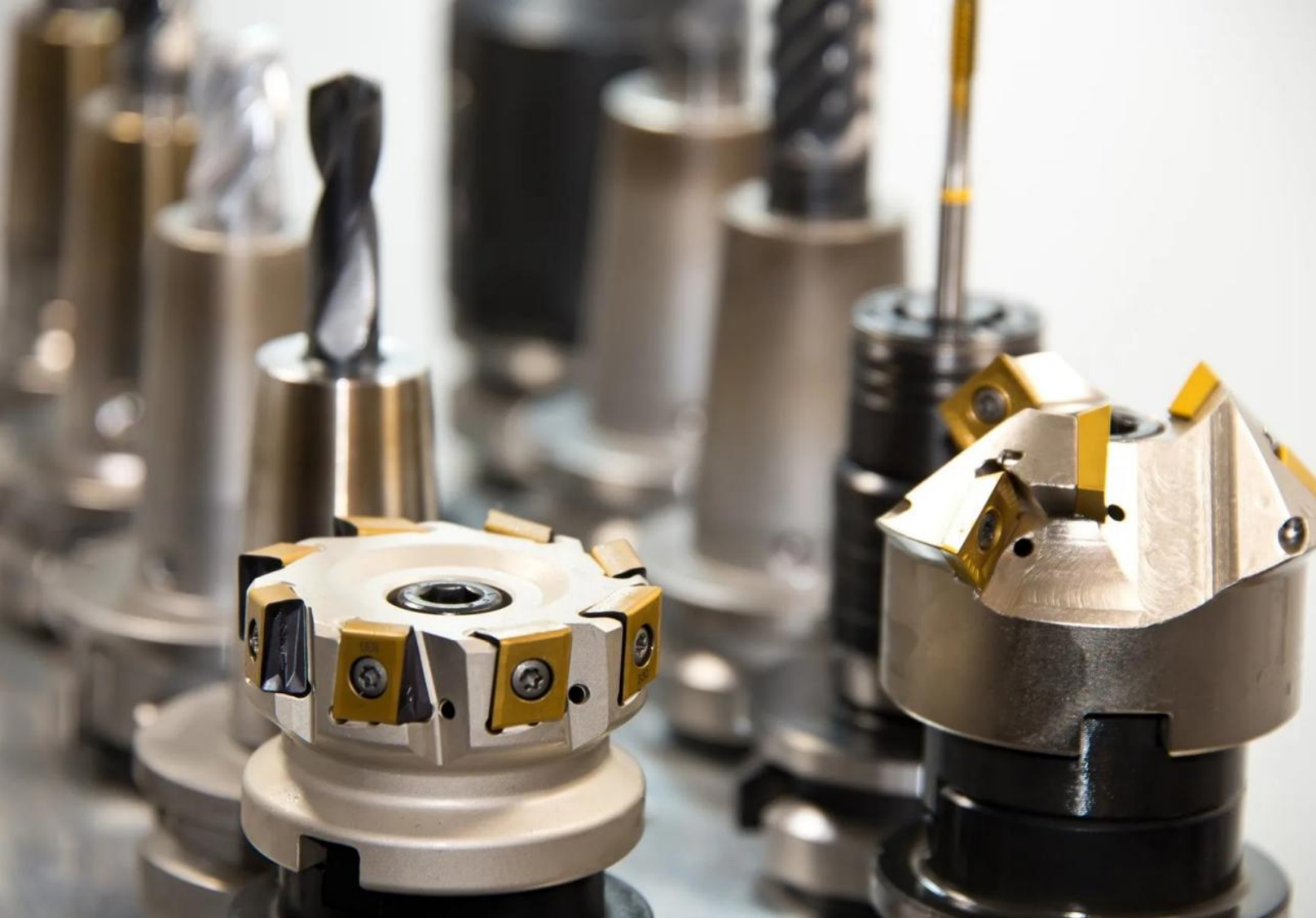
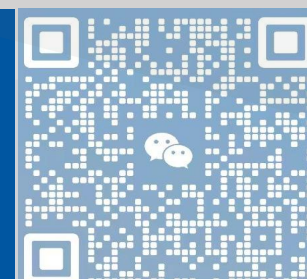




2025 REVEN TOOL CATALOGUE



Yiwu Reven Hardware Company

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Zhuzhou City, Hunan Province, China

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Company Profile

公司简介

Yiwu Reven Hardware Company is a domestic carbide inserts and cutting tool enterprise. Production Center is located in Liyu Industrial Park, Tianyuan District, Zhuzhou City, Hunan Province.

The company has been adhering to the development strategy of "scientific and technological innovation, quality excellence", focusing on the research and development and application of cemented carbide CNC inserts, and constantly pursuing the enhancement of the overall performance of cemented carbide CNC inserts and the optimization of the manufacturing process. Relying on years of talent, technology accumulation and the introduction, digestion and absorption of advanced equipment, the company has formed its own core technology in the four major areas of base material, groove structure, precision molding and surface coating, and developed three series of products for turning, milling and drilling.

The company's products are divided into: in the cemented carbide and cermet inserts have a rich product structure. In the direction of Cemented Carbide, we have developed mold milling insert substrate, cast iron substrate, high hardness substrate, with the most advanced PVD coating with high red hardness and very low coefficient of friction, and launched several high quality products. In the machining accuracy, machining efficiency and service life and other cutting performance, it has been in the domestic advanced level, part of the product enter into the European and American and Japanese and South Korean market. company's products have long occupied the domestic medium and high-end market, especially turning and milling inserts have formed a significant competitive advantage.

Looking to the future, the company will uphold the customer first, the principle of common development, and constantly improve the product system, innovate technology, improve product quality to meet customer needs.

A new sword for intermittent processing of stainless steel



01 Special stainless steel substrate (HRC91.5-93.5) improves hardness and strength at high temperatures

02 Nano multi-layer composite imported coating, low friction coefficient, higher operating temperature, no fear of dry cutting

03 Imported target material, better bonding between coating and substrate, ensuring stable processing under all working conditions



Case Study	
Processing method	Filter plate wet face milling
Insert type	RPMT10T3MO-JS/RP8115
Processed materials	2205 Duplex Stainless Steel
Parameters	Vc=99m/min、Fz=0.35mm/z、Ap=0.3mm

Our inserts have 13 pieces processed, while a well-known domestic brand only machine 9 pieces. The new RP8115 grade performs well in stainless steel material processing, and its life and stability are further improved

Case Study	
Processing method	External circle strong intermittent end face rough turning
Insert type	WNMG080404-MA/RP8115
Processed materials	SUS304(Surface with oxide skin HRC23)
Parameters	Vc=127m/min、Fz=0.25mm/z、Ap=0.5mm

Our inserts processed 12 pieces, and a foreign brand processed 10 pieces. The surface of the rough-turned end face has oxide scale. Our products are all stable wear, and the advantages of intermittent processing are obvious.

RP7725

Special model for difficult-to-process materials

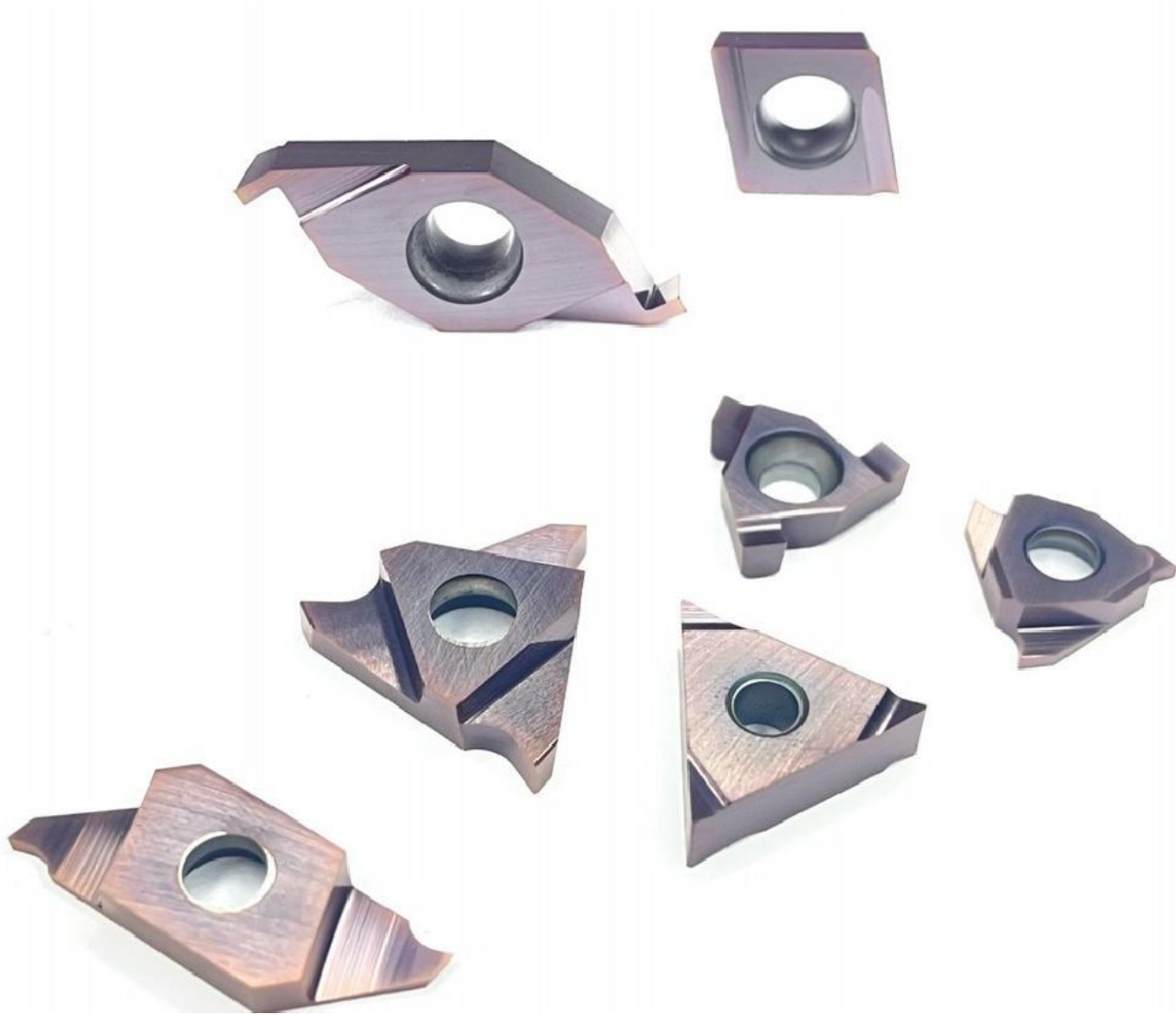
RP7725 series high hardness materials New selection uses uniform ultrafine nano-particle high hardness matrix, with super thermal stability and anti-oxidation wear-resistant coating, which greatly improves the red hardness of the coating, can withstand more stringent cutting temperatures, and adapt to the processing of higher hardness materials.



Case Study

Processing method	External rough turning
Insert type	WNMG080408-MS/RP7725
Processed materials	42CrMo(HRC48-52)
Parameters	Vc=130m/min 、Fz=0.25mm/z 、Ap=0.6mm

Our Inserts processed 150 pieces, and domestic well-known brands processed 120 pieces. In terms of quenching high-hardness materials, the RP7725 series products have higher lifespan and stability.



RV1040

Newcomer in small parts processing

RV1040 Series of G-grade imported Panshi Chunbao special substrate, original powder five-axis CNC fine grinding, higher precision, with multi-layer composite coating, excellent performance in stainless steel and steel processing

TURNING TOOLS

车削刀具/Turning Tools

05~08 车削精选推荐

Recommend for Turning

11~11 车削槽型介绍

Chipbreaker Description Of Turning

12~12 车削牌号介绍

Turning Inserts Grade Introduce

13~14 车削刀片型号表示规则

General Turning Insert Code Key

15~30 车削刀片大全

Turning Inserts

31~34 车削刀片案例

Cases for Turning Inserts

35~35 切槽牌号介绍

Grooving Inserts Grade Introduce

36~36 切槽刀片槽型介绍

Slot Description Of Grooving

37~38 切槽刀片大全

Grooving Inserts

39~39 螺纹刀片牌号介绍

Threading Inserts Grade Introduce

40~40 螺纹刀片大全

Threading Inserts

42~42 精磨刀片牌号介绍

Precision Inserts Grade Introduce

43~60 精磨刀片大全

Precision Inserts



车削刀片槽型介绍 Chipbreaker Description Of Turning Inserts

	P-钢件 Steels	M-不锈钢 Stainless steels	K-铸铁 Castiron	N-铝合金 Aluminium Alloy	H-难加工 Intractable Material
精加工 Finishing	 43	 MS M类精加工第一推荐槽型 First recommended type for Machining	 GC K类通用加工槽型 General machining Chipbreaker	 HA N类材料的锋利精加工槽型 Sharp finishing grooves for N materials	 TF  MS H类材料通用槽型 General type for class H material
	 GF P类精加工第一推荐槽型 First recommended groove for P finishing				
半精加工 Semi Finishing	 HQ	 MA M类半精、粗加工第一推荐槽型 First recommended groove type for semi-finishing & roughing in M category			
	 TM P类半精加工第一推荐槽型 First recommended groove type for P semifinishing				
粗加工 Roughing	 R/L-S P类断续、粗加工第一推荐加工槽型 Class P interrupted, roughing first recommended machining groove type		 GH K类断续、黑皮粗加工车削第一推荐加工槽型 Class K intermittent, black skin roughing first recommended processing groove type		

车削牌号介绍 Turning Inserts Grade Introduction

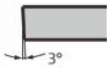
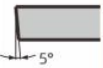
Grade Introduction	Grade Specifications
RP8115	PVD coating, red purple color, stainless steel special substrate, matched with high Sicoating with low friction coefficienthigh oxidation resistance temperature andhigh nano hardness, it is extremely excellent in the field of high-speed stainless steel processing, and is the preferred grade for stainless steel turning.
RP7725	PVD coating, seven colors, high hardness special matrix with super thermal stability of th dnu-Cudung,greatly eiancng te cuaumg oireu druness anu mgin temperalure
RC8025	CVD coating, golden color, uniform particle size and cobalt-rich structural matrix, with thicker CVD coating and perfect post-coating treatment, the wear resistance is greatly improved, making it the most common grade for steel turning.
RC3225A	CVD thickened black diamond coating has excellent wear resistance and toughness. It is widely used in various processing of cast iron and is the preferred grade for turning gray iron and ductile iron.
RP8125	PVD coating, black grey, imported Panshi Chunbao special substrate, five-axis CNC grinding, higher precision, with composite coating, excellent performance in stainless steel and steel processing, the first choice for small parts processing.
RV960	Cermets material, good versatility, good wear resistance and chipping resistance, suitable for continuous finishing and semi-finishing of carbon steel, alloy steel and ductile cast iron
RV525	Preferred grades for aluminum alloy machining

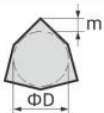
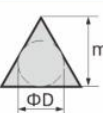
普通车削刀片型号表示规则 Common turning insert model indication rules

		
		
		
		
		
		其他
形状代号		

B	有	无		N	无	无	
H	有	单面		R	无	单面	
C	有	无		F	无	双面	
J	有	双面		A	有	无	
W	有	无		M	有	单面	
T	有	单面		G	有	双面	
Q	有	无		X	---	---	特殊
U	有	双面					
代号	孔	断屑槽	刀片剖面	代号	孔	断屑槽	刀片剖面
断屑槽及夹固形式							

C N M G

主切削刃后角			
代号	后角	代号	后角
A		A	
C		D	
E		F	
G		N	
P		O	其他

公差(mm)										
										
级别	刀尖高度 (m)	内切圆 (ΦD)	厚度 (S)	◆ M级精度要求(按形状和内切圆大小区分)						
				◆ 刀尖高度(m)公差						
A	±0.005	±0.025	±0.025	内接圆	正三角形	正方形	80°菱形	55°菱形	35°菱形	圆形
F	±0.005	±0.013	±0.013	6.35	±0.08	±0.08	±0.08	±0.11	±0.16	—
C	±0.013	±0.025	±0.025	9.525	±0.08	±0.08	±0.08	±0.11	±0.16	—
H	±0.013	±0.013	±0.013	12.7	±0.13	±0.13	±0.13	±0.15	—	—
E	±0.025	±0.025	±0.025	15.875	±0.15	±0.15	±0.15	±0.18	—	—
G	±0.025	±0.025	±0.13	19.05	±0.15	±0.15	±0.15	±0.18	—	—
J	±0.005	±0.05-±0.13	±0.025	25.4	—	±0.18	—	—	—	—
K	±0.013	±0.05-±0.13	±0.025	◆内切圆(ΦD)公差						
L	±0.025	±0.05-±0.13	±0.025	内接圆	正三角形	正方形	80°菱形	55°菱形	35°菱形	圆形
M	±0.08-±0.18	±0.05-±0.13	±0.13	6.35	±0.05	±0.05	±0.05	±0.05	±0.05	—
N	±0.08-±0.18	±0.05-±0.13	±0.025	9.525	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
U	±0.08-±0.18	±0.05-±0.25	±0.13	12.7	±0.08	±0.08	±0.08	—	—	±0.08
				15.875	±0.10	±0.10	±0.10	—	—	±0.10
				19.05	±0.10	±0.10	±0.10	—	—	±0.10
				25.4	—	±0.13	—	—	—	±0.13

普通车削刀片型号表示规则 General Turning Insert model indication rules

32			32						12	12.7
31.75			31						10	11.11
25.4			25	25					T9	9.72
25	25	25	25						09	9.52
20			20						07	7.94
19.05	19		19	19	33				T6	6.75
16		19	16						06	6.35
15.875	16		15	16	27				T5	5.95
12.7	12	15	12	12	22	22	08		05	5.56
12			12						T4	4.96
10			10						04	4.76
9.525	09	11	09	09	16	16	06	16	T3	3.97
8			08						03	3.18
6.35	06	07			11	11			T2	2.58
6			06						02	2.38
5.56					09				T1	1.98
5.5			05						01	1.59
3.97					06				T0	0.99
									00	0.79
内切圆直径(mm)									代号	厚度(mm)
	C	D	R	S	T	V	W	K		
刀片形状										
切削刃长度										

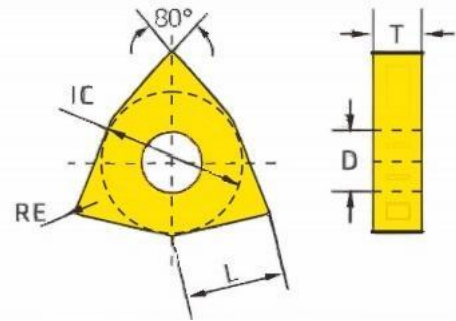
	
Thickness	

12 04 08 - GT (ISO)

4 3 2 (inch)

内切圆		厚度		刀尖圆弧半径		刀尖圆弧代号		断屑槽型代号		
代号	内切圆直径(mm)	代号	厚度(mm)	代号	刀尖圆弧半径(mm)	代号	刀尖圆弧半径(mm)	43	GF	HQ
						00	无圆角			
2	6.35	2	3.18	0	0.2	02	0.2			
3	9.525	3	4.76	1	0.4	04	0.4	TM	R/L-S	MS
4	12.7	4	6.35	2	0.8	08	0.8			
5	15.875	5	7.94	3	1.2	12	1.2			
6	19.05	6	9.52	4	1.6	16	1.6	MA	通槽	GH
8	25.4			5	2.0	20	2.0			
				6	2.4	24	2.4			
						32	3.2	HA	TF	MS
						X	其他			
刀片直径尺寸Mo(公制)							圆形刀片			

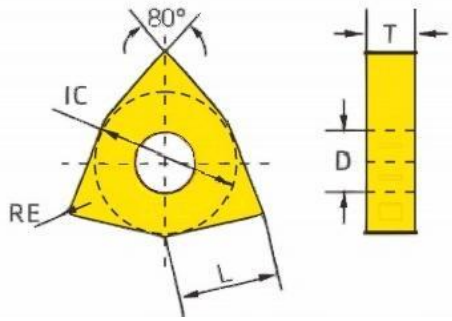
80°WN



产品 Product	型号 Type	尺寸 Dimensions(mm)				可选牌号 Grade for Choice							槽型应用 Application
		IC	T	D	RE	RP8115	RC3225A	RC8025	RP7725	RV960	RP8125	RV525	
	WNMG080404-43	12.7	4.76	5.16	0.4			●					Steel Finishing
	WNMG080408-43	12.7	4.76	5.16	0.8			●					
	WNMG080404-GF	12.7	4.76	5.16	0.4			●					Steel Finishing
	WNMG080408-GF	12.7	4.76	5.16	0.8			●					
	WNMG080404-TM	12.7	4.76	5.16	0.4			●					Steel Semi- Finishing
	WNMG080408-TM	12.7	4.76	5.16	0.8			●					
	WNMG080412-TM	12.7	4.76	5.16	1.2			●					
	WNMG080404-HQ	12.7	4.76	5.16	0.4			●					Steel Semi- Finishing
	WNMG080408-HQ	12.7	4.76	5.16	0.8			●					
	WNMG080404-FG	12.7	4.76	5.16	0.4					●			Steel Semi- Finishing
	WNMG080408-FG	12.7	4.76	5.16	0.8					●			
	WNMG080404R-S	12.7	4.76	5.16	0.4			●					Steel Roughing
	WNMG080408R-S	12.7	4.76	5.16	0.8								
	WNMG080404L-S	12.7	4.76	5.16	0.4								
	WNMG080408L-S	12.7	4.76	5.16	0.8			●					Steel Roughing
	WNMG080404-MS	12.7	4.76	5.16	0.4	●							Stainless Steel, Steel Finishing
	WNMG080408-MS	12.7	4.76	5.16	0.2	●							
	WNMG080412-MS	12.7	4.76	5.16	0.4								
	WNMG080404-MA	12.7	4.76	5.16	0.4	●							Stainless Steel, Semi Finishing
	WNMG080408-MA	12.7	4.76	5.16	0.8	●							
	WNMG080412-MA	12.7	4.76	5.16	1.2	●							

●为主推荐牌号Recommendedgrade (Always stock available)

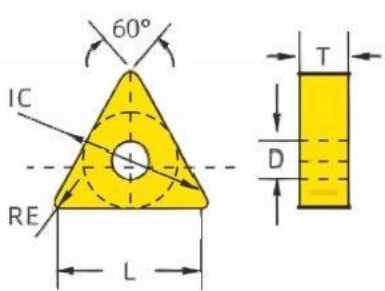
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产品 Product	型号 Type	尺寸 Dimensions(mm)				可选牌号 Grade for Choice						槽型应用 Application	
		IC	T	D	RE	RP8115	RC3225A	RC8025	RP7725	RV960	RP8125		RV525
	WNMG080404	12.7	4.76	5.16	0.4		●						Cast iron Semi- finishing
	WNMG080408	12.7	4.76	5.16	0.8		●						
	WNMG080412	12.7	4.76	5.16	1.2		●						
	WNMG080404-GH	12.7	4.76	5.16	0.4		●						Cast iron Roughing
	WNMG080408-GH	12.7	4.76	5.16	0.8		●						
	WNMG080412-GH	12.7	4.76	5.16	1.2		●						
	WNMG080402-HA	12.7	4.76	5.16	0.2							●	Aluminum Finishing
	WNMG080404-HA	12.7	4.76	5.16	0.4							●	
	WNMG080408-HA	12.7	4.76	5.16	0.8							●	

●为主推荐牌号Recommendedgrade (Always stock available)

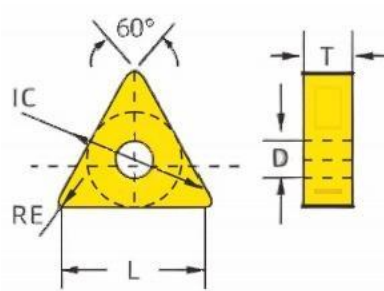
60°TN



产品 Product	型号 Type	尺寸 Dimensions(mm)				可选牌号 Grade for Choice						槽型应用 Application	
		IC	T	D	RE	RP8115	RC3225A	RC8025	RP7725	RV960	RP8125		RV525
	TNMG160404-43	9.525	4.76	3.81	0.4			●					Steel Finishing
	TNMG160408-43	9.525	4.76	3.81	0.8			●					
	TNMG160404-GF	9.525	4.76	3.81	0.4			●					Steel Finishing
	TNMG160408-GF	9.525	4.76	3.81	0.8			●					
	TNMG160404-TM	9.525	4.76	3.81	0.4			●					Steel Semi- Finishing
	TNMG160408-TM	9.525	4.76	3.81	0.8			●					
	TNMG160412-TM	9.525	4.76	3.81	1.2			●					
	TNMG160404-HQ	9.525	4.76	3.81	0.4			●					Steel Semi- Finishing
	TNMG160408-HQ	9.525	4.76	3.81	0.8			●					
	TNMG160404R-S	9.525	4.76	3.81	0.4			●					Steel Roughing
	TNMG160408R-S	9.525	4.76	3.81	0.8			●					
	TNMG160404L-S	9.525	4.76	3.81	0.4			●					
	TNMG160408L-S	9.525	4.76	3.81	0.8								
	TNMG160404R-VF	9.525	4.76	3.81	0.4					●			Steel Roughing
	TNMG160408R-VF	9.525	4.76	3.81	0.8					●			
	TNMG160404L-VF	9.525	4.76	3.81	0.4					●			
	TNMG160408L-VF	9.525	4.76	3.81	0.8					●			
	TNGG160402L-S	9.525	4.76	3.81	0.2					●			Steel Finishing
	TNGG160404L-S	9.525	4.76	3.81	0.4					●			
	TNGG160402R-S	9.525	4.76	3.81	0.2					●			
	TNGG160404R-S	9.525	4.76	3.81	0.4								
	TNGG160402L-C	9.525	4.76	3.81	0.2					●			Steel Finishing
	TNGG160404L-C	9.525	4.76	3.81	0.4					●			
	TNGG160402R-C	9.525	4.76	3.81	0.2					●			
	TNGG160404R-C	9.525	4.76	3.81	0.4					●			

●为主推荐牌号Recommended grade(Always stockavailable)

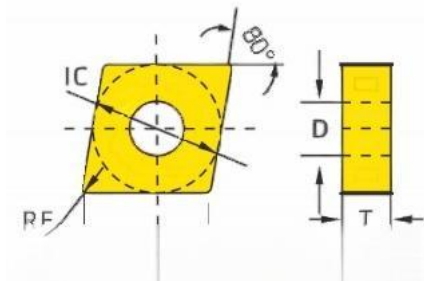
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产品 Product	型号 Type	尺寸 Dimensions(mm)				可选牌号 Grade for Choice							槽型应用 Application
		IC	T	D	RE	RP8115	RC3225A	RC8025	RP7725	RV960	RP8125	RV525	
	TNMG160404-MS	9.525	4.76	3.81	0.4	●							Stainless Steel Finishing
	TNMG160408-MS	9.525	4.76	3.81	0.8	●							
	TNMG160412-MS	9.525	4.76	3.81	1.2	●							
	TNMG160404-MA	9.525	4.76	3.81	0.4	●							Stainless Steel Semi -Finishing
	TNMG160408-MA	9.525	4.76	3.81	0.8	●							
	TNMG160412-MA	9.525	4.76	3.81	1.2	●							
	TNMG160404	9.525	4.76	3.81	0.4		●						Cast iron Semi- finishing
	TNMG160408	9.525	4.76	3.81	0.8		●						
	TNMG160412	9.525	4.76	3.81	1.2		●						
	TNMG160402-HA	9.525	4.76	3.81	0.2							●	Aluminum Finishing
	TNMG160404-HA	9.525	4.76	3.81	0.4							●	
	TNMG160408-HA	9.525	4.76	3.81	0.8							●	

●为主推荐牌号Recommended grade (Always stock available)

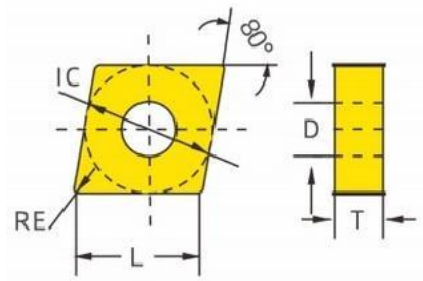
80°CN



产品 Product	型号 Type	尺寸 Dimensions(mm)				可选牌号 Grade for Choice						槽型应用 Application	
		IC	T	D	RE	RP8115	RC3225A	RC8025	RP7725	RV960	RP8125		RV525
	CNMG120404-GF	12.7	4.76	5.16	0.4			●					Steel Finishing
	CNMG120408-GF	12.7	4.76	5.16	0.8			●					
	CNMG120404-TM	12.7	4.76	5.16	0.4			●					Steel Semi- Finishing
	CNMG120408-TM	12.7	4.76	5.16	0.8			●					
	CNMG120412-TM	12.7	4.76	5.16	1.2			●					
	CNMG120404-HQ	12.7	4.76	5.16	0.4			●					Steel Roughing
	CNMG120408-HQ	12.7	4.76	5.16	0.8			●					
	CNMG120404R-S	12.7	4.76	5.16	0.4			●					Steel Roughing
	CNMG120408R-S	12.7	4.76	5.16	0.8			●					
	CNMG120404L-S	12.7	4.76	5.16	0.4			●					
	CNMG120408L-S	727	4.76	5.16	0.8								
	CNMG120404-MS	12.7	4.76	5.16	0.4	●							Stainless Steel Finishing
	CNMG120408-MS	12.7	4.76	5.16	0.8	●							
	CNMG120412-MS	12.7	4.76	5.16	1.2	●							
	CNMG120404-MA	12.7	4.76	5.16	0.4	●							Stainless Steel Semi Finishing
	CNMG120408-MA	12.7	4.76	5.16	0.8	●							
	CNMG120412-MA	12.7	4.76	5.16	1.2	●							
	CNMG120404	12.7	4.76	5.16	0.4		●						Cast iron Semi- finishing
	CNMG120408	12.7	4.76	5.16	0.8		●						
	CNMG120412	12.7	4.76	5.16	1.2		●						
	CNMG120404-GH	12.7	4.76	5.16	0.4		●						Cast Iron Roughing
	CNMG120408-GH	12.7	4.76	5.16	0.8		●						
	CNMG120412-GH	12.7	4.76	5.16	1.2		●						

●为主推荐牌号Recommended grade (Always stock available)

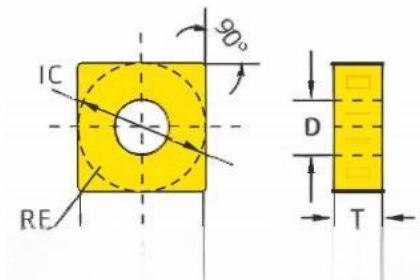
80°CN



产品 Product	型号 Type	尺寸 Dimensions(mm)				可选牌号 Grade for Choice							槽型应用 Application
		IC	T	D	RE	RP8115	RC3225A	RC8025	RP7725	RV960	RP8125	RV525	
	CNMG120402-HA	12.7	4.76	5.16	0.2							●	Aluminum Finishing
	CNMG120404-HA	12.7	4.76	5.16	0.4							●	
	CNMG120408-HA	12.7	4.76	5.16	0.8							●	

●为主推荐牌号Recommended grade (Always stock available)

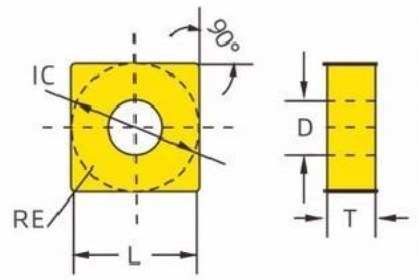
90°SN



产品 Product	型号 Type	尺寸 Dimensions (mm)				可选牌号 Grade for Choice						槽型应用 Application	
		IC	T	D	RE	RP8115	RC3225A	RC8025	RP7725	RV960	RP8125		RV525
	SNMG120404-GF	12.7	4.76	5.16	0.4			●					Steel Finishing
	SNMG120408-GF	12.7	4.76	5.16	0.8			●					
	SNMG120404-TM	12.7	4.76	5.16	0.4			●					Steel Semi- Finishing
	SNMG120408-TM	12.7	4.76	5.16	0.8			●					
	SNMG120412-TM	12.7	4.76	5.16	1.2			●					
	SNMG120404-HQ	12.7	4.76	5.16	0.4			●		●			Steel Roughing
	SNMG120408-HQ	12.7	4.76	5.16	0.8			●		●			
	SNMG120404R-S	12.7	4.76	5.16	0.4			●					Stainless Steel Finishing
	SNMG120408R-S	12.7	4.76	5.16	0.8			●					
	SNMG120404L-S	12.7	4.76	5.16	0.4			●					
	SNMG120408L-S	12.7	4.76	5.16	0.8			●					
	SNMG120404-MS	12	4.76	5.16	0.4	●							Stainless Steel Semi - Finishing
	SNMG120408-MS	12.7	4.76	5.16	0.8	●							
	SNMG120412-MS	12.7	4.76	5.16	1.2	●							
	SNMG120404-MA	12.7	4.76	5.16	0.4	●							Cast iron Semi- finishing
	SNMG120408-MA	12.7	4.76	5.16	0.8	●							
	SNMG120412-MA	12.7	4.76	5.16	1.2	●							
	SNMG120404	12.7	476	5.16	0.4		●						Stainless Steel Semi -Finishing
	SNMG120408	12.7	4.76	5.16	0.8		●						
	SNMG120412	12.7	4.76	5.16	1.2		●						
	SNMG120404-TT	12.7	4.76	5.16	0.4	●							Stainless Steel Semi -Finishing
	SNMG120408-TT	12.7	4.76	5.16	0.8	●							

●为主推荐牌号Recommendedgrade (Always stockavailable)

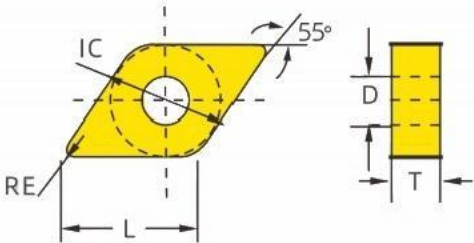
90°SN

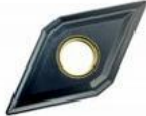


产品 Product	型号 Type	尺寸 Dimensions(mm)				可选牌号 Grade for Choice							槽型应用 Application
		IC	T	D	RE	RP8115	RC3225A	RC8025	RP7725	RV960	RP8125	RV525	
	SNMG120402-HA	12.7	4.76	5.16	0.2							●	Aluminum Finishing
	SNMG120404-HA	12.7	4.76	5.16	0.4							●	
	SNMG120408-HA	12.7	4.76	5.16	0.8							●	

●为主推荐牌号Recommendedgrade (Always stockavailable)

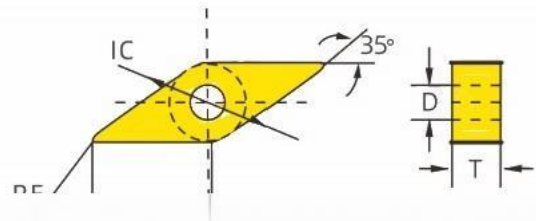
55°DN



产品 Product	型号 Type	尺 寸 Dimensions(mm)				可选牌号 Grade for Choice						槽型应用 Application	
		IC	T	D	RE	RP8115	RC3225A	RC8025	RP7725	RV960	RP8125		RV525
	DNMG150404-TM	12.7	4.76	5.16	0.4			●					Steel Semi- Finishing
	DNMG150408-TM	12.7	4.76	5.16	0.8			●					
	DNMG150412-TM	12.7	4.76	5.16	1.2			●					
	DNMG150604-TM	12.7	6.35	5.16	0.4			●					
	DNMG150608-TM	12.7	6.35	5.16	0.8			●					
	DNMG150612-TM	12.7	6.35	5.16	1.2			●					
	DNMG150404-HQ	12.7	4.76	5.16	0.4			●					Steel Semi- Finishing
	DNMG150408-HQ	12.7	4.76	5.16	0.8			●					
													Stainless Steel Semi - Finishing
	DNMG150408-MA	12.7	4.76	5.16	0.8	●							
	DNMG150604-MA	12.7	6.35	5.16	0.4	●							
	DNMG150608-MA	12.7	6.35	5.16	0.8	●							
	DNMG150404	12.7	4.76	5.16	0.4		●						Cast iron Semi- finishing
	DNMG150408	12.7	4.76	5.16	0.8		●						

●为主推荐牌号Recommended grade(Always stock available)

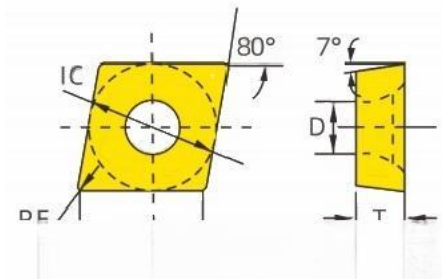
35°VN



产品 Product	型号 Type	尺寸 Dimensions(mm)				可选牌号 Grade for Choice							槽型应用 Application
		IC	T	D	RE	RP8115	RC3225A	RC8025	RP7725	RV960	RP8125	RV525	
	VNMG160404-GF	9.525	4.76	3.81	0.4			●					Steel Finishing
	VNMG160408-GF	9.525	4.76	3.81	0.8			●					
	VNMG160404-TM	9.525	4.76	3.81	0.4			●					Steel Semi- Finishing
	VNMG160408-TM	9.525	4.76	3.81	0.8			●					
	VNMG160412-TM	9.525	4.76	3.81	1.2			●					
	VNMG160404-HQ	9.525	4.76	3.81	0.4			●	●	●			
	VNMG160408-HQ	9.525	4.76	3.81	0.8			●	●	●			
	VNMG160404-MS	9.525	4.76	3.81	0.4	●							Stainless Steel Finishing
	VNMG160408-MS	9.525	4.76	3.81	0.8	●							
	VNMG160404-MA	9.525	4.76	3.81	0.4	●							Stainless Steel Semi - Finishing
	VNMG160408-MA	9.525	4.76	3.81	0.8	●							
	VNMG160404	9.525	4.76	3.81	0.4		●						Cast iron Semi- finishing
	VNMG160408	9.525	4.76	3.81	0.8		●						
	VNMG160402-HA	9.525	4.76	3.8	0.2							●	Aluminum Finishing
	VNMG160404-HA	9.525	4.76	3.81	0.4							●	
	VNMG160408-HA	9.525	4.76	3.81	0.8							●	

●为主推荐牌号Recommendedgrade (Always stock available)

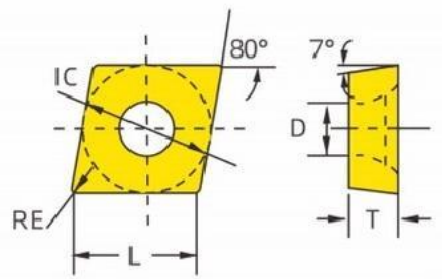
80° CC

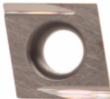


产品 Product	型号 Type	尺寸 Dimensions(mm)				可选牌号 Grade for Choice							槽型应用 Application
		IC	T	D	RE	RP8115	RC3225A	RC8025	RP7725	RV960	RP8125	RV525	
	CCMT060202	6.35	2.38	2.8	0.2	●							Steel Stainless steel Machining
	CCMT060204	6.35	2.38	2.8	0.4	●							
	CCMT060208	6.35	2.38	2.8	0.8	●							
	CCMT09T302	9.525	3.97	4.4	0.2	●							
	CCMT09T304	9.525	3.97	4.4	0.4	●							
	CCMT09T308	9.525	3.97	4.4	0.8	●							
	CCMT120404	12.7	4.76	5.56	0.4	●							
	CCMT120408	12.7	4.76	5.56	0.8	●							
	CCMT060204-HM	6.35	2.38	2.8	0.4			●					Steel Semi- Finishing
	CCMT060208-HM	6.35	2.38	2.8	0.8			●					
	CCMT09T302-HM	9.525	3.97	4.4	0.2			●					
	CCMT09T304-HM	9.525	3.97	4.4	0.4			●					
	CCMT09T308-HM	9.525	3.97	4.4	0.8			●					
	CCMT120404-HM	12.7	4.76	5.56	0.4			●					
	CCMT120408-HM	12.7	4.76	5.56	0.8			●					
	CCMT060204-HQ	6.35	2.38	2.8	0.4				●				Steel Roughing
	CCMT060208-HQ	6.35	2.38	2.8	0.8				●				
	CCMT09T302-HQ	9.525	3.97	4.4	0.2								
	CCMT09T304-HQ	9.525	3.97	4.4	0.4				●				
	CCMT09T308-HQ	9.525	3.97	4.4	0.8				●				
	CCGT060202-AK	6.35	2.38	2.8	0.2								Aluminum Finishing
	CCGT060204-AK	6.35	2.38	2.8	0.4							●	
	CCGT060208-AK	6.35	2.38	2.8	0.8							●	
	CCGT09T302-AK	9.525	3.97	4.4	0.2							●	
	CCGT09T304-AK	9.525	3.97	4.4	0.4							●	
	CCGT09T308-AK	9.525	3.97	4.4	0.8							●	
	CCGT120404-AK	12.7	4.76	5.56	0.4							●	
	CCGT120408-AK	12.7	4.76	5.56	0.8							●	

●为主推荐牌号Recommendedgrade (Always stock available)

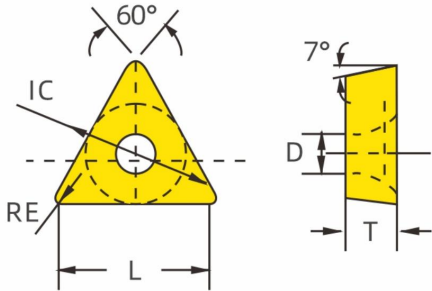
80°CC



产品 Product	型号 Type	尺寸 Dimensions(mm)				可选牌号 Grade for Choice							槽型应用 Application
		IC	T	D	RE	RP8115	RC3225A	RC8025	RP7725	RV960	RP8125	RV525	
	CCGT030102L-F	3.5	1.4	1.9	0.2	●					●		Steel Stainless steel Machining
	CCGT040102L-F	4.3	1.8	2.3	0.2	●					●		
	CCGT060202L-F	6.35	2.38	2.8	0.2	●					●		
	CCGT060204L-F	6.35	2.38	2.8	0.4	●					●		
	CCGT09T302L-F	9.525	3.97	4.4	0.2	●					●		
	CCGT09T304L-F	9.525	3.97	4.4	0.4	●					●		
	CCGT060202L-U	6.35	2.38	2.8	0.2	●					●		Steel Stainless steel Machining
	CCGT060204L-U	6.35	2.38	2.8	0.4	●					●		
	CCGT060202R-U	6.35	2.38	2.8	0.2	●					●		
	CCGT060204R-U	6.35	2.38	2.8	0.4	●					●		
	CCGT09T302L-U	9.525	3.97	4.4	0.2	●					●		
	CCGT09T304L-U	9.525	3.97	4.4	0.4	●					●		
	CCGT09T302R-U	9.525	3.97	4.4	0.2	●					●		
	CCGT09T304R-U	9.525	3.97	4.4	0.4	●					●		

●为主推荐牌号Recommendedgrade (Always stock available)

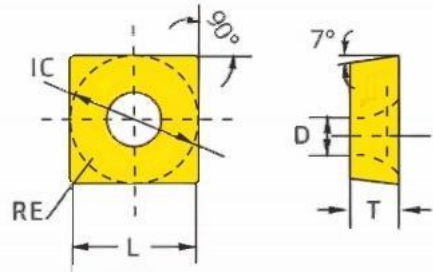
60° TC/TB/TP



产品 Product	型号 Type	尺寸 Dimensions (mm)				可选牌号 Grade for Choice						槽型应用 Application	
		IC	T	D	RE	RP8115	RC3225A	RC8025	RP7725	RV960	RP8125		RV525
	TCMT090204	5.56	2.38	2.5	0.4			●					Steel Semi- Finishing
	TCMT090208	5.56	2.38	2.5	0.8			●					
	TCMT110204	6.35	2.38	2.8	0.4			●					
	TCMT110208	6.35	2.38	2.8	0.8			●					
	TCMT16T304	9.525	3.97	4.4	0.4			●					
	TCMT16T308	9.525	3.97	4.4	0.8			●					
	TCGT090202-AK	5.56	2.38	2.5	0.2							●	Aluminum Finishing
	TCGT090204-AK	5.56	2.38	2.5	0.4							●	
	TCGT110202-AK	6.35	2.38	2.8	0.2							●	
	TCGT110204-AK	6.35	2.38	2.8	0.4							●	
	TCGT16T302-AK	9.525	3.97	4.4	0.2							●	
	TCGT16T304-AK	9.525	3.97	4.4	0.4							●	
	TCMT090204-HQ	5.56	2.38	2.5	0.4			●		●			Steel Semi- Finishing
	TCMT090208-HQ	5.56	2.38	2.5	0.8			●		●			
	TCMT110204-HQ	6.35	2.38	2.8	0.4			●		●			
	TCMT110208-HQ	6.35	2.38	2.8	0.8			●		●			
	TCMT16T304-HQ	9.525	3.97	4.4	0.4			●		●			
	TCMT16T308-HQ	9.525	3.97	4.4	0.8			●		●			
	TCGT110202L-F	6.35	2.38	2.8	0.2	●				●			Steel Stainless steel Machining
	TCGT110204L-F	6.35	2.38	2.8	0.4	●				●			
	TBGT060102L-F	3.97	1.59	2.3	0.2	●				●			
	TBGF060104L-F	3.97	1.59	2.3	0.4	●				●			
	TPGH080202L-F	4.76	2.38	2.3	0.2	●				●			
	TPGH080204L-F	4.76	2.38	2.3	0.4	●				●			
	TPGH090202L-F	5.56	2.38	2.5	0.2	●				●			
	TPGH090204L-F	5.56	2.38	2.5	0.4	●				●			
	TPGH110302L-F	6.35	2.38	2.8	0.2	●				●			
	TPGH110304L-F	6.35	2.38	2.8	0.4	●				●			

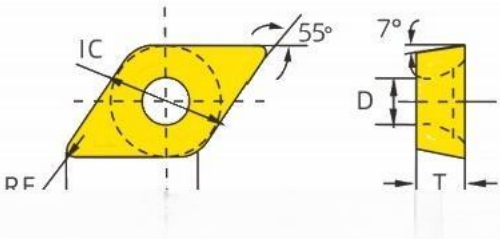
●为主推荐牌号Recommended grade (Always stock available)

90°SC



产品 Product	型号 Type	尺寸 Dimensions (mm)				可选牌号 Grade for Choice						槽型应用 Application	
		IC	T	D	RE	RP8115	RC3225A	RC8025	RP7725	RV960	RP8125		RV525
	SCMT09T304-HM	9.525	3.97	4.4	0.4			•					Steel Semi- Finishing
	SCMT09T308-HM	9.525	3.97	4.4	0.8			•					
	SCMT09T304	9.525	3.97	4.4	0.4	•							Steel Stainless steel Machining
	SCMT09T308	9.525	3.97	4.4	0.8	•							
	SCGT09T302-AK	9.525	3.97	4.4	0.2							•	Aluminum Finishing
	SCGT09T304-AK	9.525	3.97	4.4	0.4							•	
	SCGT120402-AK	12.7	4.76	5.56	0.2							•	
	SCGT120404-AK	12.7	4.76	5.56	0.4							•	

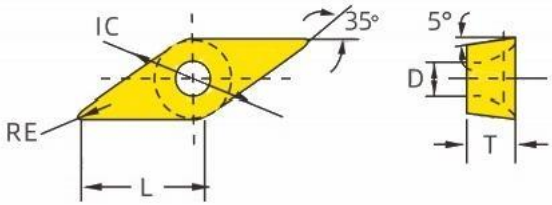
●为主推荐牌号Recommended grade (Always stock available)



55°DC

产品 Product	型号 Type	尺寸 Dimensions(mm)				可选牌号 Grade for Choice						槽型应用 Application	
		IC	T	D	RE	RP8115	RC3225A	RC8025	RP7725	RV960	RP8125		RV525
	DCMT070204-HM	6.35	2.38	2.8	0.4			●					Steel Semi- Finishing
	DCMT070208-HM	6.35	2.38	2.8	0.8			●					
	DCMT11T304-HM	9.525	3.97	4.4	0.4			●					
	DCMT11T308-HM	9.525	3.97	4.4	0.8			●					
	DCMT070202	6.35	2.38	2.8	0.2		●						Cast iron Machining
	DCMT070204	6.35	2.38	2.8	0.4		●						
	DCMT070208	6.35	2.38	2.8	0.8		●						
	DCMT11T304	9.525	3.97	4.4	0.4		●						
	DCMT11T308	9.525	3.97	4.4	0.8		●						
	DCMT070202-MV	6.35	2.38	2.8	0.2	●							General Roughing
	DCMT070204-MV	6.35	2.38	2.8	0.4	●							
	DCMT070208-MV	6.35	2.38	2.8	0.8	●							
	DCMT11T304-MV	9.525	3.97	4.4	0.4	●							
	DCMT11T308-MV	9.525	3.97	4.4	0.8	●							
	DCMT070202-HQ	6.35	2.38	2.8	0.2					●			Steel Semi- Finishing
	DCMT070204-HQ	6.35	2.38	2.8	0.4					●			
	DCMT070208-HQ	6.35	2.38	2.8	0.8					●			
	DCMT11T304-HQ	9.525	3.97	4.4	0.4					●			
	DCMT11T308-HQ	9.525	3.97	4.4	0.8					●			
	DCGT070202-AK	6.35	2.38	2.8	0.2							●	Aluminum Finishing
	DCGT070204-AK	6.35	2.38	2.8	0.4							●	
	DCGT070208-AK	6.35	2.38	2.8	0.8							●	
	DCGT11T302-AK	9.525	3.97	4.4	0.2							●	
	DCGT11T304-AK	9.525	3.97	4.4	0.4							●	
	DCGT11T308-AK	9.525	3.97	4.4	0.8							●	
	DCGT11T302L-U	9.525	3.97	4.4	0.2	●				●			General Roughing
	DCGT11T304L-U	9.525	3.97	4.4	0.4	●				●			
	DCGT11T302R-U	9.525	3.97	4.4	0.2	●				●			
	DCGT11T304R-U	9.525	3.97	4.4	0.4								

●为主推荐牌号Recommended grade (Always stockavailable)



35°VB/VC

产品 Product	型号 Type	尺寸 Dimensions(mm)				可选牌号 Grade for Choice						槽型应用 Application	
		IC	T	D	RE	RP8115	RC3225A	RC8025	RP7725	RV960	RP8125		RV525
	VBMT110302	6.35	3.18	2.8	0.2				●				General Machining
	VBMT110304	6.35	3.18	2.8	0.4	●							
	VBMT110308	6.35	3.18	2.8	0.8	●							
	VBMT160404	9.525	4.76	4.4	0.4	●							
	VBMT160408	9.525	4.76	4.4	0.8	●							
	VBMT110304-HQ	6.35	3.18	2.8	0.4					●			Steel Semi- Finishing
	VBMT110308-HQ	6.35	3.18	2.8	0.8					●			
	VBGT110302-AK	6.35	3.18	2.8	0.2							●	Aluminum Finishing
	VBGT110304-AK	6.35	3.18	2.8	0.4							●	
	VBGT160402-AK	9.525	4.76	4.4	0.2							●	
	VBGT160404-AK	9.525	4.76	4.4	0.4								
	VCMT110304	6.35	3.18	2.8	0.4	●							General Machining
	VCMT110308	6.35	3.18	2.8	0.8	●							
	VCMT160404	9.525	4.76	4.4	0.4	●							
	VCMT160408	9.525	4.76	4.4	0.8								
	VCGT110302-AK	6.35	3.18	2.8	0.2							●	Aluminum Finishing
	VCGT110304-AK	6.35	3.18	2.8	0.4							●	
	VCGT160402-AK	9.525	4.76	4.4	0.2							●	
	VCGT160404-AK	9.525	4.76	4.4	0.4							●	
	VBGT110301L-Y	6.35	3.18	2.8	0.1	●				●			General Machining
	VBGT110301R-Y	6.35	3.18	2.8	0.1	●				●			
	VBGT110302L-Y	6.35	3.18	2.8	0.2	●				●			
	VBGT110302R-Y	6.35	3.18	2.8	0.2	●				●			
	VBGT110304L-Y	6.35	3.18	2.8	0.4	●				●			
	VBGT110304R-Y	6.35	3.18	2.8	0.4	●				●			
	VBGT160402L-Y	9.525	4.76	4.4	0.2	●				●			
	VBGT160402R-Y	9.525	4.76	4.4	0.2	●				●			
	VBGT160404L-Y	9.525	4.76	4.4	0.4	●				●			
	VBGT160404R-Y	9.525	4.76	4.4	0.4	●				●			

●为主推荐牌号Recommended grade (Always stockavailable)

离心机断续车削

Centrifuge Intermittent Turning

Case Study	
Processing method	Dry external interrupted turning
Insert type	WNMG080408-MA / RP8115
Processed materials	2205 Duplex Stainless Steel
Parameters	Vc=75m/min;Fz=0.5mm/z;Ap=2mm



The new generation RP8115, with super tough matrix and semi-finished, impact-resistant mature geometry, shows excellent performance under low line speed and intermittent machining conditions.

Reven brand machine 2 pcs, while other brands only machine 1 pcs. Reven inserts can totally compete with some international brands inserts.

偏心舰艇锻钢

Eccentric Naval Forging Steel

Case Study	
Processing method	Wet continuous roughing of eccentric cylinders
Insert type	WNMG080408-MA / RP8115
Processed materials	925AC forged steel
Parameters	Vc=122m/min;Fz=0.45mm/z;Ap=2mm



In the turning of sticky steel parts, the MA groove type also has excellent life and shows strong versatility.

Reven brand machine 39 pcs, while other brands only machine 30 pcs. Reven inserts can totally compete with some international brands inserts.

端面精车

End Face Fine-Turning

Case Study	
Processing method	Wet end finishing
Insert type	WNMG080408-GF / RC8025
Processed materials	65Mn(Spring Ring)
Parameters	Vc=330m/min;Fz=0.28mm/z;Ap=0.8mm



GF chipbreaker has excellent chip control performance and excellent surface quality, suitable for stable working conditions

Reven brand machine 45 pcs, while other brands only machine 40 pcs. Reven inserts can totally compete with some international brands inserts.

轴承配件

Bearing Accessories

Case Study	
Processing method	Wet continuous rough turning
Insert type	WNMG080404-TM / RC8025
Processed materials	55 steel
Parameters	Vc=260m/min;Fz=0.32mm/z;Ap=1.5mm



TM chipbreaker has excellent cutting performance in medium speed turning, and its service life is comparable to that of imported brands. It has strong versatility in semi-finishing and roughing machining.

Reven brand machine 75 pcs, another international brand also machine 75 pcs. while a domestic brands only machine 60 pcs. Reven inserts can totally compete with some international brands inserts.

澜体粗车
 Rough Turning of Valve Body

Case Study	
Processing method	Dry continuous rough turning of external circle
Insert type	CNMG120408 RC8125
Processed materials	HT200(grey cast iron)
Parameters	Vc=430m/min;Fz=0.3mm/z;Ap=1.2mm



Under high-speed turning conditions, the circumferential chipbreaker maintains a high hardness of the black gold steel CVD coating, and its service life is comparable to that of imported inserts.

Reven brand machine 60-70 pcs, while other brands only machine 60-70 pcs. Reven inserts can totally compete with some international brands inserts.

三柱体连续粗车
 Continuous Rough Turning of Three-Column Body

Case Study	
Processing method	Wet external turning
Insert type	WNMG080408 RC8125
Processed materials	QT500(ductile iron)
Parameters	Vc=90m/min;Fz=0.4mm/z;Ap=1mm



In the medium and low speed ductile iron turning environment, our company. The insert life and stability are better

Reven brand machine 170-180 pcs, while other brands only machine 150 pcs. Reven inserts can totally compete with some international brands inserts.

传动轴连续车削
 Continuous Turning of Drive Shafts

Case Study	
Processing method	Wet continuous turning
Insert type	TNMG160404-HQ RV960
Processed materials	545C drive shaft
Parameters	Vc=200m/min;Fz=0.12mm/z;Ap=0.35mm



Under high-speed turning conditions, the circumferential chipbreaker maintains a high hardness of the black gold steel CVD coating, and its service life is comparable to that of imported inserts.

Reven brand machine 249 pcs, while other brands only machine 155 pcs. Reven inserts can totally compete with some international brands inserts.

泵用零件
 Pump Parts

Case Study	
Processing method	Wet turning
Insert type	TNGG160402R-C RV960
Processed materials	SCM435 alloy structural steel
Parameters	Vc=200m/min;Fz=0.25mm/z;Ap=0.1



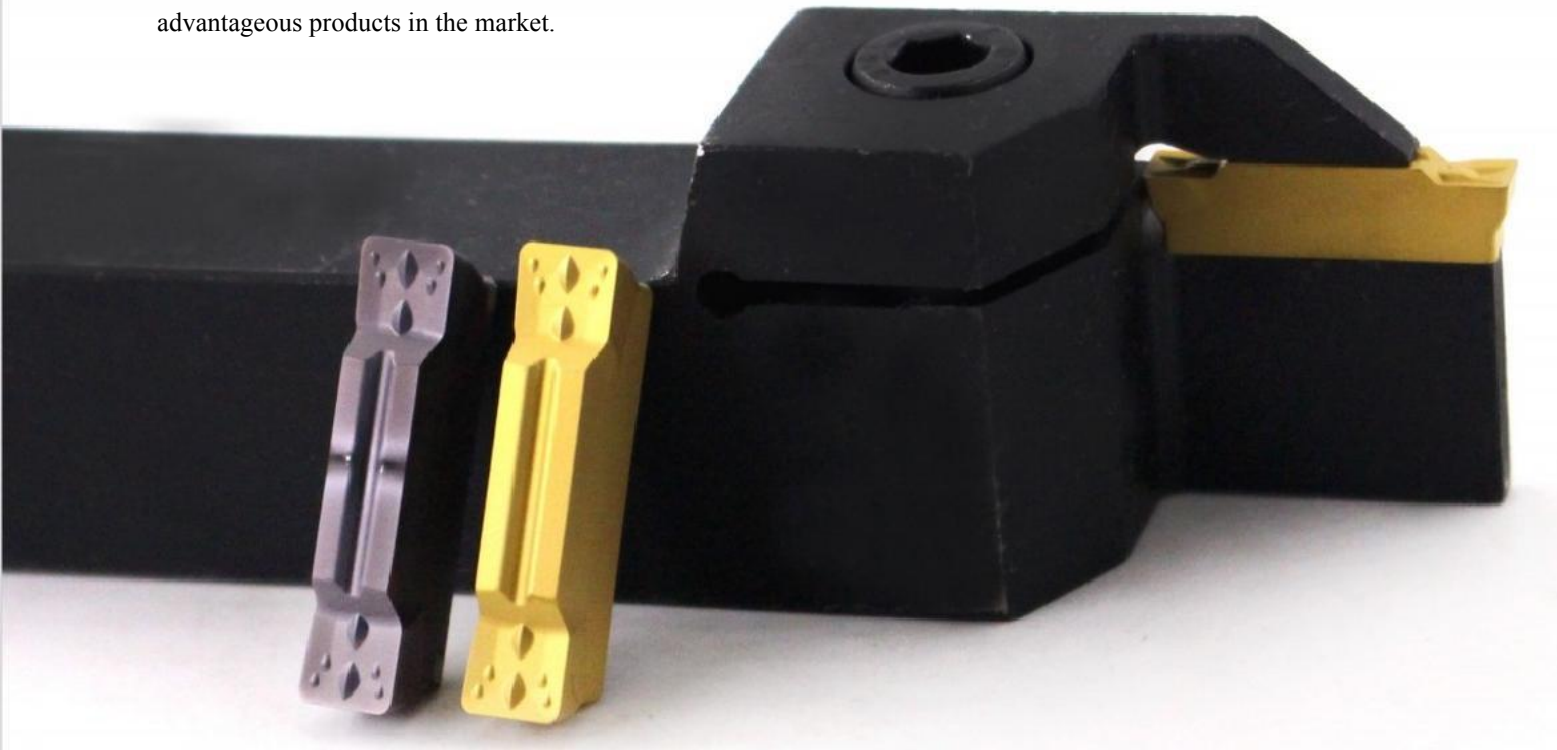
Under stable turning conditions, the C-groove type meets customer requirements for both fine turning life and finish, achieving cost-saving replacement

Reven brand machine 200 pcs, while other brands only machine 200 pcs. Reven inserts can totally compete with some international brands inserts.

GROOVING TOOLS

切槽切断刀具

High precision, perfect edge quality, and strong versatility in matching cutting materials and targeted grades make the Reven brand grooving and cutting grooving cutters very advantageous products in the market.

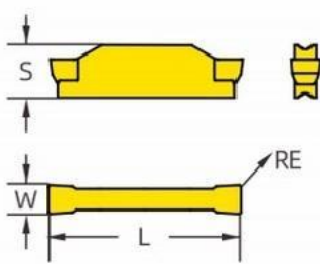


切槽刀片牌号介绍 Grooving Inserts Grade Introduction

牌号介绍 Grade Introduction	牌号特点 Grade Specifications
RP8125	PVD coating, black-gray, general grade for steel and stainless steel, general base with toughness as the main feature Balzers coating, highly versatile, general grade for grooving and cutting
RC8025	CVD coating, golden yellow, special substrate for steel parts combined with Einbond CVD coating. The ultra-thick CVD coating provides extremely high wear resistance and significantly improves the processing life. It is the first choice for grooving and cutting steel parts.

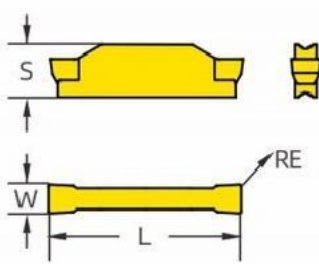
切槽刀片槽型介绍 Grooving Inserts Chipbreaker Introduction

Chipbreaker Introduction	Chipbreaker Specifications
MGMN*—G	Special chip breaker for cutting, which can meet the requirements of grooving processing, and has a higher cost-effectiveness when replacing Chloe and domestic blades
MGMN*—M	Meet the needs of grooving, cutting, turning, etc., the cutting process becomes lighter and smoother chip removal, to achieve the ideal processing surface quality
MGMN*—T	Suitable for turning and grooving, the special rear blade structure reduces cutting resistance by 20%, reduces vibration, and further improves the surface quality of the workpiece. The special cutting edge design makes the chip breaking effect better and allows horizontal cutting.
MGMN*	Stainless steel, steel, cast iron in the low-speed, poor steel environment, relative chip removal inserts have cost-effective advantages, slot machining accuracy yoo
MGMN*—M	Profile groove processing, used for processing workpieces with arc grooves, five specifications are available to meet most arc groove processing requirements
MGMN*—DR	Special cutting edge structure and chip breaker design provide higher finish and can achieve chip breaking effect, suitable for grooving in small spaces where chip removal is difficult. It can also be cut horizontally.
TDC*	P, M, K grooving and cut-off, cost-effective alternative to Taegutec for medium and high feed conditions
SP*	Single-ended groove inserts are more stable, can withstand greater cutting force, the installation of the knife plate fixture can be done to achieve a greater depth of cut.
ZTE/F/G/HD*—MG	zccct geometry, Squirrel series, sharp cutting edge, faster cutting and smoother chip removal.



产品 Product	型号 Type	尺寸 Dimensions(mm)				可选牌号 Grade for Choice					槽型应用 Application
		L	W	S	RE	RP8125	RC8025	RV960	RV1040	RV525	
	MGMN150-G	16	1.5	4	0.15	●	●			●	Grooving & Parting off
	MGMN200-G	16	2	4	0.2	●	●			●	
	MGMN250-G	18.5	2.5	4.5	0.2	●	●			●	
	MGMN300-G	21	3	5.6	0.3	●	●			●	
	MGMN200-M	16	2	4	0.2	●	●			●	Grooving & Parting off
	MGMN250-M	18.5	2.5	4.5	0.2	●	●			●	
	MGMN300-M	21	3	5.6	0.4	●	●			●	
	MGMN400-M	21	4	5.8	0.4	●	●			●	
	MGMN500-M	26	5	5.8	0.8	●	●			●	
	MGMN600-M	26	5	5.9	0.8	●	●			●	
	MGMN200-T	16	2	3.55	0.2	●	●				Grooving & Parting off
	MGMN250-T	18.5	2.5	4.5	0.2	●	●				
	MGMN300-T	21	3	4.86	0.4	●	●				
	MGMN400-T	21	4	4.86	0.4	●	●				
	MGMN500-T	26	5	5.8	0.8	●	●				
	MGMN200	16	2	3.55	0.2	●	●	●	●	●	Sharp & Higher precision
	MGMN300	21	3	4.86	0.4	●	●	●	●	●	
	MGMN400	21	4	4.86	0.4	●	●	●	●	●	
	MGMN500	26	5	5.8	0.8	●	●	●	●	●	
	MRMN200-M	16	2	3.5	1	●	●				Profile Processing
	MRMN300-M	21	3	4.8	1.5	●	●				
	MRMN400-M	21	4	4.8	2	●	●				
	MRMN500-M	26	5	5.8	2.5	●	●				
	MRMN600-M	26	6	5.9	3	●	●				

● 为主推荐牌号Recommended grade (Always stock available)



产品 Product	型号 Type	尺寸 Dimensions(mm)				可选牌号 Grade for Choice					槽型应用 Application
		L	W	S	RE	RP8125	RC8025	RV960	RV1040	RV525	
	MGMN200-DR	16	2	4	0.2		●				Fast Chip remover Horizontal grooving
	MGMN250-DR	18.5	2.5	4.5	0.2		●				
	MGMN300-DR	21	3	5.6	0.4		●				
	MGMN400-DR	21	4	5.8	0.4		●				
	MGMN500-DR	26	5	5.8	0.8		●				
	SP200		2			●	●				Large cutting depth
	SP300		3			●	●				
	SP400		4			●	●				
	TDC200	20	2	3.9	0.2		●				Grooving & Parting off
	TDC300	20	3	4.2	0.2		●				
	TDC400	20	4	4.2	0.3		●				
	TDC500	25	5	5	0.3		●				
	ZTED02503-MG	20.3	2.5	5.3	0.3	●	●				Sharp cutting edge smooth chip removal
	ZTFD0303-MG	20.3	3	5.5	0.3	●	●				
	ZTGD0404-MG	25.2	4	5.9	0.4	●	●				
	ZTHD0504-MG	25.2	5	6.1	0.4	●	●				

● 为主推荐牌号Recommended grade (Always stock available)

THREADING TOOLS

螺纹刀具



螺纹刀片牌号介绍

Threading Inserts Grade Introduction

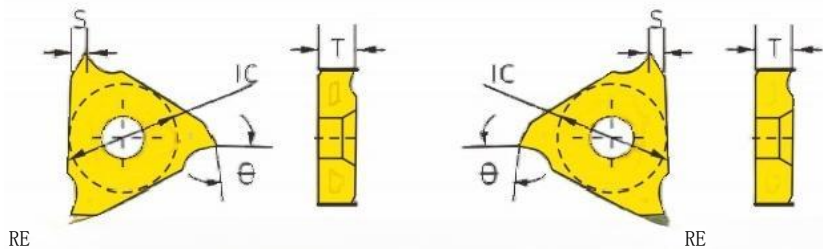
牌号介绍 Grade Introduction

牌号特点 Grade Specifications

RP8115

PVD coating, red-purple, special ratio of ingredients, improves the bending strength and thermal crack resistance of the substrate, excellent versatility when used with Balzers coating, the first choice for thread processing

螺纹刀片大全 Threading Inserts



产品 Product	型号 Type	Pitch of Screw 螺距	尺寸 Dimensions(mm)					可 选 牌 号 Grade for Choice RP8115	加工类型 Processing Type
			IC	S	T	Re	θ		
	06IRA60	0.5-1.5	3.967	0.7	2	0.07	60°	●	Internal Threading
	08IRA60	0.5-1.5	4.763	0.7	2	0.07	60°	●	
	11IRA60	0.5-1.5	6.35	0.9	3.52	0.08	60°	●	
	16IRAG60	0.5-3.0	9.525	1.7	3.52	0.06	60°	●	
	16IRAG55	0.5-3.0	9.525	1.7	3.52	0.076	55°	●	External Threading
	16ERAG60	0.5-3.0	9.525	1.7	3.52	0.06	60°	●	
	16ERAG55	0.5-3.0	9.525	1.7	3.52	0.07	55°	●	
	11IR100ISO	1	6.35	0.7	3.05	0.06	60°	●	Internal Threading
	11IR125ISO	1.25	6.35	0.9	3.05	0.08	60°	●	
	11IR150ISO	1.5	6.35	1	3.05	0.1	60°	●	
	16IR100ISO	1	9.525	1.2	3.52	0.11	60°	●	
	16IR125ISO	1.25	9.525	1.2	3.52	0.13	60°	●	
	16IR150ISO	1.5	9.525	1.2	3.52	0.17	60°	●	
	16IR175ISO	1.75	9.525	1.2	3.52	0.22	60°	●	
	16IR200ISO	2	9.525	1.3	3.52	0.26	60°	●	
	16IR250ISO	2.5	9.525	1.5	3.52	0.33	60°	●	
	16IR300ISO	3	9.525	1.6	3.52	0.44	60°	●	
	16ER100ISO	1	9.525	0.7	3.52	0.13	60°	●	External Threading
	16ER125ISO	1.25	9.525	0.9	3.52	0.16	60°	●	
	16ER150ISO	1.5	9.525	1	3.52	0.19	60°	●	
	16ER175ISO	1.75	9.525	1.3	3.52	0.22	60°	●	
	16ER200ISO	2	9.525	1.3	3.52	0.26	60°	●	
	16ER250ISO	2.5	9.525	1.5	3.52	0.33	60°	●	
	16ER300ISO	3	9.525	1.5	3.52	0.44	60°	●	
								●	
	16IR11W	11	9.525	1.5	3.52	0.3	55°	●	Internal Threading
	16IR14W	14	9.525	1.2	3.52	0.23	55°	●	
	16ER11W	11	9.525	1.5	3.52	0.17	55°	●	External Threading
	16ER14W	14	9.525	1.5	3.52	0.296	55°	●	

●为主推荐牌号Recommended grade (Always stock available)

PRECISION TOOLS

精磨刀具



精磨刀片牌号介绍 Precision Inserts Grade Introduction

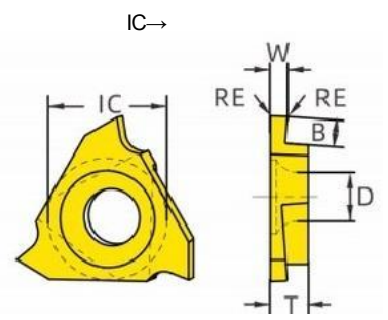
牌号介绍 Grade Introduction

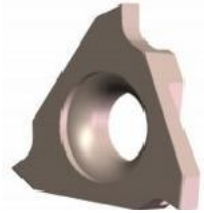
牌号特点 Grade Specification

RV1040

PVD coating, purple-black, imported climbing Chunbao special substrate, five-axis CNC grinding, higher precision, with composite coating, excellent performance in stainless steel and steel processing, the first choice for small parts processing

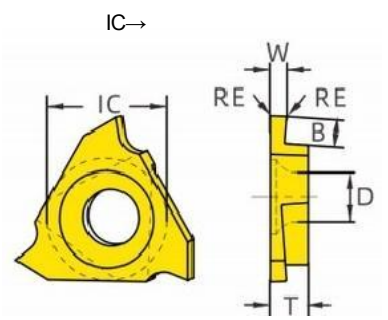
TGF32浅槽刀片
TGF32 Shallow Grooving Inserts

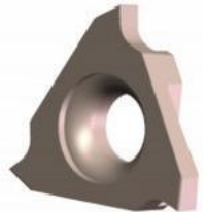


产品 Product	型号 Type		尺寸 Dimensions (mm)						Grade RV1040
	右手 Right	左手 Left	IC	T	D	W	B	RE	
	TGF32R033	TGF32L033	9.525	3.18	4.4	0.33	0.8	0.05	
	TGF32R040	TGF32L040	9.525	3.18	4.4	0.4	0.8	0.05	
	TGF32R050	TGF32L050	9.525	3.18	4.4	0.5	1.2	0.05	
	TGF32R060	TGF32L060	9.525	3.18	4.4	0.6	1.4	0.05	
	TGF32R070	TGF32L070	9.525	3.18	4.4	0.7	1.4	0.05	
	TGF32R075	TGF32L075	9.525	3.18	4.4	0.75	2	0.05	
	TGF32R080	TGF32L080	9.525	3.18	4.4	0.8	2	0.05	
	TGF32R085	TGF32L085	9.525	3.18	4.4	0.85	2	0.05	
	TGF32R090	TGF32L090	9.525	3.18	4.4	0.9	2	0.05	
	TGF32R095	TGF32L095	9.525	3.18	4.4	0.95	2	0.05	
	TGF32R100	TGF32L100	9.525	3.18	4.4	1	2.2	0.1	
	TGF32R105	TGF32L105	9.525	3.18	4.4	1.05	2.2	0.1	
	TGF32R110	TGF32L110	9.525	3.18	4.4	1.1	2.2	0.1	
	TGF32 R115	TGF32L115	9.525	3.18	4.4	1.15	2.2	0.1	
	TGF32R120	TGF32L120	9.525	3.18	4.4	1.2	2.2	0.1	
	TGF32R125	TGF32L125	9.525	3.18	4.4	1.25	2.2	0.1	
	TGF32R130	TGF32L130	9.525	3.18	4.4	1.3	2.2	0.1	
	TGF32R135	TGF32L135	9.525	3.18	4.4	1.35	2.2	0.1	
	TGF32R140	TGF32L140	9.525	3.18	4.4	1.4	2.2	0.1	
	TGF32R145	TGF32L145	9.525	3.18	4.4	1.45	2.2	0.1	
	TGF32R150	TGF32L150	9.525	3.18	4.4	1.5	2.7	0.1	
	TGF32R160	TGF32L160	9.525	3.18	4.4	1.6	2.7	0.1	
	TGF32R170	TGF32L170	9.525	3.18	4.4	1.7	2.7	0.1	
	TGF32R175	TGF32L175	9.525	3.18	4.4	1.75	2.7	0.1	
	TGF32R180	TGF32L180	9.525	3.18	4.4	1.8	2.7	0.1	
	TGF32R185	TGF32L185	9.525	3.18	4.4	1.85	2.7	0.1	
	TGF32R190	TGF32L190	9.525	3.18	4.4	1.9	2.7	0.1	
	TGF32R200	TGF32L200	9.525	3.18	4.4	2	3	0.15	
	TGF32R210	TGF32L210	9.525	3.18	4.4	2.1	3	0.15	
	TGF32R220	TGF32L220	9.525	3.18	4.4	2.2	3	0.15	
	TGF32R225	TGF32L225	9.525	3.18	4.4	2.25	3	0.15	
	TGF32R230	TGF32L230	9.525	3.18	4.4	2.3	3	0.15	

●为主推荐牌号Recommadedgrade (Always stock available)

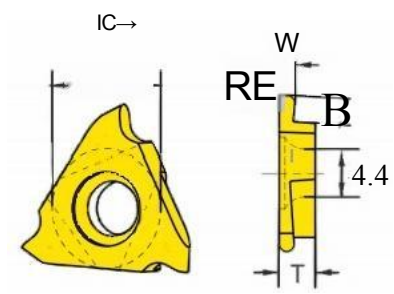
TGF32浅槽刀片
TGF32 Shallow Grooving Inserts



产品 Product	型号 Type		尺寸 Dimensions (mm)						Grade RV1040
	右手 Right	左手 Left	IC	T	D	W	B	RE	
	TGF32R240	TGF32L240	9.525	3.18	4.4	2.4	3	0.15	
	TGF32R250	TGF32L250	9.525	3.18	4.4	2.5	3.2	0.2	
	TGF32R260	TGF32L260	9.525	3.18	4.4	2.6	3.2	0.2	
	TGF32R265	TGF32L265	9.525	3.18	4.4	2.65	3.2	0.2	
	TGF32R270	TGF32L270	9.525	3.18	4.4	2.7	2	0.2	
	TGF32R275	TGF32L275	9.525	3.18	4.4	2.75	3.2	0.2	
	TGF32R280	TGF32L280	9.525	3.18	4.4	2.8	3.2	0.2	
	TGF32R285	TGF32L285	9.525	3.18	4.4	2.85	3.2	0.2	
	TGF32R290	TGF32L290	9.525	3.18	4.4	2.9	3.2	0.2	
	TGF32R295	TGF32L295	9.525	3.18	4.4	2.95	3.2	0.2	
	TGF32R300	TGF32L300	9.525	3.18	4.4	3	3.2	0.2	
	TGF32R310	TGF32L310	9.525	3.18	4.4	3.10	3.2	0.2	
	TGF32R315	TGF32L315	9.525	3.18	4.4	3.15	3.2	0.2	
	TGF32R320	TGF32L320	9.525	3.18	4.4	3.2	3.2	0.2	

●为主推荐牌号Recommadedgrade (Always stock available)

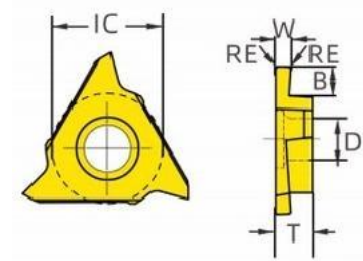
TGF32圆弧形浅槽刀片
TGF32 Full Radius Shallow Grooving Inserts



产品 Product	型号 Type		尺寸 Dimensions (mm)						Grade RV1040
	右手 Right	左手 Left	IC	T	D	W	B	RE	
	TGF32R040-R0.20	TGF32L040-R0.20	9.525	3.18	4.4	0.4	1	0.2	●
	TGF32R050-R0.25	TGF32L050-R0.25	9.525	3.18	4.4	0.5	1.2	0.25	●
	TGF32R060-R0.30	TGF32L060-R0.30	9.525	3.18	4.4	0.6	1.4	0.3	●
	TGF32R080-R0.40	TGF32L080-R0.40	9.525	3.18	4.4	0.8	2	0.4	●
	TGF32R100-R0.50	TGF32L100-R0.50	9.525	3.18	4.4	1	2.2	0.5	●
	TGF32R120-R0.60	TGF32L120-R0.60	9.525	3.18	4.4	1.2	2.2	0.6	●
	TGF32R150-R0.75	TGF32L150-R0.75	9.525	3.18	4.4	1.5	2.7	0.75	●
	TGF32R200-R1.00	TGF32L200-R1.00	9.525	3.18	4.4	2	2.7	1	●
	TGF32R250-R1.25	TGF32L250-R1.25	9.525	3.18	4.4	2.5	3.2	1.25	●
	TGF32R300-R1.50	TGF32L300-R1.50	9.525	3.18	4.4	3	3.2	1.5	●

●为主推荐牌号Recommaded grade (Always stockavailable)

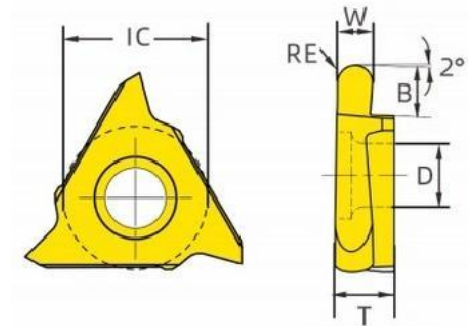
GBA43浅槽刀片
GBA43 shallow Grooving Inserts



产品 Product	型号 Type		尺寸 Dimensions (mm)						Grade RV1040
	右手 Right	左手 Left	IC	T	D	W	B	RE	
	GBA43R100	GBA43L100	12.7	4.76	5.4	1	2.2	0.1	
	GBA43R120	GBA43L120	12.7	4.76	5.4	1.2	2.2	0.1	
	GBA43R125	GBA43L125	12.7	4.76	5.4	1.25	2.2	0.1	
	GBA43R140	GBA43L140	12.7	4.76	5.4	1.4	3.5	0.1	
	GBA43R145	GBA43L145	12.7	4.76	5.4	1.45	3.5	0.1	
	GBA43R150	GBA43L150	12.7	4.76	5.4	1.5	3.5	0.2	
	GBA43R170	GBA43L170	12.7	4.76	5.4	1.7	3.5	0.2	
	GBA43R175	GBA43L175	12.7	4.76	5.4	1.75	3.5	0.2	
	GBA43R185	GBA43L185	12.7	4.76	5.4	1.85	3.5	0.2	
	GBA43R200	GBA43L200	12.7	4.76	5.4	2	3.5	0.2	
	GBA43R225	GBA43L225	12.7	4.76	5.4	2.25	2.2	0.2	
	GBA43R230	GBA43L230	12.7	4.76	5.4	2.3	3.5	0.2	
	GBA43R250	GBA43L250	12.7	4.76	5.4	2.5	5	0.2	
	GBA43R265	GBA43L265	12.7	4.76	5.4	2.65	5	0.2	
	GBA43R280	GBA43L280	12.7	4.76	5.4	2.8	5	0.2	
	GBA43R300	GBA43L300	12.7	4.76	5.4	3	5	0.3	
	GBA43R330	GBA43L330	12.7	4.76	5.4	3.3	5	0.3	
	GBA43R350	GBA43L350	12.7	4.76	5.4	3.5	5	0.3	
	GBA43R360	GBA43L360	12.7	4.76	5.4	3.6	5	0.3	
	GBA43R400	GBA43L400	12.7	4.76	5.4	4	5	0.3	
	GBA43R420	GBA43L420	12.7	4.76	5.4	4.2	5	0.3	
	GBA43R450	GBA43L450	12.7	4.76	5.4	4.5	5	0.3	
	GBA43R480	GBA43L480	12.7	4.76	5.4	4.8	5	0.3	

●为主推荐牌号Recommadedgrade (Always stockavailable)

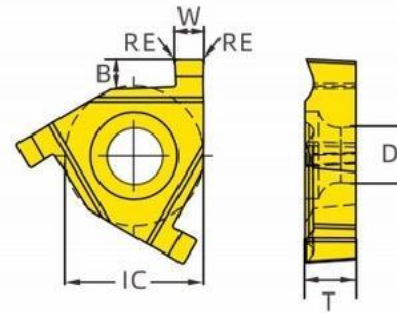
GBA43圓弧形槽刀
GBA43 Shallow Grooving Inserts



产品 Product	型号 Type		尺寸 Dimensions (mm)					Grade RV1040
	右手 Right	左手 Left	IC	T	W	B	RE	
	GBA43R100-R050	GBA43L100-R050	12.4	4.76	1	2	0.5	
	GBA43R120-R060	GBA43L120-R060	12.4	4.76	1.2	3.5	0.6	
	GBA43R150-R075	GBA43L150-R075	12.4	4.76	1.5	3.5	0.75	
	GBA43R200-R100	GBA43L200-R100	12.4	4.76	2	3.5	1	
	GBA43R250-R125	GBA43L250-R125	12.4	4.76	2.5	5	1.25	
	GBA43R300-R150	GBA43L300-R150	12.4	4.76	3	5	1.5	
	GBA43R350-R175	GBA43L350-R175	12.4	4.76	3.5	5	1.75	
	GBA43R400-R200	GBA43L400-R200	12.4	4.76	4	5	2	

●为主推荐牌号Recommadedgrade (Always stock available)

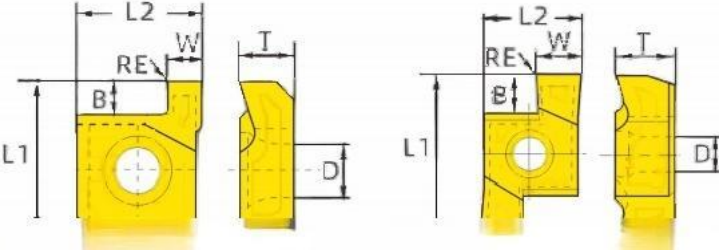
T16浅槽刀片
T16 Shallow Grooving Inserts



产品 Product	型号 Type		尺寸 Dimensions (mm)						Grade RV1040
	外槽 Extenal	内槽 Intenal	IC	T	D	W	B	RE	
	T16E050	T16N050	9.525	3.65	4	0.5	1.6	0.05	
	T16E060	T16N060	9.525	3.65	4	0.6	1.6	0.05	
	T16E070	T16N070	9.525	3.65	4	0.7	1.6	0.05	
	T16E080	T16N080	9.525	3.65	4	0.8	1.6	0.05	
	T16E090	T16N090	9.525	3.65	4	0.9	1.6	0.05	
	T16E100	T16N100	9.525	3.65	4		2.1	0.1	
	T16E110	T16N110	9.525	3.65	4	1.1	2.1	0.1	
	T16E120	T16N120	9.525	3.65	4	1.2	2.1	0.1	
	T16E130	T16N130	9.525	3.65	4	1.3	2.1	0.1	
	T16E140	T16N140	9.525	3.65	4	1.4	2.1	0.1	
	T16E150	T16N150	9.525	3.65	4	1.5	2.1	0.1	
	T16E160	T16N160	9.525	3.65	4	1.6	2.1	0.1	
	T16E170	T16N170	9.525	3.65	4	1.7	2.1	0.1	
	T16E180	T16N180	9.525	3.65	4	1.8	2.1	0.1	
	T16E200	T16N200	9.525	3.65	4	2	2.1	0.1	
	T16E215	T16N215	9.525	3.65	4	2.15	2	0.15	
	T16E230	T16N230	9.525	3.65	4	2.3	2	0.15	
	T16E250	T16N250	9.525	3.65	4	2.5	2	0.15	
	T16E265	T16N265	9.525	3.65	4	2.65	2.2	0.15	
	T16E300	T16N300	9.525	3.65	4	3	2.2	0.15	
	T16E100-R050	T16N100-R050	9.525	3.65	4	1	2.1	0.5	
	T16E120-R060	T16N120-R060	9.525	3.65	4	1.2	2.1	0.6	
	T16E150-R075	T16N150-R075	9.525	3.65	4	1.5	2.1	0.75	
	T16E200-R100	T16N200-R100	9.525	3.65	4	2	2.1		
	T16E250-R125	T16N250-R125	9.525	3.65	4	2.5	2	1.25	
	T16E300-R150	T16N300-R150	9.525	3.65	4	3	2	1.5	

●为主推荐牌号Recommadedgrade (Always stock available)

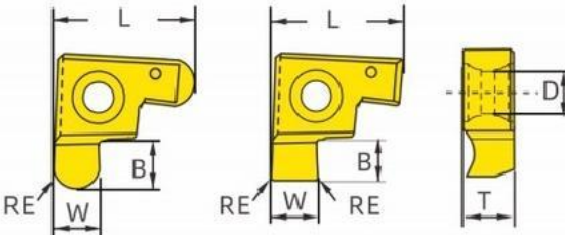
GR浅槽刀片
GR Shallow Grooving Inserts



产品 Product	型号 Type		尺寸 Dimensions(mm)							可 选 牌 号 Grade for Choice
	右手 Right	左手 Left	L1	L2	T	D	W	B	RE	
	6GR100	6GL100	6.44	5.6	2.34	2.3	1	1.5	0.2	●
	6GR150	6GL150	6.44	5.6	2.34	2.3	1.5	1.5	0.2	●
	6GR200	6GL200	6.44	5.6	2.34	2.3	2	1.5	0.2	●
	7GR100	7GL100	7.36	5.6	3.08	2.58	1	1.5	0.2	●
	7GR150	7GL150	7.36	5.6	3.08	2.58	1.5	1.5	0.2	●
	7GR200	7GL200	7.36	5.6	3.08	2.58	2	1.5	0.2	●
	7GR100-R050	7GL100-R050	7.36	5.6	3.08	2.58	1	1.5	0.2	●
	7GR150-R075	7GL150-R075	7.36	5.6	3.08	2.58	1.5	1.5	0.2	●
	7GR200-R100	7GL200-R100	7.36	5.6	3.08	2.58	2	1.5	0.2	●
	8GR100	8GL100	10.16	6.2	3.87	2.58	1	2	0.2	●
	8GR150	8GL150	10.16	6.2	3.87	2.58	1.5	2	0.2	●
	8GR200	8GL200	10.16	6.2	3.87	2.58	2	2	0.2	●
	8GR250	8GL250	10.16	6.2	3.87	2.58	2.5	2	0.2	●
	8GR300	8GL300	10.16	6.2	3.87	2.58	3	2	0.2	●
	8GR350	8GL350	10.16	6.2	3.87	2.58	3.5	2	0.2	●
	8GR100-R050	8GL100-R050	10.16	6.2	3.87	2.58	1	2	0.5	●
	8GR150-R075	8GL150-R075	10.16	6.2	3.87	2.58	1.5	2	0.75	●
	8GR200-R100	8GL200-R100	10.16	6.2	3.87	2.58	2	2	1	●
	8GR250-R125	8GL250-R125	10.16	6.2	3.87	2.58	2.5	2	1.25	●
	8GR300-R150	8GL300-R150	10.16	6.2	3.87	2.58	3	2	1.5	●
	8GR350-R175	8GL350-R175	10.16	6.2	3.87	2.58	3.5	2	1.75	●
	9GR100	9GL100	12.95	7.7	4.66	2.86	1	3	0.2	●
	9GR150	9GL150	12.95	7.7	4.66	2.86	1.5	3	0.2	●
	9GR200	9GL200	12.95	7.7	4.66	2.86	2	3	0.2	●
	9GR250	9GL250	12.95	7.7	4.66	2.86	2.5	3	0.2	●
	9GR300	9GL300	12.95	7.7	4.66	2.86	3	3	0.2	●
	9GR350	9GL350	12.95	7.7	4.66	2.86	3.5	3	0.2	●
	9GR100-R050	9GL100-R050	12.95	7.7	4.66	2.86	1	3	0.5	●
	9GR150-R075	9GL150-R075	12.95	7.7	4.66	2.86	1.5	3	0.75	●
	9GR200-R100	9GL200-R100	12.95	7.7	4.66	2.86	2	3	1	●
	9GR250-R125	9GL250-R125	12.95	7.7	4.66	2.86	2.5	3	1.25	●
	9GR300-R150	9GL300-R150	12.95	7.7	4.66	2.86	3	3	1.5	●
	9GR350-R175	9GL350-R175	12.95	7.7	4.66	2.86	3.5	3	1.75	●

● 为主推荐牌号Recommended grade (Always stock available)

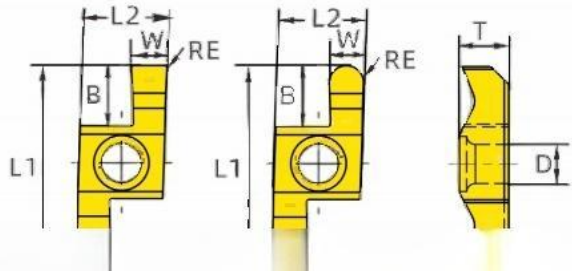
GER/L-A/B内槽刀片
GER-A/B shallow Grooving Inserts



产品 Product	型号 Type		尺寸 Dimensions(mm)						可 选 牌 号 Grade for Choice
	右手 Right	左手 Left	L	T	D	W	B	RE	
	GER100-A	GEL100-A	6.69	2.58	2.5	1	1.5	0.1	●
	GER120-A	GEL120-A	6.69	2.58	2.5	1.2	1.5	0.1	●
	GER150-A	GEL150-A	6.69	2.58	2.5	1.5	1.5	0.1	●
	GER200-A	GEL200-A	6.69	2.58	2.5	2	1.5	0.1	●
	GER100-050AR	GEL100-050AR	6.69	2.58	2.5	1	1.5	0.5	●
	GER150-075AR	GEL150-075AR	6.69	2.58	2.5	1.5	1.5	0.75	●
	GER200-100AR	GEL200-100AR	6.69	2.58	2.5	2	1.5	1	●
	GER100-B	GEL100-B	8.46	3.18	2.8	1	2.2	0.1	●
	GER120-B	GEL120-B	8.46	3.18	2.8	1.2	2.2	0.1	●
	GER150-B	GEL150-B	8.46	3.18	2.8	1.5	2.2	0.1	●
	GER200-B	GEL200-B	8.46	3.18	2.8	2	2.2	0.1	●
	GER250-B	GEL250-B	8.46	3.18	2.8	2.5	2.2	0.2	●
	GER300-B	GEL300-B	8.46	3.18	2.8	3	2.2	0.2	●
	GER100-050BR	GEL100-050BR	8.46	3.18	2.8	1	2.2	0.5	●
	GER120-060BR	GEL120-060BR	8.46	3.18	2.8	1.2	2.2	0.6	●
	GER150-075BR	GEL150-075BR	8.46	3.18	2.8	1.5	2.2	0.75	●
	GER200-100BR	GEL200-100BR	8.46	3.18	2.8	2	2.2	1	●
	GER250-125BR	GEL250-125BR	8.46	3.18	2.8	2.5	2.2	1.25	●
	GER300-150BR	GEL300-150BR	8.46	3.18	2.8	3	2.2	1.5	●

● 为主推荐牌号Recommended grade (Always stock available)

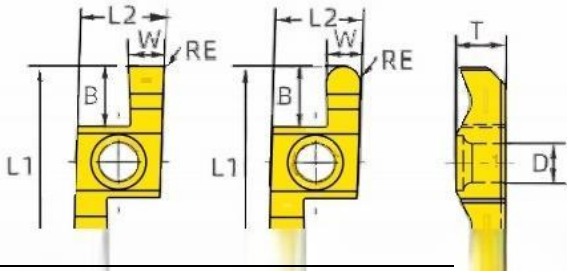
GER/L-C/D/E内槽刀片
GER-C/D/E Grooving Inserts



产品 Product	型号 Type		尺寸 Dimensions(mm)							可 选 牌 号 RV1040 Grade for Choice
	右手 Right	左手 Left	L1	L2	T	D	W	B	RE	
	GER100-C	GEL100-C	11.48	5.8	4.05	2.8	1	2.5	0.1	●
	GER120-C	GEL120-C	11.48	5.8	4.05	2.8	1.2	2.5	0.1	●
	GER150-C	GEL150-C	11.48	5.8	4.05	2.8	1.5	2.5	0.1	●
	GER200-C	GEL200-C	11.48	5.8	4.05	2.8	2	2.5	0.1	●
	GER250-C	GEL250-C	11.48	5.8	4.05	2.8	2.5	2.5	0.2	●
	GER300-C	GEL300-C	11.48	5.8	4.05	2.8	3	2.5	0.2	●
	GER350-C	GEL350-C	11.48	5.8	4.05	2.8	3.5	2.5	-	●
	GER100-050CR	GEL100-050CR	11.48	5.8	4.05	2.8	1	2.5	0.5	●
	GER120-060CR	GEL120-060CR	11.48	5.8	4.05	2.8	1.2	2.5	0.6	●
	GER150-075CR	GEL150-075CR	11.48	5.8	4.05	2.8	1.5	2.5	0.75	●
	GER200-100CR	GEL200-100CR	11.48	5.8	4.05	2.8	2	2.5	1	●
	GER250-125CR	GEL250-125CR	11.48	5.8	4.05	2.8	2.5	2.5	1.25	●
	GER300-150CR	GEL300-150CR	11.48	5.8	4.05	2.8	3	2.5	1.5	●
	GER100-D	GEL100-D	16.44	6.8	5.05	3.4	1	4.5	0.1	●
	GER120-D	GEL120-D	16.44	6.8	5.05	3.4	1.2	4.5	0.1	●
	GER150-D	GEL150-D	16.44	6.8	5.05	3.4	1.5	4.5	0.1	●
	GER200-D	GEL200-D	16.44	6.8	5.05	3.4	2	4.5	0.1	●
	GER250-D	GEL250-D	16.44	6.8	5.05	3.4	2.5	4.5	0.2	●
	GER300-D	GEL300-D	16.44	6.8	5.05	3.4	3	4.5	0.2	●
	GER350-D	GEL350-D	16.44	6.8	5.05	3.4	3.5	4.5	0.2	●
	GER400-D	GEL400-D	16.44	6.8	5.05	3.4	4	4.5	0.2	●
	GER100-050DR	GEL100-050DR	16.44	6.8	5.05	3.4	1	4.5	0.5	●
	GER120-060DR	GEL120-060DR	16.44	6.8	5.05	3.4	1.2	4.5	0.6	●
	GER150-075DR	GEL150-075DR	16.44	6.8	5.05	3.4	1.5	4.5	0.75	●
	GER200-100DR	GEL200-100DR	16.44	6.8	5.05	3.4	2	4.5	1	●
	GER250-125DR	GEL250-125DR	16.44	6.8	5.05	3.4	2.5	4.5	1.25	●
	GER300-150DR	GEL300-150DR	16.44	6.8	5.05	3.4	3	4.5	1.5	●
	GER350-175DR	GEL350-175DR	16.44	6.8	5.05	3.4	3.5	4.5	1.75	●
	GER400-200DR	GEL400-200DR	16.44	6.8	5.05	3.4	4	4.5	2	●
	GER100-E	GEL100-E	21.66	9.54	5.55	4.4	1	6.5	0.1	●
	GER120-E	GEL120-E	21.66	9.54	5.55	4.4	1.2	6.5	0.1	●
	GER150-E	GEL150-E	21.66	9.54	5.55	4.4	1.5	6.5	0.1	●

● 为主推荐牌号Recommended grade (Always stock available)

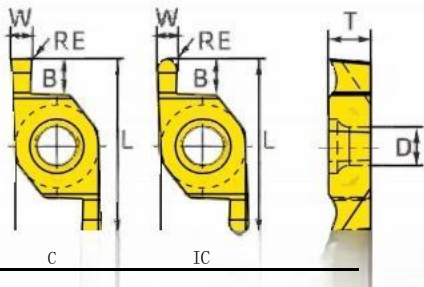
GER/L-C/D/E内槽刀片
GER-C/D/E Grooving Inserts



产品 Product	型号 Type		尺寸 Dimensions(mm)							可 选 牌 号 RV1040 Grade for Choice
	右手 Right	左手 Left	L1	L2	T	D	W	B	RE	
	GER200-E	GEL200-E	21.66	9.54	5.55	4.4	2	6.5	0.1	●
	GER250-E	GEL250-E	21.66	9.54	5.55	4.4	2.5	6.5	0.2	●
	GER300-E	GEL300-E	21.66	9.54	5.55	4.4	3	6.5	0.2	●
	GER350-E	GEL350-E	21.66	9.54	5.55	4.4	3.5	6.5	0.2	●
	GER400-E	GEL400-E	21.66	9.54	5.55	4.4	4	6.5	0.2	●
	GER450-E	GEL450-E	21.66	9.54	5.55	4.4	4.5	6.5	0.2	●
	GER500-E	GEL500-E	21.66	9.54	5.55	4.4	5	6.5	0.2	●
	GER100-050ER	GEL100-050ER	21.66	9.54	5.55	4.4	1	6.5	0.5	●
	GER120-060ER	GEL120-060ER	21.66	9.54	5.55	4.4	1.2	6.5	0.6	●
	GER150-075ER	GEL150-075ER	21.66	9.54	5.55	4.4	1.5	6.5	0.75	●
	GER200-100ER	GEL200-100ER	21.66	9.54	5.55	4.4	2	6.5	1	●
	GER250-125ER	GEL250-125ER	21.66	9.54	5.55	4.4	2.5	6.5	1.25	●
	GER300-150ER	GEL300-150ER	21.66	9.54	5.55	4.4	3	6.5	1.5	●
	GER350-175ER	GEL350-175ER	21.66	9.54	5.55	4.4	3.5	6.5	1.75	●
	GER400-200ER	GEL400-200ER	21.66	9.54	5.55	4.4	4	6.5	2	●
	GER450-225ER	GEL450-225ER	21.66	9.54	5.55	4.4	4.5	6.5	2.25	●
	GER500-250ER	GEL500-250ER	21.66	9.54	5.55	4.4	5	6.5	2.5	●

● 为主推荐牌号Recommended grade (Always stock available)

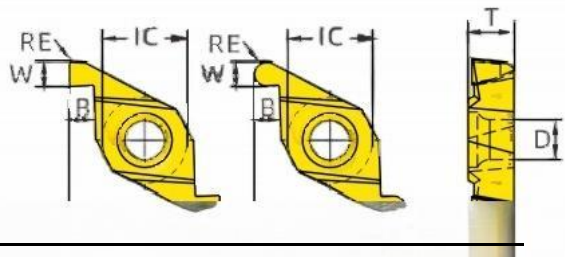
VC11/16内孔端面槽刀
VC11/16 Internal Facegrooving Inserts



产品 Product	型号 Type		尺寸 Dimensions(mm)									可 选 牌 号 RV1040 Grade for Choice
	右手 Right	左手 Left	IC	L	D	T	W	B	RE	Dmin		
	VC1103R100	VC1103L100	6.35	14	2.8	3.18	1	2.3	0.05	14	●	
	VC1103R150	VC1103L150	6.35	14	2.8	3.18	1.5	2.8	0.05	14	●	
	VC1103R200	VC1103L200	6.35	14	2.8	3.18	2	2.8	0.05	14	●	
	VC1103R250	VC1103L250	6.35	14	2.8	3.18	2.5	2.8	0.05	14	●	
	VC1103R100-R050	VC1103L100-R050	6.35	14	2.8	3.18	1	2.3	0.5	14	●	
	VC1103R150-R075	VC1103L150-R075	6.35	14	2.8	3.18	1.5	2.8	0.75	14	●	
	VC1103R200-R100	VC1103L200-R100	6.35	14	2.8	3.18	2	2.8	1	14	●	
	VC1103R250-R100	VC1103L250-R100	6.35	14	2.8	3.18	2.5	2.8	1.25	14	●	
	VC1604R100	VC1604L100	9.525	19	4.4	4.76	1	2.6	0.15	20	●	
	VC1604R150	VC1604L150	9.525	19	4.4	4.76	1.5	3.6	0.2	20	●	
	VC1604R200	VC1604L200	9.525	19	4.4	4.76	2	4.1	0.2	20	●	
	VC1604R250	VC1604L250	9.525	19	4.4	4.76	2.5	5.1	0.3	20	●	
	VC1604R300	VC1604L300	9.525	19	4.4	4.76	3	5.1	0.3	20	●	
	VC1604R350	VC1604L350	9.525	19	4.4	4.76	3.5	4.6	0.3	20	●	
	VC1604R400	VC1604L400	9.525	19	4.4	4.76	4	4.6	0.3	20	●	
	VC1604R100-R050	VC1604L100-R050	9.525	19	4.4	4.76	1	2.6	0.5	20	●	
	VC1604R150-R075	VC1604L150-R075	9.525	19	4.4	4.76	1.5	3.6	0.75	20	●	
	VC1604R200-R100	VC1604L200-R100	9.525	19	4.4	4.76	2	4.1	1	20	●	
	VC1604R250-R125	VC1604L250-R125	9.525	19	4.4	4.76	2.5	5.1	1.25	20	●	
	VC1604R300-R150	VC1604L300-R150	9.525	19	4.4	4.76	3	5.1	1.5	20	●	
	VC1604R350-R175	VC1604L350-R175	9.525	19	4.4	4.76	3.5	4.6	1.75	20	●	
	VC1604R400-R200	VC1604L400-R200	9.525	19	4.4	4.76	4	4.6	2	20	●	

● 为主推荐牌号Recommended grade (Always stock available)

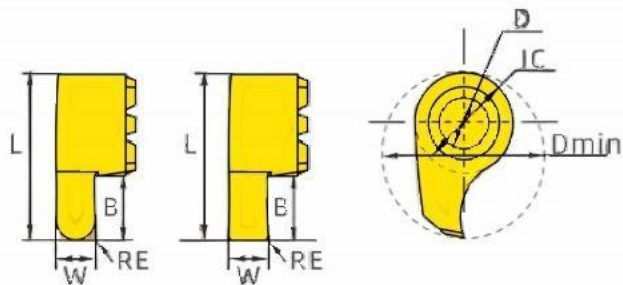
FVC1604端面槽刀
FVC1604 Facegrooving Inserts



产品 Product	型号 Type		尺寸 Dimensions(mm)									可 选 牌 号 RV1040 Grade for Choice
	右手 Right	左手 Left	IC	L	D	T	W	B	RE	Dmin		
	FVC1604R100	FVC1604L100	9.525	18.5	4.4	4.76	1	1.5	0.1	18	●	
	FVC1604R150	FVC1604L150	9.525	18.5	4.4	4.76	1.5	1.6	0.1	18	●	
	FVC1604R200	FVC1604L200	9.525	18.5	4.4	4.76	2	1.8	0.2	18	●	
	FVC1604R250	FVC1604L250	9.525	18.5	4.4	4.76	2.5	2.3	0.2	18	●	
	FVC1604R300	FVC1604L300	9.525	18.5	4.4	4.76	3	3	0.2	18	●	
	FVC1604R100-R050	FVC1604L100-R050	9.525	18.5	4.4	4.76	1	1.5	0.5	18	●	
	FVC1604R150-R075	FVC1604L150-R075	9.525	18.5	4.4	4.76	1.5	1.6	0.75	18	●	
	FVC1604R200-R100	FVC1604L200-R100	9.525	18.5	4.4	4.76	2	1.8	1	18	●	
	FVC1604R250-R125	FVC1604L250-R125	9.525	18.5	4.4	4.76	2.5	2.3	1.25	18	●	
	FVC1604R300-R150	FVC1604L300-R150	9.525	18.5	4.4	4.76	3	3	1.5	18	●	

● 为主推荐牌号Recommended grade (Always stock available)

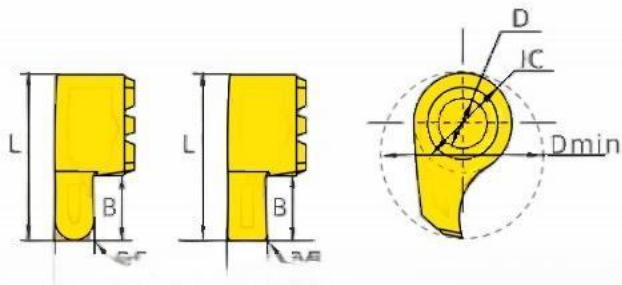
MB内槽刀
MB Internal Grooving Inserts



产品 Product	型号 Type		尺寸 Dimensions(mm)								可选牌号 Grade for Choice
	右手 Right	左手 Left	L	IC	Dmin	D	W	B	RE	RV1040	
 	MB05GR100D09	MB05GL100D09	8.3	5	9	2.5	1	2.8	0.1	●	
	MB05GR150D09	MB05GL150D09	8.3	5	9	2.5	1.5	2.8	0.1	●	
	MB05GR200D09	MB05GL200D09	8.3	5	9	2.5	2	2.8	0.1	●	
	MB05GR250D09	MB05GL250D09	8.3	5	9	2.5	2.5	2.8	0.2	●	
	MB05GR300D09	MB05GL300D09	8.3	5	9	2.5	3	2.8	0.2	●	
	MB05GR100-R050D09	MB05GL100-R050D09	8.3	5	9	2.5	1	2.8	0.5	●	
	MB05GR150-R075D09	MB05GL150-R075D09	8.3	5	9	2.5	1.5	2.8	0.75	●	
	MB05GR200-R100D09	MB05GL200-R100D09	8.3	5	9	2.5	2	2.8	1	●	
	MB05GR250-R125D09	MB05GL250-R125D09	8.3	5	9	2.5	2.5	2.8	1.25	●	
	MB05GR300-R150D09	MB05GL300-R150D09	8.3	5	9	2.5	3	2.8	1.5	●	
	MB07GR100D12	MB07GL100D12	11	7	12	3.4	1	3.5	0.1	●	
	MB07GR150D12	MB07GL150D12	11	7	12	3.4	1.5	3.5	0.1	●	
	MB07GR200D12	MB07GL200D12	11	7	12	3.4	2	3.5	0.1	●	
	MB07GR250D12	MB07GL250D12	11	7	12	3.4	2.5	3.5	0.2	●	
	MB07GR300D12	MB07GL300D12	11	7	12	3.4	3	3.5	0.2	●	
	MB07GR100-R050D12	MB07GL100-R050D12	11	7	12	3.4	1	3.5	0.5	●	
	MB07GR150-R075D12	MB07GL150-R075D12	11	7	12	3.4	1.5	3.5	0.75	●	
	MB07GR200-R100D12	MB07GL200-R100D12	11	7	12	3.4	2	3.5	1	●	
	MB07GR250-R125D12	MB07GL250-R125D12	11	7	12	3.4	2.5	3.5	1.25	●	
	MB07GR300-R150D12	MB07GL300-R150D12	11	7	12	3.4	3	3.5	1.5	●	
	MB09GR100D17	MB09GL100D17	16	9	17	4.4	1	6.5	0.1	●	
	MB09GR150D17	MB09GL150D17	16	9	17	4.4	1.5	6.5	0.1	●	
	MB09GR200D17	MB09GL200D17	16	9	17	4.4	2	6.5	0.1	●	
	MB09GR250D17	MB09GL250D17	16	9	17	4.4	2.5	6.5	0.2	●	
	MB09GR300D17	MB09GL300D17	16	9	17	4.4	3	6.5	0.2	●	
	MB09GR100-R050D17	MB09GL100-R050D17	16	9	17	4.4	1	6.5	0.5	●	
	MB09GR150-R075D17	MB09GL150-R075D17	16	9	17	4.4	1.5	6.5	0.75	●	
	MB09GR200-R100D17	MB09GL200-R100D17	16	9	17	4.4	2	6.5	1	●	
	MB09GR250-R125D17	MB09GL250-R125D17	16	9	17	4.4	2.5	6.5	1.25	●	
	MB09GR300-R150D17	MB09GL300-R150D17	16	9	17	4.4	3	6.5	1.5	●	
	MB11GR100D20	MB11GL100D20	19.5	11	20	5.4	1	8	0.1	●	
	MB11GR150D20	MB11GL150D20	19.5	11	20	5.4	1.5	8	0.1	●	
	MB11GR200D20	MB11GL200D20	19.5	11	20	5.4	2	8	0.1	●	

●为主推荐牌号Recommended grade (Always stock available)

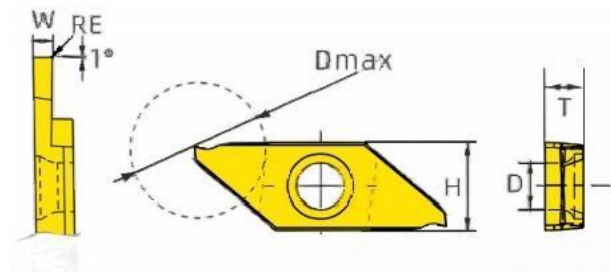
MB内槽刀
MB Internal Grooving Inserts

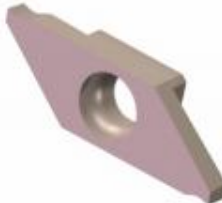


产品 Product	型号 Type		尺寸 Dimensions(mm)								可选牌号 Grade for Choice
	右手 Right	左手 Left	L	IC	Dmin	D	W	B	RE	RV1040	
	MB11GR250D20	MB11GL250D20	19.5	11	20	5.4	2.5	8	0.2	●	
	MB11GR300D20	MB11GL300D20	19.5	11	20	5.4	3	8	0.2	●	
	MB11GR350D20	MB11GL350D20	19.5	11	20	5.4	3.5	8	0.2	●	
	MB11GR400D20	MB11GL400D20	19.5	11	20	5.4	4	8	0.2	●	
	MB11GR100-R050D20	MB11GL100-R050D20	19.5	11	20	5.4	1	8	0.5	●	
	MB11GR150-R075D20	MB11GL150-R075D20	19.5	11	20	5.4	1.5	8	0.75	●	
	MB11GR200-R100D20	MB11GL200-R100D20	19.5	11	20	5.4	2	8	1	●	
	MB11GR250-R125D20	MB11GL250-R125D20	19.5	11	20	5.4	2.5	8	1.25	●	
	MB11GR300-R150D20	MB11GL300-R150D20	19.5	11	20	5.4	3	8	1.5	●	
	MB11GR350-R175D20	MB11GL350-R175D20	19.5	11	20	5.4	3.5	8	1.75	●	
	MB11GR400-R200D20	MB11GL400-R200D20	19.5	11	20	5.4	4	8	2	●	

●为主推荐牌号Recommended grade (Always stock available)

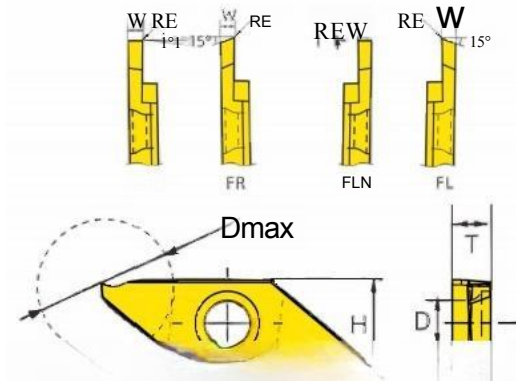
TKF12/16切槽切断刀片
TKF12/16 Grooving&Cut-off Inserts



产品 Product	型号 Type		尺寸 Dimensions(mm)							可 选 牌 号 Grade for Choice
	右手 Right	左手 Left	W	Dmax	T	H	D	RE	RT1040	
	TKF12R050-S	TKF12L050-S	0.5	5	3	8.7	5	0.05	●	
	TKF12R070-S	TKF12L070-S	0.7	8	3	8.7	5	0.05	●	
	TKF12R100-S	TKF12L100-S	1	12	3	8.7	5	0.05	●	
	TKF12R150-S	TKF12L150-S	1.5	12	3	8.7	5	0.05	●	
	TKF12R200-S	TKF12L200-S	2	12	3	8.7	5	0.05	●	
	TKF16R100-S	TKF16L100-S	1	16	4	9.5	5	0.05	●	
	TKF16R150-S	TKF16L150-S	1.5	16	4	9.5	5	0.05	●	
	TKF16R200-S	TKF16L200-S	2	16	4	9.5	5	0.05	●	
	TKF16R250-S	TKF16L250-S	2.5	16	4	9.5	5	0.05	●	
	TKF16R300-S	TKF16L300-S	3	16	4	9.5	5	0.05	●	

● 为主推荐牌号Recommended grade (Always stock available)

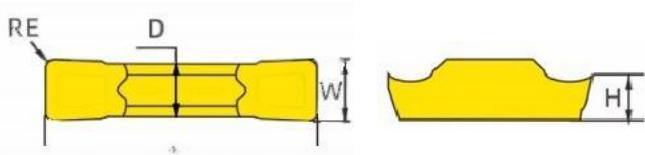
CTP/CTPA切槽切断刀片
CTP/CTPA Grooving&Cut-off Inserts



产品 Product	型号 Type		尺寸 Dimensions(mm)							可 选 牌 号 Grade for Choice
	右手 Right	左手 Left	W	Dmax	T	H	D	RE	RV1040	
	CTP05FRN	CTP05FLN	0.5	5	2.5	8	5	0.05	●	
	CTP07FRN	CTP07FLN	0.7	8	2.5	8	5	0.05	●	
	CTP10FRN	CTP10FLN	1	12	2.5	8	5	0.05	●	
	CTP15FRN	CTP15FLN	1.5	12	2.5	8	5	0.05	●	
	CTP20FRN	CTP20FLN	2	12	2.5	8	5	0.05	●	
	CTP05FR	CTP05FL	0.5	5	2.5	8	5	0.05	●	
	CTP07FR	CTP07FL	0.7	8	2.5	8	5	0.05	●	
	CTP10FR	CTP10FL	1	12	2.5	8	5	0.05	●	
	CTP15FR	CTP15FL	1.5	12	2.5	8	5	0.05	●	
	CTP20FR	CTP20FL	2	12	2.5	8	5	0.05	●	
	CTPA10FRN	CTPA10FLN	1	16	3.5	9.4	5	0.05	●	
	CTPA15FRN	CTPA15FLN	1.5	16	3.5	9.4	5	0.05	●	
	CTPA20FRN	CTPA20FLN	2	16	3.5	9.4	5	0.05	●	
	CTPA25FRN	CTPA25FLN	2.5	16	3.5	9.4	5	0.05	●	
	CTPA30FRN	CTPA30FLN	3	16	3.5	9.4	5	0.05	●	
	CTPA10FR	CTPA10FL	1	16	3.5	9.4	5	0.05	●	
	CTPA15FR	CTPA15FL	1.5	16	3.5	9.4	5	0.05	●	
	CTPA20FR	CTPA20FL	2	16	3.5	9.4	5	0.05	●	

● 为主推荐牌号Recommended grade (Always stock available)

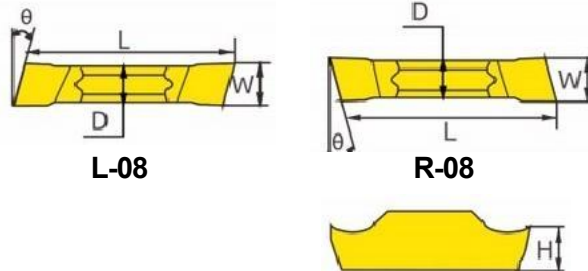
MGGN精磨切槽切断刀
MGGN Grooving&Cut-off Inserts



产品 Product	型号 Type	尺寸 Dimensions(mm)					可选牌号 Grade for Choice
		L	W	D	H	RE	RV1040
	MGGN150	16	1.5	1.2	3.5	0.15	●
	MGGN200	16	2	1.6	3.5	0.2	●
	MGGN250	18.5	2.5	2	3.85	0.2	●
	MGGN300	21	3	2.35	4.8	0.4	●
	MGGN400	21	4	3.3	4.8	0.4	●
	MGGN500	26	5	4.1	5.8	0.8	●
	MGGN600	26	6	5	5.8	0.8	●

● 为主推荐牌号Recommended grade (Always stock available)

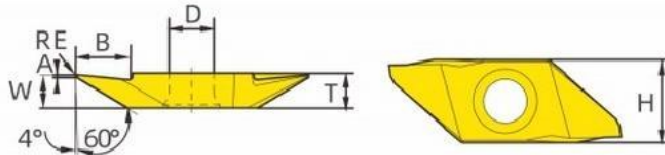
MGGN精磨斜口切断刀
MGGN Cut-off Inserts



产品 Product	型号 Type		尺寸 Dimensions(mm)					可选牌号 Grade for Choice
	右手 Right	左手 Left	L	W	D	H	θ	RV1040
	MGGN150R-08	MGGN150L-08	16	1.5	1.2	3.5	8°	●
	MGGN200R-08	MGGN200L-08	16	2	1.6	3.5	8°	●
	MGGN250R-08	MGGN250L-08	18.5	2.5	2	3.85	8°	●
	MGGN300R-08	MGGN300L-08	21	3	2.35	4.8	8°	●
	MGGN400R-08	MGGN400L-08	21	4	3.3	4.8	8°	●

● 为主推荐牌号Recommended grade (Always stock available)

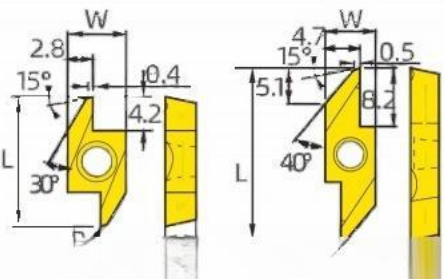
TKFB背车刀片
TKFB BackTurning Insert



产品 Product	型号 Type	尺寸 Dimensions(mm)							可选牌号 Grade for Choice
		W	B	T	H	D	A	RE	RV1040
	TKFB12R15005	1.5	2.6	3	8.7	5.2	0.25	0.05	●
	TKFB12R28005	2	4.6	3	8.7	5.2	0.25	0.05	●
	TKFB12R28010	2.5	4.6	3	8.7	5.2	0.3	0.1	●
	TKFB16R38005	3.8	6.3	4	9.5	5.2	0.3	0.05	●
	TKFB16R38010	3.8	6.3	4	9.5	5.2	0.3	0.1	●

● 为主推荐牌号Recommended grade (Always stock available)

ABS/ABW背车刀片
ABS/ABW BackTurning Insert



产品 Product	型号 Type	尺寸 Dimensions(mm)				可选牌号 Grade for Choice
		L	W	T	RE	RV1040
	ABS15R4005	15.4	7	3.97	0.05	●
	ABS15R4015	15.4	7	3.97	0.15	●
	ABW23R5005	23.4	7	3.97	0.05	●
	ABW23R5015	23.4	7	3.97	0.15	●

● 为主推荐牌号Recommended grade (Always stock available)

牌号介绍Grade Introduction

牌号特点Grade Specifiction

RP8015	PVD coating, golden yellow, the preferred grade for ordinary steel parts, castings and strong intermittent processing conditions, the super tough substrate combined with the thick anti-sticking PVD coating has the strongest anti-collapse performance
RP8115	PVD coating, reddish brown, the preferred grade for tool steel and stainless steel processing, optimized latest coating process, excellent in stainless steel continuous and intermittent processing conditions
RP8215	PVD coating, black color, the preferred grade for dry cutting of modulated steel and cast iron, especially suitable for stable milling environment and dry cutting conditions, and the preferred grade for high line speed and high feed processing
RP8315	PVD coating, black-grey, general grade for steel, stainless steel and cast iron, currently the most versatile series
RC3215	CVD coating, black, special grade for cast iron, ultra-thick CVD coating and cast iron high hardness substrate, the performance is particularly outstanding under stable working conditions
RP8115H	PVD coating, bronze color, the first choice for difficult-to-process materials (hardened steel; heat-resistant alloy steel; duplex stainless steel; high-temperature alloy), HRC 45-60 range is more suitable.

MILLING TOOLS

铣削刀具



铣削刀具/Miling Tools

62~62 铣削牌号介绍

Milling Inserts Grade Introduce

63~64 铣削刀片型号表示规则

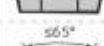
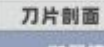
Miling Inserts ModelRepresentation Rules

65~76 铣削刀片大全

Milling Inserts

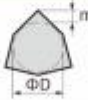
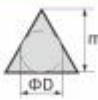
77~83 铣削刀片案例

Cases for Miling Inserts

形状代号			断面槽及夹固形式				
	A			B			C
	D			E			H
	K			L			M
	O			P			R
	S			T			T
	V			W		其他	Z
B	有	无		N	无	无	
H	有	单面		R	无	单面	
C	有	无		F	无	双面	
J	有	双面		A	有	无	
W	有	无		M	有	单面	
T	有	单面		G	有	双面	
Q	有	无		X	---	---	特殊
U	有	双面					
代号	孔	断面槽	刀片侧面	代号	孔	断面槽	刀片侧面

A P M T

主切削刃后角			
代号	后角	代号	后角
A	 3°	A	 5°
C	 7°	D	 15°
E	 20°	F	 25°
G	 30°	N	 0°
P	 11°	O	其他

公差(mm)										
										
级别	刀尖高度 (m)	内切圆 (ΦD)	厚度 (S)	◆ M级精度要求(按形状和内切圆大小区分) ◆ 刀尖高度(m)公差						
A	±0.005	±0.025	±0.025	内接圆	正三角形	正方形	80°菱形	55°菱形	35°菱形	圆形
F	±0.005	±0.013	±0.013	6.35	±0.08	±0.08	±0.08	±0.11	±0.16	—
C	±0.013	±0.025	±0.025	9.525	±0.08	±0.08	±0.08	±0.11	±0.16	—
H	±0.013	±0.013	±0.013	12.7	±0.13	±0.13	±0.13	±0.15	—	—
E	±0.025	±0.025	±0.025	15.875	±0.15	±0.15	±0.15	±0.18	—	—
G	±0.025	±0.025	±0.13	19.05	±0.15	±0.15	±0.15	±0.18	—	—
J	±0.025	±0.025	±0.13	25.4	—	±0.18	—	—	—	—
J	±0.005	±0.05~±0.13	±0.025	◆ 内切圆(ΦD)公差						
K	±0.013	±0.05~±0.13	±0.025	内接圆	正三角形	正方形	80°菱形	55°菱形	35°菱形	圆形
L	±0.025	±0.05~±0.13	±0.025	6.35	±0.05	±0.05	±0.05	±0.05	±0.05	—
M	±0.08~±0.18	±0.05~±0.13	±0.13	9.525	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
N	±0.08~±0.18	±0.05~±0.13	±0.025	12.7	±0.08	±0.08	±0.08	—	—	±0.08
U	±0.08~±0.18	±0.05~±0.25	±0.13	15.875	±0.10	±0.10	±0.10	—	—	±0.10
				19.05	±0.10	±0.10	±0.10	—	—	±0.10
				25.4	—	±0.13	—	—	—	±0.13

32			32						
31.75			31						
25.4			25	25					
25	25	25	25						
20			20						
19.05	19		19	19	33				
16		19	16						
15.875	16		15	16	27				
12.7	12	15	12	12	22	22	08		
12			12						
10			10						
9.525	09	11	09	09	16	16	06	16	
8			08						
6.35	06	07			11	11			
6			06						
5.56					09				
5.5			05						
3.97					06				
内切圆直径 (mm)									
	C	D	R	S	T	V	W	K	
	刀片形状								
	切削刃长度								

12	12.7
10	11.11
T9	9.72
09	9.52
07	7.94
T6	6.75
06	6.35
T5	5.95
05	5.56
T4	4.96
04	4.76
T3	3.97
03	3.18
T2	2.58
02	2.38
T1	1.98
01	1.59
T0	0.99
00	0.79
代号	厚度(mm)
	
刀片厚度	

16 05 PD E R - ZL

修光刃			
A	45°	A	3°
D	60°	B	5°
E	75°	C	7°
F	85°	D	15°
P	90°	E	20°
Z	其他	F	25°
		G	30°
		N	0°
		P	11°
		Z	其他

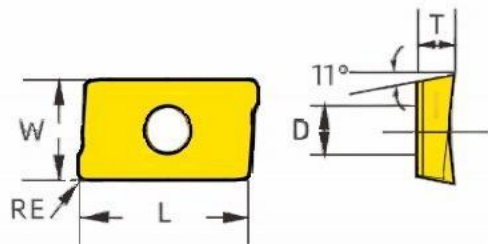
切削刃倒棱			
	0-5°	0-0.1	
F	1-10°	1-0.15	K(或不)
	2-15°	2-0.2	
E	3-20°	3-0.25	P
	4-25°	4-0.3	
T	5-30°	5-0.35	W
	1-10°	6-0.4	
S	1-10°	7-0.45	Q

断屑槽型代号

切削方向	
代号	方向
R	右
L	左
N	双向

方肩铣削刀片 Milling Inserts

AP□□

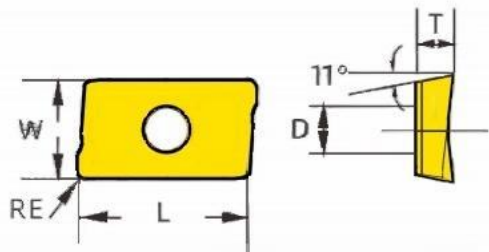


产品 Product	型号 Type	尺寸 Dimensions(mm)					可选牌号 Grade for Choice						
		L	W	T	D	RE	RP8015	RP8115	RP8215	RP8315	RC3215	RP8115H	RV525
	APKT1604PDER	17.42	9.33	5.2	4.5	0.8		●		●			
	APKT1135PDER	11.3	6.25	3.6	2.8	0.8		●		●			
	APMT1604PDER-ZL	17.42	9.33	5.2	4.5	0.8				●		●	
	APMT1135PDER-ZL	11.3	6.25	3.6	2.8	0.8				●		●	
	APMT1604PEER	17.42	9.33	5.2	4.5	0.8	●	●	●	●	●	●	
	APMT1135PEER	11.3	6.25	3.6	2.8	0.8	●	●	●	●	●	●	
	APMT160404PDER	17.25	9.33	5.2	4.5	0.8	●	●	●				
	APMT160412PDER	17.25	9.33	5.2	4.5	1.2	●	●	●				
	APMT160416PDER	17.25	9.33	5.2	4.5	1.6	●	●	●				
	APMT160420PDER	17.25	9.33	5.2	4.5	2.0	●	●	●				
	APMT160430PDER	17.25	9.33	5.2	4.5	3.0	●	●	●				
	APMT1604PDER-M2	17.25	9.25	4.76	4.4	0.8	●	●	●	●	●		
	APMT1135PDER-M2	17.25	6.2	3.5	2.8	0.8	●	●	●	●	●		
	APMT1604PDER-H2	17.25	9.25	4.76	4.4	0.8	●	●	●	●	●		
	APMT1135PDER-H2	17.25	6.2	3.5	2.8	0.8	●	●	●	●	●		
	APKT170508R-EM	18.44	10.74	5.56	4.5	0.8	●	●	●	●			
	APKT170516R-EM	18.44	10.74	5.56	4.5	1.6	●	●	●				
	APKT170524R-EM	18.44	10.74	5.56	4.5	2.4	●	●	●				
	APKT170530R-EM	18.44	10.74	5.56	4.5	3.0	●	●	●				
	APKT170540R-EM	16.84	10.74	5.56	4.5	4.0	●	●	●				

● 为主推荐牌号Recommended grade (Always stock available)

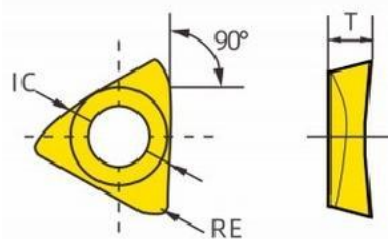
方肩铣削刀片 Milling Inserts

AP□□



产品 Product	型号 Type	尺寸 Dimensions(mm)					可选牌号 Grade for Choice						
		L	W	T	D	RE	RP8015	RP8115	RP8215	RP8315	RC3215	RP8115H	RV525
	APKT160402PDFR-MA	17.25	9.25	4.76	4.4	0.2							●
	APKT160404PDFR-MA	17.25	9.25	4.76	4.4	0.4							●
	APKT160408PDFR-MA	17.25	9.25	4.76	4.4	0.8							●
	APKT1604PDFR-MA3	17.25	9.25	4.76	4.4	0.8							●
	APGT160404PDFR-G2	17.25	9.25	4.76	4.4	0.4							●
	APGT160408PDFR-G2	17.25	9.25	4.76	4.4	0.8							●

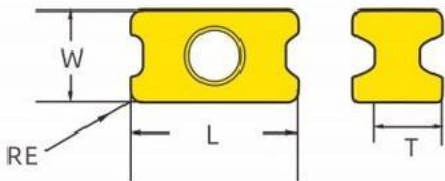
● 为主推荐牌号Recommended grade (Always stock available)



3P□□

产品 Product	型号 Type	尺寸 Dimensions(mm)					可选牌号 Grade for Choice					
		IC	APMT	T	BS	RE	RP8015	RP8115	RP8215	RP8315	RC3215	RP8115H
	3PKT060304R-M	5.3	4.7	2.8	1	0.4	●	●	●			
	3PKT100408R-M	6.9	7	4	1.2	0.8	●	●	●			
	3PKT150508R-M	10.7	11	5	1.8	0.8	●	●	●			
	3PKT190608R-M	13.5	15	6	2	0.8	●	●	●			

● 为主推荐牌号Recommended grade (Always stock available)

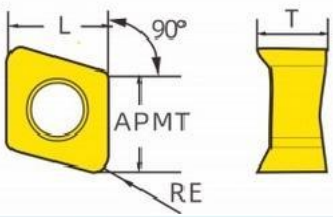


LN□□

产品 Product	型号 Type	尺寸 Dimensions(mm)					可选牌号 Grade for Choice					
		L	W	T	BS	RE	RP8015	RP8115	RP8215	RP8315	RC3215	RP8115H
	LNPU110408SRGE	12.16	6.6	4.83	1	0.8	●	●	●	●		
	LNPU15T608SRGE	17.01	10	6.96	1.8	0.8	●	●	●			

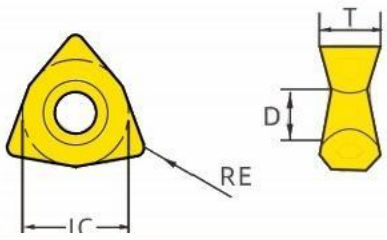
● 为主推荐牌号Recommended grade (Always stock available)

4N□□



产品 Product	型号 Type	尺寸 Dimensions(mm)					可选牌号 Grade for Choice					
		L	APMT	T	BS	RE	RP8015	RP8115	RP8215	RP8315	RC3215	RP8115H
	4NKT060308R-M	6.6	5.8	4.2	0.6	0.8	●	●	●	●		

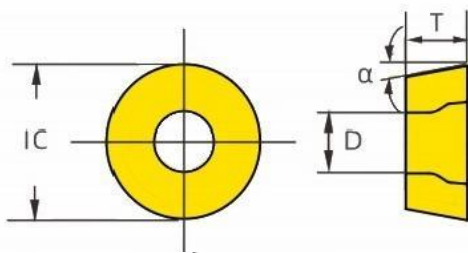
● 为主推荐牌号Recommended grade (Always stock available)



WN□□

产品 Product	型号 Type	尺寸 Dimensions(mm)					可选牌号 Grade for Choice					
		IC	T	D	BS	RE	RP8015	RP8115	RP8215	RP8315	RC3215	RP8115H
	WNMU040304EN	6.75	3.18	3.18	0.6	0.4	●	●	●			
	WNMU060408EN	9.53	4	3.5	1.3	0.8	●	●	●			
	WNMU080608EN	14.02	6.65	6.20	1.3	0.8	●	●	●			
	WNMU080608EN-ZL	14.02	6.65	6.2	1.3	0.8				●		●
	WNMU080608EN-GH	14.02	6.38	4.6	1.3	0.8					●	
	XNMU080608EN	12.5	6.38	4.6	-	0.8	●	●	●			

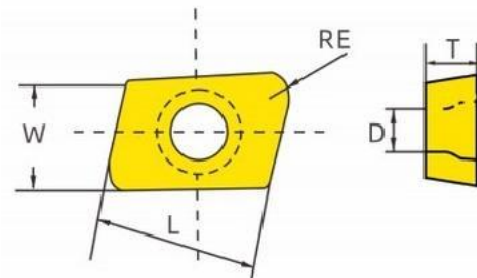
● 为主推荐牌号Recommended grade (Always stock available)



RP/RD□□

产品 Product	型号 Type	尺寸 Dimensions(mm)				可选牌号 Grade for Choice					
		IC	T	D	α	RP8015	RP8115	RP8215	RP8315	RC3215	RP8115H
	RPMW08T2MO	8	2.78	3.4	11	●	●	●			
	RPMW1003MO	10	3.18	4.4	11	●	●	●	●		●
	RPMT1204MO	12	4.76	4.4	11	●	●	●	●		●
	RPMT08T2MO-JS	8	2.58	3.4	11	●	●	●	●		
	RPMT10T3MO-JS	10	3.97	4.4	11	●	●	●	●		
	RPMT1204MO-JS	12	4.76	4.4	11	●	●	●	●		
	RDMT08T2MOTN	8	2.78	3.4	15	●	●	●	●		
	RDMT10T3MOTN	10	3.97	4.4	15	●	●	●	●		
	RDMT1204MOTN	12	4.76	4.4	15	●	●	●	●		●
	RDMW0602MO	6	2.48	2.8	15	●	●	●			
	RDMW10T3MO	10	3.97	4.4	15	●	●	●			
	RDMW1204MO	12	4.76	4.4	15	●	●	●	●		
	RDMW1605MO	16	4.76	5.5	15	●	●	●			
	RPGT0803MO-AK	8	2.78	3.4	11						●
	RPGT1003MO-AK	10	3.18	4.4	11						●
	RPGT1204MO-AK	12	4.76	4.4	11						●

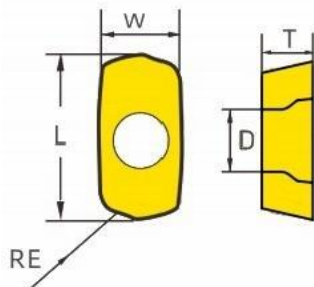
● 为主推荐牌号Recommended grade (Always stock available)



JD□□

产品 Product	型号 Type	尺寸 Dimensions(mm)					可选牌号 Grade for Choice					
		L	W	T	D	RE	RP8015	RP8115	RP8215	RP8315	RC3215	RP8115H
	JDMT070204	6.40	4.3	2.45	2.15	0.4	●	●	●	●		●
	JDMT070208	6.40	4.3	2.45	2.15	0.8	●	●	●	●		●

● 为主推荐牌号Recommended grade (Always stock available)

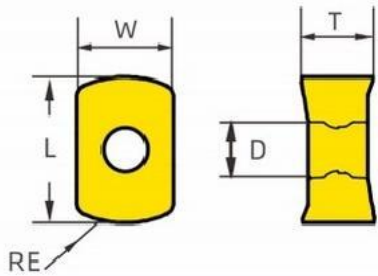


LN/LO□□

产品 Product	型号 Type	尺寸 Dimensions(mm)					可选牌号 Grade for Choice					
		L	W	T	D	RE	RP8015	RP8115	RP8215	RP8315	RC3215	RP8115H
	LNMU0303ZER	11.4	6	3.75	2.85	1.2	●	●	●	●		●
	LNMU0202ZER	6.16	4.05	2.71	2.8	1.2	●	●	●	●		
	LOGU030310ER	11.9	6.2	3.96	3.45	1.0	●	●	●	●		

● 为主推荐牌号Recommended grade (Always stock available)

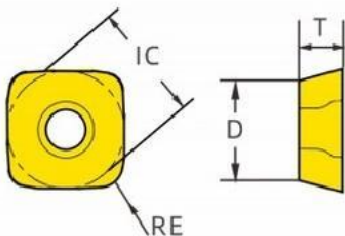
BL



产品 Product	型号 Type	尺寸 Dimensions(mm)				可选牌号 Grade for Choice					
		L	W	T	AP	RP8015	RP8115	RP8215	RP8315	RC3215	RP8115H
	BLMP0603R-M	9	6.4	3.73	1.0	●	●	●	●		●
	BLMP0904R-M	11	9.18	4.8	1.5	●	●	●	●		

● 为主推荐牌号Recommended grade (Always stock available)

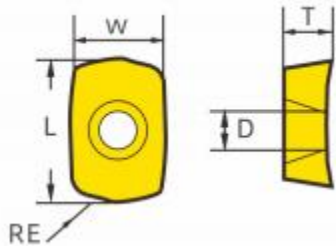
SO



产品 Product	型号 Type	尺寸 Dimensions(mm)					可选牌号 Grade for Choice					
		IC	T	D	RE	α	RP8015	RP8115	RP8215	RP8315	RC3215	RP8115H
	SOMT100420ER-GM	10.3	4.58	4.6	2.0	16	●	●	●			
	SOMT140520ER-GM	14.14	5.56	5.8	2.0	16	●	●	●	●		
	SOMT140520ER-LD	14.26	5.56	5.8	2.0	16	●	●	●			

● 为主推荐牌号Recommended grade (Always stock available)

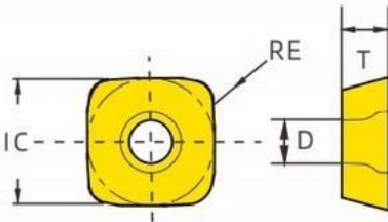
LP



产品 Product	型号 Type	尺寸 Dimensions(mm)					可选牌号 Grade for Choice					
		L	W	T	D	RE	RP8015	RP8115	RP8215	RP8315	RC3215	RP8115H
	LPGT010210ER	6.26	4.19	2.19	2.1	1.0	●	●	●	●		

● 为主推荐牌号Recommended grade (Always stock available)

SD

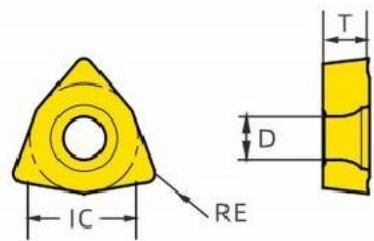


产品 Product	型号 Type	尺寸 Dimensions(mm)				可选牌号 Grade for Choice					
		IC	T	D	RE	RP8015	RP8115	RP8215	RP8315	RC3215	RP8115H
	SDMT120512	12.7	5.56	4.4	1.2	●	●	●	●		
	SDMT150512	15.88	5.56	5.5	1.2	●	●	●	●		

● 为主推荐牌号Recommended grade (Always stock available)

快进给铣削刀片 Milling Inserts

WD

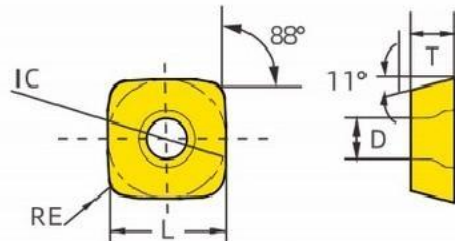


产品 Product	型号 Type	尺寸 Dimensions(mm)					可选牌号 Grade for Choice					
		IC	T	D	RE	APMX	RP8015	RP8115	RP8215	RP8315	RC3215	RP8115H
	WDMW080520ZTR	12.9	5.5	5	2	0.7				●		

● 为主推荐牌号Recommended grade (Always stock available)

三面刃铣削刀片 Milling Inserts

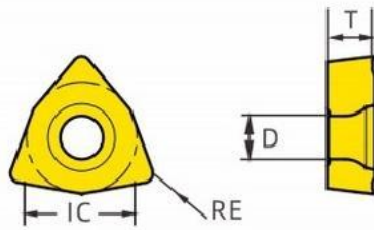
MP



产品 Product	型号 Type	尺寸 Dimensions(mm)					可选牌号 Grade for Choice					
		IC	L	T	D	RE	RP8015	RP8115	RP8215	RP8315	RC3215	RP8115H
	MPHT060304-DM	6.35	6.35	3.18	2.8	0.4				●		
	MPHT080305-DM	8.3	8.3	3.18	3.4	0.5				●		
	MPHT120408-DM	12.7	12.7	4.76	5.56	0.8				●		

● 为主推荐牌号Recommended grade (Always stock available)

WP

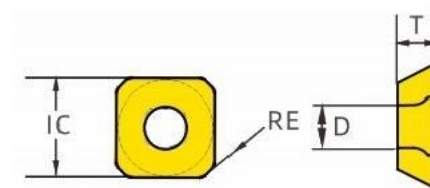


产品 Product	型号 Type	尺寸 Dimensions(mm)					可选牌号 Grade for Choice					
		IC	T	D	RE	APMX	RP8015	RP8115	RP8215	RP8315	RC3215	RP8115H
	WPMT080615ZSR	12.8	6.3	5.5	1.5	0.7				●		

● 为主推荐牌号Recommended grade (Always stock available)

平面铣削刀片Milling Inserts

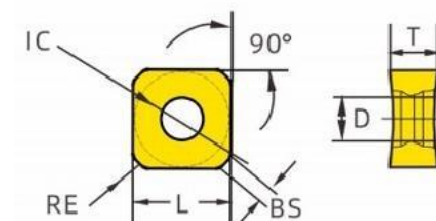
SE □ □



产品 Product	型号 Type	尺寸 Dimensions(mm)				可选牌号 Grade for Choice					
		IC	T	D	BS	RP8015	RP8115	RP8215	RP8315	RC3215	RP8115H
	SEKT1204AFTN	13.4	3.97	4.3	2.45	●	●	●	●		
	SEHT1204AFFN	13.4	3.97	4.3	2.45						●
	SEER1203AFS	12.58	3.44	2.3	2	●	●	●	●		
	SEER1504AFS	15.88	4.88	3.2	2.2	●	●	●	●		

● 为主推荐牌号Recommended grade (Always stock available)

SN □ □

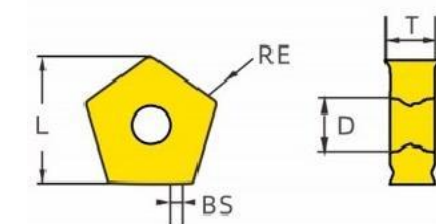


产品 Product	型号 Type	尺寸 Dimensions(mm)					可选牌号 Grade for Choice					
		IC	T	D	BS	RE	RP8015	RP8115	RP8215	RP8315	RC3215	RP8115H
	SNMX1205ANN-M	12.7	5.6	6	1.5	-	●	●	●			
	SNMX1206QNN-MM	12.7	5.78	5.25	-	0.8	●	●	●			
	SNMX1206XTN	12.7	5.78	5.54	1.2	-	●	●	●			
	SNMX1206QNN-GM	12.7	5.78	6	-	0.8	●	●	●			
	SNMU130508EN-H	13	5.5	4.7	1	0.8	●	●	●			
	SNMU130508EN-ZL	13	5.5	4.7	1	0.8				●		●

● 为主推荐牌号Recommended grade (Always stock available)

平面铣削刀片Milling Inserts

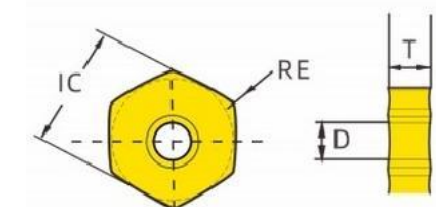
PN □ □



产品 Product	型号 Type	尺寸 Dimensions(mm)					可选牌号 Grade for Choice					
		L	T	D	BS	RE	RP8015	RP8115	RP8215	RP8315	RC3215	RP8115H
	PNMU090508ENER-GM	14.6	5.56	4.7	2	0.8	●	●	●	●		●

● 为主推荐牌号Recommended grade (Always stock available)

HN □ □



产品 Product	型号 Type	尺寸 Dimensions(mm)				可选牌号 Grade for Choice					
		IC	T	D	RE	RP8015	RP8115	RP8215	RP8315	RC3215	RP8115H
	HNMG0907ANSN-R	16.5	6.35	4.9	1.2	●	●	●	●		

● 为主推荐牌号Recommended grade (Always stock available)

模具面铣		Mould Face Milling
Case Study		
Processing method	Dry air cooling mixed milling	
Insert type	APMT1604PEER RP8115	
Processed materials	718H (die steel HRC45)	
Parameters	Vc=130m/min;Fz=0.3mm/z;Ap=0.4mm	



The new 8115 performs well in processing die steel, and its overall performance exceeds similar foreign products.

The processing time of Reven is 150 minutes, and the processing time of a foreign brand is 115 minutes

模仁开粗		Roughing Up of Mold Nuts
Case Study		
Processing method	Dry air cooling mold core roughing	
Insert type	RPMW1003MO RP8115	
Processed materials	Mold steel P20 (HRC32)	
Parameters	Vc=157m/min;Fz=0.75mm/z;Ap=0.3mm	



The flat groove has a special chamfered design, thickened cutting edge, and is more impact-resistant. Compared with domestic products, it performs well.

The processing time of Reven is 60 minutes, and the processing time of a foreign brand is 40 minutes

过滤机压板		Filter Press Plates
Case Study		
Processing method	Dry face and side milling	
Insert type	RPMT10T3MO-JS RP8115	
Processed materials	2205 Duplex Stainless Steel	
Parameters	Vc=99m/min;Fz=0.35mm/z;Ap=0.3mm	



RP8115 series high silicon coatings show excellent thermal stability, match the new generation of universal substrates, and have obvious performance advantages

Reven processed 13 pieces. A foreign brand processed 9 pieces

工程板材面铣开粗		Engineering plate face milling &roughing
Case Study		
Processing method	Wet face milling	
Insert type	LNMU0303ZER RP8115	
Processed materials	42Crmo	
Parameters	Vc=210m/min;Fz=0.8mm/z;Ap=0.5mm	



The fast feed model has a slightly longer service life than similar foreign products in processing high-strength steel.

Reven processing takes 160 minutes, while a foreign brand processes 150 minutes

船舶轴座 Shaft Seat for Ship

Case Study	
Processing method	Dry face milling
Insert type	APMT1604PEER RP8215
Processed materials	ZG270(casting)
Parameters	$V_c=330\text{m/min}$; $F_z=0.36\text{mm/z}$; $A_p=1.3\sim 3\text{mm}$



In the processing of castings with dense pores and sand holes, the new RP8215 is more resistant to high temperatures and impacts, and its performance exceeds similar foreign products.

The processing time of Reven is 100 minutes, while that of a foreign brand is 75 minutes.

矿山机械铲斗粗精体 Mining Machinery Bucket Roughness&Fineness

Case Study	
Processing method	Dry face milling
Insert type	RDMW1605MO RP8125
Processed materials	40GR(casting)
Parameters	$V_c=181\text{m/min}$; $F_z=0.63\text{mm/z}$; $A_p=0.6\text{mm}$



RP8125 series multi-component composite coating, strong bonding, special processing passivation process, roughing, more impact resistant, longer life

The processing time of Reven is 120 minutes, while that of a foreign brand is 90 minutes.

面铣开粗 Face Milling for Roughing

Case Study	
Processing method	Wet face milling
Insert type	WNMU080608EN-ZL RP8315
Processed materials	Q345 quenched and tempered steel (HRC32-35)
Parameters	$V_c=25\text{m/min}$; $F_z=0.28\text{mm/z}$; $A_p=1\text{mm}$



RP8315 series has excellent performance, strong versatility and obvious lifespan advantages among materials with HRC30 or so

The processing time of Reven is 101 minutes, while that of a foreign brand is 90 minutes.

压紧螺母 Locknut

Case Study	
Processing method	Wet face and side milling
Insert type	APMT1604PDER-ZL RP8315
Processed materials	304 Stainless Steel
Parameters	$V_c=160\text{m/min}$; $F_z=0.28\text{mm/z}$; $A_p=0.35\text{mm}$



The ZL groove has a sharp cutting edge and less cutting resistance. Under sufficient cooling conditions, it also has excellent surface quality in stainless steel material processing.

1.5 pieces processed by Reven, 1 piece processed by a foreign brand

缸体侧铣、面铣

Cylinder Block Side Milling,Face Milling

Case Study	
Processing method	Dry side milling, face milling
Insert type	APMT1604PDER-H2 RC3215
Processed materials	HT250(grey cast iron)
Parameters	Vc=285m/min;Fz=0.2mm/z;Ap=0.8mm



The standard verticality of workpieces processed by the RC3215 series is higher than that of imported brands, and its lifespan advantage is obvious.

Reven processing takes 180 minutes, while a foreign brand processing takes 60 minutes

设备框架开粗

Roughing of Equipment Frames

Case Study	
Processing method	Dry face milling
Insert type	WNMU080608EN RC3215
Processed materials	Qt500(ductile iron)
Parameters	Vc=200m/min;Fz=0.3mm/z;Ap=1.5mm



The roughing groove type is more impact-resistant, and the ultra-thick CVD coating has outstanding stability and lifespan in roughing conditions.

The processing time of Reven is 100 min, that of a foreign brand is 80 min, that of a domestic brand is 70 min

轴承底座开粗

Bearing Base Roughing

Case Study	
Processing method	Dry face milling
Insert type	WNMU080608EN-ZL RP8115H
Processed materials	42CrMo tempered (HRC47)
Parameters	Vc=250m/min;Fz=0.32mm/z;Ap=0.6mm



RP8115H series has less flank wear, longer tool life and relatively excellent performance when machining high hardness and high strength materials.

The processing time of Reven is 87 minutes, while that of a foreign brand is 60 minutes.

轴承圈套

Bearing Bush

Case Study	
Processing method	Wet down milling
Insert type	APMT1135PEER RP8115H
Processed materials	Gcr15 quenched bearing steel (HRC58)
Parameters	Vc=85m/min;Fz=0.23mm/z;Ap=0.3mm



High-hardness special substrate matches high-hardness coating, which can replace imported blades in high-hardness material processing

The processing time of Reven is 45 minutes, and the processing time of a foreign brand is 42 minutes.

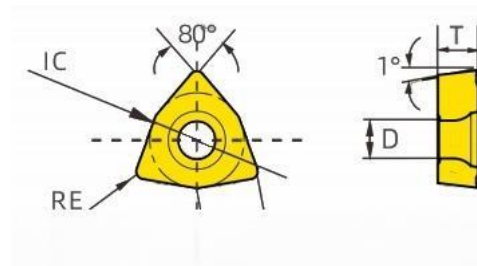


钻削牌号介绍 Drilling Inserts Grade Introduction

牌号介绍Grade Introduction	牌号特点Grade Specifications
RP8015	PVD coating, golden yellow, is the preferred grade for ordinary steel parts, castings and strong intermittent processing conditions. The super tough substrate combined with the thick anti-sticking PVD coating has the strongest collapse resistance.
RP8115	PV D coating, reddish brown, the preferred grade for mold steel and stainless steel processing, optimized latest coating process, excellent in stainless steel continuous and intermittent processing conditions
RP8215	PVD coating, black-gray, the preferred grade for dry cutting of modulated steel and cast iron, especially suitable for stable milling environment and dry cutting, and the preferred grade for high line speed and high feed processing
RP8315	PVD coating, black-grey, general grade for steel, stainless steel and cast iron, currently the most versatile series
RP8115H	PVD coating, bronze color, the preferred grade for difficult-to-process materials (hardened steel; heat-resistant alloy steel; duplex stainless steel; high-temperature alloy), HRC45-60 range is more suitable

DRILLING TOOLS

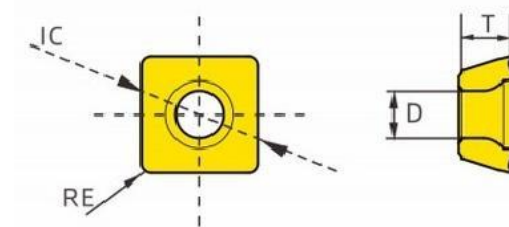
钻削工具



WC□□系列

产品 Product	型号 Type	尺寸 Dimensions(mm)				可选牌号 Grade for Choice					
		IC	T	D	RE	RP8015	RP8115	RP8215	RP8315	RP8115H	RV525
	WCMX030204	5.56	2.38	2.55	0.4				●	●	
	WCMX030208	5.56	2.38	2.55	0.8	●	●	●	●	●	●
	WCMX040204	6.35	2.38	2.8	0.4				●	●	
	WCMX040208	6.35	2.38	2.8	0.8	●	●	●	●	●	●
	WCMX050308	7.94	3.18	3.2	0.8	●	●	●	●	●	●
	WCMX06T308	9.53	3.97	3.7	0.8	●	●	●	●	●	●
	WCMX080412	12.7	4.76	4.3	1.2	●	●	●	●	●	●
	WCMX030208FN	5.56	2.38	2.55	0.8	●	●	●	●		
	WCMX040208FN	6.35	2.38	2.8	0.8	●	●	●	●		
	WCMX050308FN	7.94	3.18	3.2	0.8	●	●	●	●		
	WCMX06T308FN	9.53	3.97	3.7	0.8	●	●	●	●		
	WCMX080412FN	12.7	4.76	4.3	1.2	●	●	●	●		

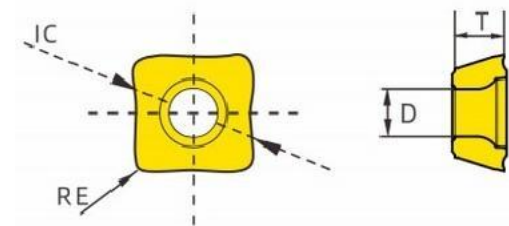
● 为主推荐牌号Recommended grade (Always stock available)



SP□□系列

产品 Product	型号 Type	尺寸 Dimensions(mm)				可选牌号 Grade for Choice					
		IC	T	D	RE	RP8015	RP8115	RP8215	RP8315	RP8115H	RV525
	SPMG050204DG	5	2.38	2.25	0.4	●	●	●	●	●	●
	SPMG060204DG	6	2.38	2.61	0.4	●	●	●	●	●	●
	SPMG07T308DG	7.94	3.97	2.85	0.8	●	●	●	●	●	●
	SPMG090408DG	9.8	4.3	4.05	0.8	●	●	●	●	●	●
	SPMG110408DG	11.5	4.8	4.45	0.8	●	●	●	●	●	●
	SPMG140512DG	14.3	5.2	5.75	1.2	●	●	●			●

● 为主推荐牌号Recommended grade (Always stock available)



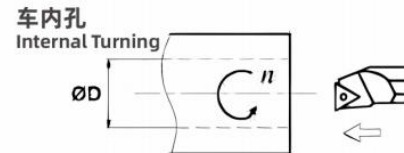
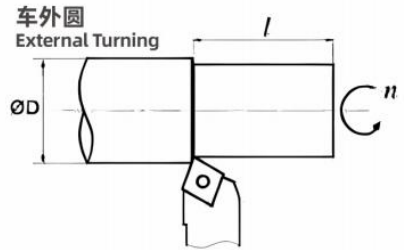
SO□□系列

产品 Product	型号 Type	尺寸 Dimensions(mm)				可选牌号 Grade for Choice					
		IC	T	D	RE	RP8015	RP8115	RP8215	RP8315	RP8115H	RV525
	SOMT040204DP	4.4	2.38	2.2	0.4	●				●	
	SOMT050204DP	4.9	2.38	2.2	0.4	●				●	
	SOMT060204DP	5.7	2.38	2.6	0.4	●				●	
	SOMT070306DP	6.8	2.8	2.6	0.6	●				●	
	SOMT08T306DP	7.8	3.97	2.8	0.6	●				●	
	SOMT09T308DP	9.2	3.97	3.8	0.8	●				●	
	SOMT11T308DP	11	3.97	3.8	0.8	●				●	
	SOMT130408DP	12.8	4.4	4.5	0.8	●				●	

● 为主推荐牌号Recommended grade (Always stock available)

01

切削速度的计算 Calculation of Cutting Speed



$$V_c = \frac{\pi \times D \times n}{1000} (m/min)$$

式中 In The Formula:

V_c:切削速度 Cutting speed(m/min)
n:主轴转速 Rotating speed of main axle(rev/min)
D:工件直径 Diameter of workpiece(mm)
例如 For Example:
主轴转速为500rev/min, 切削直径为80mm的工件,其切削速度为:
When the rotating speed is 500ev/minand the diameter of workpiece is 80mm,the cutting

$$V_c = \frac{\pi \times D \times n}{1000} = \frac{3.14 \times 80 \times 500}{1000} = 125.6(m/min)$$

$$f = \frac{l}{n} (mm/rev)$$

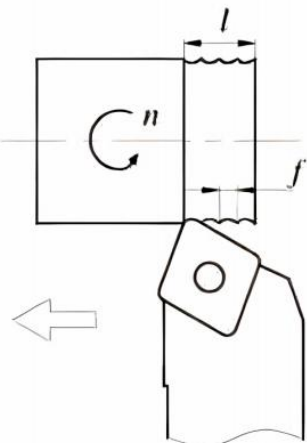
式中 In The Formula:

f:每转进给量 Feed rate per rotation (mm/rev)
l:每分钟切削长度 Cutting length per minute (mm/min)
n :主轴转速 Rotating speed of main axle (rev/min)
例如 For Example:
主轴转速为600rev/min, 每分钟切削长度为150mm/min, 其每转进给量为:
For example: When the rotating speed of main axle is 600ev/min, and the cutting length per minute is 150mm/min, the feed rate perrotating should be :

$$f = \frac{l}{n} = \frac{150}{600} = 0.25(mm/rev)$$

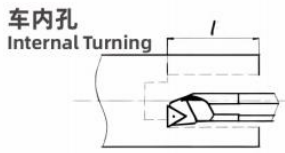
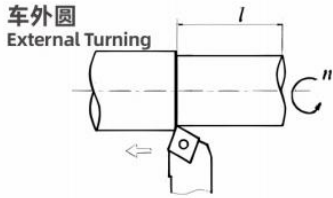
02

进给量的计算 Calculation of Feed Rate



03

外圆、内孔切削时间的计算 Cutting Time Calculation of External & Internal Turning



$$T = \frac{l}{f \times n} (min)$$

式中 In The Formula:

T:切削时间 Cutting time (min)
l:被切削部分长度 length of machined areas (mm)
f:进给量 Feed rate (mm/rev)
n :主轴转速 Rotating speed of main axle (rev/min)
例如 For Example:
求主轴转速为300rev/min, 进给量为0.15mm/rev,切削长度为180mm的工件所用时间:
When the rotating speed of main axle is 300rev/min, and the feed rate is 0.15mm/rev,the time needed for a cuttinglength of180mm should be :

$$T = \frac{l}{f \times n} = \frac{180}{0.15 \times 300} = 4min$$

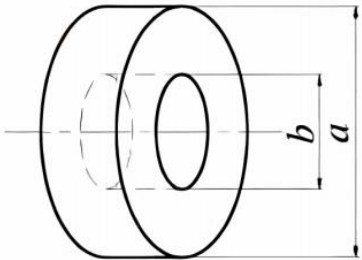
$$T = \frac{\pi \times (a^2 - b^2)}{4000 \times V_c \times f} (min)$$

式中 In The Formula:

T:切削时间 Cutting time (min)
V_c:切削速度 length of machined areas (m/min)
f :进给量(mm/rev)
当所切削的端面无内孔时, b=0, 公式亦适用
Cutting spead For end surface without hole, b=0,the formula is still Valid.

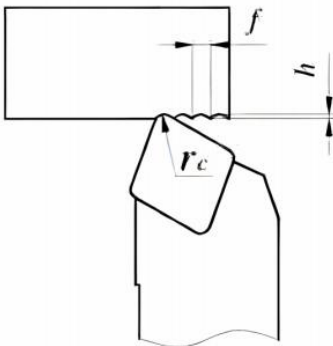
04

端面切削时间的计算 (恒线速) Time Calculation End Surface Turning (Constant Linear Speed)



05

已加工表面粗糙度的理论值计算 The Oretical Value Calculation of Machined Surface Roughness



$$R = \frac{f^2}{8r_c} \times 1000(\mu m)$$

式中 In The Formula:

R:已加工表面粗糙度理论值
Theoretical roughness value of machined surface
f :进给量 Feed rate (mm/rev)
r_c:刀尖圆弧半径 Nose radius (mm)
例如 For Example:
进给量为0.25mm/rev, 刀尖圆弧半径为0.8mm时, 其已加工表面粗糙度理论值为:
When the feed rate is 0.25mm/rev,and the noseradius is 0.8mm.the theoretical roughness value of machinedsurface should be:

$$R = \frac{f^2}{8r_c} \times 1000 = \frac{0.25^2}{8 \times 0.8} \times 1000 = 9.76(\mu m)$$

我们在切削加工中，通常都希望获得短的加工时间，长的刀具寿命和高的加工精度。因此，必须充分考虑工件材料的材质、硬度、形状状况及机床的性能，选择合适的刀具并使用高效率的切削条件，即我们所说的三要素。

Normally,short machining time,long tool life high machining precision are expected in machining,so the material quaity,hardness,and shape of the workpiece. and properties of machine should be fully consideredand then we can select suitable tools and adopt high-efficiency cutting parameters,namelythree parameters.

A 3D diagram of a lathe cutting operation. A cylindrical workpiece is rotating, indicated by a red curved arrow labeled 'Vc'. A cutting tool is moving along the length of the workpiece, indicated by a red straight arrow labeled 'f'. The depth of cut is labeled 'ap' with a red line and arrow pointing to the chip being removed.

02

进给量
Feed Rate(fn)

(1)进给量的定义

进给量是指工件每旋转一周，刀具的移动量，单位为毫米/转

(2)进给量的影响

进给量是决定被加工表面质量的关键因素，同时也影响加工时切屑形成的范围和切屑的厚度。

在对刀具寿命影响方面，进给量过小，后刀面磨损大，刀具寿命大幅降低；进给量过大，切削温度升高，后刀面磨损也增大，但较之切削速度对刀具寿命的影响要小。

(1)Definitionof Feed Rate

Feed rate is defined as the moving distance of tool after workpiece rotates for one circle,measured by mm/rotation

(2)The Influence ofFeed Rate

Feed rate is a key factor that determines surface quality. Meanwhtile it also affect the range of chip forming andthe thickness of chips during machining.In term of the effect on tool life,small feed rate leads to serious abrasion on clearance face,reducing toollife.

01

切削速度的计算
Cutting Speed(vc)

(1)切削速度的定义

工件在车床上旋转，我们将其每分钟的转数定义为主轴转速(n)由于工件旋转，在其直径的切削点处产生切削速度，称为线速度，单位米/分钟。通常用线速度来考虑切削速度对加工的影响。

(2)切削速度的影响

切削速度对刀具寿命有非常大的影响。提高切削速度时，切削温度就上升，而使刀具寿命大大缩短。加工不同种类、硬度的工件，切削速度会有相应的变化。通过大量的切削实验得出：

- 在通常情况下，切削速度提高20%, 刀具耐用度降低1/2;切削速度提高50%, 刀具耐用度将降至原来的1/5。
- 低速(20-40m/min) 切削易产生振动，使刀具寿命缩短。

(1) Definition of cutting speed

The workpiece rotates on the lathe, and we define its revolutions per minute as the spindle speed (n). As the workpiece rotates, the cutting speed is generated at the cutting point of its diameter, which is called the linear speed, and the unit is m/min. The linear speed is usually used to consider the impact of cutting speed on processing.

(2) Impact of cutting speed

The cutting speed has a very large impact on tool life. When the cutting speed is increased, the cutting temperature rises, which greatly shortens the tool life. When processing workpieces of different types and hardness, the cutting speed will change accordingly. Through a large number of cutting experiments, it is concluded that:

- Under normal circumstances, if the cutting speed is increased by 20%, the tool life will decrease by 1/2; if the cutting speed is increased by 50%, the tool life will decrease to 1/5 of the original.
- Low-speed (20-40m/min) cutting is prone to vibration, which shortens the tool life.

03

切削深度
Cutting Depth(ap)

(1)切削深度的定义

切削深度指未加工表面与已加工表面之间的差值，单位毫米。它是工件未加工直径与已加工直径差值的一半。

(2)切削深度的影响

切削深度应根据工件的加工余量、形状、机床功率、刚性及刀具的刚性来确定。切削深度变化对刀具寿命影响不大。切削深度过小时，会造成刮擦，只切削工件表面的硬化层，缩短刀具寿命。当工件表面具有硬化的氧化层时，应在机床功率允许范围内选择尽可能大的切削深度，以避免刀尖只切削工件的表面硬化层，造成刀尖的异常磨损甚至破损。

(1) Definition of cutting depth

The cutting depth refers to the difference between the unmachined surface and the machined surface, in millimeters. It is half the difference between the unmachined diameter and the machined diameter of the workpiece.

(2) Effect of cutting depth

The cutting depth should be determined based on the machining allowance, shape, machine power, rigidity and tool rigidity of the workpiece. Changes in cutting depth have little effect on tool life. If the cutting depth is too small, it will cause scratches and only cut the hardened layer on the workpiece surface, shortening the tool life. When the workpiece surface has a hardened oxide layer, the largest possible cutting depth should be selected within the range allowed by the machine power to avoid the tool tip only cutting the surface hardened layer of the workpiece, causing abnormal wear or even damage to the tool tip.

01

后刀面和沟槽磨损
Flank Wear



问题:

公差变差, 沟槽磨损会引起表明质 量变差和崩刃。

解决方案:

速度太高或耐磨性差一降低切削速 , 选择更耐磨的牌号

氧化一选用AI203涂层牌号, 对于加工硬化材料, 选择小一些的主偏 角或更耐磨的牌号, 选用金属陶瓷牌号。

Problem:

Tolerance deterioration and groove wear will cause surface quality deterioration and edge breakage.

Solution:

Speed is too high or wear resistance is poor - reduce cutting speed and choose a more wear-resistant grade

Oxidation - choose AI203 coating grade. For work-hardening materials, choose a smaller main deflection angle or a more wear-resistant grade, and choose a metal ceramic grade.

02

月牙洼磨损
Crater Wear



问题:

过度的月牙洼磨损会降低切削刃强度, 切削刃后缘的磨损导致表面质量较差。

解决方案:

前刀面过高的切削温度引起扩散磨损。建议选用AI203涂层牌号, 选用正前角槽型刀片, 首先降低切削速度, 然后降低进给率。

Problem:

Excessive crater wear will reduce the strength of the cutting edge, and wear on the trailing edge of the cutting edge will result in poor surface quality.

Solution:

Excessive cutting temperature on the front face causes diffusion wear. It is recommended to use AI203 coating grade, positive rake angle groove inserts, first reduce cutting speed, and then reduce feed rate.

03

塑性变形
Plastic Deformation



问题:

切削刃塌下或后刀面凹陷, 切屑控制差和表面质量差, 后刀面过渡磨损会导致崩刃。

解决方案:

切削刃温度过高, 切削深度、进给量太大。建议选用高耐磨性刀具材料, 降低切削进给量。

Problem:

Cutting edge collapse or flank depression, poor chip control and poor surface quality, and excessive wear on the flank will lead to chipping.

Solution:

Cutting edge temperature is too high, cutting depth and feed rate are too large. It is recommended to use high wear-resistant tool materials and reduce cutting feed rate.

04

积屑
Build-Up-Edge



问题:

引起表面质量当积屑脱落时会引起切削刃破损。

解决方案:

由于低切削速度或负前角槽型使工件材料焊接到刀片上。建议提高切削速度。选择正前角槽型。

Problem:

Causes surface quality When chips fall off, it can cause the cutting edge to break.

Solution:

Workpiece material welds to the insert due to low cutting speed or negative rake geometry. It is recommended to increase the cutting speed. Choose a positive rake geometry.

05

切屑捶击
Chip Hammering



问题:

未参加切削的部分切削刃因切屑捶 击而损坏, 刀片的上部和支撑可能 损坏。

解决方案:

切屑折回到切削刃, 建议改变进给, 或者选用另一种槽型。磨损一降低切削速度

Problem:

The part of the cutting edge that is not involved in the cutting is damaged by chip hammering. The upper part and support of the insert may be damaged.

Solution:

The chips are bent back to the cutting edge. It is recommended to change the feed or choose another geometry. Wear-reduce cutting speed.

06

崩碎
Insert Fracture



问题:

切削刃的细小破损导致表面质量变差和过度的后刀面磨损。

解决方案:

牌号太脆, 刀片槽型强度太低, 积屑, 可选用韧性好的牌号刀片。槽型强度太低可选用强度更高的槽型, 积屑问题可提高切削速度, 建议选择正前角槽型

Problem:

Minor damage to the cutting edge leads to poor surface quality and excessive back-cutting edge wear.

Solution:

The grade is too brittle, the insert groove strength is too low, and chips are accumulated. You can choose a grade with good toughness. If the groove strength is too low, you can choose a groove with higher strength. For the problem of built-up edge, you can increase the cutting speed. It is recommended to choose a positive rake angle groove.

07

热裂
Thermal Crack



问题:

垂直于切削刃的小裂纹引起崩刃和 表面质量差。

解决方案:

断续切削一选择具有更高的耐热裂 纹的韧性牌号, 冷却液流量变化一 必须充分供应或完全不供应。

Problem:

Small cracks perpendicular to the cutting edge cause chipping and poor surface quality.

Solution:

Interrupted cutting - choose a tough grade with higher resistance to heat cracking, and the coolant flow rate must be fully supplied or not supplied at all.

08

刀片崩刃
Chipping



问题:

会导致刀垫和工件的损坏。

解决方案:

牌号太脆可选用韧性牌号, 刀片上负

荷太大, 可以降低进给或切削速度, 刀片槽型强度太低, 建议选用强度高的槽型, 最好使用单面刀片。

Problem:

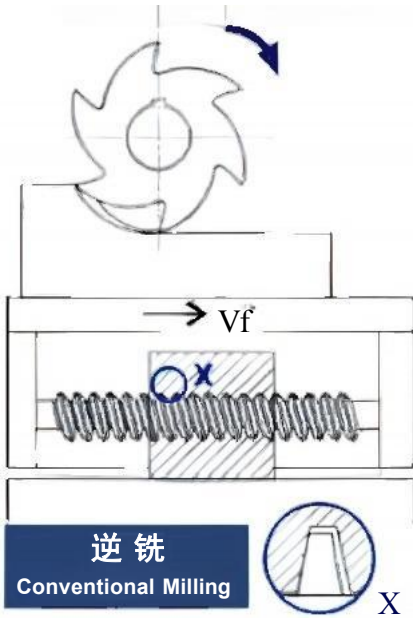
Sudden fracture of cutting edge (rake face and flank)Instability insert lifeReason,Toughness insufficient Excessive feed rate Strength of cutting edge insufficient Instability of the tool.

Solutions:

Select a tougher grade Decrease feed rate Increase honing of cutting edge(chamfering torounding)Increase the stability and setting angle.

01 通用公式 General Formula		
V_c 切削速度(m/min) Cutting Speed	Q 金属去除率(cm^3/min) Metal Removal Rate	T_c 加工时间(min) Machining Time
D_c 铣刀公称直径(mm) NominalDiameter Of Milling Tool	V_f 工作台进给量(进给速度)(mm/min) Feed Rate Of Worktable(feed speed)	F_n 每转进给量(mm/rev) Feed Rate Per Revolution
n 主轴转速(rev/min) Spindle speed	f 每齿进给量(mm/z) Feed per tooth	L 实际走刀距离(mm) Actual Working Distance
z_n 刃数 Number Of Teeth	Π 圆周率=3.14 Circumference Ratio=3.14	
●切削速度Cutting Speed $V_c = \frac{\pi \times D_c \times n}{1000} \text{ (m/min)}$		
●主轴转速Spindle Speed $n = \frac{1000 \times V_c}{\pi \times D_c} \text{ (rev/min)}$		
●工作台进给量(进给速度) Feed Rate of Worktable(Feed Speed) $V_f = f_z \times n \times z_n \text{ (mm/min)}$		
●每齿进给量Feed Rate PerTooth $f_z = \frac{V_f}{n \times z_n} \text{ (mm/z)}$		
●每转进给量Feed Rate Per Revolution $f_n = \frac{V_f}{n} \text{ (mm/rev)}$		
●加工时间MachiningTime $T_c = \frac{L}{V_f} \text{ (min)}$		
●金属去除率Metal Removal Rate $Q = \frac{a_p \times a_e \times V_c}{1000} \text{ cm}^3/\text{min}$		

01 顺铣：铣刀与工件接触部分的旋转方向 与切削进给方向相同的铣削方式
Climb milling: The direction of rotation of the contact part between the milling cutter and the workpiece is the same as the cutting feed direction.

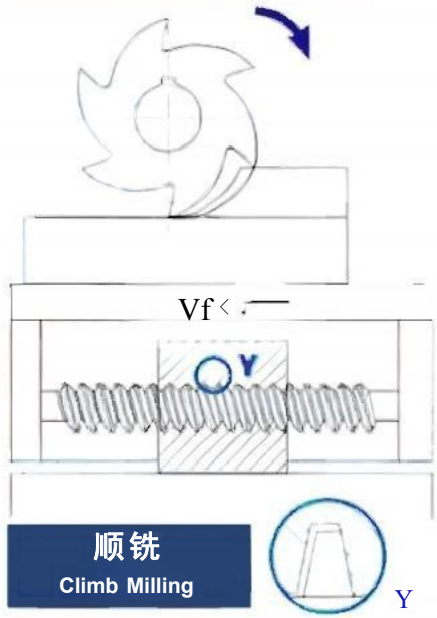


顺铣中切削刃主要受到的是压应力，逆铣切削刃受拉应力。硬质合金刀片/刀具抗压强度比抗拉强度大的多，顺铣时刀刃与工件间相互挤压，刀齿与加工面相对滑行时摩擦小，可减小刀齿磨损、减少加工硬化、减小工件表面粗糙度。逆铣时刀片切入前产生强烈的摩擦，较顺铣产生更多的热量。摩擦的结果使刀具寿命变短，工件加工硬化显著。

逆铣时，由于铣刀作用在工件上的水平切削力方向与工件进给运动方向相反，所以工作台丝杠与螺母能始终保持螺纹的一个侧面紧密贴合。而顺铣切削时水平铣削力的方向与工件进给运动方向一致，当刀齿对工件的水平作用力大到一定程度时工作台会产生窜动，从而将间隙留在后侧。随着丝杠继续转动，间隙又恢复到前侧，在这一瞬间工作台停止运动；当下个刀齿进入切削并且水平铣削分力又大到一定程度时又会推动工作台再次产生窜动。这种周期性的窜动使得工作台运动很不平稳，影响工件的加工质量，而且严重时还会损坏刀具。

使用立铣刀顺铣时，刀齿每次都是由工件表面开始切削，所以不宜用来加工有硬皮的工件。铣削薄壁零件或精度高的方肩铣采用逆铣。

02 逆铣：铣刀与工件接触部分的旋转方向 与切削进给方向相反的铣削方式
Reverse milling: The direction of rotation of the contact part between the milling cutter and the workpiece is opposite to the cutting feed direction.



In down milling,the major force of cutting edge is the compressivestress, while in up miling is the tensilestress.The compressive strength of cemented carbide material is much larger than its tensile strength.In downmiling,as chips become thin from thick gradually,cutting edge and workpiece press against each other.Thefriction between edge and workpiece is small,thusreducing the abrasion of edge,the hardening of workpiecesurface and the surface roughness(Ra).In up milling,chips become thick from thin gradually.When the insert iscutting into the workpiece,it produces strong friction and more heatthan in down milling, and makeworkpiece surface hardened.

In up miling,because horizontal direction of cutting force miling cutter conducting on workpiece is opposite tothe feed direction of workpiece,the lead screw of worktable joints closely with one side of the screw nut.In downmiling,the direction of cutting force is the same as the feed direction.When edge's radial force on workpiece islarge enough,the worktable will bounce left and right.thus make the gap fall behind.The gap will return to the frontside with the continuing rotation of lead screw.At this moment the worktable stops motion,however,it will bounceleft and right again when the radial cutting force is large enough again.The periodical bounce of worktable wilcause poor surface quality of workpiece and tool breakage.

When using end mills for down milling,the edges always starts cutting at the workpiece surface,therefore endmills are not suitable for machining workpiece with hardened surface.Up milling is recommended for miling thin-wall components or square milling with high requirement forprecision.