



产品目录

PRODUCT CATALOGUE

Ganzhou Rely Cutting Tools Co., Ltd.

Address: 2nd Floor, Lusheng Building, Jinling West Road, Ganzhou Economic and Technologica Development Zone, Ganzhou, Jiangxi 341001, China

Tel./ Whatsapp/ Wechat: +86 19928748823

E-mail: info@gzrcct.com

Website: www.gzrcct.com

RICH GRADE LINEUP FOR EVERY KIND OF MATERIAL
NEW COATINGS ENSURE LONG TOOL LIFE

Provide you with quality service



TURNING INSERTS



CERMET



MILLING INSERTS



DRILLING BLADE



TURNING INSERTS



GROOVING

ABOUT US



Ganzhou Rely Cutting Tools Co., Ltd.

Ganzhou Rely Cutting Tools Co., Ltd. (Abbr.: RELY) is located in Ganzhou, China - "Tungsten Capital of the World", is a professional enterprise specializing in design, manufacture, and sale of carbide cutting tools.

We provide various cutting tools, Turning Inserts, Milling Inserts, Grooving Inserts, Cermet Inserts, Aluminium Inserts, Threading Inserts, Small Parts Machining Inserts, widely used in high precision turning, milling, boring, drilling, parting, grooving, and threading.

Our products are exported to all over the world. We adhere to the principle of customer-centered and provide professional solutions for global customers.

We own an imported production line from developed countries like Germany, so that we can customized all kinds of cemented carbides products according to your drawing and sample, OEM and ODM projects are welcome.

Below are a few other reasons why you should cooperate with our company:

- Reliable and Premium Quality Products.
- Professional Service.
- Favorable Factory-Direct Pricing.
- Worldwide Shipping.
- Swift Response to Inquiry/ Quote Requests.

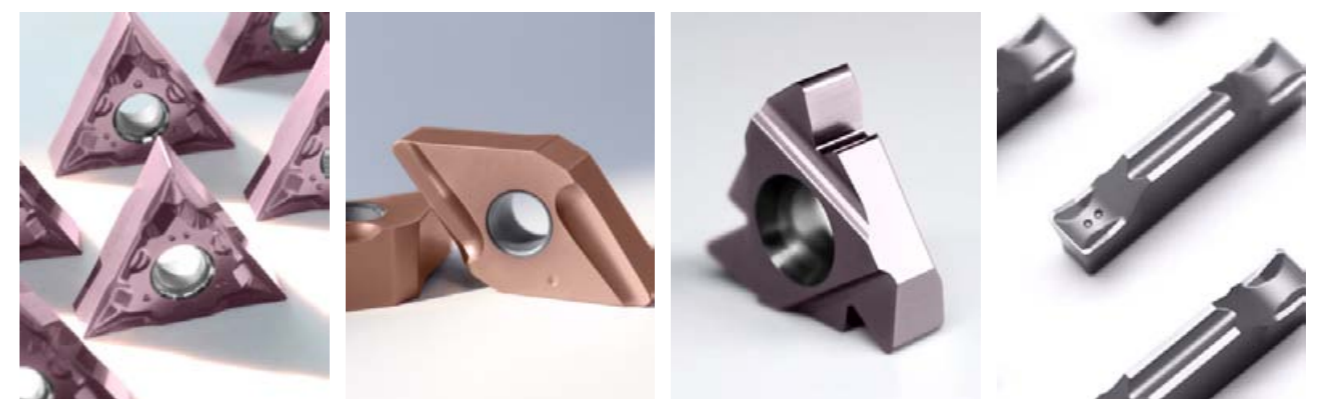
We look forward to cooperating with you for a better future!



Equipment



Products

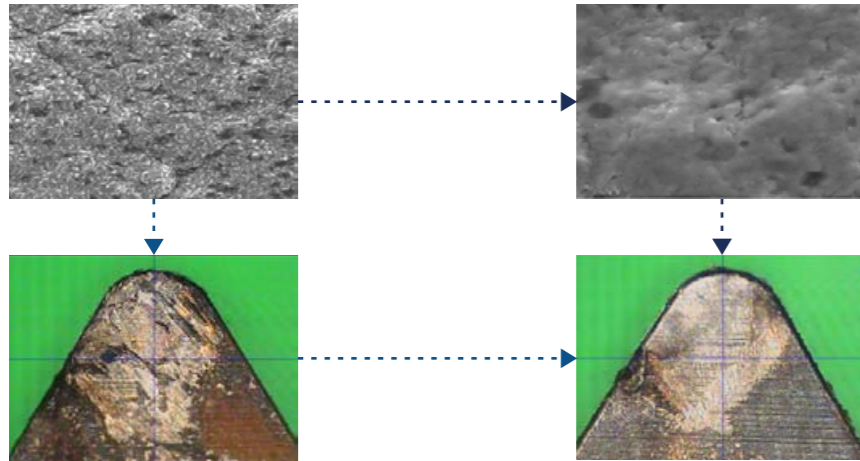


- 多种牌号，满足不同材料的加工需求；特殊涂层，使用寿命长
Rich grade lineup for every kind of material
New coatings ensure long tool life

涂层材料和基材

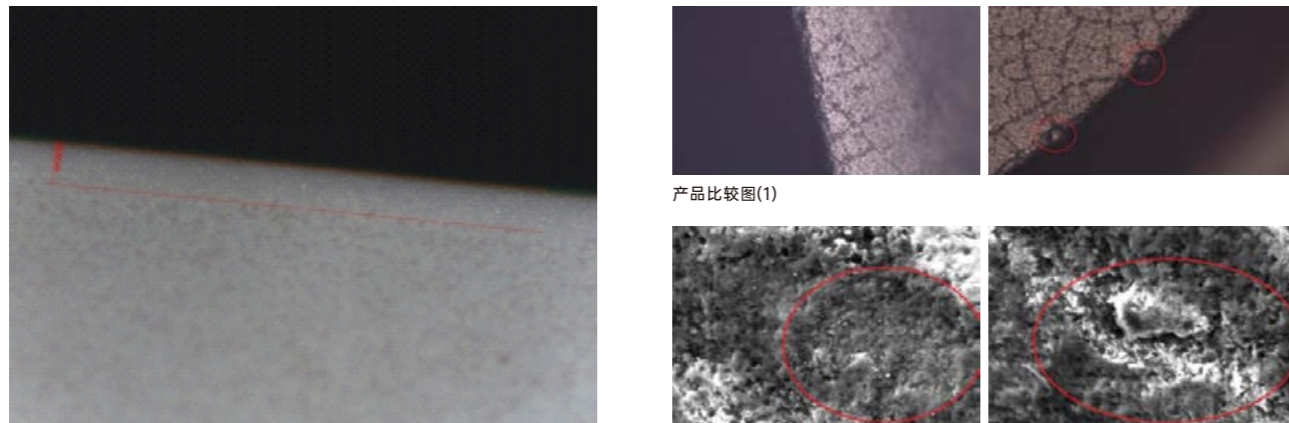
Coating Materials and Substrates

涂层材料 Coating Materials



● 热裂纹, 高的张应力

产品基材金相 Substrates



产品比较图(1)

产品比较图(2)



牌号推荐

Grade recommended

车削用材质 Materials for turning

切削状态 Cutting state	JIS使用分类 JIS usage classification	涂层 coating		
耐磨损性 Wear resistance ↑ P钢 P Steel ↓ 耐崩损性 Collapse resistance	P01	RCC31 RCC32	RCC41 RCC42	RCP07
	P10			
	P20			
	P30			
	P40			
耐磨损性 Wear resistance ↑ M 不锈钢 M Stainless steel ↓ 耐崩损性 Collapse resistance	M01	RCP07	RCP07S	
	M10			
	M20			
	M30			
	M40			
耐磨损性 Wear resistance ↑ K 铸铁 K Cast iron ↓ 耐崩损性 Collapse resistance	K01	RCK03		
	K10			
	K20			
	K30			
	K40			
耐磨损性 Wear resistance ↑ S 耐热合金 Heat-resistance alloy ↓ 耐崩损性 Collapse resistance	S01	RCP07S		
	S10			
	S20			
	S30			
	S40			
耐磨损性 Wear resistance ↑ N 有色金属 N Nonferrous metals ↓ 耐崩损性 Collapse resistance	N10	NH01		
	N20			
	N30			

牌号推荐

Grade recommended

铣削用材质 Materials used for milling

切削状态 Cutting state	JIS使用分类 JIS usage classification	涂层 coating	
耐磨损性 Wear resistance ↑ P钢 P Steel ↓ 耐崩损性 Collapse resistance	P01	RCP41	RCP04S
	P10		
	P20		
	P30		
	P40		
耐磨损性 Wear resistance ↑ M 不锈钢 M Stainless steel ↓ 耐崩损性 Collapse resistance	M01	RCP51	RCP05S
	M10		
	M20		
	M30		
	M40		
耐磨损性 Wear resistance ↑ K 铸铁 K Cast iron ↓ 耐崩损性 Collapse resistance	K01	RCP04S	RCK033
	K10		
	K20		
	K30		
	K40		
耐磨损性 Wear resistance ↑ S 耐热合金 Heat-resistance alloy ↓ 耐崩损性 Collapse resistance	S01	RCP05S	RCP07S
	S10		
	S20		
	S30		
	S40		
耐磨损性 Wear resistance ↑ N 有色金属 N Nonferrous metals ↓ 耐崩损性 Collapse resistance	N10	NH01	
	N20		
	N30		



牌号推荐

Grade recommended

切槽/切断/螺纹用材质 Materials used for grooving and threading

切削状态 Cutting state	JIS使用分类 JIS usage classification	涂层 coating		
耐磨损性 Wear resistance ↑ P钢 P Steel ↓ 耐崩损性 Collapse resistance	P01	RCP41	RCP04S	RCP05S
	P10			
	P20			
	P30			
	P40			
耐磨损性 Wear resistance ↑ M 不锈钢 M Stainless steel ↓ 耐崩损性 Collapse resistance	M01	RCP05S	RCP07	
	M10			
	M20			
	M30			
	M40			
耐磨损性 Wear resistance ↑ K 铸铁 K Cast iron ↓ 耐崩损性 Collapse resistance	K01	RCP04S		
	K10			
	K20			
	K30			
	K40			
耐磨损性 Wear resistance ↑ S 耐热合金 Heat-resistance alloy ↓ 耐崩损性 Collapse resistance	S01	RCP07	RCP07S	
	S10			
	S20			
	S30			
	S40			
耐磨损性 Wear resistance ↑ N 有色金属 N Nonferrous metals ↓ 耐崩损性 Collapse resistance	N10	NH01		
	N20			
	N30			

各公司涂层对照

Comparison Table for Coatings of Each Company

涂层 Coating

用途 USE	使用分类 CLASSIFICATION	级别 LEVEL	利来 RELY	三菱 MITSUBISHI	泰珂洛 TUNGALOY	京瓷 KYOCERA	三菱日立 HITACHI	山特维克 SANDVIK	肯纳 KENNAMETAL	日本山高 SECO	瓦尔特 WALTER	伊斯卡 ISCAR	特固克 TAEGU TEC
车削 TURNING INSERTS	P 钢	P05		UE6105	T9105	CA510	HG8010	GC4305 GC4205	KCP05 KC9105	TP0501 TP0500	WPP05S WPP05	IC8005 IC428	TT8115
		P10	RCC31 RCC32 RCC41 RCC42 RCP41 RCP04S	MC6015 UE6110	T9115	CA515	HG8010	GC4315 GC4215	KCP10 KC9110	TP1501 TP1500	WPP10S WPP10	IC8150 IC9015	TT8115
		P20	RCC31 RCC32 RCC41 RCC42 RCP07 RCP41 RCP04S RCP05S	MC6025 UE6020	T9125	CA525	IP2000 HG8025 GM25	GC4325 GC4225	KCP25 KC9125	TP2501 TP2500	WPP20S WPP20	IC8250 IC9015	TT8125 TT5100
		P30	RCC41 RCC42 RCP07 RCP04S RCP05S	MC6035 UE6035 VP15TF	T9135	CA530	IP3000 GM8035	GC4235	KCP30 KC9140	TP3500	WPP30S WPP30	IC8350 IC8025	TT8135 TT7100
		P40	RCP07 RCP05S	UE6035 UH6400	T9135	PR660	IP3000 GM8035	GC4235	KC9140	TP3500	WTN53	IC8350 IC8025	TT8135 TT7100
		M10 S10	RCP07 RCP05S	MC7015 US7020 MP9005 US905 VP05RT VP10RT	T9115 AH110 AH905 AH8005	CA6515 PR915 PR1025 PR1215 PR1225 PR1305 PR1310	IP050S IP100S	GC2015 GC1105 GC1115	KCM15 KC5510 KCU10	TS2000	WSM10 WSM10S	IC807 IC8025 IC907	TT9215 TT5080
	M20 S20	RCP07 RCP07S	MC7025 US7020 PR9015 VP20MF UP20M	T6120 T6020 T9125 AH630 AH120 AH725 AH8015	CA6525 PR915 PR930 PR1025 PR1125 PR1215 PR1225 PR1325	IP100S HQ8025	GC2025 GC1125	KCM25 KC5525 KCU25 KC5020	TP2501 TP2500 TM2000 TS2500	WMP20S WSM20 WSM20S	IC808 IC8080 IC908	TT9225 TT9080 TT9020	
	M30	RCP07S	MC7025 MP7035 US735 VP15TF VP20MF MS6015	AH725 T6130 T6030 AH630 AH645	CA6525 PR1125 PR1535	GM8035 GX30	GC2035	KCM35 KC9240	TP3500 TM4000	WSM30 WSM30S	IC8080 IC830	TT9235 TT8020	
	M40		MP7035 US735 VP15TF MS6015	AH645	PR1125 PR1535	GX30	GC235		TM4000		IC830 IC928	TT8020	
	K 铸铁	K05		MC5005 UC5105 UC5115	T5105 T5115	CA4505 CA4010	HG3305 HX3305	GC3205	KCK05	TK1001 TK1000	WKK10S WAK10	IC5005	TT7005
		K10	RCK03 RCP04S	MC5005 MC5015 UC5105 UC5115	T515 T5115 T5125	CA4505 CA4515 CA4115	HX3305 HG3305 HG3315 HX3315	GC3210	KCK15	TK1001 TK1000	WKK10S WKK20S WAK10 WAK20	IC5010 IC5100	TT7015 TT7310
		K20	RCK03 RCP04S	MC5015 UC5115 VP15TF UE6110	T5125 T9125	CA4515 CA4120 CA4115	HX3315 HG3315 HG8010	GC3215	KCK20	TK2001 TK2000	WKK20S WAK20 WAK30	IC8150	



各公司涂层对照

Comparison Table for Coatings of Each Company

涂层 Coating

用途 USE	使用分类 CLASSIFICATION	级别 LEVEL	利来 RELY	三菱 MITSUBISHI	泰珂洛 TUNGALOY	京瓷 KYOCERA	三菱日立 HITACHI	山特维克 SANDVIK	肯纳 KENNAMETAL	日本山高 SECO	瓦尔特 WALTER	伊斯卡 ISCAR	特固克 TAEGU TEC	
铣削 MILLING INSERTS	P 钢	P10	RCP41 RCP04S	FH7020 F7030	T3130 T3030		JP4005 JP4105 JP4020 JP4115 JP4120	GC4220 GC4230	KC715M KC930M KC935M KCPK10	T250M T350M MP1500 MP2500	WKP25S WKP25 WPP20 WKP35S	IC4100 IC520M IC4050 DT7150 IC903	TT7080 TT7030	
		P20	RCP41 RCP04S RCP05S	MV1020 VP15TF VP20RT MP6120	AH9030 AH120 AH725	PR1525 PR1225 PR830	JS4045 GX2140	GC1010 GC125 GC2040 GC4240	KTPK20 KCPM20 KCU25	MP3000 F25M F30M	WSM20	IC808 IC810 IC380	TT9080 TT9030	
		P30	RCP04S RCP05S	VP30RT MP6130	AH3035 AH130 AH140 SH730	PR1525 PR1230	JS4060 JX1045 JX1060 CY150 CY150 CY250	GC1030 GC1130 GC2030	KCPK30 KCMP30 KC725 KC730 KC735 KC7140 KCU40	MM4500 F40M	WSM30 WSM35 WSP45S WSP45	IC830 IC928 IC330	TT8080 TT8020 TT7800	
		M10	RCP07 RCP05S RCP51			PR1025 PR1225	JX1020 CY9020 JP4020 JP4120	GC1025 GC1030 GC1130	KC522M				IC903	
		M20	RCP07 RCP05S RCP51	F7030 VP15TF VP20RT MP7130 MP9120	GH3330 AH330 AH120 AH130	PR1525 PR1025 PR1225	JX1015 CY150 CY15	GC2030	KC730M KC525M KCU25	F25M F30M MS2050	WSM35 WSM35S WXM35	IC908 IC928	TT908 TT9030	
		M30	RCP05S	F7030 VP30RT MP7030 MP7140 MP9130	AH130 AH140	CA6535 PR1535	JX1045 JX1060 GX2160 JM4060 JM4160	GC2040	KC994M KC725M KC7140 KCU40	F30M F40M	WSM35 WSM35S WXM35	IC328 IC330	TT8080 TT8020	
	K 铸铁	K20	RCP04S RCK033	MV1020 MC5020 F5010 F5020	T1115	PR905	JP4020 JP4120	GC3330 GC3220 GC3020 GC3040 K15W K20D K20W GC3330	KCK15 KCK20 KC915M KC930M KC935M KCPK10	MK1500 MK3000 T150M	WAK15 WKK25 WKP25S	IC5100 DT7150	TT6800	
		K30	RCP04S RCK033	VP15TF VP20RT	AH725 AH120 AH110 AH330 GH110 GH130	PR1510 PR1210	GX2140 JS4045 JX1045 CY150 CY250	GC1010 GC1020 GC1025 GC1030 GC1130	KTPK20 KCPK30 KC510M KC520M KC525M KCU40	MK2500 MK2000 MK2050 MH1000	WKP35S WPP20	IC830 IC810 IC908 IC910 IC928 IC950	TT6080	

应用推荐

Applications Recommended

类别 Sort

牌号 Grade	表面颜色 Surface color	应用推荐 Applications Recommended
RCP 02		银灰色涂层, 适用于难加工材料的车削加工, 比如镍基等超难加工材料。 suitable for turning hardworking material, such as Nickel base alloy, superhard material.
RCP 07		紫色涂层, 不锈钢及常规钢件材料专用。 purple color coating, cutting for ss, and regular steel.
RCP 08		黄色复合涂层, 可广泛应用于钢件, 不锈钢, 铸铁加工。 yellow color, general use for ss, steel, cast iron.
RCP 41		黑色涂层, 广泛用于常规钢件的铣削, 通用牌号。 black coating, regular milling for major steel.
RCP 04S		黑色涂层, 广泛用于常规钢件的车削, 通用牌号。 black coating (thicker), regular turning for major steel.
RCP 51		棕色涂层, 用于钢件、不锈钢的铣削。 brown coating, milling for steel, SS.
RCP 05S		棕色涂层, 用于钢件、不锈钢的车削。 brown coating, turning for steel, SS.
RCP 61		银色涂层, 采用特殊的Nano涂层, 加工钢件、不锈钢。 silver coating, special Nano coating, can be used for steel, SS, alloy.
RCC 31		全周边黄色, 顶部底部黑色涂层, 钢件专用。 black and yellow coating, can be used for steel.
RCC 32		全周边黄色, 顶部底部黑色涂层, 钢件专用。 black and yellow coating, can be used for steel.

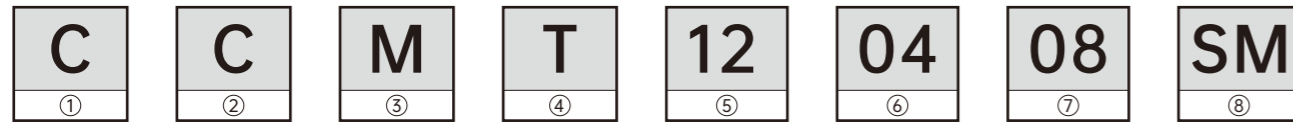
类别 Sort

牌号 Grade	表面颜色 Surface color	应用推荐 Applications Recommended
RCC 41		双面涂层, 钢件专用。 double coating, only for steel.
RCC 42		双面涂层, 钢件专用。 double coating, only for steel.
RCK 03		黑色涂层, 优质车削。 black coating, turning grade.

刀片命名规则

Inserts naming rule

刀片命名规则 Inserts naming rule



① 形状代号 Insert shape			② 主切削刃后角 Clearance angle of main cutting edge				③ 允许偏差 Allowed tolerance			
85° A	82° B	80° C	代号 Code	后角 Clearance angle	代号 Code	后角 Clearance angle	代号 Code	刀尖高度m偏差(mm) Tolerance range	内切圆IC偏差(mm) Inscribed circle Tolerance	厚度S偏差(mm) Thickness S Tolerance
55° D	75° E	60° H	A	3°	B	5°	A	±0.005	±0.025	±0.025
55° K	86° M	75° L	C	7°	D	15°	F	±0.005	±0.025	±0.013
80° O	75° P	80° R	E	20°	F	25°	C	±0.013	±0.025	±0.025
80° S	75° T	75° T	G	30°	N	0°	H	±0.013	±0.025	±0.013
55° V	80° W	其他 Others Z	P	11°	O	其他 Others	E	±0.025	±0.025	±0.025
							G	±0.025	±0.013	±0.025
							J	±0.005	±0.025	±0.05~±0.15
							K	±0.013	±0.025	±0.05~±0.15
							L	±0.025	±0.025	±0.05~±0.15
							M	±0.08~±0.18	±0.013	±0.05~±0.15
							N	±0.08~±0.18	±0.025	±0.05~±0.15
							U	±0.13~±0.38	±0.013	±0.08~±0.25

④ 段屑槽及加固形式 Chipbreaker and clamping system							
代号 Code	有无孔 With/Without hole	有无断屑槽 With/Without chipbreaker	刀片剖面 Section plane of insert	代号 Code	有无孔 With/Without hole	有无断屑槽 With/Without chipbreaker	刀片剖面 Section plane of insert
B	有 With	无 Without		N	无 Without	无 Without	
H	有 With	单面 Single-side		R	无 Without	单面 Single-side	
C	有 With	无 Without		F	无 Without	双面 Double-side	
J	有 With	双面 Double-side		A	有 With	无 Without	
W	有 With	无 Without		M	有 With	单面 Single-side	
T	有 With	单面 Single-side		G	有 With	双面 Double-side	
Q	有 With	无 Without		X	—	—	特殊 Special
U	有 With	双面 Double-side					

刀片命名规则

Inserts naming rule

刀片命名规则 Inserts naming rule

⑤ 切削刃长度 Length of cutting edge									
刀片形状 Insert shape & (ISO)							内切圆直径 (mm) Diameter of IC	内切圆直径 (ANSI) Diameter of IC	
C	D	R	S	T	V	W		IC Size (inch)	代号 Code
03	04		03	06			3.97	5/32	12
04	05		04	08	08		4.76	3/16	15
		05					5		
05	06		05	09		03	5.56	7/32	18
		06					6		
06	07		06	11	11	04	6.35	1/4	2
08	09		07	13		05	7.94	5/16	25
		08					8		
09	11	09	09	16	16	06	9.525	3/8	3
		10					10		
		12					12		
12	15	12	12	22	22	08	12.7	1/2	4
16	19	15	15	27	27	10	15.875	5/8	5
		16					16		
19	23	19	19	33	33	13	19.05	3/4	6
		20					20		
22	27		22	38			22.225	7/8	7
		25					25		
25	31	25	25	44	44	17	25.4	1	8
32	38	31	31	54	54	21	31.75	1-1/4	10
		32					32		

⑥ 刀片厚度 Insert thickness			
ISO		ANSI	
厚度(mm) Insert thickness	代号 Code	厚度(mm) Insert thickness	代号 Code
1.59	01	1/16	1
1.98	T1	5/64	12
2.38	02	3/32	15
2.78	T2	-	-
3.18	03	1/8	2
3.97	T3	5/32	25
4.76	04	3/16	3
5.56	05	7/32	35
6.35	06	1/4	4
7.94	07	5/16	5
9.525	09	3/8	6

厚度指刀片底面与切削刃最高部分之间的高度
Thickness is defined as height from bottom of insert to the highest part of cutting edge

⑦ 刀尖代号 Nose radius Code			
ISO		ANSI	
刀尖半径(mm) Nose radius	代号 Code	刀尖半径(mm) Nose radius	代号 Code
无圆角 No radius	00	.000	00
0.03	003	.001	01
0.05	005	.002	013
0.1	01	.004	02
0.2	02	.008	05
0.4	04	1/64	1
0.8	08	1/32	2
1.2	12	3/64	3
1.6	16	1/16	4
2.0	20	5/64	5
2.4	24	3/32	6
2.8	28	7/64	7
3.2	32	1/8	8
圆形刀片 Round insert	OO (英制系) 或 MO (公制系)	圆形刀片 Round insert	O

⑧ 自定义符号 Custom Symbols
主切削刃符号、方向符号或段屑槽符号等的自定义符号

断屑槽型代号 Chipbreaker code			
LS	SM	SF	MS
MA	TF	TM	PM

* 厚度指刀片底面与切削刃最高部分之间的高度
Thickness is defined as height from bottom of insert to the highest part of cutting edge

槽型类型

Chipbreaker


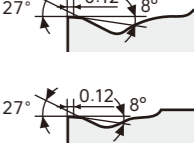

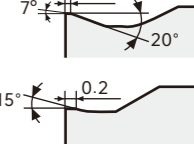

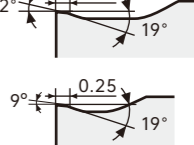

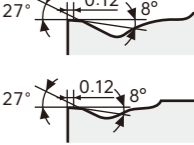

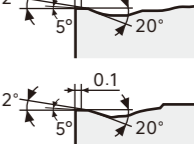
负型刀片槽型 Negative inserts chipbreaker

用途 Application	断屑槽 Chip breaker	特点 Features	槽型剖面图 Cutting edge shape
精加工 Finishing	 LS	大前角，低阻力实现良好切屑处理。 Large front Angle, low resistance ensure good chip handling.	
	 PF	有效断屑，在广泛进给领域可实现稳定的切屑处理。确保切削效果与强度平衡。 Effective break off, in a wide range of feed field can achieve stable chip treatment, ensure the cutting effect and strength balance.	
	 SF	通过倾斜切刃（负方向）抑制毛刺与境界磨损。 Suppress burr and boundary wear by tilting the cutting edge(negative direction)	
	 -43	有效断屑，在广泛进给领域可实现稳定的切屑处理。确保切削效果与强度平衡。 Effective break off, in a wide range of feed field can achieve stable chip treatment, ensure the cutting effect and strength balance.	

槽型类型

Chipbreaker



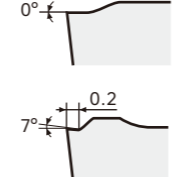
负型刀片槽型 Negative inserts chipbreaker

用途 Application	断屑槽 Chip breaker	特点 Features	槽型剖面图 Cutting edge shape
半精加工 Semi finishing	 MA	重视刀尖强度的断屑槽。提升重复切削或轻断续的稳定性。 The tip strength of this chip-breaker improve the stability of reaped cutting and light intermittent.	
	 PM	小切深、高进给切削时可切实卷曲切屑。仿形加工以及提拉加工时可提高切屑处理能力。 Small cutting depth, high feed cutting can effectively curl chips. Copying processing can improve chip processing ability.	
	 SM	正角刀刃保证优异的切削效果及刀尖强度。也有利于防止工件侧壁对于刀具的损伤。 Positive edge ensure excellent cutting effect and tip strength. It is also helpful to prevent the workpiece from piercing the wall to the blade damage.	
	 TM	重视刀尖强度的断屑槽。提升重复切削或轻断续的稳定性。 The tip strength of this chip-breaker improve the stability of reaped cutting and light intermittent.	
	 TF	重视刀尖强度的断屑槽。实现高进给切削的流畅的切屑处理。 The tip strength of this chip-breaker ensure the smooth chip handling with high feed cutting.	

槽型类型

Chipbreaker


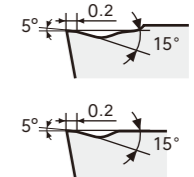

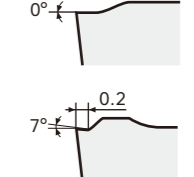
正型刀片槽型 Positive inserts chipbreaker

用途 Application	断屑槽 Chip breaker	特点 Features	槽型剖面图 Cutting edge shape
精加工 Finishing	 LS	小切深领域细分切屑。 Small cut deep field subdivision chip.	
	 SF	内径加工时，使不锈钢的切屑成小卷形状，便于铁屑排除，防止缠绕刀杆，确保稳定的完成面粗糙度。 In the inner diameter processing, this chip breaker make the stainless steel chip into a small roll shape, easy to eliminate iron chip, prevent winding the holder, to ensure a stable finish surface roughness.	

槽型类型

Chipbreaker

正型刀片槽型 Positive inserts chipbreaker

用途 Application	断屑槽 Chip breaker	特点 Features	槽型剖面图 Cutting edge shape
半精加工 Semi finishing	 PM	轻切削领域的通用断屑槽。 Universal chip-breaker for light cutting.	
	 SM	内径加工时，使不锈钢的切屑成小卷形状，便于铁屑排除，防止缠绕刀杆，确保稳定的完成面粗糙度。 In the inner diameter processing, this chip breaker make the stainless steel chip into a small roll shape, easy to eliminate iron chip, prevent winding the holder, to ensure a stable finish surface roughness.	

车刀

TURNING INSERTS

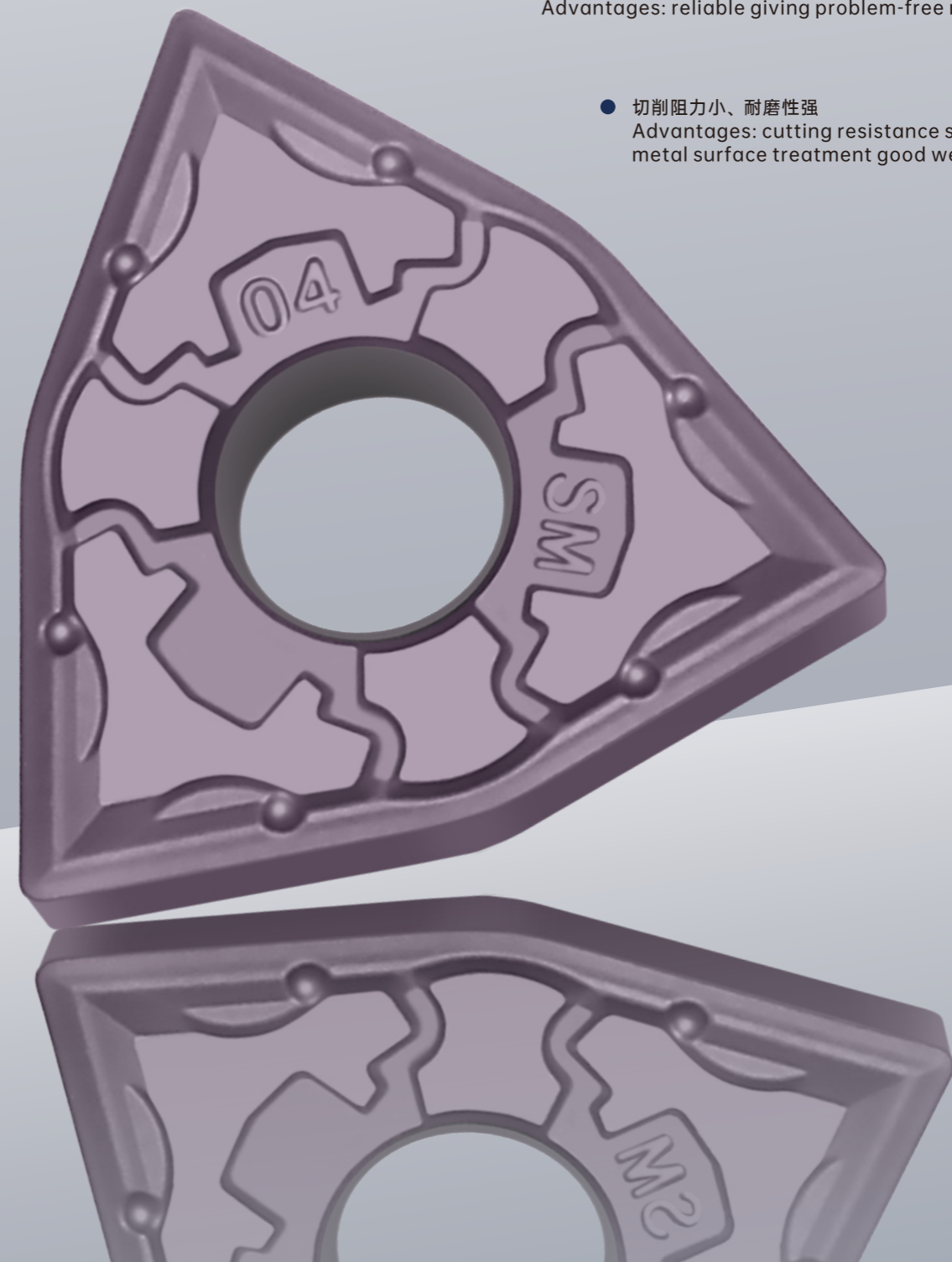
■ 不锈钢系列
INSERTS FOR PROCESSING STAINLESS STEEL

钢件
INSERTS FOR PROCESSING STEEL



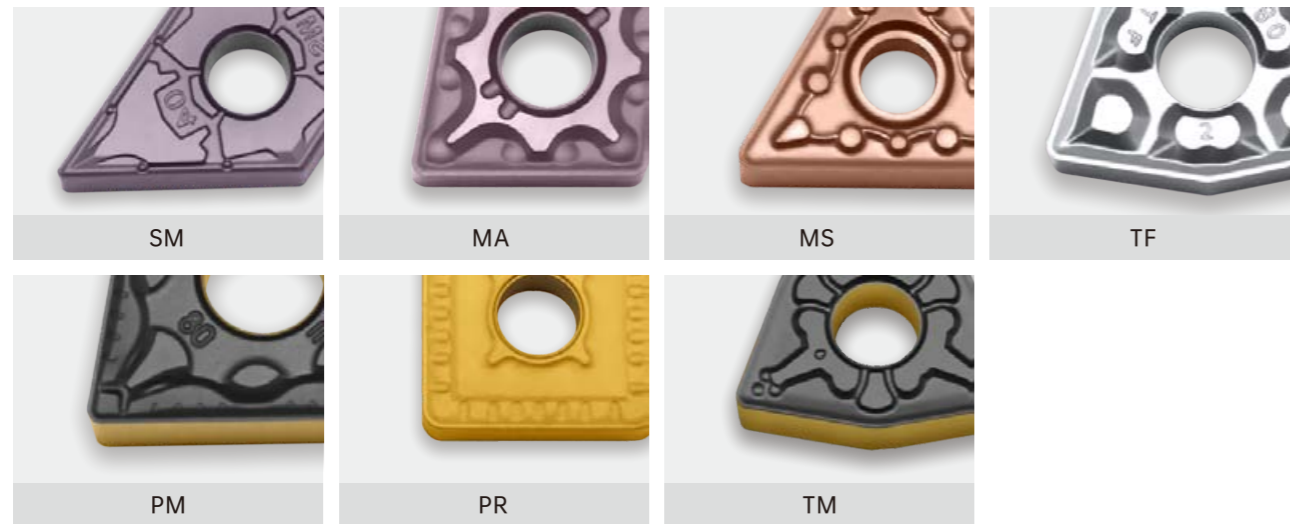
● 可靠，并实现了无故障切削，加工不锈钢的通用槽型
Advantages: reliable giving problem-free machining

● 切削阻力小、耐磨性强
Advantages: cutting resistance small
metal surface treatment good wear resistance



槽型类型 Chipbreaker

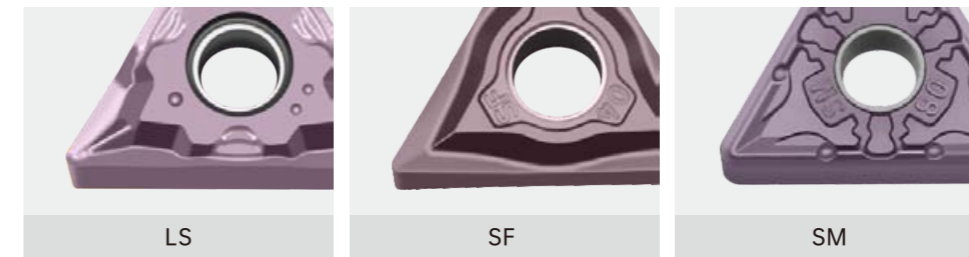
槽型 Chipbreker



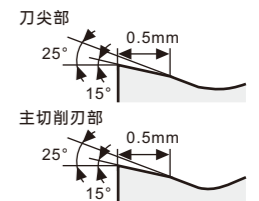
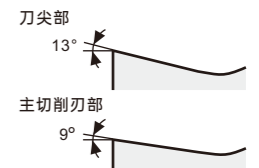
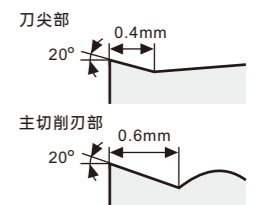
- SM**
 - 半精加工；锋利刀尖，2段大倒角，可有效断屑
 - Designed for semi-finishing machining; Sharp cutting edges ensure smooth chip breaking
- MA**
 - 精加工；通用领域有较好表现
 - Designed for finishing machining
- MS**
 - 半精加工、粗加工；棱边设计，在速度较低的工况，抑制粘结
 - Designed for semi-finishing machining & rough machining; Larger land width; Less likely to cause blade sticking in low speed processing
- TF**
 - 通用领域有较好表现,主要应用于高硬度材料加工
 - Designed for processing of high hardness material
- PM**
 - 钢件的半精加工槽形，具有优秀的抗冲击性能
 - Designed for semi-finishing machining of steel; Possess outstanding shock resistance
- PR**
 - 钢件的粗加工槽形，具有优秀的刃口强度，及耐磨性
 - Designed for rough machining; Possess good toughness & high wear resistance
- TM**
 - 半精加工
 - Designed for semi-finishing machining

槽型类型 Chipbreaker

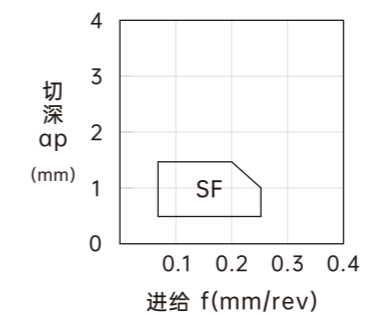
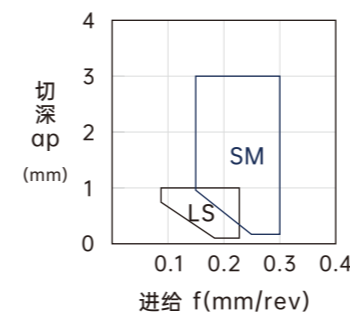
槽型-负角刀片 Chipbreker-Negative inserts



- LS**
 - 轻切削用断屑槽
切削深度小于刀尖圆弧半径R的切削中，切屑处理性能大幅度提高。
 - Chip breaking groove for light cutting
When the cutting depth is less than the radius R of the tool tip, the chip treatment performance is greatly improved.
- SF**
 - 辅助断屑槽
主断屑槽 LS 与 MS 的辅助断屑槽。轻切削 ~ 中切削领域可发挥优异的耐边界损伤性。
 - Auxiliary chip breaker
Auxiliary chip breaker of main chip breaker LS and MS. The light cutting and medium cutting fields can play an excellent role in resisting boundary damage.
- SM**
 - 中切削用断屑槽
2段大前角，可有效断屑。
新设计的SM断屑槽与现有的SM断屑槽的外观形状、切削处理范围不同。
 - Chip breaking groove for medium cutting
Two large front corners can effectively break chips.
The appearance shape and cutting treatment range of the newly designed MS chip breaking groove are different from those of the existing MS chip breaking groove.



切屑处理范围 Chip treatment range



正角刀片

Positive inserts

刀片 inserts



产品用途 | APPLICATION

不锈钢的半精加工、精加工
Semi-finishing & finishing machining for stainless steel


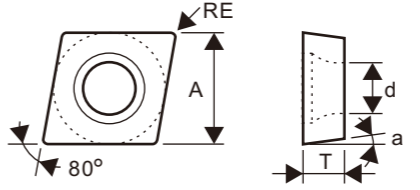
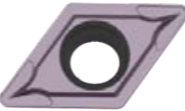
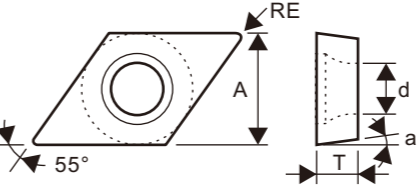

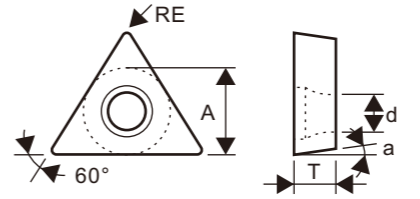

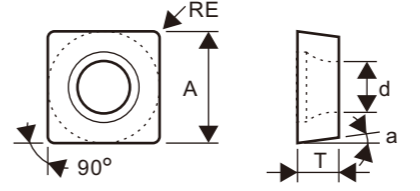
特色优势 | ADVANTAGES

抗冲击、耐磨、锋利的刃口提高工件表面光滑度、断屑性能良好
High shock resistance & wear resistance

正角刀片

Positive inserts

刀片 inserts

刀片外形 Shape of insert	型号 Type	尺寸 Size	牌号 Grade	RCP 01	RCP 02	RCP 07	
		RE					
 	CCMT060204-SM	0.4			●	●	
	CCMT060208-SM	0.8			●	●	
	CCMT09T304-SM	0.4				●	●
	CCMT09T308-SM	0.8				●	●
	CCMT120404-SM	0.4				●	●
	CCMT120408-SM	0.8				●	●
 	DCMT070204-SM	0.4				●	●
	DCMT070208-SM	0.8				●	●
	DCMT11T304-SM	0.4				●	●
	DCMT11T308-SM	0.8				●	●
 	TNMG160404-SM	0.4				●	●
	TNMG160408-SM	0.8				●	●
 	SCMT120404-SM	0.4				●	●
	SCMT120408-SM	0.8				●	●

(mm)

型号	Type	A	T	d	α	型号	Type	A	T	d	α
CC_0602_		6.35	2.38	2.8	7°	CC_09T3_		9.525	3.97	4.4	7°
CC_1204_		12.7	4.76	5.5	7°	DC_0702_		6.35	2.38	2.8	7°
DC_11T3_		9.525	3.97	4.4	7°	TN_1604_		9.525	3.97	4.4	7°
SC_1204_		12.7	4.76	5.5	7°						

正角刀片

Positive inserts

刀片 inserts

刀片外形 Shape of insert	型号 Type	尺寸 Size	牌号 Grade	RCP 01	RCP 02	RCP 07
		RE				
	VBMT160404-SM	0.4			●	●
	VBMT160408-SM	0.8			●	●
	VCMT160404-SM	0.4			●	●
	VCMT160408-SM	0.8			●	●
	CCMT060202-MV	0.2			●	●
	CCMT060204-MV	0.4			●	●
	CCMT060208-MV	0.8			●	●
	CCMT09T304-MV	0.4			●	●
	CCMT09T308-MV	0.8			●	●
	DCMT070202-MV	0.2			●	●
	DCMT070204-MV	0.4			●	●
	DCMT070208-MV	0.8			●	●
	DCMT11T304-MV	0.4			●	●
	DCMT11T308-MV	0.8			●	●

(mm)

型号 Type	A	T	d	α	型号 Type	A	T	d	α
VB_1604_	9.525	4.76	4.4	5°	VC_1604_	9.525	4.76	4.4	7°
CC_0602_	6.35	2.38	2.8	7°	CC_09T3_	9.525	3.97	4.4	7°
DC_0702_	6.35	2.38	2.8	7°	DC_11T3_	9.525	3.97	4.4	7°

刀片 inserts

刀片外形 Shape of insert	型号 Type	尺寸 Size	牌号 Grade	RCP 01	RCP 02	RCP 07
		RE				
	TCMT110204-MV	0.4			●	●
	TCMT110208-MV	0.8			●	●
	TCMT16T304-MV	0.4			●	●
	TCMT16T308-MV	0.8			●	●
	VCMT160404-MV	0.4			●	●
	VCMT160408-MV	0.8			●	●

(mm)

型号 Type	A	T	d	α
TC_1102_	6.35	2.38	2.8	7°
TC_16T3_	9.525	3.97	4.4	7°
VC_1604_	12.7	4.76	5.5	7°

负角刀片 Negative inserts

刀片 Inserts



产品用途 | APPLICATION

不锈钢的半精加工、精加工
Semi-finishing & finishing machining for stainless steel

特色优势 | ADVANTAGES

抗冲击、耐磨、锋利的刃口提高工件表面光滑度、断屑性能良好
High shock resistance & wear resistance

负角刀片 Negative inserts

刀片 Inserts

刀片外形 Shape of insert	型号 Type	尺寸 Size	牌号 Grade	RCP 01	RCP 02	RCP 07
		RE				
	CNMG120404-SM	0.4			●	●
	CNMG120408-SM	0.8			●	●
	DNMG150404-SM	0.4			●	●
	DNMG150408-SM	0.8			●	●
	SNMG120404-SM	0.4			●	●
	SNMG120408-SM	0.8			●	●
	TNMG160404-SM	0.4			●	●
	TNMG160408-SM	0.8			●	●

(mm)

型号	Type	A	T	d	型号	Type	A	T	d
CN_1204_		12.70	4.76(4.42)	5.16	DN_1504_		12.70	4.76	5.16
SN_1204_		12.70	4.76	5.16	TN_1604_		9.525	4.76	3.81

负角刀片

Negative inserts

刀片 Inserts

刀片外形 Shape of insert	型号 Type	尺寸 Size	牌号 Grade	RCP 01	RCP 02	RCP 07
		RE				
	VNMG160404-SM	0.4			●	●
	VNMG160408-SM	0.8			●	●
	WNMG080404-SM	0.4			●	●
	WNMG080408-SM	0.8			●	●
	CNMG120404-MS	0.4			●	●
	CNMG120408-MS	0.8			●	●
	SNMG120404-MS	0.4			●	●
	SNMG120408-MS	0.8			●	●

(mm)

型号 Type	A	T	d	型号 Type	A	T	d
VN_1604_	9.525	4.76	3.81	WN_0804_	12.70	4.76	5.16
CN_1204_	12.70	4.76	5.16	SN_1204_	12.70	4.76	5.16

刀片 Inserts

刀片外形 Shape of insert	型号 Type	尺寸 Size	牌号 Grade	RCP 01	RCP 02	RCP 07
		RE				
	TNMG160404-MS	0.4			●	●
	TNMG160408-MS	0.8			●	●
	WNMG080404-MS	0.4			●	●
	WNMG080408-MS	0.8			●	●
	CNMG120404-MA	0.4			●	●
	CNMG120408-MA	0.8			●	●
	SNMG120404-MA	0.4			●	●
	SNMG120408-MA	0.8			●	●


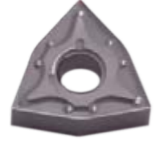


(mm)

型号 Type	A	T	d	型号 Type	A	T	d
TN_1604_	9.525	4.76	3.81	WN_0804_	12.70	4.76	5.16
CN_1204_	12.70	4.76	5.16	SN_1204_	12.70	4.76	5.16

负角刀片

Negative inserts


刀片 Inserts

刀片外形 Shape of insert	型号 Type	尺寸 Size	牌号 Grade	RCP 01	RCP 02	RCP 07
		RE				
	TNMG160404-MA	0.4			●	●
	TNMG160408-MA	0.8			●	●
	WNMG080404-MA	0.4			●	●
	WNMG080408-MA	0.8			●	●
	CNMG120404-TF	0.4			●	●
	CNMG120408-TF	0.8			●	●
	TNMG160404-TF	0.4			●	●
	TNMG160408-TF	0.8			●	●

(mm)

型号 Type	A	T	d	型号 Type	A	T	d
TN_1604_	9.525	4.76	3.81	WN_0804_	12.70	4.76	5.16
CN_1204_	12.70	4.76	5.16	TN_1604_	9.525	4.76	3.81

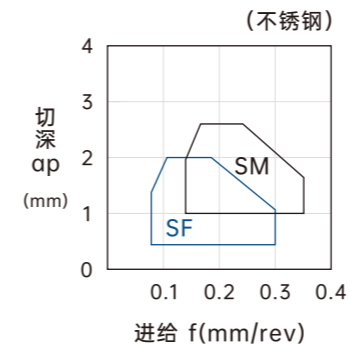
刀片 Inserts

刀片外形 Shape of insert	型号 Type	尺寸 Size	牌号 Grade	RCP 01	RCP 02	RCP 07
		RE				
	WNMG080404-TF	0.4			●	●
	WNMG080408-TF	0.8			●	●

(mm)

型号 Type	A	T	d
WN_0804_	12.70	4.76	5.16

切屑处理范围 Chip treatment range



钢件加工

Inserts for steel processing

刀片 inserts



产品用途 | APPLICATION

不锈钢的半精加工、精加工
Semi-finishing & finishing machining for stainless steel

特色优势 | ADVANTAGES

抗冲击、耐磨、锋利的刃口提高工件表面光滑度、断屑性能良好
High shock resistance & wear resistance

钢件

Steel parts

刀片 inserts

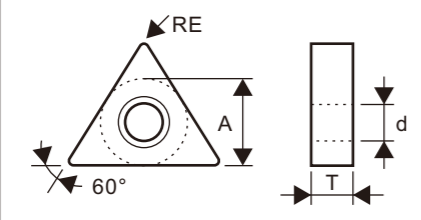
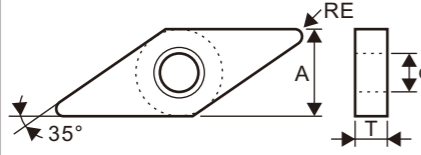
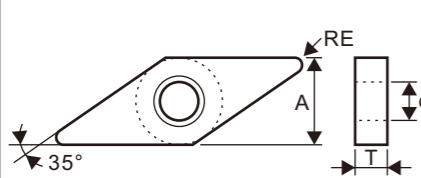
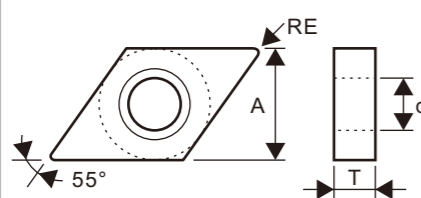
刀片外形 Shape of insert	型号 Type	尺寸 Size	牌号 Grade	RCP 01	RCP 02	RCP 07
		RE				
	CNMG120404-PM	0.4			●	●
	CNMG120408-PM	0.8			●	●
	CNMG120412-PM	1.2			●	●
	CNMG160608-PM	0.8			●	●
	CNMG160612-PM	1.2			●	●
	CNMG160616-PM	1.6			●	●
	CNMG190608-PM	0.8			●	●
	CNMG190612-PM	1.2			●	●
	CNMG190616-PM	1.6			●	●
CNMG190624-PM	2.4			●	●	
	DNMG150404-PM	0.4			●	●
	DNMG150408-PM	0.8			●	●
	DNMG150604-PM	0.4			●	●
	DNMG150608-PM	0.8			●	●
	TNMG160404-PM	0.4			●	●
	TNMG160408-PM	0.8			●	●
	TNMG220404-PM	0.4			●	●
	TNMG220408-PM	0.8			●	●

(mm)

型号	Type	A	T	d	型号	Type	A	T	d
CN_1204_		12.70	4.76	5.16	CN_1606_		15.875	6.35	6.35
CN_1906_		19.05	6.35	7.93	DN_1504_		12.70	6.35	5.16
DN_1506_		12.70	6.35	5.16	TN_1604_		9.525	4.76	3.81
TN_2204_		12.70	4.76	5.16					

钢件
Steel parts

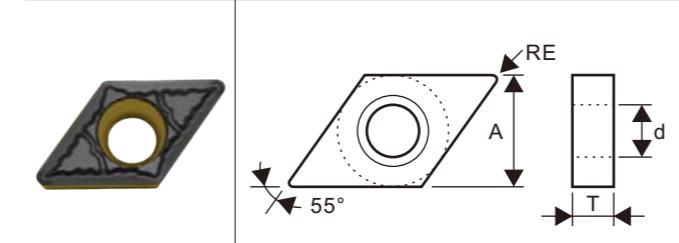
刀片 inserts

刀片外形 Shape of insert	型号 Type	尺寸 Size	牌号 Grade	RCP 01	RCP 02	RCP 07
		RE				
	WNMG080404-PM	0.4			●	●
	WNMG080408-PM	0.8			●	●
	WNMG080412-PM	1.2			●	●
	VNMG160404-PM	0.4			●	●
	VNMG160408-PM	0.8			●	●
	VBMT160404-PM	0.4			●	●
	VBMT160408-PM	0.8			●	●
	CCMT060202-PM	0.2			●	●
	CCMT060204-PM	0.4			●	●
	CCMT060208-PM	0.8			●	●
	CCMT09T304-PM	0.4			●	●
	CCMT09T308-PM	0.8			●	●

(mm)

型号 Type	A	T	d	型号 Type	A	T	d
TN_1604_	9.525	4.76	3.81	WN_0804_	12.70	4.76	5.16
CN_1204_	12.70	4.76	5.16	TN_1604_	9.525	4.76	3.81

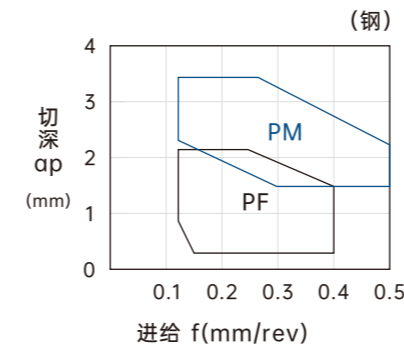
刀片 inserts

刀片外形 Shape of insert	型号 Type	尺寸 Size	牌号 Grade	RCP 01	RCP 02	RCP 07
		RE				
	DCMT070202-PM	1.2			●	●
	DCMT070204-PM	0.4			●	●
	DCMT070208-PM	0.8			●	●
	DCMT11T304-PM	0.4			●	●
	DCMT11T308-PM	0.8			●	●

(mm)

型号 Type	A	T	d	型号 Type	A	T	d
DC_0702_	6.35	2.38	2.80	DC_11T3_	9.525	3.97	4.40

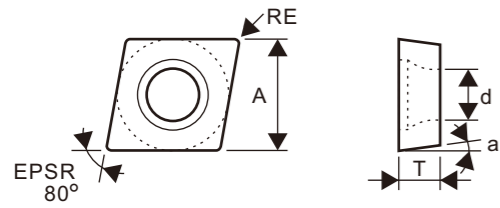
切屑处理范围 Chip treatment range



车削刀片-LS

Turning inserts

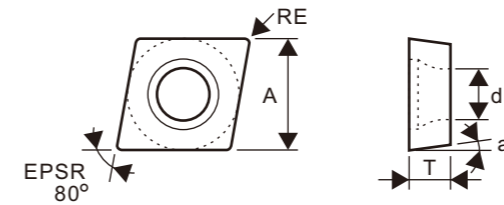
菱形80° | 正角 | 有孔



型号 Type	尺寸 Size	A	T	d	a
CC_0301_		3.5	1.4	1.9	7°
CC_0401_		4.3	1.8	2.3	7°

刀片外形 Shape of insert	型号 Type	尺寸 Size	牌号 Grade	RCP 01	RCP 02	RCP 07	RCP 08	RCP 41	RCP 42	RCP 51	RCP 52	RCP 061	RCP 055	RCC 031	RCC 032	RCC 033	RCC 034
		RE															
	CCET 0301003 ^{R/L} -FSF	0.03		●	●												
	CCET 030101 ^{R/L} -FSF	0.1		●	●												
	CCET 030102 ^{R/L} -FSF	0.2		●	●												
	CCET 030104 ^{R/L} -FSF	0.4		●	●												
	CCET 0401003 ^{R/L} -FSF	0.03		●	●												
	CCET 040101 ^{R/L} -FSF	0.1		●	●												
	CCET 040102 ^{R/L} -FSF	0.2		●	●												
	CCET 040104 ^{R/L} -FSF	0.4		●	●												
	CCET 0301005M ^{R/L} -FSF	<0.05		●	●												
	CCET 030101M ^{R/L} -FSF	<0.1		●	●												
	CCET 030102M ^{R/L} -FSF	<0.2		●	●												
	CCET 030104M ^{R/L} -FSF	<0.4		●	●												
	CCET 0401005M ^{R/L} -FSF	<0.05		●	●												
	CCET 040101M ^{R/L} -FSF	<0.1		●	●												
	CCET 040102M ^{R/L} -FSF	<0.2		●	●												
	CCET 040104M ^{R/L} -FSF	<0.4		●	●												
	CCET 0301005M ^{R/L} -F	<0.05		●	●												
	CCET 030101M ^{R/L} -F	<0.1		●	●												
	CCET 030102M ^{R/L} -F	<0.2		●	●												
	CCET 030104M ^{R/L} -F	<0.4		●	●												
	CCET 040101M ^{R/L} -F	<0.1		●	●												
	CCET 040102M ^{R/L} -F	<0.2		●	●												
	CCET 040104M ^{R/L} -F	<0.4		●	●												

菱形80° | 正角 | 有孔



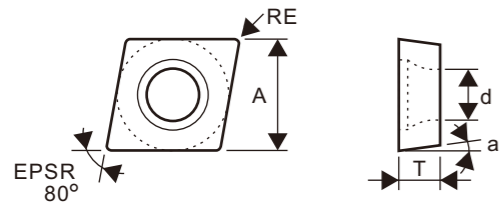
型号 Type	尺寸 Size	A	T	d	a
CC_0602_		6.35	2.38	2.8	7°
CC_09T3_		9.525	3.97	4.4	7°

刀片外形 Shape of insert	型号 Type	尺寸 Size	牌号 Grade	RCP 01	RCP 02	RCP 07	RCP 08	RCP 41	RCP 42	RCP 51	RCP 52	RCP 061	RCP 055	RCC 031	RCC 032	RCC 033	RCC 034
		RE															
	CCGT 0602003F ^{R/L} -U	0.03			●	●											
	CCGT 060201F ^{R/L} -U	0.1			●	●											
	CCGT 060202F ^{R/L} -U	0.2			●	●											
	CCGT 09T3003F ^{R/L} -U	0.03				●	●										
	CCGT 09T301F ^{R/L} -U	0.1				●	●										
	CCGT 09T302F ^{R/L} -U	0.2				●	●										
	CCGT 0602005MF ^{R/L} -U	<0.05				●	●										
	CCGT 060201MF ^{R/L} -U	<0.1				●	●										
	CCGT 060202MF ^{R/L} -U	<0.2				●	●										
	CCGT 060204MF ^{R/L} -U	<0.4				●	●										
	CCGT 09T3005MF ^{R/L} -U	<0.05				●	●										
	CCGT 09T301MF ^{R/L} -U	<0.1				●	●										
	CCGT 09T302MF ^{R/L} -U	<0.2				●	●										
	CCGT 09T304MF ^{R/L} -U	<0.4				●	●										
		CCGT 060201E ^{R/L} -U	0.1			●	●										
		CCGT 060202E ^{R/L} -U	0.2			●	●										
CCGT 060204E ^{R/L} -U		0.4				●	●										
CCGT 09T301E ^{R/L} -U		0.1				●	●										
CCGT 09T302E ^{R/L} -U		0.2				●	●										
CCGT 09T304E ^{R/L} -U		0.4				●	●										
CCGT 060201ME ^{R/L} -U		<0.1				●	●										
CCGT 060202ME ^{R/L} -U		<0.2				●	●										
CCGT 060204ME ^{R/L} -U		<0.4				●	●										
CCGT 09T301ME ^{R/L} -U		<0.1				●	●										
CCGT 09T302ME ^{R/L} -U		<0.2				●	●										
CCGT 09T304ME ^{R/L} -U		<0.4				●	●										

车削用刀片-LS

Turning inserts

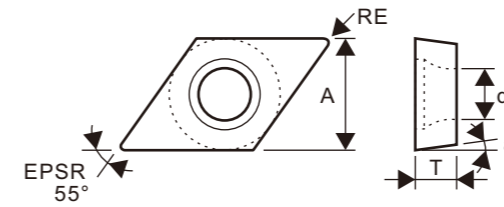
菱形80° | 正角 | 有孔



型号 Type	尺寸 Size	A	T	d	a
CC_0602_		6.35	2.38	2.8	7°
CC_09T3_		9.525	3.97	4.4	7°

刀片外形 Shape of insert	型号 Type	尺寸 Size	牌号 Grade	RCP 01	RCP 02	RCP 07	RCP 08	RCP 41	RCP 42	RCP 51	RCP 52	RCP 061	RCP 055	RCC 031	RCC 032	RCC 033	RCC 034
		RE															
	CCGT 0602005MF ^{R/L} -J	<0.05			●	●											
	CCGT 060201MF ^{R/L} -J	<0.1			●	●											
	CCGT 060202MF ^{R/L} -J	<0.2			●	●											
	CCGT 09T301MF ^{R/L} -J	<0.05			●	●											
	CCGT 09T302MF ^{R/L} -J	<0.1			●	●											
	CCGT 09T304MF ^{R/L} -J	<0.4			●	●											
	CCGT 09T304AH	0.4			●	●											
	CCGT 09T308AH	0.8			●	●											

菱形55° | 正角 | 有孔



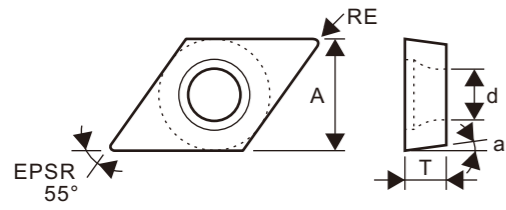
型号 Type	尺寸 Size	A	T	d	a
DC_0702_		6.35	2.38	2.8	7°
DC_11T3_		9.525	3.97	4.4	7°

刀片外形 Shape of insert	型号 Type	尺寸 Size	牌号 Grade	RCP 01	RCP 02	RCP 07	RCP 08	RCP 41	RCP 42	RCP 51	RCP 52	RCP 061	RCP 055	RCC 031	RCC 032	RCC 033	RCC 034
		RE															
	DCET 0702003 ^{R/L} -FSF	0.03			●	●											
	DCET 070201 ^{R/L} -FSF	0.1			●	●											
	DCET 070202 ^{R/L} -FSF	0.2			●	●											
	DCET 070204 ^{R/L} -FSF	0.4			●	●											
	DCET 11T3003 ^{R/L} -FSF	0.03			●	●											
	DCET 11T301 ^{R/L} -FSF	0.1			●	●											
	DCET 11T302 ^{R/L} -FSF	0.2			●	●											
	DCET 11T304 ^{R/L} -FSF	0.4			●	●											
	DCET 0702005M ^{R/L} -FSF	<0.05			●	●											
	DCET 070201M ^{R/L} -FSF	<0.1			●	●											
	DCET 070202M ^{R/L} -FSF	<0.2			●	●											
	DCET 070204M ^{R/L} -FSF	<0.4			●	●											
	DCET 11T3005M ^{R/L} -FSF	<0.05			●	●											
	DCET 11T301M ^{R/L} -FSF	<0.1			●	●											
	DCET 11T302M ^{R/L} -FSF	<0.2			●	●											
	DCET 11T304M ^{R/L} -FSF	<0.4			●	●											
	DCET 0702005M ^{R/L} -F	<0.05			●	●											
	DCET 070201M ^{R/L} -F	<0.1			●	●											
	DCET 070202M ^{R/L} -F	<0.2			●	●											
	DCET 070204M ^{R/L} -F	<0.4			●	●											
	DCET 11T3005M ^{R/L} -F	<0.05			●	●											
	DCET 11T301M ^{R/L} -F	<0.1			●	●											
	DCET 11T302M ^{R/L} -F	<0.2			●	●											
	DCET 11T304M ^{R/L} -F	<0.4			●	●											

车削用刀片-LS

Turning inserts

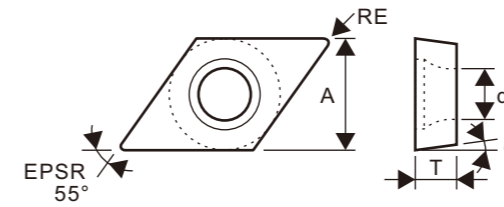
菱形55° | 正角 | 有孔



型号 Type	尺寸 Size	A	T	d	a
DC_0702_		6.35	2.38	2.8	7°
DC_11T3_		9.525	3.97	4.4	7°

刀片外形 Shape of insert	型号 Type	尺寸 Size	牌号 Grade													
		RE	RCP 01	RCP 02	RCP 07	RCP 08	RCP 41	RCP 42	RCP 51	RCP 52	RCP 061	RCP 055	RCC 031	RCC 032	RCC 033	RCC 034
	DCGT 0702003 R/L-F	0.03		●	●											
	DCGT 070201 R/L-F	0.1		●	●											
	DCGT 070202 R/L-F	0.2		●	●											
	DCGT 070204 R/L-F	0.4		●	●											
	DCGT 11T3003 R/L-F	0.03		●	●											
	DCGT 11T301 R/L-F	0.1		●	●											
	DCGT 11T302 R/L-F	0.2		●	●											
	DCGT 11T304 R/L-F	0.4		●	●											
	DCGT 0702005M R/L-F	<0.05		●	●											
	DCGT 070201M R/L-F	<0.1		●	●											
	DCGT 070202M R/L-F	<0.2		●	●											
	DCGT 070204M R/L-F	<0.4		●	●											
	DCGT 11T3005M R/L-F	<0.05		●	●											
	DCGT 11T301M R/L-F	<0.1		●	●											
	DCGT 11T302M R/L-F	<0.2		●	●											
	DCGT 11T304M R/L-F	<0.4		●	●											

菱形55° | 正角 | 有孔



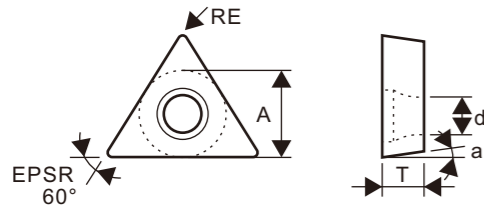
型号 Type	尺寸 Size	A	T	d	a
DC_0702_		6.35	2.38	2.8	7°
DC_11T3_		9.525	3.97	4.4	7°

刀片外形 Shape of insert	型号 Type	尺寸 Size	牌号 Grade													
		RE	RCP 01	RCP 02	RCP 07	RCP 08	RCP 41	RCP 42	RCP 51	RCP 52	RCP 061	RCP 055	RCC 031	RCC 032	RCC 033	RCC 034
	DCGT 11T304AH	0.03		●	●											
	DCGT 11T308AH	0.1		●	●											
	DCGT 11T302 R/L-A3	0.2		●	●											
	DCGT 11T304 R/L-A3	0.4		●	●											

车削用刀片-LS

Turning inserts

菱形60° | 正角 | 有孔

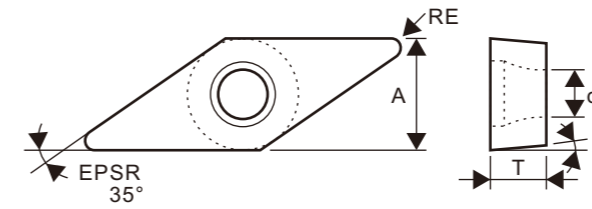


型号 Type	尺寸 Size	A	T	d	α
TP_0802_		4.76	2.38	2.3	11°
TP_0902_		5.56	2.38	3.0	11°
TP_1102_		6.35	2.38	3.5	11°
TP_1103_		6.35	3.18	3.3	11°
TP_1603_		9.525	3.18	4.5	11°

刀片外形 Shape of insert	型号 Type	尺寸 Size	RE	牌号 Grade	RCP 01	RCP 02	RCP 07	RCP 08	RCP 41	RCP 42	RCP 51	RCP 52	RCP 061	RCP 05S	RCC 031	RCC 032	RCC 033	RCC 034
					●	●	●	●	●	●	●	●	●	●	●	●	●	●
	TPGH 080201 R/L	0.1			●	●												
	TPGH 080202 R/L	0.2			●	●												
	TPGH 080204 R/L	0.4			●	●												
	TPGH 090201 R/L	0.1			●	●												
	TPGH 090202 R/L	0.2			●	●												
	TPGH 090204 R/L	0.4			●	●												
	TPGH 110202 R/L	0.2			●	●												
	TPGH 110204 R/L	0.4			●	●												
	TPGH 110302 R/L	0.2			●	●												
	TPGH 110304 R/L	0.4			●	●												
	TPGH 110308 R/L	0.8			●	●												
	TPGH 160302 R/L	0.2			●	●												
TPGH 160304 R/L	0.4			●	●													
TPGH 160308 R/L	0.8			●	●													
TPGH 080201M R/L	<0.1			●	●													
TPGH 080202M R/L	<0.2			●	●													
TPGH 080204M R/L	<0.4			●	●													
TPGH 090201M R/L	<0.1			●	●													
TPGH 090202M R/L	<0.2			●	●													
TPGH 090204M R/L	<0.4			●	●													
TPGH 110202M R/L	<0.2			●	●													
TPGH 110204M R/L	<0.4			●	●													
TPGH 110302M R/L	<0.2			●	●													
TPGH 110304M R/L	<0.4			●	●													
TPGH 110308M R/L	<0.8			●	●													
TPGH 160302M R/L	<0.2			●	●													
TPGH 160304M R/L	<0.4			●	●													
TPGH 160308M R/L	<0.8			●	●													



菱形55° | 正角 | 有孔



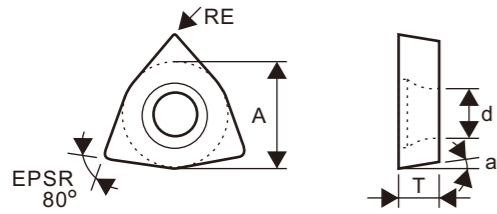
型号 Type	尺寸 Size	A	T	d	α
VB_1103_		6.35	3.18	2.8	5°
VB_1604_		9.525	4.76	4.4	5°

刀片外形 Shape of insert	型号 Type	尺寸 Size	RE	牌号 Grade	RCP 01	RCP 02	RCP 07	RCP 08	RCP 41	RCP 42	RCP 51	RCP 52	RCP 061	RCP 05S	RCC 031	RCC 032	RCC 033	RCC 034
					●	●	●	●	●	●	●	●	●	●	●	●	●	●
	VBET 1103005M R/L-F	<0.05				●	●											
	VBET 110301M R/L-F	<0.1				●	●											
	VBET 110302M R/L-F	<0.2					●	●										
	VBGT 1103003 R/L-F	0.03				●	●											
	VBGT 110301 R/L-F	0.1				●	●											
	VBGT 110302 R/L-F	0.2				●	●											
	VBGT 1103005M R/L-F	0.03				●	●											
	VBGT 110301M R/L-F	0.1				●	●											
	VBGT 110302M R/L-F	0.2				●	●											
	VBET 1103005M R/L-Y	<0.05				●	●											
	VBET 110301M R/L-Y	<0.1				●	●											
	VBET 110302M R/L-Y	<0.2				●	●											
	VBET 110304M R/L-Y	<0.4				●	●											
	VBGT 1103003 R/L-Y	0.03				●	●											
	VBGT 110301 R/L-Y	0.1				●	●											
	VBGT 110302 R/L-Y	0.2				●	●											
	VBGT 110304 R/L-Y	0.4				●	●											
	VBGT 110308 R/L-Y	0.8				●	●											
	VBGT 160402 R/L-Y	0.2				●	●											
	VBGT 160404 R/L-Y	0.4				●	●											
	VBGT 160408 R/L-Y	0.8				●	●											
	VBGT 1103003M R/L-Y	<0.05				●	●											
VBGT 110301M R/L-Y	<0.1				●	●												
VBGT 110302M R/L-Y	<0.2				●	●												
VBGT 110304M R/L-Y	<0.4				●	●												
VBGT 110308M R/L-Y	<0.8				●	●												

车削刀片-LS

Turning inserts

菱形60° | 正角 | 有孔



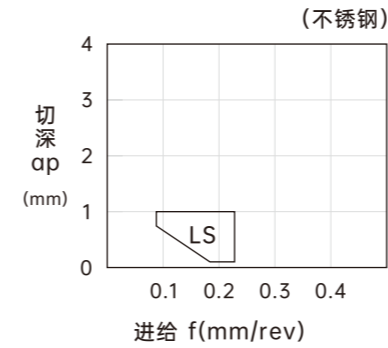
型号 Type	尺寸 Size	A	T	d	a
WB_0601_		3.97	1.59	2.3	5°
WB_0802_		4.76	2.38	2.3	5°

刀片外形 Shape of insert	型号 Type	尺寸 Size	牌号 Grade																
				RE	RCP 01	RCP 02	RCP 07	RCP 08	RCP 41	RCP 42	RCP 51	RCP 52	RCP 061	RCP 055	RCC 031	RCC 032	RCC 033	RCC 034	
	WBGT 060101M ^{R/L} -CF	<0.1		●	●														
	WBGT 060102M ^{R/L} -CF	<0.2		●	●														
	WBGT 060101MP ^{R/L} -CF	<0.1		●	●														
	WBGT 060102MP ^{R/L} -CF	<0.2		●	●														
	WBGT 0601003 ^{R/L} -F	0.03		●	●														
	WBGT 060101 ^{R/L} -F	0.1		●	●														
	WBGT 060102 ^{R/L} -F	0.2		●	●														
	WBGT 060104 ^{R/L} -F	0.4		●	●														
	WBGT 0802003 ^{R/L} -F	0.03		●	●														
	WBGT 080201 ^{R/L} -F	0.1		●	●														
	WBGT 080202 ^{R/L} -F	0.2		●	●														
	WBGT 080204 ^{R/L} -F	0.4		●	●														
	WBGT 060101M ^{R/L} -F	<0.1		●	●														
	WBGT 060102M ^{R/L} -F	<0.2		●	●														
	WBGT 060104M ^{R/L} -F	<0.4		●	●														
	WBGT 080201M ^{R/L} -F	<0.1		●	●														
	WBGT 080202M ^{R/L} -F	<0.2		●	●														
WBGT 080204M ^{R/L} -F	<0.4		●	●															

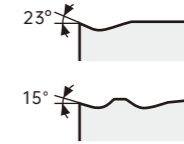
车削刀片

Turning inserts

切屑处理范围 Chip treatment range



● 负型刀片槽型 Negative inserts chipbreaker



● 正型刀片槽型 Positive inserts chipbreaker



铣刀

MILLING INSERTS

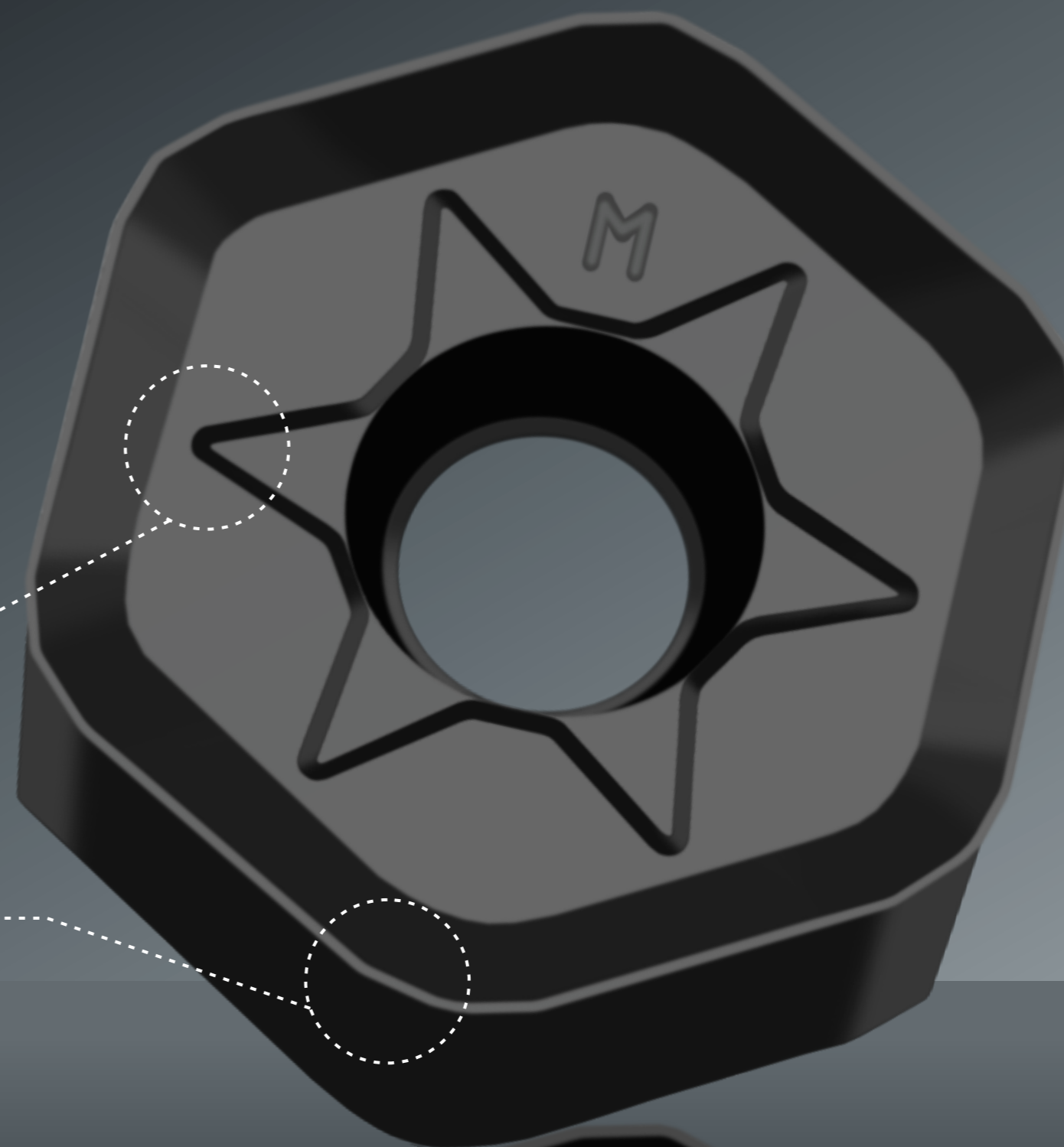
I HNMX

双面12个切削刃，经济效益高，通用性好、高进给加工、抗崩，有效切削深度5mmMax。
Economical: 12 Cutting Edges High Feed Milling inserts;
Machining versatility over a wide range of materials;
Excellent wear resistance; Depth of cuts up to 5mmMax.




圆角强化 Fillet strengthening
卷屑器 Chip breaker

主切削刃 Main cutting edge



铣刀 Milling inserts

铣刀刀片 Milling inserts

图片 Insert Shape	型号 Order NO	RCP 41	RCP 51	RCP 08	RCC033	RCP 02	可装配刀杆品牌 Holder
	APKT1003PDSR-76	●	●	●	●	●	伊斯卡/ISCAR
	APKT100305	●	●	●	●	●	伊斯卡/ISCAR
	APKT100308	●	●	●	●	●	伊斯卡/ISCAR
	APKT100312	●	●	●	●	●	伊斯卡/ISCAR
	APKT100320	●	●	●	●	●	伊斯卡/ISCAR
	R390-11T304-PM	●	●	●	●	●	山特维克/SANDVIK
	R390-11T308-PM	●	●	●	●	●	山特维克/SANDVIK
	R390-11T308-PL	●	●	●	●	●	山特维克/SANDVIK
	R390-11T304-PL	●	●	●	●	●	山特维克/SANDVIK
	APKT1135-H2	●	●	●	●	●	三菱/MITSUBISHI
	APKT1135-M2	●	●	●	●	●	三菱/MITSUBISHI
	APKT1135-DL	●	●	●	●	●	杜龙卡普/DURACARB
	APKT1604-M2	●	●	●	●	●	三菱/MITSUBISHI
	APKT1604-H2	●	●	●	●	●	三菱/MITSUBISHI
	APKT1604-DL	●	●	●	●	●	杜龙卡普/DURACARB
	APKT1604PDSR-76	●	●	●	●	●	伊斯卡/ISCAR
	APKT1705PER-EM	●	●	●	●	●	特固克/TAEGU TEC
	R390-170408-PM	●	●	●	●	●	山特维克/SANDVIK
	R390-180612-PM	●	●	●	●	●	山特维克/SANDVIK
	RPMW08T2MO-GM	●	●	●	●	●	通装/GENERAL
	RPMW0802MO	●	●	●	●	●	通装/GENERAL



铣刀刀片 Milling inserts

图片 Insert Shape	型号 Order NO	RCP 41	RCT 51	RCP 08	RCC033	RCP 02	可装配刀杆品牌 Holder
	* RPMW08T2MO-NT	●	●	●	●	●	通装/GENERAL
	RPMW1003MO-DL	●	●	●	●	●	杜龙卡普/DURACARB
	RDMW10T3MO	●	●	●	●	●	通装/GENERAL
	RDMT10T3MO	●	●	●	●	●	通装/GENERAL
	RCKT10T3MO	●	●	●	●	●	山特维克/SANDVIK
	RDMW1003MO	●	●	●	●	●	通装/GENERAL
	* RDMW1204MOT-PM	●	●	●	●	●	通装/GENERAL
	* RDMW1204MOT-PR	●	●	●	●	●	通装/GENERAL
	RPMT1204MO-DL	●	●	●	●	●	杜龙卡普/DURACARB
	RPET1204MO-A	●	●	●	●	●	三菱/MITSUBISHI
	RDMX1204MO-GM	●	●	●	●	●	日立/HITACHI

*APKT系列优选RCP41&RCP51牌号, 性价比高/cost-effective grade choice :RCP41 & RCP51

*RPMW08T2MO-NT:锋利刀尖/SHARP ANGLE

*RDMW1204MOT-PM:6个点/6 DOT

*RDMW1204MOT-PR:平板/HAVE NO DOT

铣刀 Milling inserts

铣刀刀片 Milling inserts

图片 Insert Shape	型号 Order NO	RCP 41	RCP 51	RCP 08	RCC033	RCP 02	可装配刀杆品牌 Holder
	RCKT1204MO	●	●	●	●	●	山特维克/SANDVIK
	RCMX1606MO	●	●	●	●	●	通装/GENERAL
	RCKT1606MO	●	●	●	●	●	通装/GENERAL
	* RCKT1606M0-NT	●	●	●	●	●	通装/GENERAL
	* RDMW1605MOT-PM	●	●	●	●	●	通装/GENERAL
	RDMW1605MO	●	●	●	●	●	通装/GENERAL
	RDMW1604MO	●	●	●	●	●	通装/GENERAL
	LPGT010210ER-GM	●	●	●	●	●	克洛伊/KYOCERA
	EDHT0402ER-CM	●	●	●	●	●	戴杰/DIJET
	MPHW060308	●	●	●	●	●	日立/HITACHI

*RCKT1606M0-NT:锋利刀尖/SHARP ANGLE

*RDMW1605MOT-PM:6个点/6 DOT



铣刀刀片 Milling inserts

图片 Insert Shape	型号 Order NO	RCP 41	RCT151	RCP08	RCC033	RCP 02	可装配刀杆品牌 Holder
	YPHW100308ZER	●	●	●	●	●	戴杰/DIJET
	EPMT060320	●	●	●	●	●	泰珂洛/TUNGALOY
	EPNW060320	●	●	●	●	●	泰珂洛/TUNGALOY
	ENMU100412 ZER-PM	●	●	●	●	●	戴杰/DIJET
	SOMT100420ER-GM	●	●	●	●	●	特固克/TAEGU TEC
	SOMT140520ER-GM	●	●	●	●	●	特固克/TAEGU TEC
	LNMX100608PNR-MM	●	●	●	●	●	KORLOY/克洛伊
	LNMX151008PNR-MM	●	●	●	●	●	KORLOY/克洛伊
	WNMX09T312NN-MM	●	●	●	●	●	KORLOY/克洛伊
	RDMX0905ZEER-M	●	●	●	●	●	普拉米特/PRAMET
	RDKT090530 ER-FM	●	●	●	●	●	普拉米特/PRAMET
	PDGW090530-NT	●	●	●	●	●	普拉米特/PRAMET
	RDMW090530 SR	●	●	●	●	●	普拉米特/PRAMET

铣刀 Milling inserts

铣刀刀片 Milling inserts

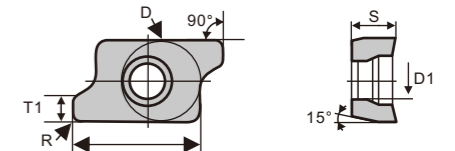
图片 Insert Shape	型号 Order NO	RCP 41	RCP 51	RCP 08	RCC033	RCP 02	可装配刀杆品牌 Holder
	ADMX160608 SR-M	●	●	●	●	●	普拉米特/PRAMET
	LNGX120508ER-M LNGX160708-NT	●	●	●	●	●	普拉米特/PRAMET 普拉米特/PRAMET
	WDMW080520ZTR	●	●	●	●	●	戴杰/DIJET
	WPMW080615ZSR	●	●	●	●	●	戴杰/DIJET
	XNHU0605ANR-MLW XNHU0906ANTN	●	●	●	●	●	特固克/TAEGU TEC 特固克/TAEGU TEC
	TNGX2207PNTN	●	●	●	●	●	特固克/TAEGU TEC
	XNKT060405 XNKT080508	●	●	●	●	●	KORLOY/克洛伊 KORLOY/克洛伊
	4NKT060308R-M	●	●	●	●	●	特固克/TAEGU TEC

铣刀 Milling inserts

RT



RT070204R-81



型号/Order NO	D	S	D1	I	R	T1
RT070204R-81	4.3	2.38	2.2	6.4	0.4	1.1
RT100308R-81	6.35	3.4	2.9	9.1	0.8	1.6

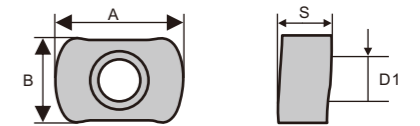
型号 Order NO	RCP 41	RCP 51	RCP 08	RCC 033	RCP 02	可装配刀杆品牌 Holder
RT070204R-81	●	●	●	●	●	SAFTY
RT100308R-81	●	●	●	●	●	SAFTY

BLMP



BLMP0603R

双面四角，铣削优秀快进给，低切削阻力，让产能最大化
Economical: 4 Cutting Edges; High Productivity;
Excellent performance at high feed milling.



型号/Order NO	A	B	S	D1
BLMP0603R-M	9	6.38	3.75	3.2
BLMP0904R-M	11.9	9.18	4.8	4.2
BLMP1306R-M				

型号 Order NO	RCP 41	RCP 51	RCP 08	RCC 033	RCP 02	可装配刀杆品牌 Holder
BLMP0603R-M	●	●	●	●	●	特固克/TAEGU TEC
BLMP0904R-M	●	●	●	●	●	特固克/TAEGU TEC
BLMP1306R-M	●	●	●	●	●	特固克/TAEGU TEC

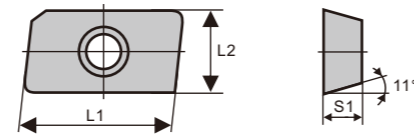
铣刀 Milling inserts

JDMT



JDMT

小径刀片，抗崩耐磨，可实现快进给铣削
High feed milling; Improved wear and heat resistance.



型号/Order NO	L1	L2	S1
JDMT070204R	6.4	4.30	2.45
JDMT070208R	6.4	4.30	2.45

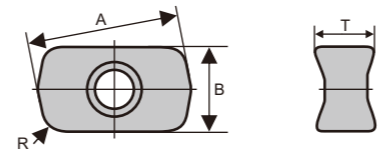
型号 Order NO	RCP 41	RCP 51	RCP 08	RCC 033	RC 02	可装配刀杆品牌 Holder
JDMT070204R	●	●	●	●	●	泰珂洛/TUNGALOY
JDMT070208R	●	●	●	●	●	泰珂洛/TUNGALOY

LNMU



LNLMU0303ZER-MJ

双面刀片，四个切削角，快进给，轻负荷让切削稳定且高效
最大切深可达1mm，适用于较低功率的小型机台。
Economical: 4 Cutting Edges; Low cutting load and Improved Stability; Depth of cuts up to 1mm; Suitable for low power machining.

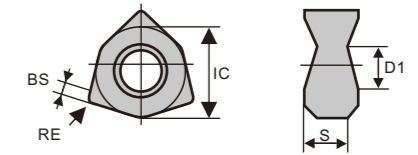


型号/Order NO	A	B	T	R
LNLMU030310 ZER-MJ	11.59	6.0	4.29	1.2

型号 Order NO	RCP 41	RCP 51	RCP 08	RCC 033	RCP 02	可装配刀杆品牌 Holder
LNLMU030310 ZER-MJ	●	●	●	●	●	泰珂洛/TUNGALOY



WNMU



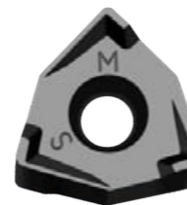
WNMU080408EN-GM

双面六角，性价比高，大前倾角设计，让切削轻快，面铣、斜铣及插铣，应用广泛。
Economical: 4 Cutting Edges; Large dip Angle.

型号/Order NO	IC	S	D1	BS	RE
WNMU040308 EN-GM	14.02	6.65	6.2	1.7	0.4
WNMU040310 EN-GM	14.02	6.65	6.2	1.7	0.4
WNMU080608 EN-GM	-	-	-	-	-
WNMU080612 EN-GM	14.02	6.65	6.2	1.3	0.8
WNMU080616 EN-GM	14.02	6.65	6.2	1.3	0.8

型号 Order NO	RCP 41	RCP 51	RCP 08	RCC 033	RCP 02	可装配刀杆品牌 Holder
WNMU040308 EN-GM	●	●	●	●	●	京瓷/KYOCERA
WNMU040310 EN-GM	●	●	●	●	●	京瓷/KYOCERA
WNMU080608 EN-GM	●	●	●	●	●	京瓷/KYOCERA
WNMU080612 EN-GM	●	●	●	●	●	京瓷/KYOCERA
WNMU080616 EN-GM	●	●	●	●	●	京瓷/KYOCERA

XNEX



XNEX080608-TR

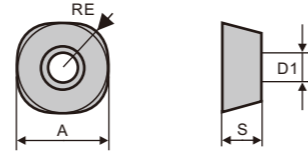
双面六刃，经济适用，大容槽设计，侧壁加工精度高，采用第一刃幅和第二刃幅特殊设计，增强抗崩刃性。
Economical: 6 Cutting Edges; Wide chip-breaker; Superior wear resistance.

型号 Order NO	RCP 41	RCP 51	RCP 08	RCC 033	RCP 02	可装配刀杆品牌 Holder
XNEX040308 TR	●	●	●	●	●	山高/SECO
XNEX080608 TR	●	●	●	●	●	山高/SECO

铣刀

Milling inserts

SDMT



SDMT1205ZDTN

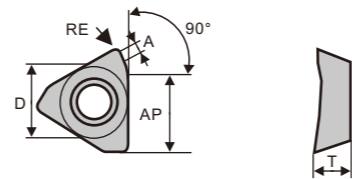
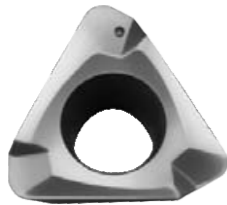
四角快进给加工刀片，高效、经济适用，特殊设计大幅提高刀片抗崩损性，有效切深2mmMax。

Economical: 4 Cutting Edges High Feed Milling inserts; Improved resistance; Depth of cuts up to 2mmMax.

型号/Order NO	A	S	RE	D1
SDMT120512-GM	12.7	5.56	15	4.4
SDMT150512-GM	15.875	5.56	15	4.4

型号 Order NO	RCP 41	RCP 51	RCP 08	RCC 033	RCP 02	可装配刀杆品牌 Holder
SDMT120512-GM	●	●	●	●	●	珠钻/ZCCD
SDMT150512-GM	●	●	●	●	●	珠钻/ZCCD

3PKT



3PKT100408R-M

切削锋利，加工流畅，特殊加强设计，刃口锋利耐磨，使用寿命长。

Charp Edge; Good chip flow increases tool life and machinability.

型号 Order NO	RCP 41	RCP 51	RCP 08	RCC 033	RCP 02	可装配刀杆品牌 Holder
3PKT100408R-M	●	●	●	●	●	泰珂洛/TUNGALOY
3PKT150508R-M	●	●	●	●	●	特固克/TAEGU TEC

PNMU



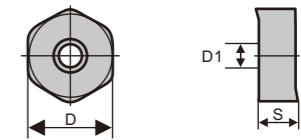
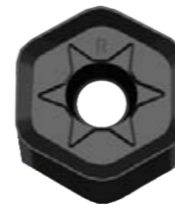
PNMU0905XNER

双面10个切削角，高效、经济适用，重切削，大切深，快进给，低阻力。

Economical: 10 Cutting Edges High Feed Milling inserts; Excellent performance for heavy-cutting milling.

型号 Order NO	RCP 41	RCP 51	RCP 08	RCC 033	RCP 02	可装配刀杆品牌 Holder
PNMU0905XNER-GM	●	●	●	●	●	京瓷/KYOCERA

HNMX



HNMX0906

双面12个切削刃，经济效益高，通用性好、高进给加工、抗崩，有效切削深度5mmMax。

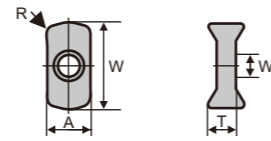
Economical: 12 Cutting Edges High Feed Milling inserts; Machining versatility over a wide range of materials; Excellent wear resistance; Depth of cuts up to 5mmMax.

型号/Order NO	D	S	D1
HNMX0906ANSN-R	16.5	6.35	4.9

型号 Order NO	RCP 41	RCP 51	RCP 08	RCC 033	RCP 02	可装配刀杆品牌 Holder
HNMX0906ANSN-R	●	●	●	●	●	普拉米特/PRAMET
HNGX0906ANSN-R	●	●	●	●	●	普拉米特/PRAMET

铣刀 Milling inserts

LOGU



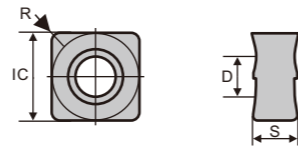
LOGU030310ER-GM

双面快进给刀片，耐用耐磨。
High feed milling; Improved wear and heat resistance.

型号/Order NO	A	T	D	W	R
LOGU030310ER-GM	6.2	3.96	3.45	11.9	1.0
LOGU030310ER-GMNT	6.2	3.96	3.45	11.9	1.0

型号 Order NO	RCP 41	RCP 51	RCP 08	RCC 033	RCP 02	可装配刀杆品牌 Holder
LOGU030310ER-GM	●	●	●	●	●	京瓷/KYOCERA
LOGU030310ER-GMNT	●	●	●	●	●	京瓷/KYOCERA

SNMX



SNMX1206ANN-MM

“Z”型设计的8刃经济型刀片，切削阻力低，负荷轻，保证了刀片的使用寿命长。
Economical: 8 Cutting Edges; Low cutting load ensures excellent tool life.

型号/Order NO	IC	S	R	D
SNMX1205ANN	12.7	6.2	0.8	6.0
SNMX120512 FM	12.7	6.2	0.8	6.0

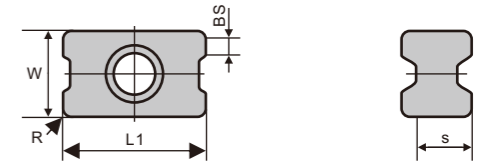
型号 Order NO	RCP 41	RCP 51	RCP 08	RCC 033	RCP 02	可装配刀杆品牌 Holder
SNMX1206ANN	●	●	●	●	●	瓦尔特/WALTER
SNMX120612 FM	●	●	●	●	●	瓦尔特/WALTER

*SNMX1206ANN:F57槽型Chipbreaker: F57

*SNMX120612 FM:F27槽型Chipbreaker: F27



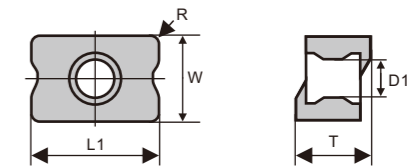
ANGU



ANGU

型号 Order NO	RCP 41	RCP 51	RCP 08	RCC 033	RCP 02	可装配刀杆品牌 Holder
ANGU110404SRGE	●	●	●	●	●	肯纳/KENAMETAL
ANGU110408SRGE	●	●	●	●	●	SAFTY
ANGU15T604SRGE	●	●	●	●	●	SAFTY
ANGU15T608SRGE	●	●	●	●	●	特固克/TAEGU TEC
ANGU15T612SRGE	●	●	●	●	●	特固克/TAEGU TEC

LNMX



LNMX151008PNR-MM

型号/Order NO	I	D	T	R	D1
LNMX100608PNR-MM	10	6.5	6.5	0.8	3.5
LNMX151008PNR-MM	15	10	10	0.8	4.5

型号 Order NO	RCP 41	RCP 51	RCP 08	RCC 033	RCP 02	可装配刀杆品牌 Holder
LNMX100608PNR-MM	●	●	●	●	●	KORLOY/克洛伊
LNMX151008PNR-MM	●	●	●	●	●	KORLOY/克洛伊

铣刀

Milling inserts

APKT



LOGU030310ER-GM

型号 Order NO	RCP 41	RCP 51	RCP 08	RCC 033	RCP 02	可装配刀杆品牌 Holder
APKT16PER-EM	●	●	●	●	●	特固克/TAEGU TEC
APKT170508PER-EM	●	●	●	●	●	特固克/TAEGU TEC
APKT170516PER-EM	●	●	●	●	●	特固克/TAEGU TEC
APKT170524PER-EM	●	●	●	●	●	特固克/TAEGU TEC
APKT170530PEM-EM	●	●	●	●	●	特固克/TAEGU TEC



球头刀

Ball milling

P3200&P3202



P3200/P3202: R4 R5 R6 R7 R8 R9 R10 R12.5

Type 型号	Cutting edge 切削刃数	尺寸 Size				Grade 牌号	RCP 01	RCP 02	RCP 07	RCP 08	RCP 41	RCP 42	RCP 51	RCP 52	RCP 061	RCP 05S	RCC 031	RCC 032	RCC 033	RCC 034
		D	S	L	d															
P3200/P3202-D08	2	8	2	4	3		●				●									
P3200/P3202-D10	2	10	2.5	5	4		●				●									
P3200/P3202-D12	2	12	2.5	6	5		●				●									
P3200/P3202-D16	2	16	3	6	5		●				●									
P3200/P3202-D20	2	20	3	6	5		●				●									
P3200/P3202-D25	2	25	4	9	6		●				●									
P3200/P3202-D30	2	30	5	10	8		●				●									
P3200/P3202-D32	2	32	5	10	8		●				●									

P3204



P3204 D25/R12.5 P3204 D16/R8 P3204 D10/R5 P3204 D12/R6 P3204 D20/R10

Type 型号	Cutting edge 切削刃数	尺寸 Size				Grade 牌号	RCP 01	RCP 02	RCP 07	RCP 08	RCP 41	RCP 42	RCP 51	RCP 52	RCP 061	RCP 05S	RCC 031	RCC 032	RCC 033	RCC 034
		D	S	L	d															
P3204-D08	2	8	2	4	3		●				●									
P3204-D10	2	10	2.5	5	4		●				●									
P3204-D12	2	12	2.5	6	5		●				●									
P3204-D16	2	16	3	6	5		●				●									
P3204-D20	2	20	3	6	5		●				●									
P3204-D25	2	25	4	9	6		●				●									
P3204-D30	2	30	5	10	8		●				●									
P3204-D32	2	32	5	10	8		●				●									

金属陶瓷

CERMET

I ADVANTAGES

切削阻力小、耐磨性强
Cutting resistance small
metal surface treatment good wear resistance



金属陶瓷

Cermet

金属陶瓷定义 Cermet definition

金属陶瓷英文单词cermet或ceramet是由ceramic（陶瓷）和metal（金属）结合构成的。金属陶瓷是一种复合材料，它的定义在不同时期略有不同，如：有的定义为由陶瓷和金属组成的一种材料，或由粉末冶金方法制成的陶瓷与金属的复合材料。

《辞海》定义为：由金属和陶瓷原料制成的材料，兼有金属和陶瓷的某些优点，如前者的韧性和抗弯性，后者的耐高温、高强度和抗氧化性能等。

美国ASTM专业委员会定义为：一种由金属或合金与一种或多种陶瓷相组成的。非均质的复合材料，其中后者约占15%~85%体积分数，同时在制备的温度下，金属和陶瓷相之间的溶解度相当小。

从狭义的角度定义金属陶瓷是指复合材料中金属和陶瓷相在三维空间上都存在界面的一类材料。

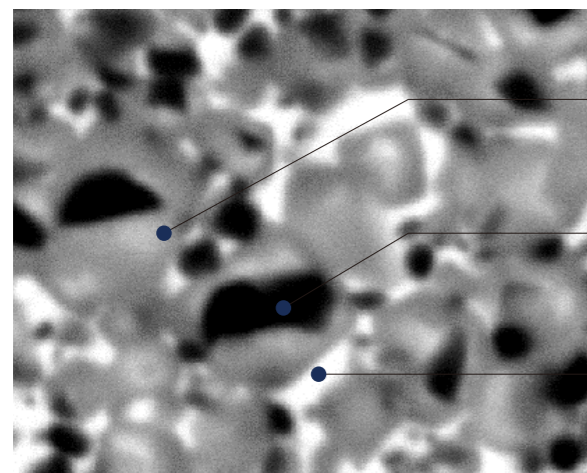
The English word cermet or ceramet is made of the combination of ceramic and metal. Cermet is a kind of composite material, its definition is slightly different in different periods, such as: some definition by a material composed of ceramics and metals, or ceramic and metal composites made by powder metallurgy.

"Cihai" defined as: materials made from metal and ceramic raw materials, combined with some advantages of metal and ceramic, such as toughness and flexural resistance of the former, high temperature resistance, high strength and oxidation resistance of the latter.

The ASTM Professional Committee defines it as a heterogeneous composite material consisting of a metal or alloy and one or more ceramic phases, in which the latter accounts for about 15%~85% of the volume fraction, and at the temperature of preparation, the solubility between the metal and ceramic phases is quite small.

In a narrow sense, Cermet refers to a class of materials in which metal and ceramic phases have interfaces in three-dimensional space.

主要牌号 Grade



- 周边组织 (Nb/Ta和其他) CN
Surrounding tissue (Nb/Ta和其他) CN
- 核 TiCN
nucleus TiCN
- Co&Ni

金属陶瓷SC10材质电镜反射电子图像倍率7500

主要牌号 Grade



主要成分: TiCN+NbC
用途: 钢精加工 (全能材料)
main component: TiCN+NbC
Purpose: steel finishing (all-round material)

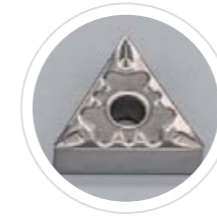


主要成分: TiCN+TaC
用途: 钢半精加工 (注重强韧性)
main component: TiCN+TaC
Purpose: semi-finishing steel (focus on strength and toughness)



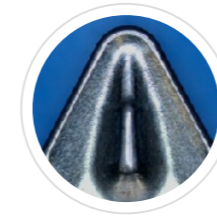
主要成分: TiCN+TaC
用途: 钢铁削加工 (注重红硬性)
main component: TiCN+TaC
Purpose: steel milling processing (focus on red hardness)

特性 Characteristic



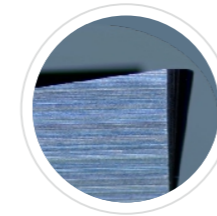
M免磨级刀片

外观银亮，金属光泽，非磨削面带轻微雪花纹，国内最接近日系金属陶瓷的外观。
Silvery appearance, metallic luster, non-grinding surface with slight snow pattern, the domestic closest to the appearance of Japanese cermet.



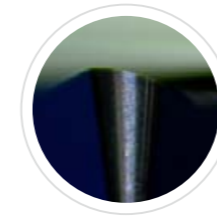
M免磨级刀片

国内独有刃口钝化工艺，保证刀尖和两翼钝化均匀性，大瀑布流钝化，锋利+强韧。
Domestic unique edge passivation technology, uniform passivation of tip and wings, passivation of waterfall flow, sharp + strong.



G磨削级刀片

不同工况 提供不同刃口处理方案，有效满足客户不同的加工要求，粗糙度、亮度、刀痕抑制、效率、稳定。
Provide different cutting edge treatment schemes in different working conditions, effectively meet the customer's different processing requirements, roughness, brightness, cut mark inhibition, efficiency, stability.



G磨削级刀片

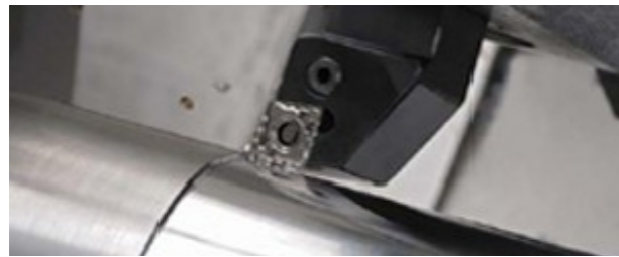
源于日系刃口磨削标准，更做优化改良，微米级精密刃口控制工艺，超强抑制加工发白（白浊）现象。
From the Japanese cutting edge grinding standard, more optimization and improvement, micron level precision cutting edge control process, super inhibition of processing white (white turbidity) phenomenon.

金属陶瓷 Cermet

优势 Superiority

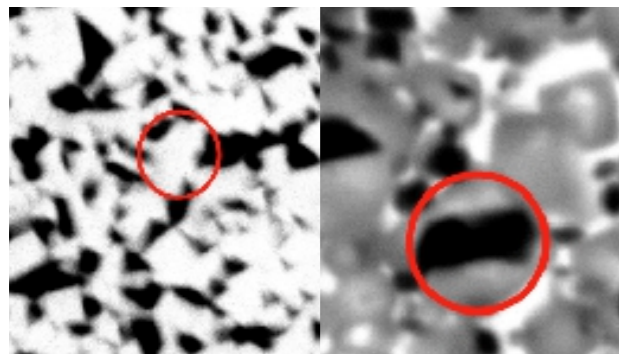
01. 轻快切削 Light cutting

不同于硬质合金的单一硬质相，金属陶瓷的固溶复合硬质相具有和砂轮类似的自锐磨损特性，保持性更好，工作寿命更长。Different from the single hard phase of hard alloy, the solid solution composite hard phase of cermet has the characteristics of self-sharpening wear similar to that of grinding wheel, better maintenance and longer working life.



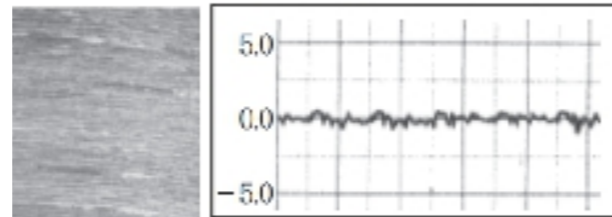
02. 更长寿命 Longer life

和硬质合金（主成分WC碳化钨）刀片相比，金属陶瓷（主成分TiCN）和铁系金属的摩擦系数更低，切削更加轻快。Cermet (principal component TiCN) and ferrous metals have a lower coefficient of friction than carbide (principal component WC tungsten carbide) blades, resulting in lighter cutting.



03. 加工表面质量提升 Machining surface quality improvement

金属陶瓷（主成分TiCN）和铁系金属的亲合力更低，切削时刀尖和材料间的熔着反应（积屑瘤）更少。有效提升加工表面质量。适合钢件加工。Cermet (principal component TiCN) has a lower affinity with ferrous metals, resulting in less fusion reaction (built-up edge) between the tool tip and the material during cutting. Effectively improve the quality of machining surface. Suitable for steel parts processing.



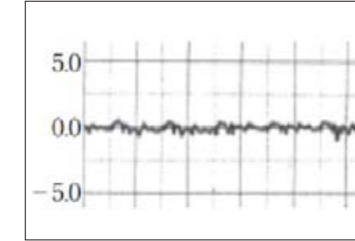
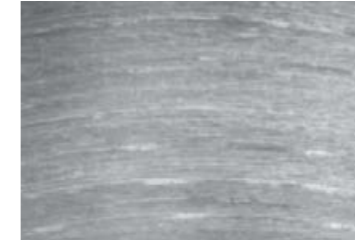
04. 可持续发展 Sustainable development

金属陶瓷的主成分（Ti钛）在地球上的储量远高于硬质合金的主成分（W钨），产品受原料成本波动干扰更小，更有利于持续长远发展。The reserves of the principal component of cermet (Ti titanium) on Earth are much higher than those of the principal component of cemented carbide (W tungsten), and the product is less disturbed by the fluctuation of raw material cost, which is more conducive to sustainable long-term development.



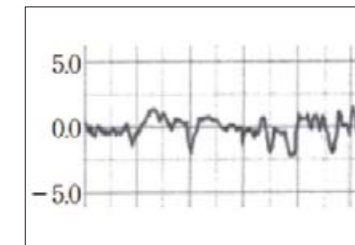
切削加工后的加工面对比 Machining surface comparison after cutting

金属陶瓷
Cermet



Rz=1.6μm

硬质合金
Cement carbide inserts



Rz=3.4μm

SCM435 Steel, Dry Cut, CNMG120408全周断屑槽
VxDOCxF=200m/min x 2.0mm x 0.20mm/rev

	Fe (铁, Iron) Contact Angle 接触角度	Fe (铁, Iron) Solubility 溶解度
WE	0°	7%
TiC	125°	≤0.5%
Ti(C,N)	132°	0%

金属陶瓷材料特性和使用问题解决 Cermet material properties and use problem solving

金属陶瓷 (cermet) 这个名称像陶瓷 (ceramic) 一样坚硬、像金属 (metal) 一样坚韧有力。金属陶瓷和硬质合金的区分使用、金属陶瓷和硬质合金的最大区别是主要成份不同。金属陶瓷的主要成份是钛和钽、硬质合金的主要成份是钨。

The name cermet is as hard as ceramic and as strong as metal. The main components of cermet are titanium and tantalum, and the main components of hard alloy are tungsten.

钨与铁的亲合性高、具有易合金化的性质，因此当用硬质合金刀具切削钢材时、刀尖处产生熔化了一部分工件的现象，如果刀尖发生溶着，加工面会变得不漂亮、导致不能良好的进行切削。而钛和钽也可用于戒指和手表等生物材料、具有很好的耐腐蚀性、特别是与铁的亲合性低。因此使用金属陶瓷刀具切削钢材、也很难像硬质合金那样发生溶着、加工面也能加工得很漂亮。进行金属端面切割时、在中心附近可能会出现白浊现象；但金属陶瓷则不容易发生这种现象。金属陶瓷是加工钢材的最佳材质。但是金属陶瓷也有缺点。金属陶瓷是将主要成份

金属陶瓷 Cermet

金属陶瓷材料特性和使用问题解决

Cermet material properties and use problem solving

钛和钽、用粘接剂凝固而成的结构，钛和钽的化学稳定性高，难以与粘接剂结合、冲击性弱、容易出现缺口。因此、金属陶瓷不适用于间断切削等、带有冲击的加工。

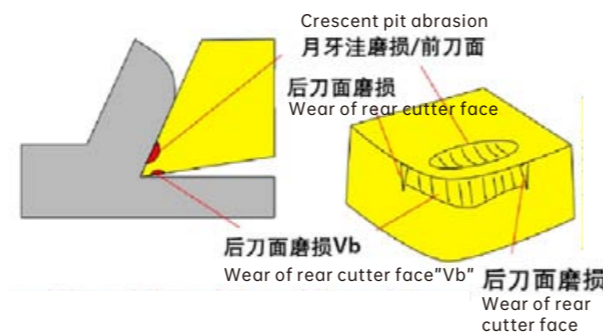
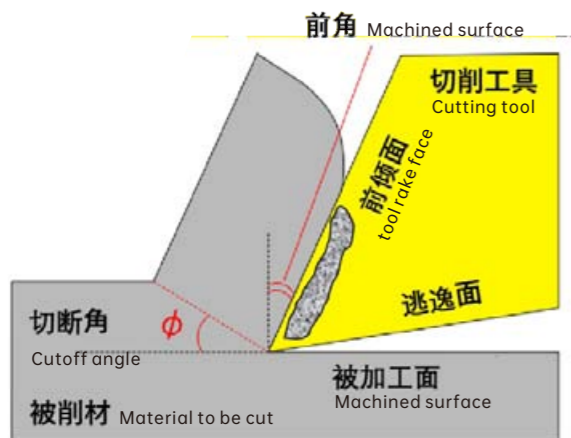
Tungsten has a high affinity with iron and is easy to alloying, Therefore, when cutting steel with carbide tool, the tip of the tool will melt a part of the workpiece. if the tip of the tool dissolved, the processing surface will become not beautiful, resulting in not good cutting. While titanium and tantalum can also be used in biological materials such as rings and watches, have good corrosion resistance, especially low affinity with iron. Therefore, the use of cermet cutting tool steel is difficult to dissolve like carbide, processing surface can also be processed very beautiful. When cutting metal end face, there may be white turbidity near the center, but cermet is not easy to occur this phenomenon. Cermet is the best material for steel processing. But cermet has its drawbacks. Cermet is a structure made of titanium and tantalum, the main components of which are solidified with an adhesive. Titanium and tantalum have high chemical stability, and are difficult to combine with

the adhesive, weak impact and prone to notching. So cermet is not suitable for intermittent cutting with impact processing.

另外钛、钽的热传导率低、热容量小，切削工具的刀尖易蓄热、施加水溶性切削液后、由于切削时和空转时的温度高低差、导致刀尖可能会出现热裂纹（裂缝、缺口）。因此使用金属陶瓷时、冲击要小、以不使用水溶性切削液为佳。为了提高热传导率、部分金属陶瓷材质添加了微量的热传导率较高的元素、金属陶瓷应用了这一方法。

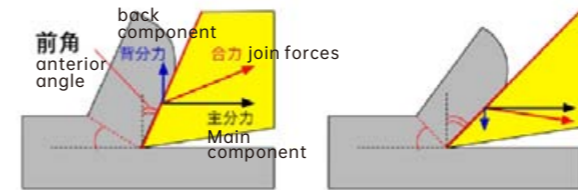
In addition, titanium and tantalum have low heat conductivity and small heat capacity, and the cutting tool tip is easy to store heat. After applying water-soluble cutting fluid, thermal cracks (cracks and notches) may occur at the tool tip due to the difference in heat level between cutting and idling. Therefore, when using cermet, the impact should be small, and it is better not to use water-soluble cutting fluid. In order to improve the thermal conductivity, some cermet materials have added trace elements with high thermal conductivity. This method is applied in cermet.

金属陶瓷车削刀具磨损形式和切削力的构成
Wear forms and cutting forces of cermet turning tools



- 如果后刀面磨损过大，会对被加工面尺寸精度产生不良影响。If the rear cutter face wear is too large, it will have an adverse effect on the dimensional accuracy of the machined surface.

金属陶瓷车削刀具磨损形式和切削力的构成
Wear forms and cutting forces of cermet turning tools



- 理想的切削: 当前角变大时，切断角也变大，楔入角变小，无法确保刀尖强度，背分力反转，加工不稳定。
Ideal cutting: When the front Angle increases, the cutting Angle also increases, and the wedge Angle becomes smaller, which can not ensure the strength of the tool tip, and the back component force reverses and the processing is unstable.

金属陶瓷切削问题解决方案 Cermet cutting problem solution

01. 后刀磨损“Vb”
两翼磨损
Plastic deformation
rear tool wear
"Vb" two wings wear



原因:

后刀面是与被切削材料长期接触的地方，所以通常的后刀面磨损多由摩擦产生，在被切削材料偏硬时发生。该摩擦引起的磨损通常也会被切削产生的热量进一步放大。因此在加工切削热容易变高的材料时，后刀面异常磨损也会出现。此时，如果由于刀尖出现被称为“塌边”、“弯头”等塑性变形的问题，则切削阻力会进一步上升，后刀面磨损变得更大。但这可以说是二次原因。

对策:

选择耐磨性更强硬度更高的神工金属陶瓷牌号，将切削速度降低到适当的水平。在进给偏小情况下也容易发生。提高进给。

Reasons:

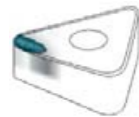
The back tool face is in contact with the material being cut for a long time, so the usual back tool face wear is caused by friction, occurs when the material being cut is hard. The wear caused by this friction is also often further amplified by the heat generated by the cutting. Therefore, when machining materials whose cutting heat is easy to become high, abnormal wear on the back tool face will also appear. At this time, if the tool tip is called "edge collapse", "elbow" and other plastic deformation problems, the cutting resistance will further rise, and the rear tool face wear becomes greater. But it's kind of a secondary cause.

Countermeasures:

Choose a tougher wear resistance higher Shengong cermet brand, will reduce the cutting speed to an appropriate level. It is also easy to occur in the case of small feed. Increase the feed.

金属陶瓷切削问题解决方案 Cermet cutting problem solution

02. 前刀磨损 月牙洼磨损 Front knife wear crescent pit wear



原因:

前刀面磨损大多是由于刀尖的成分被切屑带走而产生。前刀面磨损，首先刀尖成为高温聚集区域，刀体的组织变得不稳定，更多的成分被切屑带走，因此会迅速扩大。也就是说，这是在加工切削热容易变高的材料和粘性较强的材料时，容易出现的问题。另外，构成刀尖的成分和被切削材料的成分容易反应（亲和性高）时，该问题也容易出现。

对策:

1. 降低切削速度和进给，延缓磨损发展。2. 增加前角。3. 使用PVD涂层金属陶瓷。

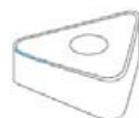
Reasons:

Front face wear is mostly caused by the component of the tip being carried away by the chip. The front tool surface is worn, and the tool tip becomes a high-temperature aggregation area at first. The organization of the tool body becomes unstable, and more components are taken away by the chips, so it will expand rapidly. That is to say, this is a problem that is easy to occur when machining materials with high cutting heat capacity and strong viscosity. In addition, the composition of the tool tip and the cutting material composition is easy to react (high affinity), the problem is also prone to occur.

Countermeasures:

1. Reduce cutting speed and feed, delay the development of wear. 2. Add front corners. 3. Use PVD-coated cermet.

03. 二次刀尖形成 Secondary tool tip formation



原因:

二次刀尖形成是车削时容易发生的损伤，加工易硬化材料时，被切物粘附在切削刃的前端。这个附着物非常硬，就像形成了一个新的刀尖一样。这种情况在金属陶瓷刀具上比较少出现。主要考虑以下原因。1. 切削温度低，未达到被切削材料的再结晶温度。刀具材料种类与被切削材料的亲和性高的情况。

对策:

1. 为了使切削温度上升而提高切削速度。2. 为了防止二次刀尖的形成，增大前角、使用润滑性高的切削液等。1. 使用PVD涂层金属陶瓷。

Reasons:

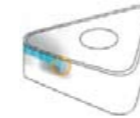
Secondary tip formation is an injury that occurs easily in turning. When processing easily hardened materials, the cut object adheres to the front end of the cutting edge. The attachment is so hard, it's like forming a new knife point. This kind of situation appears less on the cermet cutter. Consider the following reasons. 1. The cutting temperature is low, not reaching the recrystallization temperature of the material being cut. High affinity between the type of tool material and the material being cut.

Countermeasures:

1. Increase the cutting speed in order to increase the cutting temperature. 2. In order to prevent the formation of the second tool tip, increase the front Angle and use the cutting fluid with high lubrication. 1. Use PVD coated cermet.

金属陶瓷切削问题解决方案 Cermet cutting problem solution

04. 后刀面边界磨损 Rear tool face boundary wear



原因:

切削刃的切深末端部位受被加工材料的加工硬化层影响而异常扩大。该部分磨损通常比后刀面的其他部分要大。所以在加工容易硬化的材料、铸件、热锻件、热处理品时，需要注意主切削刃的边界磨损。

对策:

通过如下的对策，使切屑的厚度减小、宽度扩大，使变硬的被切削材料的表面部分相对于切削刃分散。1. 增大切削刃的横截刀角。2. 换用较大刀尖角R的型号。

Reasons:

The deep end of the cutting edge expands abnormally due to the work hardening layer of the processed material. This part is usually worn more than the rest of the back tool face. So in the processing of easy hardening materials, castings, hot forgings, hot treatment products, we need to pay attention to the edge wear of the main cutting edge.

Countermeasures:

Through the following countermeasures, the chip thickness is reduced, the width is enlarged, so that the surface part of the hardened material being cut is separated from the cutting edge. 1. Increase the cross cutting edge Angle of the cutting edge. 2. Change the model with larger knife Angle R.

05. 缺损 Defect



原因:

刀尖的缺损一般由冲击产生。切削加工是被切削材料和切削工具反复冲击和摩擦的过程，所以无论切削什么样的材料，工具都有产生缺损的可能。特别是在切削硬材料时，其冲击会变大，所以必须注意切削初期的缺损。

对策:

1. 更换更软的金属陶瓷牌号。如果可能，增大刀尖R角。2. 减小前角，确保切削刃的强度。3. 在强断续切削的情况下，通过降低进给量以确保工具的刚性。

Reasons:

The defect of the tip is usually caused by impact. Machining is the process of repeated impact and friction by cutting materials and cutting tools, so no matter what kind of materials are cut, tools have the possibility of defects. Especially in the cutting of hard materials, the impact will be larger, so we must pay attention to the early cutting defects.

Countermeasures:

1. Replace the softer cermet grade. If possible, increase the tip R Angle. 2. Reduce the front Angle to ensure the strength of the cutting edge. 3. In the case of strong intermittent cutting, ensure tool rigidity by reducing feed.

金属陶瓷切削问题解决方案 Cermet cutting problem solution

06. 微缺损 Microdefect



原因:

微缺损是指在切削刃棱线部产生的微小缺损，由振动或冲击产生，但也有可能是在熔着的被切削材料脱落时一起带走刃尖的一部分而产生的。因此，微缺损可能在切削硬的被切削材料时产生，也可能在切削软的被切削材料时产生。当切削刃上产生微缺损时，切削阻力变高，因此，容易产生异常的后刀面磨损。

对策:

1. 更换神工更软的金屬陶瓷牌號。2. 如果可能，增大刀尖R角。3. 减小前角，确保切削刃的强度。4. 在强断续切削的情况下，通过降低进给量以确保工具的刚性。

Reasons:

The microdefect is a small defect in the edge of the cutting edge. It is caused by vibration or impact, but may also be caused when the fused material being cut falls off, taking part of the edge tip with it. Thus, microdefects may occur when cutting hard or soft material being cut. When there is a slight defect on the cutting edge, the cutting resistance becomes higher, and therefore, it is easy to produce abnormal back tool face wear.

Countermeasures:

1. Replace the softer cermet grade of Shengong. 2. If possible, increase the R Angle of the tip. 3. Reduce the front Angle to ensure the strength of the cutting edge. 4. In the case of strong intermittent cutting, ensure tool rigidity by reducing feed.

07. 断裂 fracture



原因:

由于被切削材料的问题造成刀片断裂的情况很少。需要重新审视切削条件、工具形状、工具材料种类。特别是在刀片安装方面存在问题时很容易产生断裂问题。

对策:

确认安装状态。1. 取下刀片，对刀杆安装部位进行清理，再适当的安装。2. 用适当的扭矩拧紧，降低切削条件。3. 检查被切削材料的安装和机械的振动，是否有严重颤振。

Reasons:

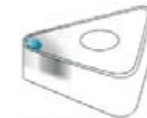
Blade breakage is rare due to problems with the material being cut. Need to re-examine the cutting conditions, tool shape, tool material type. In particular, it is easy to break when there are problems in blade installation.

Countermeasures:

Check the installation status. 1. Remove the blade, clean the installation part of the tool bar, and then install it properly. 2. Tighten with appropriate torque to reduce cutting conditions. 3. Check the installation of the cutting material and the vibration of the machine, whether there is serious flutter.

金属陶瓷切削问题解决方案 Cermet cutting problem solution

08. 贝壳状剥落 Shell spalling



原因:

贝壳状剥落的缺口，可以考虑以下的原因。1. 由于被切削材料的弹性变形，在切削刃上产生压缩应力而引起。2. 当刀片上粘附物发生剥离时引起。贝壳状剥落的代表性案例是高硬度材料的加工。在高硬度材料的切削中，背分力有变得非常高的倾向，这使切削刃的前刀面产生压缩应力而剥落。

对策:

防止高硬度材料加工的贝壳状剥落问题是非常困难的。如果降低切削阻力应该能得到好的结果。我们建议：1. 降低进给量和切削速度，抑制后刀面磨损。2. 减小刀尖角R。

Reasons:

The following reasons may be considered for the gap of shell spalling. 1. Due to the elastic deformation of the material being cut, compression stress is generated on the cutting edge. 2. Caused when the adhesion on the blade is peeled off. The typical case of shell spalling is the processing of high hardness materials. In the cutting of high hardness materials, the back component has a tendency to become very high, which causes compression stress on the front edge of the cutting edge and spalling.

Countermeasures:

It is very difficult to prevent the problem of shell spalling in the processing of high hardness materials. Good results should be obtained if cutting resistance is reduced. We suggest: 1. Reduce the feed rate and cutting speed to curb back tool face wear. 2. Reduce the sharp Angle of the knife.

09. 积屑瘤 Built-up edge



原因:

被切削材料成分由于切削热在刀尖熔着而产生，通常在加工较软材料时易发生。另外，与前刀面磨损一样，若被切削材料与刀片材料的亲和性高也容易产生积屑瘤。当积屑瘤产生时，有时会延缓刀片磨损，亦可以作为优点考虑，不过，同时也会加速被加工面的恶化，导致刀尖的微崩产生等问题，有发展为更大的问题的可能性，所以还是最好避免。

对策:

1. 提高切削速度。2. 改善切屑的流动，将刀片表面光洁度提升。

Reasons:

The component of the material being cut is caused by the heat of cutting melting at the tip of the tool, usually occurring in the machining of softer materials. In addition, as with the front tool surface wear, if the cutting material and blade material affinity is high, also prone to chip nodules. When the chip tumor occurs, sometimes it will delay blade wear, which can also be considered as an advantage. However, at the same time, it will accelerate the deterioration of the processed surface, leading to micro breakage of the tip, etc., which has the possibility of developing into a bigger problem, so it is best to avoid.

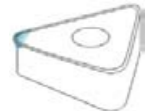
Countermeasures:

1. Improve cutting speed. 2. Improve the flow of chips and improve the surface finish of the blade.

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10. 塑性变形 Plastic deformation



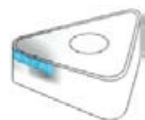
原因:
刀尖塑性变形由切削阻力产生的, 但仅由阻力引起的刀尖变形是少见的。在大多数情况下, 由于切削热引起的刀尖材质软化, 容易引起大的塑性变形。加工容易产生切削热的材料或热传导率低材料时, 容易产生刀尖的塑性变形。

对策:
1. 选用神工更硬的金属陶瓷牌号。2. 为了抑制切削热, 降低切削条件(减小切削速度、进给量)。3. 使用切削液。

Reasons:
Tip plastic deformation is caused by cutting resistance, but tip deformation caused only by resistance is rare. In most cases, the material softening caused by cutting heat is easy to cause large plastic deformation. It is easy to produce plastic deformation of tool tip when machining materials that are easy to produce cutting heat or materials with low heat conductivity.

Countermeasures:
1. Choose the harder cermet brand of Shengong. 2. In order to suppress the cutting heat, reduce the cutting conditions (reduce the cutting speed, feed). 3. Use cutting fluid.

11. 热裂纹 Hot crack



原因:
热裂纹由热冲击产生。这种热冲击是指在短时间内反复加热和冷却的冲击。在这种情况下, 任何物质都会反复进行热膨胀和冷收缩, 从而产生裂纹。热裂纹可能导致突发性损伤, 如缺损。在加工切削热容易变高的材料, 断续切削, 和湿式切削等情况下容易产生。

对策:
1. 使用更锋利的刀片型号, 极力抑制发热。2. 选用神工抗热冲击更优的金属陶瓷牌号。3. 如果可能, 从液体冷却改为气体冷却。4. 如果无法气冷, 那么尽可能多地不间断使用冷却液。

Reasons:
Thermal crack is generated by thermal shock. This thermal shock is the shock of repeated heating and cooling over a short period of time. In this case, any substance will undergo repeated thermal expansion and cold contraction, resulting in cracks. Thermal cracking may lead to sudden damage, such as defects. It is easy to produce in machining materials with high cutting heat, intermittent cutting, and wet cutting.

Countermeasures:
1. Use sharper blade models to minimize fever. 2. Choose the metal ceramic brand with better thermal shock resistance of Shengong. 3. Change from liquid cooling to gas cooling if possible. 4. If air cooling is not possible, use as much coolant continuously as possible.

金属陶瓷切削问题解决方案 Cermet cutting problem solution

问题总结 Problem summary






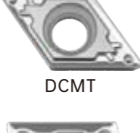
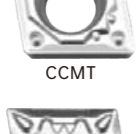

上述问题大致分为两种, 磨损型和缺损型。1. 在缺损型中, 初期缺损和刀尖缺损等突发性问题无法预测。2. 切削工具的寿命大部分由磨损型决定。3. 磨损包括在前刀面上产生的坑的深度和在后刀面上产生磨损宽度决定。4. 判定基准在JISB4011中有如下表中的描述。

The above problems can be roughly divided into two types, wear type and defect type. 1. In the defect type, sudden problems such as initial defect and knife-tip defect cannot be predicted. 2. The life of cutting tools is largely determined by the wear type. 3. Wear includes the depth of the pit generated on the front tool face and the width of the wear generated on the back tool face. 4. The criteria are described in the following table in JISB4011.



磨损区分 Wear differentiation	寿命判定基率 Wear differentiation	主要适用切削条件 Main applicable cutting conditions
前刀面磨损 (KT)	0.05-0.10mm	通常全种类加工 Usually all kinds of processing
	1.00-1.25mm	普通铸铁的粗加工 Rough machining of ordinary cast iron
后刀面磨损 (VB)	1.00-1.25mm	铸铁、钢的半精加工 Semi-finishing of cast iron and steel
	0.40mm	特殊钢的加工 Processing of special steel
	0.20mm	精密加工 Precision machining

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刀片 inserts




刀片外形 Shape of insert	名称 name	型号 Type	牌号 Grade	TN60	PV720	可装配刀杆品牌 Holder
	CERMET-M	TNMG160404R-C		●	●	kyocera -C
	CERMET-M	TNMG160404L -C		●	●	kyocera -C
	CERMET-G	TNGG160404R-C		●	●	kyocera -C
	CERMET-G	TNGG160404L -C		●	●	kyocera -C
	CERMET-G	TNGG160402R-C		●	●	kyocera -C
	CERMET-G	TNGG160402L -C		●	●	kyocera -C
		CERMET-M	WNMG080408 -HQ		●	●
CERMET-M		WNMG080404 -HQ		●	●	kyocera -HQ
	CERMET-M	VNMG160408 -HQ		●	●	kyocera -HQ
	CERMET-M	VNMG160404 -HQ		●	●	kyocera -HQ
	CERMET-M	VBMT160408 -HQ		●	●	kyocera -HQ
	CERMET-M	VBMT160404 -HQ		●	●	kyocera -HQ
	CERMET-M	VBMT110304 -HQ		●	●	kyocera -HQ
	CERMET-M	TPMT110308 -HQ		●	●	kyocera -HQ
	CERMET-M	TPMT110304 -HQ		●	●	kyocera -HQ
	CERMET-M	TNMG160408 -HQ		●	●	kyocera -HQ
	CERMET-M	TNMG160404 -HQ		●	●	kyocera -HQ
	CERMET-M	TCMT110208 -HQ		●	●	kyocera -HQ
	CERMET-M	TCMT110204 -HQ		●	●	kyocera -HQ
	CERMET-M	DCMT11T308 -HQ		●	●	kyocera -HQ
	CERMET-M	DCMT11T304 -HQ		●	●	kyocera -HQ
	CERMET-M	DCMT070204 -HQ		●	●	kyocera -HQ
	CERMET-M	CCMT09T308 -HQ		●	●	kyocera -HQ
	CERMET-M	CCMT09T304 -HQ		●	●	kyocera -HQ
	CERMET-M	CCMT060204 -HQ		●	●	kyocera -HQ
	CERMET-M	DNMG150408 -HQ		●	●	kyocera -HQ
	CERMET-M	DNMG150404 -HQ		●	●	kyocera -HQ
	CERMET-M	SNMG120408 -HQ		●	●	kyocera -HQ
	CERMET-M	CNMG120408 -HQ		●	●	kyocera -HQ
	CERMET-M	CNMG120404 -HQ		●	●	kyocera -HQ

刀片 inserts

刀片外形 Shape of insert	名称 name	型号 Type	牌号 Grade	TN60	PV720	可装配刀杆品牌 Holder
	CERMET-G	WNGG080404R-S		●	●	kyocera -C
	CERMET-G	WNGG080402R-S		●	●	kyocera -C
	CERMET-G	WNGG080402L -S		●	●	kyocera -C
	CERMET-G	VNGG160404R-S		●	●	kyocera -C
	CERMET-G	VNGG160402R-S		●	●	kyocera -C
	CERMET-G	TNGG160404R-S		●	●	kyocera -C
	CERMET-G	TNGG160404L -S		●	●	kyocera -HQ
	CERMET-G	TNGG160402R-S		●	●	kyocera -HQ
	CERMET-G	TNGG160402L -S		●	●	kyocera -HQ
	CERMET-G	DNGG150404R-S		●	●	kyocera -HQ
	CERMET-G	DNGG150402R-S		●	●	kyocera -HQ
	CERMET-G	CNGG120404R-S		●	●	kyocera -HQ
	CERMET-G	CNGG120402R-S		●	●	kyocera -HQ
		CERMET-G	WNGG080404R-C		●	●
CERMET-G		WNGG080404L -C		●	●	kyocera -HQ
CERMET-G		VNGG160404R-H		●	●	kyocera -HQ
CERMET-G		VNGG160402R-H		●	●	kyocera -HQ
CERMET-G		TPGH110304L -S		●	●	kyocera -HQ
CERMET-G		TPGH110302L -S		●	●	kyocera -HQ
CERMET-G		TPGH090204L -S		●	●	kyocera -HQ
CERMET-G		TPGH090202L -S		●	●	kyocera -HQ
CERMET-G		TPGH080204L -S		●	●	kyocera -HQ
CERMET-G		TPGH080202L -S		●	●	kyocera -HQ
CERMET-G		TBGT060104L -S		●	●	kyocera -HQ
CERMET-G		TBGT060102L -S		●	●	kyocera -HQ
CERMET-G		DNGG150408R-H		●	●	kyocera -HQ
CERMET-G		DNGG150404R-H		●	●	kyocera -HQ
CERMET-G	CNGG120408R-H		●	●	kyocera -HQ	
CERMET-G	CNGG120408L -H		●	●	kyocera -HQ	
CERMET-G	CNGG120404R-H		●	●	kyocera -HQ	
CERMET-G	CNGG120404L -H		●	●	kyocera -HQ	
	CERMET-M	RPMT1604MO -BB		●	●	kyocera -HQ
	CERMET-M	RPMT1203MO -BB		●	●	kyocera -HQ





金属陶瓷 Cermet

刀片 inserts

刀片外形 Shape of insert	名称 name	型号 Type	牌号 Grade	TN60	PV720	可装配刀杆品牌 Holder
	CERMET-G	VBGT110304R-F		●	●	kyocera -F
	CERMET-G	VBGT110304L -F		●	●	kyocera -F
	CERMET-G	VBGT110302R-F		●	●	kyocera -F
	CERMET-G	VBGT110302L -F		●	●	kyocera -F
	CERMET-G	VBGT110301R-F		●	●	kyocera -F
	CERMET-G	VBGT110301L -F		●	●	kyocera -F
	CERMET-G	DCGT11T302R-F		●	●	kyocera -F
	CERMET-G	DCGT070204R-F		●	●	kyocera -F
	CERMET-G	DCGT070204L -F		●	●	kyocera -F
	CERMET-G	DCGT070202R-F		●	●	kyocera -F
	CERMET-G	DCGT070202L -F		●	●	kyocera -F
		CERMET-G	VBGT110304R-Y		●	●
CERMET-G		VBGT110304L -Y		●	●	kyocera -Y
CERMET-G		VBGT110302R-Y		●	●	kyocera -Y
CERMET-G		VBGT110302L -Y		●	●	kyocera -Y
CERMET-G		VBGT110301R-Y		●	●	kyocera -Y
	CERMET-G	DCGT11T304ER-U		●	●	kyoceraER-U
	CERMET-G	DCGT11T302ER-U		●	●	kyoceraER-U
	CERMET-G	DCGT070204ER-U		●	●	kyoceraER-U
	CERMET-G	DCGT070202ER-U		●	●	kyoceraER-U
	CERMET-G	CCGT09T304ER-U		●	●	kyoceraER-U
	CERMET-G	CCGT09T302ER-U		●	●	kyoceraER-U
	CERMET-G	DCGT11T304EL -U		●	●	kyoceraEL -U
CERMET-G	DCGT11T302EL -U		●	●	kyoceraEL -U	
CERMET-G	DCGT070204EL -U		●	●	kyoceraEL -U	
CERMET-G	DCGT070202EL -U		●	●	kyoceraEL -U	
CERMET-G	CCGT09T304EL -U		●	●	kyoceraEL -U	
CERMET-G	CCGT09T302EL -U		●	●	kyoceraEL -U	
CERMET-G	CCGT060204EL -U		●	●	kyoceraEL -U	
CERMET-G	CCGT060202EL -U		●	●	kyoceraEL -U	
CERMET-G	SEEN1203AFTN		●	●	kyoceraAFTN	



刀片 inserts

刀片外形 Shape of insert	名称 name	型号 Type	牌号 Grade	TN60	PV720	可装配刀杆品牌 Holder
	CERMET-M	WNMG080404 -MT		●	●	taegue tec -MT
	CERMET-M	VBMT160408 -MT		●	●	taegue tec -MT
	CERMET-M	TNMG160404R-VF		●	●	taegue tec -VF
	CERMET-M	DNMG150404R-VF		●	●	taegue tec -VF
	CERMET-M	DCMT11T304 -FG		●	●	taegue tec -FG
	CERMET-G	TCGT110202R-W		●	●	sumitomo -W
	CERMET-G	TCGT110202L -W		●	●	sumitomo -W
	CERMET-G	TCGT110204R-W		●	●	sumitomo -W
	CERMET-G	TCGT110204L -W		●	●	sumitomo -W
	CERMET-G	CCGT09T304L -F		●	●	sumitomo -FY
	CERMET-G	CCGT09T302R-F		●	●	sumitomo -FY
	CERMET-G	CCGT09T304R-F		●	●	sumitomo -FY
	CERMET-G	CCGT09T302L -F		●	●	sumitomo -FY
	CERMET-G	CCGT060204R-F		●	●	sumitomo -FY
	CERMET-G	CCGT060204L -F		●	●	sumitomo -FY
	CERMET-G	CCGT060202R-F		●	●	sumitomo -FY
	CERMET-G	CCGT060202L -F		●	●	sumitomo -FY
	CERMET-G	TNMG160404R-2G		●	●	mistubish -2G
	CERMET-G	TNMG160404L -2G		●	●	mistubish -2G
	CERMET-G	TNGG160404R-F		●	●	mistubish -F
	CERMET-G	TNGG160404L -F		●	●	mistubish -F
	CERMET-G	TNGG160402R-F		●	●	mistubish -F
	CERMET-G	TNGG160402L -F		●	●	mistubish -F
	CERMET-G	DCGT11T304R-S		●	●	mistubish -SR
	CERMET-G	DCGT11T304L -S		●	●	mistubish -SR
	CERMET-G	DCGT11T302R-S		●	●	mistubish -SR
	CERMET-G	DCGT11T302L -S		●	●	mistubish -SR
	CERMET-G	DCGT11T304R-H		●	●	mistubish -SN
	CERMET-G	DCGT11T302R-H		●	●	mistubish -SN
	CERMET-G	CCGT09T304R-C		●	●	mistubish -SN
	CERMET-G	CCGT09T304L -C		●	●	mistubish -SN
	CERMET-M	CCGT09T302R-C		●	●	mistubish -SN
CERMET-M	CCGT09T302L -C		●	●	mistubish -SN	
	CERMET-G	CCGT060204R-C		●	●	mistubish -SN
	CERMET-M	CCGT060204L -C		●	●	mistubish -SN

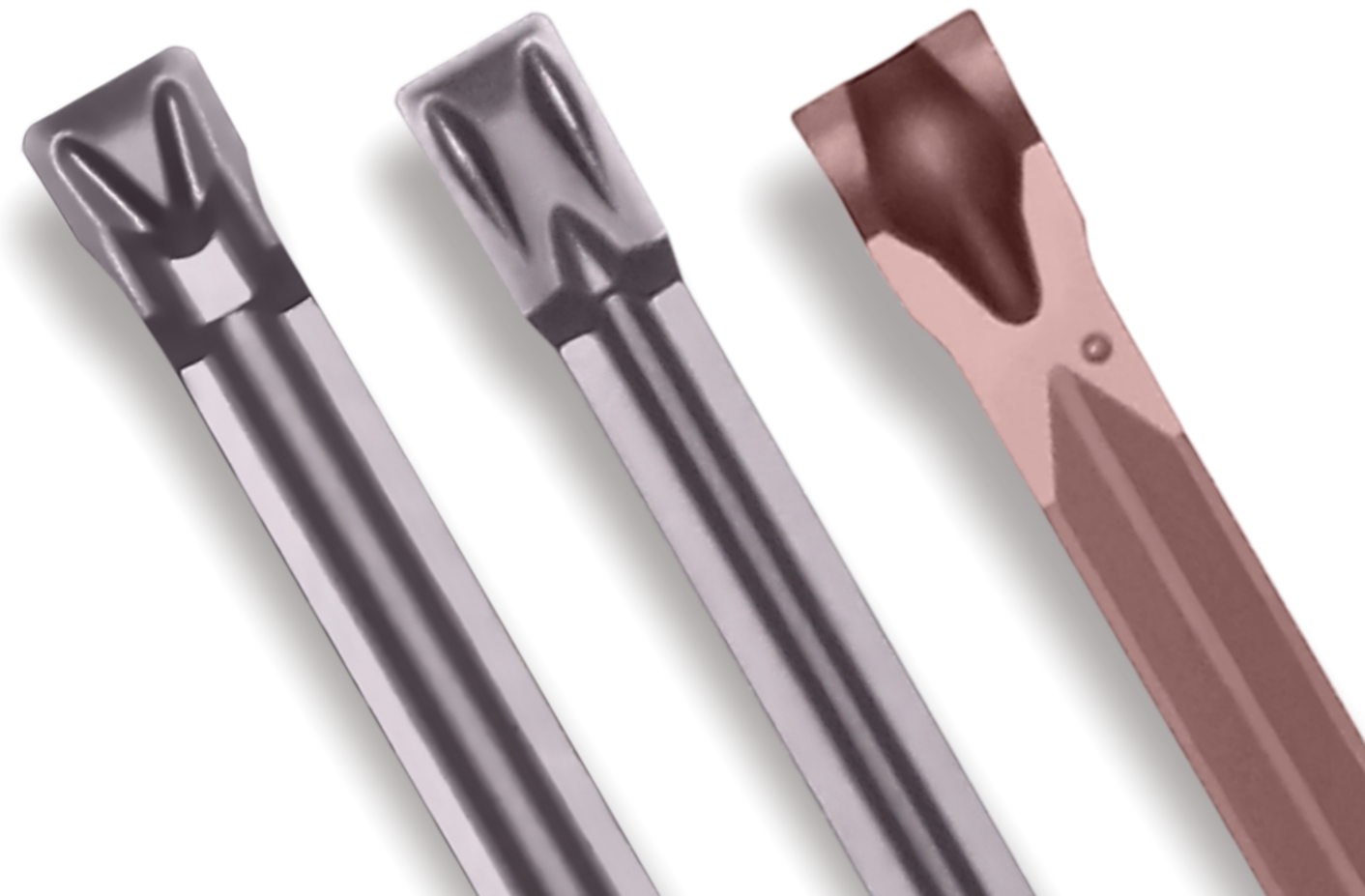
金属陶瓷 Cermet

刀片 inserts

刀片外形 Shape of insert	名称 name	型号 Type	牌号 Grade	TN60	PV720	可装配刀杆品牌 Holder
	CERMET-G	CCGT060202R-C		●	●	mistubish -SN
	CERMET-G	CCGT060202L -C		●	●	mistubish -SN
	CERMET-G	VNGG160404R-C		●	●	tungaloy-
	CERMET-G	VNGG160402R-C		●	●	tungaloy-
	CERMET-G	DCGT11T304R-C		●	●	tungaloy-
	CERMET-G	DCGT11T302R-C		●	●	tungaloy-
	CERMET-G	CNGG120404R-C		●	●	tungaloy-C
	CERMET-G	CNGG120404L -C		●	●	tungaloy-C
	CERMET-G	CNGG120402R-C		●	●	tungaloy-C
	CERMET-G	CNGG120402L -C		●	●	tungaloy-C
	CERMET-G	TNGG160404R-P		●	●	tungaloy -P
	CERMET-G	TNGG160404L -P		●	●	tungaloy -P
	CERMET-G	TNGG160402R-P		●	●	tungaloy -P
	CERMET-G	TNGG160402L -P		●	●	tungaloy -P
	CERMET-M	TNMN220408		●	●	---

切槽切断加工 PARTING & GROOVING MACHINING

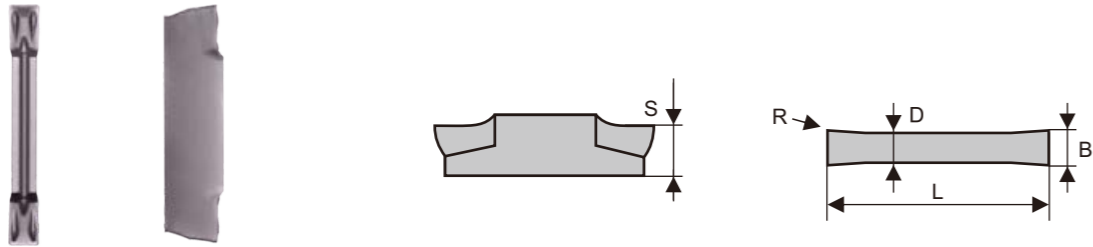
- 切削阻力小、耐磨性强
Advantages: cutting resistance small
metal surface treatment good wear resistance



切槽切断加工

Parting & Grooving tools

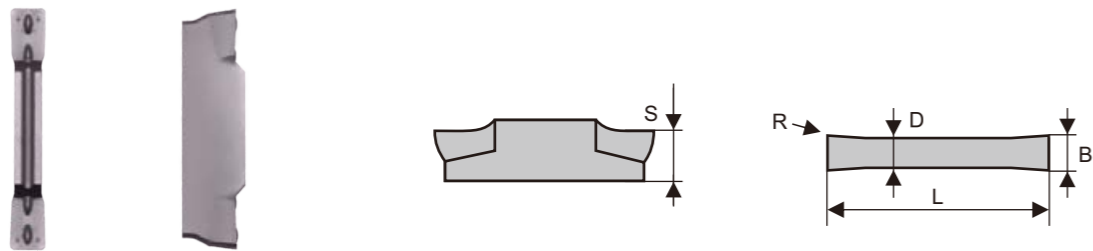
MGMN-G



(mm)

型号 Type	B	R	L	D	S
MGMN150-G	1.5	0.15	16	1.2	3.5
MGMN200-G	2	0.2	16	1.6	3.5
MGMN250-G	2.5	0.2	18.5	2	3.85
MGMN300-G	3	0.4	21	2.35	4.8
MGMN400-G	4	0.4	21	3.3	4.8

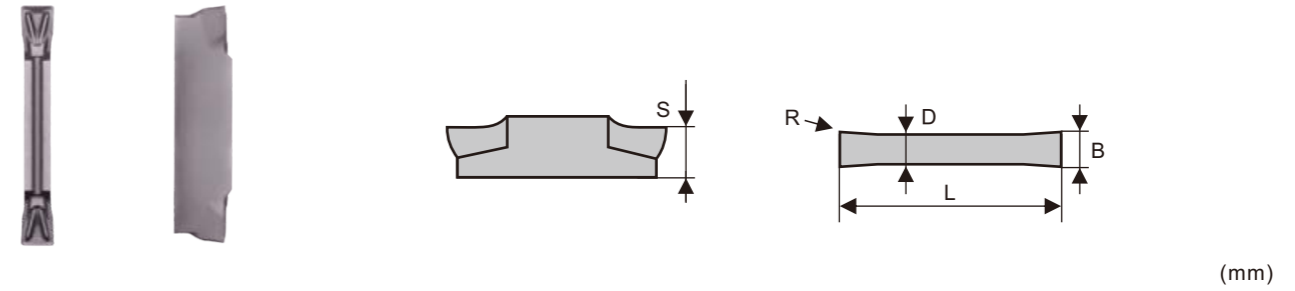
MGMN-M



(mm)

型号 Type	B	R	L	D	S
MGMN300-M	3	0.4	21	2.35	4.8
MGMN400-M	4	0.4	21	3.3	4.8
MGMN500-M	5	0.8	26	4.1	5.8
MGMN600-M	6	0.8	26	5	5.8

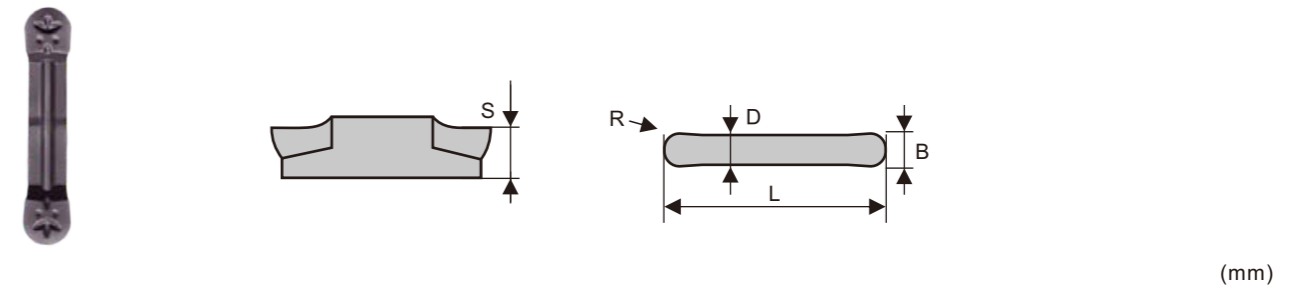
MGMN-T



(mm)

型号 Type	B	R	L	D	S
MGMN150-T	1.5	0.15	16	1.2	3.5
MGMN200-T	2	0.2	16	1.6	3.5
MGMN250-T	2.5	0.2	18.5	2	3.85
MGMN300-T	3	0.4	21	2.35	4.8
MGMN400-T	4	0.4	21	3.3	4.8
MGMN500-T	5	0.8	26	4.1	5.8
MGMN600-T	6	0.8	26	5	5.8

MRMN-M



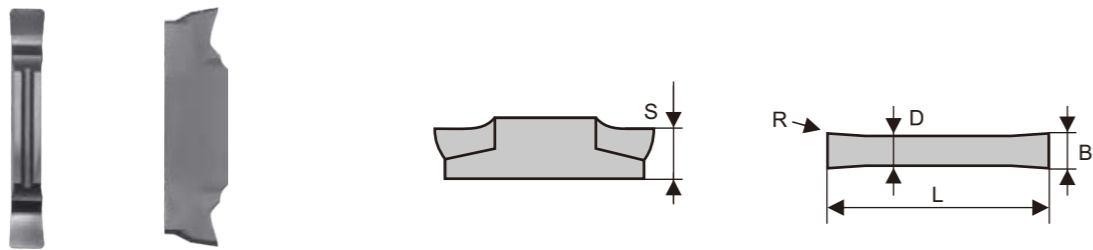
(mm)

型号 Type	B	R	L	D	S
MRMN200-M	2	1	16	1.5	3.5
MRMN300-M	3	1.5	21	2.35	4.8
MRMN400-M	4	2	21	3.3	4.8
MRMN500-M	5	2.5	25.86	4.12	5.8

切槽切断加工

Parting & Grooving tools

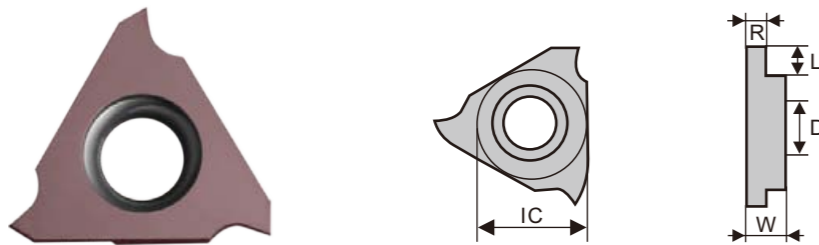
MGGN-V



(mm)

型号 Type	B	R	L	D	S
MGGN150-V	1.5	0.15	16	1.2	3.5
MGGN150R-V	1.5	0.15	16	1.2	3.5
MGGN200-V	2	0.2	16	1.6	3.5
MGGN200R-V	2	0.2	16	1.6	3.5
MGGN300-V	3	0.4	21	2.35	4.8
MGGN300R-V	3	0.4	21	2.35	4.8
MGGN400-V	4	0.4	21	3.3	4.8
MGGN400R-V	4	0.4	21	3.3	4.8

TGF32R



(mm)

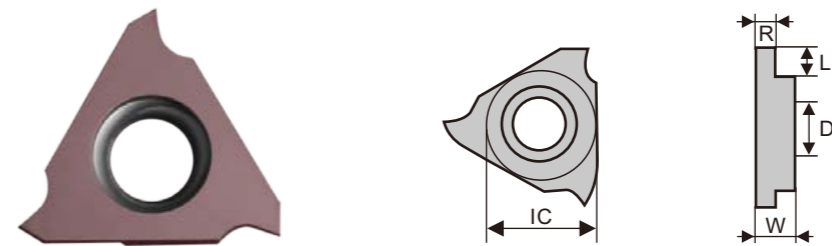
型号 Type	IC	T	D	L	R
TGF32R050-025R	9.525	3.18	4.5	0.9	0.25
TGF32R080-050R	9.525	3.18	4.5	1.1	0.40
TGF32R100-050R	9.525	3.18	4.5	1.3	0.05
TGF32R150-075R	9.525	3.18	4.5	2.1	0.75
TGF32R200-100R	9.525	3.18	4.5	2.1	1.00
TGF32R250-125R	9.525	3.18	4.5	2.1	1.25

TGF32R

(mm)

型号 Type	IC	T	D	L	R
TGF32R300-150R	9.525	3.18	4.5	3.1	1.50
GBA43R100-050R	12.7	4.76	5.5	3.5	0.50
GBA43R150-075R	12.7	4.76	5.5	3.5	0.75
TGF32R200-100R	12.7	4.76	5.5	4.6	1.00
TGF32R250-125R	12.7	4.76	5.5	5.0	1.25
TGF32R300-150R	12.7	4.76	5.5	2.0	1.50
TGF32R400-200R	12.7	4.76	5.5	3.5	2.00

TGF32R^{R/L}



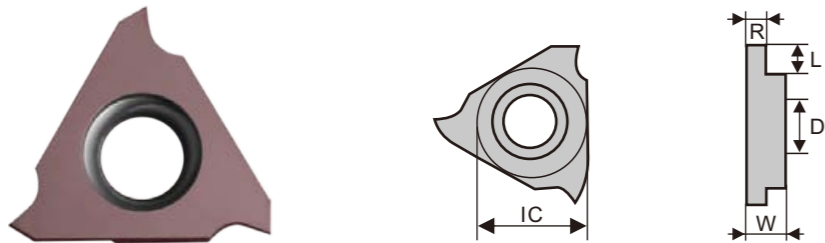
(mm)

型号 Type	S	IC	T	D	L	R
TGF32 ^{R/L} 040	0.40	9.525	4.5	3.18	0.9	0.05
TGF32 ^{R/L} 045	0.45	9.525	4.5	3.18	1.3	0.05
TGF32 ^{R/L} 050	0.50	9.525	4.5	3.18	1.3	0.05
TGF32 ^{R/L} 055	0.55	9.525	4.5	3.18	1.6	0.05
TGF32 ^{R/L} 060	0.60	9.525	4.5	3.18	1.6	0.05
TGF32 ^{R/L} 065	0.65	9.525	4.5	3.18	1.6	0.05
TGF32 ^{R/L} 070	0.70	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 075	0.75	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 080	0.80	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 085	0.85	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 090	0.90	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 095	0.95	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 100	1.00	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 105	1.05	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 110	1.10	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 115	1.15	9.525	4.5	3.18		0.1

切槽切断加工

Parting & Grooving tools

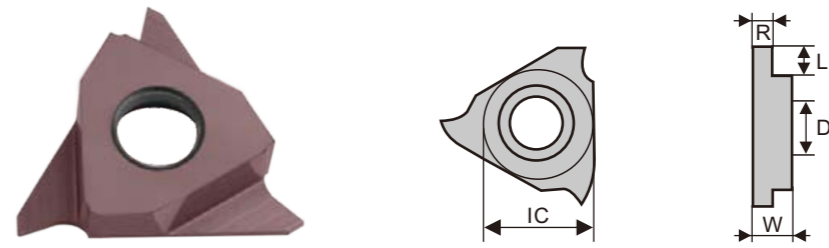
TGF32R^{R/L}



(mm)

型号 Type	S	IC	T	D	L	R
TGF32 ^{R/L} 120	1.20	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 125	1.25	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 130	1.30	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 135	1.35	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 140	1.40	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 145	1.45	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 150	1.50	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 155	1.55	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 160	1.60	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 165	1.65	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 170	1.70	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 175	1.75	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 180	1.80	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 185	1.85	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 190	1.90	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 195	1.95	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 200	2.00	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 205	2.05	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 210	2.10	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 215	2.15	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 220	2.20	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 225	2.25	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 230	2.30	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 235	2.35	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 240	2.40	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 245	2.45	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 250	2.50	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 255	2.55	9.525	4.5	3.18		0.1
TGF32 ^{R/L} 260	2.60	9.525	4.5	3.18		0.1

GBA43R^{R/L}



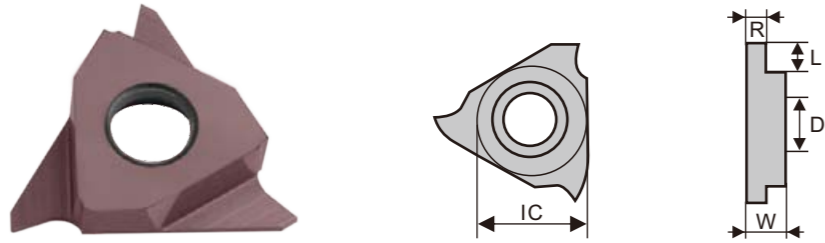
(mm)

型号 Type	S	IC	T	D	L	R
GBA43 ^{R/L} 100	1.00	12.7	4.76	5.5	2	0.05
GBA43 ^{R/L} 105	1.05	12.7	4.76	5.5	2	0.50
GBA43 ^{R/L} 110	1.10	12.7	4.76	5.5	2	0.05
GBA43 ^{R/L} 115	1.15	12.7	4.76	5.5	3.5	0.2
GBA43 ^{R/L} 120	1.20	12.7	4.76	5.5	3.5	0.2
GBA43 ^{R/L} 125	1.25	12.7	4.76	5.5	3.5	0.2
GBA43 ^{R/L} 130	1.30	12.7	4.76	5.5	3.5	0.2
GBA43 ^{R/L} 135	1.35	12.7	4.76	5.5	3.5	0.2
GBA43 ^{R/L} 140	1.40	12.7	4.76	5.5	3.5	0.2
GBA43 ^{R/L} 145	1.45	12.7	4.76	5.5	3.5	0.2
GBA43 ^{R/L} 150	1.50	12.7	4.76	5.5	3.5	0.2
GBA43 ^{R/L} 155	1.55	12.7	4.76	5.5	3.5	0.2
GBA43 ^{R/L} 160	1.60	12.7	4.76	5.5	2	0.2
GBA43 ^{R/L} 165	1.65	12.7	4.76	5.5	2	0.2
GBA43 ^{R/L} 170	1.70	12.7	4.76	5.5	2	0.2
GBA43 ^{R/L} 175	1.75	12.7	4.76	5.5	2	0.2
GBA43 ^{R/L} 180	1.80	12.7	4.76	5.5	2	0.2
GBA43 ^{R/L} 185	1.85	12.7	4.76	5.5	2	0.2
GBA43 ^{R/L} 190	1.90	12.7	4.76	5.5	4.6	0.2
GBA43 ^{R/L} 195	1.95	12.7	4.76	5.5	4.6	0.2
GBA43 ^{R/L} 200	2.00	12.7	4.76	5.5	4.46	0.2
GBA43 ^{R/L} 205	2.05	12.7	4.76	5.5	4.6	0.2
GBA43 ^{R/L} 210	2.10	12.7	4.76	5.5	4.6	0.2
GBA43 ^{R/L} 215	2.15	12.7	4.76	5.5	4.6	0.2
GBA43 ^{R/L} 220	2.20	12.7	4.76	5.5	4.6	0.2
GBA43 ^{R/L} 225	2.25	12.7	4.76	5.5	5	0.2
GBA43 ^{R/L} 230	2.30	12.7	4.76	5.5	5	0.2
GBA43 ^{R/L} 235	2.35	12.7	4.76	5.5	5	0.2
GBA43 ^{R/L} 240	2.40	12.7	4.76	5.5	5	0.2

切槽切断加工

Parting & Grooving tools

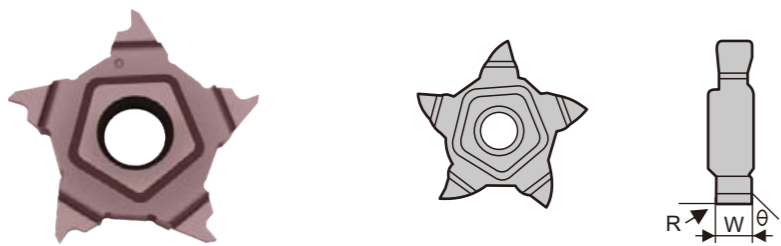
GBA43^{R/L}



(mm)

型号 Type	S	IC	T	D	L	R
GBA43 ^{R/L} 245	2.45	12.7	4.76	5.5	5	0.2
GBA43 ^{R/L} 250	2.50	12.7	4.76	5.5	5	0.2
GBA43 ^{R/L} 255	2.55	12.7	4.76	5.5	5	0.2
GBA43 ^{R/L} 260	2.60	12.7	4.76	5.5	5	0.2
GBA43 ^{R/L} 265	2.65	12.7	4.76	5.5	5	0.2
GBA43 ^{R/L} 270	2.70	12.7	4.76	5.5	5	0.2
GBA43 ^{R/L} 275	2.75	12.7	4.76	5.5	5	0.3

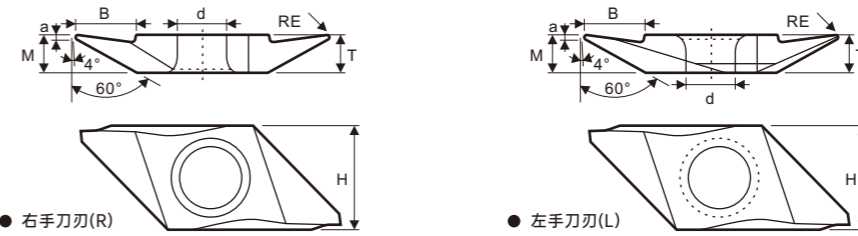
MRMN-M



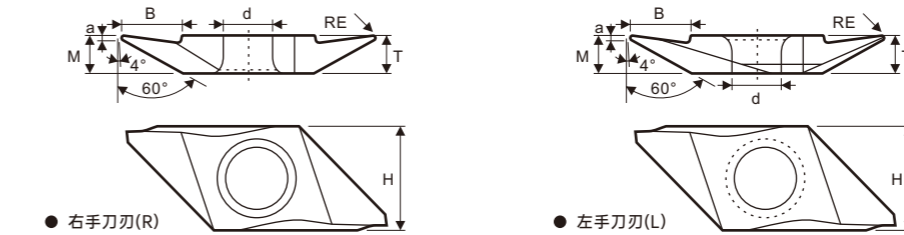
(mm)

型号 Type	W	R	最大切深	θ
24N080F010	0.8	0.05	2.0	7
24N100F010	1.0	0.10	2.5	7
24N125F010	1.3	0.10	4.0	7
24N150F010	1.5	0.10	6.0	7
24N175F010	1.8	0.10	6.0	7
24N200F020	2.0	0.10	6.0	7
24N250F020	2.5	0.20	6.0	7
24N300F020	3.0	0.20	6.0	7

KTKF型 刀杆用



刀片外形 Shape of insert	型号 Type	尺寸 Size							Grade 牌号	RCP 02	RCP 07
		W	a	B	RE	T	H	d			
	TKFB 12R15005M	1.5	0.25	2.6	<0.05	3.0	8.7	5.2		●	●
	TKFB 12R28005M	2.8	0.3	4.6	<0.05	3.0	8.7	5.2		●	●
	TKFB 12R28010M	2.8	0.3	4.6	<0.1	3.0	8.7	5.2		●	●
	TKFB 16R38005M	3.8	0.3	6.3	<0.05	4.0	9.5	5.2		●	●
	TKFB 16R38010M	3.8	0.3	6.3	<0.1	4.0	9.5	5.2		●	●
	TKFB 12L28005MR	2.8	0.3	4.6	<0.05	3.0	8.7	5.2		●	●
	TKFB 12L28010MR	2.8	0.3	4.6	<0.1	3.0	8.7	5.2		●	●
	TKFB 16L38005MR	3.8	0.3	6.3	<0.05	4.0	9.5	5.2		●	●
TKFB 16L38010MR	3.8	0.3	6.3	<0.1	4.0	9.5	5.2		●	●	



刀片外形 Shape of insert	型号 Type	尺寸 Size							Grade 牌号	RCP 02	RCP 07
		W	a	B	RE	T	H	d			
	TKFB 12R28005-GQ	2.8	1.5	4.6	0.05	3.0	8.7	5.2		●	●
	TKFB 12R28015-GQ	2.8	1.5	4.6	0.15	3.0	8.7	5.2		●	●
	TKFB 16R38005-GQ	3.8	1.8	6.3	0.05	4.0	9.5	5.2		●	●
	TKFB 16R38015-GQ	3.8	1.8	6.3	0.15	4.0	9.5	5.2		●	●

TKFB_12R28_ θ:74°
TKFB_16R38_ θ:72°

切槽切断加工

Parting&Grooving tools



内径切槽加工 SIGE型 Grooving machining

刀片外形 Shape of insert	型号 Type	尺寸 Size								牌号 Grade	
		W	B	C	RE	A	L	H	d	RCP02	RCP07
	GE ^{R/L} 100-005A	1.00	1.5	1.8	0.05	6.69	6.5	2.58	2.5	●	●
	GE ^{R/L} 120-005A	1.20	1.5	1.8	0.05	6.69	6.5	2.58	2.5	●	●
	GE ^{R/L} 125-005A	1.25	1.5	1.8	0.05	6.69	6.5	2.58	2.5	●	●
	GE ^{R/L} 150-010A	1.50	1.5	1.8	0.1	6.69	6.5	2.58	2.5	●	●
	GE ^{R/L} 200-010A	2.00	1.5	1.8	0.1	6.69	6.5	2.58	2.5	●	●
	GE ^{R/L} 100-005B	1.00	2.2	2.6	0.05	8.46	8.2	3.18	2.7	●	●
	GE ^{R/L} 120-005B	1.20	2.2	2.6	0.05	8.46	8.2	3.18	2.7	●	●
	GE ^{R/L} 125-005B	1.25	2.2	2.6	0.05	8.46	8.2	3.18	2.7	●	●
	GE ^{R/L} 145-010B	1.45	2.2	2.6	0.1	8.46	8.2	3.18	2.7	●	●
	GE ^{R/L} 150-010B	1.50	2.2	2.6	0.1	8.46	8.2	3.18	2.7	●	●
	GE ^{R/L} 200-010B	2.00	2.2	2.6	0.1	8.46	8.2	3.18	2.7	●	●
	GE ^{R/L} 250-020B	2.50	2.2	2.6	0.2	8.46	8.2	3.18	2.7	●	●
	GE ^{R/L} 300-020B	3.00	2.2	2.6	0.2	8.46	8.2	3.18	2.7	●	●
	GER 100-005AR	1.00	1.5	1.8	0.5	6.69	6.5	2.58	2.5	●	●
	GER 200-100AR	2.00	1.5	1.8	1.0	6.69	6.5	2.58	2.5	●	●
	GER 100-050BR	1.00	2.2	2.6	0.5	8.46	8.2	3.18	2.7	●	●
	GER 200-100BR	2.00	2.2	2.6	1.0	8.46	8.2	3.18	2.7	●	●
	GER 150-010CM	1.50	2.5	2.7	0.1	5.8	11.48	4.05	2.8	●	●
	GER 200-010CM	2.00	2.5	2.7	0.1	5.8	11.48	4.05	2.8	●	●
	GER 250-020CM	2.50	2.5	2.7	0.2	5.8	11.48	4.05	2.8	●	●
	GER 300-020CM	3.00	2.5	2.7	0.2	5.8	11.48	4.05	2.8	●	●
	GER 350-020CM	3.50	2.5	2.7	0.2	5.8	11.48	4.05	2.8	●	●

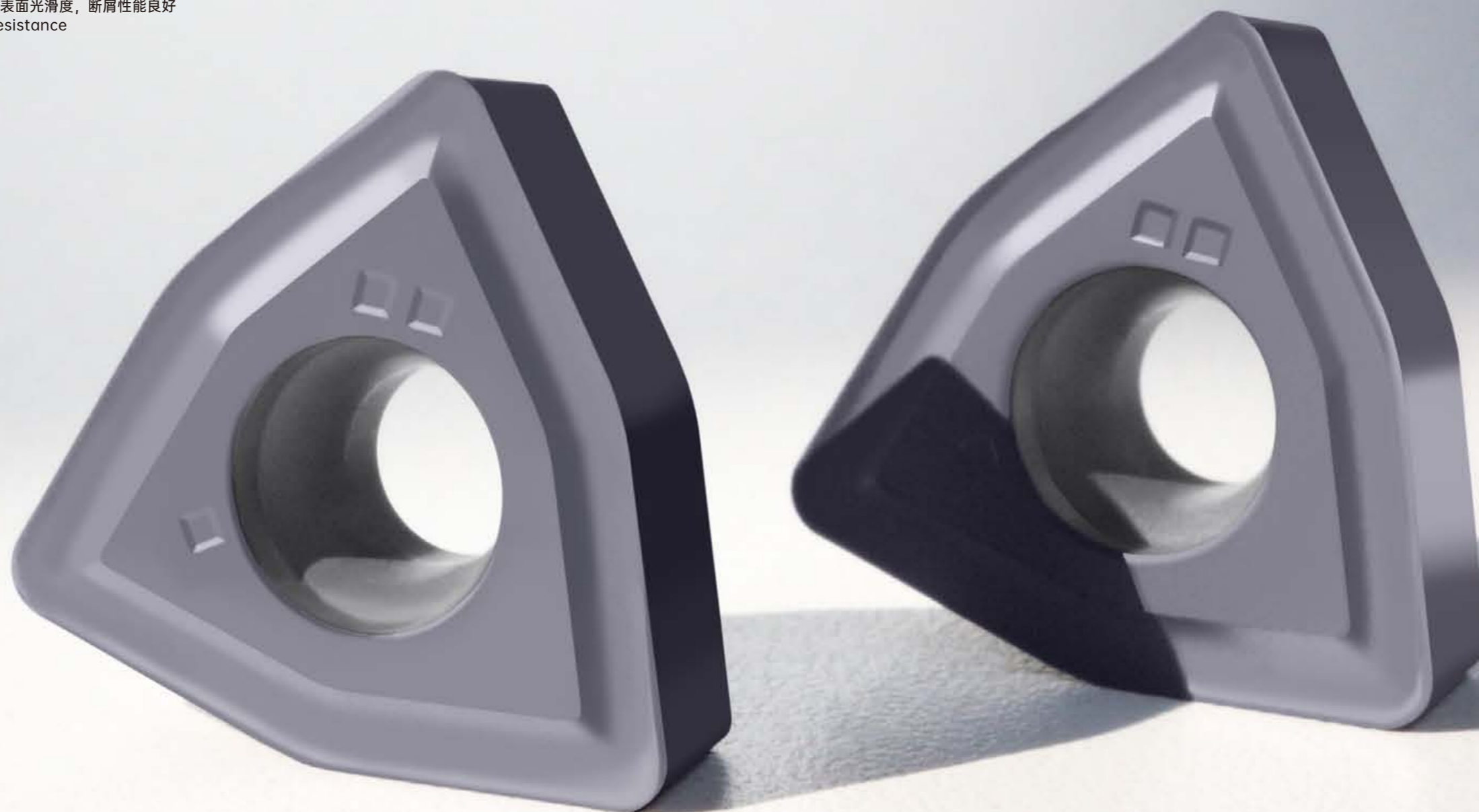
内径切槽加工 SIGE型 Grooving machining

刀片外形 Shape of insert	型号 Type	尺寸 Size								牌号 Grade	
		W	B	C	RE	A	L	H	d	RCP02	RCP07
	GER 150-010DM	1.50	3.0	4.8	0.1	6.8	16.44	5.05	3.4	●	●
	GER 200-010DM	2.00	3.2	4.8	0.1	6.8	16.44	5.05	3.4	●	●
	GER 230-020DM	2.30	3.2	4.8	0.2	6.8	16.44	5.05	3.4	●	●
	GER 250-020DM	2.50	3.2	4.8	0.2	6.8	16.44	5.05	3.4	●	●
	GER 300-020DM	3.00	4.5	4.8	0.2	6.8	16.44	5.05	3.4	●	●
	GER 350-020DM	3.50	4.5	4.8	0.2	6.8	16.44	5.05	3.4	●	●
	GER 400-020DM	4.00	4.5	4.8	0.2	6.8	16.44	5.05	3.4	●	●
	GER 150-010EM	1.50	3.0	6.8	0.1	9.54	21.66	5.55	4.4	●	●
	GER 200-010EM	2.00	3.2	6.8	0.1	9.54	21.66	5.55	4.4	●	●
	GER 250-020EM	2.50	4.5	6.8	0.2	9.54	21.66	5.55	4.4	●	●
	GER 300-020EM	3.00	4.5	6.8	0.2	9.54	21.66	5.55	4.4	●	●
	GER 350-020EM	3.50	5.5	6.8	0.2	9.54	21.66	5.55	4.4	●	●
	GER 400-020EM	4.00	5.5	6.8	0.2	9.54	21.66	5.55	4.4	●	●
	GER 450-020EM	4.50	6.5	6.8	0.2	9.54	21.66	5.55	4.4	●	●
	GER 500-020EM	5.00	6.5	6.8	0.2	9.54	21.66	5.55	4.4	●	●

钻孔刀






DRILLING INSERTS

抗冲击、耐磨、锋利的刃口提高工件表面光滑度，断屑性能良好
High shock resistance & wear resistance



钻孔刀片 Drilling blade



刀片 inserts

刀片外形 Shape of insert	型号 Type	Grade 牌号	RCP 01	RCP 02	RCP 07	RCP 08	RCP 41	RCP 42	RCP 51	RCP 52	RCP 061	RCP 055	RCC 031	RCC 032	RCC 033	RCC 034
	SPMG050204			●	●	●										
	SPMG060204			●	●	●										
	SPMG07T308			●	●	●										
	SPMG090408			●	●	●										
	SPMG110408			●	●	●										
	WCMX030208			●	●	●										
	WCMX040208			●	●	●										
	WCMX050308			●	●	●										
	WCMX06T308			●	●	●										
	WCMX080412			●	●	●										
	ISCAR TOGT		●													
	TOGT		●													
	SANDVIK SEIRES					●										
	R424.9-13T308					●										
	R424.9-180608					●										
	TPMT16T312					●										
	TPMT220612					●										

| 配套零件 Assembly parts

型号 Type	螺钉 Screw	扳手 Wrench	中心刀座 Center Cutterbed
TPMT16T312	M3	T10	D2C15
TPMT220612	M3	T10	D2C15

刀片 inserts

刀片外形 Shape of insert	型号 Type	Grade 牌号	RCP 01	RCP 02	RCP 07	RCP 08	RCP 41	RCP 42	RCP 51	RCP 52	RCP 061	RCP 055	RCC 031	RCC 032	RCC 033	RCC 034
	TPMX140308					●										
	TPMX170408					●										
	TPMX240512					●										
	TPMX280716					●										
	TAEGU TEC					●										
	SOMT SERIES					●										
						●										
						●										

| 配套零件 Assembly parts

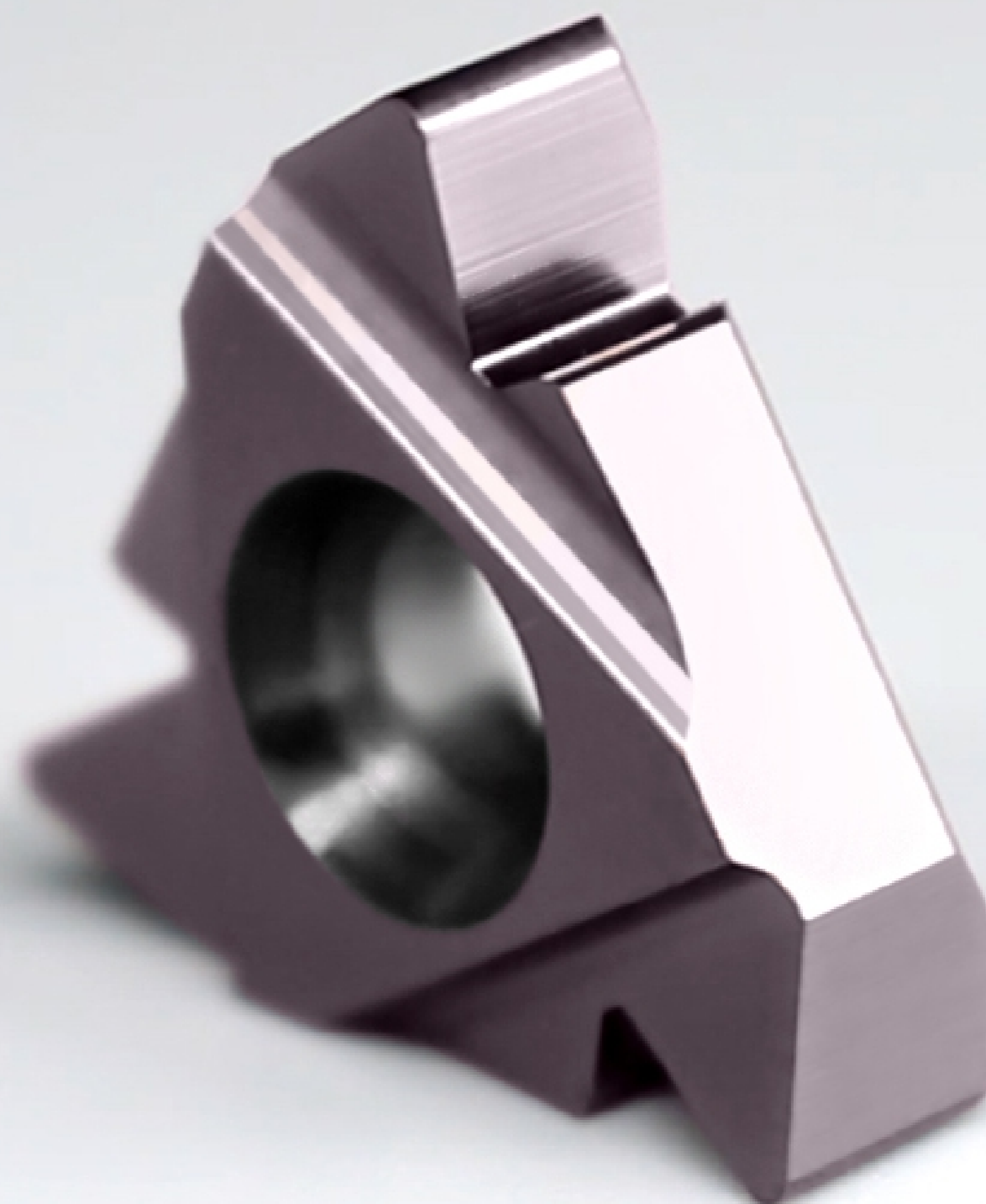
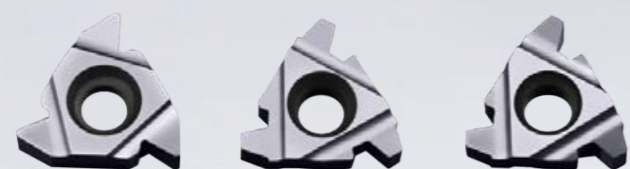
型号 Type	螺钉 Screw	扳手 Wrench	中心刀座 Center Cutterbed
TPMX140308	M2.5	T7	DZIC14
TPMX170408	M2.5	T15	DCIC17
TPMX240512	M4	T15	DCIC24
TPMX280716	M4	T15	DZIC28

螺纹刀

THREADING INSERTS

■ 正前角的切削刃形，使刀刃的切削性能极佳，卷屑十分可靠
The positive rake angle makes inserts' cutting performance excellent,
The Chip curling well

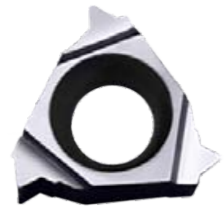
重复精度高，多种螺纹齿形
High repeat accuracy; Varies threading inserts' teeth shape



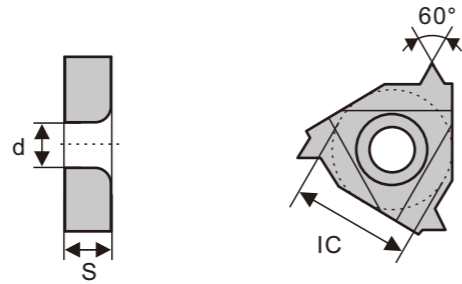
螺纹刀

Threading inserts

刀片 inserts



06IR1.0ISO



(mm)

Type 型号	pitch 螺距	尺寸 Size			Grade 等级	RCP 01	RCP 02	RCP 07	RCP 08	RCP 41	RCP 42	RCP 51	RCP 52	RCP 061	RCP 055	RCC 031	RCC 032	RCC 033	RCC 034
		IC	S	d															
06IR 0.5ISO	0.5						●							●					
06IR 0.8ISO	0.8						●							●					
06IR 1.0ISO	1.0						●							●					
06IR 1.5ISO	1.5						●							●					
06IR 1.25ISO	1.25						●							●					
08IR 0.5ISO	0.5	4.76	2.2	2.3			●							●					
08IR 0.75ISO	0.75	4.76	2.2	2.3			●							●					
08IR 1.0ISO	1.0	4.76	2.2	2.3			●							●					
08IR 1.25ISO	1.25	4.76	2.2	2.3			●							●					
08IR 1.5ISO	1.5	4.76	2.2	2.3			●							●					
11IR 0.5ISO	0.5	6.35	3.18	2.8			●							●					
11IR 0.7ISO	0.7	6.35	3.18	2.8			●							●					
11IR 0.75ISO	0.75	6.35	3.18	2.8			●							●					
11IR 0.8ISO	0.8	6.35	3.18	2.8			●							●					
11IR 1.0ISO	1.0	6.35	3.18	2.8			●							●					
11IR 1.25ISO	1.25	6.35	3.18	2.8			●							●					
11IR 1.5ISO	1.5	6.35	3.18	2.8			●							●					
11IR 1.75ISO	1.7	6.35	3.18	2.8			●							●					
11IR 2.0ISO	2.0	6.35	3.18	2.8			●							●					
11IR 2.5ISO	2.5	6.35	3.18	2.8			●							●					
16IR 0.5ISO	0.5	9.525	3.97	4.4			●							●					
16IR 0.75ISO	0.7	9.525	3.97	4.4			●							●					
16IR 0.8ISO	0.8	9.525	3.97	4.4			●							●					
16IR 1.0ISO	1.0	9.525	3.97	4.4			●							●					
16IR 1.25ISO	1.25	9.525	3.97	4.4			●							●					



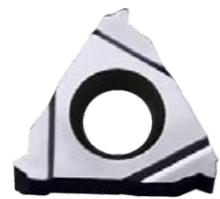
刀片 inserts

(mm)

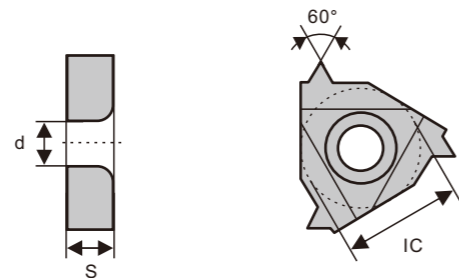
Type 型号	pitch 螺距	尺寸 Size			Grade 等级	RCP 01	RCP 02	RCP 07	RCP 08	RCP 41	RCP 42	RCP 51	RCP 52	RCP 061	RCP 055	RCC 031	RCC 032	RCC 033	RCC 034
		IC	S	d															
16IR 1.5ISO	1.5	9.525	3.97	4.4			●							●					
16IR 1.75ISO	1.7	9.525	3.97	4.4			●							●					
16IR 2.0ISO	2.0	9.525	3.97	4.4			●							●					
16IR 2.5ISO	2.5	9.525	3.97	4.4			●							●					
16IR 3.0ISO	3.0	9.525	3.97	4.4			●							●					
16IR 3.5ISO	3.5	9.525	3.97	4.4			●							●					
22IR 2.5ISO	2.5	12.7	4.85	5.5			●							●					
22IR 3.0ISO	3.0	12.7	4.85	5.5			●							●					
22IR 3.5ISO	3.5	12.7	4.85	5.5			●							●					
22IR 4.0ISO	4.0	12.7	4.85	5.5			●							●					
22IR 4.5ISO	4.5	12.7	4.85	5.5			●							●					
22IR 5.0ISO	5.0	12.7	4.85	5.5			●							●					
22IR 5.5ISO	5.5	12.7	4.85	5.5			●							●					
22IR 6.0ISO	6.0	12.7	4.85	5.5			●							●					
27IR 5.5ISO	5.5	15.875	6.35	6			●							●					
27IR 6.0ISO	6.0	15.875	6.35	6			●							●					
27IR 7.0ISO	7.0	15.875	6.35	6			●							●					
27IR 8.0ISO	8.0	15.875	6.35	6			●							●					

螺纹刀 Threading inserts

刀片 inserts



11ER 1.0ISO



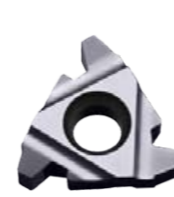
Type 型号	pitch 螺距	尺寸 Size			Grade 牌号
		IC	S	d	
11ER 0.5ISO	0.5	6.35	3.18	2.8	
11ER 0.75ISO	0.75	6.35	3.18	2.8	
11ER 1.0ISO	1.0	6.35	3.18	2.8	
11ER 1.25ISO	1.25	6.35	3.18	2.8	
11ER 1.5ISO	1.5	6.35	3.18	2.8	
11ER 1.75ISO	1.75	6.35	3.18	3.2	
11ER 2.0ISO	2.0	6.35	3.18	2.8	
16ER 0.75ISO	0.75	9.525	3.97	4.4	
16ER 1.0ISO	1.0	9.525	3.97	4.4	
16ER 1.25ISO	1.25	9.525	3.97	4.4	
16ER 1.5ISO	1.5	9.525	3.97	4.4	
16ER 1.75ISO	1.75	9.525	3.97	4.4	
16ER 2.0ISO	2.0	9.525	3.97	4.4	
16ER 2.5ISO	2.5	9.525	3.97	4.4	
16ER 3.0ISO	3.0	9.525	3.97	4.4	
16ER 3.5ISO	3.5	9.525	3.97	4.4	
22ER 3.5ISO	3.5	12.7	4.85	5.5	
22ER 4.0ISO	4.0	12.7	4.85	5.5	
22ER 4.5ISO	4.5	12.7	4.85	5.5	
22ER 5.0ISO	5.0	12.7	4.85	5.5	
22ER 5.5ISO	5.5	12.7	4.85	5.5	
27ER 5.5ISO	5.5	15.875	6.35	6	
27ER 6.0ISO	6.0	15.875	6.35	6	

(mm)

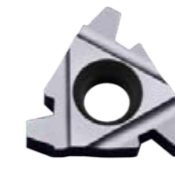
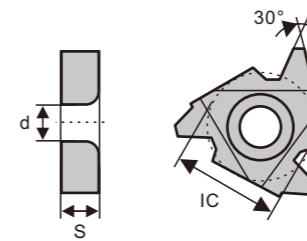


刀片 inserts

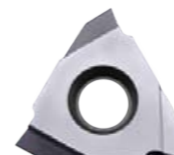
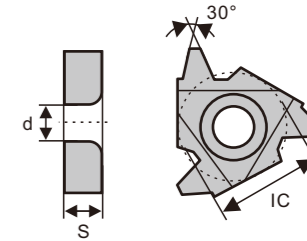
(mm)



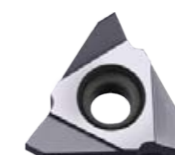
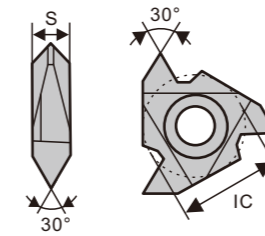
16IR 4.0TR



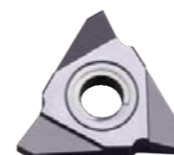
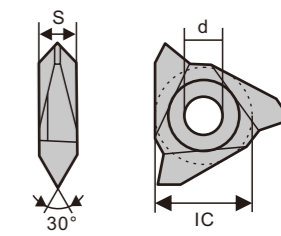
16ER 4.0TR



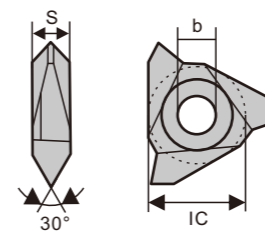
22VER 4.0TR



27VER 10.0TR



27VIR 10.0TR



Type 型号	pitch 螺距	尺寸 Size			Grade 牌号
		IC	S	d	
11IR 1.5TR	1.5	6.35	3.18	2.8	
11IR 2.0TR	2.0	6.35	3.18	2.8	
16IR 1.25TR	1.25	9.525	3.97	4.4	
16IR 1.5TR	1.5	9.525	3.97	4.4	
16IR 2.0TR	2.0	9.525	3.97	4.4	
16IR 2.5TR	2.5	9.525	3.97	4.4	
16IR 3.0TR	3.0	9.525	3.97	4.4	
16IR 4.0TR	4.0	9.525	3.97	4.4	
22IR 3.5TR	3.5	12.7	4.85	5.5	
22IR 4.0TR	4.0	12.7	4.85	5.5	
22IR 4.5TR	4.5	12.7	4.85	5.5	
22IR 5.0TR	5.0	12.7	4.85	5.5	
22IR 6.0TR	6.0	12.7	4.85	5.5	

(mm)

螺纹刀

Threading inserts

刀片 inserts

Type 型号	pitch 螺距	尺寸 Size			Grade 牌号	RCC 034	RCC 033	RCC 032	RCC 031	RCP 05S	RCP 061	RCP 52	RCP 51	RCP 42	RCP 41	RCP 08	RCP 07	RCP 02	RCP 01	
		IC	S	d																
27IR 6.0TR	6.0	15.875	6.35	6							●									
27IR 7.0TR	7.0	15.875	6.35	6							●									
27IR 8.0TR	8.0	15.875	6.35	6							●									
16ER 1.25TR	1.25	9.525	3.97	4.4							●									
16ER 1.5TR	1.5	9.525	3.97	4.4							●									
16ER 2.0TR	2.0	9.525	3.97	4.4							●									
16ER 2.5TR	2.5	9.525	3.97	4.4							●									
16ER 3.0TR	3.0	9.525	3.97	4.4							●									
16ER 3.5TR	3.5	9.525	3.97	4.4							●									
16ER 4.0TR	4.0	9.525	3.97	4.4							●									
22ER 3.5TR	3.5	12.7	4.85	5.5							●									
22ER 4.0TR	4.0	12.7	4.85	5.5							●									
22ER 4.5TR	4.5	12.7	4.85	5.5							●									
22ER 5.0TR	5.0	12.7	4.85	5.5							●									
22ER 6.0TR	6.0	12.7	4.85	5.5							●									
27ER 6.0TR	6.0	15.875	6.35	6							●									
27ER 7.0TR	7.0	15.875	6.35	6							●									
27ER 8.0TR	8.0	15.875	6.35	6							●									
22VER 3.0TR	3.0	12.7	4.85	5.5							●									
22VER 4.0TR	4.0	12.7	4.85	5.5							●									
22VER 5.0TR	5.0	12.7	4.85	5.5							●									
22VER 6.0TR	6.0	12.7	4.85	5.5							●									
27VER 6.0TR	6.0	15.875	6.35	6							●									
27VER 8.0TR	8.0	15.875	6.35	6							●									
27VER 10TR	10	15.875	6.35	6							●									
27VER 12TR	12	15.875	6.35	6							●									
27VIR 6.0TR	6.0	15.875	6.35	6							●									
27VIR 8.0TR	8.0	15.875	6.35	6							●									
27VIR 10TR	10	15.875	6.35	6							●									
27VIR 12TR	12	15.875	6.35	6							●									

刀片 inserts



Type 型号	pitch 螺距	尺寸 Size			Grade 牌号	RCC 034	RCC 033	RCC 032	RCC 031	RCP 05S	RCP 061	RCP 52	RCP 51	RCP 42	RCP 41	RCP 08	RCP 07	RCP 02	RCP 01	
		IC	S	d																
22IR N60	3.5-5.0	12.7	4.85	5.5							●									
22ER N60	3.5-5.0	12.7	4.85	5.5							●									
27ER Q55	5.5-6.0	15.875	6.35	6							●									
27IR Q55	5.5-6.0	15.875	6.35	6							●									