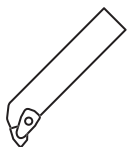


# CUTTING TOOLS

Exploring Limitless Machining KORLOY



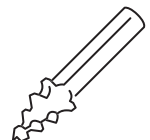
Turning



Milling



Holemaking



Endmilling



A variety of high performance tools  
**KORLOY CUTTING TOOLS**

# CONTENTS

## Grades / Chip Breakers .....

Selection of KORLOY Grades	05
CVD Coated Grades	07
PVD Coated Grades	08
Cermet Grades	10
Uncoated Carbide Grades	11
cBN Grades	13
PCD Grades	14
Chip Breakers	15

## Inserts .....

Turning Inserts	29
Milling Inserts	42
Drilling Inserts	51
Inserts for Aluminium Machining	52
Multi Functional Tools (Inserts)	55
Bearing Inserts	58
cBN Inserts	58
PCD Inserts	60

## Turning Tools .....

Tool Holders (ISO Type)	62
Boring Bars (ISO Type)	69
Save Turn	73
Auto tools	75
Multi Functional Tools (Holders)	77

## Milling Tools .....

Face Milling Cutters	82
Multi Functional Cutters	91
For Aluminum Milling	94
High Feed Milling Cutters	96
Side Cutters	98

## Endmills / Drills .....

Solid Endmills	101
Solid Drills	108
Indexable Drills	109
Indexable Endmills	111

## The Comparison of Chip Breakers, Grades ....

The Comparison of Chip Breakers	113
The Comparison of Grades	114

# Grades / Chip Breakers

Korloys new grades are designed with optimal substrates for each application and are PVD coated for high temperature, high hardness and oxidation resistance, or CVD coated for high temperature and wear resistance. Additionally, the improved post-coating treatment provides superior surface finishes to ensure the highest levels of quality and productivity.

Inserts

Turning Tools

Milling Tools

Endmills / Drills

The Comparison of Chip Breakers, Grades

- Selection of KORLOY Grades
- CVD Coated Grades
- PVD Coated Grades
- Cermet Grades
- Uncoated Carbide Grades
- cBN Grades
- PCD Grades
- Chip Breakers

# < Selection of KORLOY Grades >

## Turning

Workpiece	P					M				K				S				N				H					
	ISO	P01	P10	P20	P30	P40	P50	M10	M20	M30	M40	K01	K10	K20	K30	S01	S10	S20	S30	N01	N10	N20	N30	H01	H10	H20	H30
Coated carbide				NC3215				PC8105					NC6310 <i>new</i>				PC8105			ND3000 <i>new</i>							PC8105
				NC3225				PC8110					NC6315				PC8110			PD1005 <i>new</i>							PC8110
				NC3120				PC8120 <i>new</i>					NC5330				PC8115			PD1010 <i>new</i>							PC8115
				NC3030				NC9115 <i>new</i>					NC5330				PC8120 <i>new</i>			PD1010 <i>new</i>							PC8115
				NC5330				NC9125 <i>new</i>					NC5330				NC9125 <i>new</i>			PD1010 <i>new</i>							PC8115
				PC5300				NC9135 <i>new</i>					PC5300				NC9135 <i>new</i>			PD1010 <i>new</i>							PC8115
				PC5400				PC5300					PC5400				PC5300			PD1010 <i>new</i>							PC8115
								PC9030					PC5400				PC5300			PD1010 <i>new</i>							PC8115
								PC5400					PC5400				PC5400			PD1010 <i>new</i>							PC8115
																				PC5400							
Cermets			CC1500										CC1500														
			CC2500										CC2500														
			CN1500										CN1500														
			CN2500										CN2500														
cBN / PCD												DBN700				DB7000				DP90						DNC100	
												DBN800								DP150						DNC250	
												DBN500								DP200						DNC400	
Uncoated carbide			ST10					U20				H01				H01				H01						H01	
				ST20								H05				H05				H05							
				ST30A								G10															

## Milling

Workpiece	P					M				K				S				N				H						
	ISO	P01	P10	P20	P30	P40	P50	M10	M20	M30	M40	K01	K10	K20	K30	S01	S10	S20	S30	N01	N10	N20	N30	H01	H10	H20	H30	
Coated carbide				NC5330				NC5330				PC6510								ND3000 <i>new</i>							PC2005	
				PC3700 <i>new</i>				PC5300				NC5330				PC5300				PD1005 <i>new</i>							PC2505 <i>new</i>	
				NCM535 <i>new</i>				PC9530				PC5300				PC5400				PD1010 <i>new</i>							PC2010	
				PC5300				PC5400				NCM535 <i>new</i>				PC9540 <i>new</i>											PC2510 <i>new</i>	
				NCM545 <i>new</i>				PC9540 <i>new</i>				PC5400															PC2015	
				PC5400								NCM545 <i>new</i>															PC210F	
Cermets				CN2500																								
				CN30																								
cBN / PCD																					DP90						DBN500	
																					DP150							
																					DP200							
Uncoated carbide			ST20					U20				H01									H01							
				ST30A								H05									H05							

# Selection of KORLOY Grades

## Endmilling

Workpiece	Grade	ISO	Application range
P Steel	PC303S	P01	
	PC310U	P10	PC303S PC203F PC305H PC310U
	PC315F	P20	
	PC320	P40	PC315E PC320 PC215F PC215F
M Stainless steel	PC303S	M01	
	PC310U	M10	PC303S PC203F PC305H PC310U
	PC320S	M20	PC320S PC315E PC320 PC215F
	PC315E	M30	
K Cast iron	PC303S	K01	PC303S PC203F PC305H PC310U
	PC310U	K10	
	PC315E	K20	PC315E PC320 PC215F
	PC320	K40	
S HRSA	PC320S	S20	PC320S PC315E PC320 PC215F SL
	PC315E	S30	
N Nonferrous	ND3000 <sup>new</sup>	N01	ND3000 <sup>new</sup>
	ND2100 <sup>new</sup>	N05	ND2100 <sup>new</sup> PD1005 <sup>new</sup>
	PD3000	N10	PD1010 <sup>new</sup> H01 H05S PC210C
	H01	N20	
H High hardness steel	PC303S	H01	
	PC203F	H10	PC303S PC203F PC305H PC310U
	PC310U	H20	

## Drilling

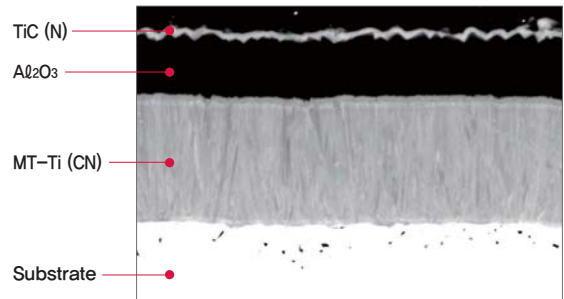
Workpiece	Grade	ISO	Application range
P Steel	PC215G	P01	
	PC315G	P10	
	PC325U	P20	PC215G PC315G PC325U PC230F
	PC230F	P30	
M Stainless steel	PC215G	M01	
	PC315G	M10	PC215G PC315G PC325U
	PC325U	M30	
K Cast iron	PC215G	K01	
	PC315G	K10	PC215G PC315G PC325U
	PC205F	K20	
	PC325U	K30	
N Nonferrous	ND2100 <sup>new</sup>	N05	ND2100 <sup>new</sup>
	FG2 FA1	N10	FG2 FA1
		N20	
S HRSA	PC325T <sup>new</sup>	S20	PC325T <sup>new</sup>
		S30	



# CVD Coated Grades

## Features

- KORLOY cermet is a carbonitride type cermet which has an ultra fine microstructure accomplished by adding TiN, TiCN powders as additives. It also has superior toughness, thermal shock and wear resistance.



Cross-sectional view of CVD coating

## Grades Selection Guide

### Turning

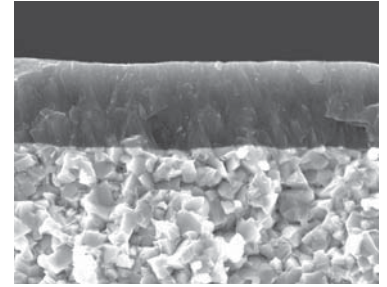
Workpiece	Machining types	Recommended grade	Recommended cutting speed (m/min)	ISO	Application range
P Steel	Continuous cutting	NC3215	295 (170 ~ 420)	P10	
	Interrupted cutting	NC3225	260 (150 ~ 370)	P15	← NC3215
		NC3120	260 (120 ~ 370)	P20	← NC3225
		NC3030	205 (120 ~ 290)	P25	← NC3120
		NC5330	185 (110 ~ 260)	P30	← NC3030
M Stainless steel	Continuous cutting	NC9115 <sup>new</sup>	240 (220 ~ 260)	M10	← NC9115 <sup>new</sup>
		NC9125 <sup>new</sup>	210 (190 ~ 230)	M20	← NC9125 <sup>new</sup>
	Interrupted cutting	NC9135 <sup>new</sup>	180 (160 ~ 200)	M30	← NC9125 <sup>new</sup>
		NC9135 <sup>new</sup>	180 (160 ~ 200)	M40	← NC9135 <sup>new</sup>
K Cast iron	Continuous cutting	NC6310 <sup>new</sup>	380 (300 ~ 500)	K10	← NC6310 <sup>new</sup>
		NC6315	280 (200 ~ 400)	K20	← NC6315
	Interrupted cutting	NC5330	190 (110 ~ 270)	K30	← NC5330
S HRSA	Continuous cutting	NC9125 <sup>new</sup>	40 (20 ~ 60)	S10	← NC9125 <sup>new</sup>
	Interrupted cutting	NC9135 <sup>new</sup>		S20	← NC9135 <sup>new</sup>

### Milling

Workpiece	Machining types	Recommended grade	Recommended cutting speed (m/min)	ISO	Application range
P Steel	Continuous cutting	NC5330	200 (150 ~ 250)	P20	← NC5330
	Continuous cutting	NCM535 <sup>new</sup>	300 (200 ~ 400)	P30	← NC5330
		NCM545 <sup>new</sup>	200 (150 ~ 250)	P35	← NCM535 <sup>new</sup>
M Stainless steel	Continuous cutting	NC5330	150 (120 ~ 180)	M10	← NC5330
				M20	
K Cast iron	Continuous cutting	NC5330	200 (150 ~ 250)	K10	← NC5330
				K20	← NC5330
				K30	← NCM535 <sup>new</sup>
		NCM535 <sup>new</sup>	250 (200 ~ 300)		← NCM545 <sup>new</sup>

## Features

- PVD coating technology has inherent advantages such as a superior chipping resistance of the coated film while maintaining the toughness of the substrate. Thus it is possible to increase the tool life significantly
- PVD coatings ensure sharp cutting edges without blunting the substrate
- Ti-based coating films can provide excellent surface finish and high accuracy machining due to the low affinity of Ti-film with the workpiece



Cross-sectional view of PVD coating

## Advantages of PVD Coatings

- TiAlN coating optimal for high speed machining
- Toughness of TiAlN has been enhanced to reduce brittleness of conventional TiAlN
- The outer TiN layer reduces friction and improves surface smoothness
- Easy to recognize the amount of wear on the cutting edge

## Grades Selection Guide

### Turning

Workpiece	Machining types	Recommended grade	Recommended cutting speed (m/min)	ISO	Application range
P Steel	Continuous cutting	PC5300	175 (100 ~ 250)	P30	PC5300
	Interrupted cutting		145 (80 ~ 120)	P40	
M Stainless steel	Continuous cutting	PC8105	175 (120 ~ 230)	M01	PC8105, PC8110, PC8115, PC8120, PC5300, PC9030, PC5400
		PC8110 <sup>new</sup>	160 (110 ~ 210)	M10	
		PC8115/8120	150 (100 ~ 200)	M20	
	Interrupted cutting	PC5300	135 (80 ~ 190)	M30	
		PC9030	130 (80 ~ 180)	M40	
		PC5400	110 (80 ~ 140)	M50	
K Cast iron	Continuous cutting	PC8110	135 (95 ~ 180)	K10	PC8110, PC5300, PC5400
				K20	
	Interrupted cutting	PC5300	105 (75 ~ 140)	K30	
		PC5400	90 (65 ~ 120)	K40	
S Heat resistant alloy	Continuous cutting	PC8105	55 (40 ~ 70)	S01	PC8105, PC8110, PC8115, PC8120, PC5300, PC5400
		PC8110	50 (35 ~ 65)	S10	
		PC8115/8120 <sup>new</sup>	45 (30 ~ 60)	S20	
	Interrupted cutting	PC5300	40 (20 ~ 60)	S30	
		PC5400	35 (20 ~ 50)	S40	
H Hardened	Interrupted cutting	PC8105	110 (80 ~ 140)	H01	PC8105, PC8110, PC8115
		PC8110	100 (70 ~ 130)	H05	
		PC8115	90 (65 ~ 115)	H10	



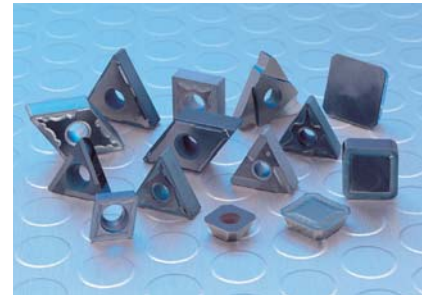
## < PVD Coated Grades >

### ⊙ Milling

Workpiece		Machining types	Recommended grade	Recommended cutting speed (m/min)	ISO	Application range
<b>P</b>	<b>Steel</b>	Continuous cutting	PC3600	235 (180 ~ 290)	P20	
			PC3700 <sup>new</sup>	235 (180 ~ 290)	P30	PC3600
		Interrupted cutting	PC5300	195 (150 ~ 240)	P40	PC3700 <sup>new</sup> PC5300
			PC5400	145 (80 ~ 210)	P50	PC5400
<b>M</b>	<b>Stainless steel</b>	Continuous cutting	PC5300	130 (100 ~ 160)	M20	
			PC9530	130 (100 ~ 160)	M30	PC5300    PC9530
		Interrupted cutting	PC5400	120 (95 ~ 155)	M40	PC5400
			PC9540 <sup>new</sup>	110 (80 ~ 140)	M50	PC9540 <sup>new</sup>
<b>K</b>	<b>Cast iron</b>	Continuous cutting	PC6510	180 (140 ~ 230)	K01 K10	PC6510
			Interrupted cutting	PC5300	145 (110 ~ 180)	K20
		PC5400		125 (85 ~ 160)	K30	PC5400
		<b>S</b>	<b>HRSA</b>	Continuous cutting	PC5300	55 (40 ~ 70)
Interrupted cutting	PC5400				40 (30 ~ 50)	S30
	PC9540 <sup>new</sup>			40 (30 ~ 50)	S40	PC9540 <sup>new</sup>
<b>H</b>	<b>High hardness steel</b>			Continuous cutting	PC2005	60 (40 ~ 80)
		PC2010	55 (40 ~ 70)		H10	PC2005 <sup>new</sup> PC2010
		PC2015	50 (35 ~ 65)		H20	PC2010 <sup>new</sup> PC2015
		PC210F	50 (35 ~ 65)		H30	PC2015 <sup>new</sup> PC210F

## Features

- KORLOY cermet is a carbonitride type cermet which has an ultra fine microstructure accomplished by adding TiN, TiCN powders as additives. It also has superior toughness, thermal shock and wear resistance.



## Advantages

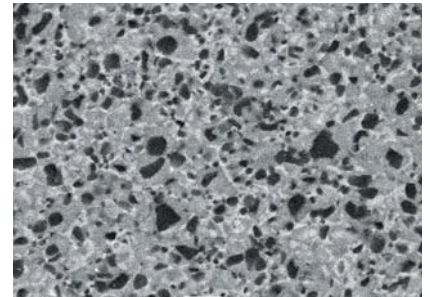
- Cermet, using TiCN as the main component, is harder than cemented carbide and has a lower affinity with ferrous workpieces at high temperatures, thus cermets have special advantages as listed below :

### Compared to Uncoated Carbide

- Since cermet has superior wear and crater wear resistance, higher cutting speeds can be applied
- The low affinity with ferrous workpieces enables cutting operations from low to high speed and provides an excellent surface finish
- Exceptional tool life and cutting performances in high speed finishing applications

### Compared to Coated Carbide

- Suitable for light cutting and finishing
- Better wear resistance and surface finish can be acquired while using the same cutting conditions



Microstructure of Cermet

## Grades Selection Guide

### ① Turning

Workpiece	Machining types	Recommended grade	Recommended cutting speed (m/min)	ISO	Application range
P Steel	Continuous cutting	CN1500	250 (150~350)	P10	CN1500
	Interrupted cutting	CN2500	220 (130~300)	P20	
				P30	CN2500

### ② Turning (Coated Cermet Grades)

Workpiece	Machining types	Recommended grade	Recommended cutting speed (m/min)	ISO	Application range
P Steel	Continuous cutting	CC1500	325 (200 ~ 450)	P10	CC1500
	Interrupted cutting	CC2500	265 (180 ~ 350)	P20	
P30				CC2500	
K Cast iron	Continuous cutting	CC1500	270 (180 ~ 350)	K10	CC1500
	Interrupted cutting	CC2500	250 (150 ~ 300)	K20	CC2500

### ③ Milling

Workpiece	Machining types	Grade	Recommended cutting speed (m/min)	ISO	Application range
P Steel	Continuous cutting	CN2000	250 (200 ~ 300)	P20	CN2000
	Interrupted cutting	CN30	150 (100 ~ 200)	P30	

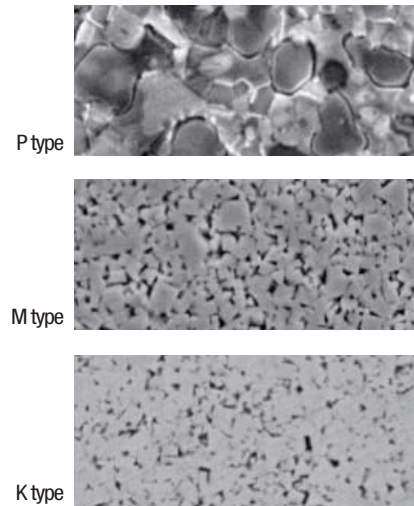
# Uncoated Carbide Grades

## Features

- Due to KORLOY's advanced sintering technology, our uncoated carbide grades have a fine alloy structure which is necessary to get superior quality from a uncoated cutting tool

## Advantages

- Consist of P,M,K carbide grades and can be used in all kinds of workpiece
- Excellent quality at machining with coolant, due to the superior thermal crack resistance of the carbide
- Due to the special design of carbides, it has fine micro structure and low affinity with workpiece
- It has excellent toughness and produces lower cutting loads



## Ⓢ Main composition and application range

Workpiece	Composition	Features	Workpiece
<b>P</b>	WC-TiC-TaC-Co	Heat resistance, excellent plastic deformation resistance	Carbon steel, Alloy steel, Stainless steel
<b>M</b>	WC-TiC-TaC-Co	General tools stable heat resistance with strength	Carbon steel, Alloy steel, Stainless steel, Cast steel
<b>K</b>	WC-Co	High strength and superior wear resistance	Cast iron, Non-ferrous metal, Plastic, etc
<b>S</b>	WC-Co	Excellent wear resistance and chipping resistance	Titanium alloy

## Ⓢ The physical properties of uncoated carbide grades

Workpiece	Grade	Hardness (HRA)	TRS (kgf/mm <sup>2</sup> )	Young's modulus (10 <sup>3</sup> kgf/mm <sup>2</sup> )	Thermal expansion coefficient (10 <sup>-6</sup> /°C)	Thermal conductivity (cal/cm-sec-°C)
<b>P</b>	ST10	92.1	175	48	6.2	25
	ST20	91.9	200	56	5.2	45
	ST30A	91.3	230	53	5.2	-
<b>M</b>	U20	91.1	210	-	-	88
	ST30A	91.3	230	53	5.2	-
<b>K</b>	H01	92.9	210	66	4.7	109
	G10	90.9	250	63	-	105
<b>S</b>	H01	92.9	210	66	4.7	109
	H05	91.8	250	-	-	-

1KPa = 102kgf/m<sup>2</sup>, 1w/mk = 2.39×10<sup>-3</sup>cal/cm-sec-°C

# Uncoated Carbide Grades

## Grades Selection Guide

### Turning

Workpiece	Grade	Recommended cutting speed (m/min)	ISO	Application range
P Steel	ST10	110 (70~140)	P10	ST10
	ST20	80 (50~110)	P20	ST20
	ST30A	70 (40~90)	P30	ST30A
M Stainless steel	U20	70 (40~90)	M25	U20
K Cast iron	H01	105 (60~140)	K01	H01
	H05	105 (60~140)	K10	H05
	G10	90 (50~120)	K20	G10
N Aluminum alloy	H01	600 (450~750)	N10	H01
	Copper alloys	H05	425 (320~530)	N20
S Titanium alloy		H01	55 (40~70)	S01
	H05	50 (35~65)	S10	H05
H High hardness steel	H01	80 (55~105)	H10	H01

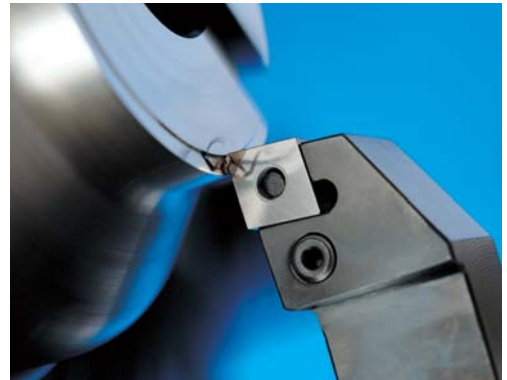
### Milling

Workpiece	Grade	Recommended cutting speed (m/min)	ISO	Application range
P Steel	ST20	90 (70~110)	P20	ST20
	ST30A	80 (60~100)	P30	ST30A
M Stainless steel	U20	90 (70~110)	M20	U20
			M30	
K Cast iron	H01, H05	150 (110~190)	K10	H01, H05
	G10	120 (90~150)	K20	G10
N Aluminum alloy	H01	600 (450~750)	N10	H01
	Copper alloys	H05	425 (320~530)	



















# < cBN Grades >

## Features

- cBN is a cutting tool material made under ultra high pressure and temperature sintering of a mixture of cubic boron nitride and a special ceramic binder material.
- cBN tools are suitable for high speed precise machining in hardened steels and cast irons. Machining with cBN can effectively replace the conventional grinding process.



## ③ Cutting condition of cBN grades

Workpiece	Grades	Insert color	Application	Cutting speed, vc (m/min)	Feed, fn (mm/rev)	Depth of cut, ap (mm)	
H High hardness steel	Coated	DNC100	 Continuous cutting at high speed	180  300	0.03~0.3	0.03~0.3	
		DNC250	 Continuous and low interrupted cutting at high speed	120  220	0.05~0.3	0.05~0.3	
		DNC300	 Medium and low interrupted cutting	90  250	0.05~0.2	0.05~0.2	
		DNC350	 Medium and high interrupted cutting	90  150	0.05~0.3	0.05~0.3	
		DNC400	 Continuous and medium interrupted cutting	90  220	0.05~0.3	0.05~0.5	
	Non-coated	DB1000		Continuous cutting at high speed	130  250	0.03~0.15	0.03~0.2
		DB2000		Medium and low interrupted cutting	80  200	0.03~0.2	0.03~0.3
		DBNX20		Highly efficient cutting	120  150	0.03~0.3	0.03~0.5
		DBN250		Medium and low interrupted cutting	80  120	0.03~0.2	0.03~0.3
		DBN350		High interrupted cutting	120  220	0.03~0.2	0.03~0.3
S HRSA	DB7000		Continuous cutting at high speed	100  300	0.05~0.2	0.1~1.0	
K Cast iron	DBN700A		Continuous cutting at high speed	500  2000	0.10~0.4	0.1~0.4	

## PCD inserts grades

### Features

- KORLOY PCD products are manufactured by using high quality PCD tips under ultra high temperatures and pressure. The PCD tip is welded on the qualified KORLOY carbide insert KORLOY high quality PCD products meet a wide range of application needs in turning, milling, and endmills.
  - Excellent tool life for aluminum alloy and copper alloy
  - Excellent tool life for Ceramic, high-silicon aluminum and rock or stone
  - Excellent tool life for rubber, carbon, graphite and wood

### PCD grades

Grades	Features	Application	Grain size (μm)	Hardness (Hv)	TRS (kgf/mm <sup>2</sup> )
<b>DP90</b>	Coarse diamond grain has been used to get excellent wear resistance enough to machine cemented-carbide, high Si aluminum alloy	Cemented carbide Ceramic roughing High Si aluminum alloy Rock, Stone	25 ~ 30	50 ~ 65	≒ 1.10
<b>DP150</b>	By use of fine diamond grain having good bonding property, it is suitable for machining of Non-ferrous metal, graphite	High Si aluminum alloy Copper, Bronze alloy Rubber, Wood, Carbon	5 ~ 10	50 ~ 60	≒ 1.95
<b>DP200</b>	By use of ultra fine diamond grain, it is possible to make sharp cutting edge. Thus it is appropriate grade to machine Non-ferrous material	Plastic Wood Precise finishing of aluminum	~ 2	45 ~ 55	≒ 2.45

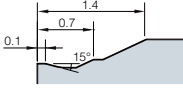
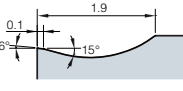
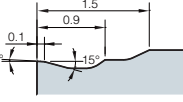
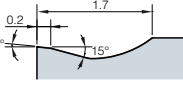
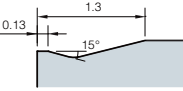
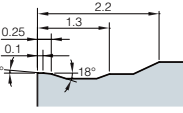
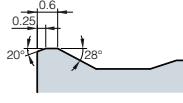
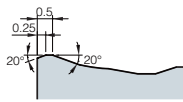
### Recommended cutting condition

Workpiece	Cutting speed (m/min)	Feed (mm/rev)	Depth of cut (mm)	Recommended grades	
				1 <sup>st</sup>	2 <sup>nd</sup>
Aluminum alloy (4%~8% Si)	1000 ~ 3000	0.1 ~ 0.6	~ 3	DP150	DP200
Aluminum alloy (9%~14%Si)	600 ~ 2500	0.1 ~ 0.5	~ 3	DP150	DP200
Aluminum alloy (15%~18%Si)	300 ~ 700	0.1 ~ 0.4	~ 3	DP150	DP200
Copper, Bronze alloy	~ 1000	0.05 ~ 0.2	~ 3	DP150	DP200
Reinforced plastic	~ 1000	0.1 ~ 0.3	~ 2	DP150	DP200
Wood	~ 4000	0.1 ~ 0.4	-	DP150	DP200
Cemented carbide	10 ~ 30	~ 0.2	~ 0.5	DP90	DP150



## < Chip Breakers >

### Chip Breakers for Turning

Geometry	Cutting edge	Application range													Features
		feed rate $f_n$ (mm/rev)													
		0.04	0.063	0.10	0.16	0.25	0.4	0.63	1.0	1.6	2.5	4.0	6.3		
depth of cut $a_p$ (mm)															
0.1	0.16	0.25	0.4	0.63	1.0	1.6	2.5	4.0	6.3	10.0	11.6	13			
<b>V series</b>	VL					0.10~0.35	0.2~1.5								<b>For Finishing</b> <ul style="list-style-type: none"> <li>Stable chip control in high toughness material; low carbon steel, pipe steel &amp; steel plates</li> <li>Improved chip control for facing, copy machining and better surface finish</li> </ul>
	VB					0.15~0.45	0.5~2.0								<b>For Finishing</b> <ul style="list-style-type: none"> <li>Improved chip control for smaller depth of cuts</li> <li>Excellent chip control in copying, corner R machining</li> </ul>
	VF				0.05~0.35		0.5~1.5								<b>For Finishing</b> <ul style="list-style-type: none"> <li>Good chip control quality on varied depth of cut</li> <li>Excellent cutting edge strength has been acquired due to the special chip-breaker</li> </ul>
	VC					0.12~0.45	0.5~3.5								<b>For Medium to finish cutting</b> <ul style="list-style-type: none"> <li>Stable chip control in copying and internal machining with various depths of cut</li> </ul>
	VQ					0.10~0.40	1.0~3.0								<b>For Medium to finish cutting</b> <ul style="list-style-type: none"> <li>Medium to finishing cutting edges offer improved edge hardness</li> <li>Increased chip control in low depth of cut cutting range</li> <li>For cermet</li> </ul>
	VM					0.10~0.50	1.0~5.0								<b>For Medium cutting</b> <ul style="list-style-type: none"> <li>Wide available chip control range from medium-finishing to medium-roughing</li> <li>Suitable chip breaker for CNC machining</li> </ul>
	VH							0.70~1.40			6.0~15.0				<b>For Heavy duty cutting</b> <ul style="list-style-type: none"> <li>Designed specifically for heavy machining</li> <li>Specialized chip breaker for the heavy industries like Ship building, Power plant industry</li> </ul>
	VT							0.75~1.60			7.0~17.0				<b>For Heavy duty cutting</b> <ul style="list-style-type: none"> <li>Designed specifically for heavy machining</li> <li>Specialized chip breaker for the heavy industries like Ship building, Power plant industry</li> </ul>

Notice: Application ranges are based on main cutting material

# Chip Breakers

## Chip Breakers for Turning

Geometry	Cutting edge	Application range												Features		
		feed rate $f_n$ (mm/rev)														
		0.04	0.063	0.10	0.16	0.25	0.4	0.63	1.0	1.6	2.5	4.0	6.3			
		depth of cut ap (mm)														
		0.1	0.16	0.25	0.4	0.63	1.0	1.6	2.5	4.0	6.3	10.0	11.6	13		
V series	VP1		0.05~0.20 0.1~1.5												For Finishing	<ul style="list-style-type: none"> <li>High positive cutting edge</li> <li>Reduced contract chip minimizes temperature to improve tool life</li> </ul>
	VP2		0.05~0.40 0.5~4.0												For Medium to finish cutting	<ul style="list-style-type: none"> <li>Stable chip control and high machinability in copying with various depths of cut</li> </ul>
	VP3		0.05~0.45 0.5~4.5												For Medium cutting	<ul style="list-style-type: none"> <li>High positive cutting edge with wide land</li> <li>Stable cutting performance in interrupted machining with high toughness</li> <li>Stable machinability and chip control in machining with high depth of cut</li> </ul>
	VP4		0.15~0.45 1.0~4.5												For Roughing	<ul style="list-style-type: none"> <li>The first recommended chip breaker for inconel cutting</li> <li>High hard and resistant rake angle to prevent notch wear in roughing of rugged surfaces</li> </ul>
	VR		0.25~0.55 1.2~7.0												For Roughing	<ul style="list-style-type: none"> <li>High feed machining with the combination of wide land and pockets</li> <li>Shallow chip breaker design prevents chip blocking at high feed</li> <li>Decreased wear on major cutting edge due to special treatment on blade</li> </ul>
-P series	LP		0.10~0.40 0.5~2.5												For Medium to finish cutting	<ul style="list-style-type: none"> <li>Angle land decreases cutting resistance for better surface roughness</li> <li>Special dot design prevents chip blocking by clear chip breaking</li> </ul>
	MP		0.15~0.45 0.5~4.5												For Medium cutting	<ul style="list-style-type: none"> <li>Increased productivity due to excellent chip control in various conditions</li> <li>Stable tool life by reducing cutting load at high speed and high feed</li> </ul>
	CP		0.12~0.35 0.5~3.5												For Medium to finish cutting	<ul style="list-style-type: none"> <li>Chip breaker with strong cutting edge in high interrupted finishing and medium cutting</li> <li>Effective chip control in low depth of cut to high depth of cut due to 2-step rear angle</li> </ul>

Notice: Application ranges are based on main cutting material

# Chip Breakers for Turning

Geometry	Cutting edge	Application range													Features										
		feed rate $f_n$ (mm/rev)																							
		0.04	0.063	0.10	0.16	0.25	0.4	0.63	1.0	1.6	2.5	4.0	6.3												
depth of cut $a_p$ (mm)																									
0.1 0.16 0.25 0.4 0.63 1.0 1.6 2.5 4.0 6.3 10.0 11.6 13																									
-M series	<b>MM</b> 							0.12~0.45																	<b>For Medium cutting</b> <ul style="list-style-type: none"> <li>The first recommended chip breaker for continuous stainless applications cutting</li> <li>Improved tool life and surface finish due to dual lands combining both machinability and toughness</li> <li>Wide chip pockets for stable chip evacuation at high depth of cuts and high feeds</li> </ul>
	<b>RM</b> 								0.15~0.55																<b>For Roughing</b> <ul style="list-style-type: none"> <li>The first recommended chip breaker for interrupted cutting or roughing of stainless steel</li> <li>Inhibited notch wear and burr creation at high depth of cuts and feeds</li> <li>Reduced cutting loads and longer tool life at high feeds</li> </ul>
-K series	<b>MK</b> 								0.10~0.50															<b>For Medium cutting</b> <ul style="list-style-type: none"> <li>1<sup>st</sup> recommended chip breaker for cast iron continuous cutting</li> <li>Suitable for continuous cutting of ductile and gray cast iron</li> <li>Excellent tool life and surface finish thanks to angle lands improving cutting performance</li> </ul>	
	<b>RK</b> 									0.20~0.60															<b>For Roughing</b> <ul style="list-style-type: none"> <li>1<sup>st</sup> recommended chip breaker in cast iron continuous cutting and roughing</li> <li>Suitable for machining ductile and gray cast iron at high speeds and high feeds</li> <li>Improved toughness and chipping resistance due to flat lands</li> </ul>
H series	<b>HA</b> 								0.03~0.30															<b>For Medium to finish cutting</b> <ul style="list-style-type: none"> <li>Sharp cutting edge generates low cutting force</li> <li>Specially designed tough main cutting edge</li> <li>Suitable for cutting of low carbon steel, stainless steel, aluminum</li> </ul>	
G series	<b>GR</b> 																							<b>For Roughing</b> <ul style="list-style-type: none"> <li>Suitable for deep depth of cut and high feed cutting of steel and cast iron</li> <li>Suitable for intermittent cutting</li> </ul>	
	<b>GH</b> 																							<b>For Heavy duty cutting</b> <ul style="list-style-type: none"> <li>Suitable for heavy duty cutting due to strong cutting edge</li> <li>Wide chip control range with low cutting force</li> </ul>	
B series	<b>B25</b> 																							<b>For General cutting</b> <ul style="list-style-type: none"> <li>Suitable for general cutting condition cutting</li> </ul>	

Notice: Application ranges are based on main cutting material

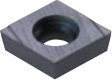
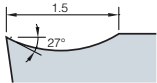

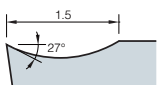

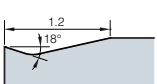
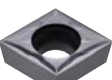




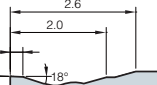
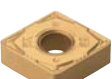
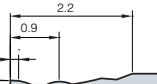
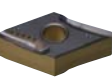


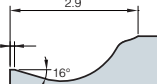
# Chip Breakers

## Chip Breakers for Turning

Geometry	Cutting edge	Application range											Features	
		feed rate $f_n$ (mm/rev)												
		0.04	0.063	0.10	0.16	0.25	0.4	0.63	1.0	1.6	2.5	4.0		6.3
depth of cut $a_p$ (mm)														
0.1	0.16	0.25	0.4	0.63	1.0	1.6	2.5	4.0	6.3	10.0		11.6	13	
C-Posi series <b>C25</b>		0.10~0.35												
H-Posi series <b>HMP</b>		0.08~0.40												<b>For Medium cutting</b> <ul style="list-style-type: none"> <li>Excellent chip control at wide range of cutting conditions</li> <li>Machining versatility over a wide range of materials</li> </ul>
V-Posi series <b>VF</b>		0.05~0.25												<b>For Finishing</b> <ul style="list-style-type: none"> <li>Improved surface finish and size accuracy due to stable inner boring</li> </ul>
V-Posi series <b>VL</b>		0.05~0.20												<b>For Finishing</b> <ul style="list-style-type: none"> <li>Superior chip control in low carbon steel, pipes, and steel plates</li> </ul>
P-Posi series <b>MP</b>		0.05~0.30												<b>For Medium cutting</b> <ul style="list-style-type: none"> <li>Sharp cutting edge and wide chip pocket for low cutting load</li> <li>Stable chip control at varying depth of cuts</li> <li>Excellent cutting performance when machining automobile components</li> </ul>
AL series <b>FP</b>		0.01~0.20												<b>For Finishing</b> <ul style="list-style-type: none"> <li>For chip control in low depth of cut mild cutting</li> <li>Enhanced surface finish and reduced cutting load</li> </ul>
AL series <b>AK</b>		0.03~0.40												<b>For Medium to finish cutting</b> <ul style="list-style-type: none"> <li>Exclusive chip breaker for aluminum and aluminum alloy cutting</li> </ul>
AL series <b>AR</b>		0.05~0.50												<b>For Medium to finish cutting</b> <ul style="list-style-type: none"> <li>High stability of cutting edge secures great performance in high speed and interrupted machining</li> <li>High speed of medium and interrupted operation</li> </ul>

Notice: Application ranges are based on main cutting material

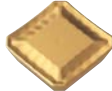



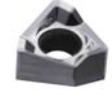




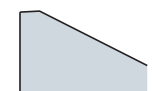


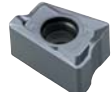



# Chip Breakers for Turning

Geometry	Cutting edge	Application range													Features	
		feed rate $f_n$ (mm/rev)														
		0.04	0.063	0.10	0.16	0.25	0.4	0.63	1.0	1.6	2.5	4.0	6.3			
		depth of cut ap (mm)														
		0.1	0.16	0.25	0.4	0.63	1.0	1.6	2.5	4.0	6.3	10.0	11.6	13		
Auto tool series	<b>KF</b> 						0.01-0.12									<b>For Finishing</b>
								0.01-1.0								<ul style="list-style-type: none"> <li>• Shallow depth of cut with sharp edge</li> <li>• Longer tool life at high speed cutting due to low cutting force</li> <li>• Good surface finish</li> </ul>
	<b>KM</b> 							0.04-0.15								<b>For Medium to finish cutting</b>
									0.05-1.5							<ul style="list-style-type: none"> <li>• Improved chip control makes tool life long and better machining</li> </ul>
	<b>VP1</b> 									0.05-0.3						<b>For Medium cutting</b>
										0.5-4.0					<ul style="list-style-type: none"> <li>• For medium cutting with strong cutting edge</li> <li>• For wide range of cutting by optimal width of chip breaker for each cutting depth</li> </ul>	
<b>MS</b> 										0.03-0.25					<b>For medium cutting (for surface roughness)</b>	
											0.3-3.0				<ul style="list-style-type: none"> <li>• Reduced welding and cutting heat by sharp cutting edge</li> <li>• Enhanced chip evacuation in low to high feed cutting</li> </ul>	
<b>FS</b> 											0.01-0.20				<b>For Finishing</b>	
												0.1-2.0			<ul style="list-style-type: none"> <li>• For various workpiece (P, M, S) cutting</li> <li>• Good surface finish and low cutting load due to sharp cutting edge</li> </ul>	
Wiper series	<b>LW</b> 														<b>For Medium cutting</b>	
															<ul style="list-style-type: none"> <li>• Guarantees excellent surface roughness and good chip controls at high feed machining</li> </ul>	
	<b>VW</b> 														<b>For Medium to finish cutting</b>	
															<ul style="list-style-type: none"> <li>• Improved surface roughness at shallow depth of cut and high feed due to strong cutting edge</li> </ul>	
Shaft series	<b>SR</b> 														<b>For Medium to finish cutting</b>	
															<ul style="list-style-type: none"> <li>• Shallow depth of cut with sharp edge</li> <li>• Longer tool life at high speed cutting due to low cutting force</li> <li>• Good surface finish</li> </ul>	
	<b>SH</b> 														<b>For Medium cutting</b>	
															<ul style="list-style-type: none"> <li>• Good chip flow increases tool life and machinability.</li> </ul>	

Notice: Application ranges are based on main cutting material

# Chip Breakers

















## Chip Breakers for milling

Geometry	Cutting edge	Application range												Features
		feed rate $f_n$ (mm/rev)												
		0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.80	1.20	1.40	1.60	
depth of cut ap (mm)														
0.1	0.5	1	2	3	4	5	6	8	10	15	20			
<b>MX</b> 		0.10~0.30				1.0~5.0								<b>For Roughing</b> <ul style="list-style-type: none"> <li>Possible to increase productivity through increase feed and depth</li> <li>Excellent heat resistance due to the special chip breaker design of top face of insert</li> </ul>
<b>MM</b> 		0.20~0.40				2.0~14.0								<b>For Roughing</b> <ul style="list-style-type: none"> <li>Specialized tool for high depth of cut roughing with high rigidity cutting edge ensures stable machining.</li> </ul>
<b>MA</b> 		0.05~0.40				1.0~8.0								<b>For Aluminum machining</b> <ul style="list-style-type: none"> <li>Sharp cutting edge for low cutting load, which is ideal for machining steel, hard-to-cut materials and aluminum</li> </ul>
<b>ML</b> 		0.05~0.30				1.0~8.0								<b>For machining hard-to-cut materials</b> <ul style="list-style-type: none"> <li>Low cutting resistance for light cutting and machining hard-to-cut materials with excellent tool life and surface roughness</li> </ul>
<b>MM</b> 		0.05~0.35				1.0~8.0								<b>For General cutting</b> <ul style="list-style-type: none"> <li>Available for most of applications with universal design for general milling</li> </ul>
<b>MA</b> 		0.05~0.25				0.3~14.0								<b>For Aluminum machining</b> <ul style="list-style-type: none"> <li>Sharp cutting edge design ensures low cutting resistance and excellent machining in difficult-to-cut materials, aluminum and light machining</li> </ul>
<b>MF</b> 		0.05~0.30				0.5~14.0								<b>For Light cutting</b> <ul style="list-style-type: none"> <li>Low cutting force chip breaker design ensures longer tool life and excellent machining in difficult-to-cut material and light machining</li> </ul>
<b>MM</b> 		0.05~0.30				1.0~14.0								<b>For General cutting</b> <ul style="list-style-type: none"> <li>Suitable geometry design for general milling has wider ranges of machining</li> </ul>

Notice: Application ranges are based on main cutting material



## Chip Breakers for milling

Geometry	Cutting edge	Application range													Features		
		feed rate $f_n$ (mm/rev)															
		0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.80	1.20	1.40	1.60				
		depth of cut $a_p$ (mm)															
		0.1	0.5	1	2	3	4	5	6	8	10	15	20				
Rich Mill series-RM6	MA			0.05~0.20										1.0~8.2			<b>For Aluminum machining</b> <ul style="list-style-type: none"> <li>Specialized sharp cutting edge for aluminum machining ensures machinability.</li> <li>Buffing treatment on the surface realizes good chip flow and welding resistance.</li> </ul>
	ML			0.05~0.25										1.0~8.2			<b>For Machining hard-to-cut materials</b> <ul style="list-style-type: none"> <li>Low cutting load chip breaker for light cutting</li> <li>Long tool life and high quality of machining in hard-to-cut material cutting</li> </ul>
	MM			0.05~0.25										1.0~8.2			<b>For General cutting</b> <ul style="list-style-type: none"> <li>Optimally designed shape for general shoulder milling in various cutting ranges</li> </ul>
Rich Mill series-RM8	MA			0.05~0.35					0.3~6.0								<b>For Aluminum machining</b> <ul style="list-style-type: none"> <li>Sharp cutting edge and lubricated top face show excellent chip flow and welding resistance in aluminum machining</li> </ul>
	MF			0.05~0.35					0.3~6.0								<b>For Light cutting</b> <ul style="list-style-type: none"> <li>Low cutting force chip breaker design ensures longer tool life and excellent machining in difficult-to-cut material and light machining</li> </ul>
	ML			0.05~0.30					0.3~6.0								<b>For Machining hard-to-cut materials</b> <ul style="list-style-type: none"> <li>Chip breaker with low cutting load resistance ensures long tool life and high quality in light and hard-to-cut material cutting.</li> </ul>
	MM			0.10~0.40						0.5~6.0							<b>For General cutting</b> <ul style="list-style-type: none"> <li>Suitable geometry design for general milling has wider ranges of machining</li> </ul>
Rich Mill series-RMT8	MF			0.05~0.20					0.5~5.0								<b>For Light cutting</b> <ul style="list-style-type: none"> <li>Low cutting force chip breaker design ensures longer tool life and excellent machining in difficult-to-cut material and light machining</li> </ul>

Notice: Application ranges are based on main cutting material

















# Chip Breakers

## Chip Breakers for milling

Geometry	Cutting edge	Application range																Features
		feed rate $f_n$ (mm/rev)																
		0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.80	1.20	1.40	1.60					
depth of cut $a_p$ (mm)																		
0.1 0.5 1 2 3 4 5 6 8 10 15 20																		
Rich Mill series-RMT8 MM		0.05~0.30				0.5~8.0												<b>For General cutting</b>  • Suitable geometry design for general milling has wider ranges of machining
		0.05~0.30				1.0~3.0												
Rich Mill series-RM8-X ML		0.05~0.30				1.0~3.0												<b>For Machining hard-to-cut materials</b>  • Stable tool life and good cutting quality in hard-to-cut material cutting due to double reverse positive relief surface and low cutting load chip breaker
		0.05~0.30				1.0~3.0												
		0.05~0.30				1.0~3.0												
Rich Mill series-RM8-X MM SAGX		0.05~0.30				1.0~3.0												<b>For high hardness cutting</b>  • Stable tool life and good cutting quality due to double reverse positive relief surface and high rigidity chip breaker
		0.05~0.30				1.0~3.0												
Rich Mill series-RM8-X MM SNMX		0.10~0.30				1.0~3.0												<b>For General cutting</b>  • For general cutting range with optimal shape for general milling
		0.10~0.30				1.0~3.0												
Rich Mill series-RM14 ML Neutral		0.05~0.30				1.0~3.0												<b>For HRSA cutting</b>  • Excellent cutting performance in heat resistance STS cutting from neutral type flat cutting edge and sharp chip breaker
		0.05~0.30				1.0~3.0												
Rich Mill series-RM14 ML Right-handed		0.05~0.30				1.0~3.0												<b>For cast iron and STS cutting</b>  • Excellent cutting performance in general STS and cast iron cutting from right-handed helix cutting edge and sharp chip breaker
		0.05~0.30				1.0~3.0												
Rich Mill series-RM16 MA		0.05~0.30				0.3~5.5												<b>For Aluminum machining</b>  • Sharp cutting edge design ensures low cutting resistance and excellent machining in difficult-to-cut materials, aluminum and light machining
		0.05~0.30				0.3~5.5												
Rich Mill series-RM16 MF		0.05~0.40				0.3~5.5												<b>For Light cutting</b>  • Low cutting force chip breaker design ensures longer tool life and excellent machining in difficult-to-cut material and light machining
		0.05~0.40				0.3~5.5												

Notice: Application ranges are based on main cutting material







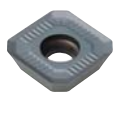

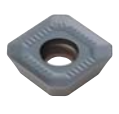

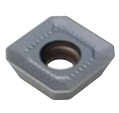





## Chip Breakers for milling

Geometry	Cutting edge	Application range														Features		
		feed rate $f_n$ (mm/rev)																
		0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.80	1.20	1.40	1.60					
		depth of cut $a_p$ (mm)																
		0.1	0.5	1	2	3	4	5	6	8	10	15	20					
Rich Mill series-RMT6	ML			<p>0.05~0.35</p> <p>0.3~5.5</p>														<p><b>For Machining hard-to-cut materials</b></p> <ul style="list-style-type: none"> <li>Low cutting resistance for excellent tool life and surface roughness in machining hard-to-cut materials</li> </ul>
	MM			<p>0.10~0.45</p> <p>0.5~5.5</p>														<p><b>For General cutting</b></p> <ul style="list-style-type: none"> <li>Suitable geometry design for general milling has wider ranges of machining</li> </ul>
	W			<p>0.05~0.30</p> <p>0.3~2.0</p>														<p><b>For Finishing of milling (Wiper)</b></p> <ul style="list-style-type: none"> <li>Wiper insert provides improved surface roughness due to special cutting edge</li> </ul>
Rich Mill series-RMR	ML			<p>0.05~0.40</p> <p>1.0~3.0</p>														<p><b>For Machining hard-to-cut materials</b></p> <ul style="list-style-type: none"> <li>Stable tool life and cutting performance in hard-to-cut material cutting from hard clamping side preventing reverse positive revolution and low cutting resistance chip breaker</li> </ul>
Alpha Mill series	MA			<p>0.10~0.40</p> <p>0.5~16</p>														<p><b>For Aluminum machining</b></p> <ul style="list-style-type: none"> <li>Sharp cutting edge and lubricated top face show excellent chip flow and welding resistance in aluminum machining</li> </ul>
	MF			<p>0.05~0.15</p> <p>0.5~16</p>														<p><b>For Light cutting</b></p> <ul style="list-style-type: none"> <li>Low cutting force chip breaker design ensures longer tool life and excellent machining in difficult-to-cut material and light machining</li> </ul>
	MM			<p>0.10~0.25</p> <p>0.5~16</p>														<p><b>For General cutting</b></p> <ul style="list-style-type: none"> <li>Suitable geometry design for general milling has wider ranges of machining</li> </ul>
	ML			<p>0.05~0.15</p> <p>0.5~16</p>														<p><b>For Hard-to-cut material machining</b></p> <ul style="list-style-type: none"> <li>The chip breaker with low cutting resistance ensures superior machinability in hard-to-cut materials</li> </ul>

Notice: Application ranges are based on main cutting material


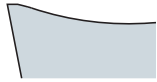



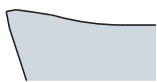

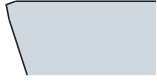
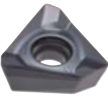







# Chip Breakers

## Chip Breakers for milling

Geometry	Cutting edge	Application range												Features
		feed rate $f_n$ (mm/rev)												
		0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.80	1.20	1.40	1.60	
depth of cut $a_p$ (mm)														
0.1	0.5	1	2	3	4	5	6	8	10	15	20			
Alpha Mill series <b>MN</b> 		0.10~0.25												<b>For Roughing (nick)</b>  • Design for easy chip cutting ensures high machinability in toughing
Alpha Mill-X series <b>MM</b> 		0.05~0.35												<b>For General cutting</b>  • Shape for general milling with most cutting range
Alpha Mill-X series <b>ML</b> 		0.05~0.30												<b>For Hard-to-cut material machining</b>  • Chip breaker for cutting with low cutting load guarantees long tool life and qualified machining in light cutting and HRSA machining
Future Mill series <b>MF</b> 		0.05~0.20												<b>For Light cutting</b>  • Special design for light cutting of gummy materials like stainless steel and hard to machine material provide fine surface finish and longer tool life
Future Mill series <b>MM</b> 		0.05~0.30												<b>For General cutting</b>  • Chip breaker design to cover general cutting condition provides wide available application range • Ground type and as sintered type is available
Future Mill series <b>MR</b> 		0.05~0.35												<b>For Roughing</b>  • Strongest cutting edge strength provide stable tool life even in case of severe cutting with heavy intermittent and heavy roughing
Future Mill series <b>MA</b> 		0.10~0.35												<b>For Aluminum machining</b>  • Sharp cutting edge and lubricated top face show excellent chip flow and welding resistance in aluminum machining
Future Mill series P-posi <b>MA</b> 		0.30~0.60												<b>For Aluminum machining</b>  • Excellent surface roughness due to buffed surface in machining aluminum

Notice: Application ranges are based on main cutting material











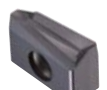
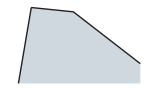




Chip Breakers for milling

Geometry	Cutting edge	Application range													Features			
		feed rate $f_n$ (mm/rev)																
		0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.80	1.20	1.40	1.60					
		depth of cut $a_p$ (mm)																
		0.1	0.5	1	2	3	4	5	6	8	10	15	20					
Future Mill series P-posi	ML 								0.30~0.50								<b>For Hard-to-cut material machining</b>	
						0.3~3.0											<ul style="list-style-type: none"> <li>Low cutting resistance and high hardness cutting edges for excellent surface roughness in machining titanium and Inconel</li> </ul>	
	MF 																	<b>For Light cutting</b>
																		<ul style="list-style-type: none"> <li>Low cutting resistance for light cutting</li> </ul>
MM 																	<b>For General cutting</b>	
																	<ul style="list-style-type: none"> <li>Universal purpose for most of milling applications</li> </ul>	
None C/B 																	<b>For Machining high hardness steel</b>	
																	<ul style="list-style-type: none"> <li>Ideal for machining high hardness mold steel and heat resistant alloy</li> </ul>	
Triple Mill series	ML 																<b>For Hard-to-cut material machining</b>	
																	<ul style="list-style-type: none"> <li>Stable tool life and cutting performance in hard-to-cut material cutting due to low cutting load chip breaker</li> </ul>	
	MM 																<b>For General cutting</b>	
																	<ul style="list-style-type: none"> <li>For general cutting range with optimal shape for general milling</li> </ul>	
HFM	MF 																<b>For Light cutting</b>	
																	<ul style="list-style-type: none"> <li>Chip breaker for cutting with low cutting load is optimal for light cutting</li> </ul>	
	None C/B 																<b>For Machining high hardness steel</b>	
																	<ul style="list-style-type: none"> <li>Shape with hard cutting edge is optimal for high hardness alloy steel machining</li> </ul>	

Notice: Application ranges are based on main cutting material

# Chip Breakers






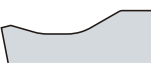


## Chip Breakers for milling

Geometry	Cutting edge	Application range																Features
		feed rate $f_n$ (mm/rev)																
		0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.80	1.20	1.40	1.60					
depth of cut $a_p$ (mm)																		
0.1	0.5	1	2	3	4	5	6	8	10	15	20							
HFMD	ML			0.2~1.0				0.30~0.80								For Hard-to-cut material machining		
	MF			0.2~1.0				0.30~1.0								For Light cutting		
	MM			0.2~1.0				0.30~1.20								For General cutting		
TP2P	MA			0.05~0.25				1.0~16.5								For Aluminum machining		
	ML			0.05~0.25				1.0~16.5								For Hard-to-cut material machining		
	MM			0.05~0.25				1.0~16.5								For General cutting		
Pro-XL Mill	MA			0.05~0.20								10~57				For Aluminum machining		
Pro-V Mill	MA			0.10~0.30				1.0~17								For Aluminum machining		

Notice: Application ranges are based on main cutting material



## Chip Breakers for drilling

Geometry	Cutting edge	Application range												Features	
		feed rate $f_n$ (mm/rev)													
		0.04	0.063	0.10	0.16	0.25	0.4	0.63	1.0	1.6	2.5	4.0	6.3		
		depth of cut $a_p$ (mm)													
		30	60	90	120	150	180	210	240	270	300	330	900		
King Drill series	<b>PD</b> 		<div style="display: flex; justify-content: space-between;"> <span>0.04~0.20</span> <span>60~300</span> </div>												<b>For General cutting</b>  <ul style="list-style-type: none"> <li>Chip breaker with strong cutting edge for universal applications with steel, stainless steel, and cast iron</li> </ul>
	<b>LD</b> 		<div style="display: flex; justify-content: space-between;"> <span>0.04~0.15</span> <span>40~250</span> </div>												<b>For Light cutting</b>  <ul style="list-style-type: none"> <li>Superior chip control in machining of mild steel, forged steel and stainless steel</li> </ul>
	<b>RD</b> 		<div style="display: flex; justify-content: space-between;"> <span>0.04~0.20</span> <span>60~300</span> </div>												<b>Reinforced chipping resistance</b>  <ul style="list-style-type: none"> <li>Improved central chipping resistance due to reinforced corners of the King Drill central inserts</li> <li>Excellent cutting performance even in machining where there is frequent corner breakage of central inserts</li> <li>e.g. Machining heat-treated steel or stainless steel, and high feed machining, etc.</li> </ul>
	<b>ND</b> 		<div style="display: flex; justify-content: space-between;"> <span>0.04~0.10</span> <span>100~400</span> </div>												<b>Non-ferrous metals</b>  <ul style="list-style-type: none"> <li>Chip breaker with sharp and polished cutting edge for aluminum and Non-ferrous metals. Machining with King Drill ensures good chip flow and resistance to chip welding</li> </ul>

Notice: Application ranges are based on main cutting material

# Inserts

KORLOY constantly tries to expand the range of chip breakers and corner geometries to facilitate customized production that covers many different workpiece materials(P, M, K, S, N) and machining methods(turning, milling and drilling).

We always ensure to enhance customer satisfaction to provide prompt troubleshooting, or higher productivity and machining quality.

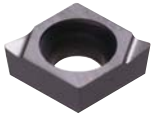
- Turning Inserts
- Milling Inserts
- Drilling Inserts
- Inserts for Aluminium Machining
- Multi Functional Tools (Inserts)
- Bearing Inserts
- cBN Inserts
- PCD Inserts

# Turning Inserts

## » For Turning

### CCET

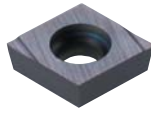
0301005R/L  
030101R/L  
030102R/L  
030104R/L  
0401005R/L  
040101R/L  
040102R/L  
040104R/L



### CCET-KF

Ultra high precision

0602005MFR/L  
060201MFR/L  
060202MFR/L  
09T3005MFR/L  
09T301MFR/L  
09T302MFR/L



### CCET-KM

Ultra high precision

0602005MFR/L  
060201MFR/L  
060202MFR/L  
09T3005MFR/L  
09T301MFR/L  
09T302MFR/L



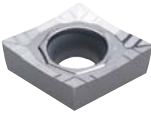
### CCGT-AK

060202  
060204  
060208  
09T302  
09T304  
09T308  
120402  
120404  
120408



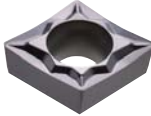
### CCGT-AR

060202  
060204  
060208  
09T302  
09T304  
09T308  
120402  
120404  
120408  
120412



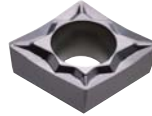
### CCGT-FS

060201  
060202  
060204  
09T301  
09T302  
09T304  
09T308



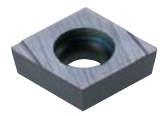
### CCGT-MFN-FS

060201MFN  
060202MFN  
060204MFN  
09T301MFN  
09T302MFN  
09T304MFN  
09T308MFN



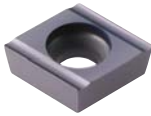
### CCGT-KF

0301003R/L  
030101R/L  
030102R/L  
030104R/L  
0401003R/L  
040101R/L  
040102R/L  
040104R/L  
0602003R/L  
060201R/L  
060202R/L  
09T3003R/L  
09T301R/L  
09T302R/L



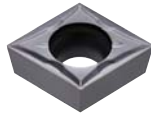
### CCGT-KM

0602003R/L  
060201R/L  
060202R/L  
060204R/L  
09T3003R/L  
09T301R/L  
09T302R/L  
09T304R/L



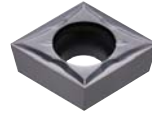
### CCGT-MS

09T301  
09T302  
09T304



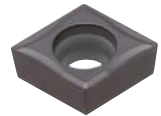
### CCGT-MFN-MS

09T301MFN  
09T302MFN  
09T304MFN



### CCGT-VP1

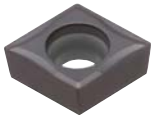
060201  
060202  
060204  
09T301  
09T302  
09T304



### CCGT-VP1

Precision class

060201MFN  
060202MFN  
060204MFN  
09T301MFN  
09T302MFN  
09T304MFN



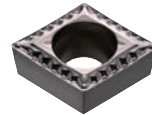
### CCMT-C25

060202 09T308  
060204 120404  
060208 120408  
09T302 120412  
09T304



### CCMT-FP

060202  
060204  
09T302  
09T304  
09T308



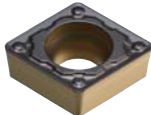
### CCMT-HMP

060202 120404  
060204 120408  
060208 120412  
09T302  
09T304  
09T308



### CCMT-MP

060202 120404  
060204 120408  
060208 120412  
09T302  
09T304  
09T308



### CCMT-VF

060202  
060204  
09T302  
09T304  
09T308  
120404



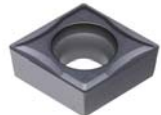
### CCMT-VL

060202 120404  
060204 120408  
060208 120412  
09T304  
09T308



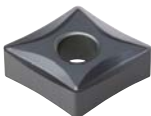
### CCMT-VP1

060204  
09T304  
09T308  
120404  
120408  
120412



### CNGG-VP1

120402  
120404  
120408



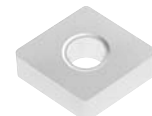
### CNGG-VP3

120404  
120408  
120412



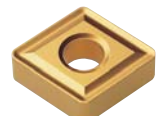
### CNMA

090308 160608  
120404 160612  
120408 160616  
120412 190608  
120416 190612  
190616



### CNMG-B25

120404 190604  
120408 190608  
120412 190612  
160608 190616  
160612  
160616

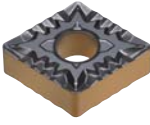


# Turning Inserts

## » For Turning

### CNMG-CP

090304 120412  
090308 160608  
090404 160612  
090408  
120404  
120408



### CNMG-GR

120408 190608  
120412 190612  
120416 190616  
160608 190624  
160612 250724  
160616 250924



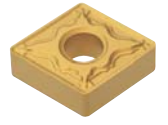
### CNMG-HA

120404  
120408  
120412



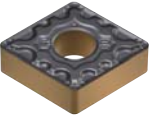
### CNMG-HM

090304  
090308  
120404  
120408  
120412  
190612



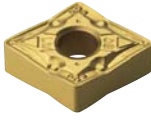
### CNMG-LP

090304  
090308  
120404  
120408  
120412



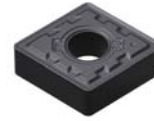
### CNMG-LW

120408  
120412



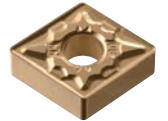
### CNMG-MK

120404 190608  
120408 190612  
120412 190616  
120416  
160608  
160612  
160616



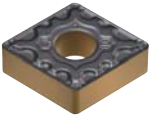
### CNMG-MM

090304 160608  
090308 160612  
090312 160616  
090404 190608  
090408 190612  
090412 190616  
120404  
120408  
120412  
120416



### CNMG-MP

090304 160608  
090308 160612  
090312 160616  
090404 190608  
090408 190612  
090412 190616  
120404  
120408  
120412  
120416



### CNMG-RK

120404 190612  
120408 190616  
120412  
120416  
160608  
160612  
160616



### CNMG-RM

120404 190608  
120408 190612  
120412 190616  
120416 250924  
160608  
160612  
160616



### CNMG-VB

120404  
120408  
120412



### CNMG-VC

120404  
120408  
120412



### CNMG-VF

090304  
090308  
120404  
120408  
120412



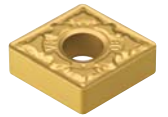
### CNMG-VL

120404  
120408  
120412



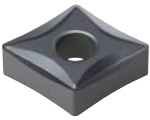
### CNMG-VM

090304 160608  
090308 160612  
120404 190608  
120408 190612  
120412 190616  
120416



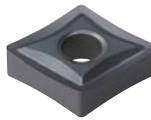
### CNMG-VP1

120404  
120408



### CNMG-VP2

120404  
120408  
160618  
190608  
190612  
190616



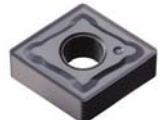
### CNMG-VP3

120404 190608  
120408 190612  
120412 190616  
120416  
160608  
160612  
160616



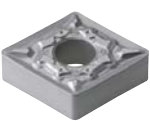
### CNMG-VP4

120408  
120412  
160608  
160612  
190608  
190612



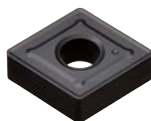
### CNMG-VQ

090304  
090308  
090408  
090412  
120404  
120408  
120412



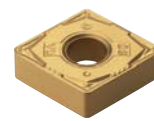
### CNMG-VR

120404 160612  
120408 160616  
120412 190612  
120416 190616  
120508  
120512



### CNMG-VW

120404  
120408  
120412



### CNMM-GH

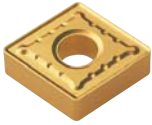
120408 190608  
120412 190612  
160412 190616  
160424 190624  
160612 250716  
160616 250724  
160624 250924



## » For Turning

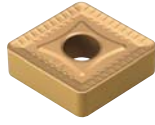
### CNMM-GR

120408  
120412  
190612  
190616



### CNMM-VH

190612  
190616  
190624  
250724  
250924



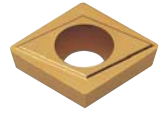
### CNMM-VT

190612  
190616  
190624  
250724  
250924



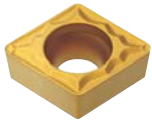
### CPGT

080202  
080204  
080208  
090302  
090304  
090308



### CPGT-HMP

090308-HMP



### CPMT-C25

060204



### CPMT-VF

080204  
080208  
090304  
090308



### CPMT-VL

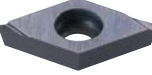
080204  
080208  
090304  
090308



### DCET-KF

Precision class

0702005MFR/L  
070201MFR/L  
070202MFR/L  
11T3005MFR/L  
11T301MFR/L  
11T302MFR/L



### DCET-KM

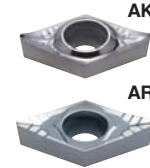
Precision class

0702005MFR/L  
070201MFR/L  
070202MFR/L  
11T3005MFR/L  
11T301MFR/L  
11T302MFR/L



### DCGT-AK/AR

070202  
070204  
070208  
11T302  
11T304  
11T308  
11T312



### DCGT-FS

high precision

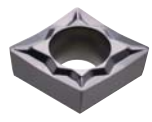
060201  
060202  
060204  
09T301  
09T302  
09T304  
09T308



### DCGT-MFN-FS

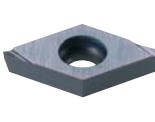
Ultra high precision

060201MFN  
060202MFN  
060204MFN  
09T301MFN  
09T302MFN  
09T304MFN  
09T308MFN



### DCGT-KF

0702003R/L  
070201R/L  
070202R/L  
070204R/L  
11T3003R/L  
11T301R/L  
11T302R/L  
11T304R/L



### DCGT-KM

0702003R/L  
070201R/L  
070202R/L  
070204R/L  
11T3003R/L  
11T301R/L  
11T302R/L  
11T304R/L



### DCGT-MS

high precision

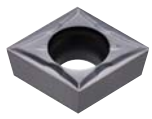
09T301  
09T302  
09T304



### DCGT-MFN-MS

Ultra high precision

09T301MFN  
09T302MFN  
09T304MFN



### DCGT-VP1

070201  
070202  
070204  
11T301  
11T302  
11T304



### DCGT-VP1

Precision class

070201MFN  
070202MFN  
070204MFN  
11T301MFN  
11T302MFN  
11T304MFN



### DCMT-C25

070202  
070204  
070208  
11T302  
11T304  
11T308



### DCMT-FP

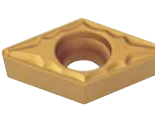
Mild steel

070202  
070204  
070208  
11T302  
11T304  
11T308



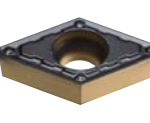
### DCMT-HMP

070202  
070204  
070208  
11T302  
11T304  
11T308



### DCMT-MP

070202  
070204  
070208  
11T302  
11T304  
11T308  
11T312



### DCMT-VF

070202  
070204  
11T302  
11T304  
11T308



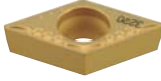


# Turning Inserts

## » For Turning

### DCMT-VL

070202  
070204  
070208  
11T302  
11T304  
11T308  
11T312



### DCMT-VP1

070204  
11T304  
11T308



### DNGG-VP1

150404  
150408  
150604  
150608



### DNGG-VP3

150404  
150408  
150412  
150604  
150608  
150612



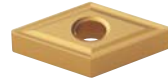
### DNMA

110408  
150404  
150408  
150412  
150604  
150608  
150612  
190608



### DNMG-B25

150404 150604  
150408 150608  
150412 150612



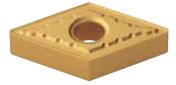
### DNMG-CP

110404  
110408  
110504  
110508  
150404  
150408  
150412  
150604  
150608  
150612



### DNMG-GR

150408  
150412  
150416  
150608  
150612  
150616



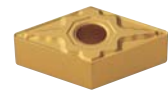
### DNMG-HA

150404  
150408  
150604  
150608



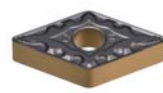
### DNMG-HM

110404  
110408  
150404  
150408  
150604  
150608  
150612



### DNMG-LP

110402 150404  
110404 150408  
110408 150412  
110504 150604  
110508 150608  
150612



### DNMG-LW

150408  
150412  
150608  
150612



### DNMG-MK

150404  
150408  
150412  
150604  
150608  
150612



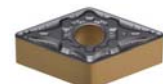
### DNMG-MM

110404 150404  
110408 150408  
110412 150412  
110504 150416  
110508 150604  
110512 150608  
150612  
150616



### DNMG-MP

110404 150404  
110408 150408  
110412 150412  
110504 150416  
110508 150604  
110512 150608  
150612  
150616



### DNMG-RK

150408  
150412  
150608  
150612



### DNMG-RM

150404  
150408  
150412  
150416  
150604  
150608  
150612  
150616



### DNMG-VB

110404  
150404  
150408  
150412  
150604  
150608  
150612



### DNMG-VC

150404  
150408  
150412  
150604  
150608  
150612



### DNMG-VF

110402  
110404  
110408  
150404  
150408  
150412  
150604  
150608  
150612



### DNMG-VL

110408  
150404  
150408  
150412  
150604  
150608  
150612



### DNMG-VM

110404 150604  
110408 150608  
110412 150612  
150404  
150408  
150412



### DNMG-VP1

150404  
150408  
150604  
150608



### DNMG-VP2

150404  
150408  
150604  
150608





## » For Turning

### DNMG-VP3

150404  
150408  
150412  
150604  
150608  
150612



### DNMG-VP4

150408  
150412  
150608  
150612



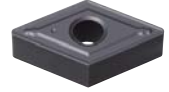
### DNMG-VQ

110404 150408  
110408 150412  
110412 150604  
110508 150608  
110512 150612  
150404



### DNMG-VR

150408  
150412  
150608  
150612



### DNMG-VW

150404  
150408  
150604  
150608



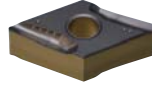
### DNMX-SH

150404R/L  
150408R/L  
150604R/L  
150608R/L



### DNMX-SR

150404R/L  
150408R/L  
150604R/L  
150608R/L



### KNUX-11

160405R/L  
160410R/L



### KNUX-12

160405R/L  
160410R/L



### RCGT-AK

0602M0  
0803M0  
1003M0  
1204M0



### RCGT-AR

0602M0  
0803M0  
1003M0  
10T3M0  
1204M0



### RCMT-VM

0803M0  
10T3M0  
1204M0  
1606M0



### RCMX

1003M0  
1204M0  
1606M0  
2006M0  
2507M0  
3209M0



### RNMG-B25

090300  
120400  
150600  
190600  
250600  
250900  
310900



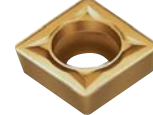
### SCGT-AK/AR

09T302  
09T304  
09T308  
120404  
120408  
120416



### SCMT-C25

060204  
09T304  
09T308  
120404  
120408



### SCMT-FP

Mild steel

09T304  
09T308



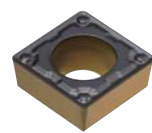
### SCMT-HMP

09T304  
09T308  
120404  
120408



### SCMT-MP

09T304  
09T308  
120404  
120408  
120412



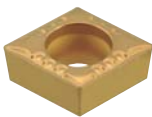
### SCMT-VF

09T304



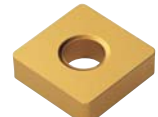
### SCMT-VL

09T304  
09T308



### SNGA

090304 150608  
090308 150616  
120404 190608  
120408 190612  
120412



### SNGG

090304R/L  
090308R/L  
120404R/L  
120408R/L  
120412R/L



### SNGG-VP3

120404  
120408  
120412



# Turning Inserts

## » For Turning

### SNGN

090302 120424  
090304 150402  
090308 150408  
120304 150412  
120308 150416  
120312 190402  
120402 190412  
120404 190416  
120408 250604  
120412 250616



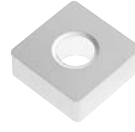
### SNGX

120408R



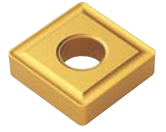
### SNMA

090304 150612  
090308 150616  
090312 190608  
120402 190612  
120404 190616  
120408 190624  
120412 250724  
120416 250924  
120430



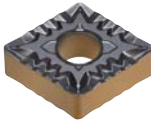
### SNMG-B25

090308 190608  
120404 190612  
120408 190616  
120412 250716  
120416 250724  
120420 250924  
150608  
150612  
150616



### SNMG-CP

090304  
090308  
090404  
090408  
120404  
120408  
120412



### SNMG-GR

120404 190608  
120408 190612  
120412 190616  
150608 190624  
150612 250724  
250924



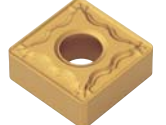
### SNMG-HA

120404  
120408  
120412



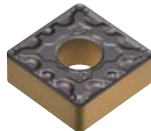
### SNMG-HM

120404  
120408  
120412



### SNMG-LP

090308  
090408  
120404  
120408  
120412



### SNMG-MK

090308 190608  
120404 190612  
120408 190616  
120412  
120416  
150608  
150612  
150616



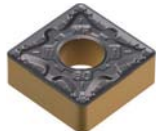
### SNMG-MM

090304 150608  
090308 150612  
090312 150616  
090404 190608  
090408 190612  
120404 190616  
120408 250924  
120412  
120416



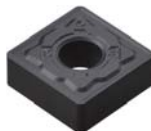
### SNMG-MP

090304 120404  
090308 120408  
090312 120412  
090404 120416  
090408 150608  
090412 150612  
190608  
190612



### SNMG-RK

120404  
120408  
120412  
120416  
150612  
150616  
190612  
190616



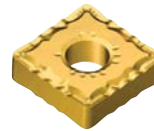
### SNMG-RM

120404 190608  
120408 190612  
120412 190616  
120416 190624  
150608 250924  
150612  
150616



### SNMG-VB

120404  
120408



### SNMG-VC

120408



### SNMG-VF

090304  
090308  
120404  
120408  
120412



### SNMG-VL

120408



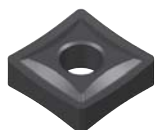
### SNMG-VM

090304  
090308  
120404  
120408  
120412  
190612  
190616



### SNMG-VP2

120404  
120408  
120412



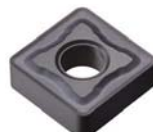
### SNMG-VP3

120404 190608  
120408 190612  
120412 190616  
120416  
160608  
160612  
160616



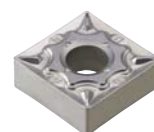
### SNMG-VP4

120408  
120412  
150612  
190608  
190612  
190616



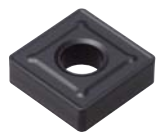
### SNMG-VQ

090304  
090408  
090412  
120404  
120408



### SNMG-VR

120408  
120412  
120416  
190612  
190616



## » For Turning

### SNMM-GH

120408 250724  
120412 250924  
150612 250932  
190612  
190616  
190624



### SNMM-GR

120408  
120412  
190612  
190616



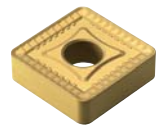
### SNMM-VH

190612  
190616  
190624  
250716  
250724  
250920  
250924



### SNMM-VT

190612  
190616  
190624  
250716  
250724  
250920  
250924



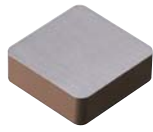
### SNMX

120408R



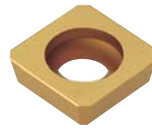
### SNUN

120408  
120412  
190412  
120412TN  
250724TN



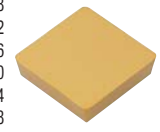
### SPGA

060204  
090308T  
090308T-Z



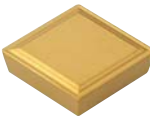
### SPGN

070202 120316 150408  
070208 120402 150412  
090302 120404 150416  
090304 120408 150420  
090308 120412 190404  
120302 120416 190408  
120304 120430 190412  
120308 120440 190416  
120312 150404 190424



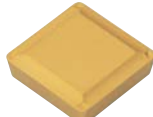
### SPGR-F

090304  
120304



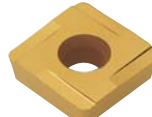
### SPGR-M

090308  
120308



### SPGT

090304R/L  
090308R/L



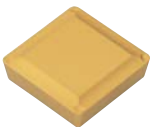
### SPMR-F

090304  
120304



### SPMR-M

090308  
120308  
120312



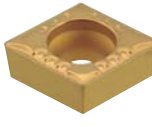
### SPMT-VF

090304  
090308



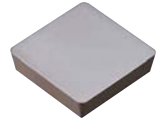
### SPMT-VL

09T304  
09T308



### SPUN

120304  
120308  
120308SN  
150412  
190412  
190416  
250620



### TBGT

060102L  
060104L



### TBMT-VL

060102



### TCGT-AK/AR

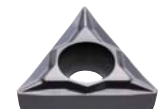
090202 16T302  
090204 16T304  
110202 16T308  
110204 16T312  
110208 16T316  
16T325



### TCGT-FS

high precision

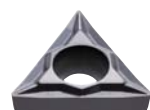
110201  
110202  
110204



### TCGT-MFN-FS

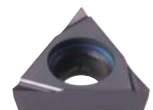
Ultra high precision

110201MFN  
110202MFN  
110204MFN



### TCGT-KF

0802003R/L  
080201R/L  
080202R/L



### TCGT-VP1

090204  
16T304  
16T308



### TCMT-C25

090204  
090208  
110202  
110204  
110208  
16T304  
16T308



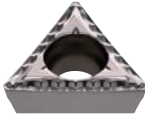
# Turning Inserts

## For Turning

### TCMT-FP

Mild steel

090208  
110204  
110208  
16T304  
16T308



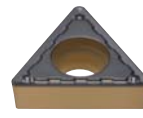
### TCMT-HMP

090204 16T304  
090208 16T308  
110202  
110204  
110208



### TCMT-MP

090204 16T302  
090208 16T304  
110202 16T308  
110204 16T312  
110208 220408



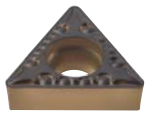
### TCMT-VF

110202  
110204  
110208  
16T302  
16T304



### TCMT-VL

090208  
110204  
110208  
16T304  
16T308



### TCMT-VP1

16T304  
16T308



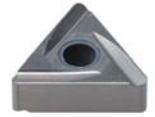
### TNGA

110302 220304  
110304 220402  
160304 220404  
160402 220408  
160404 220412  
160408 270612  
270624



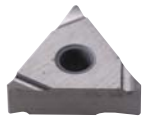
### TNGG

110304R/L  
160402R/L  
160404R/L  
160408R/L  
220404R/L  
220408R/L  
220412R/L



### TNGG-SC

160402R/L  
160404R/L



### TNGG-VP3

160404  
160408



### TNGN

110302 220404  
110304 220408  
110308 220412  
160302 220416  
160304 220424  
160308 270630  
160404  
160408  
160412



### TNMA

110308 220420  
160404 220432  
160408 270608  
160412 270612  
160416 270616  
220404 330924  
220408  
220412  
220416



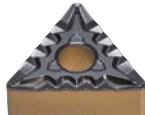
### TNMG-B25

110308 220424  
160404 220432  
160408 270608  
160412 270612  
160416 270616  
220404 330716  
220408 330924  
220412  
220416



### TNMG-CP

110304  
110308  
160404  
160408  
160412  
220408  
220412



### TNMG-GR

160408 270608  
160412 270612  
220408 270616  
220412 330924  
220416



### TNMG-HA

160404  
160408  
160412  
220408



### TNMG-HM

110308  
160404  
160408  
160412  
220404  
220408



### TNMG-LP

110304  
110308  
160404  
160408  
160412



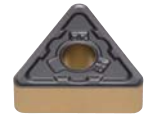
### TNMG-LW

160408  
160412



### TNMG-MK

160404 220404  
160408 220408  
160412 220412  
160416 220416  
270612



### TNMG-MM

160404 220404  
160408 220408  
160412 220412  
160416 220416



### TNMG-MP

110308 220404  
160404 220408  
160408 220412  
160412 220416  
160416 270612



### TNMG-RK

160408  
160412  
160416  
220408  
220412  
220416



### TNMG-RM

160404  
160408  
160412  
220408  
220412  
220416



## » For Turning

### TNMG-VB

160404  
160408  
160412  
220408  
220412



### TNMG-VC

160404  
160408  
160412  
220408  
220412



### TNMG-VF

110304 220404  
160404 220408  
160408  
160412



### TNMG-VL

160404  
160408  
160412  
220408  
220412



### TNMG-VM

110308 220404  
160404 220408  
160408 220412  
160412



### TNMG-VP2

160404  
160408  
160412  
220404  
220408



### TNMG-VP3

160404  
160408  
160412  
220404  
220408  
220412  
220416



### TNMG-VP4

160408  
160412



### TNMG-VQ

110304  
160404  
160408  
160412  
220404



### TNMG-VR

160404  
160408  
160412  
160416  
220408  
220412  
220416



### TNMG-VW

160404  
160408



### TNMM-GH

160408  
220408  
220412  
220416  
270616  
270624  
330924



### TNMM-GR

220408  
220412  
220416



### TNMN

160408  
220408  
220412



### TNMX

160402R  
160404R/L  
160408R/L  
220404R  
220408R



### TNMX-SH

160404R/L  
160408R/L



### TNMX-SR

160404R/L  
160408R/L



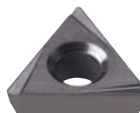
### TOEH

060102L  
090204L  
140304L



### TPGH

080202L  
080204L  
110202L  
110204L



### TPGN

090204 160316  
110302 160404  
110304 220404  
110308 220408  
160302 220412  
160304 220430  
160308 220440  
160310 270408  
160312 270608



### TPGR-F

110302  
110304  
160304



### TPGR-M

110308  
160308



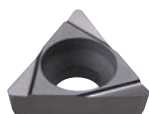
### TPGT

080202R/L  
110302R/L  
110304R/L  
110308R/L  
160404R/L  
160408R/L



### TPGX

090202L  
090204L  
090208L  
110304L



# Turning Inserts

## For Turning

### TPMR-F

090202  
090204  
110302  
110304  
110308  
160304  
160308



### TPMR-M

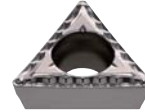
110304  
110308  
160304  
160308  
160312  
220408



### TPMT-FP

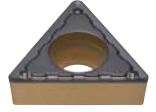
Mild steel

090202  
090204  
110302  
110304  
110308  
160404  
160408



### TPMT-MP

090202 160402  
090204 160404  
110302 160408  
110304  
110308



### TPMT-VF

110304  
110308  
160404  
160408



### TPMT-VL

090204  
090208  
110304  
110308  
160404  
160408



### TPUN

090308 220404  
110208 220408  
110304 220412  
110308 330620  
160304 160308TN  
160308 160312TN  
160312 220412TN



### VBGT

160404  
160408



### VBGT-AK/AR

110302  
110304  
110308  
160402  
160404  
160408  
160412



### VBGT-FS

High precision

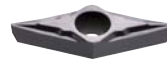
110301  
110302  
110304  
160401  
160402  
160404



### VBGT-MFN-FS

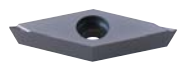
Ultra high precision

110301MFN  
110302MFN  
110304MFN  
160401MFN  
160402MFN  
160404MFN



### VBGT-KF

1103003R/L  
110301R/L  
110302R/L



### VBGT-KM

1103003R/L  
110301R/L  
110302R/L  
160404R/L



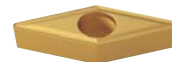
### VBGT-VP1

110302  
160402  
160404



### VBMT

160404  
160408



### VBMT-FP

Mild steel

110302  
110304  
110308  
160404  
160408



### VBMT-HMP

110304  
110308  
160404  
160408  
160412



### VBMT-MP

110302  
110304  
110308  
160402  
160404  
160408  
160412



### VBMT-VB

110302  
110304  
110308  
160402  
160404  
160408  
160412



### VBMT-VF

160404  
160408



### VBMT-VL

110302  
110304  
110308  
160402  
160404  
160408  
160412



### VBMT-VP1

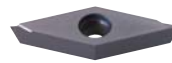
160402  
160404  
160408



### VCET-KF

Precision class

1103005MFR/L  
110301MFR/L  
110302MFR/L



### VCET-KM

Precision class

1103005MFR/L  
110301MFR/L  
110302MFR/L





## » For Turning

### VCGT-AK / AR

110301 160402  
110302 160404  
110304 160408  
110308 160412  
130302 220516  
130304 220525  
130308 220530



### VCGT-FS

High precision

110301  
110302  
110304  
160401  
160402  
160404



### VCGT-MFN-FS

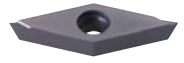
Ultra high precision

110301MFN  
110302MFN  
110304MFN  
160401MFN  
160402MFN  
160404MFN



### VCGT-KF

1103003R/L  
110301R/L  
110302R/L



### VCGT-KM

1103003R/L  
110301R/L  
110302R/L



### VCGT-MS

High precision

110301  
110302  
110304



### VCGT-MFN-MS

Ultra high precision

110301MFN  
110302MFN  
110304MFN



### VCGT-FN-MS

Ultra high precision

1203008FN  
120301FN  
120302FN  
120304FN



### VCGT-VP1

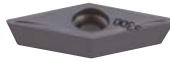
110301  
110302  
110304  
160404  
160408



### VCGT-VP1

Precision class

110301MFN  
110302MFN  
110304MFN  
1203008FN  
120301FN  
120302FN  
120304FN



### VCGX-VP1

Precision class

120300MFR  
120301MFR  
120302MFR  
120304MFR  
120308MFR



### VCMT-FP

Mild steel

080202  
080204  
080408  
160404  
160408



### VCMT-HMP

160404  
160408



### VCMT-MP

080202  
080204  
110302  
110304  
160404  
160408  
160412



### VCMT-VF

080202  
080204  
110304  
160404



### VCMT-VL

080202  
080204  
160404  
160408  
160412



### VCMT-VP1

160404  
160408



### VNGG-HA

160408



### VNGG-VP3

160404  
160408



### VNMG-CP

160404  
160408  
160412



### VNMG-HM

160404  
160408  
160412



### VNMG-MM

160404  
160408  
160412



### VNMG-LP

160404  
160408  
160412



### VNMG-MK

160404  
160408  
160412



# Turning Inserts

## » For Turning

### VNMG-MP

160404  
160408  
160412  
160416



### VNMG-RM

160404  
160408  
160412



### VNMG-VB

160404  
160408  
160412



### VNMG-VC

160404  
160408  
160412



### VNMG-VF

160402  
160404  
160408  
160412



### VNMG-VL

160404  
160408  
160412



### VNMG-VM

160404  
160408  
160412  
220404



### VNMG-VP3

160404  
160408  
160412



### VNMG-VQ

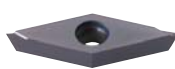
160404  
160408  
160412



### VPET-KF

Precision class

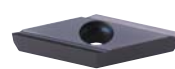
0802005MFR/L  
080201MFR/L  
080202MFR/L



### VPET-KM

Precision class

0802005MFR/L  
080201MFR/L  
080202MFR/L



### VPGT-VP1

110301  
110302  
110304



### VPGT-VP1

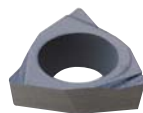
Precision class

110301MFN  
110302MFN  
110304MFN



### WBGT

020102R/L  
S30202L  
S30204R/L



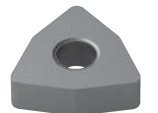
### WNGG-VP3

080404



### WNMA

060404  
060408  
060412  
080404  
080408  
080412  
080416



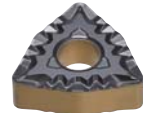
### WNMG-B25

080404  
080408  
080412



### WNMG-CP

060404  
060408  
080404  
080408  
080412  
080416



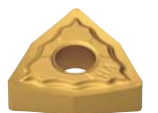
### WNMG-GR

080404  
080408  
080412  
080416



### WNMG-HA

060404  
060408  
080404  
080408  
080412



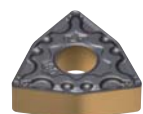
### WNMG-HM

060404  
060408  
080404  
080408  
080412



### WNMG-LP

06T308  
060404  
060408  
080404  
080408  
080412



### WNMG-LW

060404  
060412  
080408  
080412



### WNMG-MK

060404  
080404  
080408  
080412  
080416

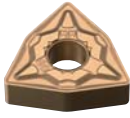




## » For Turning

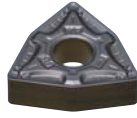
### WNMG-MM

06T304 080404  
06T308 080408  
06T312 080412  
060404  
060408  
060412



### WNMG-MP

06T304 080404  
06T308 080408  
060404 080412  
060408 080416  
060412



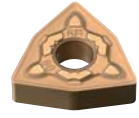
### WNMG-RK

060408  
060412  
080404  
080408  
080412  
080416



### WNMG-RM

060404  
060408  
060412  
080404  
080408  
080412



### WNMG-VB

080404  
080408  
080412



### WNMG-VC

080404  
080408  
080412



### WNMG-VF

060404  
060408  
080404  
080408  
080412



### WNMG-VL

060404  
080404  
080408



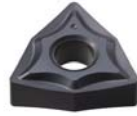
### WNMG-VM

060404  
060408  
060412  
080404  
080408  
080412  
080416



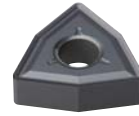
### WNMG-VP2

080404  
080408  
080412



### WNMG-VP3

060408  
060412  
080404  
080408  
080412  
130612



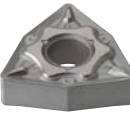
### WNMG-VP4

080408  
080412



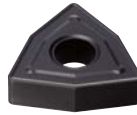
### WNMG-VQ

060404  
060408  
060412  
080404  
080408  
080412



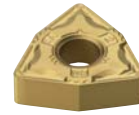
### WNMG-VR

060408  
080404  
080408  
080412  
080416



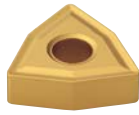
### WNMG-VW

060404  
060408  
080404  
080408  
080412



### WNMM-B25

100608  
130612



### WNMX-SH

080404R/L  
080408R/L



### WNMX-SR

080404R/L  
080408R/L



# Milling Inserts

## For Milling

### ADKA

150308R  
150308SR  
150308TR



### ADKT-ML

10T304PEER  
120408PESR  
170608PESR



### ADKT-MM

10T304PESR  
10T308PESR  
10T312PESR  
120408PESR  
120412PESR  
120416PESR  
170604PESR  
170608PESR  
170616PESR  
170620PESR



### ADLT

150308R  
150308SR  
150308TR



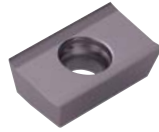
### APKT

1604PDSR



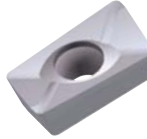
### APKT-MA

1604PDFR  
160416FR



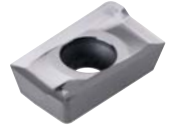
### APKT-MA2

1604PDFR  
160416FR  
160432FR



### APKT-MA3

1604PDFR  
160420FR



### APKT-MF

1604PDSR



### APKT-MM

1604PDSR



### APLT

070304R



### APMT-MA

0602PDFR	11T308PDFR	180612PDFR
060208PDFR	160404PDFR	180616PDFR
0903PDFR	1604PDFR	180620PDFR
090308PDFR	180604PDFR	180624PDFR
11T3PDFR	1806PDFR	180630R



### APMT-MF

11T3PDSR  
1604PDSR  
1806PDSR  
180612PDSR



### APMT-ML

0903PDER	1604PDER	180620PDER
090308PDER	180604PDER	180624PDER
11T3PDER	1806PDER	180630R
11T308PDER	180612PDER	
160404PDER	180616PDER	



### APMT-MM

060202PDSR	090332R	160416PDSR	180620PDSR
0602PDSR	11T3PDSR	160420R	180624PDSR
060208PDSR	11T308PDSR	160424R	180630R
060212R	11T312PDSR	160430R	180632R
060216R	11T316R	160432R	180640R
0903PDSR	11T318R	160450R	180648R
090308PDSR	11T324R	160464R	180650R
090312R	160404PDSR	1806PDSR	180660R
090316R	1604PDSR	180612PDSR	180664R
090320R	160410PDSR	180616PDSR	



### APMT-MN

11T3PDSR-MN2  
11T3PDSR-MN3  
1604PDSR-MN3  
1604PDSR-MN4  
1806PDSR-MN3  
1806PDSR-MN4



### BAMPR-XAF

BAMPR



### BAMPR-XAW

BAMPR



### BAMPR-XAWR

BAMPR



» For Milling

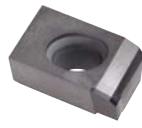
**CDEW-NAF** Strengthened Edge

1204R  
1204L



**CDEW-NAW** Strengthened Edge Wiper Insert

1204R  
1204L



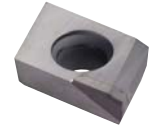
**CDEW-XAW** Sharp Edge Wiper Insert

1204R  
1204L



**CDEW-XAF** Sharp Edge

1204R  
1204L



**CDEW-XCF** Sharp Edge

1204R  
1204L



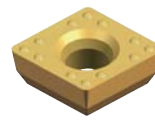
**CNHQ**

1005-C0.5  
1305-C0.5  
1606-C0.5



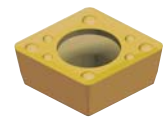
**CPMH-MM**

120408



**CPMT-MM**

060204  
080308  
09T308



**HECN**

090408FN  
090408SN  
090408TN  
110412FN  
110412TN



**HPEN**

090408FN  
090408SN  
090408EN  
110412FN



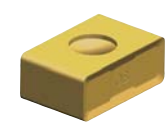
**HPEN-WC**

090408  
110412



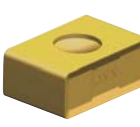
**KEL-MF**

150608  
150608



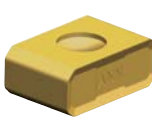
**KEL-QMN**

1506QNN  
1506QNN



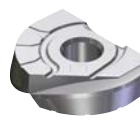
**KEL-ANN**

1506ANN  
1506ANN



**LBH**

080 300  
100 320  
120 330  
160  
200  
250



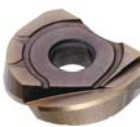
**LBH-KF**

080 200  
100 210  
120 250  
130 300  
160 320  
170 330



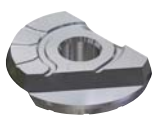
**LBH-KH**

080 200  
100 210  
120 250  
130 260  
160 300  
170 320  
330



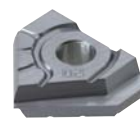
**LBS**

080 200  
090 210  
100 250  
110 260  
120 300  
130 310  
160 320  
170



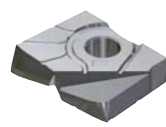
**LCF**

160-D90  
200-D90  
250-D90



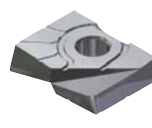
**LFH**

100  
120  
160  
200  
250  
300  
320

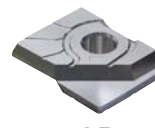


**LRH/LR**

100-R05	130-R05	170-R10	250-R05	300-R20	330-R10
100-R10	130-R10	200-R05	250-R10	300-R30	330-R20
100-R20	160-R05	200-R10	250-R20	310-R05	330-R30
110-R05	160-R10	200-R20	250-R30	320-R10	
120-R05	160-R20	200-R30	260-R05	320-R20	
120-R10	160-R30	210-R05	260-R10	320-R30	
120-R20	170-R05	210-R10	300-R10	330-R05	



LRH



LR

Special type

**LDET**

650540PPFR-MA  
650550PPFR-MA

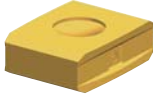


# Milling Inserts

## For Milling

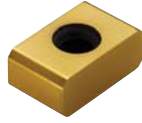
### LNCS

1907-C1.5-WC  
1907-R3.0-WC



### LNE

324-R0.8  
324-C1.0



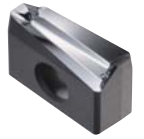
### LNEX-MA

100605PNR  
151004PNR  
151008PNR



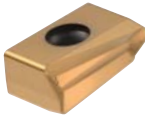
### LNKT-MA

080404PNR  
080408PNR  
080412PNR  
080416PNR  
140604PNR  
140608PNR  
140612PNR  
140616PNR 170712PNR  
170704PNR 170716PNR  
170708PNR 170720PNR



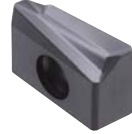
### LNKT-ML

080404PNR  
080408PNR  
080412PNR  
080416PNR  
140604PNR  
140608PNR  
140612PNR  
140616PNR 170712PNR  
170704PNR 170716PNR  
170708PNR 170720PNR



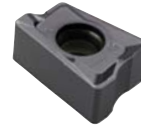
### LNKT-MM

080404PNR  
080408PNR  
080412PNR  
080416PNR  
140604PNR  
140608PNR  
140612PNR  
140616PNR 170712PNR  
170704PNR 170716PNR  
170708PNR 170720PNR



### LNM(E)X-MF

100605PNR  
100608PNR  
151004PNR  
151008PNR  
151016PNR



### LNM(E)X-MM

100605PNR  
100608PNR  
100605PNL  
151004PNR  
151008PNR  
151016PNR  
151008PNL



### LNMX-MF

060310R  
100412R



### LNMX-ML

040205R  
060310R  
100412R



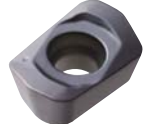
### LNMX-MM

040205R  
060310R  
100412R



### LPEW

040210R  
040220R



### LPMT-MF

040210R  
040220R



### LPMW

040210R  
040220R



### LXET-MA

250404PEFR-32 250412PEFR-40 340504PEFR-63  
2504PEFR-32 250416PEFR-40 3405PEFR-63  
250412PEFR-32 340504PEFR-50 340512PEFR-63  
250416PEFR-32 3405PEFR-50 340516PEFR-63  
250404PEFR-40 340512PEFR-50  
2504PEFR-40 340516PEFR-50



### LXET-ML

250404PEER-32 250412PEER-40 340504PEER-63  
2504PEER-32 250416PEER-40 3405PEER-63  
250412PEER-32 340504PEER-50 340512PEER-63  
250416PEER-32 3405PEER-50 340516PEER-63  
250404PEER-40 340512PEER-50  
2504PEER-40 340516PEER-50



### MPMT

090308  
120408



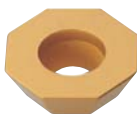
### OFCN

0704SN  
0704FN  
070408SN  
070408FN  
070408TN



### OFCW

05T3SN  
05T3FN  
05T308FN



### OFKR-MA

0704FN  
0704EN



### OFKR-MF

0704SN  
070408SN



### OFKR-MM

0704SN  
070408SN



## » For Milling

### OFKT-MA

05T3FN  
05T3EN  
0704FN  
0704EN



### OFKT-MF

05T3SN  
05T308SN



### OFKT-MM

05T3SN  
05T308SN  
0704SN



### ONHX-MF

060608  
080608  
0606ANN  
0806ANN



### ONHX-ML

060608  
080608



### ONHX-MM

060608  
080608  
0606ANN  
0806ANN



### ONHX-MA

060608  
080608



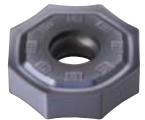
### ONHX-W

060608  
080608



### ONMX-MF

060608  
080608  
0606ANN  
0806ANN



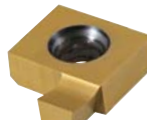
### ONMX-MM

060608  
080608  
0606ANN  
0806ANN



### ORG

265  
325  
405  
470



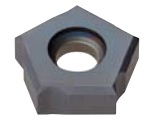
### PNEJ

1223N 1260N  
1225N 1265N  
1230N 1270N  
1235N 1275N  
1240N 1285N  
1245N  
1250N  
1255N



### PNEJ-C

1223N-C03 1255N-C05  
1230N-C03 1260N-C05  
1235N-C03 1265N-C05  
1240N-C05 1270N-C05  
1245N-C05 1275N-C05  
1250N-C05



### RC

16  
20  
25  
30  
32



### RDCT-MA

10T3M0  
1204M0



### RDHW

0501M0F 0803M0F  
0501M0E 0803M0E  
0501M0S 0803M0S  
06T1M0F 1605M0F  
06T1M0E 1605M0E  
06T1M0S 1605M0S  
0702M0F 2006M0F  
0702M0E 2006M0E  
0702M0S 2006M0S



### RDKT-MF

10T3M0  
1204M0  
1605M0



### RDKT-ML

1605M0



### RDKT-MM

10T3M0  
1204M0  
1605M0  
2006M0



### RDKW

0501M0E  
06T1M0E  
0702M0E  
0803M0E



### REKR-MM

170400



### RNMX-ML

1204M0E



### RPCT-MA

10T3M0  
1204M0  
1606M0  
2007M0



### RPET-ML

0803M0E  
103TMOE  
1204M0E  
1606M0E  
2007M0E



# Milling Inserts

## » For Milling

### RPMT-MF

0803M0E  
10T3M0E  
1204M0E  
1606M0E  
2007M0E



### RPMT-MM

0803M0S  
10T3M0S  
1204M0S  
1606M0S  
2007M0S



### RPMW

0803M0E1  
10T3M0E1  
1204M0S1  
1204M0S2  
1606M0S1  
2007M0S1



### SAGX-ML

140808ANER



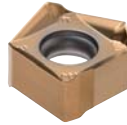
### SAGX-MM

140808ANER



### SNMX-MM

140808ANER



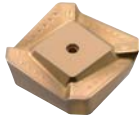
### SDCN

42M	53M-G	1203AESN
42M-G	53MT	1203AESN-RH
42MT	53MT-RH	1504AEEN
42MT-RH	53MT-S20	1504AEEN-RH
42MT-S20	1203AEEN	1504AESN
53M	1203AEEN-RH	1504AESN-RH



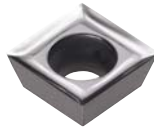
### SCKN

220715DDSR-MM  
280920DDSR-MM



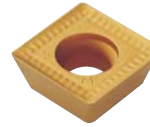
### SDET-MA

09M402R  
09M404R  
09M405R  
130504R



### SDET-MF

09M405R  
130508R



### SDET-MM

09M405R  
130508R



### SDKN-CM

42MT



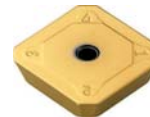
### SDKN-MU

1203AESN  
1504AESN



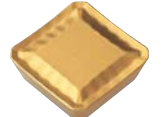
### SDKN-SU

1203AESN  
1504AESN



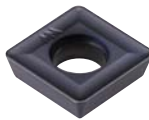
### SDKR-MX

1203AESN  
1203AETN  
1203AEN  
1504AESN  
1504AETN  
1504AEN



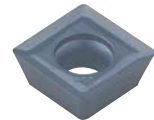
### SDMT-MM

090308



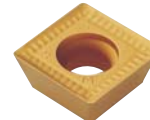
### SDXT-MA

09M405R  
130508R



### SDXT-MF

09M403R  
09M403L  
09M404R  
09M404L  
09M405R  
09M405L  
130508R



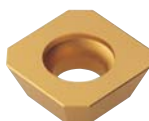
### SDXT-MM

09M405R  
09M405L  
130508R  
130508L  
130538



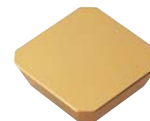
### SECA

1204AFSN  
1204AFTN  
1204AFFN  
1204AFEN  
1504AFSN  
1504AFTN  
1504AFFN



### SECN

1203AFFN	1203AFSN-RH	1504AFSN
1203AFTN	1203AFTN-S20	1504AFEN-RH
1203AFEN	1504AFFN	1504AFSN-RH
1203AFSN	1504AFTN	1504AFTN-S20
1203AFEN-RH	1504AFEN	



### SEET-MA

0903AGFN  
14M4AGFN





## » For Milling

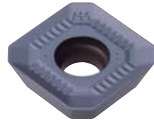
### SEET-MF

0903AGSN  
14M4AGSN



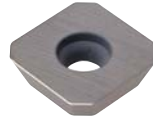
### SEET-MM

0903AGSN  
14M4AGSN



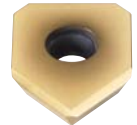
### SEEW

0903AGTN  
14M4AGTN



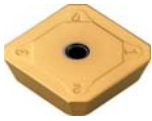
### SEEW-W

14M4AGFN  
14M4AGSN  
14M4AGTN



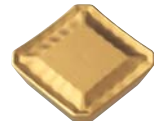
### SEKN-SU

1203AFSN  
1504AFSN



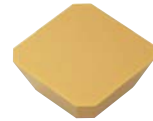
### SEKR-MX

1203AFSN  
1504AFSN



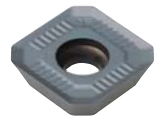
### SEMN

1204AZ



### SEXT-MF

0903AGSN  
14M4AGSN



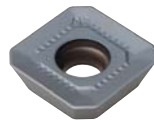
### SEXT-MM

0903AGSN  
14M4AGSN



### SEXT-MR

0903AGSN  
14M4AGSN



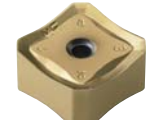
### SFCN

1203EFR



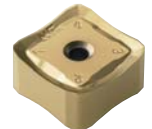
### SNC(M)F-MF

1206ANN  
1507ANN



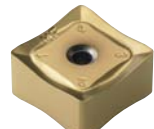
### SNC(M)F-MF

1206ENN  
1507ENN



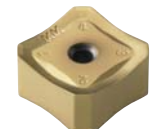
### SNC(M)F-MM

1206QNN



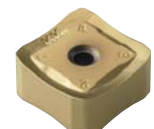
### SNC(M)F-MM

1206ANN  
1507ANN



### SNC(M)F-MM

1206ENN  
1507ENN



### SNC(M)F-MM

1206QNN



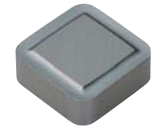
### SNCN

1204ENN  
1504ENN



### SNEF

435  
535



### SNEU-MF

120420



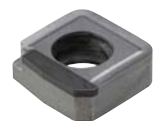
### SNEU-MF

1204ANN



### SNEU-TBW

1204



### SNEU-WMF

1204R



### SNEX

101010  
1010ZNN



# Milling Inserts

## For Milling

### SNEX-CU1

101010  
1010ZNN  
121212  
1212ZNN



### SNEX-MA

1206ANN  
1206ENN  
1206QNN  
120612



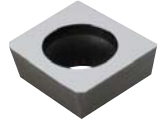
### SNEX-ML

1206ANN  
1206ENN  
1206QNN  
120612  
1507ANN  
1507ENN



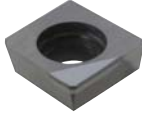
### SNEW

09T3ADFR



### SNEW-NAF

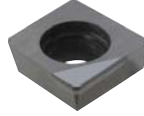
09T3ADTR-NAF  
09T3ADTR-NAW



• NAW: Wiper insert

### SNEW-XAF

09T3ADTR-XAF  
09T3ADTR-XAW



• XAW: Wiper insert

### SNHT-WX

1102308R	1206508R	1204508L
110308R	120708R	120508L
1203508R	1207508R	1205408L
120408R	1102308L	120608L
1204508R	110308L	1206508L
120508R	120308L	120708L
1205408R	1203508L	1207508L
120608R	120408L	



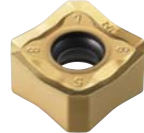
### SNKN

1204ENN  
1504ENN



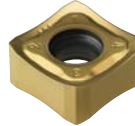
### SNM(E)X-MF

1206ANN  
1507ANN



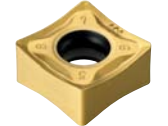
### SNM(E)X-MF

1206ENN  
1507ENN



### SNM(E)X-MF

1206QNN  
120612



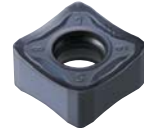
### SNM(E)X-MM

1206ANN  
1507ANN



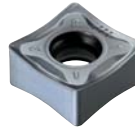
### SNM(E)X-MM

1206ENN  
1507ENN



### SNM(E)X-MM

1206QNN  
120612



### SNEX-W

1206ANN



### SPCN

1203EDR	1203EDTR-RH	1504EDR-G
1203EDR-RH	1203EDR-S20	1504EDR-RN
1203EDL	150412T	1504EDR-RH
1203EDR-G	1504EDR	1504EDSR-RH
1203EDR-RN	1504EDR-RH	1504EDTR-RH
1203EDR-RH	1504EDSR	1504EDR-S20
1203EDSR-RH	1504EDL	



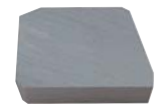
### SPEN-WC

120416  
150412  
150416  
150420  
150424  
190424



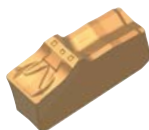
### SPEX

1203EDR-1  
1203EDL-1  
1504EDR-1  
1504EDL-1



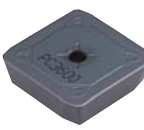
### SPFN

200-N  
300-N  
400-N



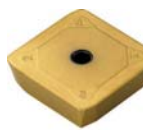
### SPKN-MU

1203EDSR  
1504EDSR



### SPKN-SU

1203EDSR  
1203EDSL  
1504EDSR  
1504EDSL



### SPKR-MX

1203EDSR  
1203EDSL  
1504EDR  
1504EDSR

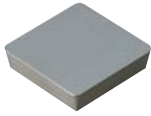




## » For Milling

### SPMN

120308



### SPMT

060304



### SPMT-KC

110408



### SPMT-MM

120408-MM  
120508-MMN

### TEC(E)N

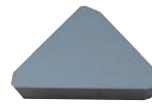
#### TECN

22R 43R-G  
22TR 43TR-Z  
32R 43TR  
32R-G  
32TR  
32TR-S20

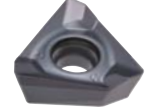
### TEEN

43R-Z  
43TR-Z  
43TR-ZH  
43R  
43R-G  
43TR  
43TR-S20

### TFCN

2203PFR  
2203PFL

### TNKT-ML

110508PEER  
160608PEER  
200708PEER

### TNKT-MM

110508PESR  
160608PESR  
200708PESR

### TNMX-NM

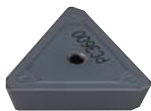
2710AZNR  
2710AZNL  
3012PNR

### TPCN

1103PPN 1603PPSR 1603PDR-RN 2204PDTR  
1103PPTN 1603PPTN 2204PDR 2204PPN  
1603PDR 1603PPTR 2204PDR-RH 2204PPTN  
1603PPN 1603PPTR-RH 2204PDR-RN 2204PDR-RH  
1603PPR 1603PDER-RH 2204PDR-G 2204PDER-RH  
1603PPR-RH 1603PDSR-RH 2204PDL 2204PDSR-RH  
1603PPR-G 1603PDR-S20 2204PDSR 2204PDR-S20

### TPKN-MU

2204PDSR-MU



### TPKN-SU

1603PDSR  
1603PDSL  
2204PDSR  
2204PDSL

### TPKR-MX

1603PDSN  
1603PDSR  
1603PPR  
1603PPSN  
1603PPSR  
2204PDR  
2204PDSR  
2204PPR

### TWX-KC

16R  
22R

### VCKT-MA

220530N



### VDKT-MA

11T210N  
11T220N

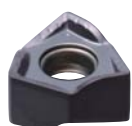
### WDKT-MH

080316ZDSR  
10T320ZDSR  
130520ZDSR  
150625ZDSR

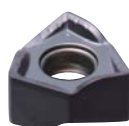
### WNGX-MA

040304PNFR  
040308PNFR  
040312PNFR  
040316PNFR  
080604PNFR  
080608PNFR  
080612PNFR  
080616PNFR  
080620PNFR

### WNGX-ML

040304PNER  
040308PNER  
040312PNER  
040316PNER  
080604PNER  
080608PNER  
080612PNER  
080616PNER  
080620PNER

### WNGX-MM

040304PNSR  
040308PNSR  
040312PNSR  
040316PNSR  
080604PNSR  
080608PNSR  
080612PNSR  
080616PNSR  
080620PNSR

### WNMX-MF

060312ZNN  
09T316ZNN  
130520ZNN  
160720ZNN

### WNMX-ML

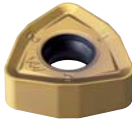
060312ZNN  
09T316ZNN  
130520ZNN  
160720ZNN

# Milling Inserts

## » For Milling

### WNMX-MM

060312ZNN  
09T316ZNN  
130520ZNN  
160720ZNN



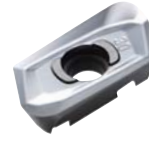
### XCET-KC

310404ER



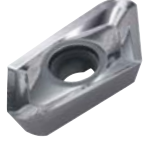
### XDET-MA

190504PEFR  
190508PEFR  
190512PEFR  
190516PEFR  
190520PEFR  
190524PEFR  
190530PEFR  
190532PEFR  
190540PEFR  
190550PEFR



### XEKT-MA

19M504FR 250604FR  
19M508FR 250608FR  
19M512FR 250612FR  
19M516FR 250616FR  
19M518FR 250620FR  
19M520FR 250630FR  
19M530FR 250632FR  
19M532FR 250640FR  
19M540FR 250650FR  
19M550FR



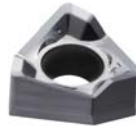
### XEKT-ML

19M504ER 250604ER  
19M508ER 250608ER  
19M512ER 250612ER  
19M516ER 250616ER  
19M518ER 250620ER  
19M520ER 250630ER  
19M530ER 250632ER  
19M532ER 250640ER  
19M540ER 250650ER  
19M550ER



### XNCT-MA

080504PNFR  
080508PNFR  
080512PNFR  
080520PNFR  
120608PNFR



### XNKT-ML

060405PNER  
060408PNER  
080504PNER  
080508PNER  
080512PNER  
080516PNER  
080520PNER  
120608PNER  
120612PNER  
120616PNER  
120620PNER



### XNKT-MM

060405PNSR  
060408PNSR  
080504PNSR  
080508PNSR  
080512PNSR  
080516PNSR  
080520PNSR  
120604PNSR  
120608PNSR  
120612PNSR  
120616PNSR  
120620PNSR



### XNMX-ML

0606XNR



### XNMX-ML

060608



### XPMT-MM

0802ER  
1003ER  
13T3ER  
1604ER  
1805ER  
2006ER  
2507ER



### ZDMT-R-MM

080310R  
110312.5R  
130416R



### ZPET-MM

Internal

080M 140M  
090M 150M  
100M 160M  
110M 200M  
125M 250M  
130M



### ZPET-MM

External

080S 140S  
090S 150S  
100S 160S  
110S 200S  
125S 250S  
130S



### ZPMT-MM

1504PPSR-MM  
1505PPSR-MMN



### ZPMT-R-MM

160520R  
160525R  
160531.5R



### ZPMT-R-MR

160525R



# < Drilling Inserts >

## » For Drilling

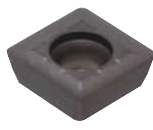
### SPET-ND

040204 11T308  
050204 130410  
060205 15M510  
07T208 180510  
090308



### SPMT-LD

060205  
07T208  
090308  
11T308  
130410  
15M510  
180510



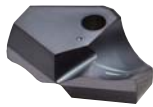
### SPMT-PD

040204 07T208 130410  
050204 090308 15M510  
060205 11T308 180510



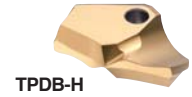
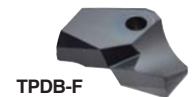
### TPDB Plus

TPD100B ~109B	TPD180B ~189B	TPD260B ~269B
TPD110B ~119B	TPD190B ~199B	TPD270B ~279B
TPD120B ~129B	TPD200B ~209B	TPD280B ~289B
TPD130B ~139B	TPD210B ~219B	TPD290B ~299B
TPD140B ~149B	TPD220B ~229B	TPD300B ~309B
TPD150B ~159B	TPD230B ~239B	TPD310B ~319B
TPD160B ~169B	TPD240B ~249B	TPD320B ~329B
TPD170B ~179B	TPD250B ~259B	



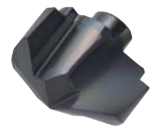
### TPDB-F/H

TPD140B-H ~ 149B-H	TPD230B-H ~ 239B-H
TPD150B-H ~ 159B-H	TPD240B-H ~ 249B-H
TPD160B-H ~ 169B-H	TPD250B-H ~ 259B-H
TPD170B-H ~ 179B-H	TPD260B-H ~ 269B-H
TPD180B-H ~ 189B-H	TPD270B-H ~ 279B-H
TPD190B-H ~ 199B-H	TPD280B-H ~ 289B-H
TPD200B-H ~ 209B-H	TPD290B-H ~ 299B-H
TPD210B-H ~ 219B-H	TPD300B-H ~ 309B-H
TPD220B-H ~ 229B-H	



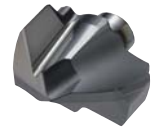
### TPDC-CP

TPDC12□□	TPDC19□□	TPDC26□□
TPDC13□□	TPDC20□□	TPDC27□□
TPDC14□□	TPDC21□□	TPDC28□□
TPDC15□□	TPDC22□□	TPDC29□□
TPDC16□□	TPDC23□□	TPDC30□□
TPDC17□□	TPDC24□□	
TPDC18□□	TPDC25□□	



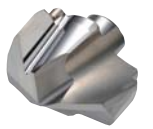
### TPDC-CM

TPDC12□□	TPDC19□□	TPDC26□□
TPDC13□□	TPDC20□□	TPDC27□□
TPDC14□□	TPDC21□□	TPDC28□□
TPDC15□□	TPDC22□□	TPDC29□□
TPDC16□□	TPDC23□□	TPDC30□□
TPDC17□□	TPDC24□□	
TPDC18□□	TPDC25□□	



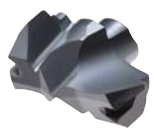
### TPDC-CN

TPDC12□□	TPDC19□□	TPDC26□□
TPDC13□□	TPDC20□□	TPDC27□□
TPDC14□□	TPDC21□□	TPDC28□□
TPDC15□□	TPDC22□□	TPDC29□□
TPDC16□□	TPDC23□□	TPDC30□□
TPDC17□□	TPDC24□□	
TPDC18□□	TPDC25□□	



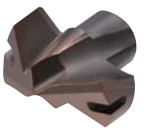
### TPDC-CP-FC

TPDC12□□CP-FC	TPDC19□□CP-FC	TPDC26□□CP-FC
TPDC13□□CP-FC	TPDC20□□CP-FC	TPDC27□□CP-FC
TPDC14□□CP-FC	TPDC21□□CP-FC	TPDC28□□CP-FC
TPDC15□□CP-FC	TPDC22□□CP-FC	TPDC29□□CP-FC
TPDC16□□CP-FC	TPDC23□□CP-FC	TPDC30□□CP-FC
TPDC17□□CP-FC	TPDC24□□CP-FC	
TPDC18□□CP-FC	TPDC25□□CP-FC	



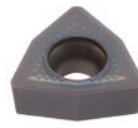
### TPDC-XP

TPD0800XP	TPD0900XP	TPD1000XP	TPD1100XP
TPD0810XP	TPD0910XP	TPD1010XP	TPD1110XP
TPD0820XP	TPD0920XP	TPD1020XP	TPD1120XP
TPD0830XP	TPD0930XP	TPD1030XP	TPD1130XP
TPD0840XP	TPD0940XP	TPD1040XP	TPD1140XP
TPD0850XP	TPD0950XP	TPD1050XP	TPD1150XP
TPD0860XP	TPD0960XP	TPD1060XP	TPD1160XP
TPD0870XP	TPD0970XP	TPD1070XP	TPD1170XP
TPD0880XP	TPD0980XP	TPD1080XP	TPD1180XP
TPD0890XP	TPD0990XP	TPD1090XP	TPD1190XP



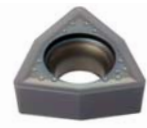
### WCMT-G20N

030208  
040208  
050308  
06T308  
080408  
080412



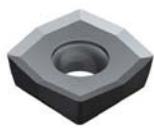
### WCMT-G21N

030204  
040204  
040208  
050308  
06T308  
080408



### XOET-ND

040204  
050204  
060204  
07T205  
090305  
11T306  
130406  
15M508  
180508



### XOMT-LD

060204  
07T205  
090305  
11T306  
130406  
15M508  
180508



### XOMT-PD

040204  
050204  
060204  
07T205  
090305  
11T306  
130406  
15M508  
180508



### XOMT-RD

07T207  
090308  
11T309  
130410  
15M511  
180512



# Inserts for Aluminium Machining

## » For Turning

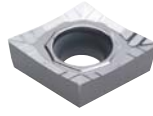
### CCGT-AK

060202 120402  
060204 120404  
060208 120408  
09T302  
09T304  
09T308



### CCGT-AR

060202 120402  
060204 120404  
060208 120408  
09T302 120412  
09T304  
09T308



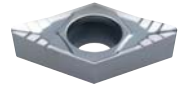
### DCGT-AK

070202  
070204  
070208  
11T302  
11T304  
11T308  
11T312



### DCGT-AR

070202  
070204  
070208  
11T302  
11T304  
11T308  
11T312



### RCGT-AK

0602M0  
0803M0  
1003M0  
1204M0



### RCGT-AR

0602M0  
0803M0  
1003M0  
10T3M0  
1204M0



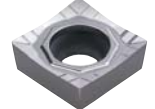
### SCGT-AK

09T302  
09T304  
09T308  
120404  
120408  
120416



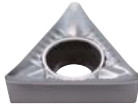
### SCGT-AR

09T302  
09T304  
09T308  
120404  
120408  
120416



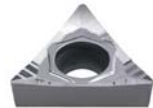
### TCGT-AK

090202 16T302  
090204 16T304  
110202 16T308  
110204 16T312  
110208 16T316  
16T325



### TCGT-AR

090202 16T302  
090204 16T304  
110202 16T308  
110204 16T312  
110208 16T316  
16T325



### VBGT-AK

110302  
110304  
110308  
160402  
160404  
160408  
160412



### VBGT-AR

110302  
110304  
110308  
160402  
160404  
160408  
160412



### VCGT-AK

110301 160402  
110302 160404  
110304 160408  
110308 160412  
130302 220516  
130304 220525  
130308 220530



### VCGT-AR

110301 160402  
110302 160404  
110304 160408  
110308 160412  
130302 220516  
130304 220525  
130308 220530



» For Milling

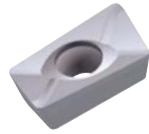
**APKT-MA**

1604PDFR  
160416FR



**APKT-MA2**

1604PDFR  
160416FR  
160432FR



**APKT-MA3**

1604PDFR  
160420FR



**APMT-MA**

0602PDFR 11T308PDFR 180612PDFR  
060208PDFR 160404PDFR 180616PDFR  
0903PDFR 1604PDFR 180620PDFR  
090308PDFR 180604PDFR 180624PDFR  
11T3PDFR 1806PDFR 180630R



**CDEW-XCF**

1204R  
1204L



**LNEX-MA**

100605PNR  
151004PNR  
151008PNR



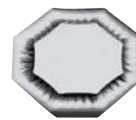
**LXET-MA**

250404PEFR-32 250412PEFR-40 340504PEFR-63  
2504PEFR-32 250416PEFR-40 3405PEFR-63  
250412PEFR-32 340504PEFR-50 340512PEFR-63  
250416PEFR-32 3405PEFR-50 340516PEFR-63  
250404PEFR-40 340512PEFR-50  
2504PEFR-40 340516PEFR-50



**OFKR-MA**

0704FN  
0704EN



**OFKT-MA**

05T3FN  
05T3EN  
0704FN  
0704EN



**ONHX-MA**

060608  
080608



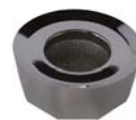
**RDCT-MA**

10T3M0  
1204M0



**RPCT-MA**

10T3M0  
1204M0  
1606M0  
2007M0



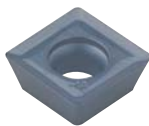
**SDET-MA**

09M402R  
09M404R  
09M405R  
130504R



**SDXT-MA**

09M405R  
130508R



**SEET-MA**

0903AGFN  
14M4AGFN



**SNEX-MA**

1206ANN  
1206ENN  
1206QNN  
120612



**VCKT-MA**

220530N



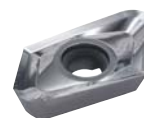
**VDKT-MA**

11T210N  
11T220N



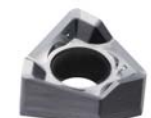
**XEKT-MA**

19M504FR 19M520FR 250604FR 250630FR  
19M508FR 19M530FR 250608FR 250632FR  
19M512FR 19M532FR 250612FR 250640FR  
19M516FR 19M540FR 250616FR 250650FR  
19M518FR 19M550FR 250620FR



**XNCT-MA**

080504PNFR  
080508PNFR  
080512PNFR  
080520PNFR  
120608PNFR



# Inserts for Aluminium Machining

## » For Grooving

### KGGN-A

200-02  
300-02  
400-04  
500-04  
600-04



### KGGN-A

Type singular

200S-02  
300S-02  
400S-04  
500S-04  
600S-04



### KRGN-A

300  
400  
500  
600  
800



### MGGN-A

300-02 400-08  
300-04 500-02  
300-08 500-04  
400-02 500-08  
400-04



### MRGN-A

300  
400  
500  
600  
800



### MRGN-A

6N  
8N



### MRGN-A5

6N  
8N



### MRGN-AM

6N  
8N



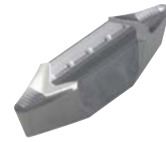
### MRGN-AP

6N  
8N



### MVGN

8N-A-R1.2  
8N-A-R1.6



## » For Drilling

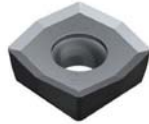
### SPET-ND

040204 11T308  
050204 130410  
060205 15M510  
07T208 180510  
090308



### XOET-ND

040204 11T306  
050204 130406  
060204 15M508  
07T205 180508  
090305



# Multi Functional Tools (Inserts)

## » KGT

### KGGN-A

Holder  
KGEHR/L  
KGEVR/L  
KGFHR/L  
KGFVR/L  
Width  
: 2.0 ~ 6.0mm



### KGGN-A

Type singular

Holder  
KGTB  
Width  
: 2.0 ~ 6.0mm



### KGGN-B

Holder  
KGEHR/L  
KGEVR/L  
KGFHR/L  
KGFVR/L  
Width  
: 2.65 ~ 8.0mm



### KGGN-R

Holder  
KGEHR/L  
KGEVR/L  
KGFHR/L  
KGFVR/L  
Width  
: 2.0 ~ 8.0mm



### KGGN-R

Type singular

Holder  
KGTB  
Width  
: 2.0 ~ 8.0mm



### KGMI-T

Holder  
KGIVR/L  
Width  
: 2.0 ~ 4.0mm



### KGML-LP

Holder  
KGEHR/L  
Width  
: 2.0 ~ 4.0mm



### KGML-RP

Holder  
KGEHR/L  
Width  
: 2.0 ~ 4.0mm



### KGMN-L

Holder  
KGEHR/L  
KGEVR/L  
KGFHR/L  
KGFVR/L  
KGIVR/L  
Width  
: 2.0 ~ 6.0mm



### KGMN-R

Holder  
KGEHR/L  
KGEVR/L  
KGFHR/L  
KGFVR/L  
KGIVR/L  
Width  
: 1.5 ~ 8.0mm



### KGMN-T

Holder  
KGEHR/L  
KGEVR/L  
KGFHR/L  
KGFVR/L  
KGIVR/L  
Width  
: 1.5 ~ 8.0mm



### KGMR-LP

Holder  
KGEHR/L  
Width  
: 2.0 ~ 5.0mm



### KGMR-RP

Holder  
KGEHR/L  
Width  
: 2.0 ~ 5.0mm



### KRGN-A

Holder  
KGEHR/L  
KGEVR/L  
KGEUR/L  
KGFHR/L  
KGFVR/L  
KGIUR/L  
Width  
: 3.0 ~ 8.0mm



### KRMI-C

Holder  
KGIVR/L  
Width  
: 2.0 ~ 4.0mm



### KRMN-C

Holder  
KGEHR/L  
KGEVR/L  
KGEUR/L  
KGFHR/L  
KGFVR/L  
KGIVR/L  
KGIUR/L  
Width  
: 2.0 ~ 8.0mm



## » MGT

### MFMM

Holder  
MGFHR/L  
MGFVR/L  
Width  
: 3.0mm



### MGGN-A

Holder  
MGEHR/L  
MGEVR/L  
MGIVR/L  
Width  
: 3.0 ~ 5.0mm



### MGGN-M

Holder  
MGEHR/L  
MGEVR/L  
MGIVR/L  
Width  
: 3.0 ~ 6.0mm



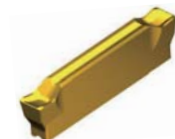
### MGMN-G

Holder  
MGEHR/L  
MGEVR/L  
MGIVR/L  
MGFHR/L  
MGFVR/L  
Width  
: 1.5 ~ 6.0mm



### MGMN-L

Holder  
MGEHR/L  
MGEVR/L  
MGIVR/L  
MGFHR/L  
MGFVR/L  
Width  
: 2.0 ~ 5.0mm



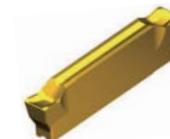
### MGMN-M

Holder  
MGEHR/L  
MGEVR/L  
MGIVR/L  
MGFHR/L  
MGFVR/L  
Width  
: 2.0 ~ 8.0mm



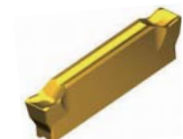
### MGMN-R

Holder  
MGEHR/L  
MGEVR/L  
MGIVR/L  
MGFHR/L  
MGFVR/L  
Width  
: 1.5 ~ 6.0mm



### MGMN-T

Holder  
MGEHR/L  
MGEVR/L  
MGIVR/L  
MGFHR/L  
MGFVR/L  
Width  
: 1.5 ~ 6.0mm





# Multi Functional Tools (Inserts)

## » MGT

### MGMR/L-PS

Holder  
MGEHR/L

Width  
: 3.0 ~ 5.0mm



### MGMR/L-PT

Holder  
MGEHR/L

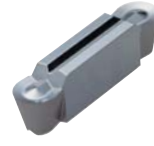
Width  
: 2.0 ~ 5.0mm



### MRGN-A

Holder  
MGEHR/L  
MGEUR/L  
MGEVR/L  
MGIUR/L  
MGIVR/L

Width  
: 4.0 ~ 5.0mm



### MRMN-M

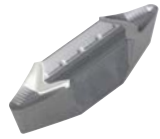
Holder  
MGEHR/L  
MGEUR/L  
MGEVR/L  
MGIUR/L  
MGIVR/L

Width  
: 2.0 ~ 8.0mm



## MVGN

Holder  
MGEHR/L  
MGIUR/L-MV

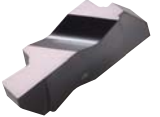


## » K Notch

### KNG

Holder  
KNSR

Width  
: 0.79 ~ 6.35mm



### KNGP

Holder  
KNSR

Width  
: 0.79 ~ 6.35mm



### KNR

Holder  
KNSR

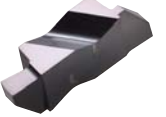
Width  
: 1.57 ~ 6.35mm



### KNRP

Holder  
KNSR

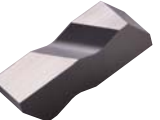
Width  
: 1.57 ~ 6.35mm



### KNB

Holder  
KNSR

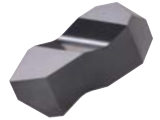
Width  
: 3.81 ~ 6.48mm



### KNT

Holder  
KNSR

Width  
: 3.81 ~ 6.48mm



## » For Parting

### KSP

200-020-N  
300-020-N  
400-025-N  
500-025-N  
600-035-N

Holder  
KSPB



### SP

160 300L 600  
180 400 600R  
200 400R 600L  
200R 400L 800  
200L 500 900  
300 500R  
300R 500L

Holder  
SPB/SPB-S, SPH/SPH-S



### POB

Holder  
PH

Width  
: 3.0 ~ 5.0mm



## » For Grooving

### BF

Holder  
GFT, GFIP



### DB

Holder  
DBH

Width  
: 3.0 ~ 8.0mm



### DC

Holder  
DBH

Width  
: 3.0 ~ 5.0mm



### FGD/FGM/FMM

Holder  
FGHH  
FGVH

Width  
: 3.0 ~ 5.0mm





## » For Grooving

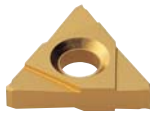
### GO

Holder  
GH  
Width  
: 2.5 ~ 4.1mm



### GS

Holder  
GH  
Width  
: 1.23 ~ 4.28mm



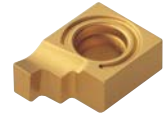
### GW

Holder  
GFT  
GFIP  
Width  
: 1.1~8.0mm



### IG

Holder  
IGH  
Width  
: 1.25 ~ 2.8mm



### TB

Holder  
TBH  
Width  
TB3: 1.25 ~ 4.3mm  
TB4: 1.25 ~ 4.5mm



### TB-M

Holder  
TBH  
Width  
TB4-M: 1.5 ~ 4.5mm  
TB5-M: 0.5 ~ 3.18mm



## » For Micro Boring Tools

### NFTF, NFTG, NFTT

Holder : NFTIH

※ for Internal Grooving, Threading and Copy machining



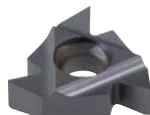
## » For Threading

### < Standard >

- Partial profile 60°
- Partial Profile 55°
- ISO Metric (Full Profile)
- American UN (Full Profile)  
UN, UNC, UNF, UNEF
- Whitworth (Full Profile)  
BSW, BSF, BSP
- British Standard Pipe thread  
(Full Profile) BSPT
- National Pipe Thread  
(Full Profile) NPT
- National Pipe Threads-Dryseal  
(Full Profile) NPTF
- Round DIN 405
- Trapez DIN 103
- American ACME
- Stub ACME
- UNJ
- American Buttress
- British Buttress
- Metric Buttress-Sagengewinde
- API
- API Buttress Casing
- API Round Casing & Tubing
- EL-Extreme Line

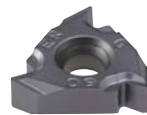
### ER

Holder  
ER(L)H / ER(L)H-C



### ERM

Holder  
ER(L)H / ER(L)H-C



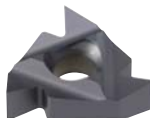
### ERM-U

Holder  
ER(L)H / ER(L)H-C



### IR

Holder  
IR(L)H / IR(L)H-C



### IRM

Holder  
IR(L)H / IR(L)H-C



### IRM-U

Holder  
IR(L)H / IR(L)H-C



# < Bearing/cBN Inserts >

## » For R-Chamfering

### MC

0906 1212 1525  
0910 1215 1530  
1206 1220 1540  
1210 1225

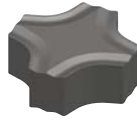
**Holder**  
CMSN...F  
CMSN...B



### MC

1206 1220  
1210 1230  
1212 1235  
1215

**Holder**  
CMSN...F  
CMSN...B



## » Internal Turning

### RPGT

0802M0 1604M0  
1203M0 2004M0

**Holder**  
SRGP...E  
SRGP...F  
SRGP...B



### SPGR

120440L

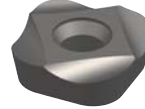
**Holder**  
CSKP...B



### SPGH

090330L

**Holder**  
SSKP...B



## » Machining for Race-way

### KORIC

2204R/L 3806R/L  
2704R/L 4408R/L  
3306R/L

**Holder**  
CKFN...RW  
CKGN...RW



### SNGN-W

0903WR/L  
1504WR/L  
1905WR/L

**Holder**  
CSGN...RW



## » Machining for Bearing Shield

### SNGN-S

0903SR/L  
1204SR/L  
1504SR/L

**Holder**  
CSBN...BS  
CSKN...BS



### TNGN

2204SR/L

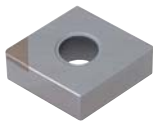
**Holder**  
STGN...BS



## » Regrinding Type (Negative/Positive)

### CNMA

120404  
120408



### DNMA

150404  
150408



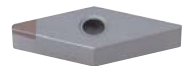
### TNMA

160404  
160408



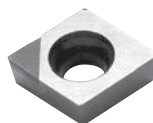
### VNMA

160404  
160408



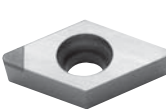
### CCMW

09T304



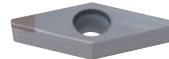
### DCGW

11T308



### VBMW

160404  
160408



### TPGB

110304  
110308

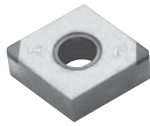


# < cBN Inserts >

## » Multi-Corner Type (Negative)

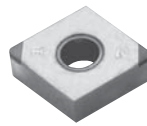
### 2NU-CNGA

120404	120404WF	120408W	120412T
120404F	120408	120408WF	120412W
120404T	120408F	120412	120412WT
120404W	120408T	120412F	



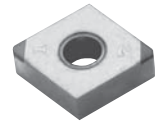
### 4NU-CNGA

120404  
120408  
120412



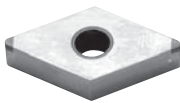
### 4NS-CNGA

120408  
120412



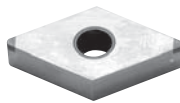
### 2NU-DNGA

150404  
150404F  
150404T  
150408  
150408F  
150408T  
150412  
150412F  
150412T  
150604  
150608



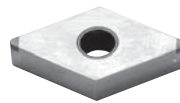
### 4NU-DNGA

150404  
150408  
150412  
150608



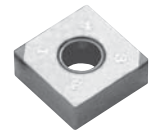
### 4NS-DNGA

150608  
150612



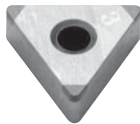
### 4NU-SNGA

120404  
120408



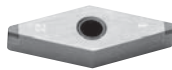
### 3NU-TNGA

160404  
160404T  
160408  
160408F  
160408T  
160412



### 2NU-VNGA

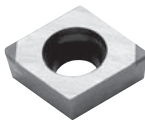
160404  
160404F  
160404T  
160408  
160408F  
160408T



## » Multi-Corner Type (Positive)

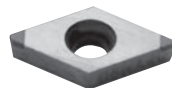
### 2NU-CCGW

060202	09T302
060202T	09T304
060204	09T304T
060204F	09T308
060204T	09T308T
060208	09T308W



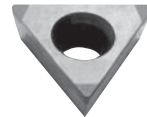
### 2NU-DCGW

070204  
070208  
070208T  
11T302  
11T304  
11T304F  
11T304T  
11T308  
11T308T



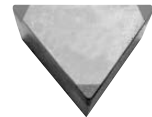
### 3NU-TCGW

090204  
090204F  
090204T



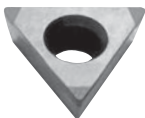
### 3NU-TPGW

110304  
110304F  
110304T  
110308  
110308F  
110308T



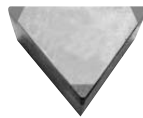
### 3NU-TPGN

110308  
160304  
160308



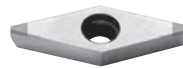
### 3NU-TPGB

110304  
110304T  
110308  
110308F  
110308T



### 2NU-VBGW

160402  
160404  
160404F  
160404T  
160408  
160408F  
160408T



### 2NU-VCGW

160404  
160404F  
160404T  
160408  
160408F  
160408T



# < PCD Inserts >

## » PCD Inserts (Negative/Positive)

### BAMPR-XAF

BAMPR



### BAMPR-XAW

BAMPR



### BAMPR-XAWR

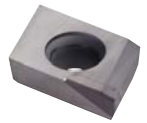
BAMPR



### CDEW-NAF

Strengthened Edge

1204R  
1204L



### CDEW-NAW

Strengthened Edge Wiper Insert

1204R  
1204L



### CDEW-XAW

Sharp Edge Wiper Insert

1204R  
1204L



### CDEW-XAF

Sharp Edge

1204R  
1204L



### CDEW-XCF

Sharp Edge

1204R  
1204L



### CNMM

120404  
120408



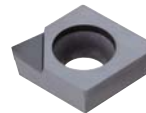
### DNMM

150404  
150408



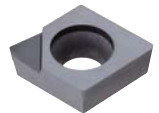
### CCMW

120404



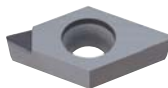
### CCMT

060202  
060204  
09T304  
09T308



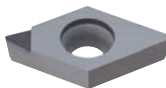
### DCMT

070202  
070204  
11T302  
11T304  
11T308



### DCGT

11T304



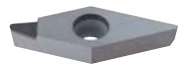
### TPGW

080204  
090204  
090208  
110304  
110308



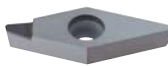
### VBGW

160404



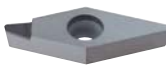
### VBMT

110304  
110308  
160404  
160408



### VCMT

110304  
110308  
160404  
160408



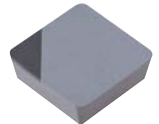
### TPGN

110304  
110308



### SPGN

090304



# Turning Tools

KORLOY holders contribute to improving machining quality and tool life by employing excellent durability and strong clamping. KORLOY responds to customer demands for a variety of holder shapes that are proper for each machining route.

- Tool Holders (ISO Type)
- Boring Bars (ISO Type)
- Save Turn
- Auto Tools
- Multi Functional Tools (Holders)

## » Double Clamp System

### DCBNR/L

2020-K12  
2525-M12  
3225-P12  
2525-M16  
3232-P16  
3232-P19  
4040-S19



### DCKNR/L

2020-K12  
2525-M12  
3225-P12  
3232-P16  
4040-S16



### DCLNR/L

2020-K09 3225-P16  
2525-M09 3232-P16  
2020-K12 2525-M19  
2525-M12 3225-P19  
3225-P12 3232-P19  
3232-P12 4040-S19  
2525-M16



### DDJNR/L

2020-K11  
2525-M11  
3225-P11  
3232-P11  
2020-K15  
2525-M15  
3225-P15  
3232-P15  
2020-K15-3  
2525-M15-3  
3232-P15-3



### DSBNR/L

2020-K09  
2525-M09  
2020-K12  
2525-M12  
3225-P12  
3232-P12  
2525-M15  
3225-P15  
3232-P15  
3232-P19  
4040-S19



### DSDNN

2020-K09  
2020-K12  
2525-M12  
3225-P12  
3232-P12  
2525-M15  
3232-P15  
3232-P19  
4040-S19



### DSKNR/L

2020-K09  
2020-K12  
2525-M12  
3232-P12  
3232-P15  
3232-P19  
4040-S19



### DSSNR/L

2020-K09  
2020-K12  
2525-M12  
3225-P12  
3232-P12  
2525-M15  
3232-P15  
3232-P19  
4040-S19



### DTFNR/L

2020-K16  
2525-M16  
3232-P16  
2525-M22  
3225-P22  
3232-P22



### DTGNR/L

2020-K16  
2525-M16  
3232-P16  
2525-M22  
3225-P22  
3232-P22



### DVJNR/L

2020-K16  
2525-M16  
3232-P16



### DVVNN

2020-K16  
2525-M16  
3232-P16



### DWLNRL

2020-K06  
2525-M06  
2020-K08  
2525-M08



## » Lever Lock System

### PCBNR/L

2020-K12	3232-P16	4040-S25-5
2525-M12	3232-P19	5050-T25
3225-P12	4040-S19	
2525-M16	4040-S25	



### PCKNR/L

2020-K12	3225-P12	4040-S16
2525-M12	3232-P16	



### PCLNR/L

1616-H09	3232-P12	4040-S19
2020-K09	2525-M16	4040-S25
2525-M09	3232-P16	5050-T25
1616-H12	2525-M19	4040-S25-5
2020-K12	3225-P19	5050-S25-5
2525-M12	3232-P19	
3225-P12	4040-P19	



### PDJNR/L

1616-H11	2525-M15	2525-M15-3
2020-K11	3225-P15	3232-P15-3
2525-M11	3232-P15	
2020-K15	2020-K15-3	



### PDNNR/L

2020-K15	3232-P15	2525-M15-3
2525-M15	4025-M15	4025-M15-3



### PRDCN

2020-M10	3225-Q12	3232-Q20
2525-M10	2525-Q16	4040-S25
2525-M12	3225-Q16	4040-T25
2020-K12	3232-Q16	5050-U32



### PRGCR/L

2020-K10	2525-M12	3225-P16
2525-M10	3225-P12	3232-P20
2020-K12	2525-M16	4040-S25



### PSBNR/L

1616-H09	3232-P12	4040-S25
2020-K09	2525-M15	4040-S25-6
2020-K12	3232-P15	5050-T25
2525-M12	3232-P19	5050-T25-6
3225-P12	4040-S19	



### PSDNN

1616-H09	2525-M15	4040-S25
2020-K12	3232-P15	5050-T25
2525-M12	3225-P19	4040-S25-6
3225-P12	3232-P19	5050-T25-6
3232-P12	4040-S19	



### PSKNR/L

1616-H09	3232-P12	4040-S19
2020-K09	2525-M15	4040-S25
2020-K12	3232-P15	4040-S25-6
2525-M12	3232-P19	5050-T25-6





» Lever Lock System

**PSSNR/L**

1616-H09	3232-P12	4040-R19
2020-K12	2525-M15	4040-S19
2525-M12	3232-P15	4040-S25
3225-P12	3232-P19	4040-S25-6



**PTFNR/L**

1616-H16	2525-M22	4040-S27
2020-K16	3232-P22	
2525-M16	3232-P27	



**PTGNR/L**

1212-F11	1616-H16	2525-M22
1616-H11	2020-K16	3232-P22
2020-K11	2525-M16	3232-P27
2525-M11	3232-P16	4040-S27



**PTTNR/L**

1616-H16	2525-M16	2525-M22
2020-K16		



**PWLNRL/L**

1616-H06	2525-M06	2525-M08
2020-K06	2020-K08	



» Wedge Clamp System

**WTENN**

2020-K16
2525-M16
2525-M22
3232-P22



**WTJNR/L**

2020-K16
2525-M16
3232-P16
2525-M22
3232-P22



**WTXNR/L**

2020-K16
2525-M16
3232-P16



**WWLNR/L**

2020-K08
2525-M08
3232-P08



## » Clamp on System

### CKJNR/L

**CKJNR**  
 2020-K16 3225-P16  
 2525-M16 3232-P16  
 3225-M16 4040-R16

**CKJNL**  
 2020-K16 3232-P16  
 2525-M16 4040-R16



### CKNNR/L

**CKNNR**  
 2525-M16 3232-P16

**CKNNL**  
 2525-M16 3232-P16



### CSDPN

1616-H09  
 2525-M12



### CSKPR/L

2525-M12



### CTFPR/L

2020-K16  
 2525-M16



### CTGPR/L

1212-F11  
 1616-H11  
 2020-K11  
 2020-K16  
 2525-M16  
 2525-M22  
 3232-P22



## » Multi Lock System

### MCKNR/L

2020-K12  
 2525-M12  
 3232-P12



### MCLNR/L

1616-H09 2525-M16  
 2020-K09 3232-P16  
 2525-M09 4040-S16  
 2020-K12 2525-M19  
 2525-M12 3232-P19  
 3225-P12 4040-S19  
 3232-P12 4040-S25



### MCMNN

2020-K12  
 2525-M12  
 3232-P12  
 2525-M16  
 3232-P16  
 3232-P19  
 4040-S19



### MCRNR/L

2020-K12  
 2525-M12  
 2525-M16  
 3232-P16  
 3232-P19  
 4040-S19



### MDJNR/L

2020-K11  
 2525-M11  
 2020-K15-3  
 2525-M15-3  
 3232-P15-3  
 2020-K15  
 2525-M15  
 3232-P15



### MDNNN

2525-M15-3  
 2525-M15



### MDQNR/L

2525-M15-3  
 3232-P15-3  
 2525-M15  
 3232-M15



### MSBNR/L

2020-K12  
 2525-M12  
 2525-M15  
 3232-P15  
 3232-P19  
 4040-S19



### MSDNN

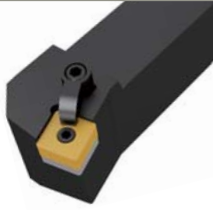
1616-H09  
 2020-K09  
 2020-K12  
 2525-M12  
 3225-P12  
 2525-M15  
 3225-P15  
 3232-P15  
 4040-S15  
 3232-P19  
 4040-S19



Multi Lock System

MSKNR/L

- 1616-H09
- 2020-K09
- 2020-K12
- 2525-M12
- 3225-P12
- 2525-M15
- 3232-P15
- 3232-P19
- 4040-S19
- 4040-S25



MSRNR/L

- 1616-H09
- 2020-K09
- 2020-K12
- 2525-M12
- 2525-M15
- 3232-P15
- 3225-P19
- 3232-P19
- 4040-S19
- 4040-S25



MSSNR/L

- 1616-H09
- 2020-K09
- 2020-K12
- 2525-M12
- 2525-M15
- 3232-P15
- 3232-P19
- 4040-S19



MTENN

- 2020-K16
- 2525-M16
- 2525-M22
- 3232-P27
- 4040-S33



MTFNR/L

- 1616-H16
- 2020-K16
- 2525-M16
- 2525-M22
- 3232-P22
- 4040-S22
- 3232-P27
- 4040-S27
- 4040-S33



MTGNR/L

- 1616-H16
- 2020-K16
- 2525-M16
- 2525-M22
- 3232-P22
- 3232-P27
- 4040-S27
- 4040-S33



MTJNR/L

- 2020-K16
- 2525-M16
- 2525-M22
- 3232-P22
- 3232-P27
- 4040-S27
- 4040-S33



MVJNR/L

- 2020-K16
- 2525-M16
- 3232-P16
- 2525-M22
- 3232-P22
- 4040-S22



MVQNR/L

- 2020-K16
- 2525-M16
- 3232-P16



MVVNN

- 2020-K16
- 2525-M16



MWLNR/L

- 2020-K06
- 2525-M06
- 3232-P06
- 2020-K08
- 2525-M08
- 3232-P08



» Screw on System

**SCACR/L**

1010-E06  
1212-F09



**SCLCR/L**

0808-D06  
1010-E06  
1212-F09  
1616-H09  
2020-K09  
2020-K12  
2525-M09  
2525-M12



**SDACR/L**

1010-E07  
1212-F11  
1616-H11



**SDJCR/L**

1010-E07  
1212-F07  
1616-H07  
2020-K07  
1212-F11  
1616-H11  
2020-K11  
2525-M11



**SDNCN**

1010-E07  
1212-F07  
1212-H11  
1616-H11  
2020-K11  
2025-M11



**SRDCN**

1010-E06  
1212-F06  
1616-H06  
2525-M06  
1616-H08  
2020-K08  
2525-M08  
1616-H10  
2020-K10  
2525-M10  
2020-K12  
2525-M12



**SRGCR/L**

1010-E -K12  
2525-M12



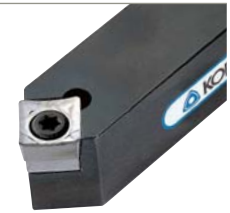
**SSBCR/L**

1212-F09  
1616-H09  
2020-K12



**SSDCN**

1212-F09  
1616-H09



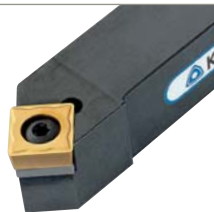
**SSKCR/L**

1616-H09



**SSSCR/L**

1616-H09  
2020-K12  
2525-M12



**STACR/L**

1010-E09  
1212-F11



**STFCR/L**

1010-E09  
1212-F11  
1616-H11  
1616-H16  
2020-K16  
2525-M16



**STGCR/L**

0808-D09  
1010-E09  
1212-F11  
1616-H11  
1616-H16  
2020-K16  
2525-M16



**STTCR/L**

1616-H11  
1616-H16  
2020-K16



» Screw on System

**SVABR/L**

1616-H16  
2020-K16



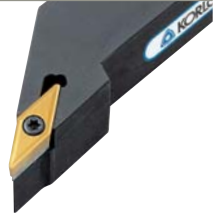
**SVHBR/L**

2525-M16  
3225-P16



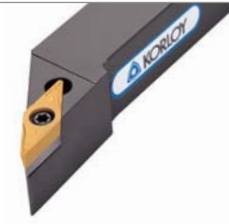
**SVJBR/L**

1212-F11  
1616-H11  
2020-K11  
1616-H16  
2020-K16  
2525-M16  
3225-P16  
3232-P16



**SVJCR/L**

1212-F11  
1616-H11  
2020-K11  
1212-F13  
1616-H13  
2020-K13  
1616-H16  
2020-K16  
2525-M16



**SWBN**

1212-F11  
1616-H11  
2020-K11  
1616-H16  
2020-K16  
2525-M16  
3225-P16



**SWVCN**

1212-F11  
1616-H11  
2020-K11  
1212-F13  
1616-H13  
2020-K13  
1616-H16  
2020-K16  
2525-M16



# Boring Bars (ISO Type)

## Double Clamp System

### DCLNR/L

A25R-DCLNR/L-09  
A25R-DCLNR/L-12  
A32S-DCLNR/L-12  
A40T-DCLNR/L-12  
A50U-DCLNR/L-16



### DDUNR/L

A40T-DDUNR/L-15  
A50U-DDUNR/L-15  
A40T-DDUNR/L-15-3  
A50U-DDUNR/L-15-3



### DSKNR/L

A25R-DSKNR/L-09  
A25R-DSKNR/L-12  
A32S-DSKNR/L-12  
A40T-DSKNR/L-12



### DTFNR/L

A25R-DTFNR/L-16  
A32S-DTFNR/L-16  
A40T-DTFNR/L-22  
A50U-DTFNR/L-22



### DWLN/L

A25R-DWLN/L-06  
A32S-DWLN/L-06  
A40T-DWLN/L-06  
A25R-DWLN/L-08  
A32S-DWLN/L-08  
A40T-DWLN/L-08  
A50U-DWLN/L-08



## Lever Lock System

### PCLNR/L

S16R-PCLNR/L-09 S32S-PCLNR/L-12 A25R-PCLNR/L-12  
S20S-PCLNR/L-09 S32U-PCLNR/L-12 A32S-PCLNR/L-12  
S25R-PCLNR/L-09 S40T-PCLNR/L-12 A40T-PCLNR/L-12  
S25R-PCLNR/L-12 S50U-PCLNR/L-12  
S25T-PCLNR/L-12 S50U-PCLNR/L-19



### PDSNR/L

S32S-PDSNR/L-15 S40T-PDSNR/L-15-3  
S40T-PDSNR/L-15 A32S-PDSNR/L-15  
S32S-PDSNR/L-15-3 A32S-PDSNR/L-15-3



### PDUNR/L

S32S-PDUNR/L-11 S50U-PDUNR/L-15 A32S-PDUNR/L-15  
S32S-PDUNR/L-15 S32S-PDUNR/L-15-3 A32S-PDUNR/L-15-3  
S40T-PDUNR/L-15 S40T-PDUNR/L-15-3



### PSKNR/L

S25R-PSKNR/L-12 A25R-PSKNR/L-12  
S32S-PSKNR/L-12 A32S-PSKNR/L-12  
S40T-PSKNR/L-12



### PTFNR/L

S16R-PTFNR/L-11 S32S-PTFNR/L-16  
S20S-PTFNR/L-11 S40T-PTFNR/L-16  
S25R-PTFNR/L-11 A25R-PTFNR/L-16  
S25R-PTFNR/L-16 A32S-PTFNR/L-16



### PWLN/L

S16R-PWLN/L-06 S32S-PWLN/L-06  
S20S-PWLN/L-06 S25R-PWLN/L-08  
S25R-PWLN/L-06 S32S-PWLN/L-08





### » Clamp on System

#### CKUNR/L

S32S-CKUNR/L-16  
S40T-CKUNR/L-16  
S50U-CKUNR/L-16



#### CSKPR/L

S16R-CSKPR/L-09  
S20S-CSKPR/L-09  
S20S-CSKPR/L-12  
S25R-CSKPR/L-12



#### CTFPR/L

S12M-CTFPR/L-11  
S16R-CTFPR/L-11  
S20S-CTFPR/L-11  
S16R-CTFPR/L-16  
S20S-CTFPR/L-16  
S25R-CTFPR/L-16  
S32S-CTFPR/L-16  
S40T-CTFPR/L-16  
S40T-CTFPR/L-22



### » Multi Lock System

#### MCLNR/L

S20S-MCLNR/L-09  
S25R-MCLNR/L-09  
S25R-MCLNR/L-12  
S32S-MCLNR/L-12  
S40T-MCLNR/L-12  
A25R-MCLNR/L-12  
A32S-MCLNR/L-12



#### MDUNR/L

S32S-MDUNR/L-15-3  
S40T-MDUNR/L-15-3  
A32S-MDUNR/L-15-3



#### MSKNR/L

S25R-MSKNR/L-12  
S32S-MSKNR/L-12  
S40T-MSKNR/L-12  
A25R-MSKNR/L-12  
A32S-MSKNR/L-12  
A40T-MSKNR/L-12



#### MTFNR/L

S25R-MTFNR/L-16  
S32S-MTFNR/L-16  
S40T-MTFNR/L-16  
A25R-MTFNR/L-16  
A32S-MTFNR/L-16



#### MVUNR/L

S32S-MVUNR/L-16  
S40T-MVUNR/L-16  
A32S-MVUNR/L-16  
A40T-MVUNR/L-16



#### MWLNRL/L

S25R-MWLNRL/L-06  
S32S-MWLNRL/L-06  
S40T-MWLNRL/L-06  
S25R-MWLNRL/L-08  
S32S-MWLNRL/L-08  
S40T-MWLNRL/L-08  
A25R-MWLNRL/L-06  
A32S-MWLNRL/L-06  
A25R-MWLNRL/L-08  
A32S-MWLNRL/L-08



### » Screw on System

#### SCLCR/L

S08K-SCLCR/L-06	S40T-SCLCR/L12
S10K-SCLCR/L-06	A08F-SCLCR/L-06
S10M-SCLCR/L-06	A10H-SCLCR/L-06
S12M-SCLCR/L-06	A12K-SCLCR/L-06
S16R-SCLCR/L-06	A12K-SCLCR/L-09
S12M-SCLCR/L-09	A16M-SCLCR/L-09
S16R-SCLCR/L-09	A20Q-SCLCR/L-09
S20S-SCLCR/L-09	A25R-SCLCR/L-09
S25R-SCLCR/L-09	A25R-SCLCR/L-12
S25R-SCLCR/L-12	A32S-SCLCR/L-12
S32S-SCLCR/L-12	



#### SCLPR/L

S10M-SCLPR/L-08	A10H-SCLPR/L-08
S12M-SCLPR/L-08	A12K-SCLPR/L-08
S16N-SCLPR/L-09	A16M-SCLPR/L-09
S16R-SCLPR/L-09	A20Q-SCLPR/L-09
S20N-SCLPR/L-09	
S20S-SCLPR/L-09	



#### SDQCR/L

S10M-SDQCR/L-07	A10H-SDQCR/L-07
S12M-SDQCR/L-07	A12K-SDQCR/L-07
S16R-SDQCR/L-07	A16M-SDQCR/L-11
S16R-SDQCR/L-11	A20Q-SDQCR/L-11
S20S-SDQCR/L-11	A25R-SDQCR/L-11
S25R-SDQCR/L-11	



#### SDUCR/L

S10M-SDUCR/L-07	S32S-SDUCR/L-11
S12M-SDUCR/L-07	A10H-SDUCR/L-07
S16R-SDUCR/L-07	A12K-SDUCR/L-07
S16R-SDUCR/L-11	A16M-SDUCR/L-07
S20S-SDUCR/L-11	A20Q-SDUCR/L-11
S25R-SDUCR/L-11	A25R-SDUCR/L-11





## » Screw on System

### SDZCR/L

S16R-SDZCR/L-07  
S20S-SDZCR/L-07  
S25R-SDZCR/L-11  
S32S-SDZCR/L-11  
S40T-SDZCR/L-11  
A25R-SDZCR/L-11  
A32S-SDZCR/L-11



### SSKCR/L

S12M-SSKCR/L-09  
S16R-SSKCR/L-09  
S20S-SSKCR/L-09  
S25R-SSKCR/L-12  
S32S-SSKCR/L-12  
A12K-SSKCR/L-09  
A16M-SSKCR/L-09  
A20Q-SSKCR/L-09  
A25R-SSKCR/L-12  
A32S-SSKCR/L-12



### SSKPR/L

S12M-SSKPR/L-09  
S16N-SSKPR/L-09  
S16R-SSKPR/L-09  
S20N-SSKPR/L-09  
S20S-SSKPR/L-09  
A12K-SSKPR/L-09  
A16M-SSKPR/L-09  
A20Q-SSKPR/L-09



### STFCR/L

S10M-STFCR/L-09	S25R-STFCR/L-16	A16M-STFCR/L-11
S12M-STFCR/L-09	S32S-STFCR/L-16	A20Q-STFCR/L-11
S12M-STFCR/L-11	S40T-STFCR/L-16	A25R-STFCR/L-16
S16R-STFCR/L-11	A10H-STFCR/L-09	A32S-STFCR/L-16
S20S-STFCR/L-11	A12K-STFCR/L-09	
S20S-STFCR/L-16	A12K-STFCR/L-11	



### STFPR/L

S10M-STFPR/L-11  
S12M-STFPR/L-11  
S16N-STFPR/L-11  
S16R-STFPR/L-11  
S20N-STFPR/L-16  
S20S-STFPR/L-16  
A10H-STFPR/L-11  
A12H-STFPR/L-11  
A16M-STFPR/L-11  
A20Q-STFPR/L-16



### STWPR/L

S10M-STWPR/L-11  
S12M-STWPR/L-11  
S16Q-STWPR/L-11  
S20R-STWPR/L-11



### SVJCR/L

S12M-SVJCR/L-08  
S16Q-SVJCR/L-08



### SVQBR/L

S32S-SVQBR/L-16  
S40T-SVQBR/L-16  
A32S-SVQBR/L-16



### SVQCR/L

S16R-SVQCR/L-11  
S20S-SVQCR/L-11  
S25R-SVQCR/L-11  
S20S-SVQCR/L-13  
S25R-SVQCR/L-13  
S25R-SVQCR/L-16  
S32S-SVQCR/L-16  
S40T-SVQCR/L-16



### SVUBR/L

S32S-SVUBR/L-16  
S40T-SVUBR/L-16  
A32S-SVUBR/L-16



### SVUCR/L

S16R-SVUCR/L-11  
S20S-SVUCR/L-11  
S25T-SVUCR/L-11  
S20S-SVUCR/L-13  
S25R-SVUCR/L-13  
S25R-SVUCR/L-16  
S32S-SVUCR/L-16  
S40T-SVUCR/L-16



### SWLCR/L

S25R-SWLCR/L-08  
S32S-SWLCR/L-08  
A25R-SWLCR/L-08  
A32S-SWLCR/L-08



## Carbide Shank Boring Bar

### SCLCR/L

C04G-SCLCR/L-03	C12Q-SCLCR/L-09	E10M-SCLCR/L-06
C05H-SCLCR/L-03	C16R-SCLCR/L-09	E12M-SCLCR/L-06
C06H-SCLCR/L-04	C16S-SCLCR/L-09	E12Q-SCLCR/L-06
C07K-SCLCR/L-04	C20R-SCLCR/L-09	E12M-SCLCR/L-09
C08K-SCLCR/L-06	C20S-SCLCR/L-09	E12Q-SCLCR/L-09
C10K-SCLCR/L-06	C25T-SCLCR/L-12	E16R-SCLCR/L-09
C10M-SCLCR/L-06	E06H-SCLCR/L-04	E16S-SCLCR/L-09
C12M-SCLCR/L-06	E07K-SCLCR/L-04	E20R-SCLCR/L-09
C12Q-SCLCR/L-06	E08K-SCLCR/L-06	E20S-SCLCR/L-09
C12M-SCLCR/L-09	E10K-SCLCR/L-06	E25T-SCLCR/L-12



### SCLPR/L

C10K-SCLPR/L-08	E10K-SCLPR/L-08
C10M-SCLPR/L-08	E10M-SCLPR/L-08
C12M-SCLPR/L-08	E12M-SCLPR/L-08
C12Q-SCLPR/L-08	E12Q-SCLPR/L-08
C12M-SCLPR/L-09	E12M-SCLPR/L-09
C12Q-SCLPR/L-09	E12Q-SCLPR/L-09
C16R-SCLPR/L-09	E16R-SCLPR/L-09
C16S-SCLPR/L-09	E16S-SCLPR/L-09
C20R-SCLPR/L-09	E20R-SCLPR/L-09
C20S-SCLPR/L-09	E20S-SCLPR/L-09



### SDQCR/L

C08K-SDQCR/L-07	E08K-SDQCR/L-07
C10K-SDQCR/L-07	E10K-SDQCR/L-07
C12M-SDQCR/L-07	E12M-SDQCR/L-07
C16R-SDQCR/L-07	E16R-SDQCR/L-07
C16R-SDQCR/L-11	E16R-SDQCR/L-11
C20R-SDQCR/L-11	E20R-SDQCR/L-11
C20S-SDQCR/L-11	E20S-SDQCR/L-11



### SDUCR/L

C10K-SDUCR/L-07	E10K-SDUCR/L-07
C10M-SDUCR/L-07	E10M-SDUCR/L-07
C12M-SDUCR/L-07	E12M-SDUCR/L-07
C12Q-SDUCR/L-07	E12Q-SDUCR/L-07
C16R-SDUCR/L-07	E16R-SDUCR/L-07
C16S-SDUCR/L-07	E16S-SDUCR/L-07
C16R-SDUCR/L-11	E16R-SDUCR/L-11
C16S-SDUCR/L-11	E16S-SDUCR/L-11
C20R-SDUCR/L-11	E20R-SDUCR/L-11
C20S-SDUCR/L-11	E20S-SDUCR/L-11
C25T-SDUCR/L-11	E25T-SDUCR/L-11



### STFCR/L

C08K-STFCR/L-09	E08K-STFCR/L-09
C10K-STFCR/L-09	E10K-STFCR/L-09
C10K-STFCR/L-11	E10K-STFCR/L-11
C12M-STFCR/L-11	E12M-STFCR/L-11
C16R-STFCR/L-11	E16R-STFCR/L-11
C20R-STFCR/L-11	E20R-STFCR/L-11
C20S-STFCR/L-11	E20S-STFCR/L-11
C20R-STFCR/L-16	E20R-STFCR/L-16
C20S-STFCR/L-16	E20S-STFCR/L-16



### STFPR/L

C08K-STFPR/L-08	E08K-STFPR/L-08
C10K-STFPR/L-11	E10K-STFPR/L-11
C10M-STFPR/L-11	E10M-STFPR/L-11
C12M-STFPR/L-11	E12M-STFPR/L-11
C12Q-STFPR/L-11	E12Q-STFPR/L-11
C16R-STFPR/L-11	E16R-STFPR/L-11
C16S-STFPR/L-11	E16S-STFPR/L-11
C20R-STFPR/L-11	E20R-STFPR/L-11
C20S-STFPR/L-11	E20S-STFPR/L-11
C20R-STFPR/L-16	E20R-STFPR/L-16
C20S-STFPR/L-16	E20S-STFPR/L-16
C25T-STFPR/L-16	E25T-STFPR/L-16



### STUBR/L

C08K-STUBR/L-06	E08K-STUBR/L-06
C10K-STUBR/L-06	E10K-STUBR/L-06



### STUPR/L

C08K-STUPR/L-08	E08K-STUPR/L-08
C10K-STUPR/L-11	E10K-STUPR/L-11
C10M-STUPR/L-11	E10M-STUPR/L-11
C12M-STUPR/L-11	E12M-STUPR/L-11
C12Q-STUPR/L-11	E12Q-STUPR/L-11
C16R-STUPR/L-11	E16R-STUPR/L-11
C16S-STUPR/L-11	E16S-STUPR/L-11
C20R-STUPR/L-11	E20R-STUPR/L-11
C20S-STUPR/L-11	E20S-STUPR/L-11
C20R-STUPR/L-16	E20R-STUPR/L-16
C20S-STUPR/L-16	E20S-STUPR/L-16
C25T-STUPR/L-16	E25T-STUPR/L-16



### SWUBR/L

C05H-SWUBR/L-02	E06H-SWUBR/L-02
C06H-SWUBR/L-02	E08K-SWUBR/L-02
C08K-SWUBR/L-02	E08K-SWUBR/L-S3
C08K-SWUBR/L-S3	



» External Turning

**PCLNR/L**

1616-H09-4N  
2020-K09-4N  
2525-M09-4N



**PCBNR/L**

2020-K09-4N  
2525-M09-4N



**PDJNR/L**

2020-K11-5N  
2525-M11-5N



**PDNNR/L**

2020-K11-5N  
2525-M11-5N



**PDQNR/L**

2020-K11-5N  
2525-M11-5N



**PSBNR/L**

2020-K09-4N  
2525-M09-4N



**PSDNN**

2020-K09-4N  
2525-M09-4N



**PSKNR/L**

2020-K09-4N  
2525-M09-4N



**PSSNR/L**

2020-K09-4N  
2525-M09-4N



**PWLNR/L**

1616-H06  
2020-K06  
2525-M06



## Internal Turning

### PCLNR/L

S20Q-PCLNR/L-09-4N  
S25R-PCLNR/L-09-4N  
S32S-PCLNR/L-09-4N



### PDUNR/L

S32S-PDUNR/L-11-5N  
S40T-PDUNR/L-11-5N



### PDZNR/L

S32S-PDZNR/L-11-5N  
S40T-PDZNR/L-11-5N



### PSKNR/L

S25R-PSKNR/L-09-4N  
S32S-PSKNR/L-09-4N



### PWLNRL/L

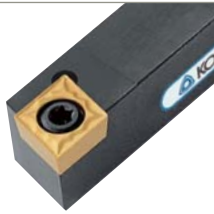
S20S-PWLNRL/L-06  
S25S-PWLNRL/L-06  
S32S-PWLNRL/L-06



## ISO Type

### SCACR/L

0808-X06A  
1010-X06A  
1010-X09A  
1212-X09A  
1616-X09A



### SCLCR/L

0808-X06A  
1010-X06A  
1010-X09A  
1212-X09A  
1616-X09A



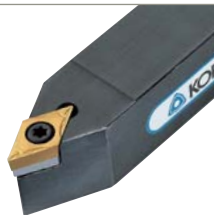
### SDJCR/L

0808-X07A  
1010-X07A  
1010-X11A  
1212-X11A  
1616-X11A



### SDNCN

0808-X07A  
1010-X07A  
1010-X11A  
1212-X11A  
1616-X11A



### STACR/L

0808-X08A  
1010-X08A



### SVACR/L

0810-X12A  
1010-X12A  
1212-X12A  
1616-X12A  
0810-X12C  
1010-X12C  
1212-X12C  
1616-X12C



### SVAPR/L

0808-X11A  
1010-X11A  
1212-X11A  
1616-X11A



### SVJBR/L

1010-X11A  
1212-X11A  
1616-X11A



### SVJCR/L

1010-X11A  
1212-X11A  
1616-X11A  
0810-X12A  
1010-X12A  
1212-X12A  
1616-X12A  
0810-X12C  
1010-X12C  
1212-X12C  
1616-X12C



### SVJPR/L

0810-X11A  
1010-X11A  
1212-X11A  
1616-X11A



### SVVPN

0810-X11A  
1010-X11A  
1212-X11A  
1616-X11A



## KHP

### SCLCR/L

1212-X09A-KHP



### SDJCR/L

1212-X07A-KHP  
1212-X11A-KHP



### SVJCR/L

1212-X11A-KHP  
1212-X12A-KHP



» Blade Type

**SBHR/L**

1010-K25  
1212-K25  
1616-K25

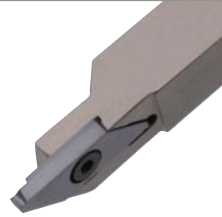
**Insert**  
SBBR, SBGR  
SBTR, SBGR



**SBHR/L-X**

1010-K25-X  
1212-K25-X

**Insert**  
SBBR, SBGR  
SBTR, SBGR

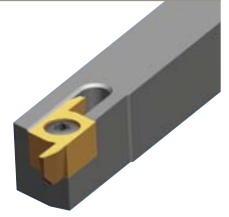


» Multi Functional Type

**SXGNR/L**

1010-X06A  
1212-X06A  
1616-X06A  
2020-X06A  
1212-X08A  
1616-X08A  
2020-X08A

**Insert**  
SBR, SGBR, SCR,  
STR, SGR



» KGT/MGT Type

**KGEHR/L-D00A**

1010-2-D20A  
1212-2-D25A  
1414-2-D25A  
1616-2-D32A  
1212-3-D25A  
1616-3-D32A

**Insert**  
KGGN, KGMM, KGMR/L  
KRGH, KRMM



**KGEHR/L-D00B**

1010-2-D30B  
1212-2-D25B  
1212-2-D30B  
1616-2-D32B  
1212-3-D25B  
1212-3-D32B  
1616-3-D32B

**Insert**  
KGGN, KGMM, KGMR/L  
KRGH, KRMM



**MGEHR/L**

1010-X15A  
1212-X15A  
1010-X20A  
1212-X20A  
1616-X20A  
1010-X25A  
1212-X25A  
1616-X25A

**Insert**  
MGMM



# Multi Functional Tools (Holders)

## » KGT

### KGEHR/L

1212-□-T□□  
1616-□-T□□  
2020-□-T□□  
2525-□-T□□  
3232-□-T□□

**Insert**  
KGGN KRGN  
KGMN KRMN  
KGMR/L

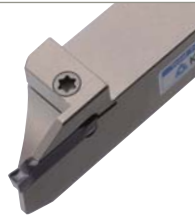


### KGEHR/L-D00A

Auto Tool

1010-□-□□□A  
1212-□-□□□A  
1414-□-□□□A  
1616-□-□□□A

**Insert**  
KGGN KGMR/L  
KGMN KRMN



### KGEHR/L-D00B

Auto Tool

1010-□-□□□B  
1212-□-□□□B  
1616-□-□□□B

**Insert**  
KGGN KGMR/L  
KGMN KRMN



### KGEHR/L-T00

1616-□-T00  
2020-□-T00  
2525-□-T00

**Insert**  
KGGN KRGN  
KGMN KRMN



### KGEVR/L-T00

2020-□-T00  
2525-□-T00  
3232-□-T00

**Insert**  
KGGN KRGN  
KGMN KRMN



### KGEUR/L

1616-□  
2020-□  
2525-□  
3232-□

**Insert**  
KRGN KRMN



### KGFVR/L

325-□/□-T□□  
425-□/□-T□□  
525-□/□-T□□  
625-□/□-T□□

**Insert**  
KGGN KRGN  
KGMN KRMN



### KGFHR/L

320-□/□-T□□  
325-□/□-T□□  
420-□/□-T□□  
425-□/□-T□□  
525-□/□-T□□  
625-□/□-T□□

**Insert**  
KGGN KRGN  
KGMN KRMN



### KGIUR/L

3520-□  
4025-□  
5032-□

**Insert**  
KRGN KRMN



### KGIVR/L

2016-□ 3225-□  
2516-□ 4032-□  
2520-□ 4540-□

**Insert**  
KGGN KRMI  
KGMN KRMN  
KGMN



### KGTB (Blades)

1526S 4026S  
1532 4032  
2026S 5032  
2032 6032  
3026S 8032S  
3032

**Insert**  
KG□□



## » K.G.T Cartridge

### KGCR/L (Cartridge)

3-T16 5-T20  
4-T16 6-T20

**Insert**  
KGGN KGMR/L  
KGMN KRMN



### KGFR/L (Cartridge)

3-34/50-T16  
3-44/70-T16  
3-64/99-T16  
4-44/60-T16  
4-60/120-T16  
4-112/200-T16

**Insert**  
KGMN KRMN





# Multi Functional Tools (Holders)

## » MGT

### MGEHR/L

1212-□ 2525-□  
1616-□ 2525-□-T□  
2020-□ 3232-□  
2020-□-T□ 3232-□-T□

**Insert**  
MGGN MRGN  
MGMN MRMN  
MGMR



### MGEUR/L

2020-□ 2525-□A  
2525-□ 3232-□A  
3232-□

**Insert**  
MRMN MRGN



### MGEVR/L

2020-□  
2525-□  
3232-□

**Insert**  
KGGN MRGN  
KGMN KRMN



### MGIUR/L

3520-□ 4025-□A  
4025-□ 5032-□A  
5032-□

**Insert**  
MRGN MRMN



### MGIVR/L

2016-□ 2925-□ 2520-□-□ 3732-□  
2520-□ 2520-□ 3125-□ 3732-□  
2925-□ 2520-□-T□ 3125-□-T□ 4540-□  
2016-□ 3125-□ 3732-□ 3125-□A  
2520-□ 3125-□-T□ 3732-□-T□ 3732-□A  
2925-□ 3732-□ 3125-□ 3732-□A  
2016-□ 3732-□-T□ 3732-□ 4540-□A  
2520-□ 2520-□ 3125-□

**Insert**  
MGGN MRGN  
MGMN MRMN



## » MGT Cartridge

### MCER/L (Cartridge)

3-T16 6-T20  
4-T16  
5-T20

**Insert**  
MGMN MGGN  
MGMR MRMN



### MCFR/L (Cartridge)

3-24/35-T16 3-64/99-T16  
3-29/40-T16 4-44/60-T16  
3-34/50-T16 4-60/120-T16  
3-44/70-T16 4-112/200-T16

**Insert**  
MFNM MGMN



### MCHR/L (Holder)

2020  
2525  
3232

**Insert**  
MCER/L MCFR/L



### MCVR/L (Holder)

2020  
2525  
3232

**Insert**  
MCER/L MCFR/L



## » K Notch

### KNSR

1010E2 2525M3  
1212F2 3225P3  
1616H2 3232P3  
2020K2 2525M4  
2525M2 3225P4  
2020K3 3232P4

**Insert**  
KNB KNR  
KNG KNRP  
KNGP KNT



## » Saw-Man X

### KSPB (Blades)

2026 4032  
2032 5026  
3026 5032  
3032 6026  
4026 6032

**Insert**  
KSP



## » Saw-Man

### SMBB (Block)

1626 2532  
2026 3232  
2032 40526  
2526

Insert : SP



### SPB (Blades)

226 232  
326 332  
426 432  
526 532  
626 632

Insert : SP



### SPB-S (Blades)

226-S 432-S  
326-S 532-S  
426-S 632-S  
526-S 832-S  
626-S 932-S  
232-S 8526-S  
332-S 9526-S

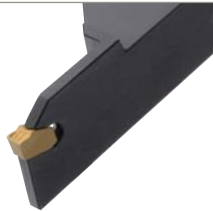
Insert : SP



### SPH (Holder)

316R/L 325R/L  
320R/L 425R/L  
420R/L 525R/L  
520R/L

Insert : SP



### SPH-S (Holder)

316R/L-S 325R/L-S  
320R/L-S 425R/L-S  
420R/L-S 525R/L-S  
520R/L-S

Insert : SP



## » Internal Cutting

### GFIP

316R/L 525R/L  
320R/L 540R/L  
325R/L 840R/L  
340R/L

Insert : BF, GW



### IGH

214R/L 220R/L  
216R/L

Insert : IG



### NFTIH

08206C	08512C	11412C	14116C	16312C	16416C
08212C	11208C	11512C	14212C	16312S	16516C
08312C	11212C	14012C	14216C	16412C	
08312S	11312C	14016C	14312C	16512C	
08412C	11312S	14112C	14316C	16316C	

Insert : NFTF, NFTG, NFTT



## » External Cutting

### DBH

320R/L 525R/L  
325R/L 720R/L  
520R/L 725R/L

Insert : DB, DC



### GFT

320R/L 525R/L  
325R/L 825R/L

Insert : GW, BF



# Multi Functional Tools (Holders)

## External Cutting

### GH

2020R/L-3 2020R/L-4  
2025R/L-3 2525R/L-4

Insert : GO, GS



### TBH

320R/L-23 425R/L-23  
320R/L-33 425R/L-33  
320R/L-43 425R/L-45  
325R/L-23 510R/L  
325R/L-33 512R/L  
325R/L-43 516R/L  
420R/L-23 520R/L  
420R/L-33 525R/L  
420R/L-45

Insert : TB, TB-M



### PH

320R/L 425R/L  
325R/L 520R/L  
420R/L 525R/L

Insert : POB



## Face Grooving Tools

### MGFHR/L

325-24/35-T10 325-64/99-T10  
325-29/40-T10 425-42/63-T15  
325-34/50-T10 425-62/120-T15  
325-44/70-T10 425-112/200-T15

Insert : MFMN, MGMN



### MGFVR/L

325-24/35-T10 325-64/99-T10  
325-29/40-T10 425-44/60-T10  
325-34/50-T10 425-60/120-T10  
325-44/70-T10 425-112/200-T10

Insert : MFMN, MGMN



### FGHH

320R 425R  
325R 520R  
420R 525R

Insert : FGD, FGM, FMM



### FGVH

320R-25/30	320R-100/140	325R-75/100	420R-60/75	425R-48/60	520R-35/40	525R-25/30	525R-75/100
320R-30/35	325R-25/30	325R-100/140	420R-75/100	425R-60/75	520R-40/48	525R-30/35	525R-100/140
320R-35/48	325R-30/35	420R-25/30	420R-100/140	425R-75/100	520R-48/60	525R-35/40	
320R-48/60	325R-35/48	420R-30/35	425R-25/30	425R-100/140	520R-60/75	525R-40/48	
320R-60/75	325R-48/60	420R-35/48	425R-30/35	520R-25/30	520R-75/100	525R-48/60	
320R-75/100	325R-60/75	420R-48/60	425R-35/48	520R-30/35	520R-100/140	525R-60/75	

Insert : FGD, FGM, FMM

## Threading

### ER(L)H

Screw on system

ER(L)H□□(N)-□□

Insert : ER, ERM



### ER(L)H-C

Clamp on system

ER(L)H□□-□□C

Insert : ER, ERM, ERM-U



### IR(L)H

Clamp on system

IR(L)H□□(DN)(N)(D)-□□

Insert : IR, IRM, IRM-U



### IR(L)H-C

Clamp on system

IR(L)H□□(D)-□□C

Insert : IR, IRM, IRM-U



### VTH

2020R  
2525R  
3225R

Insert : VETR



# Milling Tools

KORLOY provides high quality milling cutters thanks to its advanced technology and accumulated know-how of tooling systems, carrying out values for higher productivity and quality results.



- Face Milling Cutters
- Multi Functional Cutters
- For Aluminum Milling
- High Feed Milling Cutters
- Side Cutters



# Face Milling Cutters

## Rich Mill

### RM3PC(M)3000/4000/5000

#### ▶ 3000 Type

: Ø40 ~ Ø80mm

##### Insert

XNKT060405PNER-ML  
XNKT060405PNSR-MM  
XNKT060408PNER-ML  
XNKT060408PNSR-MM

#### ▶ 4000 Type

: Ø40 ~ Ø125mm

##### Insert

XNCT080504PNFR-MA XNKT080508PNSR-MM  
XNCT080508PNFR-MA XNKT080512PNER-ML  
XNCT080512PNFR-MA XNKT080512PNSR-MM  
XNCT080520PNFR-MA XNKT080516PNER-ML  
XNCT080504PNER-ML XNKT080516PNSR-MM  
XNCT080504PNSR-MM XNKT080520PNER-ML  
XNCT080508PNER-ML XNKT080520PNSR-MM

#### ▶ 5000 Type

: Ø80 ~ Ø125mm

##### Insert

XNCT120608PNFR-MA XNKT120612PNSR-MM  
XNKT120604PNSR-MM XNKT120616PNER-ML  
XNKT120608PNER-ML XNKT120616PNSR-MM  
XNKT120608PNSR-MM XNKT120620PNER-ML  
XNKT120612PNER-ML XNKT120620PNSR-MM



### RM3PS3000/4000

#### ▶ 3000 Type

: Ø20 ~ Ø40mm

##### Insert

XNKT060405PNER-ML  
XNKT060405PNSR-MM  
XNKT060408PNER-ML  
XNKT060408PNSR-MM

#### ▶ 4000 Type

: Ø32 ~ Ø50mm

##### Insert

XNCT080504PNFR-MA XNKT080504PNSR-MM XNKT080516PNER-ML  
XNCT080508PNFR-MA XNKT080508PNER-ML XNKT080516PNSR-MM  
XNCT080512PNFR-MA XNKT080508PNSR-MM XNKT080520PNER-ML  
XNCT080520PNFR-MA XNKT080512PNER-ML XNKT080520PNSR-MM  
XNCT080504PNER-ML XNKT080512PNSR-MM



### RM3PM3000/4000

#### ▶ 3000 Type

: Ø20 ~ Ø40mm

##### Insert

XNKT060405PNER-ML  
XNKT060405PNSR-MM  
XNKT060408PNER-ML  
XNKT060408PNSR-MM

#### ▶ 4000 Type

: Ø32 ~ Ø63mm

##### Insert

XNCT080504PNFR-MA XNKT080504PNSR-MM XNKT080516PNER-ML  
XNCT080508PNFR-MA XNKT080508PNER-ML XNKT080516PNSR-MM  
XNCT080512PNFR-MA XNKT080508PNSR-MM XNKT080520PNER-ML  
XNCT080520PNFR-MA XNKT080512PNER-ML XNKT080520PNSR-MM  
XNCT080504PNER-ML XNKT080512PNSR-MM



• Please refer to page 112 for available adaptors

### RM4PC(M)3000/4000

#### ▶ 3000 Type

: Ø40 ~ Ø100mm

##### Insert

LNEX100605PNR-MA  
LNEX100605PNSR-MM  
LNEX100608PNSR-MM  
LNEX100605PNSR-MM  
LNEX100608PNSR-MM

#### ▶ 4000 Type

: Ø50 ~ Ø160mm

##### Insert

LNEX151004PNR-MA  
LNEX151004PNSR-MM  
LNEX151008PNSR-MM  
LNEX151008PNSR-MM  
LNEX151016PNSR-MM  
LNEX151004PNSR-MM  
LNEX151008PNSR-MM  
LNEX151016PNSR-MM



### RM4PS3000/4000

#### ▶ 3000 Type

: Ø14 ~ Ø50mm

##### Insert

LNEX100605PNR-MA  
LNEX100605PNSR-MM  
LNEX100605PNL-MM  
LNEX100605PNSR-MM  
LNEX100608PNSR-MM

#### ▶ 4000 Type

: Ø32 ~ Ø63mm

##### Insert

LNEX151004PNR-MA  
LNEX151004PNSR-MM  
LNEX151008PNSR-MM  
LNEX151008PNSR-MM  
LNEX151016PNSR-MM  
LNEX151004PNSR-MM  
LNEX151008PNSR-MM  
LNEX151016PNSR-MM



### RM4PM3000

#### ▶ 3000 Type

: Ø14 ~ Ø50mm

##### Insert

LNEX100605PNR-MA  
LNEX100605PNSR-MM  
LNEX100608PNSR-MM  
LNEX100605PNSR-MM  
LNEX100608PNSR-MM



### RM4ZC(M)3000/4000

#### ▶ 3000 Type

: Ø40 ~ Ø52mm

##### Insert

LNEX100605PNL-MM  
LNEX100605PNSR-MM

#### ▶ 4000 Type

: Ø63 ~ Ø100mm

##### Insert

LNEX151008PNL-MM  
LNEX151008PNSR-MM



• Please refer to page 112 for available adaptors

## Rich Mill

### RM4ZS3000

#### ▶ 3000 Type

: Ø25 ~ Ø40mm

#### Insert

LNEX100605PNL-MM  
LNMX100605PNL-MM



### RM4ZM3000

#### ▶ 3000 / 4000 Type

: Ø25 ~ Ø40mm

#### Insert

LNEX100605PNL-MM  
LNMX100605PNL-MM



• Please refer to page 112 for available adaptors

### RM6PC(M)-WN04/08

#### ▶ WN04

: Ø40 ~ Ø63mm

#### Insert

WNGX040304PNFR-MA WNGX040304PNSR-MM  
WNGX040308PNFR-MA WNGX040308PNSR-MM  
WNGX040312PNFR-MA WNGX040312PNSR-MM  
WNGX040316PNFR-MA WNGX040316PNSR-MM  
WNGX040304PNER-ML  
WNGX040308PNER-ML  
WNGX040312PNER-ML  
WNGX040316PNER-ML

#### ▶ WN08

: Ø50 ~ Ø125mm

#### Insert

WNGX080604PNFR-MA WNGX080616PNER-ML  
WNGX080608PNFR-MA WNGX080620PNER-ML  
WNGX080612PNFR-MA WNGX080604PNSR-MM  
WNGX080616PNFR-MA WNGX080608PNSR-MM  
WNGX080620PNFR-MA WNGX080612PNSR-MM  
WNGX080604PNER-ML WNGX080616PNSR-MM  
WNGX080608PNER-ML WNGX080620PNSR-MM  
WNGX080612PNER-ML



### RM6PS-WN04/08

#### ▶ WN04

: Ø20 ~ Ø32mm

#### Insert

WNGX040304PNFR-MA WNGX040304PNSR-MM  
WNGX040308PNFR-MA WNGX040308PNSR-MM  
WNGX040312PNFR-MA WNGX040312PNSR-MM  
WNGX040316PNFR-MA WNGX040316PNSR-MM  
WNGX040304PNER-ML  
WNGX040308PNER-ML  
WNGX040312PNER-ML  
WNGX040316PNER-ML

#### ▶ WN08

: Ø32 ~ Ø50mm

#### Insert

WNGX080604PNFR-MA WNGX080616PNER-ML  
WNGX080608PNFR-MA WNGX080620PNER-ML  
WNGX080612PNFR-MA WNGX080604PNSR-MM  
WNGX080616PNFR-MA WNGX080608PNSR-MM  
WNGX080620PNFR-MA WNGX080612PNSR-MM  
WNGX080604PNER-ML WNGX080616PNSR-MM  
WNGX080608PNER-ML WNGX080620PNSR-MM  
WNGX080612PNER-ML



### RM6PM-WN04/08

#### ▶ WN04

: Ø20 ~ Ø32mm

#### Insert

WNGX040304PNFR-MA WNGX040312PNER-ML  
WNGX040308PNFR-MA WNGX040316PNER-ML  
WNGX040312PNFR-MA WNGX040304PNSR-MM  
WNGX040316PNFR-MA WNGX040308PNSR-MM  
WNGX040304PNER-ML WNGX040312PNSR-MM  
WNGX040308PNER-ML WNGX040316PNSR-MM

#### ▶ WN08

: Ø32 ~ Ø40mm

#### Insert

WNGX080604PNFR-MA WNGX080616PNER-ML  
WNGX080608PNFR-MA WNGX080620PNER-ML  
WNGX080612PNFR-MA WNGX080604PNSR-MM  
WNGX080616PNFR-MA WNGX080608PNSR-MM  
WNGX080620PNFR-MA WNGX080612PNSR-MM  
WNGX080604PNER-ML WNGX080616PNSR-MM  
WNGX080608PNER-ML WNGX080620PNSR-MM  
WNGX080612PNER-ML



• Please refer to page 112 for available adaptors

### RM8AC(M)4000/5000

#### ▶ 4000 Type

: Ø50 ~ Ø400mm

#### Insert

SNEX1206ANN-MA  
SNEX1206ANN-MF  
SNEX1206ANN-ML  
SNEX1206ANN-MM  
SNEX1206ANN-W  
SNMX1206ANN-MF  
SNMX1206ANN-MM

#### ▶ 5000 Type

: Ø80 ~ Ø400mm

#### Insert

SNEX1507ANN-MF  
SNEX1507ANN-ML  
SNEX1507ANN-MM  
SNMX1507ANN-MF  
SNMX1507ANN-MM



### RM8AC(M)4000/5000

Shim Type

#### ▶ 4000 Type

: Ø80 ~ Ø400mm

#### Insert

SNEX1206ANN-MA  
SNEX1206ANN-MF  
SNEX1206ANN-ML  
SNEX1206ANN-MM  
SNEX1206ANN-W  
SNMX1206ANN-MF  
SNMX1206ANN-MM

#### ▶ 5000 Type

: Ø80 ~ Ø400mm

#### Insert

SNEX1507ANN-MF  
SNEX1507ANN-ML  
SNEX1507ANN-MM  
SNMX1507ANN-MF  
SNMX1507ANN-MM



# Face Milling Cutters

## Rich Mill

### RM8EC(M)4000/5000

▶ **4000 Type**

: Ø50 ~ Ø400mm

**Insert**

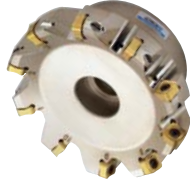
SNEX1206ENN-MA  
SNEX1206ENN-MF  
SNEX1206ENN-ML  
SNEX1206ENN-MM  
SNMX1206ENN-MF  
SNMX1206ENN-MM

▶ **5000 Type**

: Ø80 ~ Ø400mm

**Insert**

SNEX1507ENN-MF  
SNEX1507ENN-ML  
SNEX1507ENN-MM  
SNMX1507ENN-MF  
SNMX1507ENN-MM



### RMH8EC(M)4000/5000

Shim Type

▶ **4000 Type**

: Ø80 ~ Ø400mm

**Insert**

SNEX1206ENN-MA  
SNEX1206ENN-MF  
SNEX1206ENN-ML  
SNEX1206ENN-MM  
SNMX1206ENN-MF  
SNMX1206ENN-MM

▶ **5000 Type**

: Ø80 ~ Ø400mm

**Insert**

SNEX1507ENN-MF  
SNEX1507ENN-ML  
SNEX1507ENN-MM  
SNMX1507ENN-MF  
SNMX1507ENN-MM



### RM8QC(M)4000

▶ **4000 Type**

: Ø63 ~ Ø200mm

**Insert**

SNEX1206QNN-MA  
SNEX1206QNN-MF  
SNEX1206QNN-ML  
SNEX1206QNN-MM  
SNEX120612-MA  
SNEX120612-MF

SNEX120612-ML  
SNEX120612-MM  
SNMX1206QNN-MF  
SNMX1206QNN-MM  
SNMX120612-MF  
SNMX120612-MM



### RMH8QC(M)4000

Shim Type

▶ **4000 Type**

: Ø80 ~ Ø200mm

**Insert**

SNEX1206QNN-MA  
SNEX1206QNN-MF  
SNEX1206QNN-ML  
SNEX1206QNN-MM  
SNEX120612-MA  
SNEX120612-MF

SNEX120612-ML  
SNEX120612-MM  
SNMX1206QNN-MF  
SNMX1206QNN-MM  
SNMX120612-MF  
SNMX120612-MM



### RMT8A(M)4000/5000

▶ **4000 Type**

: Ø80 ~ Ø315mm

**Insert**

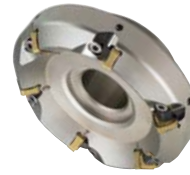
SNCF1206ANN-MF/MM  
SNMF1206ANN-MF/MM

▶ **5000 Type**

: Ø80 ~ Ø315mm

**Insert**

SNCF1507ANN-MF/MM  
SNMF1507ANN-MF/MM



### RMT8E(M)4000/5000

▶ **4000 Type**

: Ø80 ~ Ø315mm

**Insert**

SNCF1206ANN-MF/MM  
SNMF1206ANN-MF/MM

▶ **5000 Type**

: Ø80 ~ Ø315mm

**Insert**

SNCF1507ANN-MF/MM  
SNMF1507ANN-MF/MM



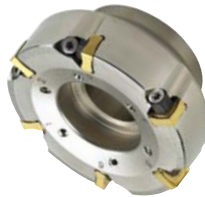
### RMT8Q(M)4000

▶ **4000 Type**

: Ø80 ~ Ø315mm

**Insert**

SNMF1206QNN-MF/MM  
SNMF1206QNN-MF/MM



### RMX8AC(M)-SA14

▶ **SA14 Type**

: Ø50 ~ Ø125mm

**Insert**

SAGX140808ANER-ML  
SAGX140808ANER-MM  
SNMX140808ANER-MM



### RM14XCM-XN06

▶ **XN06 Type**

: Ø50 ~ Ø160mm

**Insert**

XNMX0606XNR-ML  
XNMX060608-ML



### RM16AC(M)6000/8000

▶ **6000 Type**

: Ø63 ~ Ø400mm

**Insert**

ONHX060608-MA  
ONHX060608-MF  
ONHX060608-ML  
ONHX060608-MM  
ONHX060608-W  
ONHX0606ANN-MF  
ONHX0606ANN-MM  
ONMX060608-MF  
ONMX060608-MM  
ONMX0606ANN-MF  
ONMX0606ANN-MM

▶ **8000 Type**

: Ø63 ~ Ø400mm

**Insert**

ONHX080608-MA  
ONHX080608-MF  
ONHX080608-ML  
ONHX080608-MM  
ONHX080608-W  
ONHX0806ANN-MF  
ONHX0806ANN-MM  
ONMX080608-MF  
ONMX080608-MM  
ONMX0806ANN-MF  
ONMX0806ANN-MM





## Rich Mill

### RMRC(M)-RN12

#### ▶ RN12 Type

: Ø50 ~ Ø125mm

#### Insert

RNMX1204M0E-ML



### RMRS-RN12

#### ▶ RN12 Type

: Ø32 ~ Ø63mm

#### Insert

RNMX1204M0E-ML



## Rich Mill (Side Milling Cutter)

### RM4PFCB3000/4000

#### ▶ 3000 Type

: Ø80 ~ Ø160mm

#### Insert

LNEX100605PNR-MM  
LNEX100605PNL-MM  
LNMX100605PNR-MM  
LNMX100605PNL-MM

#### ▶ 4000 Type

: Ø80 ~ Ø160mm

#### Insert

LNEX151008PNR-MM  
LNEX151008PNL-MM  
LNMX151008PNR-MM  
LNMX151008PNL-MM



### RM4PHCB3000/4000

#### ▶ 3000 Type

: Ø80 ~ Ø160mm

#### Insert

LNEX100605PNR-MA  
LNEX100605PNR-MF/MM  
LNEX100608PNR-MF/MM  
LNMX100605PNR-MF/MM  
LNMX100608PNR-MF/MM

#### ▶ 4000 Type

: Ø80 ~ Ø160mm

#### Insert

LNEX151004PNR-MA  
LNEX151008PNR-MA  
LNEX151004PNR-MF/MM  
LNEX151008PNR-MF/MM  
LNEX151016PNR-MF/MM  
LNMX151004PNR-MF/MM  
LNMX151008PNR-MF/MM  
LNMX151016PNR-MF/MM



### RM4PFCP3000/4000

#### ▶ 3000 Type

: Ø80 ~ Ø160mm

#### Insert

LNEX100605PNR-MM  
LNEX100605PNL-MM  
LNMX100605PNR-MM  
LNMX100605PNL-MM

#### ▶ 4000 Type

: Ø80 ~ Ø160mm

#### Insert

LNEX151008PNR-MM  
LNEX151008PNL-MM  
LNMX151008PNR-MM  
LNMX151008PNL-MM



### RM4PHCP3000/4000

#### ▶ 3000 Type

: Ø80 ~ Ø160mm

#### Insert

LNEX100605PNR-MA  
LNEX100605PNR-MF/MM  
LNEX100608PNR-MF/MM  
LNMX100605PNR-MF/MM  
LNMX100608PNR-MF/MM

#### ▶ 4000 Type

: Ø80 ~ Ø160mm

#### Insert

LNEX151004PNR-MA  
LNEX151008PNR-MA  
LNEX151004PNR-MF/MM  
LNEX151008PNR-MF/MM  
LNEX151016PNR-MF/MM  
LNMX151004PNR-MF/MM  
LNMX151008PNR-MF/MM  
LNMX151016PNR-MF/MM



## Tangen-Pro TP2P

### TP2PCM-LN08

Ø40 ~ Ø63mm

#### Insert

LNKT080404PNR-MA	LNKT080412PNR-ML
LNKT080408PNR-MA	LNKT080416PNR-ML
LNKT080412PNR-MA	LNKT080404PNR-MM
LNKT080416PNR-MA	LNKT080408PNR-MM
LNKT080404PNR-ML	LNKT080412PNR-MM
LNKT080408PNR-ML	LNKT080416PNR-MM



### TP2PC(M)-LN14

Ø40 ~ Ø125mm

#### Insert

LNKT140604PNR-MA	LNKT140612PNR-ML
LNKT140608PNR-MA	LNKT140616PNR-ML
LNKT140612PNR-MA	LNKT140604PNR-MM
LNKT140616PNR-MA	LNKT140608PNR-MM
LNKT140604PNR-ML	LNKT140612PNR-MM
LNKT140608PNR-ML	LNKT140616PNR-MM



### TP2PC(M)-LN17

Ø40 ~ Ø125mm

#### Insert

LNKT170704PNR-MA	LNKT170716PNR-ML
LNKT170708PNR-MA	LNKT170720PNR-ML
LNKT170712PNR-MA	LNKT170704PNR-MM
LNKT170716PNR-MA	LNKT170708PNR-MM
LNKT170720PNR-MA	LNKT170712PNR-MM
LNKT170704PNR-ML	LNKT170716PNR-MM
LNKT170708PNR-ML	LNKT170720PNR-MM
LNKT170712PNR-ML	



### TP2PS-LN08

Ø16 ~ Ø25mm

#### Insert

LNKT080404PNR-MA  
LNKT080408PNR-MA  
LNKT080404PNR-ML  
LNKT080408PNR-ML  
LNKT080404PNR-MM  
LNKT080408PNR-MM



# < Face Milling Cutters >

## » Tangen-Pro TP2P

### TP2PS-LN14

Ø25 ~ Ø50mm

#### Insert

LNKT140608PNR-MA  
LNKT140608PNR-ML  
LNKT140608PNR-MM



### TP2PS-LN17

Ø32 ~ Ø50mm

#### Insert

LNKT170704PNR-MA LNKT170716PNR-ML  
LNKT170708PNR-MA LNKT170720PNR-ML  
LNKT170712PNR-MA LNKT170704PNR-MM  
LNKT170716PNR-MA LNKT170708PNR-MM  
LNKT170720PNR-MA LNKT170712PNR-MM  
LNKT170704PNR-ML LNKT170716PNR-MM  
LNKT170708PNR-ML LNKT170720PNR-MM  
LNKT170712PNR-ML



## » Future Mill

### FMAC(M)3000/4000

#### ▶ 3000 Type

: Ø50 ~ Ø125mm

#### Insert

SEET0903AGFN-MA  
SEET0903AGSN-MF/MM  
SEXT0903AGSN-MF/MM/MR  
SEEW0903AGTN

#### ▶ 4000 Type

: Ø50 ~ Ø200mm

#### Insert

SEET14M4AGFN-MA  
SEET14M4AGSN-MF/MM  
SEXT14M4AGSN-MF/MF/MR  
SEEW14M4AGTN  
SEEW14M4AGFN-W  
SEEW14M4AGSN-W  
SEEW14M4AGTN-W



### FMAC(M)3000-A/4000-A

Aluminum Body

#### ▶ 3000 Type

: Ø63 ~ Ø125mm

#### Insert

SEET0903AGFN-MA  
SEET0903AGSN-MF/MM  
SEXT0903AGSN-MF/MM/MR  
SEEW0903AGTN

#### ▶ 4000 Type

: Ø63 ~ Ø315mm

#### Insert

SEET14M4AGFN-MA  
SEET14M4AGSN-MF/MM  
SEXT14M4AGSN-MF/MM/MR  
SEEW14M4AGTN  
SEEW14M4AGFN-W  
SEEW14M4AGSN-W  
SEEW14M4AGTN-W



### FMAS3000/4000

#### ▶ 3000 Type

: Ø25 ~ Ø63mm

#### Insert

SEET0903AGFN-MA  
SEET0903AGSN-MF/MM  
SEXT0903AGSN-MF/MM/MR  
SEEW0903AGTN

#### ▶ 4000 Type

: Ø50 ~ Ø63mm

#### Insert

SEET14M4AGFN-MA  
SEET14M4AGSN-MF/MM  
SEXT14M4AGSN-MF/MM/MR  
SEEW14M4AGTN  
SEEW14M4AGFN-W  
SEEW14M4AGSN-W  
SEEW14M4AGTN-W



### FMPC(M)3000/4000

#### ▶ 3000 Type

: Ø50 ~ Ø100mm

#### Insert

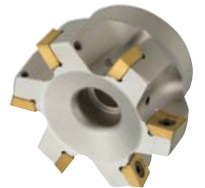
SDET09M402R-MA  
SDET09M405R-MF/MM  
SDXT09M405R-MA  
SDXT09M405R/L-MF  
SDXT09M405R/L-MM

#### ▶ 4000 Type

: Ø63 ~ Ø125mm

#### Insert

SDET130504R-MA  
SDET130508R-MF/MM  
SDXT130508R-MA  
SDXT130508R-MF/MM



### FMPC(M)3000-A/4000-A

Aluminum Body

#### ▶ 3000 Type

: Ø63 ~ Ø100mm

#### Insert

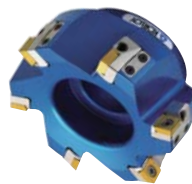
SDET09M402R-MA  
SDET09M405R-MF/MM  
SDXT09M405R-MA  
SDXT09M405R/L-MF  
SDXT09M405R/L-MM

#### ▶ 4000 Type

: Ø63 ~ Ø315mm

#### Insert

SDET130504R-MA  
SDET130508R-MF/MM  
SDXT130508R-MA  
SDXT130508R-MF/MM



### FMPS3000/4000

#### ▶ 3000 Type

: Ø25 ~ Ø63mm

#### Insert

SDET09M402R-MA  
SDET09M405R-MF/MM  
SDXT09M405R-MA  
SDXT09M405R/L-MF  
SDXT09M405R/L-MM

#### ▶ 4000 Type

: Ø40 ~ Ø63mm

#### Insert

SDET130504R-MA  
SDET130508R-MF/MM  
SDXT130508R-MA  
SDXT130508R-MF/MM



### FMRC(M)3000/4000

#### ▶ 3000 Type

: Ø40 ~ Ø100mm

#### Insert

RDCT10T3M0-MA  
RDKT10T3M0-MF/MM

#### ▶ 4000 Type

: Ø50 ~ Ø125mm

#### Insert

RDCT1204M0-MA  
RDKT1204M0-MF/MM



### FMRC(M)5000/6000

#### ▶ 5000 Type

: Ø50 ~ Ø125mm

#### Insert

RDHW2006M0E/F/S  
RDKT1605M0-MM/MF/ML

#### ▶ 6000 Type

: Ø63 ~ Ø160mm

#### Insert

RDHW2006M0E/F/S  
RDKT2006M0-MM



## » Future Mill

### FMRS1000/1500

#### ▶ 1000 Type

: Ø8 ~ Ø15mm

#### Insert

RDHW0501M0E, F, S  
RDKW0501M0E

#### ▶ 1500 Type

: Ø10 ~ Ø20mm

#### Insert

RDHW06T1M0E, F, S  
RDKW06T1M0E



### FMRS2000/2500

#### ▶ 2000 Type

: Ø15 ~ Ø20mm

#### Insert

RDHW0702M0E, F, S  
RDKW0702M0E

#### ▶ 2500 Type

: Ø16 ~ Ø25mm

#### Insert

RDHW0803M0E, F, S  
RDKW0803M0E



### FMRS3000/4000

#### ▶ 3000 Type

: Ø21 ~ Ø40mm

#### Insert

RDCT10T3M0-MA  
RDKT10T3M0-MF/MM

#### ▶ 4000 Type

: Ø32 ~ Ø50mm

#### Insert

RDCT1204M0-MA  
RDKT1204M0-MF/MM



### FMRS5000/6000

#### ▶ 5000 Type

: Ø40 ~ Ø63mm

#### Insert

RDHW1605M0E, F, S  
RDKT1605M0-MF/ML/MM

#### ▶ 6000 Type

: Ø50 ~ Ø63mm

#### Insert

RDHW2006M0E, F, S  
RDKT2006M0-MM



### FMRM1000/1500/2000/2500

#### ▶ 1000/1500/2000/2500 Type

: Ø8 ~ Ø25mm

#### Insert

RDHW0501M0E, F, S  
RDKW0501M0E  
RDHW06T1M0E, F, S  
RDKW06T1M0E  
RDHW0702M0E, F, S  
RDKW0702M0E  
RDHW0803M0E, F, S  
RDKW0803M0E



• Please refer to page 112 for available adaptors

### FMRM3000/4000/5000

#### ▶ 3000/4000/5000 Type

: Ø21 ~ Ø40mm

#### Insert

RDCT10T3M0-MA  
RDKT10T3M0-MF/MM  
RDCT1204M0-MA  
RDKT1204M0-MF/MM  
RDHW1605M0-E  
RDKT1605M0-MM/ML



• Please refer to page 112 for available adaptors

## » FMR P-positive

### FMRC(M)3000/4000

#### ▶ 3000 Type

: Ø40 ~ Ø66mm

#### Insert

RPCT10T3M0-MA  
RPET10T3M0E-ML  
RPMT10T3M0E-MF  
RPMT10T3M0S-MM  
RPMW10T3M0E1

#### ▶ 4000 Type

: Ø50 ~ Ø100mm

#### Insert

RPCT1204M0-MA  
RPET1204M0E-ML  
RPMT1204M0E-MF  
RPMT1204M0S-MM  
RPMW1204M0S1  
RPMW1204M0S2



### FMRC(M)5000/6000

#### ▶ 5000 Type

: Ø63 ~ Ø160mm

#### Insert

RPCT1606M0-MA  
RPET1606M0E-ML  
RPMT1606M0E-MF  
RPMT1606M0S-MM  
RPMW1606M0S1

#### ▶ 6000 Type

: Ø63 ~ Ø250mm

#### Insert

RPCT2007M0-MA  
RPET2007M0E-ML  
RPMT2007M0E-MF  
RPMT2007M0S-MM  
RPMW2007M0S1



### FMRS2500

#### ▶ 2500 Type

: Ø17 ~ Ø26mm

#### Insert

RPET0803M0E-ML  
RPMT0803M0E-MF  
RPMT0803M0S-MM  
RPMW0803M0E1



### FMRS3000/4000

#### ▶ 3000 Type

: Ø25 ~ Ø33mm

#### Insert

RPCT10T3M0-MA  
RPET10T3M0E-ML  
RPMT10T3M0E-MF  
RPMT10T3M0S-MM  
RPMW10T3M0E1

#### ▶ 4000 Type

: Ø25 ~ Ø50mm

#### Insert

RPCT1204M0-MA  
RPET1204M0E-ML  
RPMT1204M0E-MF  
RPMT1204M0S-MM  
RPMW1204M0S1  
RPMW1204M0S2



# < Face Milling Cutters >

## » FMR P-positive

### FMRS5000

#### ► 5000 Type

: Ø40 ~ Ø50mm

#### Insert

RPCT1606M0-MA  
RPET1606M0E-ML  
RPMT1606M0E-MF  
RPMT1606M0S-MM  
RPMW1606M0S1



### FMRS6000

#### ► 6000 Type

: Ø50mm

#### Insert

RPCT2007M0-MA  
RPCT2007M0E-ML  
RPMT2007M0E-MF  
RPMT2007M0S-MM  
RPMW2007M0S1



### FMRM2500/3000/4000/5000

#### ► 2500/3000/4000/5000 Type

: Ø17 ~ Ø42mm

#### Insert

RPET0803M0E-ML	RPET10T3M0E-ML	RPET1204M0E-ML	RPCT1606M0-MA
RPMT0803M0E-MF	RPMT10T3M0E-MF	RPMT1204M0E-MF	RPET1606M0E-ML
RPMT0803M0S-MM	RPMT10T3M0S-MM	RPMT1204M0S-MM	RPMT1606M0E-MF
RPMW0803M0E1	RPMW10T3M0E1	RPMW1204M0S1	RPMT1606M0S-MM
RPCT10T3M0-MA	RPCT1204M0-MA	RPMW1204M0S2	RPMW1606M0S1

• Please refer to page 112 for available adaptors



## » Triple Mill

### TPMCM-TN16/20

#### ► TN16 Type

: Ø50 ~ Ø125mm

#### Insert

TNKT160608PEER-ML  
TNKT160608PESR-MM

#### ► TN20 Type

: Ø63 ~ Ø125mm

#### Insert

TNKT200708PEER-ML  
TNKT200708PESR-MM



### TPMS-TN11/16

#### ► TN11 Type

: Ø25 ~ Ø40mm

#### Insert

TNKT110508PEER-ML  
TNKT110508PESR-MM

#### ► TN16 Type

: Ø32 ~ Ø40mm

#### Insert

TNKT160608PEER-ML  
TNKT160608PESR-MM



## » Double-Mill

### AFO(M)4000

#### ► 4000 Type

: Ø80 ~ Ø125mm

#### Insert

OFCW05T3FN	OFKT05T3EN-MA
OFCW05T3SN	OFKT05T3FN-MA
OFCW05T308FN	OFKT05T3SN-MF/MM
	OFKT05T308SN-MF/MM



### AFO(M)5000

#### ► 5000 Type

: Ø80 ~ Ø315mm

#### Insert

OFCN0704FN	OFKR0704SN-MF/MM
OFCN0704SN	OFKR0704E(F)N-MA
OFCN070408FN	OFKR070408SN-MF/MM
OFCN070408SN	OFKT0704E(F)N-MA
	OFKT0704SN-MM
	REKR170400-MM



## » Power Buster

### PBAC(M)5000

#### ► 5000 Type

: Ø80 ~ Ø315mm

#### Insert

TNMX2710AZNR-NM  
TNMX2710AZNL-NM



### PBZC(M)5000

#### ► 5000 Type

: Ø80 ~ Ø315mm

#### Insert

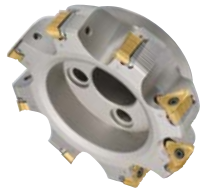
TNMX2710AZNR-NM  
TNMX2710AZNL-NM



## » Power Buster

### PBPCM6000

- ▶ **6000 Type**  
: Ø80 ~ Ø315mm  
**Insert**  
TNMX3012PNR-NM



## » Mill-Max

### ADN(M)4000/5000+

- ▶ **4000 Type**  
: Ø80 ~ Ø315mm  
**Insert**  
SDCN42  
SDCN1203  
SDKN1203  
SDKR1203
- ▶ **5000+ Type**  
: Ø80 ~ Ø315mm  
**Insert**  
SDCN53  
SDCN1504  
SDKN1504  
SDKR1504



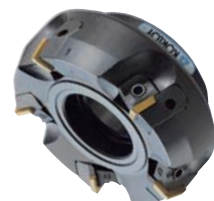
### AE(M)4000/5000

- ▶ **4000 Type**  
: Ø80 ~ Ø315mm  
**Insert**  
SECN1203  
SEKN1203  
SEKR1203
- ▶ **5000 Type**  
: Ø80 ~ Ø315mm  
**Insert**  
SECN1504  
SEKN1504  
SEKR1504



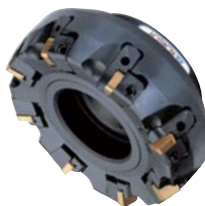
### EF(M)4000

- ▶ **4000 Type**  
: Ø80 ~ Ø315mm  
**Insert**  
SFCN1203EFR



### EN(M)4000

- ▶ **4000 Type**  
: Ø80 ~ Ø315mm  
**Insert**  
SNCN1204ENN  
SNKN1204ENN



### EPN(M)4000/5000+

- ▶ **4000 Type**  
: Ø80 ~ Ø315mm  
**Insert**  
SPCN1203  
SPKN1203  
SPKR1203  
SPEX1203
- ▶ **5000+ Type**  
: Ø80 ~ Ø315mm  
**Insert**  
SPCN1504  
SPKN1504  
SPKR1504  
SPEX1504



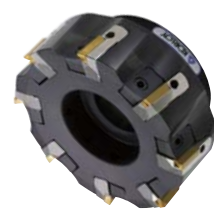
### PF(M)4000

- ▶ **4000 Type**  
: Ø80 ~ Ø315mm  
**Insert**  
TFCN2203PFR  
TFCN2203PFL



### PPN(M)4000

- ▶ **4000 Type**  
: Ø80 ~ Ø315mm  
**Insert**  
TPCN2204  
TPKN2204  
TPKR2204



## » Mill-Max Heavy

### HDDCM7000/9000

- ▶ **7000 Type**  
: Ø125 ~ Ø315mm  
**Insert**  
SCKN220715DDSR-MM
- ▶ **9000 Type**  
: Ø125 ~ Ø315mm  
**Insert**  
SCKN280920DDSR-MM



## » Shave Mill

### SVM(M)4000

- ▶ **4000 Type**  
: Ø80 ~ Ø315mm  
**Insert**  
SNEU120420-MF  
SNEU1204ANN-MF  
SNEU1204R-WMF  
SNEU1204-TBW





# Face Milling Cutters

## Shave Mill Ultra

### SVUM6000

- ▶ **6000 Type**  
: Ø80 ~ Ø315mm
- Insert**  
LNCS1907-R3.0-WC  
LNCS1907-C1.5-WC



### SVUM6000-B

- ▶ **6000 Type**  
: Ø80 ~ Ø315mm
- Insert**  
LNCS1907-R3.0-WC  
LNCS1907-C1.5-WC



## High Feed Cutter

### ANH4000/5000

- ▶ **4000 Type**  
: Ø100 ~ Ø450mm
- Insert**  
SNCN1204ENN  
SNKN1204ENN
- ▶ **5000 Type**  
: Ø100 ~ Ø450mm
- Insert**  
SNCN 1504ENN  
SNKN 1504ENN



### CDH4000/5000

- ▶ **4000 Type**  
: Ø100 ~ Ø450mm
- Insert**  
SDCN42R  
SDCN42L
- ▶ **5000 Type**  
: Ø100 ~ Ø450mm
- Insert**  
SDCN53R  
SDCN53L



## High Feed Cutter

### DEH5000

- Ø100 ~ Ø450mm
- Insert**  
HECN090408FN



### DPH5000

- Ø100 ~ Ø450mm
- Insert**  
HPEN090408  
HPEN090408-WC



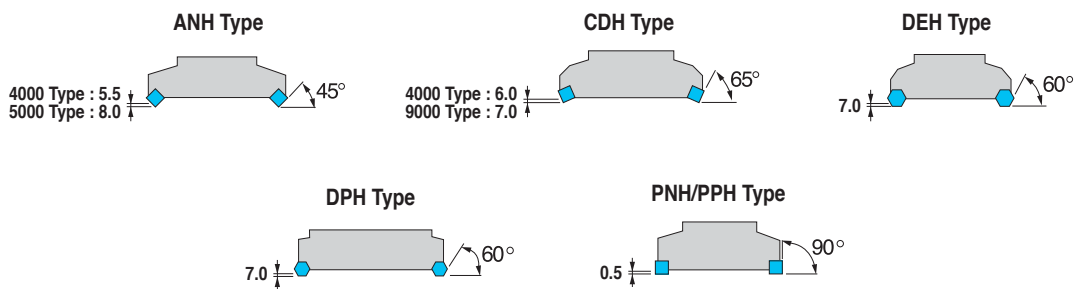
### PNH4000/5000

- Ø125 ~ Ø450mm
- Insert**  
SNEF435  
SNEF535



### PPH4000

- Ø125 ~ Ø450mm
- Insert**  
SPEN120416-WC



# Multi Functional Cutters

## Alpha Mill-X

### AMXCM-AD10/12/17

#### ▶ AD10 Type

: Ø40 ~ Ø80mm

#### Insert

ADKT10T304PEER-ML  
ADKT10T304PESR-MM  
ADKT10T308PESR-MM  
ADKT10T312PESR-MM

#### ▶ AD12 Type

: Ø40 ~ Ø80mm

#### Insert

ADKT120408PESR-ML  
ADKT120408PESR-MM  
ADKT120412PESR-MM  
ADKT120416PESR-MM

#### ▶ AD17 Type

: Ø40 ~ Ø125mm

#### Insert

ADKT170608PESR-ML  
ADKT170604PESR-MM  
ADKT170608PESR-MM  
ADKT170616PESR-MM  
ADKT170620PESR-MM



### AMXS-AD10/12/17

#### ▶ AD10 Type

: Ø16 ~ Ø40mm

#### Insert

ADKT10T304PEER-ML  
ADKT10T304PESR-MM  
ADKT10T308PESR-MM  
ADKT10T312PESR-MM

#### ▶ AD12 Type

: Ø18 ~ Ø40mm

#### Insert

ADKT120408PESR-ML  
ADKT120408PESR-MM  
ADKT120412PESR-MM  
ADKT120416PESR-MM

#### ▶ AD17 Type

: Ø20 ~ Ø40mm

#### Insert

ADKT170608PESR-ML  
ADKT170604PESR-MM  
ADKT170608PESR-MM  
ADKT170616PESR-MM  
ADKT170620PESR-MM



## Alpha Mill

### AMC(M)-S

1000S, 1500S, 2000S, 3000S(-K), 4000S

#### ▶ 1000 Type

: Ø32 ~ Ø63mm

#### ▶ 1500 Type

: Ø40 ~ Ø100mm

#### ▶ 2000 Type

: Ø40 ~ Ø100mm

#### ▶ 3000 Type

: Ø40 ~ Ø100mm

#### ▶ 4000 Type

: Ø50 ~ Ø200mm



### AMC(M)-SE

1000SE, 2000SE, 3000SE

#### ▶ 1000 Type

: Ø40 ~ Ø50mm

#### ▶ 2000 Type

: Ø80 ~ Ø100mm

#### ▶ 3000 Type

: Ø80 ~ Ø100mm



### AMC(M)-M

2000M, 3000M, 4000M

#### ▶ 2000 Type

: Ø50 ~ Ø100mm

#### ▶ 3000 Type

: Ø63 ~ Ø100mm

#### ▶ 4000 Type

: Ø63 ~ Ø125mm



### AMS-S

1000S, 1500S, 2000S, 3000S, 3000S(-K), 4000S

#### ▶ 1000 Type

: Ø10 ~ Ø33mm

#### ▶ 1500 Type

: Ø25 ~ Ø40mm

#### ▶ 2000 Type

: Ø10 ~ Ø63mm

#### ▶ 3000 Type

: Ø25 ~ Ø63mm

#### ▶ 4000 Type

: Ø20 ~ Ø63mm



### AMS-SE

1000SE, 2000SE, 3000SE

#### ▶ 1000 Type

: Ø25mm

#### ▶ 2000 Type

: Ø25 ~ Ø63mm

#### ▶ 3000 Type

: Ø50 ~ Ø63mm



### AMS-M

1000M, 1500M, 2000M, 4000M

#### ▶ 1000 Type

: Ø16 ~ Ø25mm

#### ▶ 1500 Type

: Ø20 ~ Ø32mm

#### ▶ 2000 Type

: Ø20 ~ Ø40mm

#### ▶ 4000 Type

: Ø32 ~ Ø50mm



### AMS-MH

1000MH, 1500MH, 2000MH, 3000MH(-K)

#### ▶ 1000 Type

: Ø14 ~ Ø18mm

#### ▶ 1500 Type

: Ø20mm

#### ▶ 2000 Type

: Ø25 ~ Ø32mm

#### ▶ 3000 Type

: Ø40mm



### AMM

1000M, 1500M, 2000M

#### ▶ 1000 Type

: Ø12 ~ Ø32mm

#### ▶ 1500 Type

: Ø10 ~ Ø32mm

#### ▶ 2000 Type

: Ø16 ~ Ø40mm



### BT Tooling system (Single)

AM1000HS, AM1500HS, AM2000HS, AM3000HS, AM4000HS

#### ▶ 1000 Type

: Ø10 ~ Ø20mm

#### ▶ 1500 Type

: Ø16 ~ Ø40mm

#### ▶ 2000 Type

: Ø16 ~ Ø50mm

#### ▶ 3000 Type

: Ø25 ~ Ø50mm

#### ▶ 4000 Type

: Ø20 ~ Ø50mm



• Please refer to page 112 for available adaptors



# Multi Functional Cutters

## Alpha Mill

### BT Tooling system (Multi)

AM1000, AM1500, AM2000, AM3000, AM4000

- ▶ **1000 Type**  
: Ø16 ~ Ø25mm
- ▶ **1500 Type**  
: Ø20 ~ Ø32mm
- ▶ **2000 Type**  
: Ø20 ~ Ø100mm
- ▶ **3000 Type**  
: Ø50 ~ Ø100mm
- ▶ **4000 Type**  
: Ø40 ~ Ø100mm



### HSK Tooling system (Single)

AM1000HS, AM1500HS, AM2000HS, AM3000HS, AM4000HS

- ▶ **1000 Type**  
: Ø10 ~ Ø20mm
- ▶ **1500 Type**  
: Ø16 ~ Ø40mm
- ▶ **2000 Type**  
: Ø16 ~ Ø50mm
- ▶ **3000 Type**  
: Ø25 ~ Ø50mm
- ▶ **4000 Type**  
: Ø20 ~ Ø50mm



### HSK Tooling system (Multi)

AM1000, AM1500, AM2000, AM3000, AM4000

- ▶ **1000 Type**  
: Ø16 ~ Ø25mm
- ▶ **1500 Type**  
: Ø20 ~ Ø32mm
- ▶ **2000 Type**  
: Ø20 ~ Ø100mm
- ▶ **3000 Type**  
: Ø50 ~ Ø100mm
- ▶ **4000 Type**  
: Ø40 ~ Ø100mm



## Have Mill

### HAVE (Multi Edge)

Ø16 ~ Ø50mm

#### Insert

- |               |               |
|---------------|---------------|
| XPMT0802ER-MM | XPMT2006ER-MM |
| XPMT1003ER-MM | XPMT2507ER-MM |
| XPMT13T3ER-MM |               |
| XPMT1604ER-MM |               |
| XPMT1805ER-MM |               |



### HAVE (Single Edge)

Ø16 ~ Ø50mm

#### Insert

- |               |               |
|---------------|---------------|
| XPMT0802ER-MM | XPMT2006ER-MM |
| XPMT1003ER-MM | XPMT2507ER-MM |
| XPMT13T3ER-MM |               |
| XPMT1604ER-MM |               |
| XPMT1805ER-MM |               |



## Turbo Mill

### ADS4000/5000

- |                                     |                                     |
|-------------------------------------|-------------------------------------|
| ▶ <b>4000 Type</b><br>: Ø50 ~ Ø63mm | ▶ <b>5000 Type</b><br>: Ø50 ~ Ø63mm |
| <b>Insert</b>                       | <b>Insert</b>                       |
| SDCN42                              | SDCN53                              |
| SDCN1203                            | SDCN1504                            |
| SDKN1203                            | SDKN1504                            |
| SDKR1203                            | SDKR1504                            |



### PES2000/3000/4000

- |   |              |
|---|--------------|
| ▶ <b>2000/3000/4000 Type</b><br>: Ø20 ~ Ø63mm |              |
| <b>Insert</b>                                 |              |
| TECN22R/TR                                    | TEEN43R-G    |
| TECN32R/TR                                    | TEEN43TR-S20 |
| TECN32TR-S20                                  | TEEN43TR-Z   |
| TEEN43R/TR                                    | TEEN43TR-ZH  |

2000/3000 Type

4000 Type



## Tank Mill

### THE

Ø25 ~ Ø50mm

#### Insert

- |               |                 |
|---------------|-----------------|
| SPMT060304    | APLT070304R     |
| SDMT090308-MM | ADLT150308R     |
| SPMT120408-MM | ZPMT1504PPSR-MM |



## T-Cutter

### TFE

Ø21 ~ Ø50mm

#### Insert

- |               |
|---------------|
| CPMT060204-MM |
| CPMT080308-MM |
| CPMT09T308-MM |
| CPMH120408-MM |



## » Chamfer Tool

### CE (Back & Front)

#### ► Chamfer angles

15°, 30°, 45°, 60°

#### Insert

SPMT110408-KC  
SPMN120308

15-1125R-S20 60-1125R-S32  
30-1125R-S20 45-1207R-S32  
45-1107R-S20 45-1220R-S32  
45-1119R-S20 45-1225R-S32  
45-1125R-S20 45-1235R-S32



### CE (Long Chamfer)

#### ► Chamfer angles

30°, 45°, 60°

#### Insert

XCET310404ER-KC

30-3105R-S32  
45-3105R-S32  
60-3105R-S32



### CE (Multi-functional)

#### ► Chamfer angles

45°

#### Insert

TWX16R-KC  
TWX22R-KC

45-1600R-S12  
45-1600R-S20  
45-1600R-L20  
45-2200R-S12  
45-2200R-S25  
45-2200R-L25



### CET

CET060-□□□  
CET090-□□□  
CET120-□□□



### CCT

CCT060-□□□  
CCT060T-□□□  
CCT060T-□□□L  
CCT090-□□□  
CCT090T-□□□  
CCT090T-□□□L  
CCT120-□□□  
CCT120T-□□□  
CCT120T-□□□L



# For Aluminum Milling

## Pro-A Mill

### PAC(M)2000/4000

- ▶ **2000/4000 Type** :  $\varnothing 40 \sim \varnothing 100\text{mm}$   
**Insert**  
 VCKT11T210N-MA  
 VCKT220530N-MA



### PAS2000/4000

- ▶ **2000 Type** :  $\varnothing 12 \sim \varnothing 42\text{mm}$   
**Insert**  
 VDKT11T210N-MA  
 VDKT11T220N-MA
- ▶ **4000 Type** :  $\varnothing 32 \sim \varnothing 40\text{mm}$   
**Insert**  
 VCKT220530N-MA



### PAM2000

- ▶ **2000 Type** :  $\varnothing 12 \sim \varnothing 42\text{mm}$   
**Insert**  
 VDKT11T210N-MA



• Please refer to page 112 for available adaptors

## Pro-X Mill

### PAXC(M)5000/6000

- ▶ **5000 Type** :  $\varnothing 40 \sim \varnothing 125\text{mm}$   
**Insert**  
 XEKT19M5□□FR-MA  
 XEKT19M5□□ER-ML
- ▶ **6000 Type** :  $\varnothing 50 \sim \varnothing 125\text{mm}$   
**Insert**  
 XEKT2506□□FR-MA  
 XEKT2506□□ER-ML



### PAXS5000/6000

- ▶ **5000 Type** :  $\varnothing 20 \sim \varnothing 40\text{mm}$   
**Insert**  
 XEKT19M5□□FR-MA  
 XEKT19M5□□ER-ML
- ▶ **6000 Type** :  $\varnothing 25 \sim \varnothing 40\text{mm}$   
**Insert**  
 XEKT2506□□FR-MA  
 XEKT2506□□ER-ML



### PAXM5000

- ▶ **5000 Type** :  $\varnothing 25 \sim \varnothing 40\text{mm}$   
**Insert**  
 XEKT19M5□□FR-MA  
 XEKT19M5□□ER-ML



• Please refer to page 112 for available adaptors

## Pro-L Mill

### PALCM

- $\varnothing 63\text{mm}$   
**Insert**  
 LXET3405PEFR-63-MA/ML  
 LXET3405□□PEFR-63-MA/ML



### PALS (Single Edge)

- $\varnothing 32, \varnothing 40\text{mm}$   
**Insert**  
 LXET2504PEER-□□-MA/ML  
 LXET2504□□PEER-□□-MA/ML  
 LXET2504PEFR-□□-MA/ML  
 LXET2504□□PEFR-□□-MA/ML
- $\varnothing 50, \varnothing 63\text{mm}$   
**Insert**  
 LXET3405PEER-□□-MA/ML  
 LXET3405□□PEER-□□-MA/ML  
 LXET3405PEFR-□□-MA/ML  
 LXET3405□□PEFR-□□-MA/ML



### PALS (Multi Edge)

- $\varnothing 63\text{mm}$   
**Insert**  
 LXET3405PEER-□□-MA/ML  
 LXET3405□□PEER-□□-MA/ML  
 LXET3405PEFR-□□-MA/ML  
 LXET3405□□PEFR-□□-MA/ML



## Pro-XL Mill

### PXL

- $\varnothing 40 \sim \varnothing 80\text{mm}$   
**Insert**  
 LDET650540PPFR-MA  
 LDET650550PPFR-MA



## Pro-V Mill

### PAVCM-XD19

- $\varnothing 40 \sim \varnothing 125\text{mm}$   
**Insert**  
 XDET1905□□PEFR-MA



### PAVS-XD19

- $\varnothing 25 \sim \varnothing 40\text{mm}$   
**Insert**  
 XDET1905□□PEFR-MA



### HSK-XD19

- $\varnothing 32 \sim \varnothing 50\text{mm}$   
**Insert**  
 XDET1905□□PEFR-MA



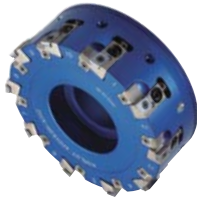
## » Aero Mill

### APD(M)-A

Ø80 ~ Ø315mm

#### Insert

CDEW1204R/L-XCF  
CDEW1204R/L-XAF  
CDEW1204R-NAF  
CDEW1204R/L-XAW  
CDEW1204R-NAW



## » Aero Mill-Plus

### APD(M)-PB

Ø80 ~ Ø315mm

#### Insert

BAMPR-XAF  
BAMPR-XAW  
BAMPR-XAWR



## » Aero Mill-Mini

### MAPD000HR/L-Z0

Ø40 ~ Ø63mm

#### Insert

SNEW09T3ADFR  
SNEW09T3ADTR-XAF  
SNEW09T3ADTR-XAW  
SNEW09T3ADTR-NAF  
SNEW09T3ADTR-NAW



### MAPDS000HR/L-Z0

Ø32 ~ Ø40mm

#### Insert

SNEW09T3ADFR  
SNEW09T3ADTR-XAF  
SNEW09T3ADTR-XAW  
SNEW09T3ADTR-NAF  
SNEW09T3ADTR-NAW



# High Feed Milling Cutters

## HRM/HRM Double Tools

### HRMDC(M)09/13

- ▶ **09 Type**  
: Ø40 ~ Ø100mm  
**Insert**  
WNMX09T316ZNN-MF/ML/MM
- ▶ **13 Type**  
: Ø50 ~ Ø125mm  
**Insert**  
WNMX130520ZNN-MF/ML/MM



### HRMDC(M)16

- ▶ **16 Type**  
: Ø80 ~ Ø315mm  
**Insert**  
WNMX160720ZNN-MF/ML/MM



### HRMDS06

- ▶ **06 Type**  
: Ø16 ~ Ø33mm  
**Insert**  
WNMX060312ZNN-MF/ML/MM



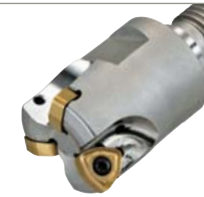
### HRMDS09/13

- ▶ **09 Type**  
: Ø25 ~ Ø50mm  
**Insert**  
WNMX09T316ZNN-MF/ML/MM
- ▶ **13 Type**  
: Ø32 ~ Ø63mm  
**Insert**  
WNMX130520ZNN-MF/ML/MM



### HRMDM06

- ▶ **06 Type**  
: Ø16 ~ Ø33mm  
**Insert**  
WNMX060312ZNN-MF/ML/MM



### HRMDM09/13

- ▶ **09 Type**  
: Ø25 ~ Ø40mm  
**Insert**  
WNMX09T316ZNN-MF/ML/MM
- ▶ **13 Type**  
: Ø32 ~ Ø40mm  
**Insert**  
WNMX130520ZNN-MF/ML/MM



• Please refer to page 112 for available adaptors

• Please refer to page 112 for available adaptors

### HRMC(M)13/15

- ▶ **13 Type**  
: Ø50 ~ Ø80mm  
**Insert**  
WDKT130520ZDSR-MH
- ▶ **15 Type**  
: Ø63 ~ Ø160mm  
**Insert**  
WDKT150625ZDSR-MH



### HRMS08/10

- ▶ **08 Type**  
: Ø20 ~ Ø21mm  
**Insert**  
WDKT080316ZDSR-MH
- ▶ **10 Type**  
: Ø25 ~ Ø30mm  
**Insert**  
WDKT10T320ZDSR-MH



### HRMS13/15

- ▶ **13 Type**  
: Ø32 ~ Ø40mm  
**Insert**  
WDKT130520ZDSR-MH
- ▶ **15 Type**  
: Ø50 ~ Ø63mm  
**Insert**  
WDKT150625ZDSR-MH



### HRMM08/10/13

- ▶ **08/10/13 Type**  
: Ø20 ~ Ø40mm  
**Insert**  
WDKT080316ZDSR-MH  
WDKT10T320ZDSR-MH  
WDKT130520ZDSR-MH



• Please refer to page 112 for available adaptors

## » HFM (High Feed Mill)

### HFMS1000

#### ► 1000 Type

:  $\varnothing 8 \sim \varnothing 21\text{mm}$

#### Insert

LPMT040210R-MF  
LPMT040220R-MF  
LPMW040210R  
LPMW040220R  
LPEW040210R  
LPEW040220R



### HFMM1000

#### ► 1000 Type

:  $\varnothing 8 \sim \varnothing 33\text{mm}$

#### Insert

LPMT040210R-MF  
LPMT040220R-MF  
LPMW040210R  
LPMW040220R  
LPEW040210R  
LPEW040220R



• Please refer to page 112 for available adaptors

## » HFMD (High Feed Mill Double)

### HFMDCM-LN06

$\varnothing 32 \sim \varnothing 66\text{mm}$

#### Insert

LNMX060310R-MF  
LNMX060310R-ML  
LNMX060310R-MM



### HFMDC(M)-LN10

$\varnothing 40 \sim \varnothing 100\text{mm}$

#### Insert

LNMX100412R-ML  
LNMX100412R-MF  
LNMX100412R-MM



### HFMS-LN04

$\varnothing 8 \sim \varnothing 21\text{mm}$

#### Insert

LNMX040205R-ML  
LNMX040205R-MM



### HFMS-LN06

$\varnothing 16 \sim \varnothing 40\text{mm}$

#### Insert

LNMX060310R-MF  
LNMX060310R-ML  
LNMX060310R-MM



### HFMS-LN10

$\varnothing 25 \sim \varnothing 42\text{mm}$

#### Insert

LNMX100412R-ML  
LNMX100412R-MF  
LNMX100412R-MM



### HFMDM-LN04

$\varnothing 10 \sim \varnothing 35\text{mm}$

#### Insert

LNMX040205R-ML  
LNMX040205R-MM



### HFMDM-LN06

$\varnothing 16 \sim \varnothing 42\text{mm}$

#### Insert

LNMX060310R-MF  
LNMX060310R-ML  
LNMX060310R-MM



### HFMDM-LN10

$\varnothing 25 \sim \varnothing 42\text{mm}$

#### Insert

LNMX100412R-ML  
LNMX100412R-MF  
LNMX100412R-MM



## Side Cutters

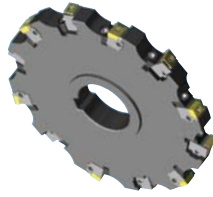
### » Tangential Type (Full Side Cutter)

#### TAFCP(M)

Ø100 ~ Ø315mm

##### Insert

CNHQ1005-□□□  
CNHQ1305-□□□  
CNHQ1606-□□□

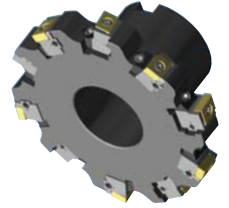


#### TAFCB(M)

Ø100 ~ Ø315mm

##### Insert

CNHQ1005-□□□  
CNHQ1305-□□□  
CNHQ1606-□□□



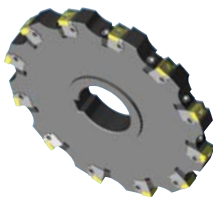
### » Tangential Type (Half Side Cutter)

#### TAHCP(M)

Ø100 ~ Ø315mm

##### Insert

CNHQ1005-□□□  
CNHQ1305-□□□  
CNHQ1606-□□□



#### TAHCB(M)

Ø100 ~ Ø315mm

##### Insert

CNHQ1005-□□□  
CNHQ1305-□□□  
CNHQ1606-□□□



### » Radial Type (Full Side Cutter)

#### RAFCP(M)

Ø100 ~ Ø315mm

##### Insert

SDXT09M40□R/L  
SDXT13050□R/L

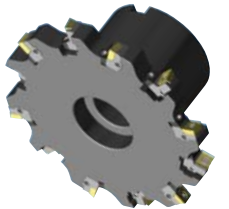


#### RAFCB(M)

Ø100 ~ Ø315mm

##### Insert

SDXT09M40□R/L  
SDXT13050□R/L



### » Radial Type (Half Side Cutter)

#### RAHCP(M)

Ø100 ~ Ø315mm

##### Insert

SDXT09M40□R/L  
SDXT13050□R/L



#### RAHCB(M)

Ø100 ~ Ø315mm

##### Insert

SDXT09M40□R/L  
SDXT13050□R/L





## Side Cutters

### SPP(M)

Ø80 ~ Ø200mm

**Insert**

PNEJ12□□N



### SPB(M)

Ø80 ~ Ø200mm

**Insert**

PNEJ12□□N



### SPS

Ø50 ~ Ø200mm

**Insert**

SPFN200

SPFN300

SPFN400



## Wind Mill

### WFSB(M)

Boss Type

Ø80 ~ Ø250mm

**Insert**

SNHT11023□□R/L-WX

SNHT1103□□R/L-WX

SNHT1203□□R/L-WX

SNHT12035□□R/L-WX

SNHT1204□□R/L-WX

SNHT12045□□R/L-WX

SNHT1205□R/L-WX

SNHT12054□R/L-WX

SNHT1206□□R/L-WX

SNHT12065□□R/L-WX

SNHT1207□□R/L-WX

SNHT12075□□R/L-WX



### WFSP(M)

Plane Type

Ø80 ~ Ø250mm

**Insert**

SNHT11023□□R/L-WX

SNHT1103□□R/L-WX

SNHT1203□□R/L-WX

SNHT12035□□R/L-WX

SNHT1204□□R/L-WX

SNHT12045□□R/L-WX

SNHT1205□R/L-WX

SNHT12054□R/L-WX

SNHT1206□□R/L-WX

SNHT12065□□R/L-WX

SNHT1207□□R/L-WX

SNHT12075□□R/L-WX



# Endmills / Drills

KORLOY provides high quality endmills and drills thanks to its advanced technology and accumulated know-how of tooling systems, carrying out values for higher productivity and quality results.

- Solid Endmills
- Solid Drills
- Indexable Drills / Indexable Endmills

# Solid Endmills

## » H-Star Endmill

### ESB702/712/703/734 (Ball)

No. of flutes : 2 ~ 4  
Cutting diameter :  $\varnothing 0.1 \sim \varnothing 12$



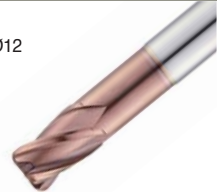
### ESE702/712/704/714/724(6)/716 (Flat)

No. of flutes : 2 ~ 6  
Cutting diameter :  $\varnothing 1 \sim \varnothing 20$



### ESR702/732/704/714/724/734/706/736 (Radius)

No. of flutes : 2 ~ 6  
Cutting diameter :  $\varnothing 1 \sim \varnothing 12$



### ESRB712 (Rib Ball)

No. of flutes : 2  
Cutting diameter :  $\varnothing 0.1 \sim \varnothing 12$



### ESRE712 (Rib Flat)

No. of flutes : 2  
Cutting diameter :  $\varnothing 0.1 \sim \varnothing 12$



### ESXE704/714 (Flat)

No. of flutes : 4  
Cutting diameter :  $\varnothing 1 \sim \varnothing 12$



### ESXR704 (Radius)

No. of flutes : 4  
Cutting diameter :  $\varnothing 2 \sim \varnothing 12$



### ESLNB20 (Rib Ball)

No. of flutes : 2  
Cutting diameter :  $\varnothing 0.1 \sim \varnothing 5$



### ESTNB20/30 (Rib Ball)

No. of flutes : 2 ~ 3  
Cutting diameter :  $\varnothing 0.2 \sim \varnothing 10$



### ESLNS20/40 (Rib Flat)

No. of flutes : 2 ~ 4  
Cutting diameter :  $\varnothing 0.1 \sim \varnothing 5$



### ESLNR/ESTNR (Rib Radius)

No. of flutes : 2  
Cutting diameter :  $\varnothing 0.2 \sim \varnothing 3$



### ESPM4 (High feed)

No. of flutes : 4  
Cutting diameter :  $\varnothing 3 \sim \varnothing 12$



## » Z Endmill

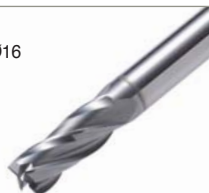
### ZFE2000 (Flat)

No. of flutes : 2  
Cutting diameter :  $\varnothing 1 \sim \varnothing 16$



### ZFE4000 (Flat)

No. of flutes : 4  
Cutting diameter :  $\varnothing 1 \sim \varnothing 16$



### ZSFE2000 (Short Flat)

No. of flutes : 2  
Cutting diameter :  $\varnothing 1 \sim \varnothing 12$



# Solid Endmills

## » Z Endmill

### ZSFE4000 (Short Flat)

No. of flutes : 4  
Cutting diameter :  $\varnothing 1 \sim \varnothing 12$



### ZBE2000 (Ball)

No. of flutes : 2  
Cutting diameter :  $\varnothing 1 \sim \varnothing 12$



## » F Endmill

### FME4000 (High feed)

No. of flutes : 4  
Cutting diameter :  $\varnothing 6 \sim \varnothing 12$



### FMLE4000 (High feed long)

No. of flutes : 4  
Cutting diameter :  $\varnothing 6 \sim \varnothing 12$



## » D Endmill

### DFE2000 (Flat)

No. of flutes : 2  
Cutting diameter :  $\varnothing 1 \sim \varnothing 12$



### DFE4000 (Flat)

No. of flutes : 4  
Cutting diameter :  $\varnothing 2 \sim \varnothing 12$



### DBE2000 (Ball)

No. of flutes : 2  
Cutting diameter :  $\varnothing 0.6 \sim \varnothing 12$



### DBE4000 (Ball)

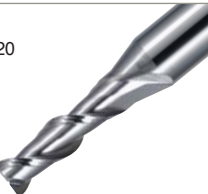
No. of flutes : 4  
Cutting diameter :  $\varnothing 2 \sim \varnothing 12$



## » Endmills for Specific Aluminum

### SSEA2000 (Flat)

No. of flutes : 2  
Cutting diameter :  $\varnothing 1 \sim \varnothing 20$



### SSEA3000 (Flat)

No. of flutes : 3  
Cutting diameter :  $\varnothing 2 \sim \varnothing 16$



### SSBEA2000 (Ball)

No. of flutes : 2  
Cutting diameter :  $\varnothing 1 \sim \varnothing 20$



## » C-Max

### CFE2000 (Flat)

No. of flutes : 2  
Cutting diameter :  $\varnothing 1 \sim \varnothing 12$



### CFNE2000 (Long Neck Flat)

No. of flutes : 2  
Cutting diameter :  $\varnothing 0.5 \sim \varnothing 4$



### CBE2000 (Ball)

No. of flutes : 2  
Cutting diameter :  $\varnothing 1 \sim \varnothing 12$



### CBNE2000 (Long Neck Ball)

No. of flutes : 2  
Cutting diameter :  $\varnothing 0.5 \sim \varnothing 4$



### CRE2000 (Radius)

No. of flutes : 2  
Cutting diameter :  $\varnothing 2 \sim \varnothing 12$



### CRNE2000 (Long Neck Radius)

No. of flutes : 2  
Cutting diameter :  $\varnothing 1 \sim \varnothing 4$



## » Super Endmill

### SFES4000 (Flat)

No. of flutes : 4  
Cutting diameter :  $\varnothing 3 \sim \varnothing 20$



### SRES4000 (Radius)

No. of flutes : 4  
Cutting diameter :  $\varnothing 3 \sim \varnothing 20$



## » Composite Router Endmill

### CCDR4000

No. of flutes : 4  
Cutting diameter :  $\varnothing 6 \sim \varnothing 8$



### CCDR6000

No. of flutes : 6  
Cutting diameter :  $\varnothing 10 \sim \varnothing 12$



### CCHR4000

No. of flutes : 4  
Cutting diameter :  $\varnothing 6 \sim \varnothing 8$



### CCHR6000

No. of flutes : 6  
Cutting diameter :  $\varnothing 10 \sim \varnothing 12$



### CCR2000

No. of flutes : 2  
Cutting diameter :  $\varnothing 4 \sim \varnothing 12$



### CCLR4000

No. of flutes : 4  
Cutting diameter :  $\varnothing 4 \sim \varnothing 12$



## Composite Router Endmill

### CCRR6000

No. of flutes : 6  
Cutting diameter :  $\varnothing 6 \sim \varnothing 8$



### CCRR8000

No. of flutes : 8  
Cutting diameter :  $\varnothing 10 \sim \varnothing 12$



## I+ Endmill

### IPFE2000 (Flat)

No. of flutes : 2  
Cutting diameter :  $\varnothing 1 \sim \varnothing 20$



### IPFE4000 (Flat)

No. of flutes : 4  
Cutting diameter :  $\varnothing 1 \sim \varnothing 20$



### IPLFE2000 (Long Flat)

No. of flutes : 2  
Cutting diameter :  $\varnothing 6 \sim \varnothing 12$



### IPLFE4000 (Long Flat)

No. of flutes : 4  
Cutting diameter :  $\varnothing 6 \sim \varnothing 12$



### IPBE2000 (Ball)

No. of flutes : 2  
Cutting diameter :  $\varnothing 0.5 \sim \varnothing 10$



### IPBE4000 (Ball)

No. of flutes : 4  
Cutting diameter :  $\varnothing 0.5 \sim \varnothing 10$



### IPLBE2000 (Long Ball)

No. of flutes : 2  
Cutting diameter :  $\varnothing 0.5 \sim \varnothing 8$



### IPRE2000 (Radius)

No. of flutes : 2  
Cutting diameter :  $\varnothing 1 \sim \varnothing 12$



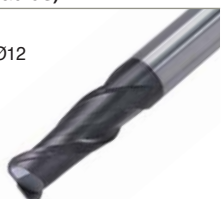
### IPRE4000 (Radius)

No. of flutes : 4  
Cutting diameter :  $\varnothing 2 \sim \varnothing 12$



### IPLRE2000 (Long Radius)

No. of flutes : 2  
Cutting diameter :  $\varnothing 3 \sim \varnothing 12$



### IPLRE4000 (Long Radius)

No. of flutes : 4  
Cutting diameter :  $\varnothing 3 \sim \varnothing 12$





## » S+ Endmill

### SPFE4000 (Flat)

No. of flutes : 4  
Cutting diameter :  $\varnothing 1 \sim \varnothing 20$



### SPRE4000 (Radius)

No. of flutes : 4  
Cutting diameter :  $\varnothing 1 \sim \varnothing 20$



## » R+ Endmill

### RPAE

Roughing Endmill for Wave Form of AI

No. of flutes : 3  
Cutting diameter :  $\varnothing 6 \sim \varnothing 25$



### RPE-FP-H

Standard Roughing Endmill for Fine Pitches

No. of flutes : 4  
Cutting diameter :  $\varnothing 5 \sim \varnothing 20$



### RPLE-FP-H

Long Type Roughing Endmill for Fine Pitches

No. of flutes : 4  
Cutting diameter :  $\varnothing 5 \sim \varnothing 20$



### RPE-XG

Roughing Endmill with Finishing Capability

No. of flutes : 4  
Cutting diameter :  $\varnothing 6 \sim \varnothing 20$



### RPE-FP-L

Roughing Endmill for Fine Pitches

No. of flutes : 4  
Cutting diameter :  $\varnothing 5 \sim \varnothing 20$



### RPE-RG

Standard Roughing Endmill

No. of flutes : 4  
Cutting diameter :  $\varnothing 5 \sim \varnothing 20$



### RPE-RG

4F Roughing Endmill

No. of flutes : 4  
Cutting diameter :  $\varnothing 6 \sim \varnothing 20$



### RPE-FF

Roughing Endmill for Fine Pitches

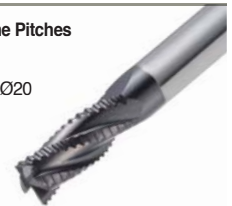
No. of flutes : 4  
Cutting diameter :  $\varnothing 6 \sim \varnothing 20$



### RPE-FP

Roughing Endmill for Fine Pitches

No. of flutes : 4  
Cutting diameter :  $\varnothing 6 \sim \varnothing 20$



### RPE-RG

Roughing Endmill

No. of flutes : 4  
Cutting diameter :  $\varnothing 6 \sim \varnothing 20$





# Solid Endmills

## » A+ Endmill

### APFE2000 (Flat)

No. of flutes : 2  
Cutting diameter :  $\varnothing 1 \sim \varnothing 20$



### APFE3000 (Flat)

No. of flutes : 3  
Cutting diameter :  $\varnothing 1 \sim \varnothing 20$



### APMFE2000 (Middle Flat)

No. of flutes : 2  
Cutting diameter :  $\varnothing 3 \sim \varnothing 20$



### APMFE3000 (Middle Flat)

No. of flutes : 3  
Cutting diameter :  $\varnothing 3 \sim \varnothing 20$



### APLFE2000 (Long Flat)

No. of flutes : 2  
Cutting diameter :  $\varnothing 3 \sim \varnothing 20$



### APLFE3000 (Long Flat)

No. of flutes : 3  
Cutting diameter :  $\varnothing 3 \sim \varnothing 20$



### APBE2000 (Ball)

No. of flutes : 2  
Cutting diameter :  $\varnothing 1 \sim \varnothing 12$



### AFE3000 (Short Flat)

No. of flutes : 3  
Cutting diameter :  $\varnothing 1 \sim \varnothing 20$



### AFE3000 (Flat)

No. of flutes : 3  
Cutting diameter :  $\varnothing 1 \sim \varnothing 20$



### AFE3000 (Long Flat)

No. of flutes : 3  
Cutting diameter :  $\varnothing 1 \sim \varnothing 20$



### APRE3000 (Roughing)

No. of flutes : 3  
Cutting diameter :  $\varnothing 4 \sim \varnothing 25$



### RPAE3000 (Wave Roughing)

No. of flutes : 3  
Cutting diameter :  $\varnothing 6 \sim \varnothing 25$



## » M+ Endmill

### MPRE4000-B

No. of flutes : 4  
Cutting diameter :  $\varnothing 3 \sim \varnothing 20$



## » PCD Endmills

### PDE1000 (Flat)

No. of flutes : 1  
Cutting diameter :  $\varnothing 4.6 \sim \varnothing 6$



### PDE2000 (Flat)

No. of flutes : 2  
Cutting diameter :  $\varnothing 6 \sim \varnothing 12$



## » Brazed Endmills

### ZSE200 (Flat)

No. of flutes : 2  
Cutting diameter :  $\varnothing 14 \sim \varnothing 50$



### ZSE300 (Flat)

No. of flutes : 3  
Cutting diameter :  $\varnothing 14 \sim \varnothing 50$



### ZSE400 (Flat)

No. of flutes : 4  
Cutting diameter :  $\varnothing 14 \sim \varnothing 50$



### ZSE600 (Flat)

No. of flutes : 6  
Cutting diameter :  $\varnothing 34 \sim \varnothing 50$



### ZSEA200 (Flat)

No. of flutes : 2  
Cutting diameter :  $\varnothing 15 \sim \varnothing 50$



### ZSEL200 (Long Flat)

No. of flutes : 2  
Cutting diameter :  $\varnothing 14 \sim \varnothing 50$



### ZSEL400 (Long Flat)

No. of flutes : 4  
Cutting diameter :  $\varnothing 16 \sim \varnothing 40$



### ZSEXL200 (Long Flat)

No. of flutes : 2  
Cutting diameter :  $\varnothing 20 \sim \varnothing 25$



### ZSBE200 (Ball)

No. of flutes : 2  
Cutting diameter :  $\varnothing 13 \sim \varnothing 50$



## » Mach Solid Drill Plus

### MSDP

Aspect Ratio(L/D) : 3, 5  
Cutting diameter :  $\varnothing 1 \sim \varnothing 2.4$

MSDP□□□-□P/M/K/N



### MSDPH

Oil hole type

Aspect Ratio(L/D) : 3, 5, 7  
Cutting diameter :  $\varnothing 2.5 \sim \varnothing 20$

MSDPH□□□-□P/M/K/N

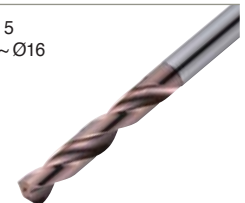


## » Mach Solid Drills Plus-S

### MSDPH-S

Aspect Ratio(L/D) : 3, 5  
Cutting diameter :  $\varnothing 3 \sim \varnothing 16$

MSDPH□□□-□S



## » MSD Plus CFRP

### MSDP-C

Aspect Ratio(L/D) : 5  
Cutting diameter :  $\varnothing 3 \sim \varnothing 12.7$

MSDPH□□□-□S5



## » HSD Plus

### HSD(H)

Aspect Ratio(L/D) : 3, 5  
Cutting diameter :  $\varnothing 3 \sim \varnothing 20$

HSD(H)□□□-□D(-A)



### HSDP(H)

Aspect Ratio(L/D) : 3, 5, 8  
Cutting diameter :  $\varnothing 3 \sim \varnothing 20$

HSDP(H)□□□-□D(-A)



# Solid Drills

## MSFD

### MSFD

Aspect Ratio(L/D) : 2  
Cutting diameter :  $\varnothing 2.5 \sim \varnothing 16$

MSDP□□□-□P/M/K/N



### MSFDH

Oil hole type

Aspect Ratio(L/D) : 3  
Cutting diameter :  $\varnothing 2.5 \sim \varnothing 16$

MSDPH□□□-□P/M/K/N



## Mach Long Drills Plus

### MLDP

Aspect Ratio(L/D) : 10, 15, 20, 25  
Cutting diameter :  $\varnothing 3 \sim \varnothing 10$

MLD□□□□N-□□P/K/N



## Vulcan Drills

### VZD

VZD-MA, MBA  
Cutting diameter :  $\varnothing 12.6 \sim \varnothing 40.5$



### VZD

VZD-LA, LBA  
Cutting diameter :  $\varnothing 12.6 \sim \varnothing 40.5$



## ESD Plus

### ESDP

Aspect Ratio(L/D) : 3, 5, 7  
Cutting diameter :  $\varnothing 1 \sim \varnothing 20$

ESDP□□□-□P



## Win Drill

### WSDP

Aspect Ratio(L/D) : 5, 7  
Cutting diameter :  $\varnothing 1 \sim \varnothing 20$

WSDP□□□-□D



## SSD-N

### SSDP

Cutting diameter :  $\varnothing 1 \sim \varnothing 13$

SSD□□□-N



# Indexable Drills

## King Drill

### King Drill (2D/3D/4D/5D)

Ø12 ~ Ø60.5mm

**Insert**

Peripheral		Central	
SPMT040204-PD	XOMT040204-PD		
SPMT050204-PD	XOMT050204-PD		
SPMT060205-PD	XOMT060204-PD		
SPMT07T208-PD	XOMT07T205-PD		
SPMT090308-PD	XOMT090305-PD		
SPMT11T308-PD	XOMT11T306-PD		
SPMT130410-PD	XOMT130406-PD		
SPMT15M510-PD	XOMT15M508-PD		
SPMT180510-PD	XOMT180508-PD		



### King Drill-HP (2D/3D/4D)

Ø12 ~ Ø60.5mm

**Insert**

Peripheral		Central	
SPMT040204-PD	XOMT040204-PD		
SPMT050204-PD	XOMT050204-PD		
SPMT060205-PD	XOMT060204-PD		
SPMT07T208-PD	XOMT07T205-PD		
SPMT090308-PD	XOMT090305-PD		



### King Drill

For large diameter drilling

#### KING DRILL- Cartridge Type








Ø61 ~ Ø100mm

**Cartridge**

Internal		External	
KDC6165C	KDC8085C	KDC6165P	KDC8085P
KDC6570C	KDC8590C	KDC6570P	KDC8590P
KDC7075C	KDC9095C	KDC7075P	KDC9095P
KDC7580C	KDC95100C	KDC7580P	KDC95100P



### King Drill Insert

	PD	LD	ND	RD
Central				
	XOMT-PD	XOMT-LD	XOET-ND	XOMT-RD
Peripheral				
	SPMT-PD	SPMT-LD	SPET-ND	

## KED Plus Drill

### KED Plus Drill (2D/3D/4D/5D)

Ø12 ~ Ø60.5mm

**Insert**

Peripheral			Central		
SPMT040204-PD	SPMT07T208-PD	SPMT130410-PD	XOMT040204-PD	XOMT07T205-PD	XOMT130406-PD
SPMT050204-PD	SPMT090308-PD	SPMT15M510-PD	XOMT050204-PD	XOMT090305-PD	XOMT15M508-PD
SPMT060205-PD	SPMT11T308-PD	SPMT180510-PD	XOMT060204-PD	XOMT11T306-PD	XOMT180508-PD



## TPDB Plus Drill

### TPDB Plus (3D/5D/8D/10D/12D)

Ø10 ~ Ø32.9mm

**Insert**

TPD100B~TPD329B



### TPDB-F (1.5D)

Ø14 ~ Ø30.9mm

**Insert**

TPD140B-F~TPD309B-F



### TPDB-H (3D/4D/8D)

Ø14 ~ Ø30.4mm

**Insert**

TPD140B-H~TPD309B-H



## TPDC Plus Drill

### TPDX (3D/5D/8D)

Ø12 ~ Ø16mm

**Insert**

TPD0800XP~TPD1199XP



### TPDC (1.5D/3D/5D/8D/10D/12D)

Ø12 ~ Ø30.9mm

**Insert**

TPDC1200CP, CM, CN, CP-FC  
~ TPDC3050CP, CM, CN, CP-FC



## WPDC

### WPDC (5D/6.5D/8D)

**Standard type**  
Ø25 ~ Ø40mm

**Insert**

WC□T030204-C21  
WC□T040204-C21  
WC□T050308-C21



### WPDC (5D/6.5D/8D)

**Single insert cartridge type**  
Ø41 ~ Ø59mm

**Insert**

WC□T06T308-C21  
WC□T080408-C21



### WPDC (5D/6.5D/8D)

**Dual insert cartridge type**  
Ø60 ~ Ø80mm

**WSP**

WC□T050308-C21  
WC□T06T308-C21



# Indexable Endmills

## Indexable Endmill

### BFE

Ø16 ~ Ø32

RC16  
RC20  
RC25  
RC30  
RC32



### BRE

Ø20 ~ Ø50

SDMT090308-MM ZDMT130416R-MM  
SPMT060304 ZPMT160520R-MM  
SPMT120408-MM ZPMT160525R-MM  
SPMT120508-MMN ZPMT160531.5R-MM  
ZDMT080310R-MM ZPMT160525R-MR  
ZDMT110312.5R-MM



### GBE

Single Edge : Ø16 ~ Ø50

Internal : M External : S

ZPET080M(S)-MM ZPET140M(S)-MM  
ZPET090M(S)-MM ZPET150M(S)-MM  
ZPET100M(S)-MM ZPET160M(S)-MM  
ZPET110M(S)-MM ZPET200M(S)-MM  
ZPET125M(S)-MM ZPET250M(S)-MM  
ZPET130M(S)-MM



### GBE-M

Multi Edge : Ø20 ~ Ø50mm

Internal : M External : S

ZPET100M(S)-MM ZPET150M(S)-MM  
ZPET110M(S)-MM ZPET160M(S)-MM  
ZPET125M(S)-MM ZPET200M(S)-MM  
ZPET130M(S)-MM ZPET250M(S)-MM  
ZPET140M(S)-MM



Ext.Principal :

SPMT060304 SPMT120408-MM  
SDMT090308-MM

### GBEM

Ø16 ~ Ø32mm

Internal : M External : S

ZPET080M(S)-MM  
ZPET100M(S)-MM  
ZPET125M(S)-MM  
ZPET150M(S)-MM  
ZPET160M(S)-MM



• Please refer to page 112 for available adaptors

## Laser Mill

### LBE (08/10/12/16/20/25/30/32)

Carbide Shank-Ball type (Straight type)

LBE080080S-S08C	LBE120100S-S12C	LBE200120S-S20C	LBE300140S-S32C
LBE080100S-S08C	LBE120150S-S12C	LBE200170S-S20C	LBE300170S-S32C
LBE080020S-S08C-130	LBE120025S-S12C-150	LBE200035S-S20C-190	LBE300050S-S32C-230
LBE080020S-S08C-150	LBE120025S-S12C-200	LBE200035S-S20C-240	LBE300050S-S32C-260
LBE100080S-S10C	LBE160100S-S16C	LBE250140S-S25C	LBE320140S-S32C
LBE100120S-S10C	LBE160150S-S16C	LBE250170S-S25C	LBE320170S-S32C
LBE100023S-S10C-130	LBE160030S-S16C-160	LBE250040S-S25C-220	LBE320050S-S32C-230
LBE100023S-S10C-170	LBE160030S-S16C-210	LBE250040S-S25C-250	LBE320050S-S32C-260



### LBE (08/10/12/16/20/25/30/32)

Steel Shank-Ball type (Taper type)

LBE080035T-S12	LBE160100T-S20
LBE080055T-S12	LBE200075T-S20
LBE080075T-S12	LBE200115T-S25
LBE100035T-S12	LBE250090T-S25
LBE100055T-S12	LBE250135T-S32
LBE100075T-S12	LBE300105T-S32
LBE120055T-S12	LBE300160T-S32
LBE120085T-S16	LBE320105T-S32
LBE160065T-S16	LBE320160T-S32



### LBE (12/16/20/25/30/32)

Steel Shank-Ball type (Straight type)

LBE120035S-S12	LBE250045S-S25
LBE160035S-S16	LBE300055S-S32
LBE200040S-S20	LBE320055S-S32





## » Laser Mill

### LRE (10/12/16/20/25/30/32)

#### Carbide Shank-Corner R type (Straight type)

LRE100080S-S10C	LRE120025S-S12C-200	LRE200035S-S20C-190	LRE300170S-S32C
LRE100120S-S10C	LRE160100S-S16C	LRE200035S-S20C-240	LRE300050S-S32C-230
LRE100023S-S10C-130	LRE160150S-S16C	LRE250140S-S25C	LRE300050S-S32C-260
LRE100023S-S10C-170	LRE160030S-S16C-160	LRE250170S-S25C	LRE320140S-S32C
LRE120100S-S12C	LRE160030S-S16C-210	LRE250040S-S25C-220	LRE320170S-S32C
LRE120150S-S12C	LRE200120S-S20C	LRE250040S-S25C-250	LRE320050S-S32C-230
LRE120025S-S12C-150	LRE200170S-S20C	LRE300140S-S32C	LRE320050S-S32C-260



### LRE (10/12)

#### Steel Shank-Corner R type (Taper type)

LRE100025T-S12  
LRE100050T-S12  
LRE120060T-S16



### LRE (12/16/25/30/32)

#### Steel Shank-Corner R type (Straight type)

LRE120030S-S12  
LRE160050S-S16  
LRE160060S-S16  
LRE200060S-S20  
LRE200080S-S20  
LRE250070S-S25  
LRE250100S-S25  
LRE300070S-S32  
LRE300100S-S32  
LRE320080S-S32  
LRE320100S-S32



### LBE-MHD

LBE100-MHD-M06  
LBE120-MHD-M06  
LBE160-MHD-M08  
LBE200-MHD-M10  
LBE250-MHD-M12  
LBE300-MHD-M16  
LBE320-MHD-M16



• Please refer to page 112 for available adaptors

## » Shank Adaptor for Modular Head

### MAT (Steel Shank type)

#### Available to use

(FMRM, LBE, PAM, PAXM, AMM, RM3PM, RM4PM, RM4ZM, RM6PM, HFMDM, HFMM, HRMM, HRMDM, GBEM)

MAT-M06-020-S10S	MAT-M10-050-S20T
MAT-M6B-020-S12S	MAT-M10-070-S20T
MAT-M6B-040-S12S	MAT-M10-090-S25T
MAT-M08-020-S16S	MAT-M10-110-S25T
MAT-M10-030-S20S	MAT-M10-130-S32T
MAT-M12-030-S25S	MAT-M12-050-S25T
MAT-M16-035-S32S	MAT-M12-070-S25T
MAT-M06-040-S12T	MAT-M12-090-S25T
MAT-M06-065-S16T	MAT-M12-110-S32T
MAT-M6B-065-S16T	MAT-M12-175-S40T
MAT-M6B-080-S16T	MAT-M16-055-S32T
MAT-M08-040-S16T	MAT-M16-080-S32T
MAT-M08-065-S16T	MAT-M16-120-S32T
MAT-M08-080-S20T	MAT-M16-175-S40T
MAT-M08-110-S25T	



### MAT-C (Carbide Shank type)

#### Available to use

(FMRM, LBE, PAM, PAXM, AMM, RM3PM, RM4PM, RM4ZM, RM6PM, HFMDM, HFMM, HRMM, HRMDM, GBEM)

MAT-M06-030-S10S-C-80	MAT-M10-010-S20S-C-170
MAT-M06-050-S10S-C-100	MAT-M10-010-S20S-C-200
MAT-M06-080-S10S-C-130	MAT-M10-010-S20S-C-300
MAT-M6B-030-S12S-C-80	MAT-M12-090-S25S-C
MAT-M6B-050-S12S-C-100	MAT-M12-110-S25S-C
MAT-M6B-080-S12S-C-130	MAT-M12-175-S25S-C
MAT-M08-080-S16S-C	MAT-M12-015-S25S-C-170
MAT-M08-110-S16S-C	MAT-M12-015-S25S-C-200
MAT-M08-150-S16S-C	MAT-M12-015-S25S-C-300
MAT-M08-010-S16S-C-150	MAT-M16-090-S32S-C
MAT-M08-010-S16S-C-180	MAT-M16-120-S32S-C
MAT-M08-010-S16S-C-250	MAT-M16-175-S32S-C
MAT-M10-090-S20S-C	MAT-M16-020-S32S-C-180
MAT-M10-110-S20S-C	MAT-M16-020-S32S-C-210
MAT-M10-175-S20S-C	MAT-M16-020-S32S-C-300



# The Comparison of Chip Breakers

## Comparison of Chip Breakers

Application		KORLOY	KYOCERA	TAEGUTEC	SUMITOMO	SANDVIK	KENNAMETAL	ISCAR	WLATER	MITSUBISHI	SECO	TUNGALLOY		
Negative	Application	Ultra-Finishing	-	DP (G-class)	-	FA	PMC	FF (G-class)	SF	-	PK (G-class), FY	FF1	TF	
			VL	GP	FA	FL, FB	QF	UF	PF	NF3	FH, FS, SY	FF2	NS, ZF	
		Finishing	VF, VB	PP	FG	LU, FE	PF, XF	FN	NF, SM	NF4	FP		NM, NS, SS	
			-	-	SF	SU	61	K	F3P	FP5	LP, SH, SA	MF2	TS, TSF	
		Medium to finishing	VC	HQ, CQ	MC	SE	HM	LF, CT	TF	NS6	C(Cermet)		AS	
			LP, CP	PQ, CJ	FC	SX	PMC	-	-	MP3	MV	MF5	ZM, AM	
	Medium machining	VM, HM	HK, GS, HS, PS	MP, MT	GU(UG)	QM, SM	MP, MN	PP, TF	NM4, NP5	MA, MH	M3, M5	TQ, TM		
		MP	PG	PC	GE, UX	PM, XM	-	M3P	MP5	MP	-	DM, None C/B		
	Roughing	B25								GM, None C/B	M5	TH		
		GR	PT, GT, HT, PH	RT	MU, ME, MX	PR, WR	RN, None C/B	R3P	RP5, NM9	GH, RP	MR5, MR6, MR7	THS		
Heavy duty machining	GH	PX	HB, RH, RX	HG, MP	PR, XMR	RH	NR, HT	RP7, NR4, NRF	HZ	R4, R5	CH			
	VH	-	HZ, EH	HP	QR	RM	HR	NRR, NR8	HX	R6, R7, R8, PR6	THS, TRS			
Low carbon steel	Soft steel	VL	XF, XP, XP-T	SF	FL	LC	-	-	FY	-	-			
		-	XQ, XS	-	-	-	-	-	SY	-	-			
High feed	Wiper	VW	WP, WF	WS	LUW, SEW	WF, WL	FW	WF	NF	SW	FF2, MF2	AFW, FW		
		LW	WQ, WE	WT	GUW	WM, WMX	MW	WG	NM	MW	MF5, M3	ASW, SW		
		-	-	-	-	WR	RW	-	-	-	R4, R7	-		
Application	Shaft (long bar)	SH	CJ, ST	FS, VF, FX	HM	K	-	-	-	ES	UX	P, S		
		KNUX-	KNMX-	KNUX-	-	KNUX-71	-	-	-	KNMX-19	-	KNMX		
M	Stainless steel	Finishing	VP2, MP	MQ, GU, SK	EA, SF	SU, EF	MF, XF	FP, FF	SF, VL, F3M	NF4, FM5	SH, LM	FF1, MF1	SS, SF, SA	
		Medium cutting	MM	HU, TK, MS	MP, EM	EX, EG, GU	MM, XM, QM, MMC	MP, UP, MS	PP, TF, M3M	NM4, NR4	MS, GM, MM	MF3, MF4	SM	
		Roughing	RM	MU	ET	MU, HM, EM	MR, XMR, MRR	RP, P	MR, R3M	RM5, NRS	MA, ES	MF5, M5	S, SH	
K	Cast iron	Finishing	MP	None C/B, C, KQ	MT	UZ	KF, PMC, XF	T-20, FN	TF	NM, MK5	LK, MA	M4	CF	
		Medium cutting	B25, MK	ZS, KG	RT, KT	UX, GZ	KM, XM	UN, RP	GN	NM5, RK5	MK, GK, None C/B	M5	CM, None C/B	
		Roughing	-MA, RK	-MA, GC, KH	-MA	-MA	KR, XMR, KRR	MR, S-20, -MA	-MA, NR	-MA, RK7	RK, -MA	MR7	CH	
S	HRSA	Ultra-finishing	VP1	MQ, SK	EA	EF	SF, SGF	FS (G-class) LF (G-class)	SF, PF	NF4	FJ(G-class)	M1	SF	
		Finishing	VP2	TK	ML	UP, EG	23.SR, XF, SMC	UP	PP	NFT	LS	MF1	HMM	
		Medium cutting	VP3	MS	EM	EX	SM, SMR, XM	MS, GP, P, UN	TF	NMS, NMT	MS	MF4, MR3	HRF	
		Roughing	VP4	MU	ET	MU	XMR	RP	MR	NRS, NRT	RS, GJ	MR4	HRM	
N	Aluminium alloy	HA	AH	ML	AX	23	GP, MS	NF, PP	FN2, PF2, MN2, PM2	MJ	MF1	P		
Positive	Application	Finishing	FP	XP, PP	FA, FX	FC	PF, XF	11	PF	FP4	SMG (G-class), FV	FF1	01	
			VL, VF	GP	-	FB, LU(FP, FK)	UF	UF	F3P	FK6	SV, FP	F1	PSF, PF	
		Medium cutting	HMP	XQ	FG	LB, NF	PM, XM	LF, FP	14	MP4, FM2, FM4, MK4	LP	MF2	PSS	
			MP	HQ, GK	PC, FM	SU, SC	UM, PMC	MP, T-20	SM	FP6, MM4, FM6, RK4	MV	F2, M3	PS	
	Roughing	C25	None C/B	MT	MU	PR, UR, XR	MF, GM, -C	19	RP4, RM4, RK6	None C/B, MP	M5	PM		
	Wiper	-	WP	-	LUW	WL, WF	FW	WF	PM	SW	-	-		
		-	-	WT	SDW	WM, WMX	MW	WG	-	MW	-	-		
	M S	Stainless steel For HRSA	Finishing	FS, MS, VP1	CF, GF, GQ	FG	FC, FM	MF, MM, MMC	11, UF, LF	PF	FM4, NM4	FJ (G-class), FM, LM	F1, MF2	PSF, PSS
			Medium to finish cutting	FP, VL, LU	MQ	SA	LB, SI	MR, XR	MF	SM	RM4	MM	M3	PS
			Medium cutting	MU	MF	-	-	SMC	-	M3M	-	None C/B	M5	CM
K	Cast iron	Medium cutting	MP	HQ	PC	MU	KF, KM	LF	17	FK6	MK	M3	CM	
		Roughing	C25	GK	MT	None C/B	KR	MF, UF	19	MK4, RK6	None C/B, -MW	M5	None C/B	
N	Aluminium alloy	AK, AR	AH	FL	AW, AG, AY	AL	HP, LF	AS, AF	PM2	AZ, FS	AL	AL		
	High precision bar turning (tolerance class G&E)	KF, KM	FSF, USF, J, A3	GF, FF, GW	FY, FX, FZ	K, F, UM	GH	LF, RF, XL	-	F, SR, SS, SM	UX	JS, J10, JRP, JPP		

# The Comparison of Chip Breakers

Grades / Chip Breakers

Inserts

Turning Tools

Milling Tools

Endmills / Drills

The Comparison of Chip Breakers, Grades

## WC

ISO	KORLOY	SUMITOMO	KYOCERA	ISCAR	SANDVIK	SECO	KENNAMETAL	TOSHIBA	MITSUBISHI	HITACHI	VALENITE	WALTER	TAEGUTEC	NTK	DIJET
Turning	P	ST10													
		ST20	ST10 ST20			S1P SM30			TX10S TX20	ST10T ST120T	SRN5 WS20B	S1F		P10 P20	
	ST30A	ST30A	PW30	IC50M IC54	S30T S6	TTX TTM TTR	K45 KM K420	TX30	UT120T	EX35 EX40 EX45	VC6 VC5 VC56		P30 P40		
M	U20	U10E U20 ST30A A40			H13A H10F	AT10 AT15 TTR	K2885 K2S	TU10 TU20	UT120T	WAM10B EX35	VC27 VC28		M10 M20		
	H01 H05 G10	H1 G10	KW10H	IC4 IC20 IC28	H1P H10F	THM THR	K68 K8735	TH03 TH10 KS20	HT110T HT120T	WH05 W10 WH20	VC3 VC2 VC1		K10 K20 K20M K30		

## CVD coated

ISO	KORLOY	SUMITOMO	KYOCERA	ISCAR	SANDVIK	SECO	KENNAMETAL	TOSHIBA	MITSUBISHI	HITACHI	VALENITE	WALTER	TAEGUTEC	NTK	DIJET	
Turning	P	AC805P	CA5505 CA510		GC4305 GC4205	TP0500 TP0501 TP1500	KCP05 KCP05B	T9105	UE6105				TT8105			
		NC3215*	AC810P AC700G AC900G	CA515 VP5115 CA5515	IC8150	GC4315 GC4215	TP1501 TGP25	KCP10 KCP10B	T9115	UE6110 MY5015	HG8010	VP5515	WPP10S WKP13S	TT8110 LC215P TT8115		
		NC3225*	AC820P AC2000 AC8025P	CA525 VP5125 CA5525	IC8250	GC4325 GC4225	TP2500 TP2501 TGP35 TP3501	KCP25 KCP25B	T9125	MC6025 UE6020	HG8025	VP5525	WPP20S WKP23S	TT8120 LC225P TT8125	CP5	JC110V JC215V
	M	NC3030	AC830P	CR9025 CA5535 CA530	IC8350	GC4335 GC4235	TP3500 TGP45	KCP30 KCP30B	T9135	MC6035 UE6035	GM8035	VP5535	WPP30S WKP33S	TT5100 TT8135		JC325V
		NC5330						KCP40 KCP40B		UH6400				TT7100		JC450
		NC9115*	AC610M	CA6515	IC6015 IC6025	S05F GC2015 GC2220 GC2025	TM2000	KCM15 KCM15M KCM25 KCM25B KCM35 KCM35B	T6120	MC7015 MC7025 US7020	GM25	VP8515	WAM10 WMP20S WAM20	TT9215		
K	NC9135*	AC630M AC6030M	CA6525			TM4000	KCK05 KCK05B	T6130	US735	GX30	VP8525	WAM30	TT9235			
	NC6310*	AC405K	CA4505	IC5005	GC3205 GC3210	TK1001	KCK15 KCK15B	T5105	MC5005 UC5105	HG3505	VP1505	WKK10S	TT7005	CP2	JC105V	
	NC6315	AC415K	CA4010 CA4515 CA4115	IC5015	GC3215 GC3225	TK2001 TGK1500	KCK15 KCK15B	T5115	MC5015 UC5115	HG3515	VP1510 VP1515	WKK20S	TT7505 TT7310 TT7015	CP5	JC110V JC215V	
	AC420K	CA4120					KCK20 KCK20B	T5125			WAK30	TT7025				

## PVD coated

ISO	KORLOY	SUMITOMO	KYOCERA	ISCAR	SANDVIK	SECO	KENNAMETAL	TOSHIBA	MITSUBISHI	HITACHI	VALENITE	WALTER	TAEGUTEC	NTK	DIJET
Turning	P	PC8105*		PR1005 PR915	IC507 IC808			AH710			VC907 VC927				
		PC8110		PR1115 PR930	IC830 IC908 IC3028		CP200 CP250	KU10T KU25T	GH730		IP2000	VC905	WTA43		
	PC8115*		PR1025 PR630 PR660	IC3028 IC830	GC1025	CP500		AH330 AH740 AH120 GH330	VP15TF VP20MF	IP3000		WTA41	TT5030		JC5015
	PC3035														
	PC5300														
M	PC8105*	AC510U	PR915 PR930	IC808 IC907	GC1005 GC1105	CP200 CP250	KC5010 KC5510	AH330 GH330 AH120 GH730	MP9005 VP10RT	IP50S IP100S	VC929 VC927 VC902 VC901 VC905	WSM10S WSM20S WSM30S WSM40S	TT5030	ZM3 QM3 VM1 TAS	JC5003
	PC8110	EH510Z AC520U EH520Z AC530U	PR1125 PR630 PR660	IC830	GC1025 GC4125	CP500	KC5025 KC5525	AH140 AH630	VP15TF VP20MF				TT8020		JC5015
K	PC9030							AH645	MP7035						
	PC5400*			IC330									TT8020		
S	PC5300	EH510Z EH520Z		IC5100 IC810 IC220 IC908 IC228		CP200 CP250 CP500		AH110 GH110 AH120		CY110H	VC929 VC903 VC927 VC902 VC901 VC907		TT5030		
	PC8105	AC510U	PR915 PR660 PR1325	IC808 IC907 IC3028 IC328	GC1105 GC1025 GC2035	TS2000 CP500 TS2500	KC5010 KC5025	AH110 AH120	VP05RT VP10RT VP15TF MP7035			WSM10 WSM20 WSM30	TT5030		

## CERMET

ISO	KORLOY	SUMITOMO	KYOCERA	ISCAR	SANDVIK	SECO	KENNAMETAL	TOSHIBA	MITSUBISHI	HITACHI	VALENITE	WALTER	TAEGUTEC	NTK	DIJET
Turning	P	CC1500*	T110A	PV30*									PV3010*		
		CN1500*	T2000Z*	TN30	IC20N IC520N	CT5015	CM C15M	HT2 KT125	NS520 GT530*	NX2525 NX3035	CH350 CZ25*		PV3010*	T3N	LN10
	CC2500*	T1500A	PV7020*	IC30N IC530N	CT525 GC1525*	TP1020	HT5 KT175	NS530 NS9530	UP35N*	CH530 CH550	VC83	WTA43*	CT3000	T15	CX50 CX75
M	CN2000*	T3000Z*	TN60 TN620 TN6020 TN90 PV90*				KT195M	GT9530*	NS335 NS40 MP3025*	CH550 CH570				C30	CX90 CX99
	CN2500*													N40	
K	CN1500*	T110A							NX2525				CT3000	T15	LN10 CX75

★ : PVD Coating cermet    ★ : New Grade

⊗ CVD coated

ISO	KORLOY	SUMITOMO	KYOCERA	ISCAR	SANDVIK	SECO	KENAMETAL	TOSHIBA	MITSUBISHI	HITACHI	VALENITE	WALTER	TAEGUTEC	NTK	DIJET	
Milling	P NC5330 NCM325 NCM535★ NCM335 NCM545★ NC5330 NC5340★ NC5350★	ACP100		IC5100	GC4210	MP1500 MS2500 MP2500 MS2500 T350M MM4500	KCPM20	T3130	FH7020		SM245	WKP25S	TT8525 TT7800			
				IC5400	GC4220				KCMP30			F7030				WKP25S
				GC4230					KC927M							WKP35S WKP35G
M	NC5330 NC5340★ NC5350★	ACP400			GC2040	MP2500 MS2500 MM4500		T3130	F7030							
K	NC5330 NCM535★ NCM545★	ACK200		IC5100		MK1500 MK2000 MS2500 T350M MK3000	KC907M KCK15 KC914M KCPK30 KC917M KC924M	T1115 T1015	MC5020		WAK15 WKK25 WKP25S WKP35S WKP35G	TT7515 TT6800				

⊗ PVD coated

ISO	KORLOY	SUMITOMO	KYOCERA	ISCAR	SANDVIK	SECO	KENAMETAL	TOSHIBA	MITSUBISHI	HITACHI	VALENITE	WALTER	TAEGUTEC	NTK	DIJET							
Milling	P PC2005★ PC2010★ PC2015★ PC2505★ PC2510★ PC3600 PC3700★	ACZ310	PR730	IC903 IC908 IC950	P20A GC1010	MP3000 F25M F30M	KC522M KUC20M	GH330	AP20M GP20M	ATH80D PCA08M ACS05E PCA12M PC20M JX1005 TB6005 JX1020 CY9020	VC935	WKP25	TT2510	QM3 ZM3	DH102							
									ACZ310	PR730		IC903 IC908 IC950	MP3000 F25M F30M		KC522M KUC20M	GH330	MP6120	TB6045	VC935	WKP25	TT7070 TT7080 TT7030	JC5003 JC5015
									ACP200	PR830 PR630		IC1008	GC1025 GC1030		KC525M KUC30M	AH120	VP15TF UP20M	CY250 PTH30E	WKP35	TT8020	JC5030 JC5040	
	PC210F	ACZ330	PR630	IC1008	GC1030	KC935M KC7140 KC720	AH3135	VP30RT	MP6130	JP4160	WKP45	TT8020										
	PC5300	ACP300 ACZ350	PR660	IC928	GC1030	F40M T60M	KC5510 KC7020	AH120	VP30RT	JM4160 PTH40H												
	PC5400★		PR660	IC928	GC1030	F40M T60M	KC5510 KC7020	AH120	VP30RT	JM4160 PTH40H												
	M	PC210F PC5300	ACM100 ACP200	PR730	IC903		KC5510 KC7020	AH120		JX1020 CY9020 JX1015 TB6020 CY250	VC928 VC902 VC901		TT9030	QM3 ZM3	JC5003 JC5015							
	PC9530	ACM300 ACP300 ACZ350	PR630 PR660 PR1535	IC900 IC250 IC928	GC1025 GC2030 GC1030	F25M F30M F40M	KC522M KC725M KC735M KC7030	AH140	MP7130	JX1045 TB6045	VC928 VC902 VC901	WQM35 WSM35S WSP45 WSM45S	TT9080 TT8020		JC5030 JC5040							
	PC5400★ PC9540★		PR660	IC328		F40M	KC722	AH3135	MP7140	JX1060 TB6060			TT8020									
	K	PC6510	PR510 PR905	DT7150 IC900 IC910 IC950 IC350		MK2050	KC510M KC915M		VP10MF VP15TF		VC903 VC928		TT6290		JC5003							
PC5300			IC900 IC910 IC950 IC350		MK2050	KC520M	AH120	VP20RT		VC902 VC901		TT6030 TT6060		JC5015								
S	PC5300 PC5400★ PC9540★	AC520U	PR620 PR660 PR1535	IC328 IC408	GC1025 GC1040 S40T	F40M MS2050	KC510M KCU30M		VP15TF VP30RT MP9130	ACS05E		WSM35S WSM45S	TT9030 TT8020 TT8080									

⊗ CERMET

ISO	KORLOY	SUMITOMO	KYOCERA	ISCAR	SANDVIK	SECO	KENAMETAL	TOSHIBA	MITSUBISHI	HITACHI	VALENITE	WALTER	TAEGUTEC	NTK	DIJET
Milling	P CN2000 CN30	T250A	TN100M	IC30N			KT195M	NS540 NS740	NX2525 NX4545	CH550 CH570		CT3000	C50		
			TC60M							CT7000					
	M		T250A			CT530									
K									NX2525						

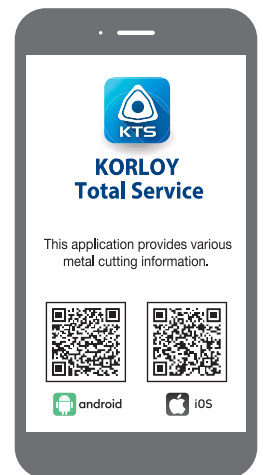
★ : PVD Coating cermet    ★ : New Grade

### ⚠ For the safe metalcutting

- Use safety supplies such as protective gloves to prevent possible injury while touching the edge of tools.
- Use safety glasses or safety cover to hedge possible dangers. Inappropriate usage or excessive cutting condition may lead tool's breakage or even the fragment's scattering.
- Clamp the workpiece tightly enough to prevent its movement while its machining.
- Properly manage the tool change phase because the inordinately used tool can be easily broken under the excessive cutting load or severe wear, and it may threat the operator's safety.
- Use safety cover because chips evacuated during cutting are hot and sharp and may cause burns and cuts. To remove chips safely, stop machining, put on protective gloves, and use a hook or other tools.
- Prepare for fire prevention measures as the use of the non-water soluble cutting oil may cause fire.
- Use safety cover and other safety supplies because the spare parts or the inserts can be pulled out due to centrifugal force while high speed machining.



**Head Office:** Holystar B/D, 326, Seocho-daero, Seocho-gu, Seoul, 06633, Republic of Korea  
Tel: +82-2-522-3181 Fax: +82-2-522-3184, +82-2-3474-4744 Web: [www.korloy.com](http://www.korloy.com) E-mail: [sales.khq@korloy.com](mailto:sales.khq@korloy.com)



### **KORLOY AMERICA**

620 Maple Avenue, Torrance, CA 90503, USA  
Tel: +1-310-782-3800 Toll Free: +1-888-711-0001 Fax: +1-310-782-3885  
E-mail: [sales.kai@korloy.com](mailto:sales.kai@korloy.com)

### **KORLOY INDIA**

Plot No. 415, Sector 8, IMT Manesar, Gurgaon 122051, Haryana, India  
Tel: +91-124-4391790 Fax: +91-124-4050032  
E-mail: [sales.kip@korloy.com](mailto:sales.kip@korloy.com)

### **KORLOY TURKIYE**

Serifali Mahallesi, Burhan Sokak NO: 34  
Dudullu OSB/Umraniye/Istanbul, 34775, Turkiye  
Tel: +90-216-415-8874 E-mail: [sales.ktl@korloy.com](mailto:sales.ktl@korloy.com)

### **KORLOY RUSSIA**

Krasivy Dom office No. 305, Bld. 5, Novovladykinskiy proezd 8, 127106,  
Moscow, Russia  
Tel: +7-495-280-1458 Fax: +7-495-280-1459 E-mail: [sales.krc@korloy.com](mailto:sales.krc@korloy.com)

### **KORLOY FACTORY INDIA**

Plot No. 415, Sector 8, IMT Manesar, Gurgaon 122051, Haryana, India  
Tel: +91-124-4391790 Fax: +91-124-4050032  
E-mail: [pro.kim@korloy.com](mailto:pro.kim@korloy.com)

### **KORLOY EUROPE**

Gablonzer Str. 25-27, 61440 Oberursel, Germany  
Tel: +49-6171-277-83-0 Fax: +49-6171-277-83-59  
E-mail: [sales.keg@korloy.com](mailto:sales.keg@korloy.com)

### **KORLOY BRASIL**

Av. Aruana 280, conj.12, WLC, Alphaville, Barueri,  
CEP06460-010, SP, Brasil  
Tel: +55-11-4193-3810 E-mail: [sales.kbl@korloy.com](mailto:sales.kbl@korloy.com)

### **KORLOY CHILE**

Av. Providencia 1650, Office 1009, 7500027  
Providencia-Santiago, Chile  
Tel: +56-229-295-490 E-mail: [sales.kcs@korloy.com](mailto:sales.kcs@korloy.com)

### **KORLOY MEXICO**

Calle R. M. Clemencia Borja Taboada 522, Jurica Acueducto,  
76230 Juriquilla, Qro., Mexico  
Tel: +52-442-673-7388 E-mail: [sales.kml@korloy.com](mailto:sales.kml@korloy.com)

