advanced Drilling
- Advanced End Milling
- Advanced Turning
- Basic Threading
- Advanced Face Milling
- Basic Workpiece Materials
- Tool Grades
- Advanced Workpiece Materials

TRAINING COURSES

Programs are designed for several levels of skill development – from basic understanding to advance manufacturing with digital solutions, complementing to your valued experience in CNC machining environment. Participate in machining demonstrations with Mitsubishi Materials' skilled engineers. Discover methods to reduce setup and cycle time, optimize programs and enhance your knowledge base.

Information on course schedule, course description, and accommodations

MTECTRaining.INFO

Follow the QR Code for a virtual facility tour





MITSUBISHI MATERIALS U.S.A. CORPORATION

California Office (Headquarters)

3535 Hyland Avenue, Suite 200
Costa Mesa, CA 92626
Customer Service: 800.523.0800
Technical Service: 800.486.2341

Chicago Office (Engineering)

300 N. Martingale Road, Suite 500
Schaumburg, IL 60173
Main: 847.252.6300
Fax: 847.519.1732

MMC Metal de Mexico, S.A. DE C.V.

Av. La Cañada No.16,
Parque Industrial Bernardo
Quintana, El Marques,
Queretaro C.P. 76246 MEXICO
Main: +52.442.221.61.36
Fax: +52.442.221.61.34

North Carolina-MTEC (Marketing & Technical Center)

105 Corporate Center Drive, Suite A
 Mooresville, NC 28117
Main: 980.312.3100
Fax: 704.746.9292

Toronto Office (Canada Branch)

600 Matheson Blvd. Unit 5 (Office)
Mississauga, ON L5R 4C1
Main: 905.814.0240
Fax: 905.814.0245

Detroit Office (Moldino CS)

41700 Gardenbrook Road, Suite 120
Novi, MI 48375
Main: 248.308.2620
Fax: 248.308.2627

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.



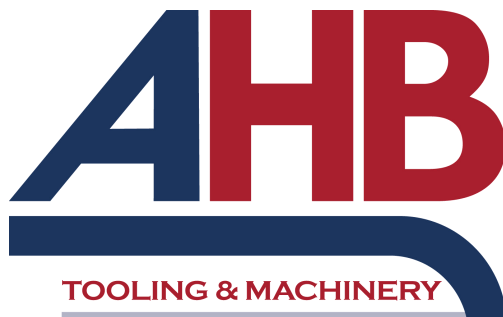
Product Brands Crafted by Mitsubishi Materials U.S.A.



www.diaedgetools.com
www.mmc-carbide.com/us

Tools specifications subject to change without notice.

B266A-US-2024.10



**COMPLETE
METALWORKING
SOLUTIONS**

(800) 991-4225

www.ahbinc.com
ISO Certified
customerservice@ahbinc.com