

Coated Grades For Stainless Steel Turning

New AC6030M / *New* AC6040M

Introducing New Grades For Stainless Steel Turning!!



AC6030M

New CVD Grade for General Purpose



AC6040M

New PVD Grade for Excellent Stability



New Chipbreaker Series For Stainless Steel Turning!

New release!

153 Items Expansion

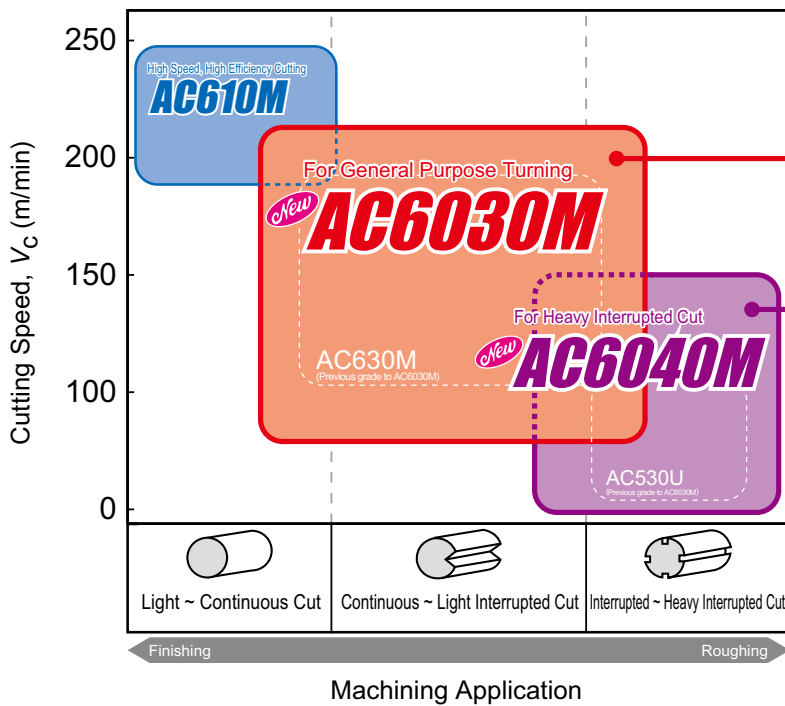
New EM Type Chipbreaker For Roughing!

The new lineup of grades and chipbreakers cater to a wide range of application needs in Stainless Steel machining.



EM type

Application Range



AC6030M *New*

The 1st recommended grade for general purpose machining of Stainless Steel. This grade utilizes the new Absotech Platinum Coat to drastically reduce the occurrence of abnormal tool damage, to achieve long and stable tool life.

AC6040M *New*

The 1st recommended grade for interrupted machining of Stainless Steel. This grade utilizes a special tough carbide substrate coupled with the new Absotech Bronze Coat, that exhibits excellent work adhesion and coating peel-off resistance, to drastically improve reliability under unstable machining conditions.

AC610M

A M10 carbide grade that utilizes a special, super-hard carbide substrate coupled with a thin Super FF Coat, for high efficiency Stainless Steel machining with improved wear resistance.

Features

A new series of coated carbide grades and chipbreakers, optimized for turning hard-to-cut Stainless Steel.

Achieving improved coating peel-off resistance and stable tool life, with the new coating technology - ABSOTECH.

Applicable to a wide range of applications from roughing to finishing, low-speed to high-speed machining for a variety of Stainless Steel, with extended tool life and better cost effectiveness.

Recommended Cutting Conditions

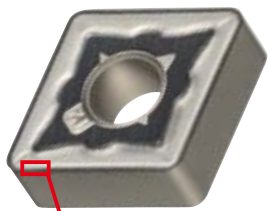
(Items in Red indicate 1st Recommendation)

Work Material		Application	Chipbreaker	Grade	Cutting Conditions min. - Optimum - max.		
					Depth of cut a_p (mm)	Feedrate f (mm/rev)	Cutting Speed V_c (m/min)
Cr-based	Ferritic Structure	Finishing	EF (SU)	AC610M	0.5-1.5-2.0	0.05- 0.15 -0.25	180-230 -300
		General	EG • GU • EX	AC6030M	1.0- 2.5 -4.0	0.10- 0.25 -0.40	160-200 -250
		Roughing	EM	AC6040M	1.5- 3.5 -6.0	0.20- 0.35 -0.60	140-170 -200
	Martensitic Structure	Finishing	EF (SU)	AC6030M	0.5-1.5-2.0	0.05- 0.15 -0.25	120- 180 -240
		General	EG • GU • EX	AC6030M	1.0- 2.5 -4.0	0.10- 0.25 -0.40	100- 150 -200
		Roughing	EM	AC6040M	1.5- 3.5 -6.0	0.20- 0.35 -0.60	80- 130 -180
Cr/Ni-based	Austenitic Structure	Finishing	EF (SU)	AC6030M	0.5-1.5-2.0	0.05- 0.15 -0.25	120-180 -240
		General	EG • GU • EX	AC6030M	1.0- 2.5 -4.0	0.10- 0.25 -0.40	100-150 -200
		Roughing	EM	AC6040M	1.5- 3.5 -6.0	0.20- 0.35 -0.60	80-130 -180
	Duplex (Austenitic / Ferritic) Structure	Finishing	EF (SU)	AC6030M	0.5-1.5-2.0	0.05- 0.15 -0.25	100-145 -180
		General	EG • GU • EX	AC6030M	1.0- 2.5 -4.0	0.10- 0.25 -0.40	80-120 -160
		Roughing	EM	AC6040M	1.5- 3.5 -6.0	0.20- 0.35 -0.60	70-100 -140
	Deposition Hardened Structure	Finishing	EF (SU)	AC6030M	0.5-1.5-2.0	0.05- 0.15 -0.25	90- 115 -140
		General	EG • GU • EX	AC6030M	1.0- 2.5 -4.0	0.10- 0.25 -0.40	70- 90 -130
		Roughing	EM	AC6040M	1.5- 3.5 -6.0	0.20- 0.35 -0.60	50- 80 -120

Note The values in blue have been updated from those in the 2015-2016 General Catalog.

AC6030M/AC6040M Features

General Purpose Grade **AC6030M** *New*



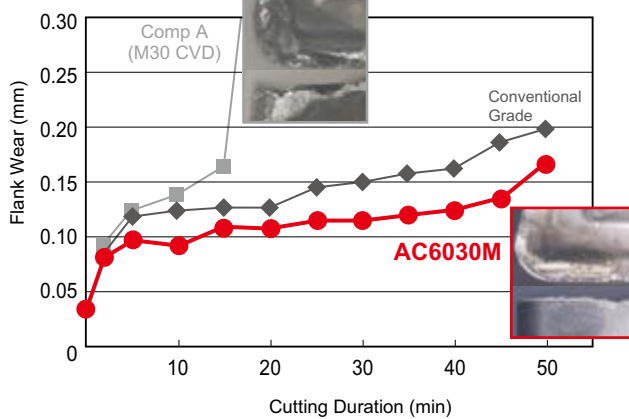
Cutting edge surface : SEM Image

Achieving more than double the chipping resistance of conventional coatings with improved coating strength
Smooth coating surface drastically improves adhesion resistance and reduces abnormal damage occurrence
Improved used corner visibility with unique coating color.

New CVD Coating - Absotech Platinum

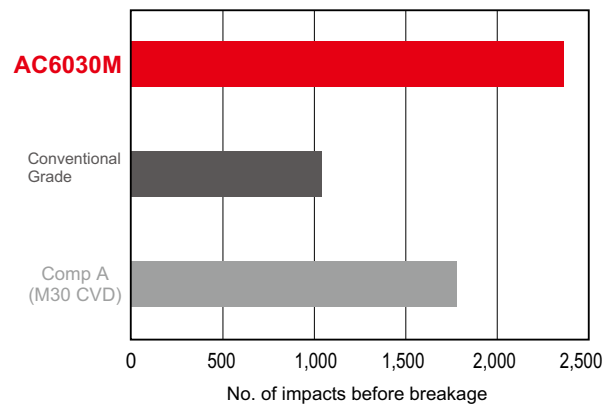
Newly developed coating stress control technology and surface smoothness treatment (patented technology) drastically improve chipping resistance and work adhesion resistance.

● Continuous Cut



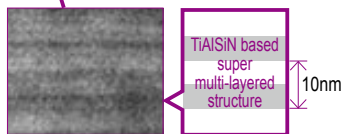
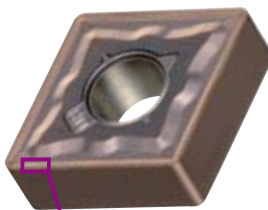
Work Material : SUS316 Insert : CNMG120408
Cutting Conditions : $V_c=200\text{m/min}$ $f=0.2\text{mm/rev}$ $a_p=2.0\text{mm}$ WET

● Interrupted Cut



Work Material : SUS316 Insert : CNMG120408
Cutting Conditions : $V_c=100\text{m/min}$ $f=0.1\text{mm/rev}$ $a_p=1.0\text{mm}$ WET

Grade for Interrupted Cut **AC6040M** *New*



Cross-section of coating layer: TEM Image

Super multi-layered coating structure, with new TiAlSiN-based composition, achieves excellent wear and oxidation resistance

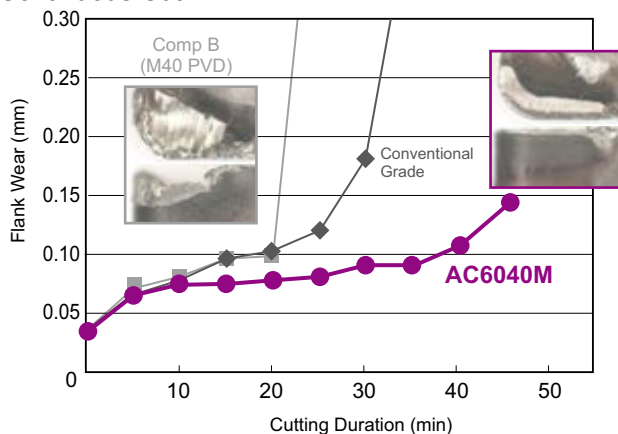
Drastic improvement in coating peel-off resistance by improving the boundary control technology between the carbide substrate and coating layer

Achieving more than double the fracture resistance of conventional grades in Stainless Steel machining.

New PVD Coating - Absotech Bronze

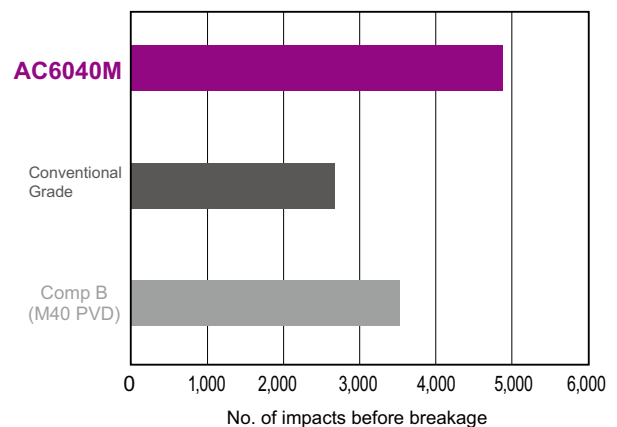
Improved cutting edge stability with a new coating composition inherited from our unique super multi-layer coating technology used in the Super ZX Coat, that is highly thermal-resistant as well as having improved adhesion strength between carbide substrate and coating layer.

● Continuous Cut



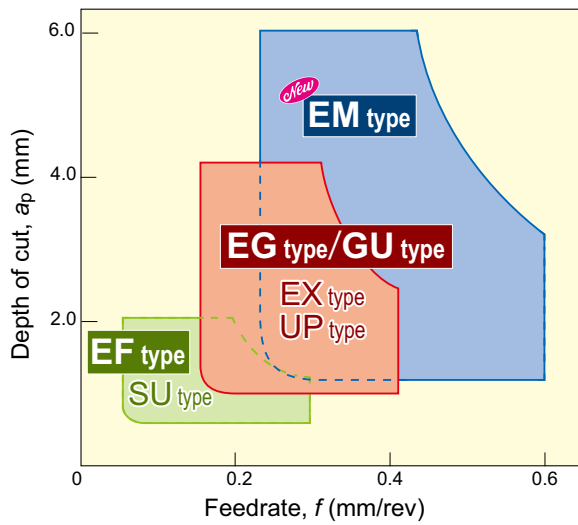
Work Material : SUS316 Insert : CNMG120408
Cutting Conditions : $V_c=150\text{m/min}$ $f=0.2\text{mm/rev}$ $a_p=2.0\text{mm}$ WET

● Interrupted Cut



Work Material : SUS316 Insert : CNMG120408
Cutting Conditions : $V_c=230\text{m/min}$ $f=0.23\text{mm/rev}$ $a_p=0.8\text{mm}$ DRY

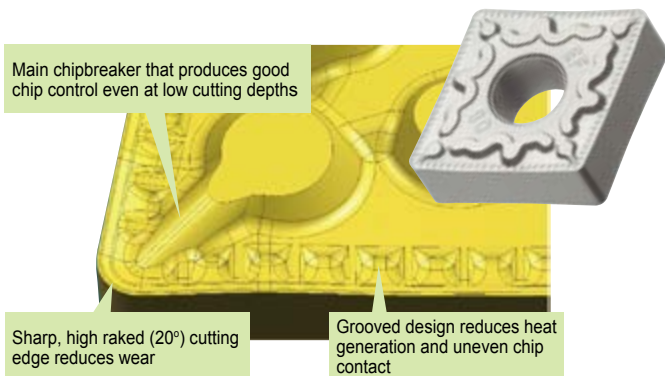
Chipbreaker Application Range



- The EM type for roughing has been added to the chipbreaker series for Stainless Steel machining, in addition to the current EF type for finishing and EG type for medium cutting.
- To ensure excellent stability during Stainless Steel turning operations, the EM type has improved cutting edge strength, while the EG type has both improved cutting edge strength as well as chip control abilities and the EF type has improved chip control abilities.

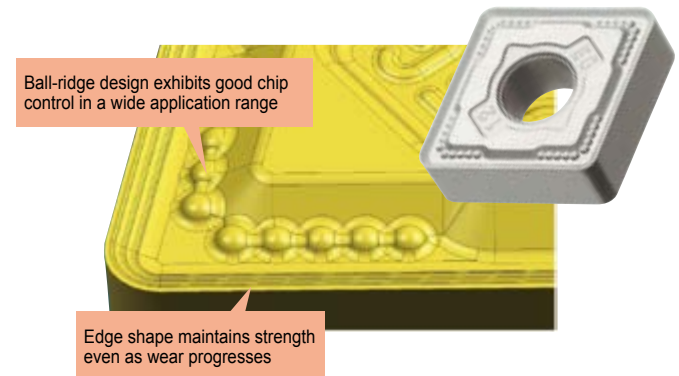
EF type Chipbreaker for Finishing

- Reduces chip curl diameter and demonstrates extremely good chip control performance in finishing applications.

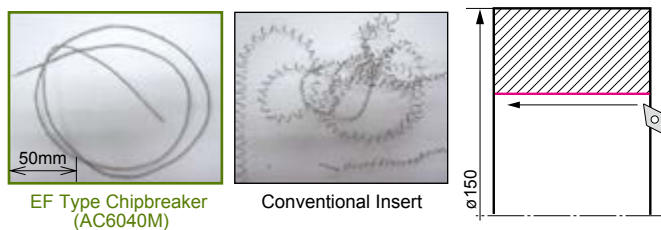


EG type Chipbreaker for Medium Cut

- Exhibiting excellent versatility in medium cutting applications with both excellent wear resistance and chip control.



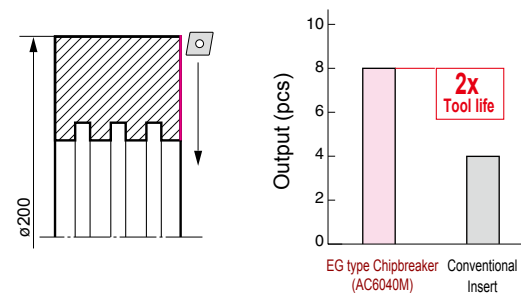
Application Example



Improved chip control and reduced scratches on the finished surface

Work Material : SUS304 (Cover Component)
 Insert : DNMG150408 (AC6030M)
 Cutting Conditions : $V_c=55\text{m/min}$ $f=0.125\text{mm/rev}$ $a_p=0.3\text{mm}$ WET

Application Example



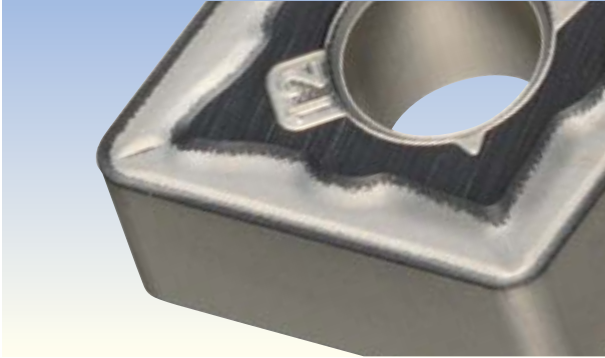
Achieving excellent chip control with reduced flank wear

Work Material : SCS13A (Coupling Component)
 Insert : CNMG120408 (AC6040M)
 Cutting Conditions : $V_c=70\sim 180\text{m/min}$ $f=0.143\text{mm/rev}$ $a_p=2.5\text{mm}$ WET

^{New} **EM Type Chipbreaker for Roughing**

■ **Features**

- Achieving excellent fracture and crater wear resistance that ensures exceptional machining stability.



Large radius, convex rake face design reduces crater wear while maintaining cutting edge strength



Reducing notch wear by eliminating the change of cutting points on the cutting edge

Reducing Edge Damage

	Reducing Notch Wear		Reducing Crater Wear	
	Cutting Edge Profile	Notch Wear Comparison	Cross Section	Crater Wear Comparison
Conventional Insert				
EM type	 The cutting edge profile has no change of cutting point thus reducing notch wear		 The large radius, convex rake face, smoothly evacuates chips and reduces crater wear	

■ **Application Example**

Achieving stability with reduced cutting edge fracture

EM type Chipbreaker (AC6030M)

Achieving longer tool life with reduced crater wear

Insert Type	Output (pcs)
EM type Chipbreaker (AC6030M)	~290
Conventional Insert	~145

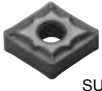




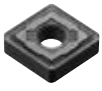





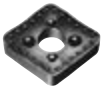
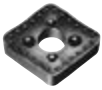
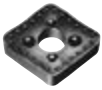
2x Tool life

Work Material : SUS316 (Flange Component)
 Insert : SNMG190616 (AC6030M)
 Cutting Conditions : $V_c=70\text{m/min}$ $f=0.5\text{mm/rev}$ $a_p=3.0\sim 8.0\text{mm WET}$






Work Material : SUS304 (Valve Component)
 Insert : SNMG120408 (AC6030M)
 Cutting Conditions : $V_c=100\text{m/min}$ $f=0.32\text{mm/rev}$ $a_p=2.0\sim 2.5\text{mm WET}$

Negative Inserts



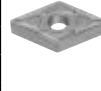
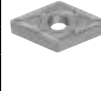
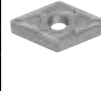
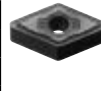
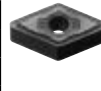
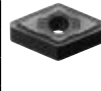
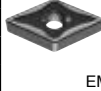
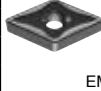


80° Diamond Type

Appearance	Catalogue No.	Stock		Dimensions (mm)				
		AC6030M	AC6040M	Inscribed Circle	Thickness	Insert Hole Diameter	Nose Radius	
	CNMG120402N-SU	●	●	12.7	4.76	5.16	0.2	
	120404N-SU	●	●				0.4	
	120408N-SU	●	●				0.8	
	120412N-SU	●	●				1.2	
	CNMG120404N-EF	●	●	12.7	4.76	5.16	0.4	
	120408N-EF	●	●				0.8	
	120412N-EF	●	●				1.2	
	CNMG120404N-EX	●	●	12.7	4.76	5.16	0.4	
	120408N-EX	●	●				0.8	
	120412N-EX	●	●				1.2	
	CNMG120404N-UP	●	●	12.7	4.76	5.16	0.4	
	120408N-UP	●	●				0.8	
	120412N-UP	●	●				1.2	
	CNMG120404N-GU	●	●	12.7	4.76	5.16	0.4	
	120408N-GU	●	●				0.8	
	120412N-GU	●	●				1.2	
	CNMG160608N-GU	●	●				15.875	6.35
160612N-GU	●	●	1.2					
160616N-GU	●	●	1.6					
	CNMG120404N-EG	●	●	12.7	4.76	5.16	0.4	
	120408N-EG	●	●				0.8	
	120412N-EG	●	●				1.2	
	CNMG160608N-EG	●	●	15.875	6.35	6.35	0.8	
	160612N-EG	●	●				1.2	
	160616N-EG	●	●				1.6	
	CNMG190612N-EG	●	●	19.05	6.35	7.94	1.2	
	190616N-EG	●	●				1.6	
	CNMG120408N-EM	●	●	12.7	4.76	5.16	0.8	
	120412N-EM	●	●				1.2	
	120416N-EM	●	●				1.6	
	CNMG160608N-EM	●	●	15.875	6.35	6.35	0.8	
	160612N-EM	●	●				1.2	
	160616N-EM	●	●				1.6	
	CNMG190612N-EM	●	●	19.05	6.35	7.94	1.2	
	190616N-EM	●	●				1.6	
	190624N-EM	●	●	19.05	6.35	7.94	2.4	
	CNMG250924N-EM	●	●	25.4	9.52	9.12	2.4	
	CNMM120408N-MP	●	●	12.7	4.76	5.16	0.8	
	120412N-MP	●	●				1.2	
	120416N-MP	●	●				1.6	
		CNMM190608N-MP	●	●	19.05	6.35	7.94	0.8
		190612N-MP	●	●				1.2
		190616N-MP	●	●				1.6
	190624N-MP	●	●	19.05	6.35	7.94	2.4	







55° Diamond Type

	DNMG110404N-SU	●	●	9.525	4.76	3.81	0.4	
	110408N-SU	●	●				0.8	
	110412N-SU	●	●				1.2	
		DNMG150402N-SU	●	●	12.7	4.76	5.16	0.2
150404N-SU		●	●	0.4				
150408N-SU		●	●	0.8				
150412N-SU		●	●	1.2				
	DNMG110404N-EF	●	●	9.525	4.76	3.81	0.4	
	110408N-EF	●	●				0.8	
	110412N-EF	●	●				1.2	
		DNMG150404N-EF	●	●	12.7	4.76	5.16	0.4
		150408N-EF	●	●				0.8
		150412N-EF	●	●				1.2
	DNMG150604N-EF	●	●	12.7	6.35	5.16	0.4	
	150608N-EF	●	●				0.8	
	150612N-EF	●	●				1.2	

55° Diamond Type (Continued)

Appearance	Catalogue No.	Stock		Dimensions (mm)				
		AC6030M	AC6040M	Inscribed Circle	Thickness	Insert Hole Diameter	Nose Radius	
	DNMG150404N-EX	●	●	12.7	4.76	5.16	0.4	
	150408N-EX	●	●				0.8	
	150412N-EX	●	●				1.2	
	DNMG150604N-EX	●	●				12.7	6.35
150608N-EX	●	●	0.8					
150612N-EX	●	●	1.2					
	DNMG150404N-UP	●	●	12.7	4.76	5.16	0.4	
	150408N-UP	●	●				0.8	
	150412N-UP	●	●				1.2	
	DNMG110404N-GU	●	●	9.525	4.76	3.81	0.4	
	110408N-GU	●	●				0.8	
	110412N-GU	●	●				1.2	
		DNMG150404N-GU	●	●	12.7	4.76	5.16	0.4
		150408N-GU	●	●				0.8
		150412N-GU	●	●				1.2
	DNMG150608N-GU	●	●	12.7	6.35	5.16	0.8	
	150612N-GU	●	●				1.2	
	DNMG110408N-EG	●	●	9.525	4.76	3.81	0.8	
	110412N-EG	●	●				1.2	
		DNMG150404N-EG	●	●	12.7	4.76	5.16	0.4
		150408N-EG	●	●				0.8
	DNMG150604N-EG	●	●	12.7	6.35	5.16	0.4	
	150608N-EG	●	●				0.8	
	150612N-EG	●	●				1.2	
	150616N-EG	●	●				1.6	
	DNMG150408N-EM	●	●	12.7	4.76	5.16	0.8	
	150412N-EM	●	●				1.2	
	150416N-EM	●	●				1.6	
	DNMG150608N-EM	●	●	12.7	6.35	5.16	0.8	
	150612N-EM	●	●				1.2	
	DNMG150404R-HM	●	●	12.7	4.76	5.16	0.4	
	150404L-HM	●	●				0.4	
	150408R-HM	●	●				0.8	
	150408L-HM	●	●	12.7	4.76	5.16	0.8	

Square Type

	SNMG120408N-SU	●	●	12.7	4.76	5.16	0.8			
	SNMG120404N-EF	●	●	12.7	4.76	5.16	0.4			
	120408N-EF	●	●				0.8			
	SNMG120404N-EX	●	●	12.7	4.76	5.16	0.4			
	120408N-EX	●	●				0.8			
	120412N-EX	●	●				1.2			
	SNMG120404N-UP	●	●	12.7	4.76	5.16	0.4			
	120408N-UP	●	●				0.8			
	120412N-UP	●	●				1.2			
	SNMG120404N-GU	●	●	12.7	4.76	5.16	0.4			
	120408N-GU	●	●				0.8			
	120412N-GU	●	●				1.2			
	SNMG150608N-GU	●	●				15.875	6.35	6.35	0.8
	150612N-GU	●	●							1.2
	150616N-GU	●	●	15.875	6.35	6.35	1.6			

● mark: Standard stocked item, ● mark: Standard stocked item (series expansion), Blank: Made to order

Negative Inserts

□ Square Type (Continued)

Appearance	Catalogue No.	Stock		Dimensions (mm)			
		AC630M	AC640M	Inscribed Circle	Thickness	Insert Hole Diameter	Nose Radius
	SNMG120404N-EG	●	●				0.4
	120408N-EG	●	●	12.7	4.76	5.16	0.8
	120412N-EG	●	●				1.2
	SNMG150608N-EG	●	●				0.8
	150612N-EG	●	●	15.875	6.35	6.35	1.2
	150616N-EG	●	●				1.6
EG	SNMG190612N-EG	●	●				1.2
	190616N-EG	●	●	19.05	6.35	7.94	1.6
	SNMG120408N-EM	●	●	12.7	4.76	5.16	0.8
	120412N-EM	●	●				1.2
	SNMG150608N-EM	●	●				0.8
	150612N-EM	●	●	15.875	6.35	6.35	1.2
	150616N-EM	●	●				1.6
	SNMG190612N-EM	●	●				1.2
	190616N-EM	●	●	19.05	6.35	7.94	1.6
	190624N-EM	●	●				2.4
	SNMG250924N-EM	●	●	25.4	9.52	9.12	2.4
	SNMG120408R-HM	●	●	12.7	4.76	5.16	0.8
	120408L-HM	●	●				0.8
	SNMG150608R-HM	●	●	15.875	6.35	6.35	0.8
HM	150608L-HM	●	●				0.8
		SNMM120408N-MP	●	●			
120412N-MP		●	●	12.7	4.76	5.16	1.2
120416N-MP		●	●				1.6
SNMM190612N-MP		●	●				1.2
190616N-MP		●	●	19.05	6.35	7.94	1.6
SNMM250724N-MP		●	●	25.4	7.94	9.12	2.4
MP	SNMM250924N-MP	●	●	25.4	9.52	9.12	2.4
	SNMM310924N-MP	●	●	31.75	9.52	8.8	2.4

△ Triangular Type

	TNMG160402N-SU	●	●				0.2
	160404N-SU	●	●				0.4
	160408N-SU	●	●	12.7	4.76	3.81	0.8
	160412N-SU	●	●				1.2
SU	TNMG160404N-EF	●	●	12.7	4.76	3.81	0.4
	160408N-EF	●	●				0.8
EF	TNMG160404N-EX	●	●				0.4
	160408N-EX	●	●	12.7	4.76	3.81	0.8
	160412N-EX	●	●				1.2
EX	TNMG160404N-UP	●	●				0.4
	160408N-UP	●	●	12.7	4.76	3.81	0.8
	160412N-UP	●	●				1.2
UP	TNMG160404N-GU	●	●				0.4
	160408N-GU	●	●	12.7	4.76	3.81	0.8
	160412N-GU	●	●				1.2
GU	TNMG160404N-EG	●	●				0.4
	160408N-EG	●	●	12.7	4.76	3.81	0.8
	160412N-EG	●	●				1.2
EG	TNMG160408N-EM	●	●				0.8
	160412N-EM	●	●	12.7	4.76	3.81	1.2
	TNMG330924N-EM	●	●	19.05	9.52	7.93	2.4
EM	TNMG160404R-HM	●	●				0.4
	160404L-HM	●	●				0.4
	160408R-HM	●	●	12.7	4.76	3.81	0.8
	160408L-HM	●	●				0.8

◇ 35° Diamond Type

Appearance	Catalogue No.	Stock		Dimensions (mm)			
		AC630M	AC640M	Inscribed Circle	Thickness	Insert Hole Diameter	Nose Radius
	VNMG160402N-SU	●	●				0.2
	160404N-SU	●	●	9.525	4.76	3.81	0.4
	160408N-SU	●	●				0.8
SU	VNMG160402N-EF	●	●				0.2
	160404N-EF	●	●	9.525	4.76	3.81	0.4
	160408N-EF	●	●				0.8
EF	VNMG160404N-EX	●	●				0.4
	160408N-EX	●	●	9.525	4.76	3.81	0.8
	VNMG160404N-UP	●	●				0.4
EX	160408N-UP	●	●	9.525	4.76	3.81	0.8
	UP	VNMG160404N-GU	●	●			
160408N-GU		●	●	9.525	4.76	3.81	0.8
160412N-GU		●	●				1.2
GU	VNMG160404N-EG	●	●				0.4
	160408N-EG	●	●	9.525	4.76	3.81	0.8
	160412N-EG	●	●				1.2

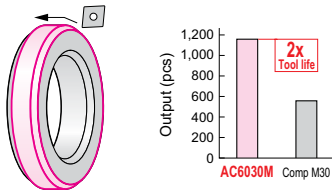
△ Trigon Type

	WNMG060404N-SU	●	●				0.4
	060408N-SU	●	●	9.525	4.76	3.81	0.8
	060412N-SU	●	●				1.2
	WNMG080404N-SU	●	●				0.4
SU	080408N-SU	●	●	12.7	4.76	5.16	0.8
	080412N-SU	●	●				1.2
	WNMG060404N-EF	●	●				0.4
EF	060408N-EF	●	●	9.525	4.76	3.81	0.8
	060412N-EF	●	●				1.2
	WNMG080404N-EF	●	●	12.7	4.76	5.16	0.4
EX	080408N-EF	●	●				0.8
	WNMG080404N-EX	●	●				0.4
	080408N-EX	●	●	12.7	4.76	5.16	0.8
UP	080412N-EX	●	●				1.2
	WNMG080408N-UP	●	●				0.8
	080412N-UP	●	●	12.7	4.76	5.16	1.2
GU	WNMG060404N-GU	●	●				0.4
	060408N-GU	●	●	9.525	4.76	3.81	0.8
	060412N-GU	●	●				1.2
	WNMG080404N-GU	●	●				0.4
EG	080408N-GU	●	●	12.7	4.76	5.16	0.8
	080412N-GU	●	●				1.2
	WNMG060408N-EG	●	●				0.8
EM	060412N-EG	●	●	9.525	4.76	3.81	1.2
	WNMG080404N-EG	●	●				0.4
	080408N-EG	●	●	12.7	4.76	5.16	0.8
EM	080412N-EG	●	●				1.2
	WNMG080408N-EM	●	●				0.8
	080412N-EM	●	●	12.7	4.76	5.16	1.2

AC6030M

【SUS430 Motorcycle Component】

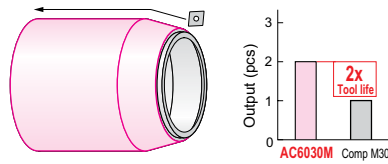
Excellent adhesion resistance ensures stable finished surface quality and double the tool life.



Insert : CNMG120404N-EF (AC6030M)
 Conditions : $V_c=120\text{m/min}$ $f=0.10\text{mm/rev}$
 $a_p=0.8\sim 1.5\text{mm}$ WET

【SCS11 Pump Component】

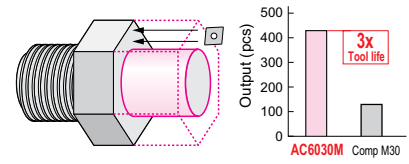
Achieving 2.5 times better efficiency ($V_c=60\rightarrow 100\text{m/min}$, $f=0.2\rightarrow 0.3\text{mm/rev}$) with 2 times longer tool life.



Insert : CNMG120408N-EG (AC6030M)
 Conditions : $V_c=100\text{m/min}$ $f=0.30\text{mm/rev}$
 $a_p=0.5\text{mm}$ WET

【SUS304 Joint Component】

Enables rough and finish shaping operations of a hexagonal bar with a single grade and achieving 3 times longer tool life.

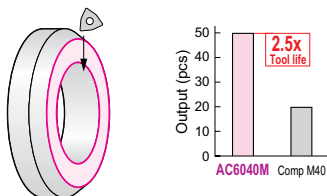


Insert : CNMG120412N-GU (AC6030M)
 Conditions : $V_c=50\sim 75\text{m/min}$ $f=0.16\text{mm/rev}$
 $a_p=2.0\text{mm}$ WET

AC6040M

【SCS13 Flange Joint Component】

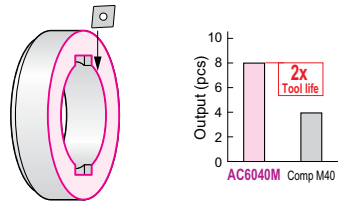
Excellent wear resistance ensures stable finished surface quality and 2.5 times longer tool life.



Insert : WNMG080408N-EX (AC6040M)
 Conditions : $V_c=140\sim 200\text{m/min}$ $f=0.08\text{mm/rev}$
 $a_p=0.5\text{mm}$ WET

【SCS13 Coupling】

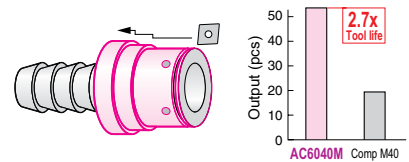
Achieving double the tool life with excellent fracture resistance.



Insert : CNMG120408N-EG (AC6040M)
 Conditions : $V_c=70\sim 180\text{m/min}$ $f=0.14\text{mm/rev}$
 $a_p=2.5\text{mm}$ WET

【SUS304 Nozzle】

Achieving 2.7 times longer tool life with excellent adhesion resistance.



Insert : CNMG120408N-GU (AC6040M)
 Conditions : $V_c=150\text{m/min}$ $f=0.15\text{mm/rev}$
 $a_p=1.5\text{mm}$ WET

SAFETY NOTES

- Very hot or lengthy chips may be discharged while the machine is in operation. Therefore, machine guards, safety goggles or other protective covers must be used. Fire safety precautions must also be considered.
- Please handle with care as this product has sharp edges.
- Improper cutting conditions or mis-handling of the tool may result in breakages or projectiles. Therefore, please use the tool within its recommended conditions.
- When using non-water soluble cutting oil, precautions against fire must be taken and please ensure that a fire extinguisher is placed near the machine.

 **SUMITOMO ELECTRIC INDUSTRIES, LTD.**









Global Marketing Department : 1-1 Koyakita 1-Chome, Itami, Hyogo 644-0016 Japan

Tel : (+81) 72-772-4535





Fax : (+81) 72-771-0088

Positive Insert







80° Diamond Type

Appearance	Relief angle	Catalogue No.	Stock		Dimensions (mm)			
			AC6030M	AC6040M	Inscribed Circle	Thickness	Insert Hole Diameter	Nose Radius
	7°	CCMT060202N-LU	●	●	6.35	2.38	2.8	0.2
		060204N-LU	●	●				0.4
		CCMT09T304N-LU	●	●				9.525
09T308N-LU	●	●	0.8					
	7°	CCMT060202N-LB	●	●	6.35	2.38	2.8	0.2
		060204N-LB	●	●				0.4
		060208N-LB	●	●				0.8
		CCMT09T302N-LB	●	●	9.525	3.97	4.4	0.2
		09T304N-LB	●	●				0.4
		09T308N-LB	●	●				0.8
	7°	CCMT060202N-SU	●	●	6.35	2.38	2.8	0.2
		060204N-SU	●	●				0.4
		060208N-SU	●	●				0.8
		CCMT09T302N-SU	●	●	9.525	3.97	4.4	0.2
		09T304N-SU	●	●				0.4
09T308N-SU	●	●	0.8					
	7°	CCMT09T304N-MU	●	●	9.525	3.97	4.4	0.4
		09T308N-MU	●	●				0.8
	11°	CPMT090304N-LU	●	●	9.525	3.18	4.4	0.4
		090308N-LU	●	●				0.8
	11°	CPMT080204N-LB	●	●	7.94	2.38	3.4	0.4
		CPMT090304N-LB	●	●				9.525
090308N-LB	●	●	0.8					
	11°	CPMT090304N-SU	●	●	9.525	3.18	4.4	0.4
		090308N-SU	●	●				0.8
	11°	CPMT090304N-MU	●	●	9.525	3.18	4.4	0.4
		090308N-MU	●	●				0.8








55° Diamond Type

	7°	DCMT070202N-LU	●	●	6.35	2.38	2.8	0.2			
		070204N-LU	●	●				0.4			
		DCMT11T302N-LU	●	●				9.525	3.97	4.4	0.2
		11T304N-LU	●	●							0.4
11T308N-LU	●	●	0.8								
	7°	DCMT070202N-LB	●	●	6.35	2.38	2.8	0.2			
		070204N-LB	●	●				0.4			
		070208N-LB	●	●				0.8			
		DCMT11T302N-LB	●	●	9.525	3.97	4.4	0.2			
		11T304N-LB	●	●				0.4			
		11T308N-LB	●	●				0.8			
	7°	DCMT070202N-SU	●	●	6.35	2.38	2.8	0.2			
		070204N-SU	●	●				0.4			
		070208N-SU	●	●				0.8			
		DCMT11T302N-SU	●	●	9.525	3.97	4.4	0.2			
		11T304N-SU	●	●				0.4			
11T308N-SU	●	●	0.8								
	7°	DCMT11T304N-MU	●	●	9.525	3.97	4.4	0.4			
		11T308N-MU	●	●				0.8			

Square Type

Appearance	Relief angle	Catalogue No.	Stock		Dimensions (mm)			
			AC6030M	AC6040M	Inscribed Circle	Thickness	Insert Hole Diameter	Nose Radius
	7°	SCMT09T304N-LU	●	●	9.525	3.97	4.4	0.4
		09T308N-LU	●	●				0.8
	7°	SCMT09T304N-LB	●	●	9.525	3.97	4.4	0.4
		09T308N-LB	●	●				0.8
	7°	SCMT09T304N-SU	●	●	9.525	3.97	4.4	0.4
		09T308N-SU	●	●				0.8
	7°	SCMT09T308N-MU	●	●	9.525	3.97	4.4	0.8
	11°	SPMT090304N-LU	●	●	9.525	3.18	3.4	0.4
		090308N-LU	●	●				0.8
	11°	SPMT090304N-LB	●	●	9.525	3.18	3.4	0.4
		090308N-LB	●	●				0.8



Triangular Type

	7°	TCMT110204N-LU	●	●	6.35	2.38	2.8	0.4
		110208N-LU	●	●				0.8
	7°	TCMT110204N-LB	●	●	6.35	2.38	2.8	0.4
		110208N-LB	●	●				0.8
	7°	TCMT110204N-SU	●	●	6.35	2.38	2.8	0.4
		110208N-SU	●	●				0.8
		TCMT16T304N-SU	●	●				9.525
16T308N-SU	●	●	0.8					
	11°	TPMT080202N-LU	●	●	4.76	2.38	2.4	0.2
		080204N-LU	●	●				0.4
		TPMT110302N-LU	●	●	6.35	3.18	3.4	0.2
		110304N-LU	●	●				0.4
110308N-LU	●	●	0.8					
	11°	TPMT080202N-LB	●	●	4.76	2.38	2.4	0.2
		080204N-LB	●	●				0.4
		TPMT090202N-LB	●	●	5.56	2.38	2.8	0.2
		090204N-LB	●	●				0.4
		TPMT110302N-LB	●	●	6.35	3.18	3.4	0.4
		110304N-LB	●	●				0.4
		110308N-LB	●	●	0.8			
TPMT160304N-LB	●	●	9.525	3.18	4.4	0.4		
160308N-LB	●	●				0.8		
	11°	TPMT160404N-LB	●	●	9.525	4.76	4.4	0.4
		160408N-LB	●	●				0.8
		TPMT080202N-SU	●	●	4.76	2.38	2.4	0.2
080204N-SU	●	●	0.4					
	11°	TPMT110302N-SU	●	●	6.35	3.18	3.4	0.2
		110304N-SU	●	●				0.4
		110308N-SU	●	●	0.8			
		TPMT160404N-SU	●	●	9.525	4.76	4.4	0.4
160408N-SU	●	●	0.8					







● mark: Standard stocked item, ● mark: Standard stocked item (series expansion), Blank: Made to order

Positive Insert


Triangular Type (Continued)

Appearance	Relief angle	Catalogue No.	Stock		Dimensions (mm)			
			AC6030M	AC6040M	Inscribed Circle	Thickness	Insert Hole Diameter	Nose Radius
 MU	11°	TPMT110304N-MU	●		6.35	3.18	3.4	0.4
		110308N-MU	●					0.8
 MU	11°	TPMT160404N-MU	●		9.525	4.76	4.4	0.4
		160408N-MU	●					0.8

35° Diamond Type

 LU	5°	VBMT110304N-LU <i>New</i>	●	●	6.35	3.18	2.8	0.4			
		110308N-LU	●	●				0.8			
		VBMT160404N-LU	●	●	9.525	4.76	4.4	0.4			
		160408N-LU	●	●				0.8			
 LB	5°	VBMT110302N-LB <i>New</i>	●	●	6.35	3.18	2.8	0.2			
		110304N-LB <i>New</i>	●	●				0.4			
		110308N-LB <i>New</i>	●	●				0.8			
		VBMT160404N-LB	●	●				0.4			
		160408N-LB	●	●	9.525	4.76	4.4	0.8			
		160412N-LB	●	●				1.2			
 SU	5°	VBMT110304N-SU <i>New</i>	●	●	6.35	3.18	2.8	0.4			
		110308N-SU	●	●				0.8			
		VBMT160404N-SU	●	●				9.525	4.76	4.4	0.4
		160408N-SU	●	●				0.8			
 LU	7°	VCMT160404N-LU	●	●	9.525	4.76	4.4	0.4			
		160408N-LU	●	●				0.8			
 LB	7°	VCMT080202N-LB <i>New</i>	●	●	4.76	2.38	2.3	0.2			
		080204N-LB <i>New</i>	●	●				0.4			
		VCMT160404N-LB <i>New</i>	●	●				9.525	4.76	4.4	0.4
		160408N-LB <i>New</i>	●	●							0.8
 SU	7°	VCMT080204N-SU	●	●	4.76	2.38	2.3	0.4			
		VCMT110302N-SU	●	●				0.2			
		110304N-SU	●	●				6.35	3.18	2.8	0.4
		110308N-SU	●	●							0.8
		VCMT160404N-SU	●	●				9.525	4.76	4.4	0.4
		160408N-SU	●	●				0.8			

Trigon Type

 LB	11°	WPMT110204N-LB <i>New</i>	●	●	6.35	2.38	2.8	0.4
		WPMT160308N-LB	●	●				9.525