厦门金鹭

2022

航空航天切削工具

Cutting Tools for Aerospace

公司简介
About GESAC

厦门金鹭特种合金有限公司，成立于1989年，是一家中外合资的国家高新技术企业，隶属于中国六大稀土集团之一的厦门钨业股份有限公司。公司致力于高品质钨粉末材料、硬质合金、精密切削工具等钨系列产品的研发、生产，以及行业专业解决方案的提供，是世界知名的钨粉末、硬质合金及切削工具供应商。

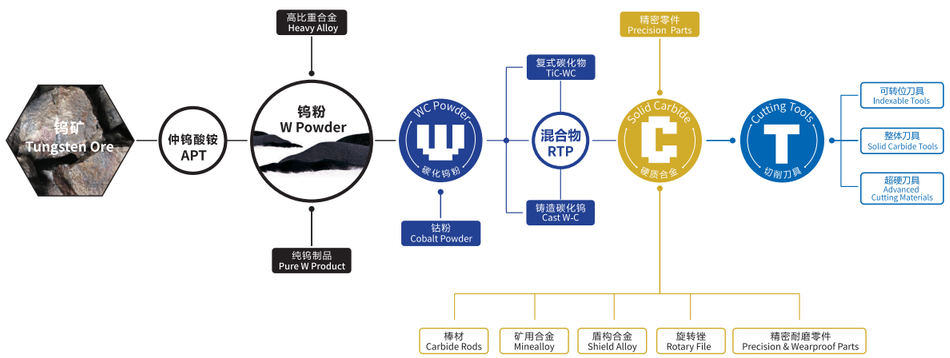
凭借完整钨产业链的产品集成技术研发，以及务实、创新的管理理念，厦门金鹭始终保持着强劲的发展势头，为全球用户提供最高性价比的产品和服务，为现代工业领域解决高硬度、耐高温、耐磨损问题，提供了优良的产品和完善的解决方案，客户遍布全球四十多个工业发达国家和地区，享誉海内外。

公司拥有国内4个生产基地和1个国家级企业研发中心，海外3个销售公司和1个海外生产基地，独立承担并完成多项“国家科技支撑计划项目”，“国家科技重大专项”，“国家火炬计划项目”，“国家重点新产品”开发项目及省市重点研究课题，被评为“战略性新兴产业骨干企业”、“创新型企业”、“先进技术企业”。

Xiamen Golden Egret Special Alloy Co., Ltd. (GESAC), founded in 1989, is a Sino-foreign joint venture with national high-tech, affiliated with XTC, which is one of six major rare earth groups in China. GESAC is committed to research & development, production and professional solutions providing of high-quality tungsten powder materials, cemented carbide, precision cutting tools and other tungsten products. Up to now, GESAC has become world-famous manufacturer and supplier of tungsten powder, cemented carbide and precision cutting tools products.

With the Integrated Product Development of complete tungsten industry chain, as well as a pragmatic and innovative management concept, GESAC has always maintained a strong momentum of development, providing the cost effective tungsten powder products and services for global users, offering the excellent products and perfect solutions for solving high hardness, high temperature resistance and wear resistance topics. Our brand "Golden Egret" has become one of the leading brand in the market, enjoying famous reputation in more than 40 countries and regions.

GESAC owns four production headquarters and one national level research center domestically,and three sales branches an d one production base overseas. We undertook and completed several development programs independently, including the “National Science and Technology Support Programs”, the “National Torch Program Projects”, and the “National Key Projects” and so on. GESAC was awarded as "Key Enterprise for Strategic Emerging Industry ", “Innovative Enterprise" and "Enterprise with Advanced Technology ".



行业简介
Aerospace

航空制造领域是先进技术高度密集的行业之一，产品的零部件外形和结构复杂、材料多种多样、加工精度要求严格。

厦门金鹭公司致力于航空高品质刀具的研发，目前已形成铝合金、钛合金、高温合金、复合材料加工等系列刀具。竭诚服务于航空航天工业提供最具挑战性的专业加工方案。

金鹭航空刀具是通往安全高效智能制造之路的成功关键，与您共同迈向智能制造成功的未来。

Aviation manufacturing field is one of the industries with highly intensive advanced technology. The parts and components of the products are complex in shape and structure, diverse in material and strict in processing accuracy.

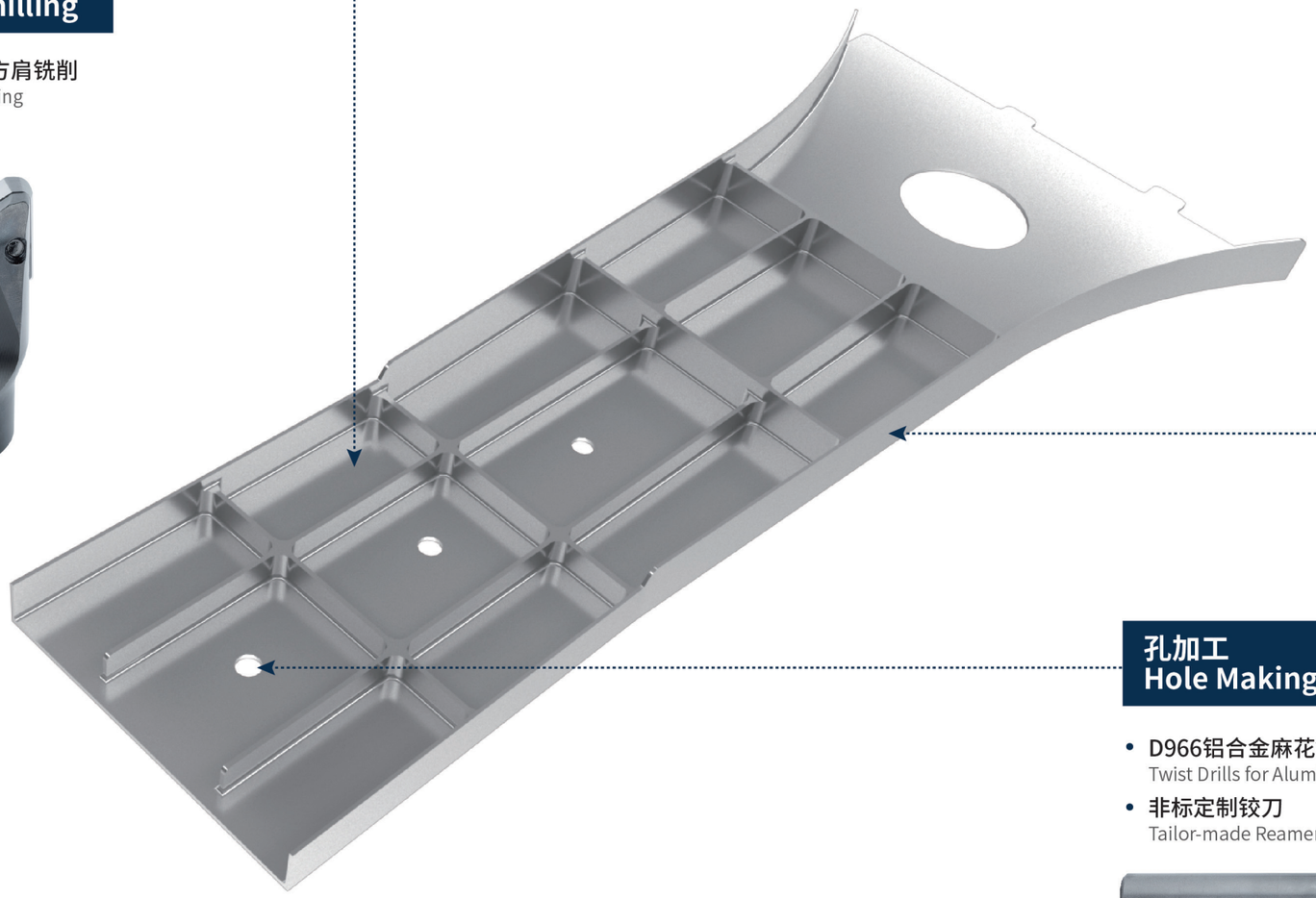
GESAC is committed to the research and development of aviation high-quality cutting tools. Nowadays, it has formed a series of cutting tools for aluminum alloy, titanium alloy, heat resistant super alloy and composite material processing. Dedicated to provide the most challenging professional processing solutions the aerospace industry for aerospace industry.

GESAC aviation tool is the key to the aerospace manufacturing, and we will achieve the success of intelligent manufacturing together in the future.

铝合金框
Aluminum Alloy Frame

型腔粗加工
Cavity Rough milling

- XDHT+MEH190高速方肩铣削
  High Speed Shoulder Milling



侧壁/底面精加工
Side/Bottom Wall finish Milling

- SA300高速加工立铣刀
  High Speed Endmill

孔加工
Hole Making

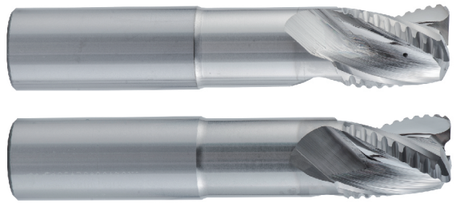
- D966铝合金麻花钻
  Twist Drills for Aluminum Alloy
- 非标定制铰刀
  Tailor-made Reamers

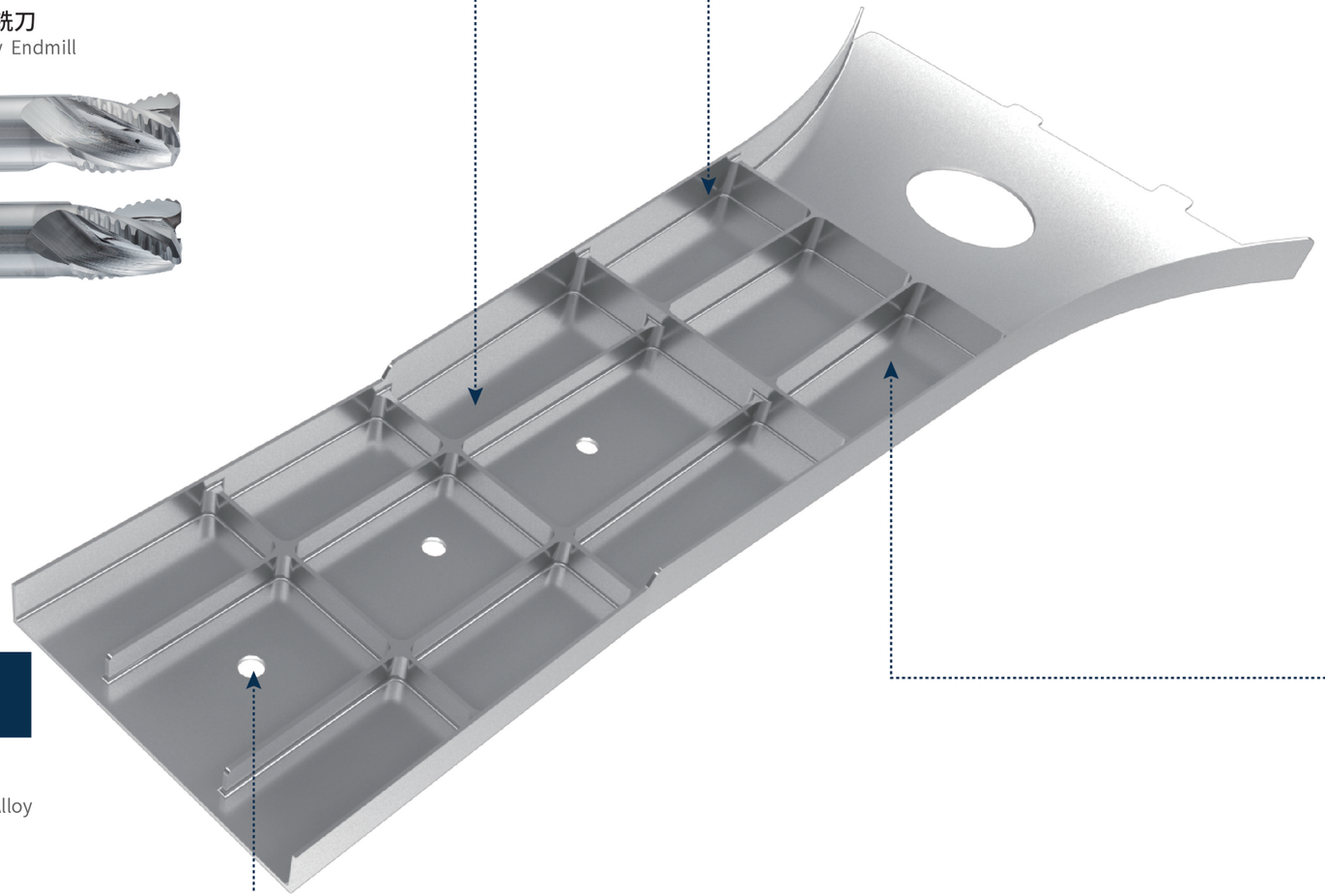
加工解决方案 Manufacturing Solutions

铝合金框（高效方案）
Aluminum Alloy Frame (Efficient solutions)

侧壁/底面粗加工
Side/Bottom Wall Rough Milling

- SA210-WR高效波刃立铣刀
  Wave Edged High Efficiency Endmill





侧壁高效精加工
High Efficiency Finishing Milling of Side Wall

- SA300-SF高效加工立铣刀
  High Efficiency Endmill

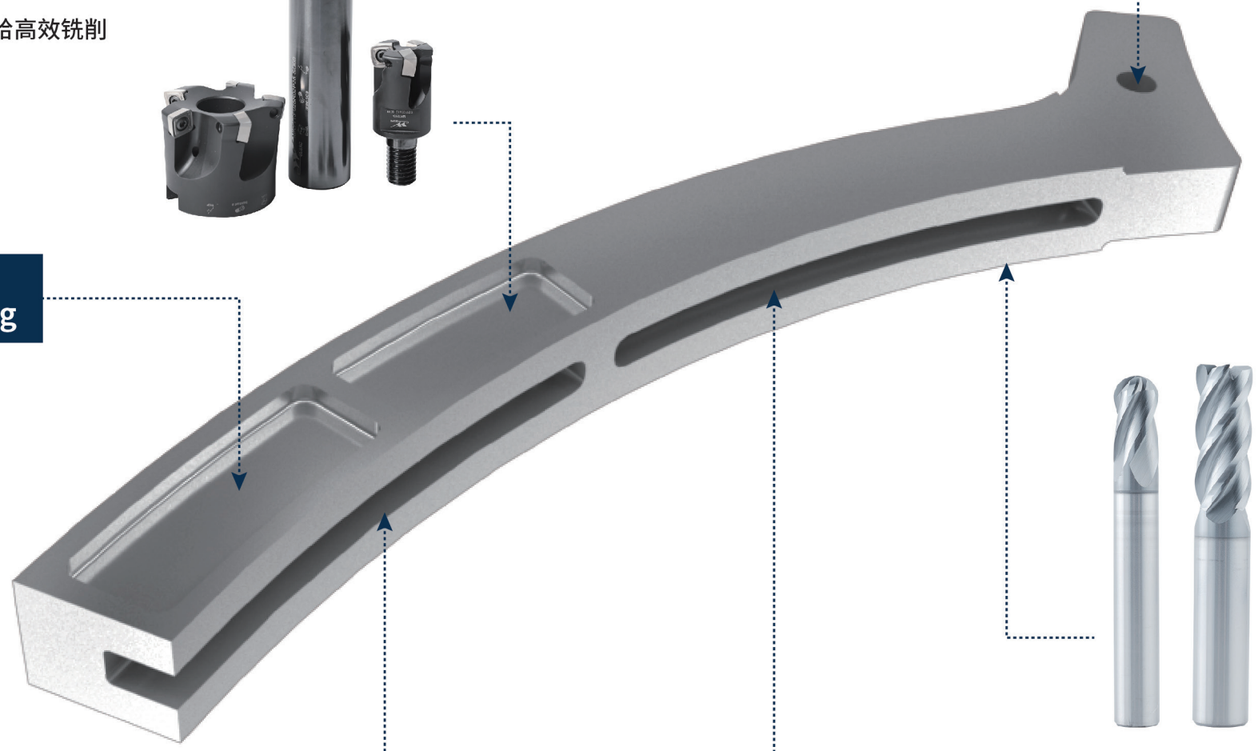
孔加工
Hole Making

- D966铝合金麻花钻
  Twist Drills for Aluminum Alloy
- 非标定制铰刀
  Tailor-made Reamers

腹板高效精加工
High Efficiency Finishing Milling of Web

- SA300-WF高效加工立铣刀
  High Efficiency Endmill

钛合金滑轨
Titanium Alloy Slide Rail



型腔粗加工
Cavity Rough Milling

- SOE(M)T+MKT113/213快进给高效铣削
  High Feed High Efficiency Milling

面铣/仿形粗加工
Face/Profile Rough Milling

- RPMT+MPB100仿形铣削
  Profile Milling

侧壁/腹板半精加工
Side Wall/Web Semi-finish Milling

- ADGT+MET190方肩铣削
  Shoulder Milling

孔加工
Hole Making

- D968S难加工材料麻花钻
  Twist Drills for Difficult-to-process Material
- 非标定制铰刀
  Tailor-made Reamers
- QPMG +GHDS高效可转位钻头
  High Efficiency Indexable Dills

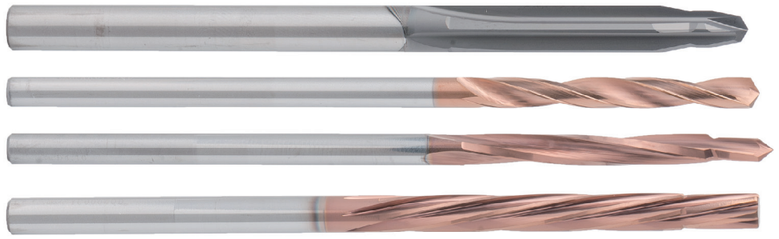
侧壁/腹板精加工
Side Wall/Web Finish Milling

- ST210高性能加工立铣刀
  High Performance Endmill

大切深侧壁精加工
Side Wall Finishing With Large Cutting Depth

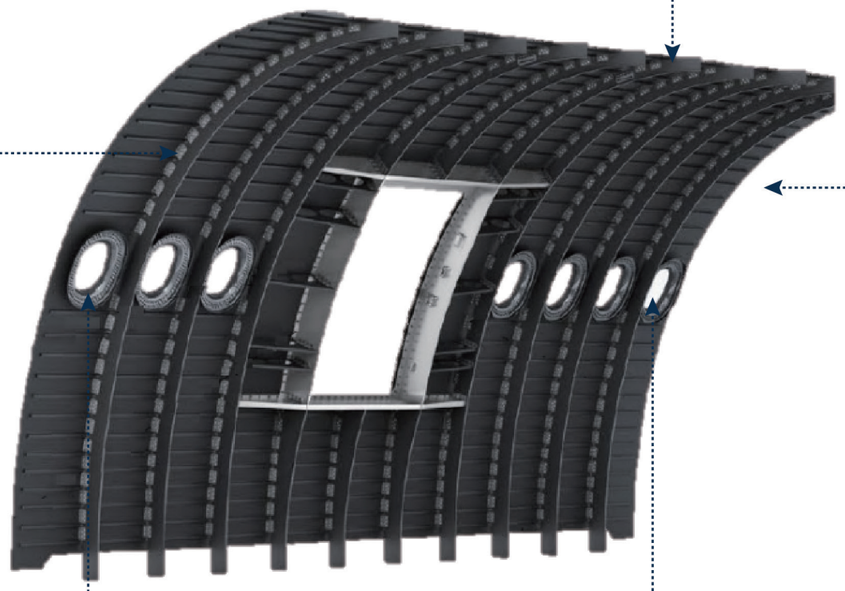
- ST210-RL5长刃立铣刀
  Long Flute Endmill

机身蒙皮
Fuselage Skin



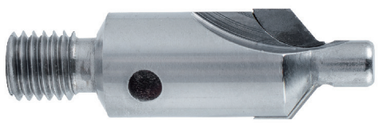
孔加工
Hole Making

- D612金刚石涂层匕首钻
  Diamond Coating Triple-angle Drill
- D973复材+金属叠层材料加工麻花钻
  Twist Drills for steel Composite and Metal
- D573复材+金属叠层材料加工扩孔钻
  Core Drills for steel Composite and Metal
- R733复材+金属叠层材料加工铰刀
  Reamer for steel Composite and Metal

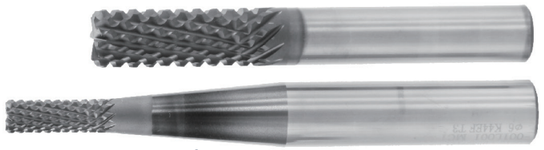


锪窝孔加工
Countersink Hole Making

- DND100PCD锪孔钻
  PCD Countersink Drill



加工解决方案 Manufacturing Solutions

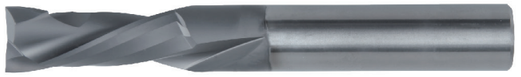


铣削粗加工
Rough Milling

- SD200-CN菱齿型金刚石涂层立铣刀
  Fine-Cross-Nick Diamond Coating Endmill

修边精加工
Side Milling

- SD200-JD2人字型金刚石涂层立铣刀
  Herringbone Diamond Coating Endmill



PCD铣削
PCD Milling

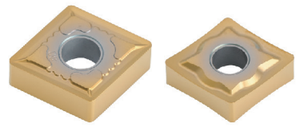
- DNM100PCD立铣刀(精加工)
  PCD Endmill(Finish Milling)
- DNR100PCD波刃立铣刀(粗加工)
  PCD Wave Edged Endmill
  (Rough Milling)

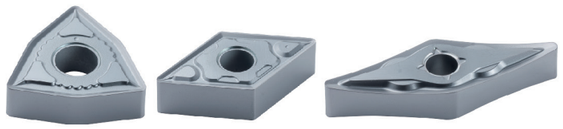
加工解决方案 Manufacturing Solutions

发动机机匣
Engine Casing

车削加工
Turning

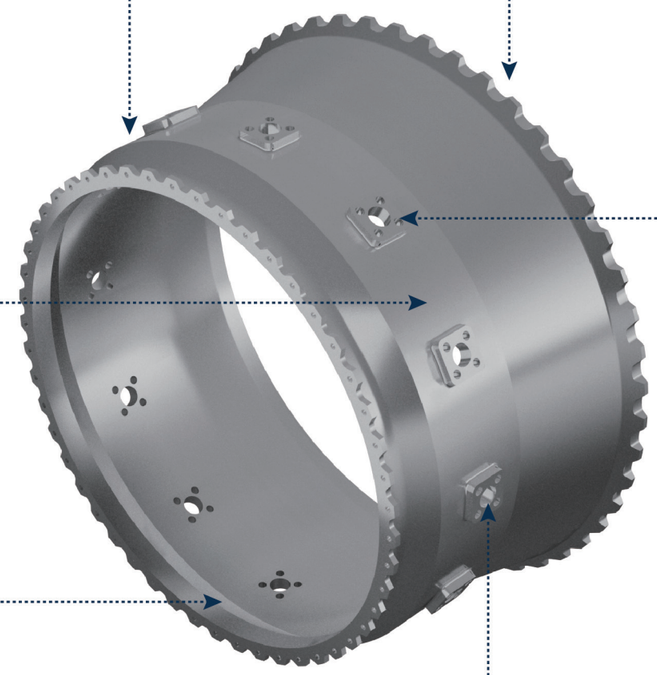
- EM/EL负型半精加工车削
  Negative Semi-finish Turning
- FP/MM 正型精加工车削
  Positive Finish Turning





环面/花边铣削
Torus/Lacework Milling

- SN200-R4高性能圆角头立铣刀
  High Performance Corner Radius Endmill



面铣/仿形粗加工
Face/ Profile Rough Milling

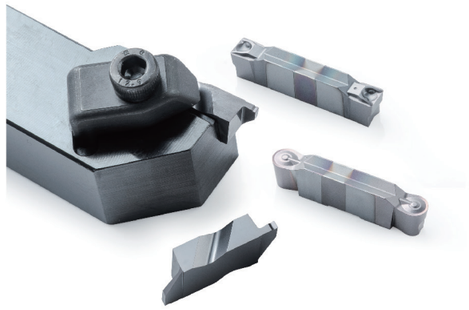
- RPMT+MPB100仿形铣削
  Profile Milling

精铣凸台
Boss Finish Milling

- SN200-B4高性能球头立铣刀
  High Performance Ball Nose Endmill

切槽加工
Grooving

- G-Notch浅槽系列
  G-Notch Shallow Grooving Series
- GZ深槽系列
  GZ Deep Trench Grooving Series



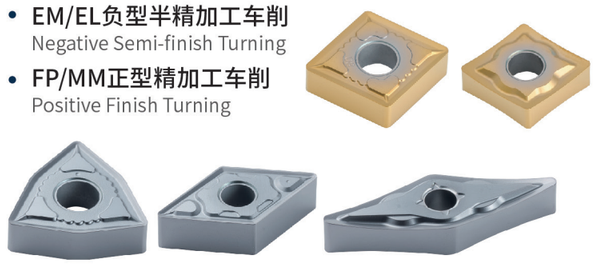
孔加工
Hole Making

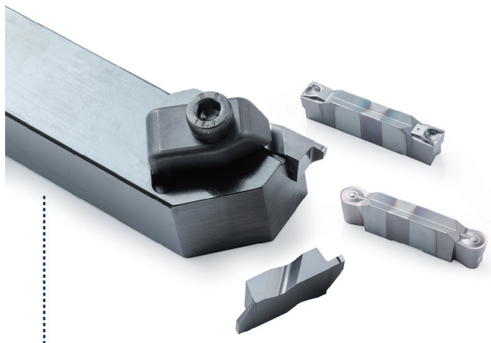
- D968S难加工材料麻花钻
  Twist Drills for Difficult-to-process Material
- 非标定制铰刀
  Tailor-made Reamers
- QPMG +GHDS高效可转位钻头
  High Efficiency Indexable Dills

叶盘
Blisk

车削加工
Turning

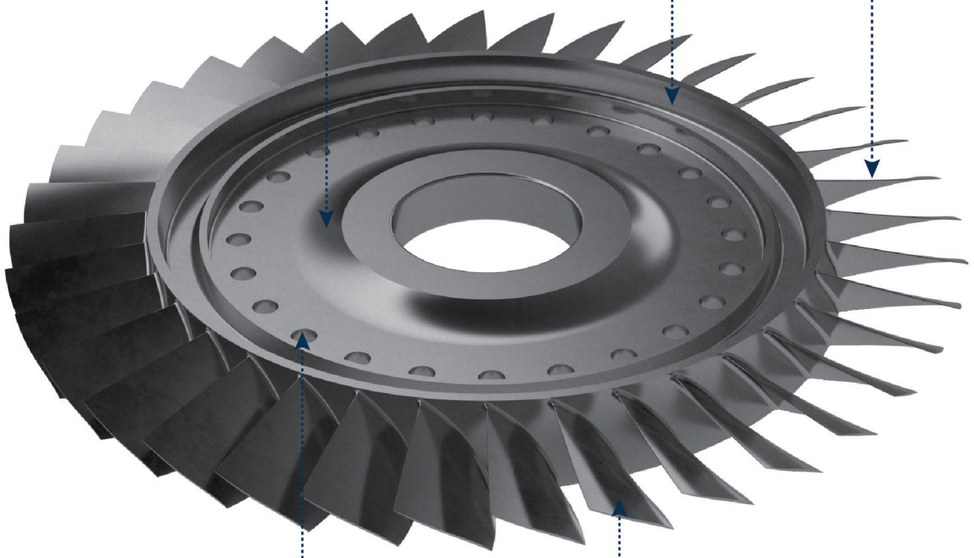
- EM/EL负型半精加工车削
  Negative Semi-finish Turning
- FP/MM正型精加工车削
  Positive Finish Turning





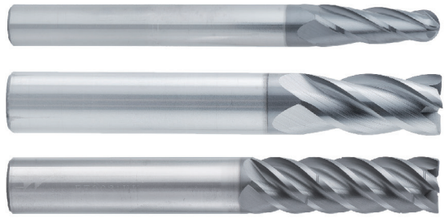
切槽加工
Grooving

- G-Notch浅槽系列
  G-Notch Shallow Grooving Series
- GZ深槽系列
  GZ Deep Trench Grooving Series



流道开粗
Rough Milling

- STB200锥度球头立铣刀
  Taper Ball Nose Endmill
- SN200-R4高性能圆角头立铣刀
  High Performance Corner Radius Endmill
- 摆线铣立铣刀
  Trochoidal Machining Endmill



孔加工
Hole Making

- D968S难加工材料麻花钻
  Twist Drills for Difficult-to-process Material
- 非标定制铰刀
  Tailor-made Reamers

叶片半精/精加工
Blade Semi-finish/Finish Milling

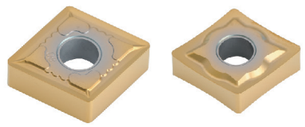
- SN200-B4高性能球头立铣刀
  High Performance Ball Nose Endmill
- STB200锥度球头立铣刀
  Taper Ball Nose Endmill

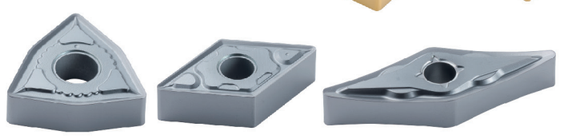
加工解决方案 Manufacturing Solutions

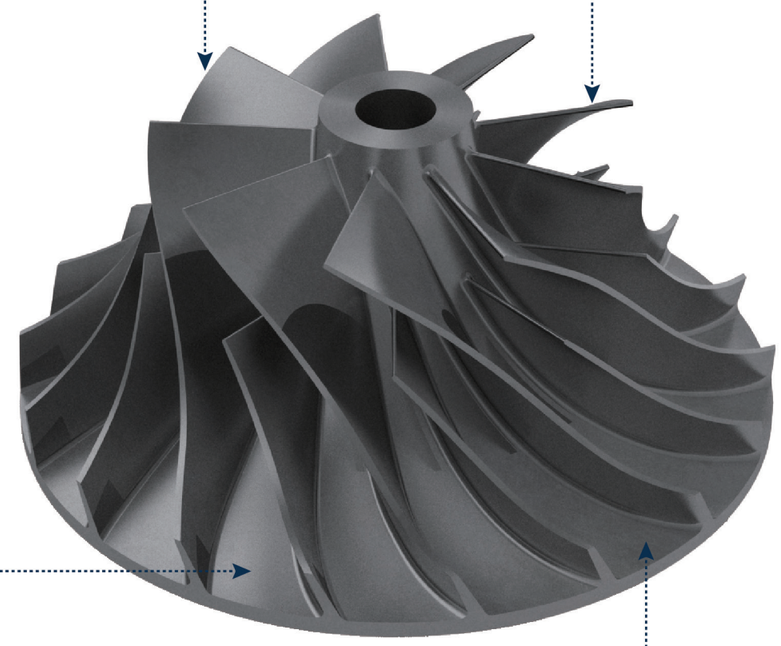
叶轮
Impeller

车削加工
Turning

- EM/EL负型半精加工车削
  Negative Semi-finish Turning
- FP/MM正型精加工车削
  Positive Finish Turning





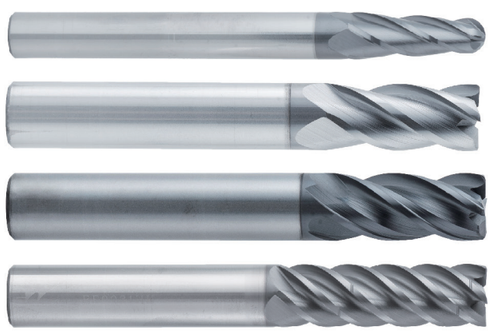


叶片精加工
Blade Finish Milling

- STB200锥度球头立铣刀
  Taper Ball Nose Endmill

流道开粗
Rough Milling

- STB200锥度球头立铣刀
  Taper Ball Nose Endmill
- SN200-R4高性能圆角头立铣刀
  High Performance Corner Radius Endmill
- SS600 高效加工立铣刀
  High Efficiency Endmill
- 摆线铣立铣刀
  Trochoidal Machining Endmill



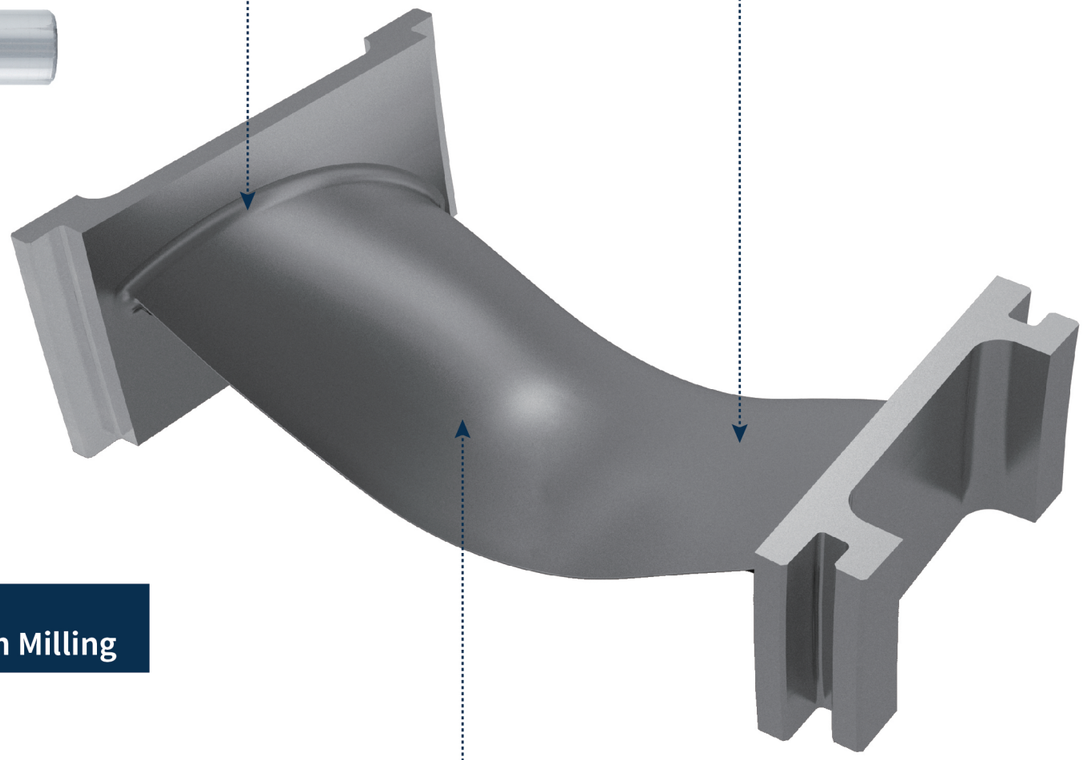
型腔粗加工
Cavity Rough Milling

- SOE(M)T+MKT113/213快进给高效铣削
  High Feed High Efficiency Milling

叶片
Blade

叶根/叶型粗加工
Blade Root/Blade Profile Rough Milling

- SN200-R4高性能圆角头立铣刀
  High Performance Corner Radius Endmill



叶身仿形加工
Blade Body Profile Milling

- RPMT+MPB100 仿形铣削
  Profile Milling

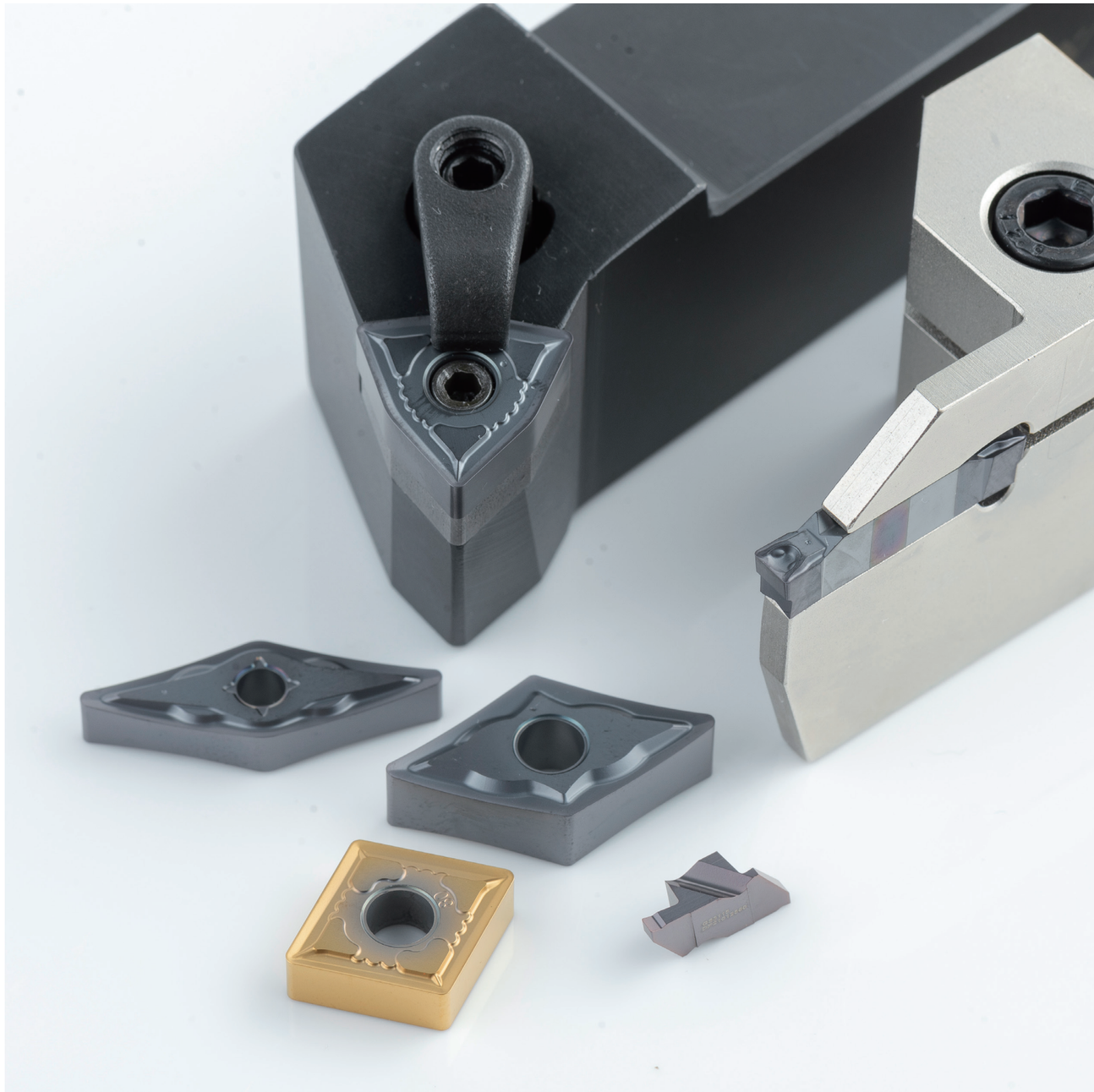
叶根/叶型精加工
Blade Root/Blade Profile Finish Milling

- SN200-B4高性能球头立铣刀
  High Performance Ball Nose Endmill
- STB200锥度球头立铣刀
  Taper Ball Nose Endmill

目录 CONTENT

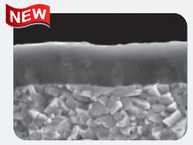
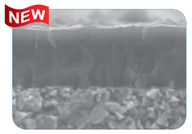
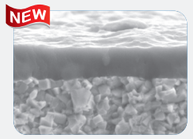
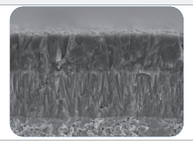
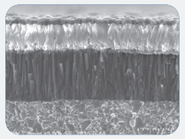
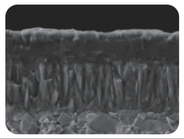
A

车削 Turning



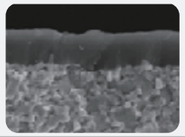
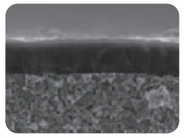
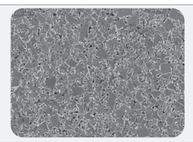
车削牌号介绍
Turning Grades

CVD涂层硬质合金
CVD Coated Carbide

ISO	牌号 Grade	涂层颜色 Coating Color	材质结构 Grade Microstructure	特点 Grade Feature
S	GST7115	黄色 Yellow		•全新纳米结构的PVD涂层搭配高红硬性和抗塑形变形能力的硬质合金基体，结合特殊的后处理技术，具有优异的抗高温磨损性和抗粘结磨损性能。 •适用于高温合金稳定工况下的中低速精到半精加工，加工表面质量高。 •New nano-structured PVD coating, combined with specific cemented carbide with high red hardness and superior resistance to plastic deformation, provide excellent resistance to high temperature wear and adhesive wear. •Suitable for medium and low speed machining of high-temperature Alloy under stable working condition, with high surface quality.
	GST7120	紫灰色 Purplish grey		•全新升级的优异结合力和耐磨性的PVD涂层，搭配耐磨的亚微细硬质合金基体，具有优异的耐磨性、抗氧化性和加工稳定性。 •适用于镍基高温合金等难加工材料的中高速耐磨工况。 •New generation of PVD coating offer superior wear resistance and enhanced adhesion, combined with the hard cemented carbide substrate, provide outstanding wear resistance, oxidation resistance and machining stability. •Suitable for medium and high speed machining of high-temperature Alloy under stable cutting condition, with high wear resistance.
	GST7130	黄色 Yellow		•采用全新涂层技术升级的PVD涂层，搭配高钴亚微细晶粒强韧硬质合金基体，具有优异的结合力、极高的韧性与刃口强度。 •推荐应用于镍基高温合金等难加工材料的中低速粗加工。 •New generation coating with new PVD technology, combined with the high-Co submicro-grain and strong toughness carbide, gives this new PVD grade extremely high toughness and reinforced cutting edge. •Suitable for rough machining and interrupted machining of high-temperature Alloy with low to medium cutting speeds.
	GS3115	紫红色 Purplish red		•PVD高铝涂层与微细晶基体附着强度高，耐磨性优异 •适用于不锈钢、耐热优质合金等材料精到半精加工 •Fine grained cemented carbide substrate, matching PVD coating with high aluminum content, have excellent adhesion and wear resistance. •Recommended for semi-finishing or finishing of stainless steels and heat resistant alloys.
	GS3125	紫灰色 Purplish grey		•PVD高铝TiAlN涂层，结合高红硬性和抗塑性变形能力的基体，赋予其优异的抗氧化性能和抗粘结磨损能力。 •适用于高温合金、钛合金、不锈钢等材料的中等切削速度下的精到半精加工。 •Matching PVD coating with high aluminum content,, combined with a matrix with high red hardness and resistance to plastic deformation, gives it excellent oxidation resistance and adhesion resistance. •Suitable for fine to semi-finish machining of high-temperature alloys, titanium alloys, stainless steel and other materials at medium cutting speeds.
/	GA4230	紫红色 Purplish red		•PVD TiAlN涂层结合高耐破损性的硬质合金基体，具有优异的耐热性和抗崩刃性，实现不同工况下的稳定加工。 •推荐钢类的切断切槽的通用加工。 •PVD TiAlN coating with high toughness substrate provides excellent wear resistance and high edge security for a broad application area. •Recommended as general choice for parting and grooving of steels.

车削牌号介绍
Turning Grades

PVD涂层硬质合金
PVD Coated Carbide

ISO	牌号 Grade	涂层颜色 Coating Color	材质结构 Grade Microstructure	特点 Grade Feature
M	GM3220	古铜色 Bronze		•全新双层纳米结构PVD涂层，搭配高Co亚微细晶硬质合金基体，提高耐磨性及红硬性 •适合于连续~轻微断续~中等断续工况，不锈钢、软钢中低速度加工。 •New nano-structured PVD coating matching high cobalt cemented carbide substrate, gives the grade with excellent wear resistance and high hot hardness. •Recommended for continuous cutting and light or medium interrupted cutting of stainless steels and soft steels at medium to low cutting speeds.
	GM3225	紫灰色 Purplish grey		•全新纳米结构TiAlN涂层与高Co含量的亚微细晶硬质合金基体相结合，具有优异的抗积屑瘤特性和抗崩刃性。 •适合于不锈钢的半精到粗加工；钢、不锈钢等通用材料的螺纹加工 •The combination of optimized TiAlN coating and submicron grained carbide substrate with high Co content, provides superior adhesion and toughness. •Recommended for semi-finishing of stainless steels and threading of steels, stainless steels, etc.
S	GS9125	无涂层 Uncoated		•无涂层细晶粒硬质合金牌号，良好的耐磨性能与韧性兼备 •钛合金通用加工的首选牌号，适合于钛合金的半精加工 •Uncoated fine grain substrate has a good balance of wear resistance and toughness. •Recommended as the first choice for titanium alloys, and even for semifinishing of titanium alloys grooving.

ISO车削刀片型号的表示规则
ISO Turning Indexable Inserts Identification System

代号 Symbol	形状 Shape	刀尖角（度） Corner Angle	图形 Shape
H	正六边形 Hexagon	120°	
O	正八边形 Octagon	135°	
P	正五边形 Pentagon	108°	
S	正方形 Square	90°	
T	正三角形 Triangle	60°	
C	菱形 Rhombic	80°	
D		55°	
E		75°	
F		50°	
M		86°	
V		35°	
W	六边形 Trigon	80°	
L	长方形 Rectangle	90°	
A	平行四边形 Parallelogram	85°	
B		82°	
K		55°	
R	圆形 Round	——	

①形状代号 ①Shape Symbol

代号 Symbol	后角（度） Relief Angle
A	3°
B	5°
C	7°
D	15°
E	20°
F	25°
G	30°
N	0°
P	11°
O	其他

②后角代号
②Relief Angle Symbol

代号 Symbol	公差 (mm) Tolerance（mm） 刀尖高 Corner Height (m)	厚度 Thickness (s)	内切圆 I.C.dia. (Ød)	公差(inch) Tolerance（inch） 刀尖高 Corner Height (m)	厚度 Thickness (s)	内切圆 I.C.dia. (Ød)
A	±0.005	±0.025	±0.025	±0.0002	±0.001	±0.001
F	±0.005	±0.025	±0.013	±0.0002	±0.001	±0.0005
C	±0.013	±0.025	±0.025	±0.0005	±0.001	±0.001
H	±0.013	±0.025	±0.013	±0.0005	±0.001	±0.0005
E	±0.025	±0.025	±0.025	±0.001	±0.001	±0.001
G	±0.025	±0.13	±0.025	±0.001	±0.005	±0.001
J	±0.005	±0.025	±0.05~ ±0.13	±0.0002	±0.001	±0.002~ ±0.005
K	±0.013	±0.025	±0.05~ ±0.13	±0.0005	±0.001	±0.002~ ±0.005
L	±0.025	±0.025	±0.05~ ±0.13	±0.001	±0.001	±0.002~ ±0.005
M	±0.08~ ±0.18	±0.13	±0.05~ ±0.13	±0.003~ ±0.007	±0.005	±0.002~ ±0.005
N	±0.08~ ±0.18	±0.025	±0.05~ ±0.13	±0.003~ ±0.007	±0.001	±0.002~ ±0.005
U	±0.13~ ±0.38	±0.13	±0.08~ ±0.25	±0.005~ ±0.015	±0.005	±0.003~ ±0.01

③精度代号 ③Tolerance Symbol

适用刀片形状：H,O,P,S,T,C,E,M,W,R Insert Shape：H,O,P,S,T,C,E,M,W,R									
标准内切圆 (mm) I. C. Size (mm)	内切圆(Ød)的公差(mm) Tolerance of I. C. Size(Ød) (mm) J,K,L, M,N(级)	U (级)	刀尖高(m)的公差(mm) Tolerance of Corner Height (mm) M,N(级)	U (级)	标准内切圆 I. C. Size (inch)	内切圆(Ød)的公差(mm) Tolerance of I. C. Size(Ød) (mm) Class J,K, L,M,N	Class U	刀尖高(m)的公差(mm) Tolerance of corner Height (mm Class J,K, L,M,N	Class U
6.35	±0.05	±0.08	±0.08	±0.13	0.250	±0.002	±0.003	±0.003	±0.005
9.525					0.375				
12.7	±0.08	±0.13	±0.13	±0.2	0.500	±0.003	±0.005	±0.005	±0.008
15.875	±0.1	±0.18	±0.15	±0.27	0.625	±0.004	±0.007	±0.006	±0.011
19.05					0.750				
25.4	±0.13	±0.25	±0.18	±0.38	1.000	±0.005	±0.010	±0.007	±0.015
31.75	±0.15	±0.25	±0.2	±0.38	1.250	±0.006	±0.010	±0.008	±0.015
32					1.260				

适用刀片形状：D Insert Shape：D					
内切圆Ød Inscribed Circle Size		内切圆的公差 Tolerance of I. C. Size		刀尖高的公差 Tolerance of Corner Height	
mm	in	mm	in	mm	in
6.35	0.250	±0.05	±0.002	±0.11	±0.004
9.525	0.375	±0.05	±0.002	±0.11	±0.004
12.7	0.500	±0.08	±0.003	±0.15	±0.006
15.875	0.625	±0.10	±0.004	±0.18	±0.007
19.05	0.750	±0.10	±0.004	±0.18	±0.007

适用刀片形状：V Insert Shape：V					
内切圆Ød Inscribed Circle Size		内切圆的公差 Tolerance of I. C. Size		刀尖高的公差 Tolerance of Corner Height	
mm	in	mm	in	mm	in
6.35	0.250	±0.05	±0.002	±0.15	±0.006
9.525	0.375	±0.05	±0.002	±0.15	±0.006
12.7	0.500	±0.08	±0.003	±0.20	±0.008
15.875	0.625	±0.10	±0.004	±0.27	±0.011
19.05	0.750	±0.10	±0.004	±0.27	±0.011

代号 Symbol	厚度(mm) Thickness (mm)
01	1.59
02	2.38
T2	2.78
03	3.18
T3	3.97
04	4.76
05	5.56
06	6.35
07	7.94
09	9.52

⑥厚度代号
⑥Thickness Symble

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

T N M G 22 04 08 - HK

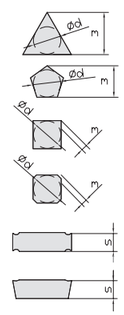
代号 Symbol	有无孔 Hole	孔的形状 Hole Shape	断屑槽 Chipb-reaker	形状 Shape
N	无 With-out	—	无 Without	
R			单面 Single-sided	
F			双面 Double-sided	
A	有 With	圆柱孔 With Hole	无 Without	
M			单面 Single-sided	
G			双面 Double-sided	
W		部分圆柱孔 40°~60° With Hole and One Countersink 40-60°	单面 Without	
T			单面 Single-sided	
Q		部分圆柱孔双面 40°~60° With Hole and Two Countersink 40-60°C	无 Without	
U			双面 Double-sided	
B		部分圆柱孔单面 70°~90° With Hole and One Countersink 70-90°C	无 Without	
H			单面 Single-sided	
C		部分圆柱孔双面 70°~90° With Hole and Two Countersink 70-90°C	无 Without	
J			双面 Double-sided	
X	—	—	—	

④断屑槽·孔代号 ④Hole/Chipbreaker Symbol

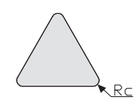
R 代号 Symbol	R 尺寸 Length	S 代号 Symbol	S 尺寸 Length	C 代号 Symbol	C 尺寸 Length	W 代号 Symbol	W 尺寸 Length	T 代号 Symbol	T 尺寸 Length	D 代号 Symbol	D 尺寸 Length	V 代号 Symbol	V 尺寸 Length	K 代号 Symbol	K 尺寸 Length	内切圆 (mm) I. C. Size (mm)
		03	3.97	03	4.0			06	6.9	4	4.8					3.97
		04	4.76	04	4.8			08	8.2	5	5.8					4.76
05	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5
		05	5.56	05	5.6	03	3.8	09	9.6	6	6.8					5.56
06	6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6
		06	6.35	06	6.5	04	4.3	11	11	7	7.8	11	11.2			6.35
		07	7.94	08	8.1	05	5.4	13	13.8	9	9.7					7.94
08	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8
09	9.525	09	9.525	09	9.7	06	6.5	16	16.5	11	11.6	16	16.6	16	19.7	9.525
10	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	10
12	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	12
12	12.7	12	12.7	12	12.9	08	8.7	22	22	15	15.5	22	22.1			12.7
15	15.875	15	15.875	16	16.1	10	10.9	27	27.5	19	19.4					15.875
16	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	16
19	19.05	19	19.05	19	19.3	13	13	33	33	23	23.3					19.05
20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	20
		22	22.225	22	22.6			38	38.5	27	27.1					22.225
25	25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	25
25	25.4	25	25.4	25	25.8			44	44	31	31					25.4
31	31.75	31	31.75	32	32.2			55	55	38	38.8					31.75
31	32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	32

⑤ISO切削刀长度代号(mm) ⑤Edge Length Symbol（ISO）(mm)

内切圆(Ød)
Inscribed Circle Size（mm）
厚度(s)
Insert Thickness(S)
刀尖高(m)
Corner Height(m)



⑦刀尖代号
⑦Corner Re Symbol



代号 Symbol	刀尖圆弧半径(mm) Corner-R（mm）
00	0.03
02	0.2
04	0.4
08	0.8
12	1.2
16	1.6
20	2.0
24	2.4
28	2.8
32	3.2

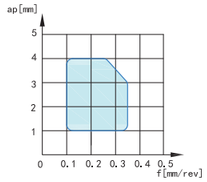
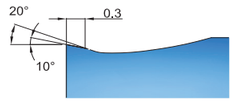
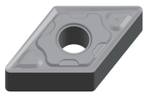
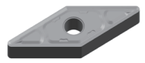
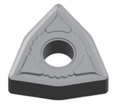
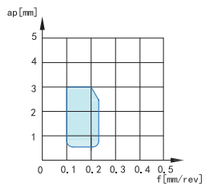
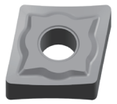
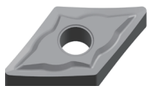
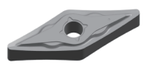
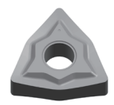
⑧断屑槽型代号
⑧Chipbreaker Symbol

表示刀片加工切削特点和断屑槽型
Chipbreaker Symbol

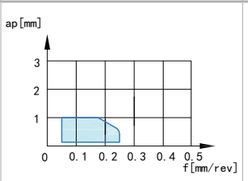
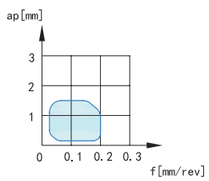
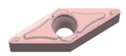
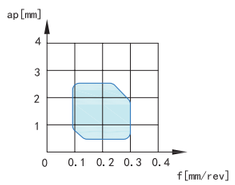
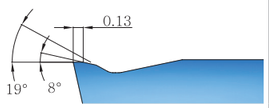
A 车削 TURNING

车削刀片一览表
Overview of Turning Inserts

车削用刀片（负型）
Turning Inserts (Negative)

槽型 Geometry	特点 Features	加工范围 Application Range	槽型截面 Cross Section Geometry		80°菱形 80°Rhombic	55°菱形 55°Rhombic	90°正方形 90°Square	60°正三角形 60°Regular Triangle	35°菱形 35°Rhombic	80°六边形 80°Trigon
EM	• 适合于高温合金中等加工/粗加工 • 刃口强度高，适合大切深加工。； • Suitable for medium processing/ roughing of heat resistant super alloys; • The cutting edge has high strength, suitable for deep cutting and deep processing.									
					CNMG-EM	DNMG-EM	SNMG-EM		VNMG-EM	WNMG-EM
					P010	P010	P011		P011	P012
EL	• 适合于高温合金和钛合金中等加工/半精加工； • 适合于长悬伸、薄壁工件加工； • 切削力低，避免振动。 • Suitable for medium processing/semi-finishing of heat resistant super alloys and titanium alloys; • Suitable for processing long overhang workpieces and thin-walled workpieces; • Low cutting force, avoid vibration.									
					CNMG-EL	DNMG-EL			VNMG-EL	WNMG-EL
					P010	P010			P011	P012

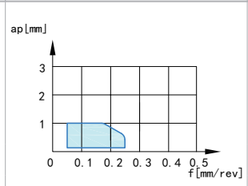
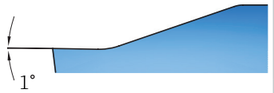
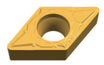
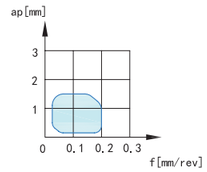
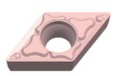
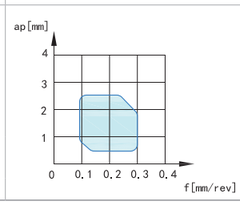
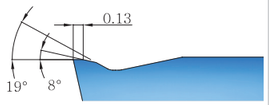
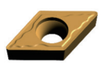
车削用刀片（正型）
Turning Inserts（Positive）5°后角

槽型 Geometry	特点 Features	加工范围 Application Range	槽型截面 Cross Section Geometry		80°菱形 80°Rhombic	55°菱形 55°Rhombic	90°正方形 90°Square	60°正三角形 60°Regular Triangle	35°菱形 35°Rhombic	80°六边形 80°Trigon
FP	• 普通钢，合金钢，不锈钢，铸铁精加工用。 • 无刃宽和球形设计，在小切深、小进给工况下实现良好断屑、排屑效果。 • FP for finishing of ordinary steel, alloy s teel, stainless steel and cast iron。 • No insert width and spherical design, a chieving good chip breaking and chip re moval under small depth of cut and smal l feed conditions.									
									VBMT-FP	
									P017	
MM	• 普通钢、合金钢、不锈钢精-半精加工用。 • 切削刃锋利，加工表面光洁度高。 • MM for light cutting of general steel, alloy steel and stainless steel. • Sharp cutting edge, enables high surface quality.									
									VBMT-MM	
									P017	
GP	• 普通钢、合金钢、不锈钢、铸铁轻切削用 • 扁平棱边与双前角组合，同时确保刀尖强度与切削锋利度。 • GP for light cutting of general steel, alloy steel, stainless steel and cast iron. • Strong tool nose due to flat cutting edge And Sharp cutting edge due to double rake angle.									
									VBMT-GP	
									P017	

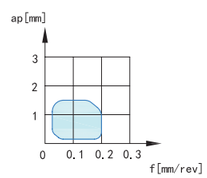
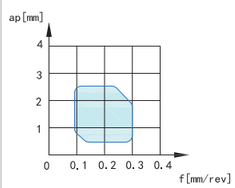
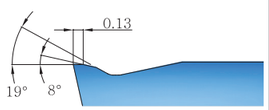
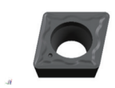
A 车削 TURNING

车削刀片一览表
Overview of Turning Inserts

车削用刀片（正型）
Turning Inserts（Positive）7°后角

槽型 Geometry	特点 Features	加工范围 Application Range	槽型截面 Cross Section Geometry		80°菱形 80°Rhombic	55°菱形 55°Rhombic	90°正方形 90°Square	60°正三角形 60°Regular Triangle	35°菱形 35°Rhombic	80°六边形 80°Trigon
FP	• 普通钢，合金钢，不锈钢，铸铁精加工用。 • 无刃宽和球形设计，在小切深、小进给工况下实现良好断屑、排屑效果。 • FP for finishing of ordinary steel, alloy steel, stainless steel and cast iron。 • No insert width and spherical design, achieving good chip breaking and chip removal under small depth of cut and small feed conditions.									
					CCMT-FP	DCMT-FP				
					P013	P015				
MM	• 普通钢、合金钢、不锈钢精-半精加工用。 • 切削刃锋利，加工表面光洁度高。 • MM for light cutting of general steel, alloy steel and stainless steel. • Sharp cutting edge, enables high surface quality.									
					CCMT-MM	DCMT-MM	SCMT-MM	TCMT-MM		
					P013	P015	P014	P016		
GP	• 普通钢、合金钢、不锈钢、铸铁轻切削用。 • 扁平棱边与双前角组合，同时确保刀尖强度与切削锋利度。 • GP for light cutting of general steel, alloy steel, stainless steel and cast iron. • Strong tool nose due to flat cutting edge and sharp cutting edge due to double rake angle.									
					CCMT-GP CCGT-GP	DCMT-GP DCGT-GP	SCMT-GP	TCMT-GP TCGT-GP	VCMT-GP	
					P013	P015	P014	P016	P018	

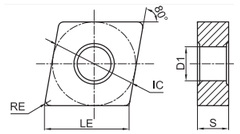
车削用刀片（正型）
Turning Inserts（Positive）11°后角

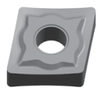
槽型 Geometry	特点 Features	加工范围 Application Range	槽型截面 Cross Section Geometry		80°菱形 80°Rhombic	55°菱形 55°Rhombic	90°正方形 90°Square	60°正三角形 60°Regular Triangle	35°菱形 35°Rhombic	80°六边形 80°Trigon
MM	• 普通钢、合金钢、不锈钢精-半精加工用。 • 切削刃锋利，加工表面光洁度高。 • MM for light cutting of general steel, alloy steel and stainless steel. • Sharp cutting edge, enables high surface quality.									
								TPMT-MM		
								P017		
GP	• 普通钢、合金钢、不锈钢、铸铁轻切削用 • 扁平棱边与双前角组合，同时确保刀尖强度与切削锋利度。 • GP for light cutting of general steel, alloy steel, stainless steel and cast iron. • Strong tool nose due to flat cutting edge and sharp cutting edge due to double rake angle.									
					CPGT-GP			TPMT-GP		
					P014			P017		

车削刀片(负型)
Turning Insert (Negative)

CN□□

菱形80°有孔
Rhombic 80° with Hole

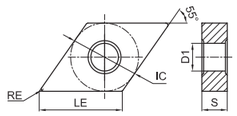


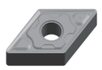
订货号 Ordering code		尺寸 Dimension(mm)					涂层硬质合金 Coated		
		LE	IC	S	D1	RE	GST7115	GST7120	GST7130
	CNMG120404-EM	12.9	12.7	4.76	5.16	0.4	●	●	●
	CNMG120408-EM	12.9	12.7	4.76	5.16	0.8	●	●	●
	CNMG120412-EM	12.9	12.7	4.76	5.16	1.2	●	●	●
	CNMG160608-EM	16.1	15.875	6.35	6.35	0.8	●	●	●
	CNMG160612-EM	16.1	15.875	6.35	6.35	1.2	●	●	●
	CNMG120404-EL	12.9	12.7	4.76	5.16	0.4	●		●
	CNMG120408-EL	12.9	12.7	4.76	5.16	0.8	●	●	●
	CNMG120412-EL	12.9	12.7	4.76	5.16	1.2	●	●	
	CNMG160608-EL	16.1	15.875	6.35	6.35	0.8	●	●	
	CNMG160612-EL	16.1	15.875	6.35	6.35	1.2	●	●	
	CNMG190608-EL	19.3	19.05	6.35	7.94	0.8			●
	CNMG190612-EL	19.3	19.05	6.35	7.94	1.2			●

●标准库存Stock ○需预定Available upon Order

DN□□

菱形55°有孔
Rhombic 55° with Hole



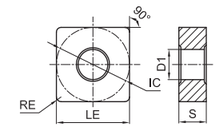
订货号 Ordering code		尺寸 Dimension(mm)					涂层硬质合金 Coated		
		LE	IC	S	D1	RE	GST7115	GST7120	GST7130
	DNMG150408-EM	15.5	12.7	4.76	5.16	0.8	●	●	○
	DNMG150412-EM	15.5	12.7	4.76	5.16	1.2	●	●	○
	DNMG150608-EM	15.5	12.7	6.35	6.35	0.8	●	●	○
	DNMG150612-EM	15.5	12.7	6.35	6.35	1.2	●	●	○
	DNMG150404-EL	15.5	12.7	4.76	5.16	0.4	●		
	DNMG150408-EL	15.5	12.7	4.76	5.16	0.8	●	○	
	DNMG150412-EL	15.5	12.7	4.76	5.16	1.2	●	●	
	DNMG150604-EL	15.5	12.7	6.35	5.16	0.4	●		
	DNMG150608-EL	15.5	12.7	6.35	6.35	0.8	●	○	
	DNMG150612-EL	15.5	12.7	6.35	6.35	1.2	●	●	

●标准库存Stock ○需预定Available upon Order

车削刀片(负型)
Turning Insert (Negative)

SN□□

正方形90°有孔
Square 90° with Hole

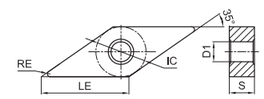


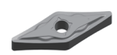
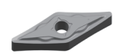
订货号 Ordering code		尺寸 Dimension(mm)					涂层硬质合金 Coated		
		LE	IC	S	D1	RE	GST7115	GST7120	GST7130
	SMG120404-EM	12.7	12.7	4.76	5.16	0.4	●	●	
	SMG120408-EM	12.7	12.7	4.76	5.16	0.8	●	●	●
	SMG120412-EM	12.7	12.7	4.76	5.16	1.2	●	●	●

●标准库存Stock ○需预定Available upon Order

VN□□

菱形35°有孔
Rhombic 35° with Hole



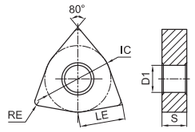
订货号 Ordering code		尺寸 Dimension(mm)					涂层硬质合金 Coated		
		LE	IC	S	D1	RE	GST7115	GST7120	GST7130
	VNMG160408-EM	16.6	9.525	4.76	3.81	0.8	●	●	○
	VNMG160412-EM	16.6	9.525	4.76	3.81	1.2	●	●	○
	VNMG160404-EL	16.6	9.525	4.76	3.81	0.4	●	●	
	VNMG160408-EL	16.6	9.525	4.76	3.81	0.8	●	○	
	VNMG160412-EL	16.6	9.525	4.76	3.81	1.2	●	●	

●标准库存Stock ○需预定Available upon Order

车削刀片(负型)
Turning Insert (Negative)

WN□□

六边形80°有孔
Trigon 80° with Hole



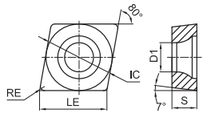
订货号 Ordering code		尺寸 Dimension(mm)					涂层硬质合金 Coated		
		LE	IC	S	D1	RE	GST7115	GST7120	GST7130
	WNMG080408-EM	8.7	12.7	4.76	5.16	0.8	●	●	●
	WNMG080412-EM	8.7	12.7	4.76	5.16	1.2	●	●	●
	WNMG080404-EL	8.7	12.7	4.76	5.16	0.4	●		●
	WNMG080408-EL	8.7	12.7	4.76	5.16	0.8	●	●	
	WNMG080412-EL	8.7	12.7	4.76	5.16	1.2	●	●	

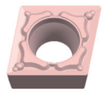
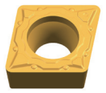
●标准库存Stock ○需预定Available upon Order

车削刀片(正型)
Turning Insert (Positive)

CC□□

菱形80°有孔
Rhombic 80° with Hole



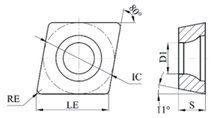
订货号 Ordering code		尺寸 Dimension(mm)					涂层硬质合金 Coated				
		LE	IC	S	D1	RE	GM3220	GM3225	GST7115	GST7120	GST7130
	CCMT060202-MM	6.5	6.35	2.38	2.8	0.2	●	●	●		
	CCMT060204-MM	6.5	6.35	2.38	2.8	0.4	●	●	●	○	
	CCMT060208-MM	6.5	6.35	2.38	2.8	0.8	●	●	○	○	
	CCMT09T302-MM	9.7	9.525	3.97	4.4	0.2	●	●	○	○	○
	CCMT09T304-MM	9.7	9.525	3.97	4.4	0.4	●	●	●		○
	CCMT09T308-MM	9.7	9.525	3.97	4.4	0.8	●	●	●	●	●
	CCMT120404-MM	12.9	12.7	4.76	5.56	0.4			●		
	CCMT120408-MM	12.9	12.7	4.76	5.56	0.8			○		
	CCMT060204-GP	6.5	6.35	2.38	2.8	0.4	●		○		
	CCMT060208-GP	6.5	6.35	2.38	2.8	0.8	●		○	○	
	CCMT09T304-GP	9.7	9.525	3.97	4.4	0.4	●		○		
	CCMT09T308-GP	9.7	9.525	3.97	4.4	0.8	●		○	○	
	CCMT09T312-GP	9.7	9.525	3.97	4.4	1.2	●			○	
	CCMT120404-GP	12.9	12.7	4.76	5.56	0.4	●		○		
	CCMT120408-GP	12.9	12.7	4.76	5.56	0.8	●		○	○	
	CCMT120412-GP	12.9	12.7	4.76	5.56	1.2			○		○
	CCGT060202-GP	6.5	6.35	2.38	2.8	0.2		●	○	○	○
	CCGT060204-GP	6.5	6.35	2.38	2.8	0.4		●	○	○	○
	CCGT060208-GP	6.5	6.35	2.38	2.8	0.8		●	○	○	○
	CCGT09T302-GP	9.7	9.525	3.97	4.4	0.2		●	○	○	○
	CCGT09T304-GP	9.7	9.525	3.97	4.4	0.4		●	○	○	○
	CCGT09T308-GP	9.7	9.525	3.97	4.4	0.8		●	○	○	○
	CCGT120404-GP	12.9	12.7	4.76	5.56	0.4		●	○	○	○
	CCGT120408-GP	12.9	12.7	4.76	5.56	0.8		●	○	○	○
	CCMT060204-FP	6.5	6.35	2.38	2.8	0.4			○		
	CCMT09T304-FP	9.7	9.525	3.97	4.4	0.4			●		
	CCMT09T308-FP	9.7	9.525	3.97	4.4	0.4			●	○	

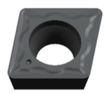
●标准库存Stock ○需预定Available upon Order

车削刀片(正型)
Turning Insert (Positive)

CP□□

菱形80°有孔
Rhombic 80° with Hole

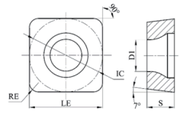


订货号 Ordering code		尺寸 Dimension(mm)					涂层硬质合金 Coated
		LE	IC	S	D1	RE	GM3225
	CPGT060204-GP	6.5	6.35	2.38	2.8	0.4	●
	CPGT060208-GP	6.5	6.35	2.38	2.8	0.8	○
	CPGT09T302-GP	9.7	9.525	3.97	4.4	0.2	○
	CPGT09T304-GP	9.7	9.525	3.97	4.4	0.4	●
	CPGT09T308-GP	9.7	9.525	3.97	4.4	0.8	○
	CPGT120404-GP	12.9	12.7	4.76	5.56	0.4	○
	CPGT120408-GP	12.9	12.7	4.76	5.56	0.8	●

●标准库存Stock ○需预定Available upon Order

SC□□

正方形90°有孔
Square 80° with Hole



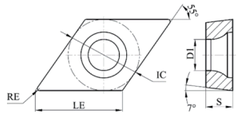
订货号 Ordering code		尺寸 Dimension(mm)					涂层硬质合金 Coated	
		LE	IC	S	D1	RE	GM3220	GM3225
	SCMT09T304-MM	9.525	9.525	3.97	4.4	0.8	●	●
	SCMT09T308-MM	9.525	9.525	3.97	4.4	0.8	●	●
	SCMT09T308-GP	9.525	9.525	3.97	4.4	0.8	○	
	SCMT120404-GP	12.7	12.7	4.76	5.56	0.4	○	
	SCMT120408-GP	12.7	12.7	4.76	5.56	0.8	○	

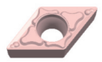
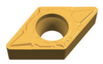
●标准库存Stock ○需预定Available upon Order

车削刀片(正型)
Turning Insert (Positive)

DC□□

菱形55°有孔
Rhombic 55° with Hole



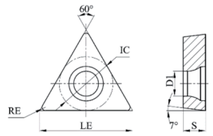
订货号 Ordering code		尺寸 Dimension(mm)					涂层硬质合金 Coated				
		LE	IC	S	D1	RE	GM3220	GM3225	GST7115	GST7120	GST7130
	DCMT070202-MM	7.8	6.35	2.38	2.8	0.2	●	●			
	DCMT070204-MM	7.8	6.35	2.38	2.8	0.4	●	●	○		
	DCMT070208-MM	7.8	6.35	2.38	2.8	0.8	●	●	○	○	
	DCMT11T302-MM	11.6	9.525	3.97	4.4	0.2	●	●			
	DCMT11T304-MM	11.6	9.525	3.97	4.4	0.4	●	●	●		
	DCMT11T308-MM	11.6	9.525	3.97	4.4	0.8	●	●	●	○	
	DCMT070204-GP	7.8	6.35	2.38	2.8	0.4	●		○		
	DCMT070208-GP	7.8	6.35	2.38	2.8	0.8	○		○	○	
	DCMT11T304-GP	11.6	9.525	3.97	4.4	0.4	●		○		
	DCMT11T308-GP	11.6	9.525	3.97	4.4	0.8	●		○	○	
	DCMT11T312-GP	11.6	9.525	3.97	4.4	1.2				○	
	DCGT070202-GP	7.8	6.35	2.38	2.8	0.2		●			
	DCGT070204-GP	7.8	6.35	2.38	2.8	0.4		○			
	DCGT070208-GP	7.8	6.35	2.38	2.8	0.8		○			
	DCGT11T302-GP	11.6	9.525	3.97	4.4	0.2		●			
	DCGT11T304-GP	11.6	9.525	3.97	4.4	0.4		●			
	DCGT11T308-GP	11.6	9.525	3.97	4.4	0.8		●			
	DCMT070208-FP	7.8	6.35	2.38	2.8	0.8			○		
	DCMT11T304-FP	11.6	9.525	3.97	4.4	0.4			○		
	DCMT11T308-FP	11.6	9.525	3.97	4.4	0.8			○		

●标准库存Stock ○需预定Available upon Order

车削刀片(正型)
Turning Insert (Positive)

TC□□

三角形60°有孔
Triangle with Hole



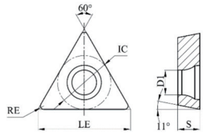
订货号 Ordering code		尺寸 Dimension(mm)					涂层硬质合金 Coated	
		LE	IC	S	D1	RE	GM3220	GM3225
	TCMT110202-MM	11	6.35	2.38	2.8	0.2	●	●
	TCMT110204-MM	11	6.35	2.38	2.8	0.4	●	●
	TCMT110208-MM	11	6.35	2.38	2.8	0.8	●	●
	TCMT16T304-MM	16.5	9.525	3.97	4.4	0.4	●	●
	TCMT16T308-MM	16.5	9.525	3.97	4.4	0.8	●	●
	TCMT110204-GP	11	6.35	2.38	2.8	0.4	●	
	TCMT110208-GP	11	6.35	2.38	2.8	0.8	●	
	TCMT16T304-GP	16.5	9.525	3.97	4.4	0.4	●	
	TCMT16T308-GP	16.5	9.525	3.97	4.4	0.8	●	
	TCGT090204-GP	9.6	5.56	2.38	2.5	0.4		●
	TCGT110202-GP	11	6.35	2.38	2.8	0.2		●
	TCGT110204-GP	11	6.35	2.38	2.8	0.4		●
	TCGT110208-GP	11	6.35	2.38	2.8	0.8		●
	TCGT16T304-GP	16.5	9.525	3.97	4.4	0.4		●
	TCGT16T308-GP	16.5	9.525	3.97	4.4	0.8		○

●标准库存Stock ○需预定Available upon Order

车削刀片(正型)
Turning Insert (Positive)

TP□□

三角形60°有孔
Triangle with Hole

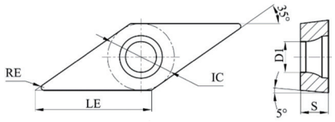


订货号 Ordering code		尺寸 Dimension(mm)					涂层硬质合金 Coated
		LE	IC	S	D1	RE	GM3225
	TPMT110202-MM	11	6.35	2.38	2.8	0.2	○
	TPMT110204-MM	11	6.35	2.38	2.8	0.4	●
	TPMT110304-MM	11	6.35	3.18	3.4	0.4	
	TPGT110204-GP	11	6.35	2.38	2.8	0.4	○
	TPGT110208-GP	11	6.35	2.38	2.8	0.8	○
	TPGT16T304-GP	16.5	9.525	3.97	4.4	0.4	○
	TPGT16T308-GP	16.5	9.525	3.97	4.4	0.8	○

●标准库存Stock ○需预定Available upon Order

VB□□

菱形35°有孔
Rhombic 35° with Hole



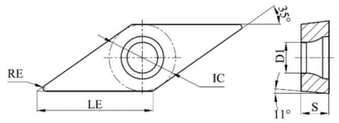
订货号 Ordering code		尺寸 Dimension(mm)					涂层硬质合金 Coated				
		LE	IC	S	D1	RE	GM3220	GM3225	GST7115	GST7120	GST7130
	VBMT110304-MM	11.2	6.35	3.18	2.8	0.4	●	●	○		○
	VBMT110308-MM	11.2	6.35	3.18	2.8	0.8		●		○	
	VBMT160402-MM	16.6	9.525	4.76	4.4	0.2	●	●			
	VBMT160404-MM	16.6	9.525	4.76	4.4	0.4	●	●	●	○	●
	VBMT160408-MM	16.6	9.525	4.76	4.4	0.8	●	●	●	●	●
	VBMT160404-GP	16.6	9.525	4.76	4.4	0.4	●		○		
	VBMT160408-GP	16.6	9.525	4.76	4.4	0.8	●		○	○	
	VBMT160412-GP	16.6	9.525	4.76	4.4	1.2			○	○	○
	VBMT160404-FP	16.6	9.525	4.76	4.4	0.4			●		○
	VBMT160408-FP	16.6	9.525	4.76	4.4	0.8			●		○

●标准库存Stock ○需预定Available upon Order

车削刀片(正型)
Turning Insert (Positive)

VC□□

菱形35°有孔
Rhombic 35° with Hole



订货号 Ordering code		尺寸 Dimension(mm)					涂层硬质合金 Coated	
		LE	IC	S	D1	RE	GM3220	GM3225
	VCMT160404-GP	16.6	9.525	4.76	4.4	0.4	●	
	VCMT160408-GP	16.6	9.525	4.76	4.4	0.8	●	
	VCGT110304-GP	11.2	6.35	3.18	2.8	0.4		●
	VCGT160404-GP	16.6	9.525	4.76	4.4	0.4		●
	VCGT160408-GP	16.6	9.525	4.76	4.4	0.8		○

●标准库存Stock ○需预定Available upon Order

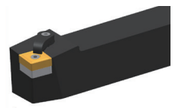
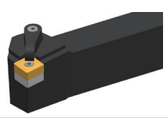
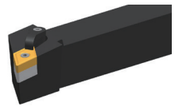
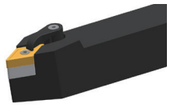
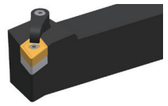
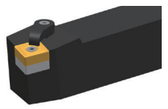
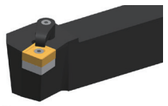
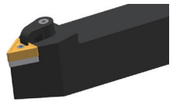
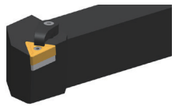
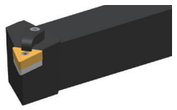
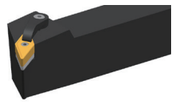
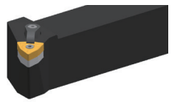
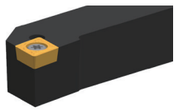
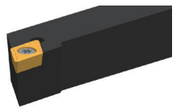
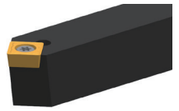
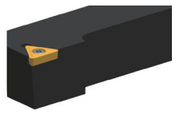
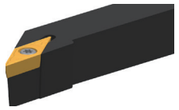
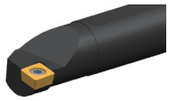
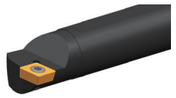
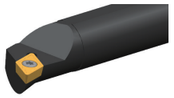
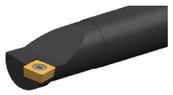
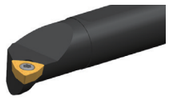
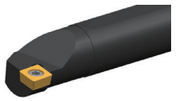
推荐切削参数（负型）
Recommended Cutting Data（Negative Inserts)

ISO	工件材料 Workpiece Materials	硬度 Hardness	切削范围 Application Range	工况 Cutting Mode	断屑槽 Chip Breaker	牌号 Grade	下限-推荐-上限 Min-Optimum-Max		
							切削速度 Cutting Speed Vc(m/min)	切深 Cutting Depth ap(mm)	进给量 Feeding Rate f(mm/rev)
S	耐热合金、钛合金 Heat-resistant Alloy and Titanium Alloy	≤HRC45	半精加工 Semi-finishing Machining	连续 Continuous Cutting	EM	GST7115	20-40-70	1.00-2.50-4.00	0.10-0.20-0.35
				通用 General		GST7120	20-40-70	1.00-2.50-4.00	0.10-0.20-0.35
				断续 Interrupted Cutting		GST7130	20-30-40	1.00-2.50-4.00	0.10-0.20-0.35
				连续 Continuous Cutting	EL	GST7115	20-40-70	0.50-1.50-3.00	0.10-0.15-0.22
				通用 General		GST7120	20-40-70	0.50-1.50-3.00	0.10-0.15-0.22
				断续 Interrupted Cutting		GST7130	20-30-40	0.50-1.50-3.00	0.10-0.15-0.22

推荐切削参数 (正型)
Recommended Cutting Data（Positive)

ISO	工件材料 Workpiece Materials	硬度 Hardness	切削范围 Application Range	工况 Cutting Mode	断屑槽 Chip Breaker	牌号 Grade	下限-推荐-上限 Min-Optimum-Max		
							切削速度 Cutting Speed Vc(m/min)	切深 Cutting Depth ap(mm)	进给量 Feeding Rate f(mm/rev)
S	耐热合金、钛合金 Heat-resistant Alloy and Titanium Alloy	≤HRC45	精加工 Finshing Machining	连续 Continuous Cutting	FP	GST7115	20-40-70	0.20-0.50-1.00	0.05-0.10-0.20
				通用 General		GST7120	20-40-70	0.20-0.50-1.00	0.05-0.10-0.20
				断续 Interrupted Cutting		GST7130	20-30-40	0.20-0.50-1.00	0.05-0.10-0.20
			轻载加工 light Machining	连续 Continuous Cutting	MM	GST7115	20-40-70	0.30-0.70-1.50	0.05-0.10-0.20
				通用 General		GST7120	20-40-70	0.30-0.70-1.50	0.05-0.10-0.20
				断续 Interrupted Cutting		GST7130	20-30-40	0.30-0.70-1.50	0.05-0.10-0.20
			半精加工 Semi-finishing Machining	连续 Continuous Cutting	GP	GST7115	20-40-70	0.40-1.00-2.50	0.07-0.12-0.30
				通用 General		GST7120	20-40-70	0.40-1.00-2.50	0.07-0.12-0.30
				断续 Interrupted Cutting		GST7130	20-30-40	0.40-1.00-2.50	0.07-0.12-0.30

车削刀杆一览表
Overview of Turning Toolholders

MCBNR/L	MCLNR/L	MDJNR/L	MDPNN	MDQNR/L
P26	P26	P027	P027	P028
				
MSBNR/L	MSKNR/L	MSSNR/L	MTENN	MTFNR/L
P28	P29	P29	P30	P30
				
MTGNR/L	MTJNR/L	MVJNR/L	MVQNR/L	MWLNR/L
P31	P31	P32	P32	P33
				
SCLCR/L	SDJCR/L	SSDCN	STGCR/L	SVJCR/L
P34	P34	P35	P35	P36
				
SWLCR/L	SCLCR/L	SCKCR/L	SCLCR/L-A16	SDUCR/L
P37	P40	P40	P41	P41
				
SDQCR/L	SDXCR/L	SSKCR/L	STUCR/L	STWCR/L
P42	P42	P43	P43	P44
				
STFCR/L	SVUCR/L	SWLCR/L	SCLPR/L	STFPR/L
P44	P45	P45	P46	P46
				

外圆车刀杆型号表示规则
External Turning Toolholder Identification System

M	C	L	N	R
①	②	③	④	⑤

①夹紧机构 ①Method of Holding	
D	双重夹紧型 Double Clamp Type
M	楔块锁紧型 重切削用双重夹紧型 Wedge Lock Type Heavy Cutting Double Clamp Type
P	杠杆锁紧型 Lever Lock Type
S	螺钉夹紧型 Screw-on Type

②刀片形状 ②Insert Shape	
C	80°菱形 80°Rhombic
D	55°菱形 55°Rhombic
R	圆形 Round
S	正方形 Square
T	正三角形 Triangle
V	35°菱形 35°Rhombic
W	六边形 Trigon
X	特殊形状 Special Shape

③主偏角 ③Cutting Edge Angle	
A	90°无偏置 90°Without
B	75°
D	45°中立 45°Neutral
E	60°
F	91°
G	90°有偏置 90°Bias
J	93°
K	75°
L	95°
N	63°
P	62.5°
S	45°
T	60°
V	72.5°
Z	特殊 Special

④刀片后角 ④Insert Clearance	
B	5°
C	7°
N	0°
E	20°

⑤切削方向 ⑤Hand of Tool	
R	右手 Right Hand
L	左手 Left Hand
N	左、右 General

25	25	M	12
⑥	⑥	⑦	⑧

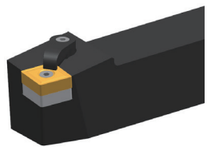
⑥刀柄剖面 ⑥Tool Saction	
8	8
10	10
12	12
16	16
20	20
25	25
32	32

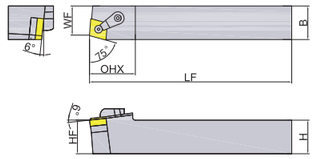
⑦刀柄长度 ⑦Tool Length	
D	60
E	70
F	80
H	100
K	125
M	150
P	170
Q	180
R	200

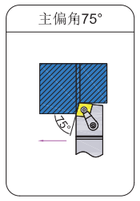
⑧切削刃长度(mm) ⑧Cutting Edge Length(mm)						
刀片内切圆 (mm) Insert IC(mm)	刀片形状 Insert Shape					
	正方形 Square	正三角形 Triangle	圆形 Round	80° 菱形 80° Rhombic	55° 菱形 55° Rhombic	35° 菱形 35° Rhombic
6	-	-	06	-	-	-
6.35	-	11	-	06	07	11
7.94	-	13	-	-	-	-
8	-	-	08	-	-	-
9.525	09	16	-	09	11	16
10	-	-	10	-	-	-
12	-	-	12	-	-	-
12.7	-	22	-	12	15	-
15.875	15	27	-	16	-	-
16	-	-	16	-	-	-
19.05	19	-	19	-	-	-
20	-	-	20	-	-	-
25	-	-	25	-	-	-
25.4	25	-	-	-	-	-
32	-	-	32	-	-	-

外圆车刀杆（负型）
External Turning Toolholder（Negative）

MCBNR/L



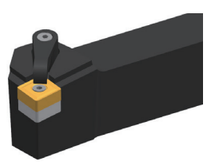


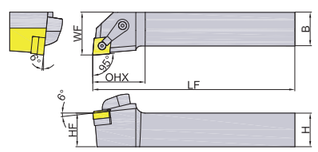


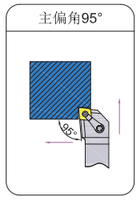
订货号 Ordering Code	尺寸 Dimension（mm）						匹配刀片 Insert	刀垫 Shim	销钉 Pin	压板 Clamp	双头螺丝 Screw	扳手 Wrench	库存 Stock	
	H	B	LF	OHX	HF	WF							R	L
MCBNR/L2020K12	20	20	125	32	20	17	CN**1204**	DCN1204M	SPM060170	CAM02	SDM060200	TH25L TH30L	●	○
MCBNR/L2525M12	25	25	150	32	25	22	CN**1204**	DCN1204M	SPM060170	CAM02	SDM060250	TH25L TH30L	●	●
MCBNR/L3232P12	32	32	170	32	32	27	CN**1204**	DCN1204M	SPM060170	CAM02	SDM060280	TH25L TH30L	●	●
MCBNR/L2525M16	25	25	150	42	25	22	CN**1606**	DCN1604M	SPM080220F	CAM03	SDM060250	TH30L	●	○
MCBNR/L3232P19	32	32	170	42	32	27	CN**1906**	DCN1904M	SPM100240F	CAM05	SDM080350F	TH40L	●	●

●标准库存 Stock ○需预定 Available upon Order

MCLNR/L





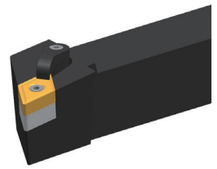


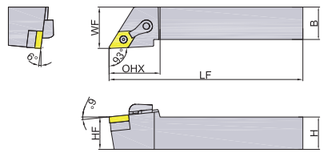
订货号 Ordering Code	尺寸 Dimension（mm）						匹配刀片 Insert	刀垫 Shim	销钉 Pin	压板 Clamp	双头螺丝 Screw	扳手 Wrench	库存 Stock	
	H	B	LF	OHX	HF	WF							R	L
MCLNR/L2020K12	20	20	125	32	20	25	CN**1204**	DCN1204M	SPM060170	CAM02	SDM060200	TH25L TH30L	●	●
MCLNR/L2525M12	25	25	150	32	25	32	CN**1204**	DCN1204M	SPM060170	CAM02	SDM060250	TH25L TH30L	●	●
MCLNR/L3232P12	32	32	170	32	32	40	CN**1204**	DCN1204M	SPM060170	CAM02	SDM060280	TH25L TH30L	●	●
MCLNR/L2525M16	25	25	150	42	25	32	CN**1606**	DCN1604M	SPM080220F	CAM03	SDM060250	TH30L	●	●
MCLNR/L3232P16	32	32	170	42	32	40	CN**1606**	DCN1604M	SPM080220F	CAM03	SDM060280	TH30L	●	●
MCLNR/L3232P19	32	32	170	42	32	40	CN**1906**	DCN1904M	SPM100240F	CAM05	SDM080350F	TH40L	●	●

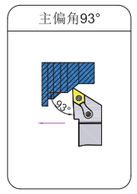
●标准库存 Stock ○需预定 Available upon Order

外圆车刀杆（负型）
External Turning Toolholder（Negative）

MDJNR/L



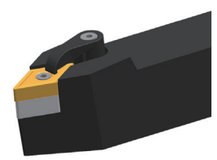


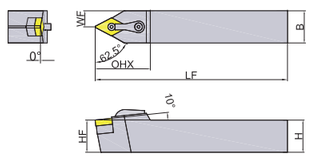


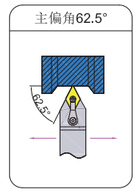
订货号 Ordering Code	尺寸 Dimension（mm）						匹配刀片 Insert	刀垫 Shim	销钉 Pin	压板 Clamp	双头螺丝 Screw	扳手 Wrench	库存 Stock	
	H	B	LF	OHX	HF	WF							R	L
MDJNR/L2020K11	20	20	125	32	20	25	DN**1104**	DDN1103M	SPM050130	CAM02	SDM060200	TH20L TH30L	●	●
MDJNR/L2020K1504	20	20	125	38	20	25	DN**1504**	DDN1504M	SPM060170	CAM03	SDM060200	TH25L TH30L	●	●
MDJNR/L2525M1504	25	25	150	38	25	32	DN**1504**	DDN1504M	SPM060170	CAM03	SDM060250	TH25L TH30L	●	●
MDJNR/L2525M1506	25	25	150	38	25	32	DN**1506**	DDN1504M	SPM060190	CAM03	SDM060250	TH25L TH30L	●	●
MDJNR/L3232P1506	32	32	170	38	32	40	DN**1506**	DDN1504M	SPM060190	CAM03	SDM060280	TH25L TH30L	●	●

●标准库存 Stock ○需预定 Available upon Order

MDPNN





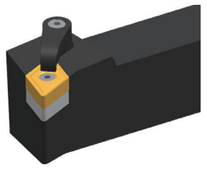


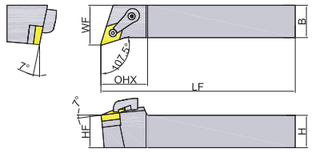
订货号 Ordering Code	尺寸 Dimension（mm）						匹配刀片 Insert	刀垫 Shim	销钉 Pin	压板 Clamp	双头螺丝 Screw	扳手 Wrench	库存 Stock
	H	B	LF	OHX	HF	WF							
MDPNN2020K11	20	20	125	35	20	10	DN**1104**	DDN1103M	SPM050130	CAM02	SDM060200	TH20L TH30L	●
MDPNN2020K1504	20	20	125	42	20	10	DN**1504**	DDN1504M	SPM060170	CAM03	SDM060200	TH25L TH30L	●
MDPNN2525M1504	25	25	150	42	25	12.5	DN**1504**	DDN1504M	SPM060170	CAM03	SDM060250	TH25L TH30L	●
MDPNN2525M1506	25	25	150	42	25	12.5	DN**1506**	DDN1504M	SPM060190	CAM03	SDM060250	TH25L TH30L	●
MDPNN3232P1506	32	32	170	42	32	16	DN**1506**	DDN1504M	SPM060190	CAM03	SDM060280	TH25L TH30L	●

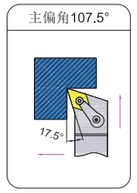
●标准库存 Stock ○需预定 Available upon Order

外圆车刀杆（负型）
External Turning Toolholder（Negative）

MDQNR/L



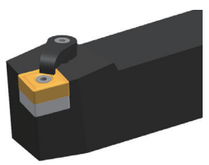


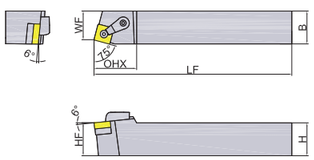


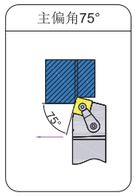
订货号 Ordering Code	尺寸 Dimension（mm）						匹配刀片 Insert	刀垫 Shim	销钉 Pin	压板 Clamp	双头螺丝 Screw	扳手 Wrench	库存 Stock	
	H	B	LF	OHX	HF	WF							R	L
MDQNR/L2020K11	20	20	125	32	20	25	DN**1104**	DDN1103M	SPM050130	CAM02	SDM060200	TH20L TH30L	●	○
MDQNR/L2020K1504	20	20	125	36	20	25	DN**1504**	DDN1504M	SPM060170	CAM03	SDM060200	TH25L TH30L	●	○
MDQNR/L2525M1504	25	25	150	36	25	32	DN**1504**	DDN1504M	SPM060170	CAM03	SDM060250	TH25L TH30L	●	○
MDQNR/L3232P1506	32	32	170	36	32	40	DN**1506**	DDN1504M	SPM060190	CAM03	SDM060280	TH25L TH30L	●	○

●标准库存 Stock ○需预定 Available upon Order

MSBNR/L





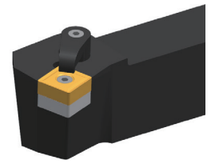


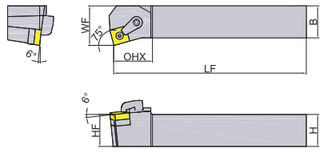
订货号 Ordering Code	尺寸 Dimension（mm）						匹配刀片 Insert	刀垫 Shim	销钉 Pin	压板 Clamp	双头螺丝 Screw	扳手 Wrench	库存 Stock	
	H	B	LF	OHX	HF	WF							R	L
MSBNR/L2020K12	20	20	125	32	20	17	SN**1204**	DSN1204M	SPM060170	CAM02	SDM060200	TH25L TH30L	●	○
MSBNR/L2525M12	25	25	150	32	25	22	SN**1204**	DSN1204M	SPM060170	CAM02	SDM060250	TH25L TH30L	●	○
MSBNR/L3232P12	32	32	170	32	32	27	SN**1204**	DSN1204M	SPM060170	CAM02	SDM060280	TH25L TH30L	●	○
MSBNR/L2525M15	25	25	150	42	25	22	SN**1506**	DSN1504M	SPM080220F	CAM03	SDM060250	TH30L	●	○
MSBNR/L3232P19	32	32	170	42	32	27	SN**1906**	DSN1904M	SPM100240F	CAM05	SDM080350F	TH40L	●	●

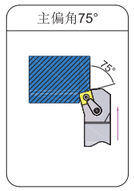
●标准库存 Stock ○需预定 Available upon Order

外圆车刀杆（负型）
External Turning Toolholder（Negative）

MSKNR/L



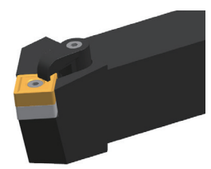


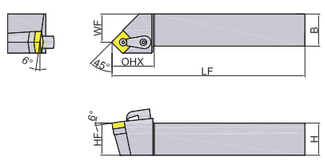


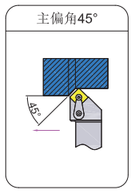
订货号 Ordering Code	尺寸 Dimension（mm）						匹配刀片 Insert	刀垫 Shim	销钉 Pin	压板 Clamp	双头螺丝 Screw	扳手 Wrench	库存 Stock	
	H	B	LF	OHX	HF	WF							R	L
MSKNR/L2020K12	20	20	125	32	20	25	SN**1204**	DSN1204M	SPM060170	CAM02	SDM060200	TH25L TH30L	●	○
MSKNR/L2525M12	25	25	150	32	25	32	SN**1204**	DSN1204M	SPM060170	CAM02	SDM060250	TH25L TH30L	●	○
MSKNR/L3232P12	32	32	170	32	32	40	SN**1204**	DSN1204M	SPM060170	CAM02	SDM060280	TH25L TH30L	●	○
MSKNR/L2525M15	25	25	150	42	25	32	SN**1506**	DSN1504M	SPM080220F	CAM03	SDM060250	TH30L	●	○
MSKNR/L3232P19	32	32	170	42	32	40	SN**1906**	DSN1904M	SPM100240F	CAM05	SDM080350F	TH40L	●	○

●标准库存 Stock ○需预定 Available upon Order

MSSNR/L





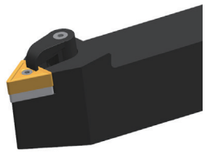


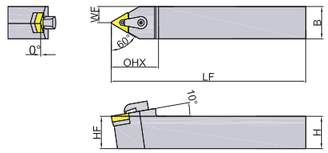
订货号 Ordering Code	尺寸 Dimension（mm）						匹配刀片 Insert	刀垫 Shim	销钉 Pin	压板 Clamp	双头螺丝 Screw	扳手 Wrench	库存 Stock	
	H	B	LF	OHX	HF	WF							R	L
MSSNR/L2020K12	20	20	125	32	20	17	SN**1204**	DSN1204M	SPM060170	CAM02	SDM060200	TH25L TH30L	●	●
MSSNR/L2525M12	25	25	150	32	25	22	SN**1204**	DSN1204M	SPM060170	CAM02	SDM060250	TH25L TH30L	●	●
MSSNR/L3232P12	32	32	170	32	32	27	SN**1204**	DSN1204M	SPM060170	CAM02	SDM060280	TH25L TH30L	●	○
MSSNR/L2525M15	25	25	150	42	25	22	SN**1506**	DSN1504M	SPM080220F	CAM03	SDM060250	TH30L	●	○
MSSNR/L3232P19	32	32	170	42	32	27	SN**1906**	DSN1904M	SPM100240F	CAM05	SDM080350F	TH40L	●	●

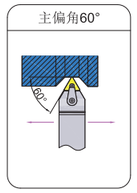
●标准库存 Stock ○需预定 Available upon Order

外圆车刀杆（负型）
External Turning Toolholder（Negative）

MTENN



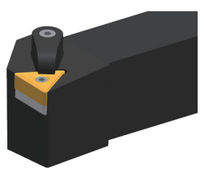


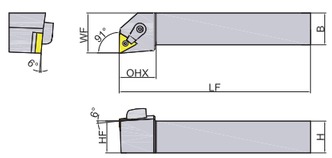


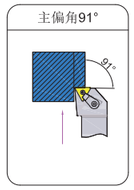
订货号 Ordering Code	尺寸 Dimension（mm）						匹配刀片 Insert	刀垫 Shim	销钉 Pin	压板 Clamp	双头螺丝 Screw	扳手 Wrench	库存 Stock
	H	B	LF	OHX	HF	WF							
MTENN2020K16	20	20	125	32	20	10	TN**1604**	DTN1603M	SPM050130	CAM02	SDM060200	TH20L TH30L	●
MTENN2525M16	25	25	150	32	25	12.5	TN**1604**	DTN1603M	SPM050130	CAM02	SDM060250	TH20L TH30L	●
MTENN3232P16	32	32	170	32	32	16	TN**1604**	DTN1603M	SPM050130	CAM02	SDM060280	TH20L TH30L	○
MTENN3232P22	32	32	170	38	32	16	TN**2204**	DTN2204M	SPM060170	CAM02	SDM060280	TH25L TH30L	●

●标准库存 Stock ○需预定 Available upon Order

MTFNR/L





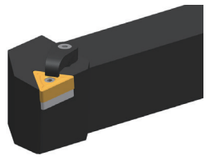


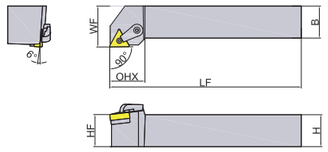
订货号 Ordering Code	尺寸 Dimension（mm）						匹配刀片 Insert	刀垫 Shim	销钉 Pin	压板 Clamp	双头螺丝 Screw	扳手 Wrench	库存 Stock	
	H	B	LF	OHX	HF	WF							R	L
MTFNR/L2020K16	20	20	125	32	20	25	TN**1604**	DTN1603M	SPM050130	CAM02	SDM060250	TH20L TH30L	●	○
MTFNR/L2525M16	25	25	150	32	25	32	TN**1604**	DTN1603M	SPM050130	CAM02	SDM060250	TH20L TH30L	●	○
MTFNR/L3232P16	32	32	170	32	32	40	TN**1604**	DTN1603M	SPM050130	CAM02	SDM060280	TH20L TH30L	●	○
MTFNR/L3232P22	32	32	170	38	32	40	TN**2204**	DTN2204M	SPM060170	CAM02	SDM060280	TH25L TH30L	●	○

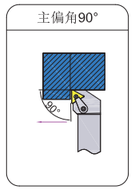
●标准库存 Stock ○需预定 Available upon Order

外圆车刀杆（负型）
External Turning Toolholder（Negative）

MTGNR/L



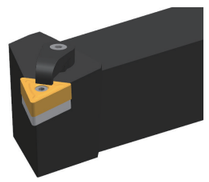


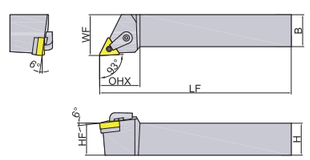


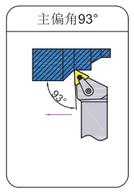
订货号 Ordering Code	尺寸 Dimension（mm）						匹配刀片 Insert	刀垫 Shim	销钉 Pin	压板 Clamp	双头螺丝 Screw	扳手 Wrench	库存 Stock	
	H	B	LF	OHX	HF	WF							R	L
MTGNR/L2020K16	20	20	125	32	20	25	TN**1604**	DTN1603M	SPM050130	CAM02	SDM060250	TH20L TH30L	●	○
MTGNR/L2525M16	25	25	150	32	25	32	TN**1604**	DTN1603M	SPM050130	CAM02	SDM060250	TH20L TH30L	●	●
MTGNR/L3232P16	32	32	170	32	32	40	TN**1604**	DTN1603M	SPM050130	CAM02	SDM060280	TH20L TH30L	●	○
MTGNR/L3232P22	32	32	170	38	32	40	TN**2204**	DTN2204M	SPM060170	CAM02	SDM060280	TH25L TH30L	●	○

●标准库存 Stock ○需预定 Available upon Order

MTJNR/L





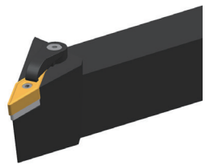


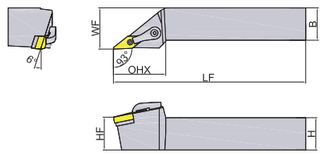
订货号 Ordering Code	尺寸 Dimension（mm）						匹配刀片 Insert	刀垫 Shim	销钉 Pin	压板 Clamp	双头螺丝 Screw	扳手 Wrench	库存 Stock	
	H	B	LF	OHX	HF	WF							R	L
MTJNR/L2020K16	20	20	125	32	20	25	TN**1604**	DTN1603M	SPM050130	CAM02	SDM060250	TH20L TH30L	●	●
MTJNR/L2525M16	25	25	150	32	25	32	TN**1604**	DTN1603M	SPM050130	CAM02	SDM060250	TH20L TH30L	●	●
MTJNR/L3232P16	32	32	170	32	32	40	TN**1604**	DTN1603M	SPM050130	CAM02	SDM060280	TH20L TH30L	●	○
MTJNR/L3232P22	32	32	170	38	32	40	TN**2204**	DTN2204M	SPM060170	CAM02	SDM060280	TH25L TH30L	●	●

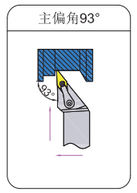
●标准库存 Stock ○需预定 Available upon Order

外圆车刀杆（负型）
External Turning Toolholder（Negative）

MVJNR/L



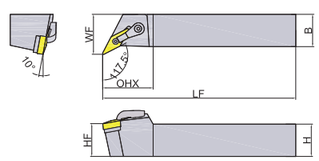


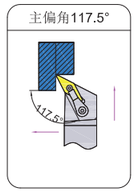


订货号 Ordering Code	尺寸 Dimension（mm）						匹配刀片 Insert	刀垫 Shim	销钉 Pin	压板 Clamp	双头螺丝 Screw	扳手 Wrench	库存 Stock	
	H	B	LF	OHX	HF	WF							R	L
MVJNR/L2020K16	20	20	125	42	20	25	VN**1604**	DVN1603M	SPM050130	CAM04	SDM060250	TH20L TH30L	●	●
MVJNR/L2525M16	25	25	150	42	25	32	VN**1604**	DVN1603M	SPM050130	CAM04	SDM060250	TH20L TH30L	●	●
MVJNR/L3232P16	32	32	170	42	32	40	VN**1604**	DVN1603M	SPM050130	CAM04	SDM060280	TH20L TH30L	●	●

●标准库存 Stock ○需预定 Available upon Order

MVQNR/L



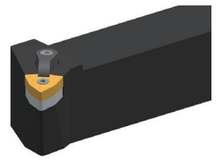


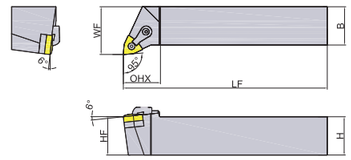
订货号 Ordering Code	尺寸 Dimension（mm）						匹配刀片 Insert	刀垫 Shim	销钉 Pin	压板 Clamp	双头螺丝 Screw	扳手 Wrench	库存 Stock	
	H	B	LF	OHX	HF	WF							R	L
MVQNR/L2020K16	20	20	125	42	20	25	VN**1604**	DVN1603M	SPM050130	CAM02	SDM060250	TH20L TH30L	●	●
MVQNR/L2525M16	25	25	150	42	25	32	VN**1604**	DVN1603M	SPM050130	CAM02	SDM060250	TH20L TH30L	●	●
MVQNR/L3232P16	32	32	170	42	32	40	VN**1604**	DVN1603M	SPM050130	CAM02	SDM060280	TH20L TH30L	●	●

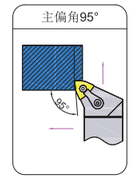
●标准库存 Stock ○需预定 Available upon Order

外圆车刀杆（负型）
External Turning Toolholder（Negative）

MWLNR/L





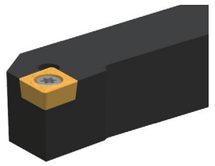


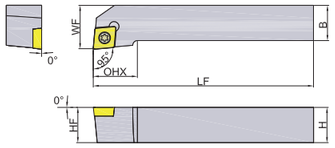
订货号 Ordering Code	尺寸 Dimension（mm）						匹配刀片 Insert	刀垫 Shim	销钉 Pin	压板 Clamp	双头螺丝 Screw	扳手 Wrench	库存 Stock	
	H	B	LF	OHX	HF	WF							R	L
MWLNR/L2525M06T3	25	25	150	28	25	32	WN**06T3**	DWN0603M	SPM050130	CAM01	SDM050200	TH20L TH30L	●	●
MWLNR/L2020K0604	20	20	125	28	20	25	WN**0604**	DWN0603M	SPM050130	CAM01	SDM050200	TH20L TH30L	●	●
MWLNR2525M0604	20	20	150	28	25	32	WN**0604**	DWN0603M	SPM050130	CAM01	SDM050200	TH20L TH30L	●	
MWLNR/L2020K08	20	20	125	32	20	25	WN**0804**	DWN0804M	SPM060170	CAM02	SDM060200	TH25L TH30L	●	●
MWLNR/L2525M08	25	25	150	32	25	32	WN**0804**	DWN0804M	SPM060170	CAM02	SDM060250	TH25L TH30L	●	●
MWLNR/L3232P08	32	32	170	32	32	40	WN**0804**	DWN0804M	SPM060170	CAM02	SDM060280	TH25L TH30L	●	●

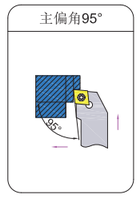
●标准库存 Stock ○需预定 Available upon Order

外圆车刀杆(正型)
External Turning Toolholder(Positive)

SCLCR/L



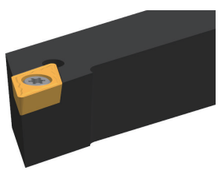


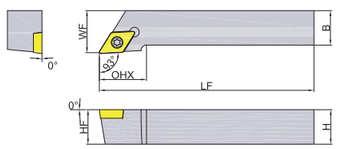


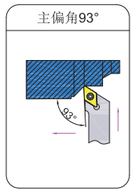
订货号 Ordering Code	尺寸 Dimension（mm）						匹配刀片 Insert	螺钉 Screw	扳手 Wrench	库存 Stock	
	H	B	LF	OHX	HF	WF				R	L
SCLCR/L1010F06	10	10	80	12	10	12	CC**0602**	SI60M025060-03510	TT08P	●	●
SCLCR/L1212H09	12	12	100	16	12	16	CC**09T3**	SI60M040100-05812	TT15P	●	○
SCLCR/L1616H09	16	16	100	16	16	20	CC**09T3**	SI60M040100-05812	TT15P	●	●
SCLCR/L2020K09	20	20	125	16	20	25	CC**09T3**	SI60M040100-05812	TT15P	●	●
SCLCR/L2525M12	25	25	150	20	25	32	CC**1204**	SI60M050120-07012	TT20P	●	●

●标准库存 Stock ○需预定 Available upon Order

SDJCR/L





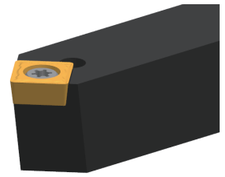


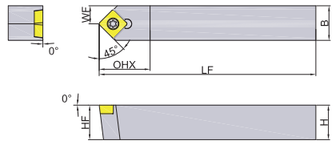
订货号 Ordering Code	尺寸 Dimension（mm）						匹配刀片 Insert	螺钉 Screw	扳手 Wrench	库存 Stock	
	H	B	LF	OHX	HF	WF				R	L
SDJCR/L1010F07	10	10	80	15	10	12	DC**0702**	SI60M025060-03510	TT08P	●	●
SDJCR1212H07	12	12	100	15	12	16	DC**0702**	SI60M025060-03510	TT08P	●	
SDJCR/L1616H11	16	16	100	20	16	20	DC**11T3**	SI60M040100-05812	TT15P	●	●
SDJCR/L2020K11	20	20	125	20	20	25	DC**11T3**	SI60M040100-05812	TT15P	●	●
SDJCR/L2525M11	25	25	150	20	25	32	DC**11T3**	SI60M040100-05812	TT15P	●	●

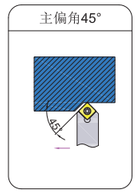
●标准库存 Stock ○需预定 Available upon Order

外圆车刀杆(正型)
External Turning Toolholder(Positive)

SSDCN



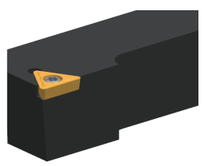


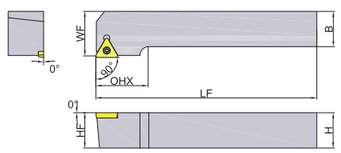


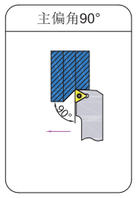
订货号 Ordering Code	尺寸 Dimension（mm）						匹配刀片	螺钉 Screw	扳手 Wrench	库存 Stock
	H	B	LF	OHX	HF	WF				
SSDCN1212H09	12	12	80	15	12	6	SC**09T3**	SI60M040100-05812	TT15P	●
SSDCN1616H09	16	16	100	15	16	8	SC**09T3**	SI60M040100-05812	TT15P	●
SSDCN2020K09	20	20	125	15	20	10	SC**09T3**	SI60M040100-05812	TT15P	○
SSDCN2525M12	25	25	150	20	25	12.5	SC**1204**	SI60M050120-07012	TT20P	●

●标准库存 Stock ○需预定 Available upon Order

STGCR/L





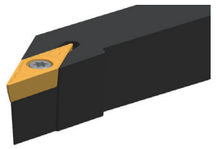


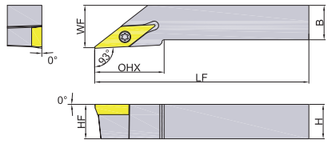
订货号 Ordering Code	尺寸 Dimension（mm）						匹配刀片 Insert	螺钉 Screw	扳手 Wrench	库存 Stock	
	H	B	LF	OHX	HF	WF				R	L
STGCR1010F09	10	10	80	12	10	12	TC**0902**	SI60M022060-03008	TT06P	●	
STGCR/L1212H11	12	12	100	16	12	16	TC**1102**	SI60M025060-03510	TT08P	●	○
STGCR/L1616H11	16	16	100	20	16	20	TC**1102**	SI60M025060-03510	TT08P	●	●
STGCR/L2020K16	20	20	125	25	20	25	TC**16T3**	SI60M040100-05812	TT15P	●	●
STGCR/L2525M16	25	25	150	25	25	32	TC**16T3**	SI60M040100-05812	TT15P	●	●

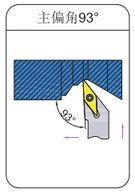
●标准库存 Stock ○需预定 Available upon Order

外圆车刀杆(正型)
External Turning Toolholder(Positive)

SVJCR/L





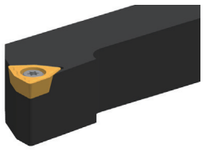


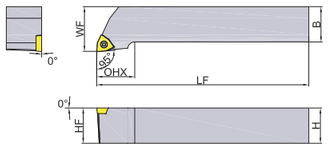
订货号 Ordering Code	尺寸 Dimension（mm）						匹配刀片 Insert	螺钉 Screw	扳手 Wrench	库存 Stock	
	H	B	LF	OHX	HF	WF				R	L
SVJCR1212H11	12	12	100	25	12	16	VC**1103**	SI60M025060-03510	TT08P	●	
SVJCR/L1616H11	16	16	100	25	16	20	VC**1103**	SI60M025060-03510	TT08P	●	●
SVJCR/L2020K16	20	20	125	35	20	25	VC**1604**	SI60M040100-05812	TT15P	●	●
SVJCR/L2525M16	25	25	150	35	25	32	VC**1604**	SI60M040100-05812	TT15P	●	●

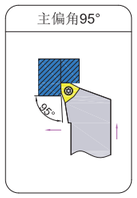
●标准库存 Stock ○需预定 Available upon Order

外圆车刀杆(正型)
External Turning Toolholder(Positive)

SWLCR/L







订货号 Ordering Code	尺寸 Dimension（mm）						匹配刀片 Insert	螺钉 Screw	扳手 Wrench	库存 Stock	
	H	B	LF	OHX	HF	WF				R	L
SWLCR/L1212H06	12	12	100	15	12	16	WC**06T3**	SI60M040100-05812	TT15P	●	●
SWLCR/L1616H06	16	16	100	15	16	20	WC**06T3**	SI60M040100-05812	TT15P	●	●
SWLCR/L2020K06	20	20	125	15	20	25	WC**06T3**	SI60M040100-05812	TT15P	●	●
SWLCR/L2525M06	25	25	150	20	25	32	WC**06T3**	SI60M040100-05812	TT15P	●	●

●标准库存 Stock ○需预定 Available upon Order

内孔车刀杆型号表示规则
Internal Turning Toolholders Identification System

S	16	M	S	C
①	②	③	④	⑤

① 刀杆材质 Tool Material	
A	带冷却孔钢刀杆 Steel with coolant hole
C	硬质合金刀杆 Carbide shank
E	带冷却孔硬质合金刀杆 Carbide bar with coolant hole
S	钢刀杆 Steel shank

③刀柄长度 Tool Length	
F	80
H	100
K	125
M	150
N	160
Q	180
R	200
S	250
T	300
U	350
V	400

⑤刀片形状 Insert Shape	
C	80°菱形 80°Rhombic
D	55°菱形 55°Rhombic
R	圆形 Round
S	正方形 Square
T	正三角形 Triangle
V	35°菱形 35°Rhombic
W	六边形 Trigon

②刀柄直径 Shank Diameter	
08	8
10	10
12	12
16	16
20	20
25	25
32	32
40	40

④夹紧方式 Method of Holding	
M	双重夹紧型 Double Clamp Type
C	压板夹紧型 Top Clamp Type
P	杠杆锁紧型 Laver Lock Type
S	螺钉夹紧型 Screw-on Type

L	C	R	09
⑥	⑦	⑧	⑨

⑥主偏角 Cutting Edge Angle	
K	75°
L	95°
F	91°
Q	107.5°
U	93°
W	60°
X	120°

⑦刀片后角 Insert Clearanoe Angle	
C	7°
B	5°
N	0°
P	11°

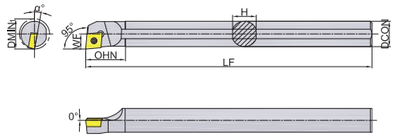
⑧方向 Hand of Tool	
R	右手
L	左手

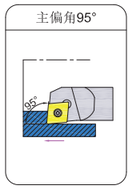
⑨切削刃长度(mm) Cutting Edge Length(mm)

刀片内接圆 Insert IC(mm)	刀片形状 Insert Shape					
	正方形 Square	正三角形 Triangle	圆形 Round	80°菱形 80°Rhombic	55°菱形 55°Rhombic	35°菱形 35°Rhombic
6	-	-	06	-	-	-
6.35	-	11	-	06	07	11
7.94	-	13	-	-	-	-
8	-	-	08	-	-	-
9.525	09	16	-	09	11	16
10	-	-	10	-	-	-
12	-	-	12	-	-	-
12.7	-	22	-	12	15	-
15.875	15	27	-	16	-	-
16	-	-	16	-	-	-
19.05	19	-	19	-	-	-
20	-	-	20	-	-	-
25	-	-	25	-	-	-
25.4	25	-	-	-	-	-
32	-	-	32	-	-	-

内孔车刀杆
Internal Turning Toolholder

SCLCR/L



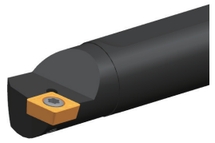


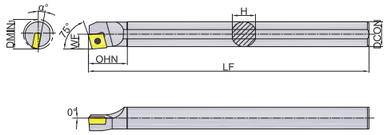
订货号 Ordering Code	尺寸 Dimension（mm）							匹配刀片 Insert	螺钉 Screw	扳手 Wrench	库存 Stock	
	DMIN1	DCON	WF	LF	OHN	H	α°				R	L
S08K-SCLCR/L06	10	8	5.5	125	12	7	13	CC**0602**	SI60M025060-03510	TT08P	●	●
S10K-SCLCR/L06	12	10	6.5	125	15	9	12	CC**0602**	SI60M025060-03510	TT08P	●	●
S12M-SCLCR/L06	16	12	8	150	18	11	10	CC**0602**	SI60M025060-03510	TT08P	●	●
S12M-SCLCR/L09	16	12	8	150	18	11	12	CC**09T3**	SI60M040100-05812	TT15P	●	●
S16Q-SCLCR/L09	20	16	10	180	24	15	10	CC**09T3**	SI60M040100-05812	TT15P	●	●
S20R-SCLCR/L09	25	20	12	200	30	18	8	CC**09T3**	SI60M040100-05812	TT15P	●	●
S25S-SCLCR/L09	32	25	16	250	38	23	6	CC**09T3**	SI60M040100-05812	TT15P	●	●
S25S-SCLCR/L12	32	25	16	250	38	23	8	CC**1204**	SI60M050120-07012	TT20P	●	●

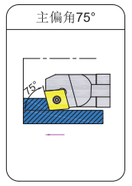
●标准库存 Stock ○需预定 Available upon Order

内孔车刀杆
Internal Turning Toolholder

SCKCR/L





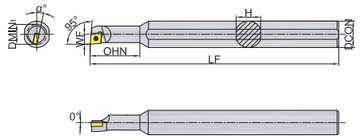


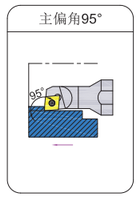
订货号 Ordering Code	尺寸 Dimension（mm）							匹配刀片 Insert	螺钉 Screw	扳手 Wrench	库存 Stock	
	DMIN1	DCON	WF	LF	OHN	H	α°				R	L
S08K-SCKCR/L06	10	8	5.5	125	12	7	13	CC**0602**	SI60M025060-03510	TT08P	●	○
S10K-SCKCR/L06	12	10	6.5	125	15	9	12	CC**0602**	SI60M025060-03510	TT08P	●	○
S12M-SCKCR/L06	16	12	8	150	18	11	10	CC**0602**	SI60M025060-03510	TT08P	○	○
S12M-SCKCR/L09	16	12	8	150	18	11	12	CC**09T3**	SI60M040100-05812	TT15P	●	○
S16Q-SCKCR/L09	20	16	10	180	24	15	10	CC**09T3**	SI60M040100-05812	TT15P	●	○
S20R-SCKCR/L09	25	20	12	200	30	18	8	CC**09T3**	SI60M040100-05812	TT15P	○	○
S25S-SCKCR/L09	32	25	16	250	38	23	6	CC**09T3**	SI60M040100-05812	TT15P	●	○

●标准库存 Stock ○需预定 Available upon Order

内孔车刀杆
Internal Turning Toolholder

SCLCR/L-A16

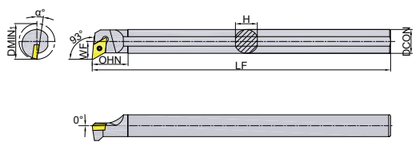


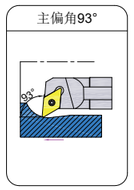


订货号 Ordering Code	尺寸 Dimension（mm）							匹配刀片 Insert	螺钉 Screw	扳手 Wrench	库存 Stock	
	DMIN1	DCON	WF	LF	OHN	H	α°				R	L
S07M-SCLCR/L06-A16	9	16	4.25	150	18	15	15	CC**0602**	SI60M025060-03510	TT08P	●	○
S08M-SCLCR/L06-A16	10	16	5	150	20	15	13	CC**0602**	SI60M025060-03510	TT08P	●	○
S10M-SCLCR/L06-A16	13	16	6	150	26	15	12	CC**0602**	SI60M025060-03510	TT08P	●	●
S12M-SCLCR/L06-A16	15	16	7	150	28	15	10	CC**0602**	SI60M025060-03510	TT08P	●	○

●标准库存 Stock ○需预定 Available upon Order

SDUCR/L



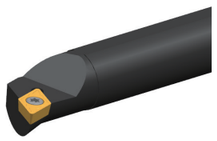


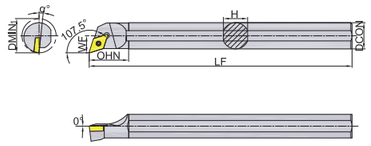
订货号 Ordering Code	尺寸 Dimension（mm）							匹配刀片 Insert	螺钉 Screw	扳手 Wrench	库存 Stock	
	DMIN1	DCON	WF	LF	OHN	H	α°				R	L
S10K-SDUCR/L07	12	10	7	125	15	9	10	DC**0702**	SI60M025060-03510	TT08P	●	●
S12M-SDUCR/L07	16	12	9	150	18	11	8	DC**0702**	SI60M025060-03510	TT08P	●	●
S16Q-SDUCR/L07	20	16	11	180	24	15	6	DC**0702**	SI60M025060-03510	TT08P	●	●
S16Q-SDUCR/L11	20	16	11	180	24	15	6	DC**11T3**	SI60M040100-05812	TT15P	●	●
S20R-SDUCR/L11	25	20	13	200	30	18	6	DC**11T3**	SI60M040100-05812	TT15P	●	●
S25S-SDUCR/L11	32	25	16	250	38	23	4	DC**11T3**	SI60M040100-05812	TT15P	●	●

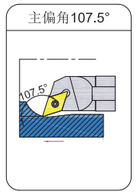
●标准库存 Stock ○需预定 Available upon Order

内孔车刀杆
Internal Turning Toolholder

SDQCR/L



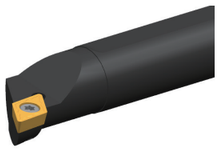


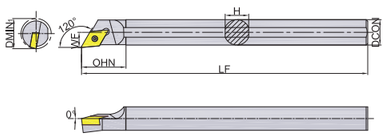


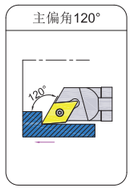
订货号 Ordering Code	尺寸 Dimension（mm）							匹配刀片 Insert	螺钉 Screw	扳手 Wrench	库存 Stock	
	DMIN1	DCON	WF	LF	OHN	H	α°				R	L
S10K-SDQCR/L07	12	10	7	125	15	9	10	DC**0702**	SI60M025060-03510	TT08P	●	○
S12M-SDQCR/L07	16	12	9	150	18	11	8	DC**0702**	SI60M025060-03510	TT08P	●	○
S16Q-SDQCR/L07	20	16	11	180	24	15	6	DC**0702**	SI60M025060-03510	TT08P	●	○
S16Q-SDQCR/L11	20	16	11	180	24	15	6	DC**11T3**	SI60M040100-05812	TT15P	●	●
S20R-SDQCR/L11	25	20	13	200	30	18	6	DC**11T3**	SI60M040100-05812	TT15P	●	○
S25S-SDQCR/L11	32	25	16	250	38	23	4	DC**11T3**	SI60M040100-05812	TT15P	●	●

●标准库存 Stock ○需预定 Available upon Order

SDXCR/L





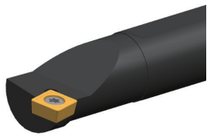


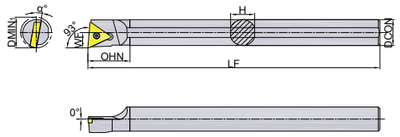
订货号 Ordering Code	尺寸 Dimension（mm）							匹配刀片 Insert	螺钉 Screw	扳手 Wrench	库存 Stock	
	DMIN1	DCON	WF	LF	OHN	H	α°				R	L
S08K-SDXCR/L07	10	8	5.5	125	12	7	12	DC**0702**	SI60M025060-03510	TT08P	●	○
S10K-SDXCR/L07	12	10	6.5	125	15	9	10	DC**0702**	SI60M025060-03510	TT08P	●	○
S12M-SDXCR/L07	16	12	8	150	18	11	8	DC**0702**	SI60M025060-03510	TT08P	●	○
S16Q-SDXCR/L07	20	16	10	180	24	15	6	DC**0702**	SI60M040100-05812	TT08P	●	○
S20R-SDXCR/L11	25	20	12	200	30	18	6	DC**11T3**	SI60M040100-05812	TT15P	●	●
S25S-SDXCR/L11	32	25	14	250	38	23	4	DC**11T3**	SI60M040100-05812	TT15P	●	○

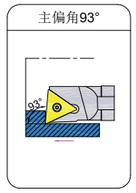
●标准库存 Stock ○需预定 Available upon Order

内孔车刀杆
Internal Turning Toolholder

SSKCR/L



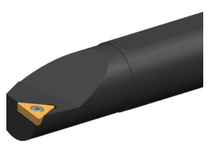


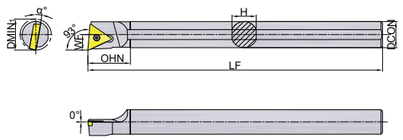


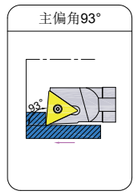
订货号 Ordering Code	尺寸 Dimension（mm）							匹配刀片 Insert	螺钉 Screw	扳手 Wrench	库存 Stock	
	DMIN1	DCON	WF	LF	OHN	H	α°				R	L
S12M-SSKCR/L09	16	12	9	150	18	11	10	SC**09T3**	SI60M040100-05812	TT15P	○	○
S16Q-SSKCR/L09	20	16	11	180	24	15	10	SC**09T3**	SI60M040100-05812	TT15P	●	○
S20R-SSKCR/L09	25	20	13	200	30	18	8	SC**09T3**	SI60M040100-05812	TT15P	●	○
S25S-SSKCR/L12	32	25	17	250	38	23	6	SC**1204**	SI60M050120-07012	TT20P	○	○

●标准库存 Stock ○需预定 Available upon Order

STUCR/L





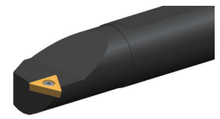


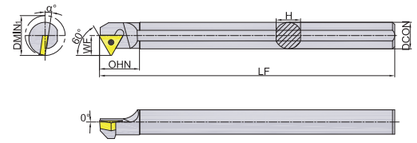
订货号 Ordering Code	尺寸 Dimension（mm）							匹配刀片 Insert	螺钉 Screw	扳手 Wrench	库存 Stock	
	DMIN1	DCON	WF	LF	OHN	H	α°				R	L
S08K-STUCR/L09	10	8	5.5	125	12	7	15	TC**0902**	SI60M022060-03008	TT06P	●	○
S10K-STUCR/L09	12	10	6.5	125	15	9	13	TC**0902**	SI60M022060-03008	TT06P	●	○
S10K-STUCR/L11	12	10	6.5	125	15	9	12	TC**1102**	SI60M025060-03510	TT08P	●	○
S12M-STUCR/L11	16	12	8	150	18	11	10	TC**1102**	SI60M025060-03510	TT08P	●	○
S16Q-STUCR/L11	20	16	10	180	24	15	8	TC**1102**	SI60M025060-03510	TT08P	●	○
S20R-STUCR11	25	20	12	200	30	18	6	TC**1102**	SI60M025060-03510	TT08P	●	
S20R-STUCR/L16	25	20	12	200	30	18	4	TC**16T3**	SI60M040100-05812	TT15P	●	○
S25S-STUCR16	32	25	16	250	38	23	6	TC**16T3**	SI60M040100-05812	TT15P	●	

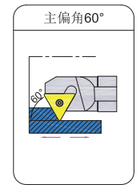
●标准库存 Stock ○需预定 Available upon Order

内孔车刀杆
Internal Turning Toolholder

STWCR/L



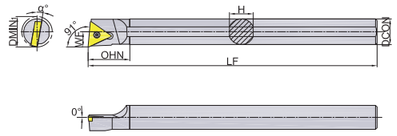


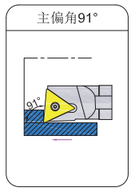


订货号 Ordering Code	尺寸 Dimension（mm）							匹配刀片 Insert	螺钉 Screw	扳手 Wrench	库存 Stock	
	DMIN1	DCON	WF	LF	OHN	H	α°				R	L
S08K-STWCR/L09	10	8	6	125	12	7	15	TC**0902**	SI60M022060-03008	TT06P	●	○
S10K-STWCR/L11	12	10	8	125	15	9	10	TC**1102**	SI60M025060-03510	TT08P	●	○
S12M-STWCR/L11	16	12	9	150	18	11	8	TC**1102**	SI60M025060-03510	TT08P	●	○
S16Q-STWCR/L11	20	16	11	180	24	15	6	TC**1102**	SI60M025060-03510	TT08P	○	○
S20R-STWCR11	25	20	13	200	30	18	4	TC**1102**	SI60M025060-03510	TT08P	○	
S20R-STWCR/L16	25	20	15	200	30	18	8	TC**16T3**	SI60M040100-05812	TT15P	○	○
S25S-STWCR/L16	32	25	17	250	38	23	6	TC**16T3**	SI60M040100-05812	TT15P	●	○

●标准库存 Stock ○需预定 Available upon Order

STFCR/L



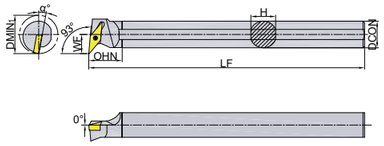


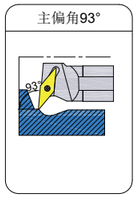
订货号 Ordering Code	尺寸 Dimension（mm）							匹配刀片 Insert	螺钉 Screw	扳手 Wrench	库存 Stock	
	DMIN1	DCON	WF	LF	OHN	H	α°				R	L
S08K-STFCR/L09	10	8	5.5	125	12	7	15	TC**0902**	SI60M022060-03008	TT06P	●	○
S10K-STFCR/L09	12	10	6.5	125	15	9	10	TC**0902**	SI60M022060-03008	TT06P	●	●
S12M-STFCR/L09	16	12	8	150	18	11	8	TC**0902**	SI60M022060-03008	TT06P	●	○
S12M-STFCR/L11	16	12	8	150	18	11	6	TC**1102**	SI60M025060-03510	TT08P	●	●
S16Q-STFCR/L11	20	16	10	180	24	15	4	TC**1102**	SI60M025060-03510	TT08P	●	●
S20R-STFCR/L11	25	20	12	200	30	18	8	TC**1102**	SI60M025060-03510	TT08P	●	●
S20R-STFCR/L16	25	20	12	200	30	18	6	TC**16T3**	SI60M040100-05812	TT15P	●	○
S25S-STFCR/L16	32	25	16	250	18	23		TC**16T3**	SI60M040100-05812	TT15P	●	●

●标准库存 Stock ○需预定 Available upon Order

内孔车刀杆
Internal Turning Toolholder

SVUCR/L

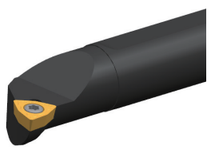


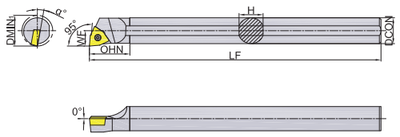


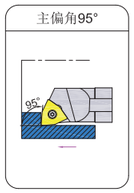
订货号 Ordering Code	尺寸 Dimension（mm）							匹配刀片 Insert	螺钉 Screw	扳手 Wrench	库存 Stock	
	DMIN1	DCON	WF	LF	OHN	H	α°				R	L
S16Q-SVUCR/L11	20	16	12	180	25	15	10	VC**1103**	SI60M025060-03510	TT08P	●	○
S20R-SVUCR/L11	25	20	16	200	25	18	8	VC**1103**	SI60M025060-03510	TT08P	●	●
S25S-SVUCR/L16	33	25	20	250	32	23	8	VC**1604**	SI60M040100-05812	TT15P	●	●

●标准库存 Stock ○需预定 Available upon Order

SWLCR/L





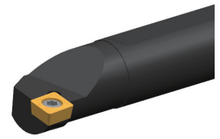


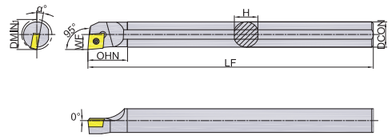
订货号 Ordering Code	尺寸 Dimension（mm）							匹配刀片 Insert	螺钉 Screw	扳手 Wrench	库存 Stock	
	DMIN1	DCON	WF	LF	OHN	H	α°				R	L
S12M-SWLCR/L06	16	12	8	150	18	11	12	WC**06T3**	SI60M040100-05812	TT15P	●	●
S16Q-SWLCR/L06	20	16	10	180	24	14.8	10	WC**06T3**	SI60M040100-05812	TT15P	●	●
S20R-SWLCR/L06	25	20	12	200	30	18.4	8	WC**06T3**	SI60M040100-05812	TT15P	●	●
S25S-SWLCR/L06	32	25	16	250	38	23.4	6	WC**06T3**	SI60M040100-05812	TT15P	●	●

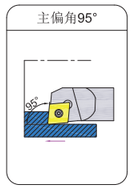
●标准库存 Stock ○需预定 Available upon Order

内孔车刀杆
Internal Turning Toolholder

SCLPR/L



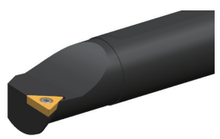


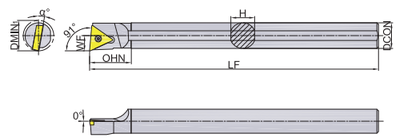


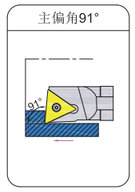
订货号 Ordering Code	尺寸 Dimension（mm）							匹配刀片 Insert	螺钉 Screw	扳手 Wrench	库存 Stock	
	DMIN1	DCON	WF	LF	OHN	H	α°				R	L
S08K-SCLPR/L06	10	8	5.5	125	12	7	13	CP**0602**	SI60M025060-03510	TT08P	●	●
S10K-SCLPR/L06	12	10	6.5	125	15	9	12	CP**0602**	SI60M025060-03510	TT08P	●	●
S12M-SCLPR/L06	16	12	8	150	18	11	10	CP**0602**	SI60M025060-03510	TT08P	●	●
S12M-SCLPR/L09	16	12	8	150	18	11	12	CP**09T3**	SI60M040100-05812	TT15P	●	●
S16Q-SCLPR/L09	20	16	10	180	24	15	10	CP**09T3**	SI60M040100-05812	TT15P	●	●
S20R-SCLPR/L09	25	20	12	200	30	18	8	CP**09T3**	SI60M040100-05812	TT15P	●	○
S25S-SCLPR/L09	32	25	16	250	38	23	6	CP**09T3**	SI60M040100-05812	TT15P	●	●

●标准库存 Stock ○需预定 Available upon Order

STFPR/L







订货号 Ordering Code	尺寸 Dimension（mm）							匹配刀片 Insert	螺钉 Screw	扳手 Wrench	库存 Stock
	DMIN1	DCON	WF	LF	OHN	H	α°				R
S10K-STFPR1102	12	10	6.5	125	15	9	12	TP**1102**	SI60M025060-03510	TT08P	●
S12M-STFPR1102	16	12	8	150	18	11	10	TP**1102**	SI60M025060-03510	TT08P	●
S16Q-STFPR1102	20	16	10	180	24	15	8	TP**1102**	SI60M025060-03510	TT08P	●
S20R-STFPR1102	25	20	12	200	30	18	6	TP**1102**	SI60M025060-03510	TT08P	○
S20R-STFPR16T3	25	20	12	200	30	18	4	TP**16T3**	SI60M040100-05812	TT15P	●
S25S-STFPR16T3	32	25	16	250	38	23	6	TP**16T3**	SI60M040100-05812	TT15P	○

●标准库存 Stock ○需预定 Available upon Order

切断切槽刀片型号表示规则

GZ、GK系列刀片型号表示规则

Parting and Grooving Series Insert Identification System

GZ. GK Series Insert Identification System

GZ D 40 02 R 15 - FG

①系列总称 Series

GK
GZ

②刃数 Number of Cutting Edge

S=单刃 S=Single
D=双刃 D=Double

③刀片宽度 Insert Width

30=3.0mm
40=4.0mm

④刀尖圆弧半径 Corner Radius

02=0.2mm
04=0.4mm
20=2.0mm

⑤导程角方向 Hand of Insert

R=右手 R=Right Hand
L=左手 L=Left Hand
□=中置 □=Neutral

⑥导程角 Lead Angle

15=15°

⑦槽型 Geometry

第一个字母 First Character	第二个字母 Second Character
F=低进给 F=Low Feed	C=切断 C=Cutting off
M=中等进给 M=Medium feed	T=车削 T=Turning
R=高进给 R=High Feed	G=切槽 G=Grooving
O=特定范围优化 O=Optimize for Special Range	R=仿形车削 R=Profiling

切断切槽刀片型号表示规则

GB系列刀片型号表示规则

Parting and Grooving Series Insert Identification System

GB Series Insert Identification System

GB (R) 4 125 R - 020

①系列总称 Series

GB

②刀片类型 Insert Type

R= 圆头 R= Full Radius
□= 方头 □= Squaring

③刀片尺寸 Insert Size

3	IC=9.525mm
4	IC=12.7mm

④刀片宽度 Insert Width

125=1.25mm

⑤刀片方向 Hand of Insert

R=右手 R=Right Hand
L=左手 L=Left Hand

⑥刀尖圆弧半径 Corner Radius

0.2=0.2mm

切断切槽刀杆型号表示规则

GZ、GK系列刀杆型号表示规则

Parting and Grooving Series Tool holder Identification System

GZ, GK Series Tool Holder Identification System

GZ E □ R 2525 - 4 T25 - □

①②③④⑤⑥⑦⑧

①系列总称 Series
GZ
GK

②加工类型 Processing Type
E=外圆加工 E=External Processing
I=内孔加工 I=Internal Processing
F=端面加工 F=Face Processing

③刀杆外型 Tool Holder Shape
U=越程槽 U=Undercutting
P=垂直式 P=Perpendicular
□=直线式 □=Horizontal

④刀杆方向 ④Hand of Insert
R=右手 R=Right Hand
L=左手 L=Left Hand
N=中置 N=Neutral

⑤刀柄尺寸 Shank Size
外圆刀杆：高度*宽度 External Holer: Height*Width
内孔刀杆：最小加工直径*柄径 Internal Bar: Min processing Diameter*Bar Diameter

⑥刀片宽度 Insert Width
4=4.0mm

⑦最大悬伸 Biggest Overhanging
25=25mm

⑧附加信息 Additional Information
D65/120：端面加工时首次切削的最小直径/最大直径 S=带加强筋 D65/120: The min/max Diameter of the first face cutting S=Stiffening Rib

切断切槽刀杆型号表示规则

GB系列刀杆型号表示规则

Parting and Grooving Series Tool holder Identification System

GB Series Tool Holder Identification System

GB E R 2525 M 4 - □

①②③④⑤⑥⑦

①系列总称 Series
GB

②加工类型 Processing Type
E=外圆加工 E=External Processing
I=内孔加工 I=Internal Processing

③刀杆方向 Hand of Insert
R=右手 R=Right Hand
L=左手 L=Left Hand

④刀柄尺寸 Shank Size
外圆刀杆：高度*宽度 External Holder: Height*Width
内孔刀杆：最小加工直径*柄径 Internal Bar: Min processing Diameter*Bar Diameter

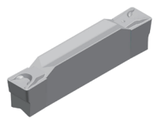
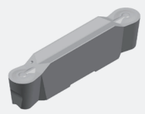
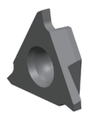
⑤刀杆长度 Tool Holder Length	
代号 Symbol	长度 Length
K	125mm
M	150mm
Q	180mm
R	200mm

⑥刀片尺寸 Insert Size	
3	IC=9.525mm
4	IC=12.7mm

⑦适合刀片宽度范围 Groove Size	
15	1.0≤W<2.5
25	2.5≤W<3.3
35	3.3≤W

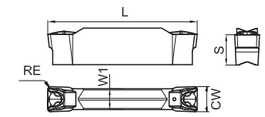
仅搭配GB4的外圆刀杆需做以上区别
Only for external holders with GB4 inserts

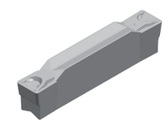
切断切槽刀片一览表
Overview of Parting and Grooving Inserts

外形 Shape	槽型 Geometry	应用 Application	宽度 Width	页码 Page
	FG	精密切槽 Precision Grooving	3.0-6.0 (mm)	P53
	OR	精密仿形 Precision Profiling	3.0-6.0 (mm)	P53
	GB	精密切槽 Precision Grooving	0.5-4.3 (mm)	P54

切断切槽刀片
Parting and Grooving Inserts

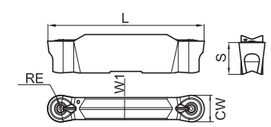
FG
精密切槽加工刀片
Precision Grooving Inserts

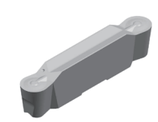


订货号 Ordering Code		尺寸(mm) Dimension (mm)					涂层硬质合金 Coated	硬质合金 Uncoated
		CW	RE	L	W1	S	GS3125	GS9125
	GZD3002-FG	3.0	0.2	20.4	2.3	4.6	●	○
	GZD3004-FG	3.0	0.4	20.4	2.3	4.6	●	○
	GZD4002-FG	4.0	0.2	24.0	3.3	4.8	○	○
	GZD4004-FG	4.0	0.4	24.0	3.3	4.8	●	●
	GZD5002-FG	5.0	0.2	24.0	3.3	4.8	●	○
	GZD5004-FG	5.0	0.4	24.0	3.3	4.8	○	○
	GZD6002-FG	6.0	0.2	24.0	4.2	4.8	○	●
	GZD6004-FG	6.0	0.4	24.0	4.2	4.8	●	●

●标准库存Stock ○需预定Available upon Order

OR
精密仿形加工刀片
Precision Profiling Inserts



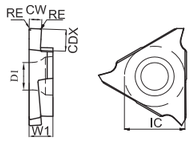
订货号 Ordering Code		尺寸 Dimension (mm)					涂层硬质合金 Coated
		CW	RE	L	W1	S	GS3115
	GZD3015-OR	3.0	1.5	21.0	2.3	4.6	●
	GZD4020-OR	4.0	2.0	24.0	3.3	4.8	●
	GZD5025-OR	5.0	2.5	24.0	3.3	4.8	○
	GZD6030-OR	6.0	3.0	24.0	4.2	4.8	○

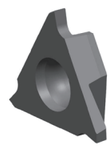
●标准库存Stock ○需预定Available upon Order

切断切槽刀片
Parting and Grooving Inserts

GB

精密切槽加工刀片
Precision Grooving Inserts





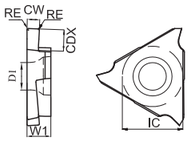
订货号 Ordering Code	尺寸 Dimension (mm)						涂层硬质合金 Coated
	CW	CDX	RE	IC	W1	D1	GA4230
GB3050R-005	0.50	1.0	0.05	9.525	3.18	4.4	●
GB3075R-010	0.75	2.0	0.1	9.525	3.18	4.4	●
GB3080R-005	0.80	2.0	0.05	9.525	3.18	4.4	○
GB3095R-010	0.95	2.0	0.1	9.525	3.18	4.4	○
GB3100R-005	1.00	2.0	0.05	9.525	3.18	4.4	●
GB3100R-010	1.00	2.0	0.1	9.525	3.18	4.4	○
GB3120R-010	1.20	2.0	0.1	9.525	3.18	4.4	○
GB3120R-020	1.20	2.0	0.2	9.525	3.18	4.4	○
GB3125R-010	1.25	2.0	0.1	9.525	3.18	4.4	●
GB3140R-010	1.40	2.0	0.1	9.525	3.18	4.4	○
GB3140R-020	1.40	2.0	0.2	9.525	3.18	4.4	○
GB3140L-020	1.40	2.0	0.2	9.525	3.18	4.4	●

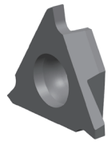
●标准库存Stock ○需预定Available upon Order

切断切槽刀片
Parting and Grooving Inserts

GB

精密切槽加工刀片
Precision Grooving Inserts





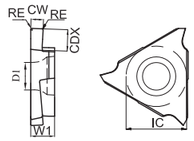
订货号 Ordering Code	尺寸 Dimension (mm)						涂层硬质合金 Coated
	CW	CDX	RE	IC	W1	D1	GA4230
GB3150R-010	1.50	2.0	0.1	9.525	3.18	4.4	○
GB3150R-020	1.50	2.0	0.2	9.525	3.18	4.4	●
GB3150L-020	1.50	2.0	0.2	9.525	3.18	4.4	●
GB3200R-010	2.00	2.5	0.1	9.525	3.18	4.4	○
GB3200R-020	2.00	2.5	0.2	9.525	3.18	4.4	○
GB3200L-020	2.00	2.5	0.2	9.525	3.18	4.4	○
GB3250R-010	2.50	2.5	0.1	9.525	3.18	4.4	○
GB3250L-010	2.50	2.5	0.1	9.525	3.18	4.4	○
GB3250L-020	2.50	2.5	0.2	9.525	3.18	4.4	●
GB3300R-020	3.00	2.5	0.2	9.525	3.18	4.4	○
GB3300L-020	3.00	2.5	0.2	9.525	3.18	4.4	○

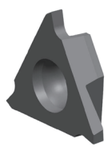
●标准库存Stock ○需预定Available upon Order

切断切槽刀片
Parting and Grooving Inserts

GB

精密切槽加工刀片
Precision Grooving Inserts





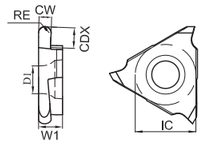
订货号 Ordering Code	尺寸 Dimension (mm)						涂层硬质合金 Coated
	CW	CDX	RE	IC	W1	D1	GA4230
GB4125R-020	1.25	2.0	0.2	12.7	4.76	5.5	○
GB4150R-010	1.50	3.5	0.1	12.7	4.76	5.5	●
GB4150R-020	1.50	3.5	0.2	12.7	4.76	5.5	●
GB4150L-020	1.50	3.5	0.2	12.7	4.76	5.5	○
GB4175R-020	1.75	3.5	0.2	12.7	4.76	5.5	○
GB4185R-020	1.85	3.5	0.2	12.7	4.76	5.5	○
GB4200R-020	2.00	3.5	0.2	12.7	4.76	5.5	●
GB4200L-020	2.00	3.5	0.2	12.7	4.76	5.5	●
GB4200R-030	2.00	3.5	0.3	12.7	4.76	5.5	●
GB4210R-050	2.10	4.0	0.5	12.7	4.76	5.5	○
GB4220R-030	2.20	4.0	0.3	12.7	4.76	5.5	●
GB4250R-030	2.50	4.0	0.3	12.7	4.76	5.5	○
GB4250L-030	2.50	4.0	0.3	12.7	4.76	5.5	○
GB4265R-030	2.65	4.0	0.3	12.7	4.76	5.5	○
GB4280R-030	2.80	5.0	0.3	12.7	4.76	5.5	○
GB4300R-030	3.00	4.0	0.3	12.7	4.76	5.5	●
GB4300L-030	3.00	4.0	0.3	12.7	4.76	5.5	●
GB4350R-030	3.50	5.0	0.3	12.7	4.76	5.5	○
GB4400R-040	4.00	5.0	0.4	12.7	4.76	5.5	○
GB4400L-040	4.00	5.0	0.4	12.7	4.76	5.5	○
GB4430R-040	4.30	5.0	0.4	12.7	4.76	5.5	○

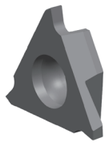
●标准库存Stock ○需预定Available upon Order

切断切槽刀片
Parting and Grooving Inserts

GBR

精密切槽加工刀片
Precision Grooving Insert





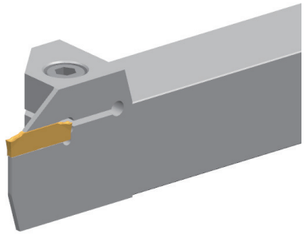
订货号 Ordering Code	尺寸 Dimension (mm)						涂层硬质合金 Coated
	CW	CDX	RE	IC	W1	D1	GA4230
GBR4100R-050	1.00	2.0	0.5	12.7	4.76	5.5	○
GBR4100L-050	1.00	2.0	0.5	12.7	4.76	5.5	○
GBR4150R-075	1.50	3.5	0.75	12.7	4.76	5.5	●
GBR4150L-075	1.50	3.5	0.75	12.7	4.76	5.5	○
GBR4200R-100	2.00	3.5	1.0	12.7	4.76	5.5	○
GBR4200L-100	2.00	3.5	1.0	12.7	4.76	5.5	○
GBR4250R-125	2.50	4.0	1.25	12.7	4.76	5.5	○
GBR4250L-125	2.50	4.0	1.25	12.7	4.76	5.5	○
GBR4300R-150	3.00	4.0	1.5	12.7	4.76	5.5	○
GBR4300L-150	3.00	4.0	1.5	12.7	4.76	5.5	○
GBR4400R-200	4.00	5.0	2.0	12.7	4.76	5.5	○
GBR4400L-200	4.00	5.0	2.0	12.7	4.76	5.5	○

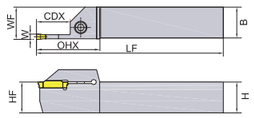
●标准库存Stock ○需预定Available upon Order

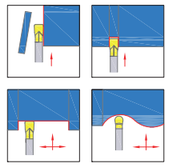
GZ系列
GZ Series

外圆切断切槽刀杆

External Holders for Parting and Grooving







图示为右手 The Picture is Right Hand Holder

订货号 Ordering Code	尺寸(mm) Dimension（mm）						匹配刀片 Insert	螺钉 Screw	扳手 Wrench	库存 Stock	
	W	CDX	H=HF	B	LF	WF				R	L
GZER/L2020-3T20	3.0	20	20	20	125	21	GZD30···	SCAM050200H	TH40LH	●	●
GZER/L2525-3T20	3.0	20	25	25	150	26	GZD30···	SCAM060200H	TH50LH	●	●
GZER/L3225-3T20	3.0	20	32	25	170	26	GZD30···	SCAM060200H	TH50LH	○	○
GZER/L2020-4T25	4.0	25	20	20	125	21	GZD40···	SCAM050200H	TH40LH	●	○
	5.0	25	20	20	125	21.5	GZD50···			●	○
GZER/L25254T20	4.0	20	25	25	150	26	GZD40···	SCAM050200H	TH40LH	●	
	5.0	20	25	25	150	26.5	GZD50···			●	
GZER/L2525-4T25	4.0	25	25	25	150	26	GZD40···	SCAM060200H	TH50LH	●	●
	5.0	25	25	25	150	26.5	GZD50···			●	●
GZER/L3225-4T25	4.0	25	32	25	170	26	GZD40···	SCAM060200H	TH50LH	●	●
	5.0	25	32	25	170	26.5	GZD50···			●	●
GZER/L2525-6T32	6.0	32	25	25	150	26	GZD60···	SCAM060300H	TH50LH	●	●
GZER/L3225-6T32	6.0	32	32	25	170	26	GZD60···	SCAM060300H	TH50LH	○	○

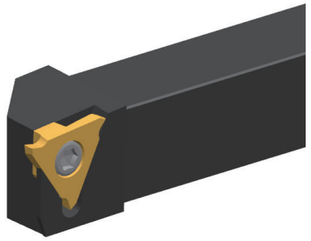
备注：SCAM060200H代表M6X20
Remark: SCAM060200H is meaning of M6X20

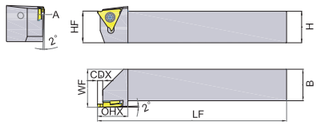
●标准库存Stock ○需预定Available upon Order

GB系列
GB Series

外圆切槽刀杆

External Holders for Grooving





图示为右手 The Picture is Right Hand Holder

订货号 Ordering Code	尺寸(mm) Dimension（mm）						匹配刀片 Insert	螺钉 Screw	扳手 Wrench	库存 Stock	
	H=HF	B	LF	WF	A	CDX				R	L
GBER/L2020K3	20	20	125	25	—	2.5	GB3···	SI60M 035120-05310	TT15PH	●	○
GBER/L2525M3	25	25	150	30	—	2.5	GB3···	SI60M 035120-05310	TT15PH	●	●
GBER/L2020K4-15	20	20	125	25	1.0	4.0	GB4··· (1.0≤W<2.5)	SI60M 050120-07217	TT20PH	●	●
GBER/L2525M4-15	25	25	150	30	1.0	4.0	GB4··· (1.0≤W<2.5)	SI60M 050120-07217	TT20PH	●	●
GBER/L2020K4-25	20	20	125	25	2.0	4.5	GB4··· (2.5≤W<3.3)	SI60M 050120-07217	TT20PH	●	○
GBER/L2525M4-25	25	25	150	30	2.0	4.5	GB4··· (2.5≤W<3.3)	SI60M 050120-07217	TT20PH	○	○
GBER/L2020K4-35	20	20	125	25	3.0	5.5	GB4··· (3.3≤W<4.8)	SI60M 050120-07217	TT20PH	○	○
GBER/L2525M4-35	25	25	150	30	3.0	5.5	GB4··· (3.3≤W<4.8)	SI60M 050120-07217	TT20PH	●	○

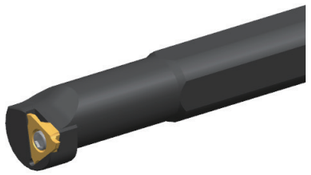
备注：SI60M 035120···代表M3.5X12
Remark：SI60M 035120··· stands for M3.5X12

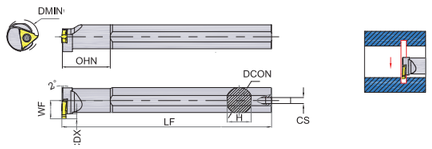
●标准库存Stock ○需预定Available upon Order

GB系列
GB Series

内孔切槽刀杆

nternal Bars for Grooving





图示为右手 The Picture is Right Hand Holder

订货号 Ordering Code	尺寸(mm) Dimension（mm）						匹配刀片 Insert	螺钉 Screw	扳手 Wrench	库存 Stock	
	DMIN1	DCON	H	LF	WF	CDX				R	L
GBIR/L2620Q3	26	20	18	180	13	3	GB3···	SI60M035120-05310	TT15PH	●	○
GBIR/L3525R4	35	25	23	200	17.5	4.5	GB4···	SI60M 050120-07217	TT20PH	●	●

备注：SI60M 035120···代表M3.5X12
Remark: SI60M 035120···is meaning of M3.5X12

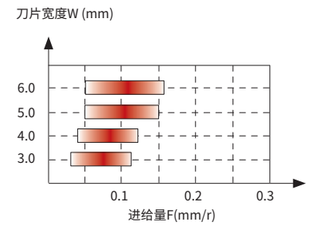
●标准库存Stock ○需预定Available upon Order

推荐切削参数

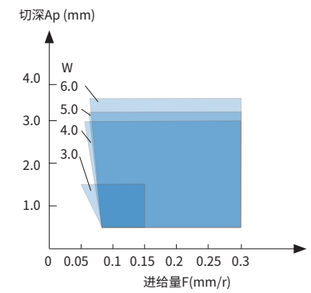
Recommended Cutting Data

FG

⊙ 径向进给
Radial Feed

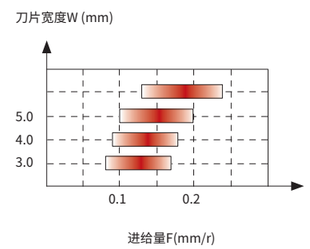


⊙ 轴向进给
Axial Feed

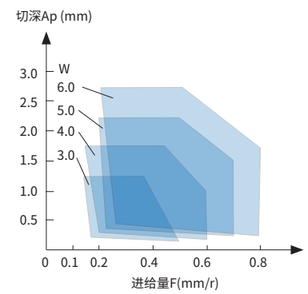


OR

⊙ 径向进给
Radial Feed



⊙ 轴向进给
Axial Feed



G-NOTCH系列刀片型号表示规则

G-NOTCH系列切槽刀片型号表示规则

G-NOTCH Series Inserts Identification System

G-NOTCH Series Grooving Inserts Identification System

G	N	G	P	3	M150	R
①	②	③	④	⑤	⑥	⑦

①公司代号 Company Mark

G=GESAC

②刀片型号 Type of Insert

N=Notch

③刀片类型 Insert style

G=切槽
G=Grooving

R=圆头
R=Full Radius

④附加信息 Additional Information

P=正向前角
P=Positive

□=无前角
□=Fla

⑤刀片规格 Insert Size

	mm	inch
2	3.81	.150
3	4.95	.195

⑥槽宽尺寸 Groove Size

公制：M150 = 1.5mm
Metric：M150 = 1.5mm

英制：125 = 0.125inch
Inch：125 = 0.125inch

⑦刀片方向 Hand of Insert

R=右手
R=Right Hand

L=左手
L=Left Hand

G-Notch系列刀片型号表示规则

G-Notch系列螺纹刀片型号表示规则

G-Notch Series Inserts Identification System

G-Notch Series Threading Inserts Identification System

G	N	T	P	3	R
①	②	③	④	⑤	⑥

①公司代号 Company Mark

G=GESAC

②刀片型号 Type of Insert

N=Notch

③螺纹类型 Insert style

T=60°通用螺纹
T=60°Thread

④附加信息 Additional Information

P=正向前角
P=Positive

⑤刀片规格 Insert Size

	mm	inch
2	3.81	.150
3	4.95	.195

⑥刀片方向 Hand of Insert

R=右手
R=Right Hand

L=左手
L=Left Hand

G-Notch系列刀杆型号表示规则

G-Notch系列外圆刀杆型号表示规则

G-Notch Holder Identification System

G-Notch External Holder Identification System

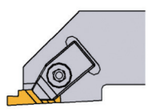
G	N	S	R	2525	M	3
①	②	③	④	⑤	⑥	⑦

①公司代号 Company Mark

G=GESAC

③刀片装夹位置 Insert Mounting Location

S=侧装
S=Side



⑤刀柄尺寸 Shank Size

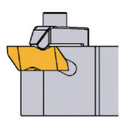
宽 Windth	高 Height
12	12
16	16
20	20
25	25
32	32

⑥刀柄长度 Shank length

D	60
E	70
F	80
H	100
K	125
M	150
P	170
Q	180
R	200

②夹紧方式 Clamping System

N=Notch



④刀具方向 Hand of Tool

L=左手
L=Left Hand

R=右手
R=Right Hand

⑦刀片规格 Right Hand

	mm	inch
2	3.81	.150
3	4.95	.195

G-Notch系列刀杆型号表示规则

G-Notch系列内孔刀杆型号表示规则

G-Notch Holder Identification System

G-Notch External Holder Identification System

G	N	A	R	25	M	3
①	②	③	④	⑤	⑥	⑦

①公司代号 Company Mark

G=GESAC

③刀杆类型 Holder Type

A=带内冷孔的钢制刀杆
A=Steel With Coolant

S=不带内冷孔的钢制刀杆
S=Steel without Coolant

⑤刀柄尺寸 Shank Size

宽	高
12	12
16	16
20	20
25	25
32	32

⑦刀片规格 Right Hand

	mm	inch
2	3.81	.150
3	4.95	.195

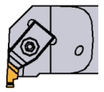
②夹紧方式 Clamping System

N=Notch

④刀具方向 Hand of Tool

L=左手
L=Left hand

R=右手
R=Right hand

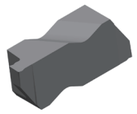
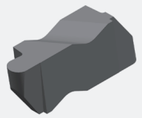


⑥刀柄长度 Shank length

D	60
E	70
F	80
H	100
K	125
M	150
P	170
Q	180
R	200

注意：左手内圆刀杆使用右手刀片，右手内圆刀杆使用左手刀片。
Note: Left hand bars use right hand inserts, Right hand bars use left hand inserts.

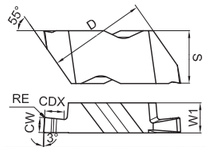
G-Notch系列刀片一览表
Overview of G-Notch Series Inserts

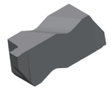
应用 Application	类型 Style	外形 Shape	宽度/螺距 Width/Pitch	页码 Page
精密切槽 Precision Grooving	GNGP		1.00-3.50 (mm)	P67
精密仿形 Precision Profiling	GNR		2.00-3.18 (mm)	P69
螺纹加工 Threading	GNTP		0.70-5.00(mm) 36-5(TPI)	P69

G-Notch系列刀片
G-Notch Series Insert

GNGP

精密切槽刀片（正前角）
Precision Grooving Inserts（positive rake angle）





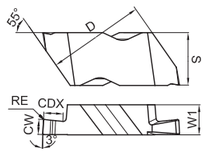
订货号 Ordering code	尺寸(mm) Dimension (mm)						刀片规格 Insert Size	涂层 硬质合金 Coating	
	CW±0.025	RE	CDX	S	W1	D		GM3225	GS3115
GNGP2M100L	1.00	0.09	1.27	5.56	3.81	8.74	2	○	●
GNGP2M100R	1.00	0.09	1.27	5.56	3.81	8.74	2	○	●
GNGP2047L	1.19	0.09	1.27	5.56	3.81	8.74	2	○	○
GNGP2047R	1.19	0.09	1.27	5.56	3.81	8.74	2	○	○
GNGP2M150L	1.50	0.19	2.79	5.56	3.81	8.74	2	○	●
GNGP2M150R	1.50	0.19	2.79	5.56	3.81	8.74	2	○	●
GNGP2062L	1.57	0.19	2.79	5.56	3.81	8.74	2	○	○
GNGP2062R	1.57	0.19	2.79	5.56	3.81	8.74	2	●	○
GNGP2M170L	1.70	0.19	2.79	5.56	3.81	8.74	2	○	○
GNGP2M170R	1.70	0.19	2.79	5.56	3.81	8.74	2	○	○
GNGP2070L	1.78	0.19	2.79	5.56	3.81	8.74	2	○	○
GNGP2078L	1.98	0.19	2.79	5.56	3.81	8.74	2	○	○
GNGP2078R	1.98	0.19	2.79	5.56	3.81	8.74	2	●	○
GNGP2M200L	2.00	0.19	2.79	5.56	3.81	8.74	2	●	●
GNGP2M200R	2.00	0.19	2.79	5.56	3.81	8.74	2	○	●
GNGP2M220L	2.20	0.19	2.79	5.56	3.81	8.74	2	○	○
GNGP2M220R	2.20	0.19	2.79	5.56	3.81	8.74	2	○	○
GNGP2094L	2.38	0.19	2.79	5.56	3.81	8.74	2	○	○
GNGP2094R	2.38	0.19	2.79	5.56	3.81	8.74	2	●	○
GNGP2M250L	2.50	0.19	2.79	5.56	3.81	8.74	2	○	●
GNGP2M250R	2.50	0.19	2.79	5.56	3.81	8.74	2	○	○
GNGP2125L	3.18	0.19	2.79	5.56	3.81	8.74	2	○	○
GNGP2125R	3.18	0.19	2.79	5.56	3.81	8.74	2	●	○
GNGP3031L	0.79	0.09	1.27	8.74	4.95	16.1	3	○	○
GNGP3031R	0.79	0.09	1.27	8.74	4.95	16.1	3	○	○
GNGP3M100L	1.00	0.19	1.91	8.74	4.95	16.1	3	○	○
GNGP3M100R	1.00	0.19	1.91	8.74	4.95	16.1	3	○	○
GNGP3047L	1.19	0.19	1.91	8.74	4.95	16.1	3	○	○
GNGP3047R	1.19	0.19	1.91	8.74	4.95	16.1	3	○	○

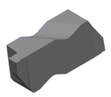
●标准库存Stock ○需预定Available upon Order

G-Notch系列刀片
G-Notch Series Insert

GNGP

精密切槽刀片（正前角）
Precision Grooving Inserts（positive rake angle）





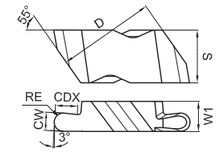
订货号 Ordering code	尺寸(mm) Dimension (mm)						刀片规格 Insert Size	涂层硬质合金 Coating	
	CW	RE	CDX	S	W1	D		GM3225	GS3115
GNGP3M150L	1.50	0.19	2.39	8.74	4.95	16.1	3	○	○
GNGP3M150R	1.50	0.19	2.39	8.74	4.95	16.1	3	○	●
GNGP3062L	1.58	0.19	2.39	8.74	4.95	16.1	3	●	○
GNGP3062R	1.58	0.19	2.39	8.74	4.95	16.1	3	●	○
GNGP3070L	1.78	0.19	2.39	8.74	4.95	16.1	3	○	○
GNGP3078L	1.98	0.19	2.39	8.74	4.95	16.1	3	○	○
GNGP3078R	1.98	0.19	2.39	8.74	4.95	16.1	3	●	○
GNGP3M200L	2.00	0.19	2.39	8.74	4.95	16.1	3	○	○
GNGP3M200R	2.00	0.19	2.39	8.74	4.95	16.1	3	○	○
GNGP3094L	2.39	0.19	3.81	8.74	4.95	16.1	3	○	○
GNGP3094R	2.39	0.19	3.81	8.74	4.95	16.1	3	●	○
GNGP3M250L	2.50	0.19	3.81	8.74	4.95	16.1	3	○	○
GNGP3M250R	2.50	0.19	3.81	8.74	4.95	16.1	3	○	○
GNGP3M300L	3.00	0.19	3.81	8.74	4.95	16.1	3	○	○
GNGP3M300R	3.00	0.19	3.81	8.74	4.95	16.1	3	●	○
GNGP3125L	3.18	0.19	3.81	8.74	4.95	16.1	3	○	○
GNGP3125R	3.18	0.19	3.81	8.74	4.95	16.1	3	●	○
GNGP3M350L	3.50	0.19	3.81	8.74	4.95	16.1	3	○	○
GNGP3M350R	3.50	0.19	3.81	8.74	4.95	16.1	3	○	○

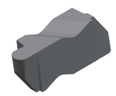
●标准库存Stock ○需预定Available upon Order

G-Notch系列刀片
G-Notch Series

GNR

切槽圆头刀片(0°前角)
Full Radius Inserts(0°rakeangle)





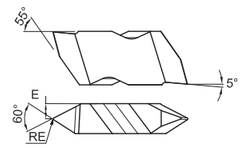
订货号 Ordering code	尺寸 Dimension(mm)						刀片规格 Insert Size	涂层硬质合金 Coated	
	CW	RE	CDX	S	W1	D		GM3225	GS3115
GNR3M100R	2.00	1.00	2.39	8.74	4.95	16.1	3	○	○
GNR3M150R	3.00	1.50	3.81	8.74	4.95	16.1	3	○	○
GNR3047L	2.39	1.19	3.81	8.74	4.95	16.1	3	○	○
GNR3047R	2.39	1.19	3.81	8.74	4.95	16.1	3	○	○
GNR3062R	3.18	1.59	3.81	8.74	4.95	16.1	3	○	○

●标准库存Stock ○需预定Available upon Order

螺纹刀片
Threading Inserts

GNTP

60°通用螺纹刀片,带前角
60°Partial Profile Threading Inserts With

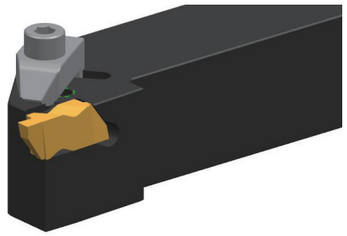


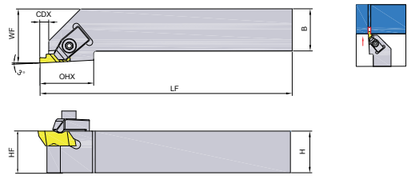
订货号 Ordering Code	螺距Pitch				尺寸(mm) Dimension(mm)		刀片规格 Insert Size	涂层硬质合金 Coated	
	外牙 External mm	内牙 Internal mm	外牙 External TPI	内牙 Internal TPI	RE	E		GM3225	GS3115
GNTP2L	0.70-3.00	1.25-3.50	8-36	7-20	0.10	1.91	2	○	○
GNTP2R	0.70-3.00	1.25-3.50	8-36	7-20	0.10	1.91	2	○	○
GNTP3L	1.25-4.00	2.00-5.00	4-20	5-12	0.17	2.49	3	○	○
GNTP3R	1.25-4.00	2.00-5.00	4-20	5-12	0.17	2.49	3	●	○
GNTP3004R	1.25-4.00	2.00-5.00	5-36	5-12	0.10	2.49	3	○	○

●标准库存Stock ○需预定Available upon Order

外圆刀杆
External Holder

GNS





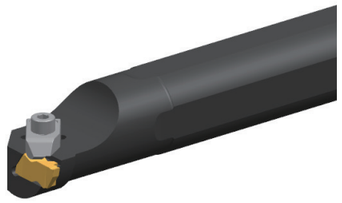
图示为右手 The Picture is Right Hand Holder

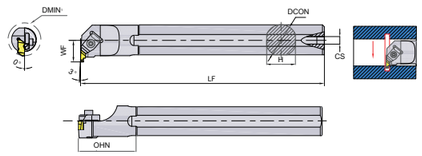
订货号 Ordering code	尺寸(mm) Dimension (mm)						匹配刀片 Insert	螺钉 Screw	压板 Clamp	扳手 Wrench	库存 Stock
	H	B	WF	LF	OHX	CDX					
GNSR1616H2	16	16	20	100	19	3.5	GN.2R	SCAM040120H	CAN02RH	TH30LH	●
GNSR2020K2	20	20	25	125	19	3.5	GN.2R	SCAM040120H	CAN02RH	TH30LH	○
GNSR2525M2	25	25	32	150	19	3.5	GN.2R	SCAM040120H	CAN02RH	TH30LH	○
GNSR2020K3	20	20	25	125	32	5.3	GN.3R	SCAM050200H	CAN03RH	TH40LH	●
GNSR2525M3	25	25	32	150	32	5.3	GN.3R	SCAM050200H	CAN03RH	TH40LH	●
GNSL1616H2	16	16	20	100	19	3.5	GN.2L	SCAM040120H	CAN02LH	TH30LH	○
GNSL2020K2	20	20	25	125	19	3.5	GN.2L	SCAM040120H	CAN02LH	TH30LH	○
GNSL2525M2	25	25	32	150	19	3.5	GN.2L	SCAM040120H	CAN02LH	TH30LH	○
GNSL2020K3	25	20	25	125	32	5.3	GN.3L	SCAM050200H	CAN03LH	TH40LH	○
GNSL2525M3	25	25	32	150	32	5.3	GN.3L	SCAM050200H	CAN03LH	TH40LH	●

●标准库存Stock ○需预定Available upon Order

内孔刀杆
Internal Holder

GNA





图示为右手 The Picture is Right Hand Holder

订货号 Ordering code	尺寸(mm) Dimension (mm)					匹配刀片 Insert	螺钉 Screw	压板 Clamp	扳手 Wrench	库存 Stock
	DCON	DMIN1	LF	WF	CS					
GNAR20Q2	20	26	180	13	1/8-27 NPT	GN.2L	CAN02LH	SCAM040120H	TH30LH	○
GNAR25R2	25	34	200	17	1/4-18 NPT	GN.2L	CAN02LH	SCAM040120H	TH30LH	○
GNAR25R3	25	34	200	17	1/4-18 NPT	GN.3L	CAN03LH	SCAM050200H	TH40LH	○
GNAL20Q2	20	26	180	13	1/8-27 NPT	GN.2R	CAN02RH	SCAM040120H	TH30LH	●
GNAL25R2	25	34	200	17	1/4-18 NPT	GN.2R	CAN02RH	SCAM040120H	TH30LH	○
GNAL25R3	25	34	200	17	1/4-18 NPT	GN.3R	CAN03RH	SCAM050200H	TH40LH	○

注意：左手内圆刀杆使用右手刀片，右手内圆刀杆使用左手刀片。
Note: Left hand bars use right hand inserts, Right hand bars use left hand inserts

●标准库存Stock ○需预定Available upon Order

推荐切削参数
Recommended Cutting Data

进给推荐值
Recommend feed

切宽 Width W(mm)	进给量 Feed f(mm/r)
0.79-1.50	0.08 (0.03-0.12)
1.50-2.50	0.10 (0.04-0.16)
2.50-3.50	0.12 (0.05-0.20)
3.50-4.50	0.14 (0.05-0.25)

切削速度推荐值
Recommend cutting speed

ISO	工件材料 Workpiece Material	硬度 Hardness (HB)	切削速度 Cutting Speed Vc（m/min）	
			GM3225	GS3115
P	低碳钢 Low Carbon Steel	80– 170	110 (70-180)	110 (70-180)
	高碳钢 High Carbon Steel	170– 250	110 (70-160)	110 (70-160)
	低合金钢 Low-alloy Steel	140– 260	110 (60-160)	110 (60-160)
	高合金钢 High-alloy Steel	180– 300	110 (60-160)	110 (60-160)
M	铁素体/马氏体 Ferritic/Martensitic	150– 270	100 (40-180)	100 (40-180)
	奥氏体 Austenitic	150– 270	100 (40-180)	100 (40-180)
K	可锻铸铁 Malleable Cast Iron	150– 230	180 (70-300)	180 (70-300)
	灰口铸铁 Gray Cast Iron	150– 230	180 (70-300)	180 (70-300)
	球墨铸铁 Nodular Cast Iron	160– 260	160 (60-300)	160 (60-300)
S	高温合金 Heat-resistant Alloy	130– 400	30 (20-50)	30 (20-50)
	钛合金 Titanium Alloys	130– 400	40 (20-60)	40 (20-60)

B

铣削 Milling

ISO铣削刀片型号表示规则
ISO Milling Indexable Inserts Identification System

代号 Symbol	形状 Shape	刀尖角(度) Corner Angle	图形 Figure
H	正六边形 Hexagon	120°	
O	正八边形 Octagon	135°	
P	正五边形 Pentagon	108°	
S	正方形 Square	90°	
T	正三角形 Triangle	60°	
C	菱形 Rhombic	80°	
D		55°	
E		75°	
F		50°	
M		86°	
V		35°	
W	六边形 Trigon	80°	
L	长方形 Rectangle	90°	
A	平行四边形 Parellelogram	85°	
B		82°	
K		55°	
R	圆形 Round	——	

①形状代号
Shape Symbol

代号 Symbol	后角(度) Relief Angle
A	3°
B	5°
C	7°
D	15°
E	20°
F	25°
G	30°
N	0°
P	11°
O	其他 Others

②后角代号
Relief Angle Symbol

代号 Symbol	公差 Tolerance (mm) 刀尖高 Corner Height (m)	厚度 Thickness (s)	内切圆 I.C.Size (Ød)	公差 Tolerance(inch) 刀尖高 Corner Height (m)	厚度 Thickness (s)	内切圆 I.C.Size (Ød)
A	±0.005	±0.025	±0.025	±0.0002	±0.001	±0.001
F	±0.005	±0.025	±0.013	±0.0002	±0.001	±0.0005
C	±0.013	±0.025	±0.025	±0.0005	±0.001	±0.001
H	±0.013	±0.025	±0.013	±0.0005	±0.001	±0.0005
E	±0.025	±0.025	±0.025	±0.001	±0.001	±0.001
G	±0.025	±0.13	±0.025	±0.001	±0.005	±0.001
J	±0.005	±0.025	±0.05~±0.13	±0.0002	±0.001	±0.002~±0.005
K	±0.013	±0.025	±0.05~±0.13	±0.0005	±0.001	±0.002~±0.005
L	±0.025	±0.025	±0.05~±0.13	±0.001	±0.001	±0.002~±0.005
M	±0.08~±0.18	±0.13	±0.05~±0.13	±0.003~±0.007	±0.005	±0.002~±0.005
N	±0.08~±0.18	±0.025	±0.05~±0.13	±0.003~±0.007	±0.001	±0.002~±0.005
U	±0.13~±0.38	±0.13	±0.08~±0.25	±0.005~±0.015	±0.005	±0.003~±0.01

③精度代号
Tolerance Symbol

适用刀片形状：H,O,P,S,T,C,E,M,W,R Insert Shape:H,O,P,S,T,C,E,M,W,R									
标准内切圆 I.C.Size (mm)	内切圆(Ød)的公差 Tolerance of I.C.Size(Ød) (mm)		刀尖高(m)的公差(mm) Tolerance of Corner Height(m)(mm)		标准内切圆 (inch) I.C.Size (inch)	内切圆(Ød)的公差(inch) Tolerance of I.C.Size(Ød) (mm)		刀尖高(m)的公差(inch) olerance of Corner Height(m)(mm)	
	J,K,L, M,N(级)	U (级)	M,N(级)	U (级)		ClassJ,K, L,M,N	Class U	ClassJ,K, L,M,N	Class U
6.35	±0.05	±0.08	±0.08	±0.13	0.250	±0.002	±0.003	±0.003	±0.005
9.525					0.375				
12.7	±0.08	±0.13	±0.13	±0.2	0.500	±0.003	±0.005	±0.005	±0.008
15.875	±0.1	±0.18	±0.15	±0.27	0.625	±0.004	±0.007	±0.006	±0.011
19.05					0.750				
25.4	±0.13	±0.25	±0.18	±0.38	1.000	±0.005	±0.010	±0.007	±0.015
31.75	±0.15	±0.25	±0.2	±0.38	1.250	±0.006	±0.010	±0.008	±0.015
32					1.260				

适用刀片形状：D Insert Shape: D					
内切圆直径 Inscribed Circle Size		内切圆的公差 Tolerance of I.C.Size		刀尖高的公差 Tolerance of Corner Height	
mm	inch	mm	inch	mm	inch
6.35	0.250	±0.05	±0.002	±0.11	±0.004
9.525	0.375	±0.05	±0.002	±0.11	±0.004
12.7	0.500	±0.08	±0.003	±0.15	±0.006
15.875	0.625	±0.10	±0.004	±0.18	±0.007
19.05	0.750	±0.10	±0.004	±0.18	±0.007

适用刀片形状：V Insert Shape: V					
内切圆Ød Inscribed Circle Size		内切圆的公差 Tolerance of I.C.Size		刀尖高的公差 Tolerance of Corner Height	
mm	inch	mm	inch	mm	inch
6.35	0.250	±0.05	±0.002	±0.15	±0.006
9.525	0.375	±0.05	±0.002	±0.15	±0.006
12.7	0.500	±0.08	±0.003	±0.20	±0.008
15.875	0.625	±0.10	±0.004	±0.27	±0.011
19.05	0.750	±0.10	±0.004	±0.27	±0.011

代号 Symbol	厚度 Thickness (mm)
01	1.59
T1	1.98
02	2.38
T2	2.78
03	3.18
T3	3.97
04	4.76
05	5.56
06	6.35
07	7.94
09	9.52

⑥厚度代号
⑥Thickness Symbol

①	②	③	④	⑤
S	N	E	U	12
R	D	E	T	12

⑥	⑦	⑧	⑨	⑩
06	AN	E	N -	GM
04	M0	T	-	MM

④断屑槽·孔代号 Chipbreaker /Hole Symbol				
代号 Symbol	有无孔 Hole	孔的形状 Hole Shape	断屑槽 Chipbreaker	形状 Shape
N	无 With-out	—	无 Without	
R			单面 Single-sided	
F			双面 Double-sided	
A	有 With	圆柱孔 With Hole	无 Without	
M			单面 Single-sided	
G			双面 Double-sided	
W		部分圆柱孔 单面40°~60° With hole and one counter-sink 40°~60°	无 Without	
T			单面 Single-sided	
Q		部分圆柱孔 双面 40°~60° With hole and two counter-sinks 40°~60°	无 Without	
U			双面 Double-sided	
B		部分圆柱孔 单面70°~90° With hole and one counter-sink 70°~90°	无 Without	
H			单面 Single-sided	
C		部分圆柱孔 双面70°~90° With hole and two counter-sinks 70°~90°	无 Without	
J			双面 Double-sided	
X	—	—	—	

⑤ISO切削刀长度代号 Cutting Edge Length Symbol(ISO)(mm)																
R		S		C		W		T		D		V		K		内切圆 I.C.Size (mm)
代号 Symbol	尺寸 Length	代号 Symbol	尺寸 Length	代号 Symbol	尺寸 Length	代号 Symbol	尺寸 Length	代号 Symbol	尺寸 Length	代号 Symbol	尺寸 Length	代号 Symbol	尺寸 Length	代号 Symbol	尺寸 Length	
		03	3.97	03	4.0			06	6.9	4	4.8					3.97
		04	4.76	04	4.8			08	8.2	5	5.8					4.76
05	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5
		05	5.56	05	5.6	03	3.8	09	9.6	6	6.8					5.56
06	6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6
		06	6.35	06	6.5	04	4.3	11	11	7	7.8	11	11.2			6.35
		07	7.94	08	8.1	05	5.4	13	13.8	9	9.7					7.94
08	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8
09	9.525	09	9.525	09	9.7	06	6.5	16	16.5	11	11.6	16	16.6	16	19.7	9.525
10	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	10
12	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	12
12	12.7	12	12.7	12	12.9	08	8.7	22	22	15	15.5	22	22.1			12.7
15	15.875	15	15.875	16	16.1	10	10.9	27	27.5	19	19.4					15.875
16	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	16
19	19.05	19	19.05	19	19.3	13	13	33	33	23	23.3					19.05
20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	20
		22	22.225	22	22.6			38	38.5	27	27.1					22.225
25	25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	25
25	25.4	25	25.4	25	25.8			44	44	31	31					25.4
31	31.75	31	31.75	32	32.2			55	55	38	38.8					31.75
31	32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	32

内切圆(Ød) D.Theoretical Diameter of Inscribed Circle
刀尖高(m) S. Insert Thickness
刀片厚度(s) M.See Fig.

⑦主偏角、修光刃后角及刀尖形状 Wiper Angle or Nose Radius						
I					II	
代号 Symbol	余偏 Approach Angle	主偏角 Cutting Edge Angle	代号 Symbol	修光刃后角 Relief Angle of Wiper	代号 Symbol	刀尖圆弧半径 Corner-Rε(mm)
A	45°	45°	A	3°	M0	圆刀片 circular inserts
D	30°	60°	B	5°	00	0.03
E	15°	75°	C	7°	02	0.2
F	5°	85°	D	15°	04	0.4
P	0°	90°	E	20°	08	0.8
Z	其他 Others		F	25°	12	1.2
			G	30°	16	1.6
			N	0°	20	2.0
			P	11°	24	2.4
			Z	其他 Others	28	2.8
					32	3.2

⑧主切削刀代号 Major Cutting Edge		
代号 Symbol	切削刀形状 Description	形状
F	锋利刃 Sharp Edge	
E	圆弧刃 R-Honed	
T	负倒棱角 Chamfer	
S	复合钝化刃 Chamfer and R-Honed	

⑨切削方向代号 Direction		
代号 Symbol	切削刀形状 Hand	图示 Shape
R	右 Right	R
L	左 Left	L
N	无 Neutral	N

⑩断屑槽代号 Chipbreaker Symbol	
代号 Symbol	工况 Machining Condition
GL	通用轻切削 General Lighting Cutting
GM	通用中切削 General Medium Cutting
GH	通用重切削 General Heavy Cutting
PL	钢材轻切削 Light Cutting for Steel
PM	钢材中切削 Medium Cutting for Steel
PR	钢材准重切削 Rough Cutting for Steel
KM	铸铁中切削 Medium Cutting for Cast Iron
KR	铸铁准重切削 Rough Cutting for Cast Iron
MM	不锈钢中切削 Medium Cutting for Stainless Steel
W*	修光刃切削 Wiper Cutting
NL/AL	有色金属轻切削 Lighting Cutting for Nonferrous Metal
……	

可转位铣削刀体型号表示规则
Milling Cutter Holder Identification System

MF A 1 45 – 160 R

① ② ③ ④ ⑤ ⑥

①刀具类型 Milling Tool Type		
平面铣削 Face Milling	MF	常规平面铣削 General Face Milling
	MV	重载平面铣削 Heavy Face Milling
方肩铣削 Shoulder Milling	ME	常规方肩铣削 General Shoulder Milling
	MH	长刃方肩铣削 Helical Milling
仿形铣削 Profile Milling	MP	常规仿形铣削 General Profile Milling
	MB	球头仿形铣削 Ball Nose Milling
快进给铣削 High Feed Milling	MK	常规快进给铣削 General High Feed Milling
槽铣 Slot Milling	MS	三面刃槽铣 Side and Face Milling
倒角铣削 Chamfer Milling	MC	倒角铣削 Chamfer Milling
其他 Others	MX	特殊铣削 Special Milling

②系列编号 Series Number

③产品代次 Serial Number	
1	第1代 First
2	第2代 Second

④主偏角 Lead Angle	
45	45 = 45°

⑤刀具直径 Cutting Diameters	
160	160 = 160mm

⑥切削方向 Cutting Direction	
R	右 Right Hand
L	左 Left Hand

09 C 40 (T) S E 13 (M)

⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭

⑦齿数 No. of teeth	
09	9齿

⑧接口类型 Type of Coupling	
A	A 型接口 A Type
B	B 型接口 B Type
C	C 型接口 C Type
D	D 型接口 D Type
M	螺纹接口 Threaded Interface
P	直柄 Straight Shank
W	削平直柄 Weldon Shank
BT	BT 型接口 BT Type
HA	HSK-A接口 HSK-A Type

⑨接口尺寸 Coupling Size	
40	40 = 40mm

⑩颈部类型 Neck type	
T	锥颈 Cone Neck

⑪刀片形状 Insert Shape	
V	35°菱形 35°Rhombic
D	55°菱形 55°Rhombic
C	80°菱形 80°Rhombic
S	正方形 Square
T	正三角形 Triangle
R	圆形 Round
L	长方形 Rectangle

⑫刀片后角 Insert Clearance Angle	
N	0°
B	5°
C	7°
P	11°
D	15°
E	20°
F	25°

⑬切削刃长度 Cutting Edge Length	
13	13 = 13mm

⑭刀杆长度 Body Length	
S	短 Short
M	一般 Normal
L	长 Long

系列介绍
Series Introduction

方肩铣系列
Shoulder Milling Series

XDHT

正型两刃铝用方肩铣
XDHT刀片+MEH190刀体

- 大前角设计，阻力小，切削轻快。
- 正型双后角设计，提高刃口强度。
- 长切削刃设计，满足大切深加工工况。
- 曲线刃刃型设计，在方肩铣削时达到真正的90°台阶。
- 主要用于铝合金材料的粗加工至半精加工。

Positive double edges shoulder milling for aluminum
XDHT insert +MEH190 cutter holder

- Big rake angle design, ensure small cutting resistance
- Positive double clearance angle design, improve the strength of the edge
- Long cutting edge design, suitable for big cutting depth
- Curve edge design, ensure to achive 90° step in shoulder milling
- Suitable for semi-finishing and roughing of aluminum alloy

ADGT

正型两刃方肩铣
ADGT刀片+MET190刀体

- 空间曲线刃刃型结构设计，有效降低切削阻力。
- 变刃宽结构设计，提高刀具寿命。
- 钛合金材料加工的特殊专用槽型。
- 主要用于钛合金材料粗加工至半精加工。

Positive two edges shoulder milling
ADGT inserts+MET190 cutter holder

- The edge with spatial curve Cutting Tooldesign to decrease the cutting resistance .
- The blade geometry with variable edge width, increased tool life.
- The special dedicated geometry for machining of Ti alloy.
- Suitable for semi-finishing and roughing machining of Ti alloy.

系列介绍
Series Introduction

仿形铣削系列
Profile Milling Series

RP/RC

正型仿形铣
RP/RC刀片+ MPB100/MPC100刀体

- 经济且高效。
- 槽型全面，覆盖轻载到重载加工。
- RC+MPC100系列产品具有防转动系统设计，切削过程更稳定。
- 可提供经济型和精密型两种刀片，满足不同客户需求。
- 主要用于不锈钢和钛合金等材料粗加工至半精加工。

Positive profile milling
RP/RC insert +MPB100/MPC100
cutter holder

- With economical and high efficiency
- With full range of geometry, available from light cutting to heavy cutting
- RC+MPC100 is with anti rotation design, ensure stable cutting
- Economy type inserts and high precision type inserts for choice, satisfy different customer requirement
- Suitable for semi-finish and roughing machining of stainless steel and titanium alloy

系列介绍
Series Introduction

快进给铣削系列
High feed milling series

SOE (M)T

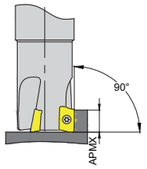
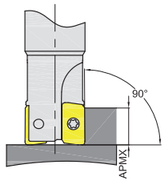
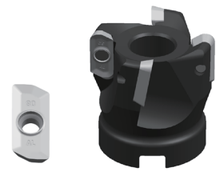
正型四刃快进给
SOE(M)T-SM刀片+MKT113刀体
SOMT-ST刀片+MKT213刀体

- 正前角加工，切削轻快，加工稳定。
- 两段式切削刃设计，满足不同加工工况需求。
- 带修光刃设计，在高进给加工和侧壁加工时，具有良好的加工表面质量。
- 特殊表面涂层工艺，刃口表面光滑，减少积屑瘤产生。
- 主要用于钛合金材料粗加工。

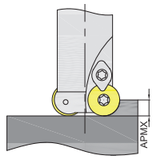
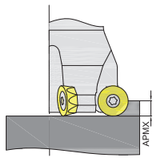
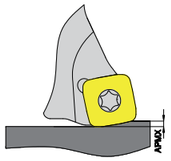
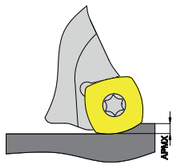
Positive four edges high-feed milling for Ti alloy
SOE(M)T-SM inserts +MKT113 cutter holder
SOMT-ST inserts +MKT213 cutter holder

- Positive rake angle processing, cutting light, stable processing.
- The cutting edge with two-stage cutting edge design, suitable for different processing conditions.
- Design with wiper , in high feed processing and side wall processing, has good processing surface quality.
- Special surface coating technology, make the edge surface smooth, and reduce the formation of debris tumor.
- Suitable for roughing machining of Ti alloy.

可转位铣削产品一览表
Indexable Milling Products List

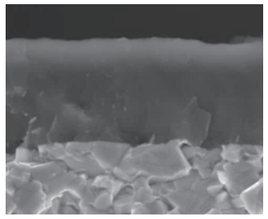
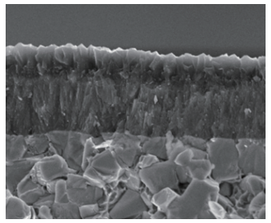
类型 Type	应用 Application	刀片系列 Inserts Series	刀体系列 Cutter Holder Series	图示 Picture	简介 Product Application
方肩铣削 Shoulder Milling	 AD10: APMX =9.0mm AD12: APMX =11.0mm AD18: APMX =16.0mm	ADGT P083	MET190 (ϕ16-ϕ160)		钛合金材料的方肩、平面、型腔铣和槽铣等多种加工方式。 Shoulder,face, cavity and slot milling for titanium alloy.
	 XD19: APMX =18.0mm	XDHT P091	MEH190 (ϕ25-ϕ125)		铝合金高效方肩铣削加工。 High efficiency shoulder milling for aluminum alloy.

可转位铣削产品一览表
Indexable Milling Products List

类型 Type	应用 Application	刀片系列 Inserts Series	刀体系列 Cutter Holder Series	图示 Picture	简介 Product Application
仿形铣削 Profile Milling	 RP08: APMX =4.0mm RP10: APMX =5.0 mm RP12: APMX =6.0 mm RP16: APMX =8.0 mm	RP P095	MPB100 (Φ16-Φ125)		不锈钢、钛合金材料的仿形、平面、槽铣及型腔铣削加工。 Profile, face, slot and cavity milling for stainless steel and titanium alloy.
	 RC10: APMX =5.0 mm RC12: APMX =6.0 mm RC16: APMX =8.0 mm RC20: APMX =10.0 mm	RC P099	MPC100 (Φ20-Φ160)		不锈钢、钛合金材料的仿形、平面、槽铣及型腔铣削加工。 Profile, face, slot and cavity milling for stainless steel and titanium alloy.
快进给铣削 High Feed Milling	 SO09: APMX=1.2mm SO12: APMX=1.4mm	SOE(M)T P106	MKT113 (ϕ25-ϕ125)		钛合金材料的平面和型腔铣削加工。 Face and cavity milling for titanium alloy.
	 SO09: APMX=1.1mm SO12: APMX=1.8mm	SOMT P106	MKT213 (ϕ25-ϕ125)		钛合金材料的槽铣、坡铣及插补铣削加工。 Slot, slope and Interpolation milling for titanium alloy.

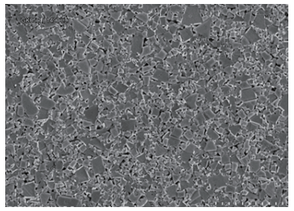
铣削用刀片牌号简介
Milling Inserts Grade

加工M类材料牌号
Grade for M

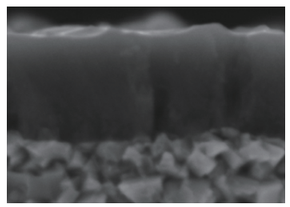
被加工材料 Workpiece	牌号 Grade	颜色 Color	涂层类型 Coating Type	涂层构成 Coating Structure	特点 Features
M	GM4135	暗黄色 Dark Yellow	PVD		● 最新 TiAlSiN 多层涂层，搭配高强度细晶硬质合金基体，具有良好的耐磨性、韧性及热稳定性。 ● 适用于不锈钢、钛合金等难加工材料的粗加工与不稳定工况加工。 ● The latest TiAlSiN multilayer coating, with high-strength fine-grained cemented carbide substrate, has good wear resistance, toughness and thermal stability. ● It is suitable for rough machining and unstable working conditions of difficult-to-machine materials such as stainless steel and titanium alloy.
	GM2140	黑色 Black	CVD		● 全面升级的 MT-TiCN+ Al_2O_3 涂层搭配高强度细晶硬质合金基体，兼备耐磨性、韧性及热稳定性。 ● 适用于不锈钢和钛合金的半精到粗加工。 ● The upgraded MT-TiCN+ Al2O3 coating is matched with a fine-grained cemented carbide Substrate, which has wear resistance, toughness and thermal stability. ● Suitable for semi-finish to rough machining of stainless steel and titanium alloys.

铣削用刀片牌号简介
Milling Inserts Grade

加工N类材料牌号
Grade for N

被加工材料 Workpiece	牌号 Grade	颜色 Color	涂层类型 Coating Type	涂层构成 Coating Structure	特点 Features
N	GN9125	—	无涂层 Uncoatig		● 无涂层细晶粒硬质合金牌号，良好的耐磨性能与韧性兼备。 ●适合于铜、铝等有色金属的半精到粗加工。 ● Uncoated fine-grained cemented carbide Grade, with good wear resistance and toughness. ● Suitable on semi-finishing to roughing processing of copper and aluminum.

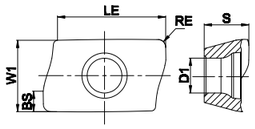
加工S类材料牌号
Grade for S

被加工材料 Workpiece Material	牌号 Grade	颜色 Color	涂层类型 Coating Type	涂层构成 Coating Structure	特点 Features
S	GS4130	紫灰色 Grey Purple	PVD		● 最新纳米 TiAlN 涂层搭配高韧性微细晶粒硬质合金基体，兼备良好的耐磨性与韧性。 ● 适用于不锈钢和钛合金等难加工材料的粗加工工况。 ● The latest nano TiAlN coating is matched with a high-toughness fine-grained cemented carbide substrate, which has good wear resistance and toughness. ● Suitable on semi finishing to roughing processing of titanium and high temperature alloy.
	GSM7130	银白色 Silver	PVD		● 新开发具有极高硬度、优异抗粘结磨损性的涂层技术，搭配高钴强韧性基体，保证了加工的高寿命和高可靠性。 ● 适用于钛合金的中低速加工，加工表面质量高。 ● Newly-developed PVD coating with high hot hardness and superior resistance to adhesive wear,combined with tough substrate to provide high cutting performance and well stability. ● Suitable for medium and low speed machining of titanium alloys with high surface quality.

方肩铣削
Shoulder Milling

ADGT

正型两刃方肩铣刀片
Positive two edges square-shoulder milling cutter insert



订货号 Ordering Code	尺寸 Dimension(mm)						涂层硬质合金 Coating Grade														硬质合金 coa-ted	陶瓷 cer-met
	LE	W1	S	BS	D1	RE	GA4225	GA4230	GA4325	GA4330	GP4225	GP2115	GM4135	GM2140	GK4125	GK2115	GS4130	GSM7130	GH4115	GN9125	GP01TM
ADGT10T302R-SM	9.9	6.9	3.9	1.7	3.0	0.2												●			
ADGT10T304R-SM	9.9	6.9	3.9	1.9	3.0	0.4												●			
ADGT10T308R-SM	9.9	6.9	3.9	2.0	3.0	0.8												●			
ADGT10T312R-SM	9.8	6.9	3.9	2.3	3.0	1.2												●			
ADGT10T316R-SM	9.8	6.9	3.9	2.6	3.0	1.6												●			
ADGT10T320R-SM	9.7	6.9	3.9	2.9	3.0	2.0												●			
ADGT10T330R-SM	9.6	6.9	3.9	3.9	3.0	3.0												●			
ADGT120402R-SM	12.3	8.2	5.0	1.7	3.95	0.2												●			
ADGT120404R-SM	12.3	8.2	5.0	1.9	3.95	0.4												●			
ADGT120408R-SM	12.3	8.2	5.0	2.3	3.95	0.8												●			
ADGT120412R-SM	12.3	8.2	5.0	2.3	3.95	1.2												●			
ADGT120416R-SM	12.3	8.2	5.0	2.7	3.95	1.6												●			
ADGT120420R-SM	12.3	8.2	5.0	2.9	3.95	2.0												●			
ADGT120430R-SM	12.1	8.2	5.0	3.9	3.95	3.0												●			
ADGT180602R-SM	17.2	11.2	6.4	1.7	4.97	0.2												●			
ADGT180604R-SM	17.2	11.2	6.4	1.9	4.97	0.4												●			
ADGT180608R-SM	17.2	11.2	6.4	2.3	4.97	0.8												●			
ADGT180612R-SM	17.2	11.2	6.4	2.7	4.97	1.2												●			
ADGT180616R-SM	17.1	11.2	6.4	3.2	4.97	1.6												●			
ADGT180620R-SM	17.1	11.2	6.4	3.6	4.97	2.0												●			
ADGT180630R-SM	16.9	11.2	6.4	5.0	4.97	3.0												●			
ADGT180640R-SM	16.9	11.2	6.4	5.0	4.97	4.0												●			
ADGT180650R-SM	16.8	11.2	6.4	5.7	4.97	5.0												●			

●标准库存Stock ○需预定Available Upon Order

方肩铣削
Shoulder Milling

ADGT 系列槽型
ADGT Series Geometry

钛合金材料工件切削
Ti alloy Workpiece Material cutting

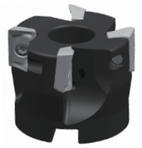
SM

低切削阻力切削
获得更好的加工质量
Cutting of low cutting force
Get better processing quality

方肩铣削
Shoulder Milling

MET190

心轴式
Arbor



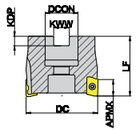


Fig1

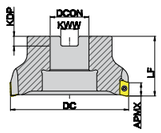


Fig2

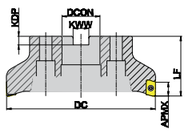


Fig3

订货号 Ordering Code	直径 Dia-meter	刃数 Teeth	尺寸 Dimension(mm)					最大切深 APMX	匹配刀片 Suitable for	内冷 Coolant	图示 Shape	库存 Stock
			DC	DCON	LF	KWW	KDP					
MET190050R05A22AD12	50	5	50	22	40	10.4	6.3	11	ADGT1204	√	Fig1	●
MET190050R07A22AD12	50	7	50	22	40	10.4	6.3	11	ADGT1204	√	Fig1	●
MET190050R04A22AD18	50	4	50	22	40	10.4	6.3	16	ADGT1806	√	Fig1	●
MET190050R05A22AD18	50	5	50	22	40	10.4	6.3	16	ADGT1806	√	Fig1	●
MET190052R04A22AD18	52	4	52	22	40	10.4	6.3	16	ADGT1806	√	Fig1	●
MET190063R06A22AD12	63	6	63	22	40	10.4	6.3	11	ADGT1204	√	Fig1	●
MET190063R08A22AD12	63	8	63	22	40	10.4	6.3	11	ADGT1204	√	Fig1	●
MET190063R05A22AD18	63	5	63	22	40	10.4	6.3	16	ADGT1806	√	Fig1	●
MET190063R06A22AD18	63	6	63	22	40	10.4	6.3	16	ADGT1806	√	Fig1	●
MET190066R05A22AD18	66	5	66	22	40	10.4	6.3	16	ADGT1806	√	Fig1	●
MET190080R07A27AD12	80	7	80	27	50	12.4	7	11	ADGT1204	√	Fig1	●
MET190080R10A27AD12	80	10	80	27	50	12.4	7	11	ADGT1204	√	Fig1	●
MET190080R06A27AD18	80	6	80	27	50	12.4	7	16	ADGT1806	√	Fig1	●
MET190080R08A27AD18	80	8	80	27	50	12.4	7	16	ADGT1806	√	Fig1	●
MET190100R08B32AD12	100	8	100	32	50	14.4	8	11	ADGT1204	×	Fig2	●
MET190100R12B32AD12	100	12	100	32	50	14.4	8	11	ADGT1204	×	Fig2	●
MET190100R07B32AD18	100	7	100	32	50	14.4	8	16	ADGT1806	×	Fig2	●
MET190100R09B32AD18	100	9	100	32	50	14.4	8	16	ADGT1806	×	Fig2	●
MET190125R08B40AD18	125	8	125	40	63	16.4	9	16	ADGT1806	×	Fig2	●
MET190125R11B40AD18	125	11	125	40	63	16.4	9	16	ADGT1806	×	Fig2	●
MET190160R09C40AD18	160	9	160	40	63	16.4	9	16	ADGT1806	×	Fig3	●
MET190160R12C40AD18	160	12	160	40	63	16.4	9	16	ADGT1806	×	Fig3	●

●标准库存 Stock ○需预定 Available Upon Order

方肩铣削
Shoulder Milling

MET190

圆柱直柄式
Cylindrical Straight Type

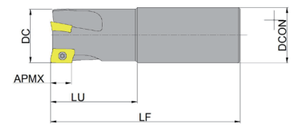


Fig4

订货号 Ordering Code	直径 Dia-meter	刃数 Teeth	尺寸 Dimension(mm)				最大切深 APMX	匹配刀片 Suitable for	内冷 Coolant	图示 Shape	库存 Stock
			DC	DCON	LF	LU					
MET190016R02P16AD10	16	2	16	16	100	30	9	ADGT10T3	√	Fig4	●
MET190016R02P16AD10L	16	2	16	16	170	50	9	ADGT10T3	√	Fig4	●
MET190016R02P16NAD10	16	2	16	16	100	-	9	ADGT10T3	√	Fig4	●
MET190018R02P16AD10	18	2	18	16	170	40	9	ADGT10T3	√	Fig4	●
MET190020R02P20AD10	20	2	20	20	100	30	9	ADGT10T3	√	Fig4	●
MET190020R02P20AD10L	20	2	20	20	150	40	9	ADGT10T3	√	Fig4	●
MET190020R03P20AD10	20	3	20	20	150	20	9	ADGT10T3	√	Fig4	●
MET190020R03P20AD10L	20	3	20	20	200	50	9	ADGT10T3	√	Fig4	●
MET190020R02P20AD12	20	2	20	20	100	40	11	ADGT1204	√	Fig4	●
MET190020R02P20AD12L	20	2	20	20	170	60	11	ADGT1204	√	Fig4	●
MET190025R03P25AD10	25	3	25	25	100	30	9	ADGT10T3	√	Fig4	●
MET190025R03P25AD10L	25	3	25	25	150	40	9	ADGT10T3	√	Fig4	●
MET190025R04P25AD10L	25	4	25	25	200	50	9	ADGT10T3	√	Fig4	●
MET190025R02P25AD12	25	2	25	25	100	40	11	ADGT1204	√	Fig4	●
MET190025R02P25AD12L	25	2	25	25	200	60	11	ADGT1204	√	Fig4	●
MET190025R03P25AD12	25	3	25	25	100	40	11	ADGT1204	√	Fig4	●
MET190025R03P25AD12L	25	3	25	25	200	60	11	ADGT1204	√	Fig4	●
MET190032R04P32AD10	32	4	32	32	100	30	9	ADGT10T3	√	Fig4	●
MET190032R04P32AD10L	32	4	32	32	150	40	9	ADGT10T3	√	Fig4	●
MET190032R05P32AD10L	32	5	32	32	200	50	9	ADGT10T3	√	Fig4	●
MET190032R03P32AD12	32	3	32	32	110	50	11	ADGT1204	√	Fig4	●
MET190032R03P32AD12L	32	3	32	32	210	80	11	ADGT1204	√	Fig4	●
MET190032R04P32AD12	32	4	32	32	110	50	11	ADGT1204	√	Fig4	●
MET190032R04P32AD12L	32	4	32	32	210	80	11	ADGT1204	√	Fig4	●
MET190032R02P32AD18	32	2	32	32	110	50	16	ADGT1806	√	Fig4	●
MET190032R02P32AD18L	32	2	32	32	210	80	16	ADGT1806	√	Fig4	●
MET190032R03P32AD18	32	3	32	32	110	50	16	ADGT1806	√	Fig4	●
MET190032R03P32AD18L	32	3	32	32	210	80	16	ADGT1806	√	Fig4	●
MET190035R03P32AD12	35	3	35	32	160	-	11	ADGT1204	√	Fig4	●
MET190035R03P32AD12L	35	3	35	32	250	-	11	ADGT1204	√	Fig4	●
MET190035R04P32AD12	35	4	35	32	160	-	11	ADGT1204	√	Fig4	●
MET190035R04P32AD12L	35	4	35	32	250	-	11	ADGT1204	√	Fig4	●
MET190040R03P32AD18	40	3	40	32	160	-	16	ADGT1806	√	Fig4	●
MET190040R03P32AD18L	40	3	40	32	250	-	16	ADGT1806	√	Fig4	●
MET190040R04P32AD18	40	4	40	32	160	-	16	ADGT1806	√	Fig4	●
MET190040R04P32AD18L	40	4	40	32	250	-	16	ADGT1806	√	Fig4	●

●标准库存 Stock ○需预定 Available Upon Order

方肩铣削
Shoulder Milling

MET190

可换式刀头
Replaceable Tool Head

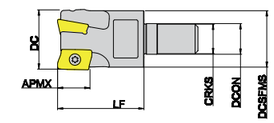


Fig5

订货号 Ordering Code	直径 Dia-meter	刃数 Teeth	尺寸 Dimension(mm)					最大切深 APMX	匹配刀片 Suitable for	内冷 Coolant	图示 Shape	库存 Stock
			DC	DCSFMS	DCON	LF	CRKS					
MET190020R02M10AD12	20	2	20	18	10.5	28	M10	11	ADGT1204	√	Fig5	●
MET190025R03M12AD12	25	3	25	23	12.5	35	M12	11	ADGT1204	√	Fig5	●
MET190032R03M16AD12	32	3	32	30	17	40	M16	11	ADGT1204	√	Fig5	●
MET190032R04M16AD12	32	4	32	30	17	40	M16	11	ADGT1204	√	Fig5	●
MET190032R02M16AD18	32	2	32	30	17	45	M16	16	ADGT1806	√	Fig5	●
MET190032R03M16AD18	32	3	32	30	17	45	M16	16	ADGT1806	√	Fig5	●
MET190040R04M16AD12	40	4	40	30	17	40	M16	11	ADGT1204	√	Fig5	●
MET190040R04M20AD12	40	4	40	37	21	45	M20	11	ADGT1204	√	Fig5	●
MET190040R05M16AD12	40	5	40	30	17	40	M16	11	ADGT1204	√	Fig5	●
MET190040R05M20AD12	40	5	40	37	21	45	M20	11	ADGT1204	√	Fig5	●
MET190040R03M16AD18	40	3	40	30	17	45	M16	16	ADGT1806	√	Fig5	●
MET190040R03M20AD18	40	3	40	37	21	45	M20	16	ADGT1806	√	Fig5	●
MET190040R04M16AD18	40	4	40	30	17	45	M16	16	ADGT1806	√	Fig5	●
MET190040R04M20AD18	40	4	40	37	21	45	M20	16	ADGT1806	√	Fig5	●

●标准库存 Stock ○需预定 Available Upon Order

方肩铣削
Shoulder Milling

刀体配件列表
Spare Parts

零件名称 Part Name		刀片螺钉 Insert Screw	刀片螺钉扳手 Insert Screw Wrench	
适用刀片 Inserts	形状 Shape			
ADGT10T3	规格 Specification	SI60M2.5X6.5-03510I	TI07P	-
	订货号 Ordering Code	SI60M025065-03610IS	TI07PB	-
ADGT1204 (DC20-DC25)	规格 Specification	SI60M3.5X6.9-04805I	TI10P	-
	订货号 Ordering Code	SI60M035069-04805IB	TI10PB	-
ADGT1204 (DC32-DC35)	规格 Specification	SI60M3.5X8-04805I	TI10P	-
	订货号 Ordering Code	SI60M035080-04805IB	TI10PB	-
ADGT1204 (DC ⩾ 40)	规格 Specification	SI60M3.5X9-04806I	TI10P	TI10T
	订货号 Ordering Code	SI60M035090-04806IB	TI10PB	TI10TB
ADGT1806	规格 Specification	SI60M4.5X10-06212I	TI20P	TI20T
	订货号 Ordering Code	SI60M045100-06212IB	TI20PB	TI20TB

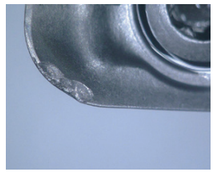
推荐切削参数
Recommended Cutting Data

被加工材料 Workpiece Material		材料硬度 Hardness	牌号 Grade	规格 Specification	推荐切深 ap (mm)	切削速度 Cutting Speed Vc(m/min)	进给 / 齿 Feed Per Tooth fz(mm)
S	耐热合金、钛合金 Heat-resistant Alloy and Titanium Alloy	HRC30-45	GSM7130	ADGT10T3	2	50 (20-80)	0.1 (0.05-0.15)
				ADGT1204	3		
				ADGT1806	4		

应用案例
Case

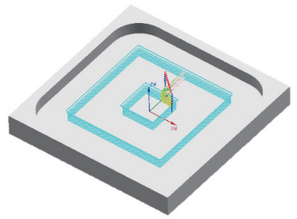
案例1：ADGT+MET190 航空钛合金框件腹板型腔铣加工
Case1: ADGT+MET190 Milling Machining of Web Cavity of Aerospace Titanium Alloy Frame

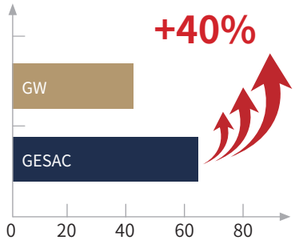
刀具规格 Specification	ADGT120430R-SM
刀具牌号 Grade	GSM7130
刀体规格 Size	MET190-032R04P32-AD12
工件材料 Workpiece Material	TC4
切削速度 Cutting Speed	40m/min
进给量 Feed Rate	0.15mm/z
切削量 Cutting Amount	2.0mm
切削方式 Cutting Method	型腔铣 Cavity milling
冷却方式 Cooling Method	水基乳化液，外冷 Water based emulsion，External cooling
切削效果 Processing Result	中低速下，耐磨性高，较欧美竞品寿命提升40% High wear resistance at medium and low speeds, 40% longer service life than European and American competitors


GW-45min


GESAC-45min


GESAC-63min

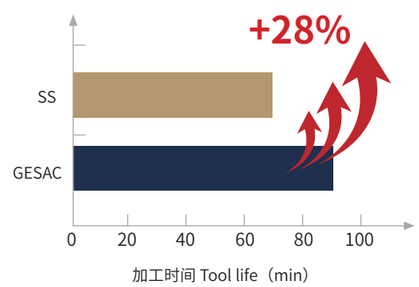




应用案例
Case

案例2：ADGT+MET190 航空钛合金结构件槽铣加工
Case2: ADGT+MET190 Slot milling of aeronautical titanium alloy structure

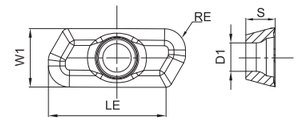
刀具规格 Specification	ADGT180630R-SM
刀具牌号 Grade	GSM7130
刀体规格 Size	MET190-032R03P32-AD18
工件材料 Workpiece Material	TC18（HRC40-45）
切削速度 Cutting Speed	35m/min
进给量 Feed Rate	0.11mm/z
切削量 Cutting Amount	1.0mm
切削方式 Cutting Method	槽铣 Slot milling
冷却方式 Cooling Method	水基乳化液，外冷 Water based emulsion，External cooling
切削效果 Processing Result	中低速下，高耐磨性， 较欧美竞品寿命提升28% High wear resistance at medium and low speeds, 28% longer service life than European and American competitors



方肩铣削
Shoulder Milling

XDHT

铝用方肩铣刀片
Shoulder Milling Insert For Aluminium



订货号 Ordering Code	尺寸 Dimension(mm)					涂层硬质合金 Coating Grade			硬质合金 coa-ted
	LE	W1	S	D1	RE	GM4135	GM2140	GS4130	GN9125
XDHT190402FR-AL	19	9.5	4.76	4.6	0.2				●
XDHT190408FR-AL	19	9.5	4.76	4.6	0.8				●
XDHT190420FR-AL	19	9.5	4.76	4.6	2.0				●
XDHT190432FR-AL	19	9.5	4.76	4.6	3.2				●
XDHT190440FR-AL	19	9.5	4.76	4.6	4.0				●
XDHT190450FR-AL	19	9.5	4.76	4.6	5.0				●

●标准库存Stock ○需预定Available Upon Order

XDHT 系列槽型
XDHT Series Geometry

铝材通用切削
General Cutting
for Aluminum Alloys

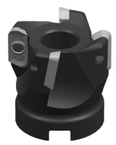
AL

大前角、锋利刃，切削轻快，抛光处理，排屑良好。
Large rake angle, sharp edge, light cutting, polishing and good chip removal

方肩铣削
Shoulder Milling

MEH190

心轴式
Arbor



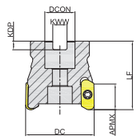


Fig1

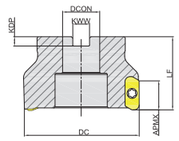


Fig2

订货号 Ordering Code	直径 Dia-meter	刃数 Teeth	尺寸 Dimension(mm)					最大切深 APMX	匹配刀片 Suitable for	内冷 Coolant	图示 Shape	库存 Stock
			DC	DCON	LF	KWW	KDP					
MEH190040R03A16XD19	40	3	40	16	50	8.4	5.6	18	XDHT1904(RE ≤ 4)	×	Fig1	●
MEH190050R04A22XD19	50	4	50	22	50	10.4	6.3	18	XDHT1904(RE ≤ 4)	×	Fig1	●
MEH190063R04A22XD19	63	4	63	22	50	10.4	6.3	18	XDHT1904(RE ≤ 4)	×	Fig1	●
MEH190063R05A22XD19	63	5	63	22	50	10.4	6.3	18	XDHT1904(RE ≤ 4)	×	Fig1	●
MEH190080R04A27XD19	80	4	80	27	50	12.4	7	18	XDHT1904(RE ≤ 4)	×	Fig1	●
MEH190080R05A27XD19	80	5	80	27	50	12.4	7	18	XDHT1904(RE ≤ 4)	×	Fig1	●
MEH190100R05B32XD19	100	5	100	32	50	14.4	8	18	XDHT1904(RE ≤ 4)	×	Fig2	●
MEH190100R08B32XD19	100	8	100	32	50	14.4	8	18	XDHT1904(RE ≤ 4)	×	Fig2	●
MEH190125R05B40XD19	125	5	125	40	63	16.4	9	18	XDHT1904(RE ≤ 4)	×	Fig2	●
MEH190125R06B40XD19	125	6	125	40	63	16.4	9	18	XDHT1904(RE ≤ 4)	×	Fig2	●

●标准库存 Stock ○需预定 Available Upon Order

方肩铣削
Shoulder Milling

MEH190

圆柱直柄式
Cylindrical Straight Type

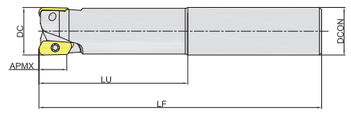


Fig3

订货号 Ordering Code	直径 Dia-mete	刃数 Teeth	尺寸 Dimension(mm)				最大切深 APMX	匹配刀片 Suitable for	内冷 Coolant	图示 Shape	库存 Stock
			DC	DCON	LF	LU					
MEH190025R02P25XD19	25	2	25	25	121	50	18	XDHT1904(RE ≤ 4)	×	Fig3	●
MEH190025R02P25XD19L	25	2	25	25	165	63	18	XDHT1904(RE ≤ 4)	×	Fig3	●
MEH190032R02P32XD19S	32	2	32	32	125	65	18	XDHT1904(RE ≤ 4)	×	Fig3	●
MEH190032R02P32XD19	32	2	32	32	165	80	18	XDHT1904(RE ≤ 4)	×	Fig3	●
MEH190032R02P32XD19L	32	2	32	32	190	100	18	XDHT1904(RE ≤ 4)	×	Fig3	●
MEH190032R03P32XD19S	32	3	32	32	125	65	18	XDHT1904(RE ≤ 4)	×	Fig3	●
MEH190032R03P32XD19	32	3	32	32	165	80	18	XDHT1904(RE ≤ 4)	×	Fig3	●
MEH190032R03P32XD19L	32	3	32	32	190	100	18	XDHT1904(RE ≤ 4)	×	Fig3	●

●标准库存 Stock ○需预定 Available Upon Order

MEH190

可换式刀头
Replaceable Tool Head

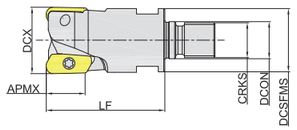


Fig4

订货号 Ordering Code	直径 Dia-mete	刃数 Teeth	尺寸 Dimension(mm)					最大切深 APMX	匹配刀片 Suitable for	内冷 Coolant	图示 Shape	库存 Stock
			DCX	DCON	DCSFMS	LF	CRKS					
MEH190025R02M12XD19	25	2	25	12.5	24	45	M12	18	XDHT1904(RE ≤ 4)	×	Fig4	●
MEH190032R03M16XD19	32	3	32	17	29	52	M16	18	XDHT1904(RE ≤ 4)	×	Fig4	●
MEH190040R03M16XD19	40	3	40	17	32	52	M16	18	XDHT1904(RE ≤ 4)	×	Fig4	●

●标准库存 Stock ○需预定 Available Upon Order

方肩铣削
Shoulder Milling

MEH190

一体式-HSK63A
Integrated Cutter-HSK63A

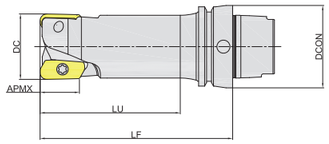
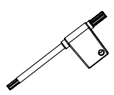


Fig5

订货号 Ordering Code	直径 Dia-mete	刃数 Teeth	尺寸 Dimension(mm)				最大切深 APMX	匹配刀片 Suitable for	内冷 Coolant	图示 Shape	库存 Stock
			DC	DCON	LF	LU					
MEH190025R02HA63XD19S	25	2	25	63	90	50	18	XDHT1904(RE ≤ 4)	×	Fig5	●
MEH190025R02HA63XD19	25	2	25	63	100	63	18	XDHT1904(RE ≤ 4)	×	Fig5	●
MEH190032R02HA63XD19S	32	2	32	63	100	63	18	XDHT1904(RE ≤ 4)	×	Fig5	●
MEH190032R02HA63XD19	32	2	32	63	120	80	18	XDHT1904(RE ≤ 4)	×	Fig5	●
MEH190032R03HA63XD19S	32	3	32	63	100	63	18	XDHT1904(RE ≤ 4)	×	Fig5	●
MEH190032R03HA63XD19	32	3	32	63	120	80	18	XDHT1904(RE ≤ 4)	×	Fig5	●
MEH190040R03HA63XD19S	40	3	40	63	100	63	18	XDHT1904(RE ≤ 4)	×	Fig5	●
MEH190040R03HA63XD19	40	3	40	63	120	80	18	XDHT1904(RE ≤ 4)	×	Fig5	●

●标准库存 Stock ○需预定 Available Upon Order

刀体配件列表
Spare Parts

零件名称 Part Name		刀片螺钉 Inserts Screw	刀片螺钉扳手 Insert Screw Wrench	
形状 Shape / 适用刀片 Inserts				
XDHT1904	订货号 Ordering Code	SI60M040075-05505WW	TT15PB	TT15TB

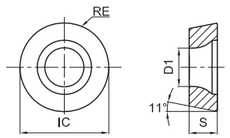
推荐切削参数
Recommended Cutting Data

被加工材料 Workpiece		材料硬度 Hardness	牌号 Grade	规格 Specification	推荐切深 ap(mm)	切削速度 Cutting Speed Vc(m/min)	进给 / 齿 Feed Per Tooth fz(mm)		
							轻切削 Light Cutting(L)	中切削 Medium Cutting(M)	重切削 Heavy Cutting(H)
N	铝 材 Aluminium	HB60-210	GN9125	XDHT1904	7	≥ 300	0.15 (0.1-0.2)	0.2 (0.1-0.3)	0.3 (0.2-0.4)

仿形铣削
Profile Milling

RP

正型精密仿形铣刀片
Profile Milling Inserts (Positive)



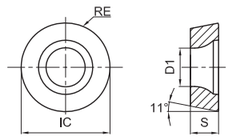
订货号 Ordering Code		尺寸 (mm) Dimension(mm)				涂层硬质合金 Coating Grade			硬质合金 coa-ted
		IC	S	RE	D1	GM4135	GM2140	GS4130	GN9125
	RPET1003M0-GL	10	3.18	5	4.4				
	RPET1204M0-GL	12	4.76	6	4.4				
	RPET08T2M0-GM	8	2.78	4	2.9			●	
	RPET1003M0T-GM	10	3.18	5	4.4				
	RPET1204M0-GM	12	4.76	6	4.4				
	RPET1204M0T-GM	12	4.76	6	4.4				
	RPET1606M0T-GM	16	6.35	8	5.5			●	
	RPET1606M0T-GH	16	6.35	8	5.5				
	RPET1606M0-SM	16	6.35	8	5.5		●	●	
	RPEW08T2M0	8	2.78	4	2.9				
	RPEW1003M0	10	3.18	5	4.4				
	RPEW10T3M0	10	3.97	5	4.4				
	RPEW1003M0T	10	3.18	5	4.4				
	RPEW1204M0T	12	4.76	6	4.4				

●标准库存 Stock ○需预定 Available Upon Order

仿形铣削
Profile Milling

RP

正型经济仿形铣刀片
Profile Milling Inserts (Positive)



订货号 Ordering Code	尺寸 (mm) Dimension(mm)				涂层硬质合金 Coating Grade			硬质合金 coa-ted
	IC	S	RE	D1	GM4135	GM2140	GS4130	GN9125
 RPMT10T3M0-GM	10	3.97	5	4.4			○	
 RPMT1003M0T-GM	10	3.18	5	4.4		●	●	
RPMT1204M0-GM	12	4.76	6	4.4		○	●	
 RPMT1204M0T-KM	12	4.76	6	4.4	●			
 RPMW1003M0T	10	3.18	5	4.4				
RPMW1204M0T	12	4.76	6	4.4	●			

●标准库存 Stock ○需预定 Available Upon Order

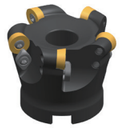
RP 系列槽型
RP Series Geometry

通用材料轻切削 Light Cutting for General Material	通用材料中切削 Medium Cutting for General Material	铸铁材料中切削 Medium Machining of General Cast Iron	难加工材料中切削 Medium Machining of Nonferrous Metal	通用材料重切削 Heavy Cutting for General Material	
					
GL	GM	KM	SM	GH	None
					
大前角设计，切削刃更加锋利。Big rake angle, sharper edge.	适中刃宽及前角设计，兼顾刃带强度及锋利性。Suitable edge width and rake design, has good strength and sharpness.	适中刃宽及圆弧前角设计，提升排屑性及锋利性。Suitable edge width and rake design, has good strength and sharpness.	适中刃宽及前角设计，实现难加工材料高稳定性加工。Suitable edge width and rake design, has good strength and sharpness.	小前角 / 平板设计，切削刃强度更高。Small rake angle, flat design, high edge strength.	

仿形铣削
Profile Milling

MPB100

心轴式
Arbor



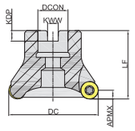


Fig1

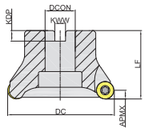


Fig2

订货号 Ordering Code	直径 Dia-mete	刃数 Teeth	尺寸 Dimension(mm)					最大切深 APMX	匹配刀片 Suitable for	内冷 Coolant	压板 Clamp	图示 Shape	库存 Stock
			DC	DCON	LF	KWW	KDP						
MPB100040R04A16RP10	40	4	40	16	40	8.4	6.3	5	RP**1003	×	√	Fig1	●
MPB100040R05A16RP08	40	5	40	16	40	8.4	6.3	4	RP**08T2	×	×	Fig1	●
MPB100050R04A22RP10	50	4	50	22	50	10.4	6.3	5	RP**1003	×	√	Fig1	●
MPB100050R04A22RP12	50	4	50	22	50	10.4	6.3	6	RP**1204	×	√	Fig1	●
MPB100063R04A22RP16	63	4	63	22	40	10.4	6.3	8	RP**1606	×	×	Fig1	●
MPB100063R05A22RP12	63	5	63	22	50	10.4	6.3	6	RP**1204	×	√	Fig1	●
MPB100063R06A22RP12	63	6	63	22	50	10.4	6.3	6	RP**1204	×	√	Fig1	●
MPB100080R06A27RP16	80	6	80	27	50	12.4	7	8	RP**1606	×	×	Fig1	●
MPB100100R07B32RP16	100	7	100	32	50	14.4	8	8	RP**1606	×	×	Fig2	●
MPB100125R08B40RP16	125	8	125	40	63	16.4	9	8	RP**1606	×	×	Fig2	●

●标准库存 Stock ○需预定 Available Upon Order

MPB100

圆柱直柄式
Cylindrical Straight Type

Fig3

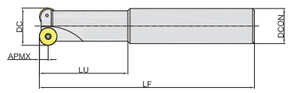
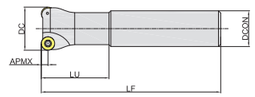


Fig4



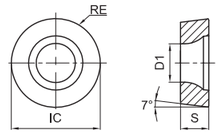
订货号 Ordering Code	直径 Dia-mete	刃数 Teeth	尺寸 Dimension(mm)				最大切深 APMX	匹配刀片 Suitable for	内冷 Coolant	压板 Clamp	图示 Shape	库存 Stock
			DC	DCON	LF	LU						
MPB100016R02P16RP08S	16	2	16	16	120	40	4	RP**08T2	×	×	Fig3	●
MPB100016R02P16RP08	16	2	16	16	160	50	4	RP**08T2	×	×	Fig3	●
MPB100020R02P20RP08	20	2	20	20	160	50	4	RP**08T2	×	×	Fig3	●
MPB100020R02P20RP10	20	2	20	20	160	50	5	RP**1003	×	√	Fig3	●
MPB100025R02P20RP10	25	2	25	20	160	50	5	RP**1003	×	√	Fig4	●
MPB100025R02P20RP10L	25	2	25	20	200	50	5	RP**1003	×	√	Fig4	●
MPB100025R02P25RP12	25	2	25	25	160	50	6	RP**1204	×	√	Fig3	●
MPB100025R03P25RP08	25	3	25	25	160	50	4	RP**08T2	×	×	Fig3	●
MPB100032R02P25RP12	32	2	32	25	160	50	6	RP**1204	×	√	Fig4	●
MPB100032R02P25RP12L	32	2	32	25	200	60	6	RP**1204	×	√	Fig4	●
MPB100032R03P25RP12	32	3	32	25	160	50	6	RP**1204	×	√	Fig4	●
MPB100040R02P32RP16	40	2	40	32	200	65	8	RP**1606	×	×	Fig4	●

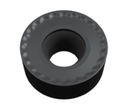
●标准库存 Stock ○需预定 Available Upon Order

仿形铣削
Profile Milling

RC

正型精密仿形铣刀片
Profile Milling Inserts (Positive)



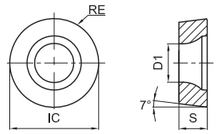
订货号 Ordering Code	尺寸 (mm) Dimension(mm)				涂层硬质合金 Coating Grade			硬质合金 coa-ted
	IC	S	RE	D1	GM4135	GM2140	GS4130	GN9125
 RCET10T3M0-EM	10	3.97	5	4.4				
 RCET1204M0-EM	12	4.76	6	4		●		
 RCET1606M0-EM	16	6.35	8	5.5	○	○		
RCET2006M0-EM	20	6.35	10	6.5				
 RCET1204M0T-EH	12	4.76	6	4.4				
RCET1606M0T-EH	16	6.35	8	5.5		○		
RCET2006M0T-EH	20	6.35	10	6.5				
 RCET1204M0-MM	12	4.76	6	4		○		
 RCET1204M0-KM	12	4.76	6	4				
 RCET1606M0T-KH	16	6.35	8	5.5				

●标准库存Stock ○需预定Available Upon Order

仿形铣削
Profile Milling

RC

正型经济仿形铣刀片
Profile Milling Inserts (Positive)



订货号 Ordering Code		尺寸 (mm) Dimension(mm)				涂层硬质合金 Coating Grade			硬质合金 coa-ted
		IC	S	RE	D1	GM4135	GM2140	GS4130	GN9125
	RCMT1606M0T-KM	16	6.35	8	5.5	●			

●标准库存 Stock ○需预定 Available Upon Order

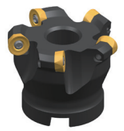
RC 系列槽型
RC Series Geometry

通用材料中切削 Medium Cutting for General Material	不锈钢材料中切削 Medium Cutting of Stainless Steel	铸铁材料中切削 Heavy Cutting of General Material	通用材料重切削 Heavy Cutting for General Material	
				
EM	MM	KM	EH	KH
				
一般工况下，实现高稳定性加工。In general circumstances, high stability machining is realized.	双前角设计，兼顾刃带强度及锋利性。Double rake angle design, has good strength and sharpness.	双前角设计，实现一般工况下高稳定性加工。Double rake angle design, has vibration resistance in general machining condition.	小前角 + 倒棱设计，切削刃强度更高。Small rake angle and chamfer design, higher edge strength.	

仿形铣削
Profile Milling

MPC100

心轴式
Arbor



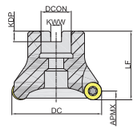


Fig1

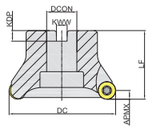


Fig2

订货号 Ordering Code	直径 Dia-mete	刃数 Teeth	尺寸 Dimension(mm)					最大切深 APMX	匹配刀片 Suitable for	内冷 Coolant	图示 Shape	库存 Stock
			DC	DCON	LF	KWW	KDP					
MPC100050R04A22RC12	50	4	50	22	50	10.4	6.3	6	RC**1204	×	Fig1	●
MPC100050R05A22RC12	50	5	50	22	50	10.4	6.3	6	RC**1204	×	Fig1	●
MPC100063R04A22RC12	63	4	63	22	50	10.4	6.3	6	RC**1204	×	Fig1	●
MPC100063R04A22RC16	63	4	63	22	50	10.4	6.3	8	RC**1606	×	Fig1	●
MPC100063R05A22RC12	63	5	63	22	50	10.4	6.3	6	RC**1204	×	Fig1	●
MPC100063R05A22RC16	63	5	63	22	50	10.4	6.3	8	RC**1606	×	Fig1	●
MPC100063R06A22RC12	63	6	63	22	50	10.4	6.3	6	RC**1204	×	Fig1	●
MPC100080R05A27RC16	80	5	80	27	50	12.4	7	8	RC**1606	×	Fig1	●
MPC100080R06A27RC12	80	6	80	27	50	12.4	7	6	RC**1204	×	Fig1	●
MPC100080R06A27RC16	80	6	80	27	50	12.4	7	8	RC**1606	×	Fig1	●
MPC100100R06B32RC16	100	6	100	32	50	14.4	8	8	RC**1606	×	Fig2	●
MPC100100R06B32RC20	100	6	100	32	50	14.4	8	10	RC**2006	×	Fig2	●
MPC100125R07B40RC20	125	7	125	40	63	16.4	9	10	RC**2006	×	Fig2	●
MPC100160R08B40RC20	160	8	160	40	63	16.4	9	10	RC**2006	×	Fig2	●

●标准库存 Stock ○需预定 Available Upon Order

MPC100

圆柱直柄式
Cylindrical Straight Type

Fig3

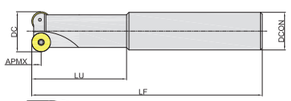
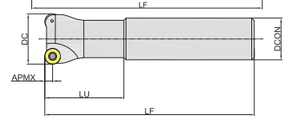


Fig4



订货号 Ordering Code	直径 Dia-mete	刃数 Teeth	尺寸 Dimension(mm)				最大切深 APMX	匹配刀片 Suitable for	内冷 Coolant	图示 Shape	库存 Stock
			DC	DCON	LF	LU					
MPC100020R02P20RC10	20	2	20	20	110	60	5	RC**10T3	×	Fig3	●
MPC100025R02P20RC10	25	2	25	20	160	50	5	RC**10T3	×	Fig4	●
MPC100032R02P25RC12	32	2	32	25	200	50	6	RC**1204	×	Fig4	●
MPC100040R03P32RC12	40	3	40	32	200	50	6	RC**1204	×	Fig4	●

●标准库存 Stock ○需预定 Available Upon Order

B 铣削 MILLING

刀体配件列表
Spare Parts

零件名称 Part Name		压板螺钉 Clamp Screw	压板 Clamp	刀片螺钉 Inserts Screw	刀片螺钉扳手 Insert Screw Wrench	
形状 Shape / 适用刀片 Inserts						
RP**08	规格 Specif-ication	--	--	SI60M2.5X6.5-03509	TT07P	--
	订货号 Ordering Code	--	--	SI60M025065-03509S	TT07PQ	--
RP**10	规格 Specif-ication	SI60M3.5X10-05510	CAX1	SI60M4X8.9-05313	TT15P	--
	订货号 Ordering Code	SI60M035100-05510S	CAX01RQ	SI60M040089-05313S	TT15PQ	--
RC**10	规格 Specif-ication	--	--	SI60M4X8.9-05313	TT15P	--
	订货号 Ordering Code	--	--	SI60M040089-05313S	TT15PQ	--
RP**12	规格 Specif-ication	SI60M3.5X12-05314	CAX2	SI60M4X8.9-05313	TT15P	--
	订货号 Ordering Code	SI60M035120-05314S	CAX02RQ	SI60M040089-05313S	TT15PQ	--
RC**12	规格 Specif-ication	--	--	SI60M3.5X8-05314	TT15P	--
	订货号 Ordering Code	--	--	SI60M035080-05314S	TT15PQ	--
RP**16/RC**16	规格 Specif-ication	--	--	SI60M5X10.8-07209	TT20P	TT20T
	订货号 Ordering Code	--	--	SI60M050108-07209S	TT20PQ	TT20TQ
RC**20	规格 Specif-ication	--	--	SI60M6X16-08509	--	TT25T
	订货号 Ordering Code	--	--	SI60M060160-08509S	--	TT25TQ

推荐切削参数
Recommended Cutting Data

被加工材料 Workpiece		材料硬度 Hardness	牌号 Grade	切削速度 Cutting Speed Vc(m/min)	刀片规格 Specif-ication	进给 / 齿 Feed Per Tooth fz(mm)		
						轻切削 Light Cutting(L)	中切削 (M) Medium Cutting(M)	重切削 (H) Heavy Cutting(H)
M	不锈钢 (铁素体、马氏体) Stainless (Ferrite, Martensite)	≤ HB270	GM2140 GM4135	140 (100-180)	05	0.08 (0.05-0.15)	0.1 (0.08-0.15)	0.12 (0.08-0.2)
					07 08	0.08 (0.05-0.15)	0.12 (0.08-0.18)	0.15 (0.1-0.25)
					10 12	0.15 (0.1-0.25)	0.2 (0.15-0.3)	0.25 (0.2-0.35)
					16	0.18 (0.1-0.25)	0.25 (0.15-0.35)	0.35 (0.2-0.45)
					20	0.2 (0.12-0.25)	0.3 (0.15-0.4)	0.35 (0.2-0.45)
	不锈钢 (奥氏体、双相) Stainless (Austenite, Diphasic)	≤ HB270	GM2140 GM4135	120 (80-160)	05	0.08 (0.05-0.15)	0.1 (0.08-0.15)	0.12 (0.08-0.2)
					07 08	0.08 (0.05-0.15)	0.12 (0.08-0.18)	0.15 (0.1-0.25)
					10 12	0.15 (0.1-0.25)	0.2 (0.15-0.3)	0.25 (0.2-0.35)
					16	0.18 (0.1-0.25)	0.25 (0.15-0.35)	0.35 (0.2-0.45)
					20	0.2 (0.12-0.25)	0.3 (0.15-0.4)	0.35 (0.2-0.45)
S	耐热合金、钛合金 Heat-resistant Alloy and Titanium Alloy	HRC30-45	GS4130	40 (30-60)	16	0.08 (0.05-0.15)	0.12 (0.08-0.15)	-

- 刀具转速 (min^{-1})=(1000 X 切削速度)(3.14 X 刀具切削刃直径)。
- 机床工作台进给量 (mm/min)= 每刃进给量 X 刀具刃数 X 刀具转速。
- S 类材料推荐参数搭配 SM 槽型使用。
- RPM(min-1)=(1000*cutting speed)/(3.14*cutter diameter)
- Machine feed(mm/min)=feed per tooth * flute No.* RPM
- Class S material are matched with SM Geometry

RP/RC 刀片推荐每齿进给量与切深关系
RP/RC Recommend Cutting Feed and Cutting Depth

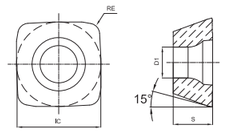
刀片规格 Specif-ication	工况 Working Condi-tions	切深 ap(mm)								
		0.1	0.5	1	1.5	2	2.5	3	4	5
05	中切削 Medium Maching (M)	0.35 (0.22-0.63)	0.17 (0.08-0.26)	0.12 (0.06-0.21)	0.1 (0.05-0.17)	-	-	-	-	-
	重切削 Heavy Maching (H)	0.45 (0.29-0.95)	0.2 (0.12-0.38)	0.16 (0.09-0.28)	0.14 (0.07-0.25)	-	-	-	-	-
07 08	中切削 Medium Maching (M)	0.59 (0.23-0.9)	0.27 (0.1-0.41)	0.2 (0.08-0.3)	0.17 (0.06-0.26)	0.15 (0.03-0.23)	-	-	-	-
	重切削 Heavy Maching (H)	0.68 (0.32-1.13)	0.31 (0.14-0.52)	0.23 (0.11-0.38)	0.19 (0.09-0.32)	0.17 (0.08-0.29)	-	-	-	-
10	轻切削 Light Maching (L)	0.75 (0.25-0.9)	0.34 (0.11-0.41)	0.25 (0.08-0.3)	0.21 (0.07-0.25)	0.19 (0.06-0.23)	0.17 (0.05-0.21)	-	-	-
	中切削 Medium Maching (M)	0.9 (0.25-1.26)	0.41 (0.11-0.57)	0.30 (0.08-0.42)	0.25 (0.07-0.35)	0.23 (0.06-0.31)	0.21 (0.05-0.28)	-	-	-
	重切削 Heavy Maching (H)	1.01 (0.35-1.51)	0.46 (0.16-0.69)	0.33 (0.12-0.5)	0.28 (0.1-0.42)	0.25 (0.09-0.38)	0.23 (0.08-0.35)	-	-	-
12	轻切削 Light Maching (L)	0.83 (0.28-1.1)	0.38 (0.13-0.5)	0.27 (0.09-0.36)	0.23 (0.08-0.3)	0.2 (0.07-0.27)	0.18 (0.06-0.25)	0.17 (0.06-0.23)	-	-
	中切削 Medium Maching (M)	0.99 (0.28-1.38)	0.45 (0.13-0.63)	0.33 (0.09-0.45)	0.27 (0.08-0.38)	0.24 (0.07-0.34)	0.22 (0.06-0.31)	0.21 (0.06-0.29)	-	-
	重切削 Heavy Maching (H)	1.1 (0.39-1.65)	0.5 (0.18-0.75)	0.36 (0.13-0.54)	0.3 (0.11-0.45)	0.27 (0.09-0.4)	0.25 (0.08-0.37)	0.23 (0.08-0.35)	-	-
16	轻切削 Light Maching (L)	1.14 (0.32-1.59)	0.52 (0.14-0.72)	0.37 (0.1-0.52)	0.31 (0.09-0.43)	0.27 (0.08-0.38)	0.25 (0.07-0.35)	0.23 (0.06-0.32)	0.21 (0.06-0.29)	-
	中切削 Medium Maching (M)	1.27 (0.32-1.9)	0.57 (0.14-0.86)	0.41 (0.1-0.62)	0.34 (0.09-0.51)	0.30 (0.08-0.45)	0.28 (0.07-0.41)	0.26 (0.06-0.38)	0.23 (0.06-0.35)	-
	重切削 Heavy Maching (H)	1.59 (0.44-2.54)	0.72 (0.20-1.15)	0.52 (0.14-0.83)	0.43 (0.12-0.69)	0.38 (0.11-0.6)	0.35 (0.1-0.54)	0.32 (0.09-0.51)	0.29 (0.08-0.46)	-
20	重切削 Heavy Maching (H)	2.14 (0.59-3.49)	0.97 (0.25-1.60)	0.71 (0.18-1.17)	0.58 (0.15-0.96)	0.5 (0.14-0.81)	0.46 (0.13-0.73)	0.42 (0.12-0.68)	0.38 (0.11-0.61)	0.34 (0.1-0.55)

备注： 圆刀片切削加工，一般情况 ap<25%IC，当超过此切深时推荐用 Kr=45°的 SNEU/SEET 系刀片。
Note： Remark: During round Insert application, in general, the ap should less than 25%IC. Otherwise, we suggest to us Kr=45 SNUE/SEET series insert.

快进给铣削
High Feed Milling

SOE (M)T

正型四刃快进给铣
Positive four edges high feed milling cutter insert

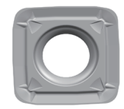


订货号 Ordering Code		尺寸 (mm) Dimension(mm)				涂层硬质合金 Coating Grade													硬质合金 coa-ted	金属陶瓷 cer-met
		IC	S	D1	RE	GA4225	GA4230	GA4325	GA4330	GP4225	GP2115	GM4135	GM2140	GK4125	GK2115	GS4130	GSM7130	GH4115	GN9125	GP01TM
	SOET09T312-SM	9.525	3.97	4.2	1.2												●			
	SOMT09T312-SM	9.525	3.97	4.2	1.2												●			
	SOET120420-SM	12.7	4.76	4.4	2.0												●			
	SOMT120420-SM	12.7	4.76	4.4	2.0												●			
	SOMT090412-ST	9.525	4.76	4.0	1.2												●			
	SOMT120512-ST	12.7	5.56	4.4	1.2												●			

●标准库存 Stock ○需预定 Available Upon Order

- SM槽型刀片对应MKT113系列刀体。
- ST槽型刀片对应MKT213系列刀体。
- The inserts of SM geometry correspond to MKT113 cutters.
- The inserts of ST geometry correspond to MKT213 cutters.

SOE(M)T 系列槽型
SOE(M)T Series Geometry

钛合金材料中切削 Ti alloy Workpiece Material medium cutting	钛合金材料中切削 Ti alloy Workpiece Material medium cutting
	
SM	ST
	
正前角，适合中载切削。 Positive rake angle, good for medium cutting.	渐变式前角，适合中载切削。 Gradient rake angle, good for medium cutting.

快进给铣削
High Feed Milling

MKT113

心轴式
Arbor

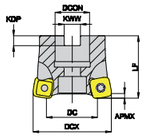


Fig1

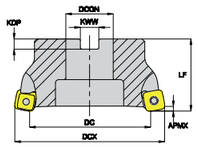


Fig2

订货号 Ordering Code	直径 Dia-meter	刃数 Teeth	尺寸 Dimension(mm)						最大切深 APMX	匹配刀片 Suitable for	内冷 Coolant	图示 Shape	库存 Stock
			DC	DCX	DCON	LF	KWW	KDP					
MKT113040R04A16SO09	40	4	26	40	16	40	8.4	5.6	1.2	SOE(M)T09T3	√	Fig1	●
MKT113040R05A16SO09	40	5	26	40	16	40	8.4	5.6	1.2	SOE(M)T09T3	√	Fig1	●
MKT113042R04A16SO09	42	4	28	42	16	40	8.4	5.6	1.2	SOE(M)T09T3	√	Fig1	○
MKT113042R05A16SO09	42	5	28	42	16	40	8.4	5.6	1.2	SOE(M)T09T3	√	Fig1	○
MKT113050R05A22SO09	50	5	36	50	22	40	10.4	6.3	1.2	SOE(M)T09T3	√	Fig1	●
MKT113050R06A22SO09	50	6	36	50	22	40	10.4	6.3	1.2	SOE(M)T09T3	√	Fig1	●
MKT113050R07A22SO09	50	7	36	50	22	40	10.4	6.3	1.2	SOE(M)T09T3	√	Fig1	●
MKT113050R05A22SO12	50	5	33.3	50	22	40	10.4	6.3	1.4	SOE(M)T1204	√	Fig1	●
MKT113052R06A22SO09	52	6	38	52	22	40	10.4	6.3	1.2	SOE(M)T09T3	√	Fig1	○
MKT113052R07A22SO09	52	7	38	52	22	40	10.4	6.3	1.2	SOE(M)T09T3	√	Fig1	●
MKT113052R05A22SO12	52	5	34.3	52	22	40	10.4	6.3	1.4	SOE(M)T1204	√	Fig1	○
MKT113063R06A22SO09	63	6	49	63	22	40	10.4	6.3	1.2	SOE(M)T09T3	√	Fig1	●
MKT113063R08A22SO09	63	8	49	63	22	40	10.4	6.3	1.2	SOE(M)T09T3	√	Fig1	●
MKT113063R06A27SO09	63	6	49	63	27	50	12.4	7	1.2	SOE(M)T09T3	√	Fig1	○
MKT113063R08A27SO09	63	8	49	63	27	50	12.4	7	1.2	SOE(M)T09T3	√	Fig1	●
MKT113063R05A22SO12	63	5	45.3	63	22	40	10.4	6.3	1.4	SOE(M)T1204	√	Fig1	●
MKT113063R06A22SO12	63	6	45.3	63	22	40	10.4	6.3	1.4	SOE(M)T1204	√	Fig1	●
MKT113063R05A27SO12	63	5	45.3	63	27	50	12.4	7	1.4	SOE(M)T1204	√	Fig1	●
MKT113063R06A27SO12	63	6	45.3	63	27	50	12.4	7	1.4	SOE(M)T1204	√	Fig1	●
MKT113066R05A27SO12	66	5	48.3	66	27	50	12.4	7	1.4	SOE(M)T1204	√	Fig1	●
MKT113080R06A27SO12	80	6	62.3	80	27	50	12.4	7	1.4	SOE(M)T1204	√	Fig1	●
MKT113080R08A27SO12	80	8	62.3	80	27	50	12.4	7	1.4	SOE(M)T1204	√	Fig1	●
MKT113100R07B32SO12	100	7	82.3	100	32	50	14.4	8	1.4	SOE(M)T1204	×	Fig2	●
MKT113125R08B40SO12	125	8	107.3	125	40	63	16.4	9	1.4	SOE(M)T1204	×	Fig2	●

●标准库存 Stock ○需预定 Available Upon Order

快进给铣削
High Feed Milling

MKT113

圆柱直柄式
Cylindrical Straight Type

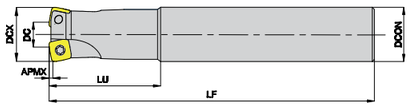


Fig3

订货号 Ordering Code	直径 Dia-meter	刃数 Teeth	尺寸 Dimension(mm)					最大切深 APMX	匹配刀片 Suitable for	内冷 Coolant	图示 Shape	库存 Stock
			DC	DCX	DCON	LF	LU					
MKT113025R02P25SO09S	25	2	11	25	25	110	40	1.2	SOE(M)T09T3	√	Fig3	○
MKT113025R02P25SO09	25	2	11	25	25	150	50	1.2	SOE(M)T09T3	√	Fig3	●
MKT113025R02P25SO09L	25	2	11	25	25	200	75	1.2	SOE(M)T09T3	√	Fig3	●
MKT113025R03P25SO09S	25	3	11	25	25	110	40	1.2	SOE(M)T09T3	√	Fig3	●
MKT113025R03P25SO09	25	3	11	25	25	150	50	1.2	SOE(M)T09T3	√	Fig3	●
MKT113025R03P25SO09L	25	3	11	25	25	200	75	1.2	SOE(M)T09T3	√	Fig3	●
MKT113032R03P32SO09S	32	3	18	32	32	120	40	1.2	SOE(M)T09T3	√	Fig3	●
MKT113032R03P32SO09	32	3	18	32	32	180	60	1.2	SOE(M)T09T3	√	Fig3	●
MKT113032R03P32SO09L	32	3	18	32	32	250	100	1.2	SOE(M)T09T3	√	Fig3	●
MKT113032R04P32SO09S	32	4	18	32	32	120	40	1.2	SOE(M)T09T3	√	Fig3	●
MKT113032R04P32SO09	32	4	18	32	32	180	60	1.2	SOE(M)T09T3	√	Fig3	●
MKT113032R04P32SO09L	32	4	18	32	32	250	100	1.2	SOE(M)T09T3	√	Fig3	●
MKT113032R02P32SO12S	32	2	14.3	32	32	120	40	1.4	SOE(M)T1204	√	Fig3	●
MKT113032R02P32SO12	32	2	14.3	32	32	180	60	1.4	SOE(M)T1204	√	Fig3	●
MKT113032R02P32SO12L	32	2	14.3	32	32	250	100	1.4	SOE(M)T1204	√	Fig3	●
MKT113032R03P32SO12S	32	3	14.3	32	32	120	40	1.4	SOE(M)T1204	√	Fig3	●
MKT113032R03P32SO12	32	3	14.3	32	32	180	60	1.4	SOE(M)T1204	√	Fig3	●
MKT113032R03P32SO12L	32	3	14.3	32	32	250	100	1.4	SOE(M)T1204	√	Fig3	●
MKT113035R04P32SO09S	35	4	21	35	32	120	40	1.2	SOE(M)T09T3	√	Fig3	●
MKT113035R04P32SO09	35	4	21	35	32	180	40	1.2	SOE(M)T09T3	√	Fig3	●
MKT113035R04P32SO09L	35	4	21	35	32	250	40	1.2	SOE(M)T09T3	√	Fig3	●
MKT113035R03P32SO12S	35	3	17.3	35	32	120	40	1.4	SOE(M)T1204	√	Fig3	●
MKT113035R03P32SO12	35	3	17.3	35	32	180	40	1.4	SOE(M)T1204	√	Fig3	●
MKT113035R03P32SO12L	35	3	17.3	35	32	250	40	1.4	SOE(M)T1204	√	Fig3	●

●标准库存 Stock ○需预定 Available Upon Order

快进给铣削
High Feed Milling

MKT113

可换式刀头
Replaceable Tool Head

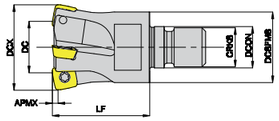


Fig4

订货号 Ordering Code	直径 Dia-meter	刃数 Teeth	尺寸 Dimension(mm)						最大切深 APMX	匹配刀片 Suitable for	内冷 Coolant	图示 Shape	库存 Stock
			DC	DCX	DCSFMS	DCON	LF	CRKS					
MKT113025R02M12SO09	25	2	11	25	23	12.5	35	M12	1.2	SOE(M)T09T3	√	Fig4	○
MKT113025R03M12SO09	25	3	11	25	23	12.5	35	M12	1.2	SOE(M)T09T3	√	Fig4	●
MKT113032R03M16SO09	32	3	18	32	29	17	40	M16	1.2	SOE(M)T09T3	√	Fig4	●
MKT113032R04M16SO09	32	4	18	32	29	17	40	M16	1.2	SOE(M)T09T3	√	Fig4	●
MKT113032R02M16SO12	32	2	14.3	32	29	17	40	M16	1.4	SOE(M)T1204	√	Fig4	●
MKT113032R03M16SO12	32	3	14.3	32	29	17	40	M16	1.4	SOE(M)T1204	√	Fig4	●
MKT113035R03M16SO09	35	3	21	35	29	17	40	M16	1.2	SOE(M)T09T3	√	Fig4	●
MKT113035R04M16SO09	35	4	21	35	29	17	40	M16	1.2	SOE(M)T09T3	√	Fig4	●
MKT113035R03M16SO12	35	3	17.3	35	29	17	40	M16	1.4	SOE(M)T1204	√	Fig4	●
MKT113040R05M16SO09	40	5	26	40	29	17	40	M16	1.2	SOE(M)T09T3	√	Fig4	●
MKT113042R04M16SO12	42	4	24.3	42	29	17	40	M16	1.4	SOE(M)T1204	√	Fig4	●

●标准库存 Stock ○需预定 Available Upon Order

快进给铣削
High Feed Milling

MKT213

心轴式
Arbor

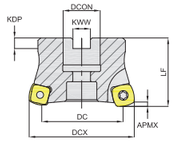


Fig1

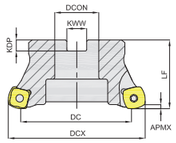


Fig2

订货号 Ordering Code	直径 Dia-meter	刃数 Teeth	尺寸 Dimension(mm)						最大切深 APMX	匹配刀片 Suitable for	内冷 Coolant	图示 Shape	库存 Stock
			DC	DCX	DCON	LF	KWW	KDP					
MKT213040R04A16SO09	40	4	24.8	40	16	40	8.4	5.6	1.1	SOMT0904	√	Fig1	○
MKT213040R05A16SO09	40	5	24.8	40	16	40	8.4	5.6	1.1	SOMT0904	√	Fig1	○
MKT213042R04A16SO09	42	4	26.8	42	16	40	8.4	5.6	1.1	SOMT0904	√	Fig1	○
MKT213042R05A16SO09	42	5	26.8	42	16	40	8.4	5.6	1.1	SOMT0904	√	Fig1	○
MKT213050R05A22SO09	50	5	35.3	50	22	40	10.4	6.3	1.1	SOMT0904	√	Fig1	○
MKT213050R06A22SO09	50	6	35.3	50	22	40	10.4	6.3	1.1	SOMT0904	√	Fig1	○
MKT213050R07A22SO09	50	7	35.3	50	22	40	10.4	6.3	1.1	SOMT0904	√	Fig1	●
MKT213050R05A22SO12	50	5	29.5	50	22	40	10.4	6.3	1.8	SOMT1205	√	Fig1	●
MKT213052R06A22SO09	52	6	36.8	52	22	40	10.4	6.3	1.1	SOMT0904	√	Fig1	○
MKT213052R07A22SO09	52	7	36.8	52	22	40	10.4	6.3	1.1	SOMT0904	√	Fig1	○
MKT213052R05A22SO12	52	5	31.5	52	22	40	10.4	6.3	1.8	SOMT1205	√	Fig1	○
MKT213063R06A22SO09	63	6	47.8	63	22	40	10.4	6.3	1.1	SOMT0904	√	Fig1	●
MKT213063R08A22SO09	63	8	47.8	63	22	40	10.4	6.3	1.1	SOMT0904	√	Fig1	●
MKT213063R06A27SO09	63	6	47.8	63	27	50	12.4	7	1.1	SOMT0904	√	Fig1	○
MKT213063R08A27SO09	63	8	47.8	63	27	50	12.4	7	1.1	SOMT0904	√	Fig1	○
MKT213063R06A22SO12	63	6	42.4	63	22	40	10.4	6.3	1.8	SOMT1205	√	Fig1	●
MKT213063R06A27SO12	63	6	42.4	63	27	50	12.4	7	1.8	SOMT1205	√	Fig1	○
MKT213066R05A27SO12	66	5	45.4	66	27	50	12.4	7	1.8	SOMT1205	√	Fig1	○
MKT213080R06A27SO12	80	6	59.4	80	27	50	12.4	7	1.8	SOMT1205	√	Fig1	○
MKT213080R08A27SO12	80	8	59.4	80	27	50	12.4	7	1.8	SOMT1205	√	Fig1	○
MKT213100R07B32SO12	100	7	79.7	100	32	60	14.4	8	1.8	SOMT1205	×	Fig2	○
MKT213125R08B40SO12	125	8	104.7	125	40	60	16.4	9	1.8	SOMT1205	×	Fig2	○

●标准库存 Stock ○需预定 Available Upon Order

快进给铣削
High Feed Milling

MKT213

圆柱直柄式
Cylindrical Straight Type

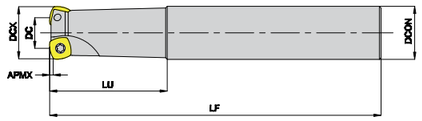


Fig3

订货号 Ordering Code	直径 Dia-meter	刃数 Teeth	尺寸 Dimension(mm)					最大切深 APMX	匹配刀片 Suitable for	内冷 Coolant	图示 Shape	库存 Stock
			DC	DCX	DCON	LF	LU					
MKT213025R02P25SO09S	25	2	9.9	25	25	110	40	1.1	SOMT0904	√	Fig3	○
MKT213025R02P25SO09	25	2	9.9	25	25	150	50	1.1	SOMT0904	√	Fig3	○
MKT213025R02P25SO09L	25	2	9.9	25	25	200	75	1.1	SOMT0904	√	Fig3	○
MKT213025R03P25SO09S	25	3	9.9	25	25	110	40	1.1	SOMT0904	√	Fig3	○
MKT213025R03P25SO09	25	3	9.9	25	25	150	50	1.1	SOMT0904	√	Fig3	●
MKT213032R03P32SO09S	32	3	16.8	32	32	120	40	1.1	SOMT0904	√	Fig3	○
MKT213032R03P32SO09	32	3	16.8	32	32	180	60	1.1	SOMT0904	√	Fig3	●
MKT213032R03P32SO09L	32	3	16.8	32	32	250	100	1.1	SOMT0904	√	Fig3	○
MKT213032R04P32SO09S	32	4	16.8	32	32	120	40	1.1	SOMT0904	√	Fig3	○
MKT213032R04P32SO09	32	4	16.8	32	32	180	60	1.1	SOMT0904	√	Fig3	●
MKT213032R04P32SO09L	32	4	16.8	32	32	250	100	1.1	SOMT0904	√	Fig3	○
MKT213032R02P32SO12S	32	2	11.5	32	32	120	40	1.8	SOMT1205	√	Fig3	○
MKT213032R02P32SO12	32	2	11.5	32	32	180	60	1.8	SOMT1205	√	Fig3	○
MKT213032R02P32SO12L	32	2	11.5	32	32	250	100	1.8	SOMT1205	√	Fig3	○
MKT213032R03P32SO12S	32	3	11.5	32	32	120	40	1.8	SOMT1205	√	Fig3	○
MKT213032R03P32SO12	32	3	11.5	32	32	180	60	1.8	SOMT1205	√	Fig3	●
MKT213032R03P32SO12L	32	3	11.5	32	32	250	100	1.8	SOMT1205	√	Fig3	○
MKT213035R04P32SO09S	35	4	19.9	35	32	120	40	1.1	SOMT0904	√	Fig3	○
MKT213035R04P32SO09	35	4	19.9	35	32	180	40	1.1	SOMT0904	√	Fig3	●
MKT213035R04P32SO09L	35	4	19.9	35	32	250	40	1.1	SOMT0904	√	Fig3	○
MKT213035R03P32SO12S	35	3	14.4	35	32	120	40	1.8	SOMT1205	√	Fig3	○
MKT213035R03P32SO12	35	3	14.4	35	32	180	40	1.8	SOMT1205	√	Fig3	●
MKT213035R03P32SO12L	35	3	14.4	35	32	250	40	1.8	SOMT1205	√	Fig3	○

●标准库存 Stock ○需预定 Available Upon Order

快进给铣削
High Feed Milling

MKT213

可换式刀头
Replaceable Tool Head

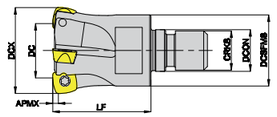


Fig4

订货号 Ordering Code	直径 Dia-meter	刃数 Teeth	尺寸 Dimension(mm)						最大切深 APMX	匹配刀片 Suitable for	内冷 Coolant	图示 Shape	库存 Stock
			DC	DCX	DCSFMS	DCON	LF	CRKS					
MKT213025R02M12SO09	25	2	9.9	25	23	12.5	35	M12	1.1	SOMT0904	√	Fig4	○
MKT213025R03M12SO09	25	3	9.9	25	23	12.5	35	M12	1.1	SOMT0904	√	Fig4	●
MKT213032R03M16SO09	32	3	16.8	32	29	17	40	M16	1.1	SOMT0904	√	Fig4	○
MKT213032R04M16SO09	32	4	16.8	32	29	17	40	M16	1.1	SOMT0904	√	Fig4	●
MKT213032R02M16SO12	32	2	11.5	32	29	17	40	M16	1.8	SOMT1205	√	Fig4	○
MKT213032R03M16SO12	32	3	11.5	32	29	17	40	M16	1.8	SOMT1205	√	Fig4	●
MKT213035R04M16SO09	35	4	19.9	35	29	17	40	M16	1.1	SOMT0904	√	Fig4	●
MKT213035R03M16SO12	35	3	14.4	35	29	17	40	M16	1.8	SOMT1205	√	Fig4	●
MKT213040R05M16SO09	40	5	24.8	40	29	17	40	M16	1.1	SOMT0904	√	Fig4	●
MKT213042R04M16SO12	42	4	21.4	42	29	17	40	M16	1.8	SOMT1205	√	Fig4	○

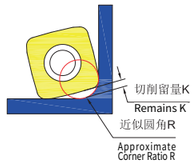
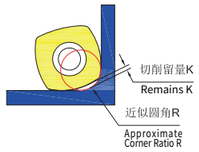
●标准库存 Stock ○需预定 Available Upon Order

快进给铣削
High Feed Milling

刀体配件列表
Spare Parts

零件名称 Part Name		刀片螺钉 Insert Screw	刀片螺钉扳手 Insert Screw Wrench	
适用刀片 Inserts / 形状 Shape				
SOE(M)T09T312-SM	规格 Specification	SI60M035076-04808I	TI10K	-
	订货号 Ordering Code	SI60M035076-04808IB	TI10KB	-
SOE(M)T120420-SM	规格 Specification	SI60M040100-05510I	TT15K	TI15T
	订货号 Ordering Code	SI60M040100-05510IS	TI15KB	TI15TB
SOMT090412-ST	规格 Specification	SI60M035076-04808I	TI10K	-
	订货号 Ordering Code	SI60M035076-04808IB	TI10KB	-
SOMT120512-ST	规格 Specification	SI60M040100-05510I	TT15K	TI15T
	订货号 Ordering Code	SI60M040100-05510IS	TI15KB	TI15TB

加工程序参数
Parameters for Programing

刀片规格 Specification	近似编程圆角 Approximate Corner Ratio R(mm)	切削残留量 Remains K(mm)	示意图
SOET09T312-SM	2.34	0.9	
SOMT09T312-SM	2.34	0.9	
SOET120420-SM	3.29	1.0	
SOMT120420-SM	3.29	1.0	
SOMT090412-ST	2.20	0.7	
SOMT120512-ST	2.79	1.0	

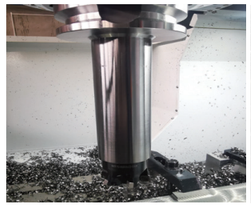
推荐切削参数
Recommended Cutting Data

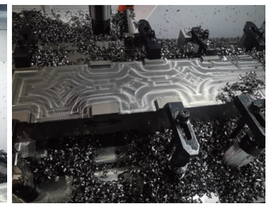
被加工材料 Workpiece Material		材料硬度 Hardness	牌号 Grade	规格 Specification	推荐切深 ap(mm)	切削速度 Cutting Speed Vc(m/min)	进给 / 齿 Feed Per Tooth fz(mm) 中切削 (M) Medium Machining(M)	重切削 (H) Heavy Machining(H)
S	钛合金 Titanium Alloy	HRC30-45	GSM7130	SOE(M)T09T3	1.2	40 (30-60)	0.4 (0.3-0.7)	0.6 (0.4-1.0)
				SOE(M)T1204	1.4		0.5 (0.3-0.8)	0.7 (0.4-1.1)
				SOMT0904	1.1		0.4 (0.3-0.7)	0.6 (0.4-1.0)
				SOMT1205	1.8		0.5 (0.3-0.8)	0.7 (0.4-1.1)

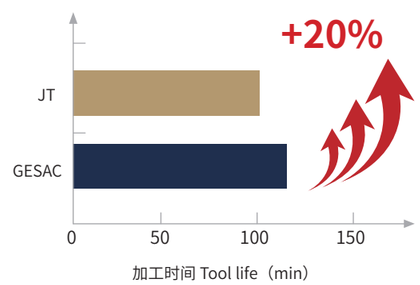
应用案例
Case

案例1：SOE(M)T+MKT113&213 钛合金吊挂后梁加工
Case1: SOE(M)T+MKT113&213 Titanium alloy hanging rear beam processing

刀具规格 Specification	SOET09T312-SM
刀具牌号 Grade	GSM7130
刀体规格 Size	MKT113-050R06A22-SO09
工件材料 Workpiece Material	TC4
切削速度 Cutting Speed	47 m/min
进给量 Feed Rate	0.6 mm/z
切削量 Cutting Amount	ap=0.6 mm，ae=40 mm
切削方式 Cutting Method	型腔铣 Cavity milling
冷却方式 Cooling Method	水基乳化液，外冷 Water based emulsion，External cooling
切削效果 Processing Result	同样工况，刀片寿命较竞品提升20% Under the same working condition, the service life of the blade is 80% longer than that of the competitors







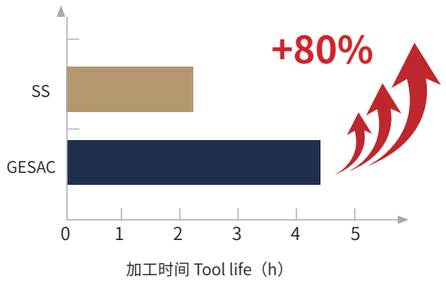
应用案例
Case

案例2：SOE(M)T+MKT113&213 外副作动器粗加工
Case2: SOE(M)T+MKT113&213 Rough machining of external auxiliary actuator

刀具规格 Specification	SOMT09T312-SM
刀具牌号 Grade	GSM7130
刀体规格 Size	MKT113-025R02P25-SO09
工件材料 Workpiece Material	TC18(HRC40-45)
切削速度 Cutting Speed	35 m/min
进给量 Feed Rate	0.11 mm/z
切削量 Cutting Amount	ap=0.5 mm，ae=10-35 mm
切削方式 Cutting Method	型腔铣 Cavity milling
冷却方式 Cooling Method	水基乳化液，外冷 Water based emulsion，External cooling
切削效果 Processing Result	同样工况，刀片寿命较竞品提升80% Under the same working condition, the service life of the blade is 80% longer than that of the competitors

GESAC-SOMT

SS



整体硬质合金立铣刀
Solid Carbide Endmills

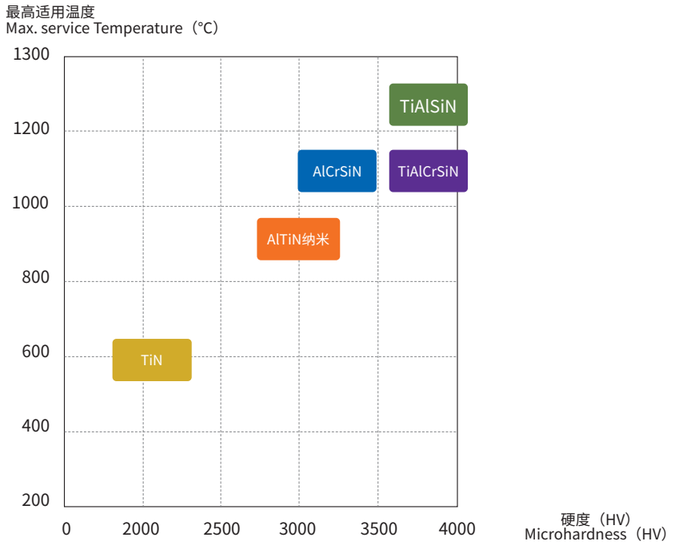
金鹭的涂层
GESAC Coating

涂层特性
Coating Characteristic

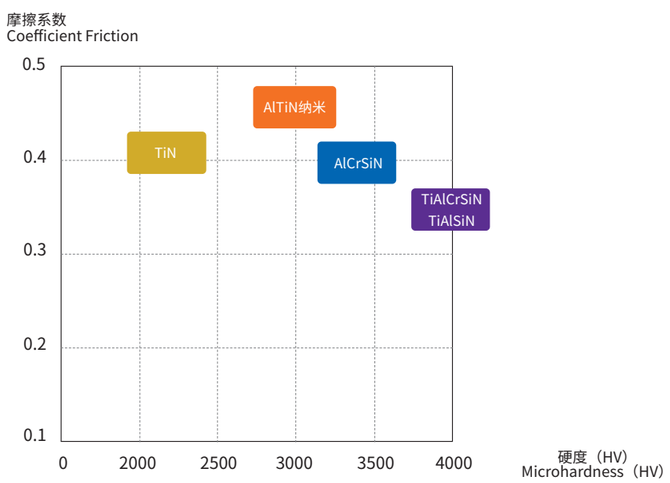
涂层名称 Coatings	维氏硬度 Microhardness (HV0.05)	摩擦系数 Coefficient Friction	最高适用温度 Max. service Temperature (°C)	特点与应用 Characteristic and Application
AlCrN	3200	0.45	1100	◇ 高抗氧化性和高温耐磨性能极其优异； ◇ 适用于中低硬度普通钢，模具钢，或钛合金的干式切削。 High oxidation resistance, extremely good of high temperature abrasion resistance, suitable for ordinary steel, low hardness of die steel or titanium alloy dry milling.
AlCrSiN	3300	0.4	1100	◇ 专为铣削加工开发,高抗氧化性，实现耐磨性与韧性完美平衡； ◇ 通用性极高，适用于55HRC以下的普通钢，模具钢，钛合金的各种铣削加工。 Specially designed for milling, high oxidation resistance, good balance of abrasion resistance and toughness, versatility is extremely high, suitable for ordinary steel under HRC55, die steel and titanium alloy milling.
TiAlN	2900	0.35	900	◇ 良好的红硬性与晶粒细化控制； ◇ 主要适用于不锈钢铣削加工，和一部分高硬度钢的干式加工,钛合金钻削加工。 Super-high micro hardness and fine-grain, suitable for stainless steel, some high hard steel drying cutting and titanium alloy milling.
AlTiN纳米 AlTiN Nano	3000	0.45	900	◇ 结晶方位精密控制，硬度与韧性的完美平衡； ◇ 钻削与铣削通用涂层，适用于不锈钢，高硬钢的高速，高进给切削。 Extremely crystal texture control, good balance of micro hardness and toughness, universal milling and drilling coatings, suitable for stainless steel, high hard steel moderately high speed and high feed cutting.
AlCrN/TiSiN多层 AlCrN/TiSiN	3100	0.35	1100	◇ 高抗氧化性，高红硬性，良好的韧性，超光滑表面； ◇ 适用于不锈钢、铸铁钻削加工。 High oxidation resistance, good hot hardness, good toughness, and super-smooth surface, suitable for stainless steel and cast iron drilling.
AlTiN/TiSiN 纳米多层 AlTiN/TiSiN Multilayer	3300	0.35	1100	◇ 超高稳定性，超高韧性； ◇ 钻头通用涂层，适用于普通钢钻削。 Super high thermal-stability, super toughness, bit general coating, especially suitable for ordinary steel drilling.
TiAlCrSiN	4000	0.35	1100	◇ 高硬度，高抗氧化性与红硬性； ◇ 特别适用于50-60HRC的高硬度钢铣削加工。 High micro hardness, high oxidation resistance and hot hardness, suitable for high hard steel above 55HRC milling.
TiAlSiN	4000	0.35	1200	◇ 高硬度，高抗氧化性与红硬性； ◇ 特别适用于55-65HRC的高硬度钢铣削加工。 High micro hardness, high oxidation resistance and hot hardness, suitable for high hard steel above 55-65HRC milling.
粗晶金刚石 Normal diamond coating	8500	-	700	◇ 高硬度，高热导率，高耐磨性； ◇ 适用于石墨加工。 High hardness, thermal conductivity and wear resistance, suitable for graphite machining.
超细晶金刚石 Ultra-fine grain diamond coating	8000	-	700	◇ 表面光滑，自润滑性好, 高硬度、高热导率，高耐磨性； ◇ 适用于非铁材料,碳纤维复合材料等加工。 Smooth surface, good self-lubricity, hardness, thermal conductivity and wear resistance, suitable for nonferrous materials, carbon fiber composite machining, etc.
富Ti涂层 Titanium-rich coating	4000	0.35	900	◇ 高硬度、自润滑性好、优异的抗粘结性 ◇ 适用于钛合金、铝合金等有色金属的加工。 High hardness,good self-lubricity,excellent adhesion resistance. Suitable for titanium alloy, aluminum alloy and other non-ferrous metal milling.

主要PVD纳米涂层的定位
Position of Main PVD Nano-structure Coating

PVD涂层精确控制晶粒尺寸（10nm~500nm），可获得很高的硬度、良好的抗氧化性能，并能有效降低摩擦系数。
PVD coating provides for superior control of coating grain size (from 10nm to 500nm), achieves excellent hardness, good oxidation resistant, and improved reduction of the coefficient of friction.



涂层硬度与最高适用温度
Microhardness and Max. Service Temperature

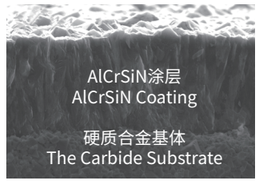


涂层硬度与摩擦系数
Microhardness and Coefficient of Friction

通用高性能涂层AlCrSiN
Universal High Performance Coating AlCrSiN

- 通用性好，以高效率切削加工显著提升生产力。
- 独特的结构设计使得涂层韧性、热冲击稳定性、残余应力达到完美平衡。

- Productivity increase due to significantly higher cutting speed and feed for application in a wide range of materials. Significantly EHance productivity.
- Particular design of structure brings good balance between toughness, thermo-shock stability and residual stress.



涂层断面形貌
SEM Photograph of Coating

高硬涂层TiAlSiN
High Hardness Coating TiAlSiN

- 显微硬度可达4000HV，具有良好的耐磨性。
- 特殊过渡层设计，保证高硬涂层与基体间超强结合力，附着力可达100N以上。
- 纳米复合涂层设计，具备超强的抗氧化性，氧化开始温度高达1200°C，高温稳定性好。

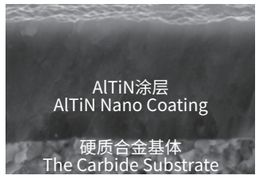
- Micro hardness up to 4000HV, with good wear resistance.
- Special transition layer design to ensure the high bonding strength between high hardness coating and substrate, adhesion of up to 100N.
- Nano composite coating design, have super strong oxidation resistance, oxidation starts at temperatures as high as 1200°C,high temperature stability.

涂层断面形貌
SEM Photograph of Coating

纳米涂层AlTiN
Nano Coating AlTiN

- 高的铝含量提供了优异的红硬性和抗氧化温度。
- 特殊的涂层方式优化涂层结构，提高了稳定性，表面液滴大幅度减少。

- High aluminum content provides excellent hot hardness and oxidation resistance.
- Special method optimizes the structure of coating, significantly improve stability, reducing the number of surface droplet.

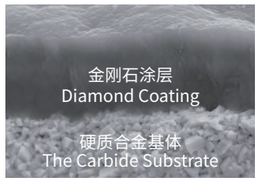


涂层断面形貌
SEM Photograph of Coating

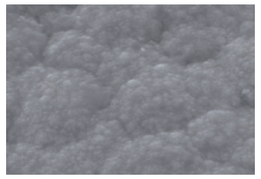
超细晶金刚石涂层
Ultra-Fine Grain Diamond Coating

- 高纯度金刚石涂层，涂层硬度能达到 80GPa 以上。
- 涂层表面光滑，摩擦系数低。
- 适用于非铁材料的精加工，如石墨、高硅铝合金、碳纤维、玻璃纤维、陶瓷等。

- High purity diamond coating, with hardness up to 80GPa.
- Ultra smooth and shiny surface, low coefficient friction.
- Suitable for finish machining nonferrous materials, such as graphite, aluminum, carbon fiber, ceramic, etc.



涂层断面形貌
SEM Photograph of Coating

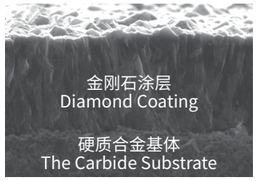


涂层表面形貌
Surface Morphology

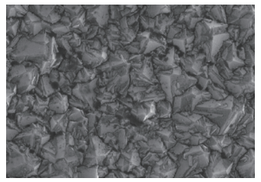
粗晶金刚石涂层
Normal diamond coating

- 高纯度金刚石涂层，涂层硬度能达到 85GPa 以上。
- 高耐磨金刚石涂层晶种, 具有极强的硬度及优越的耐磨性。
- 适用于石墨加工。

- High purity diamond coating, with hardness up to 80GPa.
- High wear-resisting diamond coating, with extremely high hardnessand strongly wear resistance.
- Suitable for graphite machining.



涂层断面形貌
SEM Photograph of Coating



涂层表面形貌
Surface Morphology

标记说明
Guidelines to Icons

标示 Mark		说明 Description
柄部形状 Shank	SHANK h5	ISO 标准柄部 ISO Standard Shank h5
	SHANK h6	ISO 标准柄部 ISO Standard Shank h6
涂层 Coating	AlCrN	AlCrN涂层 AlCrN Coating
	AlCrSiN	AlCrSiN涂层 AlCrSiN Coating
	TiAlN	TiAlN涂层 AlTiN Coating
	AlTiN nano	AlTiN纳米涂层 Nano Coating AlTiN
	AlCrN/TiSiN	AlCrN/TiSiN多层 AlCrN/TiSiN Coating
	AlTiN/TiSiN	AlTiN/TiSiN纳米多层 Nano Coating AlTiN/TiSiN
	TiAlCrSiN	TiAlCrSiN TiAlCrSiN Coating
	TiAlSiN	TiAlSiN TiAlSiN Coating
	N-DIA	粗晶金刚石涂层 Normal Diamond Coating
	U-DIA	超细晶金刚石涂层 Ultra-Fine Grain Diamond Coating
	Titanium-rich	富Ti涂层 Titanium-rich coating
切削方式 Cutting Condition	L	侧铣 For Side Milling
		槽铣 Slot Milling
		仿形切削 For Profile Milling
		螺旋铣削 Spiral Milling
		摆线铣削 Trochoidal Milling

标示 Mark		说明 Description
螺旋角 Helix	28° Helix	28°螺旋角 28°Helix
	30° Helix	30°螺旋角 30°Helix
	35° Helix	35°螺旋角 35°Helix
	38° Helix	38°螺旋角 38°Helix
	40° Helix	40°螺旋角 40°Helix
	45° Helix	45°螺旋角 45°Helix
	15°/40° Helix	双螺旋角 Variable Helix
	35°/38° Helix	双螺旋角 Variable Helix
	38°/40° Helix	双螺旋角 Variable Helix
	38°/41° Helix	双螺旋角 Variable Helix
	47°/45°/43° Helix	不等螺旋角 Variable Helix
刃数 No.of Flutes	1	1 刃立铣刀 1 Flute
	2	2 刃立铣刀 2 Flutes
	3	3 刃立铣刀 3 Flutes
	4	4 刃立铣刀 4 Flutes
	5	5 刃立铣刀 5 Flutes
	6	6 刃立铣刀 6 Flutes
	12	12 刃立铣刀 12 Flutes

标示 Mark		说明 Description
底刃形状 Endteeth Type	Square	平头 Square End
	Corner-R	圆角头 Corner Radius
	Ballnose	球头 Ballnose
	Chamfer	刀尖倒角 Square End with Chamfer
	Chamfer	倒角 Chamfer
螺旋角 Helix	-20° Helix	左20°螺旋角 -20°Helix
	15° Helix	15°螺旋角 15°Helix
	20° Helix	20°螺旋角 20°Helix
工件材料 Workpiece Material	P	钢 Steels
	M	不锈钢 Stainless Steels
	K	铸铁 Cast Iron
	N	非铁材料 Non-ferrous Materials
	S	高温合金、钛合金 Heat-resistant Super Alloys, Titanium Alloys
	H	高硬度材料 High Hardened Materials

整体硬质合金立铣刀型号（订货号）表示规则
Solid Carbide Endmills Identification System

SA300 -

①

工件材料 Workingpiece	①系列号 Code of Series	系列说明 Series Description
不锈钢 Stainless Steel	SS600	NEW 高强度钢加工系列 High Strength Machining Series
铝合金 Aluminium Alloy	SA210	NEW 铝合金粗加工系列 Rough Machining Series for Aluminum
	SA300	NEW 铝合金高速加工系列 High Speed Machining Series for Aluminum
	DNM100	NEW 标准PCD圆角头立铣刀系列 PCD Round-head Endmill
复合材料 Composite Materials	SD200	复合材料加工立铣刀系列 General Machining for Composite Material
高温合金 Heat Resistant Super Alloys	SN200	高温合金加工立铣刀系列 High Efficiency Machining Series for Heat Resistant Super Alloys
	STB200	NEW 锥度球头立铣刀 Taper Ball Endmill for Heat Resistant Super Alloys
钛合金 Titanium Alloys	ST210	钛合金高性能加工立铣刀系列 High Performance Machining Series for Titanium Alloys

S S 2- 060 09

②

②底刃形状 Endteeth Type	
S	平头 Square
B	球头 Ballnose
R	圆弧角 Cornor Radius
C	刀尖倒角 Square End with Chamfer

③

③特征项 Length of Flute	
N	长颈 Reduce Neck
H	长柄 Long Shank
L	长刃 Long Flute
S	短刃 Short Flute
空 Blank	标准 Standard

④

④刃数 No. of Flutes
2
3
4
6

⑤

⑤刃径 Diameter	
0.6mm	006
6mm	060
10mm	100

⑥

⑥特性码 Code Characteristic	
1	平头\球头 a. 颈长 b. 刃长 6-06 10-10 Square End\ Ballnose: a. Neck Length b. Flute Length 6-06 10-10
2	圆角头 r0.2-02 r1-10 Cornor Radius: r0.2-02 r1-10
3	刀尖倒角 C0.03-03 C0.13-13 Chamfered Corner: C0.03-03 C0.13-13

刀具系列目录（按系列）
Endmill Catalog（by series）

适用加工材料 Suitable Material	刃数 No.of Flutes	底刃形状 Endteeth Type	涂层 Coating	刀具名称及外形 Description	系列型号 Type	尺寸范围 Diameter Range	尺寸表页码 Dimension Page	切削参数页码 Cutting Parameters Page	工件材料 Workpiece Material											
									P		M	K	N			S		H		
									1234	56	123	123	123	4	5	123	4	1	2	34
									碳钢、合金钢 Carbon Steel,Alloy	合金钢 Alloy Steel	不锈钢 Stainless Steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨、复合材料 Graphite, Composite Materials	高温合金 Heat Resistant Super Alloys	钛合金 Titanium Alloys	高硬钢 Hardened Steel	高硬钢 Hardened Steel	高硬钢 Hardened Steel
									＜ 35HRC	≤ 48HRC								45-55HRC	55-60HRC	＞ 60HRC
铝合金 Aluminium Alloy	SA210																			
	3	Corner-R		3 刃长颈粗加工 3 Flutes with a long neck, Corner Radius NEW	SA210-WR	D12 ～ D25	133	140					◎							
	3	Corner-R	Titanium-rich	3 刃长颈粗加工（内冷涂层） 3 Flutes with a long neck, Corner Radius, Internal Coolant, Coating NEW	SA210-WR-IC	D12 ～ D25	136	140					◎							
	3	Corner-R		3 刃粗加工 3 Flutes Corner Radius NEW	SA210-NR	D6 ～ D20	139	140					◎							
	SA300																			
	3	Square		3 刃平头 3 Flutes Square	SA300-S3	D6 ～ D20	142	162					◎							
	2	Corner-R		2 刃长颈圆角头 2 Flutes Corner Radius with Reduced Neck	SA300-RN2	D6 ～ D32	143	162					◎							
	3	Corner-R		3 刃长颈圆角头 3 Flutes Corner Radius with Reduced Neck	SA300-RN3	D6 ～ D32	147	162					◎							
	2	Ballnose		2 刃长颈球头 2 Flutes Ball Nose with Reduced Neck	SA300-BN2	D6 ～ D20	151	163					◎							
	4	Square		4 刃长颈平头 4 Flutes with a long neck, Square-head NEW	SA300-SF-SN4	D6 ～ D20	154	164					◎							
	4	Square	Titanium-rich	4 刃长颈平头（内冷涂层） 4 Flutes with a long neck, Square-head, Internal Coolant, Coating NEW	SA300-SF-IC-SN4	D12 ～ D20	155	164					◎							
	4	Corner-R		4 刃长颈圆角头 4 Flutes with a long neck, Corner Radius NEW	SA300-SF-RN4	D12 ～ D20	156	164					◎							
	4	Corner-R	Titanium-rich	4 刃长颈圆角头（内冷涂层） 4 Flutes with a long neck, Corner Radius, Internal Coolant, Coating NEW	SA300-SF-IC-RN4	D12 ～ D20	158	164					◎							
	6	Corner-R		6 刃长颈圆角头 6 Flutes with a long neck, Corner Radius NEW	SA300-WF-RN6	D16 ～ D25	160	164					◎							
	6	Corner-R	Titanium-rich	6 刃长颈圆角头（内冷涂层） 6 Flutes with a long neck, Corner Radius, Internal Coolant, Coating NEW	SA300-WF-IC-RN6	D16 ～ D25	161	164					◎							
钛合金 Titanium Alloy	ST210																			
	4	Square	AlCrN	4 刃平头 4 Flutes Square	ST210-S4	D2 ～ D20	166	174	○	○	◎					○	◎			
	4	Corner-R	AlCrN	4 刃圆角头 4 Flutes Corner Radius	ST210-R4	D2 ～ D20	167	174	○	○	◎					○	◎			
	4	Corner-R	AlCrN	4 刃长颈圆角头 4 Flutes Corner Radius with Reduced Neck	ST210-RN4	D6 ～ D20	169	174	○	○	◎					○	◎			
	5	Corner-R	AlCrN	5 刃长刃圆角头 5 Long Flutes Corner Radius	ST210-RL5	D16 ～ D25	172	175	○	○	◎					○	◎			
	4	Ballnose	AlCrN	4 刃球头 4 Flutes Ball Nose	ST210-B4	D2 ～ D20	173	175	○	○	◎					○	◎			

◎ 非常适合most suitable ○ 一般适合suitable

刀具系列目录（按系列）
Endmill Catalog（by series）

适用加工材料 Suitable Material	刃数 No.of Flutes	底刃形状 Endteeth Type	涂层 Coating	刀具名称及外形 Description Difficult-to-machine Material	系列型号 Type	尺寸范围 Diameter Range	尺寸表页码 Dimension Page	切削参数页码 Cutting Parameters Page	工件材料 Workpiece Material											
									P		M	K	N			S		H		
									1 2 3 4	5 6	1 2 3	1 2 3	1 2 3	4	5	1 2 3	4	1	2	3 4
									碳钢、合金钢 Carbon Steel,Alloy	合金钢 Alloy Steel	不锈钢 Stainless Steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨、复合材料 Graphite, Composite Materials	高温合金 Heat Resistant Super Alloys	钛合金 Titanium Alloys	高硬钢 Hardened Steel	高硬钢 Hardened Steel	高硬钢 Hardened Steel
									＜ 35HRC	≤ 48HRC								45-55HRC	55-60HRC	＞ 60HRC
	US260																			
	4	Square	TiAlN	4 刃平头 4 Flutes, Standard Length NEW	US260-SS4A	D1 ～ D12	177	182	○	○	◎	○				○	○			
	4	Square	TiAlN	4刃平头 4 Flutes, Standard Length NEW	US260-S4A	D1 ～ D16	178	182	○	○	◎	○				○	○			
	4	Corner-R	TiAlN	4 刃短刃圆角头 4 Flutes, Corner Radius NEW	US260-RS4	D1 ～ D10	179	182	○	○	◎	○				○	○			
	4	Corner-R	TiAlN	4 刃圆角头 4 Flutes, Corner Radius NEW	US260-R4	D1.5 ～ D6	180	182	○	○	◎	○				○	○			
	SS600																			
不锈钢 Stainless Steel	4	Square	TiAlN	4 刃平头 4 Flutes Corner Radius NEW	SS600-S4	D2 ～ D20	184	193	◎	◎	◎	◎				○	◎			
	4	Square	TiAlN	4 刃短刃平头 4 Short Flutes Corner Radius NEW	SS600-SS4	D2 ～ D20	185	193	◎	◎	◎	◎				○	◎			
	5	Square	TiAlN	5 刃平头 5 Flutes Square NEW	SS600-S5	D6 ～ D25	186	194	◎	◎	◎	◎				○	◎			
	4	Corner-R	TiAlN	4 刃圆角头 4 Flutes Corner Radius NEW	SS600-R4	D2 ～ D20	187	193	◎	◎	◎	◎				○	◎			
	4	Corner-R	TiAlN	4 刃短刃圆角头 4 Short Flutes Corner Radius NEW	SS600-RS4	D2 ～ D20	189	193	◎	◎	◎	◎				○	◎			
	5	Corner-R	TiAlN	5 刃圆角头 5 Flutes Corner Radius NEW	SS600-R5	D6 ～ D25	190	194	◎	◎	◎	◎				○	◎			
	4	Ballnose	TiAlN	4 刃球头 4 Flutes Ball Nose NEW	SS600-B4	D6 ～ D20	192	194	◎	◎	◎	◎				○	◎			
	SN200																			
高温合金 Heat Resistant Super Alloy	4	Corner-R	AlTiN	4 刃圆角头 4 Flutes Corner Radius	SN200-R4	D1 ～ D20	196	202	○	○	○					◎	○			
	4	Corner-R	AlTiN	4 刃长柄圆角头 4 Flutes Long Shank Corner Radius	SN200-RH4	D8 ～ D16	199	202	○	○	○					◎	○			
	4	Ballnose	AlTiN	4 刃球头 4 Flutes Ball Nose	SN200-B4	D2 ～ D12	200	202	○	○	○					◎	○			
	4	Ballnose	AlTiN	4 刃长柄球头 4 Flutes Long Shank Ball Nose	SN200-BH4	D8 ～ D12	201	202	○	○	○					◎	○			
难加工材料 Description Difficult-to-machine Material	**STB200**																			
	4	Ballnose	AlCrN	4 刃锥度球头 4 Flutes Taper Ball Nose NEW	STB200-B4	D3 ～ D8	204	205	○	○	◎					◎	◎			

◎ 非常适合most suitable ○ 一般适合suitable

B 铣削 MILLING

刀具系列目录（按系列）
Endmill Catalog（by series）

适用加工材料 Suitable Material	刃数 No.of Flutes	底刃形状 Endteeth Type	涂层 Coating	刀具名称及外形 Description	系列型号 Type	尺寸范围 Diameter Range	尺寸表页码 Dimension Page	切削参数页码 Cutting Parameters Page	工件材料 Workpiece Material											
									P		M	K	N			S		H		
									1234	56	123	123	123	4	5	123	4	1	2	34
									碳钢、合金钢 Carbon Steel,Alloy	合金钢 Alloy Steel	不锈钢 Stainless Steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨、复合材料 Graphite, Composite Materials	高温合金 Heat Resistant Super Alloys	钛合金 Titanium Alloys	高硬钢 Hardened Steel	高硬钢 Hardened Steel	高硬钢 Hardened Steel
									＜ 35HRC	≤ 48HRC								45-55HRC	55-60HRC	＞ 60HRC
	SD200																			
	8 12	Square	U-DIA	8/12 刃菱齿 8/12 Flutes Fine-cross-nick 	SD200-CN	D2 ～ D12	207	184							◎					
	DNM100																			
复合材料 Composite Material	1	Corner-R		1 刃圆角头 NEW 1 Flutes Corner Radius 	DNM100-RS1	D2 ～ D4	209	212					◎	◎	◎					
	2	Corner-R		2 刃圆角头 NEW 2 Flutes Corner Radius 	DNM100-RS2	D4 ～ D10	210	212					◎	◎	◎					
	3	Corner-R		3 刃圆角头 NEW 3 Flutes Corner Radius 	DNM100-RS3	D10 ～ D16	211	212					◎	◎	◎					
	DNR100																			
	3	Corner-R		3 刃圆角头 NEW 3 Flutes Corner Radius 	DNR100-C3	D6 ～ D12	213	214							◎					

◎ 非常适合most suitable ◯ 一般适合suitable

SA210系列铝合金粗加工立铣刀
SA210 Endmills for Rough Finish of Aluminum Alloy

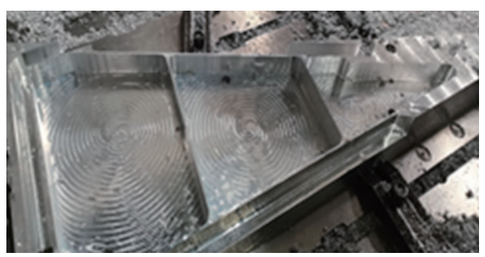
- 适用于铝合金材料高效粗加工；
- 特殊的波浪齿型设计，金属去除率高；
- 抑振刀型设计，高速切削过程稳定。

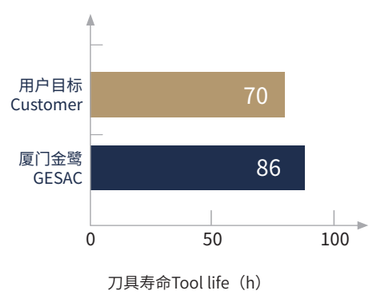
- Suitable for high efficiency roughing of Aluminum Alloy.
- Special knuckle-type teeth design provides high metal removal rate.
- Vibration suppression tool is designed to keep the cutting process stable at high speeds.

应用案例
Case

铝框粗加工
Roughing of Aluminum Frame

刀具型号 Cutting Tool	SA210-WR-20030
刀具规格 Specification	D20*R3*25*73*125*d20*D19
加工材料 Workpiece Material	7050-T7451（150HB）
转速 Speed	15000rpm (942m/min)
进给速度 Feed Rate	5000-7000mm/min (0.111-0.155mm/z)
切削方式 Cutting Method	型腔铣 Pocket milling
切深量 Cutting Depth	ap=4-5.5mm，ae=5-20mm
冷却方式 Cooling Method	乳化液、外冷 Emulsion, External Cooling
切削效果 Processing Result	加工过程稳定，刀具寿命高于客户目标。 The machining process is stable and the tool life is higher than customer's target.





SA210-WR NEW

3刃长颈圆角头
3 Flutes with a long neck, Corner Radius

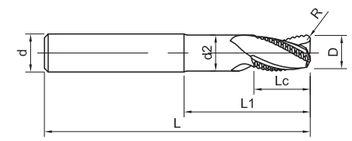


Fig1

订货号 Ordering Code	D	R	Lc	L1	d2	L	d	图号 Figure No.	库存 Stock
SA210-WR-12010	12	1	16	48	11.5	100	12	1	●
SA210-WR-12020	12	2	16	48	11.5	100	12	1	●
SA210-WR-12030	12	3	16	48	11.5	100	12	1	●
SA210-WR-16010	16	1	20	65	15.2	115	16	1	●
SA210-WR-16010A	16	1	24	42	15.2	92	16	1	●
SA210-WR-16020	16	2	20	65	15.2	115	16	1	●
SA210-WR-16020A	16	2	24	42	15.2	92	16	1	●
SA210-WR-16030	16	3	20	65	15.2	115	16	1	●
SA210-WR-16030A	16	3	24	42	15.2	92	16	1	●
SA210-WR-20010	20	1	25	73	19	125	20	1	●
SA210-WR-20010A	20	1	30	52	19	104	20	1	●
SA210-WR-20020	20	2	25	73	19	125	20	1	●
SA210-WR-20020A	20	2	30	52	19	104	20	1	●
SA210-WR-20020B	20	2	20	88	19	140	20	1	●
SA210-WR-20030	20	3	25	73	19	125	20	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
D≤16	0 -0.05
D>16	0 -0.06

单位Unit(mm)

工件材料 Workpiece Material Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎		

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P140
Recommended Cutting Data ※ P140

SA210-WR NEW

3刃长颈圆角头
3 Flutes with a long neck, Corner Radius

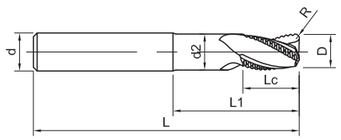


Fig1

订货号 Ordering Code	D	R	Lc	L1	d2	L	d	图号 Figure No.	库存 Stock
SA210-WR-20030A	20	3	30	52	19	104	20	1	●
SA210-WR-20030B	20	3	20	88	19	140	20	1	●
SA210-WR-20040	20	4	25	73	19	125	20	1	●
SA210-WR-20050	20	5	25	73	19	125	20	1	●
SA210-WR-20050A	20	5	30	52	19	104	20	1	●
SA210-WR-25010	25	1	30	72	23.75	130	25	1	●
SA210-WR-25010B	25	1	25	92	23.75	150	25	1	●
SA210-WR-25020	25	2	30	72	23.75	130	25	1	●
SA210-WR-25020A	25	2	37	52	23.75	110	25	1	●
SA210-WR-25020B	25	2	25	92	23.75	150	25	1	●
SA210-WR-25030	25	3	30	72	23.75	130	25	1	●
SA210-WR-25030A	25	3	37	52	23.75	110	25	1	●
SA210-WR-25030B	25	3	25	92	23.75	150	25	1	●
SA210-WR-25030C	25	3	35	100	23.75	150	25	1	●
SA210-WR-25030D	25	3	35	80	23.75	135	25	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
D≤16	0 -0.05
D>16	0 -0.06

单位Unit(mm)

工件材料 Workpiece Material Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎		

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P140
Recommended Cutting Data ※ P140

SA210-WR NEW

3刃长颈圆角头
3 Flutes with a long neck, Corner Radius

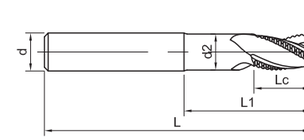


Fig1

订货号 Ordering Code	D	R	Lc	L1	d2	L	d	图号 Figure No.	库存 Stock
SA210-WR-25040	25	4	30	72	23.75	130	25	1	●
SA210-WR-25040A	25	4	37	52	23.75	110	25	1	●
SA210-WR-25040B	25	4	25	92	23.75	150	25	1	●
SA210-WR-25050	25	5	30	72	23.75	130	25	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
D≤16	0 -0.05
D>16	0 -0.06

单位Unit(mm)

工件材料 Workpiece Material Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎		

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P140
Recommended Cutting Data ※ P140

SA210-WR-IC NEW

3刃长颈圆角头（内冷涂层）
3 Flutes with a long neck, Corner Radius, Internal Coolant, Coating

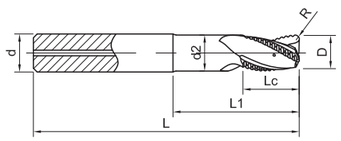


Fig1

SHANK h6 | 3 | Titanium-rich | 30° Helix | Corner-R

订货号 Ordering Code	D	R	Lc	L1	d2	L	d	图号 Figure No.	库存 Stock
SA210-WR-IC-12010	12	1	16	48	11.5	100	12	1	○
SA210-WR-IC-12020	12	2	16	48	11.5	100	12	1	○
SA210-WR-IC-12030	12	3	16	48	11.5	100	12	1	●
SA210-WR-IC-16010	16	1	20	65	15.2	115	16	1	○
SA210-WR-IC-16010A	16	1	24	42	15.2	92	16	1	○
SA210-WR-IC-16020	16	2	20	65	15.2	115	16	1	○
SA210-WR-IC-16020A	16	2	24	42	15.2	92	16	1	○
SA210-WR-IC-16030	16	3	20	65	15.2	115	16	1	●
SA210-WR-IC-16030A	16	3	24	42	15.2	92	16	1	●
SA210-WR-IC-20010	20	1	25	73	19	125	20	1	○
SA210-WR-IC-20010A	20	1	30	52	19	104	20	1	○
SA210-WR-IC-20020	20	2	25	73	19	125	20	1	○
SA210-WR-IC-20020A	20	2	30	52	19	104	20	1	○
SA210-WR-IC-20020B	20	2	20	88	19	140	20	1	○
SA210-WR-IC-20030	20	3	25	73	19	125	20	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
D≤16	0 -0.05
D>16	0 -0.06

单位Unit(mm)

工件材料 Workpiece Material Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎		

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P140
Recommended Cutting Data ※ P140

SA210-WR-IC NEW

3刃长颈圆角头（内冷涂层）
3 Flutes with a long neck, Corner Radius, Internal Coolant, Coating

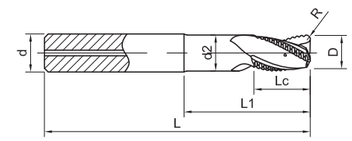


Fig1

SHANK h6 | 3 | Titanium-rich | 30° Helix | Corner-R

订货号 Ordering Code	D	R	Lc	L1	d2	L	d	图号 Figure No.	库存 Stock
SA210-WR-IC-20030A	20	3	30	52	19	104	20	1	●
SA210-WR-IC-20030B	20	3	20	88	19	140	20	1	●
SA210-WR-IC-20040	20	4	25	73	19	125	20	1	○
SA210-WR-IC-20050	20	5	25	73	19	125	20	1	○
SA210-WR-IC-20050A	20	5	30	52	19	104	20	1	○
SA210-WR-IC-25010	25	1	30	72	23.75	130	25	1	○
SA210-WR-IC-25010B	25	1	25	92	23.75	150	25	1	○
SA210-WR-IC-25020	25	2	30	72	23.75	130	25	1	○
SA210-WR-IC-25020A	25	2	37	52	23.75	110	25	1	○
SA210-WR-IC-25020B	25	2	25	92	23.75	150	25	1	○
SA210-WR-IC-25030	25	3	30	72	23.75	130	25	1	●
SA210-WR-IC-25030A	25	3	37	52	23.75	110	25	1	●
SA210-WR-IC-25030B	25	3	25	92	23.75	150	25	1	●
SA210-WR-IC-25030C	25	3	35	100	23.75	150	25	1	●
SA210-WR-IC-25030D	25	3	35	80	23.75	135	25	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
D≤16	0 -0.05
D>16	0 -0.06

单位Unit(mm)

工件材料 Workpiece Material Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎		

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P140
Recommended Cutting Data ※ P140

SA210-WR-IC NEW

3刃长颈圆角头（内冷涂层）
3 Flutes with a long neck, Corner Radius, Internal Coolant, Coating

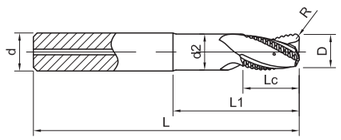


Fig1

SHANK h6 | 3 | Titanium-rich | 30° Helix | Corner-R

订货号 Ordering Code	D	R	Lc	L1	d2	L	d	图号 Figure No.	库存 Stock
SA210-WR-IC-25040	25	4	30	72	23.75	130	25	1	○
SA210-WR-IC-25040A	25	4	37	52	23.75	110	25	1	○
SA210-WR-IC-25040B	25	4	25	92	23.75	150	25	1	○
SA210-WR-IC-25050	25	5	30	72	23.75	130	25	1	○

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
D≤16	0 / -0.05
D>16	0 / -0.06

单位Unit(mm)

工件材料 Workpiece Material Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎		

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P140
Recommended Cutting Data ※ P140

SA210-NR NEW

3刃圆角头
3 Flutes Corner Radius

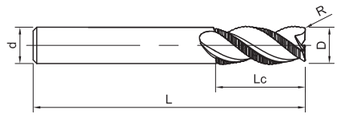


Fig1

SHANK h6 | 3 | 40° Helix | Corner-R

订货号 Ordering Code	D	Lc	R	L	d	图号 Figure No.	库存 Stock
SA210-NR-06001	6	16	0.1	50	6	1	●
SA210-NR-08002	8	20	0.2	60	8	1	●
SA210-NR-10003	10	25	0.25	75	10	1	●
SA210-NR-12003	12	30	0.25	75	12	1	●
SA210-NR-16003	16	36	0.3	100	16	1	●
SA210-NR-20003	20	45	0.3	100	20	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
D≤6	0 / -0.03
D＞6	0 / -0.04

单位unit (mm)

工件材料 Workpiece Material Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎	◎	

◎ 最适合 Most Suitable ○ 适合 Suitable

推荐切削参数 ※ P140
Recommended Cutting Data ※ P140

推荐切削参数
Recommended Cutting Data

SA210-WR/WR-IC
铝合金Aluminum Alloys——侧铣Side Milling

工件材料 Workpiece Material		切削量 Removal Rate (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	12	16	20	25
N	铝合金 Aluminium Alloys	ap≤1D	500~1750	转速 Speed (min^{-1})	14000	17000	20000	22000
		ae≤0.7D		进给速度 Feed Rate (mm/min)	6300	7650	9000	9900

SA210-WR/WR-IC
铝合金Aluminum Alloys——槽铣Slotting

工件材料 Workpiece Material		切削量 Removal Rate (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	12	16	20	25
N	铝合金 Aluminium Alloys	ap≤0.75D	500~1750	转速 Speed (min^{-1})	14000	17000	20000	22000
		Ae=1D		进给速度 Feed Rate (mm/min)	4200	5100	6000	6600

SA210-NR
铝合金Aluminum Alloys——侧铣Side Milling

工件材料 Workpiece		切削量 Removal Rate (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	6	8	10	12	16	20
N	铝合金 Aluminium Alloys	ap≤2D	200 -300	转速 Speed (min^{-1})	13000	11000	9500	8000	6500	5500
		ae≤0.5D		进给速度 Feed Rate (mm/min)	2500	3500	4500	5000	5500	6000

SA210-NR
铝合金Aluminum Alloys——槽铣Slotting

工件材料 Workpiece		切削量 Removal Rate (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	6	8	10	12	16	20
N	铝合金 Aluminium Alloys	ap≤1.5D	200 -300	转速 Speed (min^{-1})	11000	9500	8000	7500	6000	5000
		ae≤1D		进给速度 Feed Rate (mm/min)	2000	2500	3000	4000	4500	5000

1、请使用刚性较高的机床和刀柄。
2、请根据切削速度、设备刚性等情况可适当调整转速和进给速度。
3、上表是按照刀具悬长为直径3倍以下时所制订的，如果刀具悬长过长，加工时易产生振动，此时，请适当调整转速，进给速度和切深量。

1、Use machine and holder with high rigidity .
2、Adjust the speed, feed and cutting depth according to actual cutting condition.
3、The milling conditions should be applied for the tool overhang length less than 3*D (mill dia).If the tool overhang length is too long, please adjust the speed, feed and cutting depth.

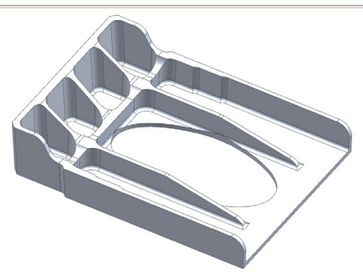
SA300系列航空铝合金高速加工立铣刀
SA300 High Speed Endmills for Aluminum Alloys

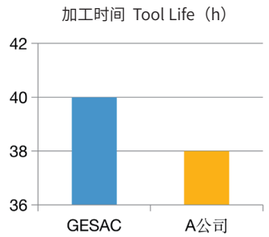
- 适用于航空铝合金材料的高速加工。
- 特殊设计和精良制造相结合，刀具动平衡性能N=25000RPM，G2.5
- 采用超细晶硬质合金，耐磨性好和高韧性的基体。
- 独特的锋利切削刃设计，切削轻快流畅，提高了加工效率和工件表面质量。

- Suitable for high speed machining of aerospace aluminium alloy
- Special symmetry design and precision with balance N=25000RPM ，G2.5 good for high speed cutting
- Ultra-fine cemented carbide, EHance both wear resistance and toughness
- Unique sharp cutting edges design, increasing cutting efficiency and surface quality

案例：SA300-RN2 系列加工连接角盒
Case: SA300-RN2 Machining of connection box

刀具型号 Type	SA300-RN2-20030
刀具规格 Size	D20*R3*24*60*110
加工材料 Workpiece Material	7075
转速 Speed	23600rpm (1480m/min)
进给速度 Feed Rate	9000mm/min(0.19mm/z)
切削方式 Cutting Method	型腔精加工 Cavity Finishing
切深量 Cutting Depth	ap=24 mm，ae=1mm
冷却方式 Cooling Method	乳化液 Emulsion





SA300-S3

3刃平头
3 Flutes Square

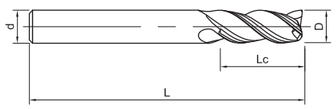


Fig1

订货号 Ordering code	D	Lc	L	d	图号 Figure No.	库存 Stock
SA300-S3-06016	6	16	50	6	1	●
SA300-S3-06016A	6	16	75	6	1	●
SA300-S3-08020	8	20	60	8	1	●
SA300-S3-08025	8	25	75	8	1	●
SA300-S3-10025	10	25	75	10	1	●
SA300-S3-12030	12	30	75	12	1	●
SA300-S3-16036	16	36	100	16	1	●
SA300-S3-20038	20	38	100	20	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
6≤D≤20	0 -0.03

单位unit (mm)

工件材料 Workpiece Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎	◎	

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P162
Recommended Cutting Data ※ P162

SA300-RN2

2刃长颈圆角头
2 Flutes Corner Radius with Reduced Neck

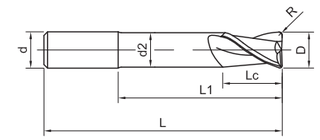


Fig1

订货号 Ordering code	D	R	Lc	L1	d2	L	d	图号 Figure No.	库存 Stock
SA300-RN2-06002	6	0.2	10	20	5.5	60	6	1	●
SA300-RN2-06002A	6	0.2	10	40	5.5	80	6	1	●
SA300-RN2-06010	6	1	10	20	5.5	60	6	1	●
SA300-RN2-06010A	6	1	10	30	5.5	75	6	1	●
SA300-RN2-06010B	6	1	10	40	5.5	80	6	1	●
SA300-RN2-06020	6	2	10	20	5.5	60	6	1	●
SA300-RN2-06020A	6	2	10	40	5.5	80	6	1	●
SA300-RN2-08002	8	0.2	10	30	7.5	75	8	1	●
SA300-RN2-08002A	8	0.2	10	50	7.5	90	8	1	●
SA300-RN2-08010	8	1	10	30	7.5	75	8	1	●
SA300-RN2-08010A	8	1	10	40	7.5	80	8	1	●
SA300-RN2-08010B	8	1	10	50	7.5	90	8	1	●
SA300-RN2-08020	8	2	10	30	7.5	75	8	1	●
SA300-RN2-08020A	8	2	10	50	7.5	90	8	1	●
SA300-RN2-10002	10	0.2	12	30	9.5	75	10	1	●
SA300-RN2-10002A	10	0.2	12	50	9.5	90	10	1	●
SA300-RN2-10010A	10	1	12	30	9.5	75	10	1	●
SA300-RN2-10010B	10	1	12	40	9.5	80	10	1	●
SA300-RN2-10010C	10	1	12	50	9.5	90	10	1	●
SA300-RN2-10020	10	2	12	30	9.5	75	10	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
6≤D≤32	0 -0.03

单位unit (mm)

工件材料 Workpiece Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎	◎	

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P162
Recommended Cutting Data ※ P162

SA300-RN2

2刃长颈圆角头
2 Flutes Corner Radius with Reduced Neck

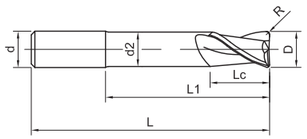


Fig1

订货号 Ordering code	D	R	Lc	L1	d2	L	d	图号 Figure No.	库存 Stock
SA300-RN2-10020A	10	2	12	50	9.5	90	10	1	●
SA300-RN2-10030	10	3	12	30	9.5	75	10	1	●
SA300-RN2-10030A	10	3	12	40	9.5	80	10	1	●
SA300-RN2-10030B	10	3	12	50	9.5	90	10	1	●
SA300-RN2-12002	12	0.2	14	50	11.5	100	12	1	●
SA300-RN2-12002A	12	0.2	14	70	11.5	120	12	1	●
SA300-RN2-12010	12	1	14	40	11.5	90	12	1	●
SA300-RN2-12010A	12	1	14	50	11.5	100	12	1	●
SA300-RN2-12010B	12	1	14	60	11.5	110	12	1	●
SA300-RN2-12010C	12	1	14	70	11.5	120	12	1	●
SA300-RN2-12020	12	2	14	50	11.5	100	12	1	●
SA300-RN2-12020A	12	2	14	70	11.5	120	12	1	●
SA300-RN2-12030	12	3	14	40	11.5	90	12	1	●
SA300-RN2-12030A	12	3	14	50	11.5	100	12	1	●
SA300-RN2-12030B	12	3	14	60	11.5	110	12	1	●
SA300-RN2-12030C	12	3	14	70	11.5	120	12	1	●
SA300-RN2-16002	16	0.2	18	50	15.5	100	16	1	●
SA300-RN2-16002A	16	0.2	18	70	15.5	120	16	1	●
SA300-RN2-16010	16	1	18	50	15.5	100	16	1	●
SA300-RN2-16010A	16	1	18	60	15.5	110	16	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
6≤D≤32	0 / -0.03

单位unit (mm)

工件材料 Workpiece Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎	◎	

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P162
Recommended Cutting Data ※ P162

SA300-RN2

2刃长颈圆角头
2 Flutes Corner Radius with Reduced Neck

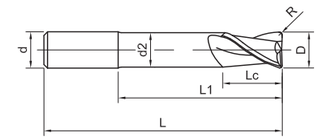


Fig1

订货号 Ordering code	D	R	Lc	L1	d2	L	d	图号 Figure No.	库存 Stock
SA300-RN2-16010B	16	1	18	70	15.5	120	16	1	●
SA300-RN2-16010C	16	1	18	80	15.5	130	16	1	●
SA300-RN2-16020	16	2	18	60	15.5	110	16	1	●
SA300-RN2-16030	16	3	18	50	15.5	100	16	1	●
SA300-RN2-16030A	16	3	18	60	15.5	110	16	1	●
SA300-RN2-16030B	16	3	18	70	15.5	120	16	1	●
SA300-RN2-16030C	16	3	18	80	15.5	130	16	1	●
SA300-RN2-16040	16	4	18	60	15.5	110	16	1	●
SA300-RN2-16050	16	5	18	60	15.5	110	16	1	●
SA300-RN2-16050A	16	5	18	80	15.5	130	16	1	●
SA300-RN2-20002	20	0.2	24	60	19	110	20	1	●
SA300-RN2-20002A	20	0.2	24	80	19	130	20	1	●
SA300-RN2-20010	20	1	24	60	19	110	20	1	●
SA300-RN2-20010A	20	1	24	80	19	130	20	1	●
SA300-RN2-20010B	20	1	24	50	19	100	20	1	●
SA300-RN2-20010C	20	1	24	70	19	120	20	1	●
SA300-RN2-20010D	20	1	24	90	19	140	20	1	●
SA300-RN2-20010E	20	1	24	100	19	150	20	1	●
SA300-RN2-20020	20	2	24	60	19	110	20	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
6≤D≤32	0 / -0.03

单位unit (mm)

工件材料 Workpiece Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎	◎	

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P162
Recommended Cutting Data ※ P162

SA300-RN2

2刃长颈圆角头
2 Flutes Corner Radius with Reduced Neck

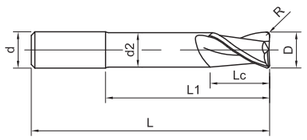


Fig1

订货号 Ordering code	D	R	Lc	L1	d2	L	d	图号 Figure No.	库存 Stock
SA300-RN2-20030	20	3	24	60	19	110	20	1	●
SA300-RN2-20030A	20	3	24	80	19	130	20	1	●
SA300-RN2-20030B	20	3	24	50	19	100	20	1	●
SA300-RN2-20030C	20	3	24	70	19	120	20	1	●
SA300-RN2-20030D	20	3	24	90	19	140	20	1	●
SA300-RN2-20030E	20	3	24	100	19	150	20	1	●
SA300-RN2-20040	20	4	24	60	19	110	20	1	●
SA300-RN2-20050	20	5	24	60	19	110	20	1	●
SA300-RN2-20050A	20	5	24	80	19	130	20	1	●
SA300-RN2-20050B	20	5	24	100	19	150	20	1	●
SA300-RN2-25010	25	1	30	80	24	135	25	1	●
SA300-RN2-25010A	25	1	30	100	24	155	25	1	●
SA300-RN2-25010B	25	1	30	125	24	180	25	1	●
SA300-RN2-25020	25	2	30	80	24	135	25	1	●
SA300-RN2-25030	25	3	30	80	24	135	25	1	●
SA300-RN2-25030A	25	3	30	100	24	155	25	1	●
SA300-RN2-25030B	25	3	30	125	24	180	25	1	●
SA300-RN2-32030	32	3	40	100	31	163	32	1	●
SA300-RN2-32030A	32	3	40	120	31	183	32	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
6≤D≤32	0 -0.03

单位unit (mm)

工件材料 Workpiece Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎	◎	

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P162
Recommended Cutting Data ※ P162

SA300-RN3

3刃长颈圆角头
3 Flutes Corner Radius with Reduced Neck

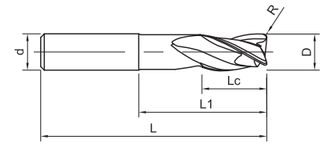


Fig1

订货号 Ordering code	D	R	Lc	L1	d2	L	d	图号 Figure No.	库存 Stock
SA300-RN3-06002	6	0.2	10	20	5.5	60	6	1	●
SA300-RN3-06002A	6	0.2	10	40	5.5	80	6	1	●
SA300-RN3-06010	6	1	10	20	5.5	60	6	1	●
SA300-RN3-06010A	6	1	10	30	5.5	75	6	1	●
SA300-RN3-06010B	6	1	10	40	5.5	80	6	1	●
SA300-RN3-06020	6	2	10	20	5.5	60	6	1	●
SA300-RN3-06020A	6	2	10	40	5.5	80	6	1	●
SA300-RN3-08002	8	0.2	10	30	7.5	75	8	1	●
SA300-RN3-08002A	8	0.2	10	50	7.5	90	8	1	●
SA300-RN3-08010	8	1	10	30	7.5	75	8	1	●
SA300-RN3-08010A	8	1	10	40	7.5	80	8	1	●
SA300-RN3-08010B	8	1	10	50	7.5	90	8	1	●
SA300-RN3-08020	8	2	10	30	7.5	75	8	1	●
SA300-RN3-08020A	8	2	10	50	7.5	90	8	1	●
SA300-RN3-10002	10	0.2	12	30	9.5	75	10	1	●
SA300-RN3-10002A	10	0.2	12	50	9.5	90	10	1	●
SA300-RN3-10010	10	1	12	30	9.5	75	10	1	●
SA300-RN3-10010A	10	1	12	40	9.5	80	10	1	●
SA300-RN3-10010B	10	1	12	50	9.5	90	10	1	●
SA300-RN3-10020	10	2	12	30	9.5	75	10	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差
6≤D≤32	0 -0.03

单位unit (mm)

工件材料 Workpiece Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎	◎	

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P162
Recommended Cutting Data ※ P162

SA300-RN3

3刃长颈圆角头
3 Flutes Corner Radius with Reduced Neck

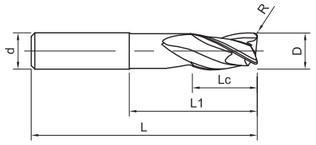


Fig1

订货号 Ordering code	D	R	Lc	L1	d2	L	d	图号 Figure No.	库存 Stock
SA300-RN3-10020A	10	2	12	50	9.5	90	10	1	●
SA300-RN3-10030	10	3	12	30	9.5	75	10	1	●
SA300-RN3-10030A	10	3	12	40	9.5	80	10	1	●
SA300-RN3-10030B	10	3	12	50	9.5	90	10	1	●
SA300-RN3-12002	12	0.2	14	50	11.5	100	12	1	●
SA300-RN3-12002A	12	0.2	14	70	11.5	120	12	1	●
SA300-RN3-12010	12	1	14	40	11.5	90	12	1	●
SA300-RN3-12010A	12	1	14	50	11.5	100	12	1	●
SA300-RN3-12010B	12	1	14	60	11.5	110	12	1	●
SA300-RN3-12010C	12	1	14	70	11.5	120	12	1	●
SA300-RN3-12020	12	2	14	50	11.5	100	12	1	●
SA300-RN3-12020A	12	2	14	70	11.5	115	12	1	●
SA300-RN3-12030	12	3	14	40	11.5	90	12	1	●
SA300-RN3-12030A	12	3	14	50	11.5	100	12	1	●
SA300-RN3-12030B	12	3	14	60	11.5	110	12	1	●
SA300-RN3-12030C	12	3	14	70	11.5	120	12	1	●
SA300-RN3-16002	16	0.2	18	50	15.5	100	16	1	●
SA300-RN3-16002A	16	0.2	18	70	15.5	120	16	1	●
SA300-RN3-16010	16	1	18	50	15.5	100	16	1	●
SA300-RN3-16010A	16	1	18	60	15.5	110	16	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差
6≤D≤32	0 / -0.03

单位unit (mm)

工件材料 Workpiece Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎	◎	

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P162
Recommended Cutting Data ※ P162

SA300-RN3

3刃长颈圆角头
3 Flutes Corner Radius with Reduced Neck

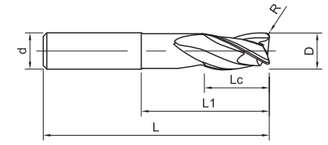


Fig1

订货号 Ordering code	D	R	Lc	L1	d2	L	d	图号 Figure No.	库存 Stock
SA300-RN3-16010B	16	1	18	70	15.5	120	16	1	●
SA300-RN3-16010C	16	1	18	80	15.5	130	16	1	●
SA300-RN3-16020	16	2	18	60	15.5	110	16	1	●
SA300-RN3-16030	16	3	18	50	15.5	100	16	1	●
SA300-RN3-16030A	16	3	18	60	15.5	110	16	1	●
SA300-RN3-16030B	16	3	18	70	15.5	120	16	1	●
SA300-RN3-16030C	16	3	18	80	15.5	130	16	1	●
SA300-RN3-16040	16	4	18	60	15.5	110	16	1	●
SA300-RN3-16050	16	5	18	60	15.5	110	16	1	●
SA300-RN3-16050A	16	5	18	80	15.5	130	16	1	●
SA300-RN3-20002	20	0.2	24	60	19	110	20	1	●
SA300-RN3-20002A	20	0.2	24	80	19	130	20	1	●
SA300-RN3-20010	20	1	24	60	19	110	20	1	●
SA300-RN3-20010A	20	1	24	80	19	130	20	1	●
SA300-RN3-20010B	20	1	24	50	19	100	20	1	●
SA300-RN3-20010C	20	1	24	70	19	120	20	1	●
SA300-RN3-20010D	20	1	24	90	19	140	20	1	●
SA300-RN3-20010E	20	1	24	100	19	150	20	1	●
SA300-RN3-20020	20	2	24	60	19	110	20	1	●
SA300-RN3-20030	20	3	24	60	19	110	20	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差
6≤D≤32	0 / -0.03

单位unit (mm)

工件材料 Workpiece Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎	◎	

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P162
Recommended Cutting Data ※ P162

SA300-RN3

3刃长颈圆角头
3 Flutes Corner Radius with Reduced Neck

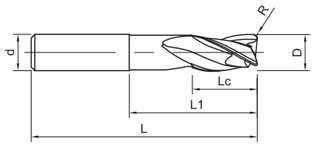


Fig1

订货号 Ordering code	D	R	Lc	L1	d2	L	d	图号 Figure No.	库存 Stock
SA300-RN3-20030A	20	3	24	80	19	130	20	1	●
SA300-RN3-20030B	20	3	24	50	19	100	20	1	●
SA300-RN3-20030C	20	3	24	70	19	120	20	1	●
SA300-RN3-20030D	20	3	24	90	19	140	20	1	●
SA300-RN3-20030E	20	3	24	100	19	150	20	1	●
SA300-RN3-20040	20	4	24	60	19	110	20	1	●
SA300-RN3-20050	20	5	24	60	19	110	20	1	●
SA300-RN3-20050A	20	5	24	80	19	130	20	1	●
SA300-RN3-20050B	20	5	24	100	19	150	20	1	●
SA300-RN3-25010	25	1	30	80	24	135	25	1	●
SA300-RN3-25010A	25	1	30	100	24	155	25	1	●
SA300-RN3-25010B	25	1	30	125	24	180	25	1	●
SA300-RN3-25020	25	2	30	80	24	135	25	1	●
SA300-RN3-25030	25	3	30	80	24	135	25	1	●
SA300-RN3-25030A	25	3	30	100	24	155	25	1	●
SA300-RN3-25030B	25	3	30	125	24	180	25	1	●
SA300-RN3-32030	32	3	40	100	31	163	32	1	●
SA300-RN3-32030A	32	3	40	120	31	183	32	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差
6≤D≤32	0 -0.03

单位unit (mm)

工件材料 Workpiece Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎	◎	

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P162
Recommended Cutting Data ※ P162

SA300-BN2

2刃长颈球头
2 Flutes Ball Nose with Reduced Neck

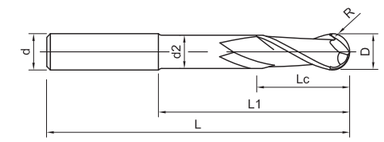


Fig1

订货号 Ordering code	D	R	Lc	L1	d2	L	d	图号 Figure No.	库存 Stock
SA300-BN2-06020	6	3	10	20	5.5	60	6	1	●
SA300-BN2-06030	6	3	10	30	5.5	75	6	1	●
SA300-BN2-08030	8	4	10	30	7.5	75	8	1	●
SA300-BN2-08040	8	4	10	40	7.5	80	8	1	●
SA300-BN2-10030	10	5	12	30	9.5	75	10	1	●
SA300-BN2-10040	10	5	12	40	9.5	80	10	1	●
SA300-BN2-12040	12	6	14	40	11.5	90	12	1	●
SA300-BN2-12050	12	6	14	50	11.5	100	12	1	●
SA300-BN2-16060	16	8	18	60	15.5	110	16	1	●
SA300-BN2-16070	16	8	18	70	15.5	120	16	1	●
SA300-BN2-20060	20	10	24	60	19	110	20	1	●
SA300-BN2-20080	20	10	24	80	19	130	20	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差
6≤D≤20	0 -0.03

单位unit (mm)

工件材料 Workpiece Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎	◎	

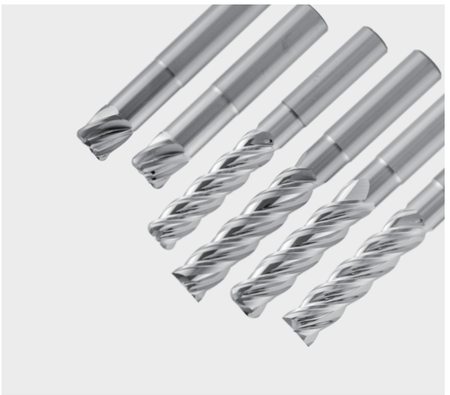
◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P163
Recommended Cutting Data ※ P163

SA300-SF/WF 铝合金高速高效加工立铣刀
SA300-SF/WFEndmills for High-speed and High-efficiency Aluminum Machining

- 适用于航空铝合金材料的高速高效加工；
- 抑振刀型设计，高速切削过程稳定；
- 提升刀具强度，适应高去除率切削工况；
- 优化内冷结构，实现高效冷却；
- 铝合金专用涂层，有效延长刀具寿命。

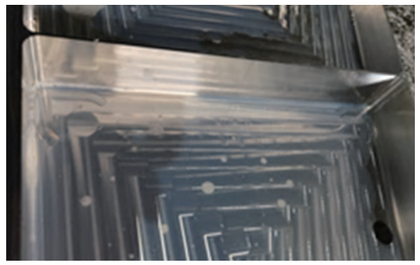
- Suitable for high-speed and high-efficiency machining of aviation aluminum alloy materials.
- Vibration suppression tool is designed to keep the cutting process stable at high speeds.
- Strengthen the tool and adapt to high removal rate cutting situations.
- Optimize the internal cooling structure to achieve effective cooling.
- Aluminum alloy coating is used to extent tool life.

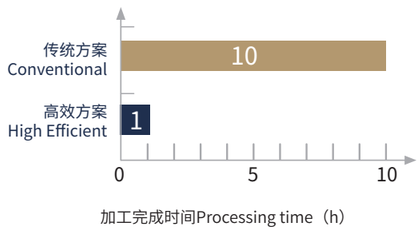


应用案例
Case

铝框侧壁精加工
Finishing of Aluminum Frame Side Wall

刀具型号 Cutting Tool	SA300-SF-RN4-12030A
刀具规格 Specification	D12*R3*48*62*100*d12*D11.5
加工材料 Workpiece Material	7175（150HB）
转速 Speed	18000rpm (678m/min)
进给速度 Feed Rate	3600mm/min (0.05mm/z)
切削方式 Cutting Method	侧铣 Side milling
切深量 Cutting Depth	ap=35mm，ae=0.3mm
冷却方式 Cooling Method	乳化液、外冷 Emulsion, External Cooling
切削效果 Processing Result	加工过程无异常振动，筋条尺寸满足要求。 There is no normal vibration during the process of machining, resulting in the bar Specification meets the requirements.

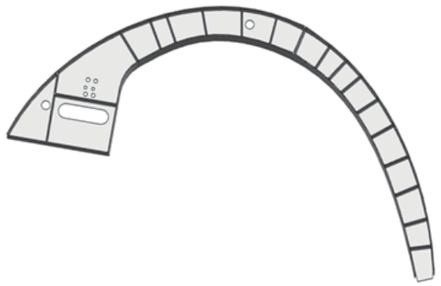


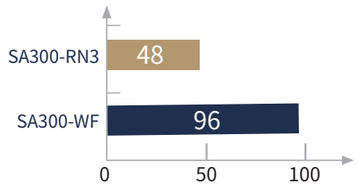


应用案例
Case

腹板精加工
Finishing of Web Plate

刀具型号 Cutting Tool	SA300-WF-RN6-25030A
刀具规格 Specification	D25*R3*25*72*130*d25*D24
加工材料 Workpiece Material	2024（150HB）
转速 Speed	8000rpm (471m/min)
进给速度 Feed Rate	6000mm/min (0.125mm/z)
切削方式 Cutting Method	面铣 Face milling
切深量 Cutting Depth	ap=1mm，ae=16mm
冷却方式 Cooling Method	乳化液、外冷 Emulsion, External Cooling
切削效果 Processing Result	工件表面粗糙度好， 相对传统3刃刀具效率大幅提升 The surface roughness of the Workpiece Material is good, and the efficiency is greatly improved compared with that of the traditional 3-edge cutter.





SA300-SF-SN4 NEW

4刃长颈平头
4 Flutes with a long neck, Square-head

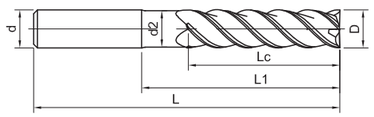


Fig1

SHANK h6 | 4 | 38°/41° Helix | Square

订货号 Ordering Code	D	Lc	L1	d2	L	d	图号 Figure No.	库存 Stock
SA300-SF-SN4-06030	6	24	30	5.5	60	6	1	●
SA300-SF-SN4-08040	8	32	40	7.5	64	8	1	●
SA300-SF-SN4-10050	10	40	50	9.5	80	10	1	●
SA300-SF-SN4-12040	12	30	40	11.5	83	12	1	●
SA300-SF-SN4-12062	12	48	62	11.5	100	12	1	●
SA300-SF-SN4-16051	16	40	51	15.5	93	16	1	●
SA300-SF-SN4-16082	16	64	82	15.5	125	16	1	●
SA300-SF-SN4-20063	20	50	63	19	108	20	1	●
SA300-SF-SN4-200A2	20	80	102	19	150	20	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
6≤D≤20	-0.02 -0.04

单位Unit(mm)

工件材料 Workpiece Material Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎		

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P164
Recommended Cutting Data ※ P164

SA300-SF-IC-SN4 NEW

4刃长颈平头（内冷涂层）
4 Flutes with a long neck, Square-head, Internal Coolant, Coating

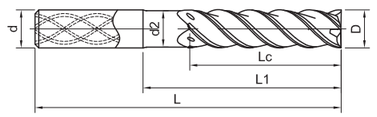


Fig1

SHANK h6 | 4 | Titanium-rich | 40° Helix | Square

订货号 Ordering Code	D	Lc	L1	d2	L	d	图号 Figure No.	库存 Stock
SA300-SF-IC-SN4-12040	12	30	40	11.5	83	12	1	○
SA300-SF-IC-SN4-12062	12	48	62	11.5	100	12	1	○
SA300-SF-IC-SN4-16051	16	40	51	15.5	93	16	1	○
SA300-SF-IC-SN4-16082	16	64	82	15.5	125	16	1	○
SA300-SF-IC-SN4-20063	20	50	63	19	108	20	1	○
SA300-SF-IC-SN4-200A2	20	80	102	19	150	20	1	○

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
6≤D≤20	-0.02 -0.04

单位Unit(mm)

工件材料 Workpiece Material Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎		

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P164
Recommended Cutting Data ※ P164

SA300-SF-RN4 NEW

4刃长颈圆角头
4 Flutes with a long neck, Corner Radius

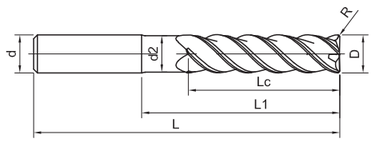


Fig1

SHANK h6 | 4 | 38°/41° Helix | Corner-R

订货号 Ordering Code	D	R	Lc	L1	d2	L	d	图号 Figure No.	库存 Stock
SA300-SF-RN4-12005	12	0.5	30	40	11.5	83	12	1	●
SA300-SF-RN4-12020	12	2	30	40	11.5	83	12	1	●
SA300-SF-RN4-12020A	12	2	48	62	11.5	100	12	1	●
SA300-SF-RN4-12030	12	3	30	40	11.5	83	12	1	●
SA300-SF-RN4-12030A	12	3	48	62	11.5	100	12	1	●
SA300-SF-RN4-12040	12	4	30	40	11.5	83	12	1	●
SA300-SF-RN4-12040A	12	4	48	62	11.5	100	12	1	●
SA300-SF-RN4-12050	12	5	30	40	11.5	83	12	1	●
SA300-SF-RN4-16020	16	2	40	51	15.5	93	16	1	●
SA300-SF-RN4-16020A	16	2	64	82	15.5	125	16	1	●
SA300-SF-RN4-16030	16	3	40	51	15.5	93	16	1	●
SA300-SF-RN4-16030A	16	3	64	82	15.5	125	16	1	●
SA300-SF-RN4-16040	16	4	40	51	15.5	93	16	1	●
SA300-SF-RN4-16040A	16	4	64	82	15.5	125	16	1	●
SA300-SF-RN4-16050	16	5	40	51	15.5	93	16	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
6≤D≤20	-0.02 -0.04

单位Unit(mm)

工件材料 Workpiece Material Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎		

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P164
Recommended Cutting Data ※ P164

SA300-SF-RN4 NEW

4刃长颈圆角头
4 Flutes with a long neck, Corner Radius

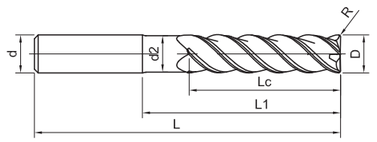


Fig1

SHANK h6 | 4 | 38°/41° Helix | Corner-R

订货号 Ordering Code	D	R	Lc	L1	d2	L	d	图号 Figure No.	库存 Stock
SA300-SF-RN4-20030	20	3	50	63	19	108	20	1	●
SA300-SF-RN4-20030A	20	3	80	102	19	150	20	1	●
SA300-SF-RN4-20040	20	4	50	63	19	108	20	1	●
SA300-SF-RN4-20040A	20	4	80	102	19	150	20	1	●
SA300-SF-RN4-20050	20	5	50	63	19	108	20	1	●
SA300-SF-RN4-20050A	20	5	80	102	19	150	20	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
6≤D≤20	-0.02 -0.04

单位Unit(mm)

工件材料 Workpiece Material Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎		

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P164
Recommended Cutting Data ※ P164

SA300-SF-IC-RN4 NEW

4刃长颈圆角头（内冷涂层）
4 Flutes with a long neck, Corner Radius, Internal Coolant, Coating

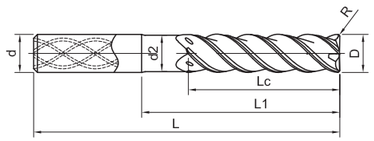


Fig1

SHANK h6 | 4 | Titanium-rich | 40° Helix | Corner-R

订货号 Ordering Code	D	R	Lc	L1	d2	L	d	图号 Figure No.	库存 Stock
SA300-SF-IC-RN4-12005	12	0.5	30	40	11.5	83	12	1	○
SA300-SF-IC-RN4-12020	12	2	30	40	11.5	83	12	1	○
SA300-SF-IC-RN4-12020A	12	2	48	62	11.5	100	12	1	○
SA300-SF-IC-RN4-12030	12	3	30	40	11.5	83	12	1	●
SA300-SF-IC-RN4-12030A	12	3	48	62	11.5	100	12	1	●
SA300-SF-IC-RN4-12040	12	4	30	40	11.5	83	12	1	○
SA300-SF-IC-RN4-12040A	12	4	48	62	11.5	100	12	1	○
SA300-SF-IC-RN4-12050	12	5	30	40	11.5	83	12	1	○
SA300-SF-IC-RN4-16020	16	2	40	51	15.5	93	16	1	○
SA300-SF-IC-RN4-16020A	16	2	64	82	15.5	125	16	1	○
SA300-SF-IC-RN4-16030	16	3	40	51	15.5	93	16	1	●
SA300-SF-IC-RN4-16030A	16	3	64	82	15.5	125	16	1	●
SA300-SF-IC-RN4-16040	16	4	40	51	15.5	93	16	1	○
SA300-SF-IC-RN4-16040A	16	4	64	82	15.5	125	16	1	○
SA300-SF-IC-RN4-16050	16	5	40	51	15.5	93	16	1	○

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
6≤D≤20	-0.02 -0.04

单位Unit(mm)

工件材料 Workpiece Material Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎		

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P164
Recommended Cutting Data ※ P164

SA300-SF-IC-RN4 NEW

4刃长颈圆角头（内冷涂层）
4 Flutes with a long neck, Corner Radius, Internal Coolant, Coating

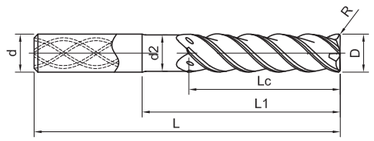


Fig1

SHANK h6 | 4 | Titanium-rich | 40° Helix | Corner-R

订货号 Ordering Code	D	R	Lc	L1	d2	L	d	图号 Figure No.	库存 Stock
SA300-SF-IC-RN4-20030	20	3	50	63	19	108	20	1	●
SA300-SF-IC-RN4-20030A	20	3	80	102	19	150	20	1	●
SA300-SF-IC-RN4-20040	20	4	50	63	19	108	20	1	○
SA300-SF-IC-RN4-20040A	20	4	80	102	19	150	20	1	○
SA300-SF-IC-RN4-20050	20	5	50	63	19	108	20	1	○
SA300-SF-IC-RN4-20050A	20	5	80	102	19	150	20	1	○

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
6≤D≤20	-0.02 -0.04

单位Unit(mm)

工件材料 Workpiece Material Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎		

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P164
Recommended Cutting Data ※ P164

SA300-WF-RN6 NEW

6刃长颈圆角头
6 Flutes with a long neck, Corner Radius

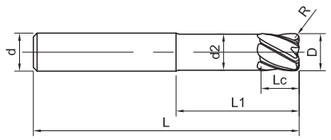


Fig1

SHANK h6 | 6 | 30° Helix | Corner-R

订货号 Ordering Code	D	R	Lc	L1	d2	L	d	图号 Figure No.	库存 Stock
SA300-WF-RN6-16030	16	3	16	42	15.5	92	16	1	●
SA300-WF-RN6-16030A	16	3	16	65	15.5	115	16	1	●
SA300-WF-RN6-16040	16	4	16	65	15.5	115	16	1	●
SA300-WF-RN6-20030	20	3	20	52	19	104	20	1	●
SA300-WF-RN6-20030A	20	3	20	73	19	125	20	1	●
SA300-WF-RN6-20040	20	4	20	73	19	125	20	1	●
SA300-WF-RN6-25030	25	3	25	52	24	110	25	1	●
SA300-WF-RN6-25030A	25	3	25	72	24	130	25	1	●
SA300-WF-RN6-25030B	25	3	25	92	24	150	25	1	●
SA300-WF-RN6-25040	25	4	25	72	24	130	25	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
16≤D≤25	-0.02 -0.05

单位Unit(mm)

工件材料 Workpiece Material Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎		

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P164
Recommended Cutting Data ※ P164

SA300-WF-IC-RN6 NEW

6刃长颈圆角头（内冷涂层）
6 Flutes with a long neck, Corner Radius, Internal Coolant, Coating

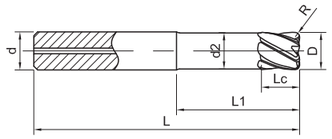


Fig1

SHANK h6 | 6 | Titanium-rich | 30° Helix | Corner-R

订货号 Ordering Code	D	R	Lc	L1	d2	L	d	图号 Figure No.	库存 Stock
SA300-WF-IC-RN6-16030	16	3	16	42	15.5	92	16	1	○
SA300-WF-IC-RN6-16030A	16	3	16	65	15.5	115	16	1	●
SA300-WF-IC-RN6-16040	16	4	16	65	15.5	115	16	1	○
SA300-WF-IC-RN6-20030	20	3	20	52	19	104	20	1	●
SA300-WF-IC-RN6-20030A	20	3	20	73	19	125	20	1	●
SA300-WF-IC-RN6-20040	20	4	20	73	19	125	20	1	○
SA300-WF-IC-RN6-25030	25	3	25	52	24	110	25	1	●
SA300-WF-IC-RN6-25030A	25	3	25	72	24	130	25	1	●
SA300-WF-IC-RN6-25030B	25	3	25	92	24	150	25	1	●
SA300-WF-IC-RN6-25040	25	4	25	72	24	130	25	1	○

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
16≤D≤25	-0.02 -0.05

单位Unit(mm)

工件材料 Workpiece Material Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎		

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P164
Recommended Cutting Data ※ P164

推荐切削参数
Recommended Cutting Data

SA300-RN2
铝合金Aluminum Alloys——侧铣Side Milling

工件材料		切削量 Cutting Depth (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	6	8	10	12	16	20	25	32
N	铝合金7075，7050等 Aluminum alloy 7075,7050, etc	ap≤0.15D	565 (150～945)	转速Speed (min^{-1})	8000	10000	12000	15000	15000	15000	12000	10000
		ae≤0.4D		进给速度Feed Rate (mm/min)	1600	2000	3600	4500	4500	4500	4800	4800

SA300-RN2
航空铝合金Aluminum Alloy——槽铣Slotting

工件材料		切削量 Cutting Depth (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	6	8	10	12	16	20	25	32
N	铝合金7075，7050等 Aluminum alloy 7075,7050, etc	ap≤0.1D	565 (150～945)	转速Speed (min^{-1})	8000	10000	12000	15000	15000	15000	12000	10000
		ae=1D		进给速度Feed Rate (mm/min)	1200	1600	3000	4000	4000	4000	4000	4000

SA300-S3/RN3
航空铝合金Aluminum Alloy——侧铣 Side Milling

工件材料		切削量 Cutting Depth (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	6	8	10	12	16	20	25	32
N	铝合金7075，7050等 Aluminum alloy 7075,7050, etc	ap≤0.15D	565 (150～945)	转速Speed (min^{-1})	8000	10000	12000	15000	15000	15000	12000	10000
		ae≤0.4D		进给速度Feed Rate (mm/min)	2000	2500	5000	6000	6000	6000	6400	6400

1、铣刀装夹时，刃部的径向跳动控制在0.005mm以下。
2、请使用刚性较高的机床和刀柄。
3、请根据切削速度、设备刚性等情况可适当调整转速和进给速度。
4、上表是按照刀具悬长为直径3倍以下时所制订的，如果刀具悬长过长，加工时易产生振动，此时，请适当调整转速，进给速度和切深量。

1、When the milling cutter is clamped, the maximum T.I.R. should be controlled below 0.005mm.
2、Please pay attention to use machine and holder with high rigidity .
3、Please adjust the speed, feed and cutting depth according to actual cutting conditions.
4、The milling conditions should be applied for the tool overhang length less than 3*D (mill dia).If the tool overhang length is too long, please adjust the speed, feed and cutting depth.

推荐切削参数
Recommended Cutting Data

SA300-S3/RN3
航空铝合金Aluminum Alloy——槽铣Slotting

工件材料		切削量 Cutting Depth (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	6	8	10	12	16	20	25	32
N	铝合金7075，7050等 Aluminum alloy 7075,7050, etc	ap≤0.1D	565 (150～945)	转速Speed (min^{-1})	8000	10000	12000	15000	15000	15000	12000	10000
		ae=1D		进给速度Feed Rate (mm/min)	1600	2000	4200	5400	5400	5400	5800	5800

SA300-BN2
航空铝合金Aluminum Alloy——仿型铣Profiling

工件材料		切削量 Cutting Depth (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	6	8	10	12	16	20
N	铝合金7075，7050等 Aluminum alloy 7075,7050, etc	ap≤0.4D	565 (150～945)	转速Speed (min^{-1})	8000	10000	12000	15000	15000	15000
		ae≤0.4D		进给速度Feed Rate (mm/min)	1000	1600	2000	2400	2400	2400

1、铣刀装夹时，刃部的径向跳动控制在0.005mm以下。
2、请使用刚性较高的机床和刀柄。
3、请根据切削速度、设备刚性等情况可适当调整转速和进给速度。
4、上表是按照刀具悬长为直径3倍以下时所制订的，如果刀具悬长过长，加工时易产生振动，此时，请适当调整转速，进给速度和切深量。

1、When the milling cutter is clamped, the maximum T.I.R. should be controlled below 0.005mm.
2、Please pay attention to use machine and holder with high rigidity .
3、Please adjust the speed, feed and cutting depth according to actual cutting conditions.
4、The milling conditions should be applied for the tool overhang length less than 3*D (mill dia).If the tool overhang length is too long, please adjust the speed, feed and cutting depth.

推荐切削参数
Recommended Cutting Data

SA300-SF/SF-IC
铝合金Aluminum Alloys——侧铣Side Milling

工件材料 Workpiece Material		切削量 Removal Rate (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	6	8	10	12	16	20
N	铝合金 Aluminium Alloys	ap≤4D	200~1150	转速 Speed (min-1)	12000	13000	14000	16000	17000	18000
		ae≤0.5		进给速度 Feed Rate (mm/min)	2880	3120	3360	3840	4080	4320

SA300-WF/WF-IC
铝合金Aluminum Alloys——侧铣Side Milling

工件材料 Workpiece Material		切削量 Removal Rate (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	16	20	25
N	铝合金 Aluminium Alloys	ap≤2	850~1750	转速 Speed (min-1)	17000	20000	22000
		ae≤0.7D		进给速度 Feed Rate (mm/min)	10200	12000	13200

1、铣刀装夹时，刃部的径向跳动控制在0.005mm以下。
2、请使用刚性较高的机床和刀柄。
3、请根据切削速度、设备刚性等情况可适当调整转速和进给速度。
4、上表是按照刀具悬长为直径3倍以下时所制订的，如果刀具悬长过长，加工时易产生振动，此时，请适当调整转速，进给速度和切深量。

1、When the milling cutter is clamped, the maximum T.I.R. should be controlled below 0.005mm.
2、Please pay attention to use machine and holder with high rigidity .
3、Please adjust the speed, feed and cutting depth according to actual cutting conditions.
4、The milling conditions should be applied for the tool overhang length less than 3*D (mill dia).If the tool overhang length is too long, please adjust the speed, feed and cutting depth.

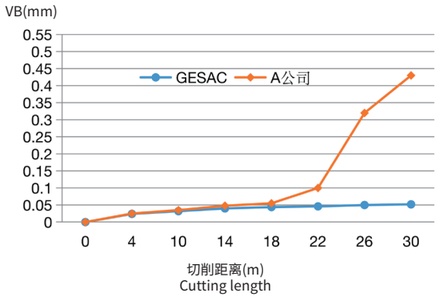
ST210钛合金高性能加工立铣刀
ST210 Endmills for High Performance Machining of Titanium Alloys

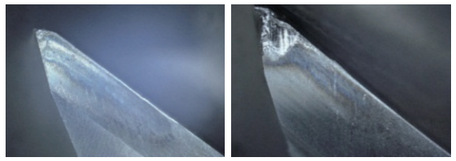
- 适用于钛合金材料（TA7、TC4、TC18）及不锈钢材料高性能加工；
- 不等分度、不等螺旋，有效抑制振动的产生，更高的加工表面质量；
- 偏心圆弧后角设计，刃口强度高，可以实现稳定切削加工；
- 采用难加工材料专用基体，更长的刀具切削寿命。

- Suitable for high performance machining of titanium alloys（TA7、TC4、TC18）and stainless steel.
- Unequal division, unequal helix, effectively improved anti-vibration performance, higher surface quality.
- Eccentric arc relief angle design improves edge strength and guarantees surface quality.
- Special body for hard working materials, ensures longer tool life.

案例：ST210-S4槽铣粗加工
Case：ST210-S4 Slotting of TC4

刀具型号 Type	ST210-S4-12030
刀具规格 Size	D12*30*75*d12
加工材料 Workpiece Material	TC4
转速 Speed	1592RPM（60m/min）
进给速度 Feed Rate	318mm/min（0.05mm/z）
切削方式 Cutting Method	槽铣 Slotting
切深量 Cutting Depth	ap=4mm，ae=12mm
冷却方式 Cooling Method	乳化液、外冷 Emulsion，External Cooling





GESAC　　A公司

切削30m后
After cutting 30m

ST210-S4

4刃平头
4 Flutes Square

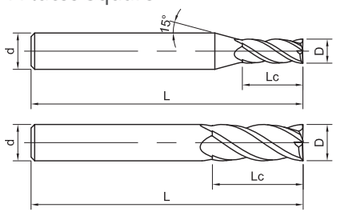


Fig1

Fig2

SHANK h6 | 4 | AlCrN | 38°/40° Helix | Square

订货号 Ordering code	D	Lc	L	d	图号 Figure No.	库存 Stock
ST210-S4-02006	2	6	50	4	1	●
ST210-S4-02506	2.5	6	50	4	1	●
ST210-S4-03009	3	9	50	4	1	●
ST210-S4-03510	3.5	10	50	4	1	●
ST210-S4-04011	4	11	50	4	2	●
ST210-S4-04511	4.5	11	50	6	1	●
ST210-S4-05013	5	13	50	6	1	●
ST210-S4-06016	6	16	50	6	2	●
ST210-S4-08020	8	20	60	8	2	●
ST210-S4-10025	10	25	72	10	2	●
ST210-S4-12030	12	30	75	12	2	●
ST210-S4-14032	14	32	80	14	2	●
ST210-S4-16036	16	36	100	16	2	●
ST210-S4-20045	20	45	100	20	2	●

●标准库存 Stock ○需预定 Available upon Order

D	公差
D<6	0 / -0.02
6≤D≤16	0 / -0.03
D>16	0 / -0.04

单位 (mm)

工件材料 Workpiece Materia				
P		M	S	
1 2 3 4	5	1 2 3	1 2 3	4
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	高温合金 HRSA	钛合金 Titanium Alloys
○	○	◎	○	◎

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P174
Recommended Cutting Data ※ P174

ST210-R4

4刃圆角头
4 Flutes Corner Radius

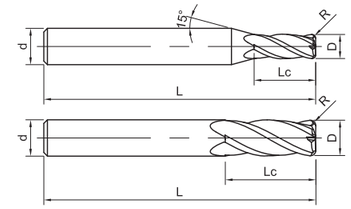


Fig1

Fig2

SHANK h6 | 4 | AlCrN | 38°/40° Helix | Corner-R

订货号 Ordering code	D	R	Lc	L	d	图号 Figure No.	库存 Stock
ST210-R4-02002	2	0.2	6	50	4	1	●
ST210-R4-03003	3	0.3	9	50	4	1	●
ST210-R4-03005	3	0.5	9	50	4	1	●
ST210-R4-04003	4	0.3	11	50	4	2	●
ST210-R4-04005	4	0.5	11	50	4	2	●
ST210-R4-04010	4	1	11	50	4	2	●
ST210-R4-05005	5	0.5	13	50	6	1	●
ST210-R4-06005	6	0.5	16	50	6	2	●
ST210-R4-06010	6	1	16	50	6	2	●
ST210-R4-08005	8	0.5	20	60	8	2	●
ST210-R4-08010	8	1	20	60	8	2	●
ST210-R4-10005	10	0.5	25	72	10	2	●
ST210-R4-10010	10	1	25	72	10	2	●
ST210-R4-10020	10	2	25	72	10	2	●
ST210-R4-10030	10	3	25	72	10	2	●
ST210-R4-12005	12	0.5	30	75	12	2	●
ST210-R4-12010	12	1	30	75	12	2	●

●标准库存 Stock ○需预定 Available upon Order

D	公差
D<6	0 / -0.02
6≤D≤16	0 / -0.03
D>16	0 / -0.04

单位 (mm)

工件材料 Workpiece Materia				
P		M	S	
1 2 3 4	5	1 2 3	1 2 3	4
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	高温合金 HRSA	钛合金 Titanium Alloys
○	○	◎	○	◎

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P174
Recommended Cutting Data ※ P174

ST210-R4

4刃圆角头
4 Flutes Corner Radius

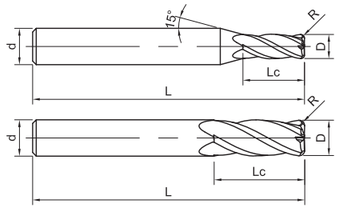


Fig1

Fig2

SHANK h6 | 4 | AlCrN | 38°/40° Helix | Corner-R

订货号 Ordering code	D	R	Lc	L	d	图号 Figure No.	库存 Stock
ST210-R4-12020	12	2	30	75	12	2	●
ST210-R4-12030	12	3	30	75	12	2	●
ST210-R4-16005	16	0.5	36	100	16	2	●
ST210-R4-16010	16	1	36	100	16	2	●
ST210-R4-16020	16	2	36	100	16	2	●
ST210-R4-16030	16	3	36	100	16	2	●
ST210-R4-16040	16	4	36	100	16	2	●
ST210-R4-16050	16	5	36	100	16	2	●
ST210-R4-20005	20	0.5	45	100	20	2	●
ST210-R4-20010	20	1	45	100	20	2	●
ST210-R4-20020	20	2	45	100	20	2	●
ST210-R4-20030	20	3	45	100	20	2	●
ST210-R4-20040	20	4	45	100	20	2	●
ST210-R4-20050	20	5	45	100	20	2	●

●标准库存 Stock ○需预定 Available upon Order

D	公差
D≤16	0 -0.03
D>16	0 -0.04

单位 (mm)

工件材料 Workpiece Materia				
P		M	S	
1 2 3 4	5	1 2 3	1 2 3	4
碳钢、合金钢 Carbon steels、Alloy steels<35HRC	合金钢 Alloy steels <48HRC	不锈钢 Stainless steel	高温合金 HRSA	钛合金 Titanium Alloys
○	○	◎	○	◎

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P174
Recommended Cutting Data ※ P174

ST210-RN4

4刃长颈圆角头
4 Flutes Corner Radius with Reduced Neck

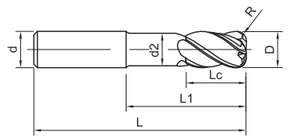


Fig1

SHANK h6 | 4 | AlCrN | 38°/40° Helix | Corner-R

订货号 Ordering code	D	R	Lc	L1	d2	L	d	图号 Figure No.	库存 Stock
ST210-RN4-06005	6	0.5	12	18	5.4	60	6	1	●
ST210-RN4-06010	6	1	12	18	5.4	60	6	1	●
ST210-RN4-08005	8	0.5	16	25	7.4	75	8	1	●
ST210-RN4-08010	8	1	16	25	7.4	75	8	1	●
ST210-RN4-10005	10	0.5	20	30	9.4	75	10	1	●
ST210-RN4-10005A	10	0.5	30	50	9.4	90	10	1	●
ST210-RN4-10010	10	1	20	30	9.4	75	10	1	●
ST210-RN4-10010A	10	1	30	50	9.4	90	10	1	●
ST210-RN4-10020	10	2	20	30	9.4	75	10	1	●
ST210-RN4-10020A	10	2	30	50	9.4	90	10	1	●
ST210-RN4-10030	10	3	20	30	9.4	75	10	1	●
ST210-RN4-10030A	10	3	30	50	9.4	90	10	1	●
ST210-RN4-10030B	10	3	30	60	9.4	100	10	1	●
ST210-RN4-10030C	10	3	30	40	9.4	90	10	1	●
ST210-RN4-12005	12	0.5	24	40	11.4	90	12	1	●
ST210-RN4-12005A	12	0.5	24	50	11.4	100	12	1	●
ST210-RN4-12010	12	1	24	40	11.4	90	12	1	●
ST210-RN4-12010A	12	1	24	50	11.4	100	12	1	●
ST210-RN4-12020	12	2	24	40	11.4	90	12	1	●
ST210-RN4-12020A	12	2	24	50	11.4	100	12	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差
D≤16	0 -0.03
D>16	0 -0.04

单位 (mm)

工件材料 Workpiece Materia				
P		M	S	
1 2 3 4	5	1 2 3	1 2 3	4
碳钢、合金钢 Carbon steels、Alloy steels<35HRC	合金钢 Alloy steels <48HRC	不锈钢 Stainless steel	高温合金 HRSA	钛合金 Titanium Alloys
○	○	◎	○	◎

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P174
Recommended Cutting Data ※ P174

ST210-RN4

4刃长颈圆角头
4 Flutes Corner Radius with Reduced Neck

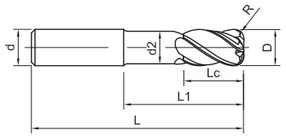


Fig1

SHANK h6 | 4 | AlCrN | 38°/40° Helix | Corner-R

订货号 Ordering code	D	R	Lc	L1	d2	L	d	图号 Figure No.	库存 Stock
ST210-RN4-12030A	12	3	24	40	11.4	90	12	1	●
ST210-RN4-12030B	12	3	36	50	11.4	100	12	1	●
ST210-RN4-12030C	12	3	36	60	11.4	110	12	1	●
ST210-RN4-16005	16	0.5	32	50	15.4	100	16	1	●
ST210-RN4-16005A	16	0.5	32	60	15.4	110	16	1	●
ST210-RN4-16010	16	1	32	50	15.4	100	16	1	●
ST210-RN4-16010A	16	1	32	70	15.4	120	16	1	●
ST210-RN4-16010B	16	1	32	80	15.4	130	16	1	●
ST210-RN4-16010C	16	1	32	60	15.4	110	16	1	●
ST210-RN4-16020	16	2	32	50	15.4	100	16	1	●
ST210-RN4-16020A	16	2	32	60	15.4	110	16	1	●
ST210-RN4-16030	16	3	32	50	15.4	100	16	1	●
ST210-RN4-16030A	16	3	32	70	15.4	120	16	1	●
ST210-RN4-16030B	16	3	32	80	15.4	130	16	1	●
ST210-RN4-16030C	16	3	32	60	15.4	110	16	1	●
ST210-RN4-16040	16	4	32	50	15.4	100	16	1	●
ST210-RN4-16040A	16	4	32	60	15.4	110	16	1	●
ST210-RN4-16050	16	5	32	50	15.4	100	16	1	●
ST210-RN4-16050A	16	5	32	60	15.4	110	16	1	●
ST210-RN4-16050B	16	5	32	70	15.4	120	16	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差
D≤16	0 -0.03
D>16	0 -0.04

单位 (mm)

工件材料 Workpiece Materia				
P		M	S	
1 2 3 4	5	1 2 3	1 2 3	4
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	高温合金 HRSA	钛合金 Titanium Alloys
○	○	◎	○	◎

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P174
Recommended Cutting Data ※ P174

ST210-RN4

4刃长颈圆角头
4 Flutes Corner Radius with Reduced Neck

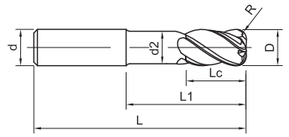


Fig1

SHANK h6 | 4 | AlCrN | 38°/40° Helix | Corner-R

订货号 Ordering code	D	R	Lc	L1	d2	L	d	图号 Figure No.	库存 Stock
ST210-RN4-16050C	16	5	32	80	15.4	130	16	1	●
ST210-RN4-20005	20	0.5	40	60	19.4	110	20	1	●
ST210-RN4-20005A	20	0.5	40	80	19.4	130	20	1	●
ST210-RN4-20010	20	1	40	60	19.4	110	20	1	●
ST210-RN4-20010A	20	1	40	80	19.4	130	20	1	●
ST210-RN4-20010B	20	1	40	70	19.4	120	20	1	●
ST210-RN4-20010C	20	1	40	100	19.4	150	20	1	●
ST210-RN4-20020	20	2	40	60	19.4	110	20	1	●
ST210-RN4-20020A	20	2	40	80	19.4	130	20	1	●
ST210-RN4-20030	20	3	40	60	19.4	110	20	1	●
ST210-RN4-20030A	20	3	40	80	19.4	130	20	1	●
ST210-RN4-20030B	20	3	40	100	19.4	150	20	1	●
ST210-RN4-20030C	20	3	40	70	19.4	120	20	1	●
ST210-RN4-20040	20	4	40	60	19.4	110	20	1	●
ST210-RN4-20040A	20	4	40	80	19.4	130	20	1	●
ST210-RN4-20050	20	5	40	60	19.4	110	20	1	●
ST210-RN4-20050A	20	5	40	80	19.4	130	20	1	●
ST210-RN4-20050B	20	5	40	100	19.4	150	20	1	●
ST210-RN4-20050C	20	5	40	70	19.4	120	20	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差
D≤16	0 -0.03
D>16	0 -0.04

单位 (mm)

工件材料 Workpiece Material				
P		M	S	
1 2 3 4	5	1 2 3	1 2 3	4
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	高温合金 HRSA	钛合金 Titanium Alloys
○	○	◎	○	◎

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P174
Recommended Cutting Data ※ P174

ST210-RL5

5刃长刃圆角头
5 Long Flutes Corner Radius

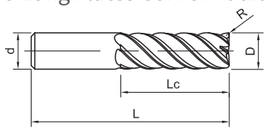


Fig1

SHANK h6 | 5 | AlCrN | 45° Helix | Corner-R | L

订货号 Ordering code	D	R	Lc	L	d	图号 Figure No.	库存 Stock
ST210-RL5-16005	16	0.5	48	100	16	1	●
ST210-RL5-16005A	16	0.5	80	130	16	1	●
ST210-RL5-200005	20	0.5	60	110	20	1	●
ST210-RL5-200005A	20	0.5	100	150	20	1	●
ST210-RL5-25005	25	0.5	75	155	25	1	●
ST210-RL5-25005A	25	0.5	125	205	25	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差
D≤16	0 / -0.03
D>16	0 / -0.04

单位 (mm)

工件材料 Workpiece Materia				
P		M	S	
1 2 3 4	5	1 2 3	1 2 3	4
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	高温合金 HRSA	钛合金 Titanium Alloys
○	○	◎	○	◎

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P175
Recommended Cutting Data ※ P175

ST210-B4

4刃球头
4 Flutes Ball Nose

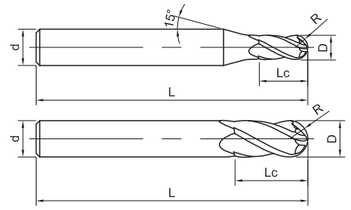


Fig1

Fig2

SHANK h6 | 4 | AlCrN | 30° Helix | Ballnose

订货号 Ordering code	D	R	Lc	L	d	图号 Figure No.	库存 Stock
ST210-B4-02004	2	1	4	50	6	1	●
ST210-B4-03006	3	1.5	6	50	6	1	●
ST210-B4-04008	4	2	8	50	6	1	●
ST210-B4-05010	5	2.5	10	50	6	1	●
ST210-B4-06012	6	3	12	50	6	2	●
ST210-B4-08014	8	4	14	60	8	2	●
ST210-B4-10018	10	5	18	75	10	2	●
ST210-B4-12022	12	6	22	75	12	2	●
ST210-B4-16030	16	8	30	100	16	2	●
ST210-B4-20038	20	10	38	100	20	2	●

●标准库存 Stock ○需预定 Available upon Order

D	公差
R≥1	±0.02

单位 (mm)

工件材料 Workpiece Material				
P		M	S	
1 2 3 4	5	1 2 3	1 2 3	4
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	高温合金 HRSA	钛合金 Titanium Alloys
○	○	◎	○	◎

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P175
Recommended Cutting Data ※ P175

推荐切削参数
Recommended Cutting Data

ST210—S4、R4、RN4
钛合金 Titanium Alloys —— 侧铣 Side Milling

工件材料 Workpiece Material		切削量 Cutting Depth (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	2	3	4	5	6	8	10	12	16	20
S	钛合金 Titanium Alloy	ap≤1.5D	60 (40~100)	转速Speed (min^{-1})	9555	6370	4780	3820	3185	2390	1910	1590	1195	955
		ae≤0.25D		进给速度Feed Rate (mm/min)	380	305	285	305	320	335	345	350	310	305
M	不锈钢 Stainless Steel	ap≤1.5D	80 (60~110)	转速Speed (min^{-1})	12740	8490	6370	5095	4245	3185	2545	2020	1590	1275
		ae≤0.25D		进给速度Feed Rate (mm/min)	760	575	510	510	510	510	510	485	445	430

ST210-S4、R4、RN4
钛合金 Titanium Alloys —— 槽铣 Slotting

工件材料 Workpiece Material		切深量 Cutting depth (mm)	切削速度 Cutting Speed (m/min	刃径 Tool Diameter (mm)	2	3	4	5	6	8	10	12	16	20
S	钛合金 Titanium Alloy	ap≤1D	40 (30~60)	转速Speed (min^{-1})	6370	4245	3185	2545	2120	1590	1270	1060	795	635
		ae≤1D		进给速度Feed Rate (mm/min)	255	200	190	170	170	190	200	210	190	190
M	不锈钢 Stainless Steel	ap≤1D	60 (50~70)	转速Speed (min^{-1})	9555	6370	4775	3820	3185	2390	1910	1590	1195	955
		ae≤1D		进给速度Feed Rate (mm/min)	380	305	285	305	320	335	345	350	310	305

推荐切削参数
Recommended Cutting Data

ST210—RL5
钛合金 Titanium Alloys —— 侧铣 Side Milling

工件材料 Workpiece Material		切深量 Cutting depth (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	16	20	25
S	钛合金 Titanium Alloy	ap≤0.7*Lc	50 (40-60)	转速Speed (min^{-1})	980	780	620
		ae≤0.1D		进给速度Feed Rate (mm/min)	390	370	300

备注：Lc为刀具刃长。

1、请使用刚性较高的机床，建议采用强力铣削刀柄。
2、请根据实际加工工况、设备刚性等情况可适当调整转速和进给速度。

1、Pls pay attention to use machine and holder with high rigidity .
2、Please adjust the speed,feed and cutting depth according to actual cutting conditions.

ST210-B4
钛合金 Titanium Alloys —— 仿形铣 Profiling

工件材料 Workpiece Material		切深量 Cutting depth (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	2	3	4	5	6	8	10	12	16	20
S	钛合金 Titanium Alloy	ap≤0.2D	70 (60~80)	转速Speed (min^{-1})	8000	6300	5580	4500	3715	2785	2230	1860	1390	1120
		ae≤0.3D		进给速度 Feed Rate (mm/min)	800	1000	1000	800	670	610	535	480	445	360

1、铣刀装夹时，刃部的径向跳动控制在0.01mm以下。
2、请使用刚性较高的机床和刀柄。
3、请根据切削速度、设备刚性等情况可适当调整转速和进给速度。
4、上表是按照刀具悬长为直径4倍以下时所制订的，如果刀具悬长过长，加工时易产生振动，此时，请适当调整转速，进给速度和切深量。

1、When the milling cutter is clamped, the maximum T.I.R. should be controlled below 0.01mm.
2、Pls pay attention to use machine and holder with high rigidity .
3、Please adjust the speed,feed and cutting depth according to actual cutting conditions.
4、The milling conditions are for an end mill where the tool overhang length is less than 4*D (mill dia).When the tool overhang length is longer, please adjust the speed,feed and cutting depth.

US260通用不锈钢加工立铣刀
US260 Endmills for General Machining of Stainless Steel

- 适用于不锈钢（<380HB）的粗加工、精加工；
- 采用优异的刀具基体和涂层工艺，提升粗加工抗崩性及精加工耐磨性，刀具寿命长；
- 适用于高速快进给加工，面铣、侧铣、浅槽铣（ap≤0.1D）；
- 推荐油冷、水冷的冷却方式。

- Suitable for roughing and finishing machining of stainless steel（<380HB).
- Using excellent substrate and coating technology, improving anti-collapse of roughing and wear resistance of finishing, and longer tool life.
- Suitable for high speed and high feed processing, face milling, side milling and shallow slot milling(ap≤0.1D).
- It is recommended to adopt oil cooling and water cooling.

US260-SS4A

NEW

4 刃短刃平头
4 Short Flutes, Square

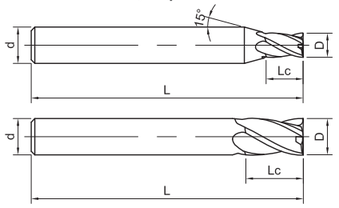


Fig1

Fig2

订货号 Ordering Code	D	Lc	L	d	图号 Figure No.	库存 Stock
US260-SS4A-01002	1	2	50	4	1	●
US260-SS4A -01502	1.5	2.5	50	4	1	●
US260-SS4A -01503	1.5	3	50	4	1	●
US260-SS4A -02004	2	4	50	4	1	●
US260-SS4A -03003	3	3	50	4	1	●
US260-SS4A -03006	3	6	50	4	1	●
US260-SS4A -04006	4	6	50	4	2	●
US260-SS4A -06006	6	6	50	6	2	●
US260-SS4A -06010	6	10	50	6	2	●
US260-SS4A -08015	8	15	60	8	2	●
US260-SS4A 10015	10	15	50	10	2	●
US260-SS4A -12015	12	15	50	12	2	●
US260-SS4A-16024	16	24	100	16	2	●
US260-SS4A-20030	20	30	100	20	2	●

● 标准库存 Stock ○ 需预定 Available upon Order

D	公差 Tolerance
D≤12	$^{0}_{-0.02}$
D>12	$^{0}_{-0.03}$

单位unit (mm)

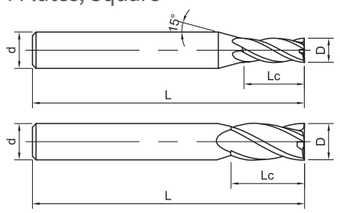
工件材料 Workpiece Material					
P		M	K	S	
1234	5	123	123	123	4
碳钢、合金钢 Carbon Steel, Alloy Steel <35HRC	合金钢 Alloy Steel <48HRC	不锈钢 Stainless Steel	铸铁 Cast Iron	高温合金 HRSA	钛合金 Titanium Alloy
○	○	◎	○	○	○

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P182
Recommended Cutting Data ※ P182

US260-S4A NEW

4 刃平头
4 Flutes, Square



SHANK h6 | 4 | AlTiN | 35° Helix | Square

订货号 Ordering Code	D	Lc	L	d	图号 Figure No.	库存 Stock
US260-S4A-01003	1	3	50	4	1	●
US260-S4A -01504	1.5	4	50	4	1	●
US260-S4A -01505	1.5	5	50	4	1	●
US260-S4A -01506	1.5	6	50	4	1	●
US260-S4A -02006	2	6	50	4	1	●
US260-S4A -02508	2.5	8	50	4	1	●
US260-S4A -03009	3	9	50	4	1	●
US260-S4A -04011	4	11	50	4	2	●
US260-S4A -05013	5	13	50	6	1	●
US260-S4A -06016	6	16	50	6	2	●
US260-S4A -08020	8	20	60	8	2	●
US260-S4A -10025	10	25	75	10	2	●
US260-S4A -10030	10	30	75	10	2	●
US260-S4A -12030	12	30	75	12	2	●
US260-S4A -16036	16	36	100	16	2	●
US260-S4A-20045	20	45	100	20	2	●

● 标准库存 Stock ○ 需预定 Available upon Order

D	公差 Tolerance
D≤12	0 -0.02
D>12	0 -0.03

单位unit (mm)

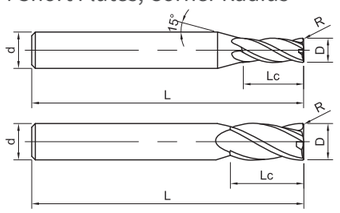
工件材料 Workpiece Material					
P		M	K	S	
1234	5	123	123	123	4
碳钢、合金钢 Carbon Steel, Alloy Steel <35HRC	合金钢 Alloy Steel <48HRC	不锈钢 Stainless Steel	铸铁 Cast Iron	高温合金 HRSA	钛合金 Titanium Alloy
○	○	◎	○	○	○

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P182
Recommended Cutting Data ※ P182

US260-RS4 NEW

4 刃短刃圆角头
4 Short Flutes, Corner Radius



SHANK h6 | 4 | AlTiN | 35° Helix | Corner-R

订货号 Ordering Code	D	Lc	r	L	d	图号 Figure No.	库存 Stock
US260-RS4-01001	1	2	0.1	50	4	1	●
US260-RS4-04001	4	5	0.1	50	4	2	●
US260-RS4-04002	4	5	0.2	50	4	2	●
US260-RS4-05001	5	6	0.1	50	6	1	●
US260-RS4-06001	6	8	0.1	50	6	2	●
US260-RS4-06002	6	8	0.2	50	6	2	●
US260-RS4-06005	6	8	0.5	50	6	2	●
US260-RS4-08002	8	15	0.2	60	8	2	●
US260-RS4-08005	8	15	0.5	60	8	2	●
US260-RS4-10002	10	15	0.2	50	10	2	●
US260-RS4-10005	10	15	0.5	50	10	2	●
US260-RS4-12010	12	15	1	75	12	2	●
US260-RS4-16010	16	24	1	100	16	2	●
US260-RS4-20010	20	30	1	100	20	2	●

● 标准库存 Stock ○ 需预定 Available upon Order

D	公差 Tolerance
D≤12	0 -0.02
D>12	0 -0.03

单位unit (mm)

工件材料 Workpiece Material					
P		M	K	S	
1234	5	123	123	123	4
碳钢、合金钢 Carbon Steel, Alloy Steel <35HRC	合金钢 Alloy Steel <48HRC	不锈钢 Stainless Steel	铸铁 Cast Iron	高温合金 HRSA	钛合金 Titanium Alloy
○	○	◎	○	○	○

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P182
Recommended Cutting Data ※ P182

US260-R4 NEW

4 刃圆角头
4 Flutes, Corner Radius

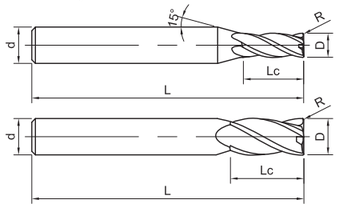


Fig1

Fig2

SHANK h6 | 4 | AlTiN | 35° Helix | Corner-R

订货号 Ordering Code	D	Lc	r	L	d	图号 Figure No.	库存 Stock
US260-R4-01501	1.5	5	0.1	50	4	1	●
US260-R4-02001	2	6	0.1	50	4	1	●
US260-R4-02002	2	6	0.2	50	4	1	●
US260-R4-03001	3	9	0.1	50	4	1	●
US260-R4-03002	3	9	0.2	50	4	1	●
US260-R4-03003	3	9	0.3	50	4	1	●
US260-R4-63001	3	9	0.1	50	6	1	●
US260-R4-63002	3	9	0.2	50	6	1	●
US260-R4-63003	3	9	0.3	50	6	1	●
US260-R4-06001	6	16	0.1	50	6	2	●
US260-R4-06002	6	12	0.2	50	6	2	●
US260-R4-06005	6	16	0.5	50	6	2	●

● 标准库存 Stock ○ 需预定 Available upon Order

D	公差 Tolerance
D≤12	0 / -0.02
D>12	0 / -0.03

单位unit (mm)

工件材料 Workpiece Material					
P		M	K	S	
1234	5	123	123	123	4
碳钢、合金钢 Carbon Steel, Alloy Steel <35HRC	合金钢 Alloy Steel <48HRC	不锈钢 Stainless Steel	铸铁 Cast Iron	高温合金 HRSA	钛合金 Titanium Alloy
○	○	◎	○	○	○

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P182
Recommended Cutting Data ※ P182

US260-R4 NEW

4 刃圆角头
4 Flutes, Corner Radius

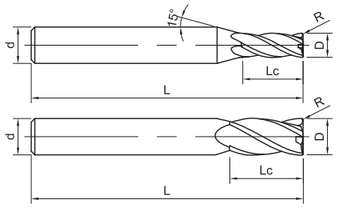


Fig1

Fig2

SHANK h6 | 4 | AlTiN | 35° Helix | Corner-R

订货号 Ordering Code	D	Lc	r	L	d	图号 Figure No.	库存 Stock
US260-R4-08005	8	20	0.5	60	8	2	●
US260-R4-08010	8	20	1	60	8	2	●
US260-R4-10005	10	25	0.5	75	10	2	●
US260-R4-10010	10	25	1	75	10	2	●
US260-R4-12005	12	30	0.5	75	12	2	●
US260-R4-12010	12	30	1	75	12	2	●
US260-R4-12030	12	30	3	75	12	2	●
US260-R4-16010	16	36	1	100	16	2	●
US260-R4-16020	16	36	2	100	16	2	●
US260-R4-16030	16	36	3	100	16	2	●
US260-R4-20010	20	45	1	100	20	2	●
US260-R4-20020	20	45	2	100	20	2	●
US260-R4-20030	20	45	3	100	20	2	●

● 标准库存 Stock ○ 需预定 Available upon Order

D	公差 Tolerance
D≤12	0 / -0.02
D>12	0 / -0.03

单位unit (mm)

工件材料 Workpiece Material					
P		M	K	S	
1234	5	123	123	123	4
碳钢、合金钢 Carbon Steel, Alloy Steel <35HRC	合金钢 Alloy Steel <48HRC	不锈钢 Stainless Steel	铸铁 Cast Iron	高温合金 HRSA	钛合金 Titanium Alloy
○	○	◎	○	○	○

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P182
Recommended Cutting Data ※ P182

推荐切削参数
Recommended Cutting Data

US260-SS4A、S4A
不锈钢 Stainless Steel——侧铣 Side Milling

工件材料 Workpiece Material		切削量 Cutting Depth (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	1	1.5	2	3	4	6	8	10	12
M	不锈钢 Stainless Steel	ap≤1D	40 -180	转速Speed (min-1)	13000	11000	10000	9500	9000	8000	6000	5000	4500
		ae≤0.1D		进给速度Feed Rate (mm/min)	1400	1700	2200	2700	3000	3500	3800	4000	4200

US260-SS4A、S4A
不锈钢 Stainless Steel——面铣 Face Milling

工件材料 Workpiece Material		切削量 Cutting Depth (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	1	1.5	2	3	4	6	8	10	12
M	不锈钢 Stainless Steel	ap≤0.1D	40 -180	转速Speed (min-1)	13000	11000	10000	9500	9000	8000	6000	5000	4500
		ae≤1D		进给速度Feed Rate (mm/min)	1300	1600	2100	2600	2800	3200	3500	3800	4000

US260-R4/RS4
不锈钢 Stainless Steel ——侧铣 Side Milling

工件材料 Workpiece Material		切削量 Cutting Depth (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	1	1.5	2	3	4	6	8	10	12
M	不锈钢 Stainless Steel	ap≤1D	40 -180	转速Speed (min-1)	13000	11000	10000	9500	9000	8000	6000	5000	4500
		ae≤0.1D		进给速度Feed Rate (mm/min)	1500	1800	2400	3000	3200	3600	3800	4000	4200

US260-R4/RS4
不锈钢 Stainless Steel——面铣 Face Milling

工件材料 Workpiece Material		切削量 Cutting Depth (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	1	1.5	2	3	4	6	8	10	12
M	不锈钢 Stainless Steel	ap≤0.1D	40 -180	转速Speed (min-1)	13000	11000	10000	9500	9000	8000	6000	5000	4500
		ae≤1D		进给速度Feed Rate (mm/min)	1500	1800	2400	3000	3200	3600	3800	4000	4200

1.请使用刚性较高的机床和刀柄。
2.请根据切削速度、设备刚性等情况可适当调整转速和进给速度。
3.上表是按照刀具悬长为直径4倍以下时所制订的，如果刀具悬长过长，加工时易产生振动，此时，请适当调整转速，进给速度和切深量。

1.Please attention to use machine and holder with high rigidity.
2.Please adjust the speed, feed rate and cutting depth according to actual cutting conditions.
3.The milling conditions are for an endmill where the tool overhang length is less than 4*D(mill dia).
When the tool overhang length is longer, please adjust the speed, feed rate and cutting depth.

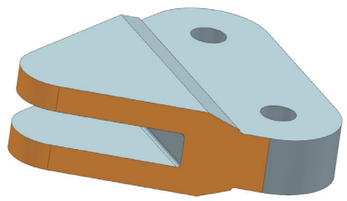
SS600 高强度钢加工立铣刀
SS600 Endmills for High Efficiency Milling of Stainless Steel

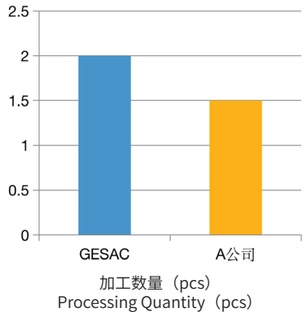
- 适用于加工高强度钢、沉淀硬化不锈钢、钛合金等；
- 槽铣性能优异，刃口强度高，抗崩刃；
- 不等螺旋不等分度设计，切削过程稳定；
- 抛物线型容屑槽设计，拥有优异的排屑能力。

- Suitable for processing high strength steel, precipitation hardening stainless steel, titanium alloy, etc.
- Excellent slot milling performance, high cutting edge strength and anti-collapse edge.
- Unequal spiral and unequal graduation design, stable cutting process.
- Parabolic chip flute design with excellent chip removal ability.

案例：SS600 系列铰链板加工
Case：SS600 endmills for Machining Hinge Plate

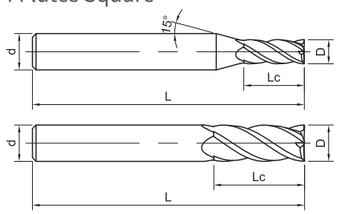
刀具型号 Type	SS600-R4-16015
刀具规格 Size	D16*R1.5*32*92*d16
加工材料 Workpiece Material	15-5PH
转速 Speed	1300rpm (65m/min)
进给速度 Feed Rate	130mm/min (0.0025mm/z)
切削方式 Cutting Method	槽铣 Slotting
切深量 Cutting Depth	ap=7mm，ae=16mm
冷却方式 Cooling Method	乳化液、外冷 Emulsion，External Cooling





SS600-S4 NEW

4刃平头
4 Flutes Square



SHANK h6 | 4 | TiAlN | 35°/38° Helix | Square

订货号 Ordering code	D	Lc	L	d	图号 Figure No.	库存 Stock
SS600-S4-02006	2	6	50	4	1	●
SS600-S4-03009	3	9	50	4	1	●
SS600-S4-04011	4	11	50	4	2	●
SS600-S4-64011	4	11	50	6	1	●
SS600-S4-05013	5	13	50	6	1	●
SS600-S4-06016	6	16	50	6	2	●
SS600-S4-08020	8	20	60	8	2	●
SS600-S4-10025	10	25	75	10	2	●
SS600-S4-12026	12	26	83	12	2	●
SS600-S4-16032	16	32	92	16	2	●
SS600-S4-20038	20	38	100	20	2	●

●标准库存 Stock ○需预定 Available upon Order

D	公差
D<6	0 -0.02
6≤D≤12	0 -0.03
D>12	0 -0.04

单位unit (mm)

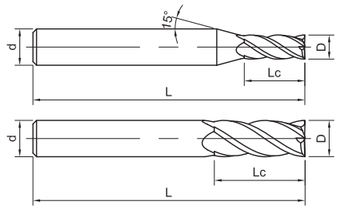
工件材料 Workpiece Material					
P		M	K	S	
1234	5	123	123	123	4
碳钢、合金钢 Carbon Steels, Alloy Steels <35HRC	合金钢 Alloy Steels <48HRC	不锈钢 Stainless Steel	铸铁 Cast Iron	高温合金 HRSA	钛合金 Titanium Alloys
◎	◎	◎	◎	○	◎

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P193
Recommended Cutting Data ※ P193

SS600-SS4 NEW

4刃短刃平头
4 Short Flutes Square



SHANK h6 | 4 | TiAlN | 35°/38° Helix | Square

订货号 Ordering code	D	Lc	L	d	图号 Figure No.	库存 Stock
SS600-S4-02006	2	6	50	4	1	●
SS600-S4-03009	3	9	50	4	1	●
SS600-S4-04011	4	11	50	4	2	●
SS600-S4-64011	4	11	50	6	1	●
SS600-S4-05013	5	13	50	6	1	●
SS600-S4-06016	6	16	50	6	2	●
SS600-S4-08020	8	20	60	8	2	●
SS600-S4-10025	10	25	75	10	2	●
SS600-S4-12026	12	26	83	12	2	●
SS600-S4-16032	16	32	92	16	2	●
SS600-S4-20038	20	38	100	20	2	●

●标准库存 Stock ○需预定 Available upon Order

D	公差
D<6	0 -0.02
6≤D≤12	0 -0.03
D>12	0 -0.04

单位 (mm)

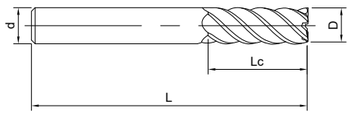
工件材料 Workpiece Material					
P		M	K	S	
1234	5	123	123	123	4
碳钢、合金钢 Carbon Steels, Alloy Steels <35HRC	合金钢 Alloy Steels <48HRC	不锈钢 Stainless Steel	铸铁 Cast Iron	高温合金 HRSA	钛合金 Titanium Alloys
◎	◎	◎	◎	○	◎

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P193
Recommended Cutting Data ※ P193

SS600-S5 NEW

5刃平头
5 Flutes Square



SHANK h6 | 5 | TiAlN | 38° Helix | Square

订货号 Ordering code	D	Lc	L	d	库存 Stock
SS600-S5-06016	6	16	50	6	●
SS600-S5-08020	8	20	60	8	●
SS600-S5-10025	10	25	75	10	●
SS600-S5-12026	12	26	83	12	●
SS600-S5-16032	16	32	92	16	●
SS600-S5-20038	20	38	100	20	●
SS600-S5-25050	25	50	125	25	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
D<6	0 / -0.02
6≤D≤12	0 / -0.03
D>12	0 / -0.04

单位unit (mm)

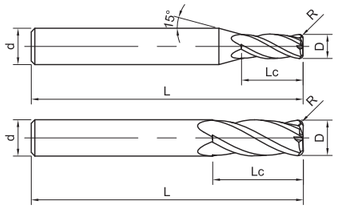
工件材料 Workpiece Material					
P		M	K	S	
1234	5	123	123	123	4
碳钢、合金钢 Carbon Steels, Alloy Steels <35HRC	合金钢 Alloy Steels <48HRC	不锈钢 Stainless Steel	铸铁 Cast Iron	高温合金 HRSA	钛合金 Titanium Alloys
◎	◎	◎	◎	○	◎

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P193
Recommended Cutting Data ※ P193

SS600-R4 NEW

4刃圆角头
4 Flutes Corner Radius



SHANK h6 | 4 | TiAlN | 35°/38° Helix | Corner-R

订货号 Ordering code	D	R	Lc	L	d	图号 Figure No.	库存 Stock
SS600-R4-02002	2	0.2	6	50	4	1	●
SS600-R4-03005	3	0.5	8	50	4	1	●
SS600-R4-04005	4	0.5	11	50	4	2	●
SS600-R4-64005	4	0.5	11	50	6	1	●
SS600-R4-05005	5	0.5	13	50	6	1	●
SS600-R4-06005	6	0.5	16	50	6	2	●
SS600-R4-06010	6	1	16	50	6	2	●
SS600-R4-08005	8	0.5	20	60	8	2	●
SS600-R4-08010	8	1	20	60	8	2	●
SS600-R4-10005	10	0.5	25	75	10	2	●
SS600-R4-10010	10	1	25	75	10	2	●
SS600-R4-10020	10	2	25	75	10	2	●
SS600-R4-12005	12	0.5	26	83	12	2	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
D<6	0 / -0.02
6≤D≤12	0 / -0.03
D>12	0 / -0.04

单位unit (mm)

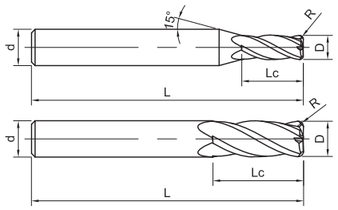
工件材料 Workpiece Material					
P		M	K	S	
1234	5	123	123	123	4
碳钢、合金钢 Carbon Steels, Alloy Steels <35HRC	合金钢 Alloy Steels <48HRC	不锈钢 Stainless Steel	铸铁 Cast Iron	高温合金 HRSA	钛合金 Titanium Alloys
◎	◎	◎	◎	○	◎

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P193
Recommended Cutting Data ※ P193

SS600-R4 NEW

4刃圆角头
4 Flutes Corner Radius



SHANK h6 | 4 | TiAlN | 35°/38° Helix | Corner-R

订货号 Ordering code	D	R	Lc	L	d	图号 Figure No.	库存 Stock
SS600-R4-12010	12	1	26	83	12	2	●
SS600-R4-12020	12	2	26	83	12	2	●
SS600-R4-12030	12	3	26	83	12	2	●
SS600-R4-16005	16	0.5	32	92	16	2	●
SS600-R4-16010	16	1	32	92	16	2	●
SS600-R4-16015	16	1.5	32	92	16	2	●
SS600-R4-16020	16	2	32	92	16	2	●
SS600-R4-16030	16	3	32	92	16	2	●
SS600-R4-20005	20	0.5	38	100	20	2	●
SS600-R4-20010	20	1	38	100	20	2	●
SS600-R4-20020	20	2	38	100	20	2	●
SS600-R4-20030	20	3	38	100	20	2	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
D<6	0 -0.02
6≤D≤12	0 -0.03
D>12	0 -0.04

单位unit (mm)

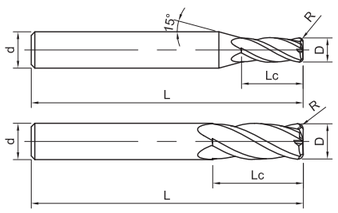
工件材料 Workpiece Material					
P		M	K	S	
1234	5	123	123	123	4
碳钢、合金钢 Carbon Steels, Alloy Steels <35HRC	合金钢 Alloy Steels <48HRC	不锈钢 Stainless Steel	铸铁 Cast Iron	高温合金 HRSA	钛合金 Titanium Alloys
◎	◎	◎	◎	○	◎

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P193
Recommended Cutting Data ※ P193

SS600-RS4 NEW

4刃短刃圆角头
4 Short Flutes Corner Radius



SHANK h6 | 4 | TiAlN | 35°/38° Helix | Corner-R

订货号 Ordering code	D	R	Lc	L	d	图号 Figure No.	库存 Stock
SS600-RS4-02001	2	0.1	4	50	4	1	●
SS600-RS4-04002	4	0.2	6	50	4	2	●
SS600-RS4-06005	6	0.5	10	50	6	2	●
SS600-RS4-08005	8	0.5	12	60	8	2	●
SS600-RS4-10005	10	0.5	14	60	10	2	●
SS600-RS4-12010	12	1	16	75	12	2	●
SS600-RS4-16010	16	1	22	92	16	2	●
SS600-RS4-20010	20	1	26	100	20	2	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
D<6	0 -0.02
6≤D≤12	0 -0.03
D>12	0 -0.04

单位unit (mm)

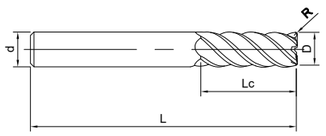
工件材料 Workpiece Material					
P		M	K	S	
1234	5	123	123	123	4
碳钢、合金钢 Carbon Steels, Alloy Steels <35HRC	合金钢 Alloy Steels <48HRC	不锈钢 Stainless Steel	铸铁 Cast Iron	高温合金 HRSA	钛合金 Titanium Alloys
◎	◎	◎	◎	○	◎

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P193
Recommended Cutting Data ※ P193

SS600-R5 NEW

5刃圆角头
5 Flutes Corner Radius



SHANK h6 | TiAlN | 5 | 38° Helix | Corner-R

订货号 Ordering code	D	R	Lc	L	d	库存 Stock
SS600-R5-06005	6	0.5	16	50	6	●
SS600-R5-06005A	6	0.5	16	60	6	●
SS600-R5-06005B	6	0.5	16	75	6	●
SS600-R5-06010	6	1	16	50	6	●
SS600-R5-08005	8	0.5	20	60	8	●
SS600-R5-08010	8	1	20	60	8	●
SS600-R5-08010A	8	1	20	75	8	●
SS600-R5-10005	10	0.5	25	75	10	●
SS600-R5-10010	10	1	25	75	10	●
SS600-R5-10010A	10	1	25	100	10	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
D<6	0 -0.02
6≤D≤12	0 -0.03
D>12	0 -0.04

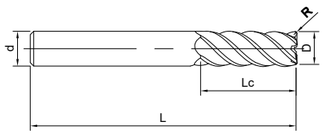
单位unit (mm)

工件材料 Workpiece Material					
P		M	K	S	
1234	5	123	123	123	4
碳钢、合金钢 Carbon Steels, Alloy Steels <35HRC	合金钢 Alloy Steels <48HRC	不锈钢 Stainless Steel	铸铁 Cast Iron	高温合金 HRSA	钛合金 Titanium Alloys
◎	◎	◎	◎	○	◎

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P194
Recommended Cutting Data ※ P194

SS600-R5 NEW
5刃圆角头
5 Flutes Corner Radius



SHANK h6 | TiAlN | 5 | 38° Helix | Corner-R

订货号 Ordering code	D	R	Lc	L	d	库存 Stock
SS600-R5-12005	12	0.5	26	83	12	●
SS600-R5-12010	12	1	26	83	12	●
SS600-R5-12020	12	2	26	83	12	●
SS600-R5-12030	12	3	26	83	12	●
SS600-R5-16010	16	1	32	92	16	●
SS600-R5-16020	16	2	32	92	16	●
SS600-R5-16030	16	3	32	92	16	●
SS600-R5-20010	20	1	38	100	20	●
SS600-R5-20020	20	2	38	100	20	●
SS600-R5-20030	20	3	38	100	20	●
SS600-R5-25030	25	3	50	125	25	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
D<6	0 -0.02
6≤D≤12	0 -0.03
D>12	0 -0.04

单位unit (mm)

工件材料 Workpiece Material					
P		M	K	S	
1234	5	123	123	123	4
碳钢、合金钢 Carbon Steels, Alloy Steels <35HRC	合金钢 Alloy Steels <48HRC	不锈钢 Stainless Steel	铸铁 Cast Iron	高温合金 HRSA	钛合金 Titanium Alloys
◎	◎	◎	◎	○	◎

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P194
Recommended Cutting Data ※ P194

SS600-B4

NEW

4刃球头
4 Flutes Ball Nose

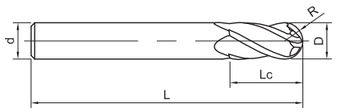


Fig1

SHANK h6 | 4 | TiAlN | 30° Helix | Ballnose

订货号 Ordering code	D	R	Lc	L	d	图号 Figure No.	库存 Stock
SS600-B4-02004	2	1	4	50	4	1	●
SS600-B4-04008	4	2	8	50	4	2	●
SS600-B4-06012	6	3	12	50	6	2	●
SS600-B4-08014	8	4	14	60	8	2	●
SS600-B4-10018	10	5	18	75	10	2	●
SS600-B4-12022	12	6	22	75	12	2	●
SS600-B4-16030	16	8	30	100	16	2	●
SS600-B4-20038	20	10	38	100	20	2	●

●标准库存 Stock ○需预定 Available upon Order

R	公差Tol
R≥3	±0.020

单位unit (mm)

工件材料 Workpiece Material					
P		M	K	S	
1234	5	123	123	123	4
碳钢、合金钢 Carbon Steels, Alloy Steels ＜35HRC	合金钢 Alloy Steels ＜48HRC	不锈钢 Stainless Steel	铸铁 Cast Iron	高温合金 HRSA	钛合金 Titanium Alloys
◎	◎	◎	◎	○	◎

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P194
Recommended Cutting Data ※ P194

推荐切削参数
Recommended Cutting Data

SS600-SS4/RS4
不锈钢For Stainless Steel——侧铣 Side Milling

工件材料 Workpiece Material		切削量 Cutting Depth (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	4	6	8	10	12	16	20
M	不锈钢 Stainless Steel	ap≤1.5D	80 (60~110)	转速Speed (min-1)	6730	4245	3185	2545	2020	1590	1275
		ae≤0.25D		进给速度Feed Rate (mm/min)	510	510	510	510	485	445	430
S	钛合金 Titanium Alloys	ap≤1.5D	60 (40~100)	转速Speed (min-1)	4780	3185	2390	1910	1590	1195	955
		ae≤0.25D		进给速度Feed Rate (mm/min)	285	320	335	354	350	310	305

SS600-SS4/RS4
不锈钢Stainless Steel——槽铣 Slotting

工件材料 Workpiece Material		切削量 Cutting Depth (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	4	6	8	10	12	16	20
M	不锈钢 Stainless Steel	ap≤1.5D	60 (50~70)	转速Speed (min-1)	4775	3185	2390	1910	1590	1195	955
		ae≤1D		进给速度Feed Rate (mm/min)	285	320	335	345	350	310	305
S	钛合金 Titanium Alloys	ap≤1.5D	40 (30~60)	转速Speed (min-1)	3185	2120	1590	1270	1060	792	635
		ae≤1D		进给速度Feed Rate (mm/min)	190	190	190	200	210	190	190

1.请使用刚性较高的机床和刀柄。
2.请根据切削速度、设备刚性等情况可适当调整转速和进给速度。
3.上表是按照刀具悬长为直径4倍以下时所制订的，如果刀具悬长过长，加工时易产生振动，此时，请适当调整转速，进给速度和切深量。

1.Please attention to use machine and holder with high rigidity.
2.Please adjust the speed, feed rate and cutting depth according to actual cutting conditions.
3.The milling conditions are for an endmill where the tool overhang length is less than 4*D(mill dia).
When the tool overhang length is longer, please adjust the speed, feed rate and cutting depth.

推荐切削参数
Recommended Cutting Data

SS600-B4
不锈钢Stainless Steel ——仿型铣 Profiling

工件材料 Workpiece Material		切削量 Cutting Depth (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	6	8	10	12	16	20
M	不锈钢 Stainless Steel	ap≤0.2D	100 (80~120)	转速Speed (min^{-1})	5300	3980	3180	2650	1990	1590
		ae≤0.2D		进给速度Feed Rate (mm/min)	1100	1100	1080	1050	1030	1020
S	钛合金 Titanium Alloys	ap≤0.2D	70 (60~80)	转速Speed (min^{-1})	3715	2785	2230	1860	1390	1110
		ae≤0.2D		进给速度Feed Rate (mm/min)	670	610	535	480	445	352

SS600-S5/R5
不锈钢Stainless Steel——侧铣 Side Milling

工件材料 Workpiece Material		切削量 Cutting Depth (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	6	8	10	12	16	20	25
M	不锈钢 Stainless Steel	ap≤1.5D	80 (60~110)	转速Speed (min^{-1})	4245	3185	2545	2020	1590	1275	1019
		ae≤0.25D		进给速度Feed Rate (mm/min)	638	638	638	600	556	535	427
S	钛合金 Titanium Alloys	ap≤1.5D	60 (40~100)	转速Speed (min^{-1})	3185	2390	1910	1590	1195	955	764
		ae≤0.25D		进给速度Feed Rate (mm/min)	400	418	432	437	387	381	305

1.请使用刚性较高的机床和刀柄。
2.请根据切削速度、设备刚性等情况可适当调整转速和进给速度。
3.上表是按照刀具悬长为直径4倍以下时所制订的，如果刀具悬长过长，加工时易产生振动，此时，请适当调整转速，进给速度和切深量。

1.Please attention to use machine and holder with high rigidity.
2.Please adjust the speed, feed rate and cutting depth according to actual cutting conditions.
3.The milling conditions are for an endmill where the tool overhang length is less than 4*D(mill dia).
When the tool overhang length is longer, please adjust the speed, feed rate and cutting depth.

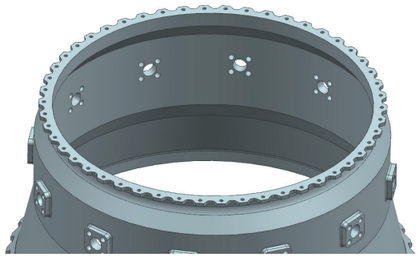
SN200 高温合金高性能加工立铣刀
SN200 High Performance Endmills for Heat Resistant Super Alloy

- 适用高温合金材料的粗加工、精加工。
- 独特的刃型设计，保证高刚性,优异抗震性能。
- 特殊的圆周后角处理，增加刃口强度，保证切削表面质量。

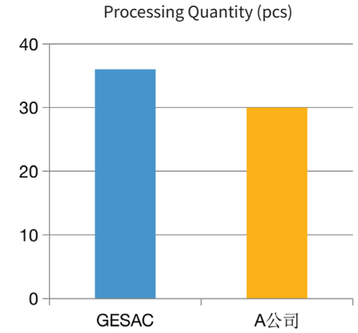
- Suitable for both the rough and finishing of HRSA
- Special edge design，guarantees high rigidity and reduces vibration
- Special disposing of endmill cutting edge，improves edge strength and guarantees surface quality

案例：SN200-R4 系列发动机机匣花边加工
Case：SN200-R4 Endmills for Scallops of Engine Casing Machining

刀具型号 Type	SN200-R4-12010
刀具规格 Size	D12*R1*26*83*d12
加工材料 Workpiece Material	RENE’41(48HRC)
转速 Speed	800RPM (30m/min)
进给速度 Feed Rate	100mm/min (0.03mm/z)
切削方式 Cutting Method	侧铣 Side milling
切深量 Cutting Depth	ap=10 mm，ae=2-12mm
冷却方式 Cooling Method	乳化液、外冷 Emulsion、External Cooling

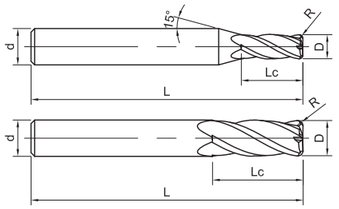


加工花边数量（个）
Processing Quantity (pcs)



SN200-R4

4刃圆角头
4 Flutes Corner Radius



SHANK h6 | 4 | AlCrN | 36° Helix | Corner-R

订货号 Ordering code	D	R	Lc	L	d	图号 Figure No.	库存 Stock
SN200-R4-01001	1	0.1	3	50	4	1	●
SN200-R4-61001	1	0.1	3	50	6	1	●
SN200-R4-01501	1.5	0.1	4.5	50	4	1	●
SN200-R4-61501	1.5	0.1	4.5	50	6	1	●
SN200-R4-02002	2	0.2	6	50	4	1	●
SN200-R4-62002	2	0.2	6	50	6	1	●
SN200-R4-02005	2	0.5	6	50	4	1	●
SN200-R4-62005	2	0.5	6	50	6	1	●
SN200-R4-03002	3	0.2	8	50	4	1	●
SN200-R4-63002	3	0.2	8	50	6	1	●
SN200-R4-03005	3	0.5	8	50	4	1	●
SN200-R4-63005	3	0.5	8	50	6	1	●
SN200-R4-04002	4	0.2	11	50	4	2	●
SN200-R4-64002	4	0.2	11	50	6	1	●
SN200-R4-04005	4	0.5	11	50	4	2	●
SN200-R4-64005	4	0.5	11	50	6	1	●
SN200-R4-05002	5	0.2	13	50	6	1	●
SN200-R4-05005	5	0.5	13	50	6	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
D≤12	0 -0.03
D>12	0 -0.04

单位unit (mm)

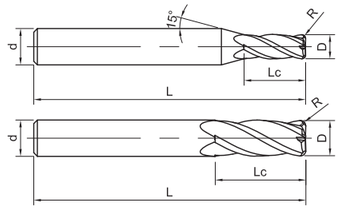
工件材料 Workpiece Material				
P		M	S	
1 2 3 4	5	1 2 3	1 2 3	4
碳钢、合金钢 Carbon steels、Alloy steels<35HRC	合金钢 Alloy steels <48HRC	不锈钢 Stainless steel	高温合金 HRSA	钛合金 Titanium Alloys
○	○	○	◎	○

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P202
Recommended Cutting Data ※ P202

SN200-R4

4刃圆角头
4 Flutes Corner Radius



SHANK h6 | 4 | AlCrN | 36° Helix | Corner-R

订货号 Ordering code	D	R	Lc	L	d	图号 Figure No.	库存 Stock
SN200-R4-06002	6	0.2	15	50	6	2	●
SN200-R4-06005	6	0.5	15	50	6	2	●
SN200-R4-06010	6	1	15	50	6	2	●
SN200-R4-06015	6	1.5	15	50	6	2	●
SN200-R4-08002	8	0.2	20	60	8	2	●
SN200-R4-08005	8	0.5	20	60	8	2	●
SN200-R4-08010A	8	1	20	60	8	2	●
SN200-R4-08015	8	1.5	20	60	8	2	●
SN200-R4-08020	8	2	20	60	8	2	●
SN200-R4-10002	10	0.2	25	75	10	2	●
SN200-R4-10005	10	0.5	25	75	10	2	●
SN200-R4-10010A	10	1	25	75	10	2	●
SN200-R4-10015	10	1.5	25	75	10	2	●
SN200-R4-10020	10	2	25	75	10	2	●
SN200-R4-10025	10	2.5	25	75	10	2	●
SN200-R4-12002	12	0.2	26	83	12	2	●
SN200-R4-12005	12	0.5	26	83	12	2	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
D≤12	0 -0.03
D>12	0 -0.04

单位unit (mm)

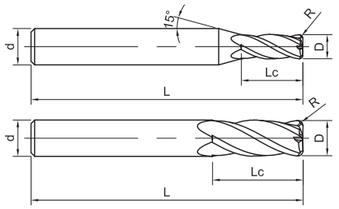
工件材料 Workpiece Material				
P		M	S	
1 2 3 4	5	1 2 3	1 2 3	4
碳钢、合金钢 Carbon steels、Alloy steels<35HRC	合金钢 Alloy steels <48HRC	不锈钢 Stainless steel	高温合金 HRSA	钛合金 Titanium Alloys
○	○	○	◎	○

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P202
Recommended Cutting Data ※ P202

SN200-R4

4刃圆角头
4 Flutes Corner Radius



SHANK h6 | 4 | AlCrN | 36° Helix | Corner-R

订货号 Ordering code	D	R	Lc	L	d	图号 Figure No.	库存 Stock
SN200-R4-12010	12	1	26	83	12	2	●
SN200-R4-12015	12	1.5	26	83	12	2	●
SN200-R4-12020	12	2	26	83	12	2	●
SN200-R4-12025	12	2.5	26	83	12	2	●
SN200-R4-12030	12	3	26	83	12	2	●
SN200-R4-16002	16	0.2	32	92	16	2	●
SN200-R4-16005	16	0.5	32	92	16	2	●
SN200-R4-16010	16	1	32	92	16	2	●
SN200-R4-16015	16	1.5	32	92	16	2	●
SN200-R4-16020	16	2	32	92	16	2	●
SN200-R4-16025	16	2.5	32	92	16	2	●
SN200-R4-16030	16	3	32	92	16	2	●
SN200-R4-16040	16	4	32	92	16	2	●
SN200-R4-20002	20	0.2	38	100	20	2	●
SN200-R4-20010	20	1	38	100	20	2	●
SN200-R4-20020	20	2	38	100	20	2	●
SN200-R4-20030	20	3	38	100	20	2	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
D≤12	0 / -0.03
D>12	0 / -0.04

单位unit (mm)

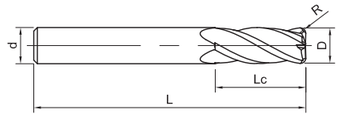
工件材料 Workpiece Material				
P		M	S	
1 2 3 4	5	1 2 3	1 2 3	4
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	高温合金 HRSA	钛合金 Titanium Alloys
○	○	○	◎	○

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P202
Recommended Cutting Data ※ P202

SN200-RH4

4刃长柄圆角头
4 Flutes Corner Radius with long shank



SHANK h6 | 4 | AlCrN | 36° Helix | Corner-R

订货号 Ordering code	D	R	Lc	L	d	图号 Figure No.	库存 Stock
SN200-RH4-08010	8	1	20	75	8	1	●
SN200-RH4-08020	8	2	20	75	8	1	●
SN200-RH4-10010	10	1	25	100	10	1	●
SN200-RH4-10020	10	2	25	100	10	1	●
SN200-RH4-12010	12	1	26	100	12	1	●
SN200-RH4-12020	12	2	26	100	12	1	●
SN200-RH4-16010	16	1	32	110	16	1	●
SN200-RH4-16020	16	2	32	110	16	1	●
SN200-RH4-16030	16	3	32	110	16	1	●
SN200-RH4-16040	16	4	32	110	16	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
D≤12	0 / -0.03
D>12	0 / -0.04

单位 unit(mm)

工件材料 Workpiece Material				
P		M	S	
1 2 3 4	5	1 2 3	1 2 3	4
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	高温合金 HRSA	钛合金 Titanium Alloys
○	○	○	◎	○

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P202
Recommended Cutting Data ※ P202

SN200-B4

4刃球头
4 Flutes Ball Nose

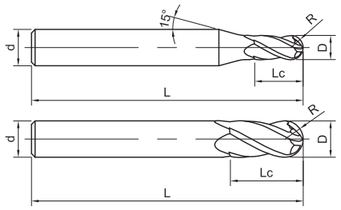


Fig1

Fig1

SHANK h6 | 4 | AlCrN | 30° Helix | Ballnose

订货号 Ordering code	D	R	Lc	L	d	图号 Figure No.	库存 Stock
SN200-B4-02004	2	1	4	50	4	1	●
SN200-B4-62004	2	1	4	50	6	1	●
SN200-B4-03006	3	1.5	6	50	4	1	●
SN200-B4-63006	3	1.5	6	50	6	1	●
SN200-B4-04008	4	2	8	50	4	2	●
SN200-B4-64008	4	2	8	50	6	1	●
SN200-B4-05010	5	2.5	10	50	6	1	●
SN200-B4-06012	6	3	12	50	6	2	●
SN200-B4-08014	8	4	14	60	8	2	●
SN200-B4-10018	10	5	18	75	10	2	●
SN200-B4-12022	12	6	22	75	12	2	●

●标准库存 Stock ○需预定 Available upon Order

R	公差Tol
R≥3	±0.020

单位unit (mm)

工件材料 Workpiece Material				
P		M	S	
1 2 3 4	5	1 2 3	1 2 3	4
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	高温合金 HRSA	钛合金 Titanium Alloys
○	○	○	◎	○

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P202
Recommended Cutting Data ※ P202

SN200-BH4

4刃长柄球头
4 Flutes Ball Nose with Long Shank

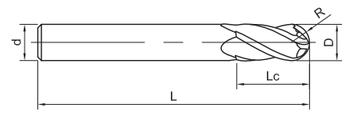


Fig1

SHANK h6 | 4 | AlCrN | 30° Helix | Ballnose

订货号 Ordering code	D	R	Lc	L	d	图号 Figure No.	库存 Stock
SN200-BH4-08014	8	4	14	75	8	1	●
SN200-BH4-10018	10	5	18	100	10	1	●
SN200-BH4-12022	12	6	22	100	12	1	●

●标准库存 Stock ○需预定 Available upon Order

R	公差 Tol
R≥3	±0.020

单位 unit (mm)

工件材料 Workpiece Material				
P		M	S	
1 2 3 4	5	1 2 3	1 2 3	4
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	高温合金 HRSA	钛合金 Titanium Alloys
○	○	○	◎	○

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P202
Recommended Cutting Data ※ P202

推荐切削参数
Recommended Cutting Data

SN200-R4/RH4
高温合金 HRSA——侧铣Side Milling

工件材料 Workpiece Material		切削量 Cutting Depth (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	6	8	10	12	16	18
S	铁基高温合金 Fe-based HRSA	ap≤1D	25 (15-35)	转速Speed (min-1)	1325	995	795	660	495	440
		ae≤0.1D		进给速度Feed Rate (mm/min)	160	160	190	185	160	175
	钴基高温合金 Co-based HRSA	ap≤1D	20 (15-30)	转速Speed (min-1)	1060	795	635	530	400	350
		ae≤0.1D		进给速度Feed Rate (mm/min)	125	125	150	145	125	140
	镍基高温合金 Nickel – based HRSA	ap≤1D	25 (15-30)	转速Speed (min-1)	1325	995	795	660	495	440
		ae≤0.1D		进给速度Feed Rate (mm/min)	160	160	190	185	160	175

SN200-R4/RH4
高温合金 HRSA——槽铣 Slotting

工件材料 Workpiece Material		切削量 Cutting Depth (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	6	8	10	12	16	18
S	铁基高温合金 Fe-based HRSA	ap≤0.5D	20 (10-30)	转速Speed (min^{-1})	1060	795	635	530	400	350
		ae≤1D		进给速度Feed Rate (mm/min)	105	95	90	95	80	75
	钴基高温合金 Co-based HRSA	ap≤0.5D	15 (10-25)	转速Speed (min^{-1})	795	600	475	400	300	260
		ae≤1D		进给速度Feed Rate (mm/min)	65	60	60	60	60	55
	镍基高温合金 Nickel – based HRSA	ap≤0.5D	20 (10-30)	转速Speed (min^{-1})	1060	795	635	530	400	350
		ae≤1D		进给速度Feed Rate (mm/min)	105	95	90	95	80	75

SN200-B4/BH4
高温合金 HRSA——仿型铣Profiling

工件材料 Workpiece Material		切削量 Cutting Depth (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	6	8	10	12	16
S	铁基高温合金 Fe-based HRSA	ap≤0.04D	40 (30-50)	转速Speed (min^{-1})	2120	1590	1270	1060	795
		ae≤0.04D		进给速度Feed Rate (mm/min)	255	285	305	340	320
	钴基高温合金 Co-based HRSA	ap≤0.04D	35 (25-45)	转速Speed (min^{-1})	1855	1390	1115	930	695
		ae≤0.04D		进给速度Feed Rate (mm/min)	220	220	265	260	280
	镍基高温合金 Nickel – based HRSA	ap≤0.03D	40 (30-50)	转速Speed (min^{-1})	2120	1590	1270	1060	795
		ae≤0.03D		进给速度Feed Rate (mm/min)	255	285	305	320	320

1、铣刀装夹时，刃部的径向跳动控制在0.01mm以下。
2、请使用刚性较高的机床和刀柄。
3、请根据切削速度、设备刚性等情况可适当调整转速和进给速度。
4、上表是按照刀具悬长为直径4倍以下时所制订的，如果刀具悬长过长，加工时易产生振动，此时，请适当调整转速，进给速度和切深量。

1、When the milling cutter is clamped, the maximum T.I.R. should be controlled below 0.01mm.
2、Pls pay attention to use machine and holder with high rigidity .
3、Please adjust the speed,feed and cutting depth according to actual cutting conditions.
4、The milling conditions are for an end mill where the tool overhang length is less than 4*D (mill dia).When the tool overhang length is longer, please adjust the speed,feed and cutting depth.

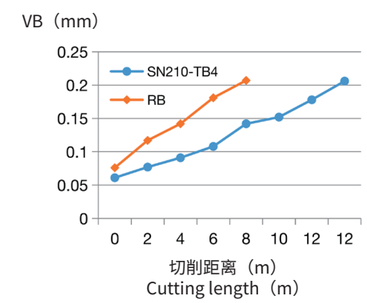
STB200锥度球头立铣刀
STB200 Taper Ball Nose

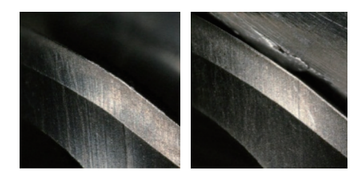
- 适用叶盘叶片的半精加工、精加工。
- 锥度避空设计及抑震设计，适合大悬伸加工。
- 采用超细颗粒基体及高性能专用纳米涂层，耐磨性高，加工稳定。
- 高轮廓精度，圆角半径精度±0.01mm，锥度精度±3′。

- Suitable for semi-finish and finish of blisks
- The taper void avoidance design and the vibration suppression design, and suitable for large suspension processing
- Sultra-fine cemented carbide and special coating，high wear resistance, longer tool life
- High precision profile，Radius tolerance±0.01mm，Taper tolerance±3′

案例：STB200-B4仿形精加工
Case：STB200-B4 Profiling machining

刀具型号 Type	STB200-B4-030301510010
刀具规格 Size	R3*3°*15*100*d10
加工材料 Workpiece Material	GH4169
转速 Speed	1600RPM（30m/min）
进给速度 Feed Rate	128mm/min（0.02mm/z）
切削方式 Cutting Method	仿形铣 Profiling
切深量 Cutting Depth	ap=0.48mm，ae=0.8mm
冷却方式 Cooling Method	乳化液、外冷 Emulsion、External Cooling





GESAC　　A公司

STB200-B4

NEW

4刃锥度球头立铣刀
4 Flutes Taper Ball Nose

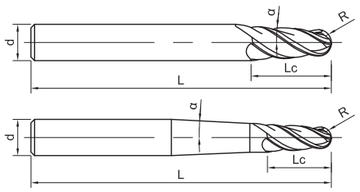


Fig1

Fig2

SHANK h6 | 4 | TiAlN | 36° Helix | Ballnose

订货号 Ordering code	α	R	Lc	L	d	图号 Figure No.	库存 Stock
STB200-B4-040152307506	4	1.5	23	75	6	1	●
STB200-B4-040150808008	4	1.5	8	80	8	2	●
STB200-B4-030201008008	3	2	10	80	8	2	●
STB200-B4-040201510010	4	2	15	100	10	2	●
STB200-B4-030301510010	3	3	15	100	10	2	●
STB200-B4-040301510012	4	3	15	100	12	2	●
STB200-B4-030401510012	3	4	15	100	12	2	●
STB200-B4-040402012016	4	4	20	120	16	2	●

●标准库存 Stock ○需预定 Available upon Order

R	公差Tol
R≥3	±0.020

单位 unit (mm)

工件材料 Workpiece Material				
P		M	S	
1 2 3 4	5	1 2 3	1 2 3	4
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	高温合金 HRSA	钛合金 Titanium Alloys
○	○	○	◎	○

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P205
Recommended Cutting Data ※ P205

推荐切削参数
Recommended Cutting Data

STB200-B4
锥度球头Taper ball nose——仿型铣Profiling

工件材料 Workpiece Material		切削量 Cutting Depth (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	3	4	5	6	8
M	不锈钢 Stainless Steel	ap≤0.2D	100 (80~120)	转速Speed (min^{-1})	10600	7960	6370	5300	3980
		ae≤0.2D		进给速度Feed Rate (mm/min)	1160	1020	1020	1100	1100
S	高温合金 HRSA	ap≤0.03D	35 (25~45)	转速Speed (min^{-1})	3715	2785	2225	1855	1390
		ae≤0.03D		进给速度Feed Rate (mm/min)	295	245	230	220	220
	钛合金 Titanium Alloys	ap≤0.2D	70 (60~80)	转速Speed (min^{-1})	7430	5570	4450	3715	2785
		ae≤0.3D		进给速度Feed Rate (mm/min)	740	670	715	670	610

1、铣刀装夹时，刃部的径向跳动控制在0.01mm以下。
2、请使用刚性较高的机床和刀柄。
3、请根据切削速度、设备刚性等情况可适当调整转速和进给速度。
4、上表是按照刀具悬长为直径4倍以下时所制订的，如果刀具悬长过长，加工时易产生振动，此时，请适当调整转速，进给速度和切深量。

1、When the milling cutter is clamped, the maximum T.I.R. should be controlled below 0.01mm.
2、Pls pay attention to use machine and holder with high rigidity .
3、Please adjust the speed,feed and cutting depth according to actual cutting conditions.
4、The milling conditions are for an end mill where the tool overhang length is less than 4*D (mill dia).When the tool overhang length is longer, please adjust the speed,feed and cutting depth.

SD200复合材料高性能加工立铣刀
SD200 High Performance Endmill for Composite

- 独特的刀型设计，有效抑制复材工件上下表面出现毛刺、翻边等现象。
- 刀具表面采用金刚石涂层——大幅提升耐磨损性能。
- 采用与金刚石涂层具有良好附着力的 硬质合金基体——耐磨性好，刀具寿命更长。

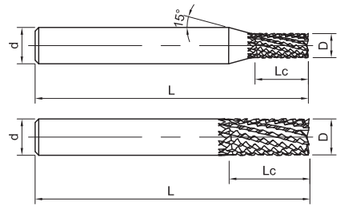
- The fine-cross flute design, without burr and delamination on the top and bottom of the workpiece
- Longer tool life with diamond coating
- Using the special substrate，higher the wear resistance，and longer the tool life

案例：SD200-CN 系列加工CFRP
Case：SD200-CN Endmills for CFRP

刀具型号 Type	SD200-CN12-06015	上表面无毛刺 Without burr delamination on the top
刀具规格 Size	D6*15*60*d6	
加工材料 Workpiece Material	碳纤维(T800) CFRP(T800)	
转速 Speed	5000RPM（95m/min）	
进给速度 Feed Rate	400mm/min（0.08mm/r）	
切削方式 Cutting Method	槽铣 Slotting	上表面无毛刺 Without burr delamination on the bottom
切深量 Cutting Depth	ap=4mm(板厚3mm)，ae=6mm	
冷却方式 Cooling Method	气冷 Air cooling	

SD200-CN

8/12刃菱齿
8/12 Flutes Fine-cross-nick



订货号 Ordering code	D	Lc	L	d	图号 Figure No.	库存 Stock
SD200-CN8-02008	2	8	50	4	1	●
SD200-CN8-04010	4	10	50	4	2	●
SD200-CN12-06015	6	15	60	6	2	●
SD200-CN12-08020	8	20	60	8	2	●
SD200-CN12-10025	10	25	75	10	2	●
SD200-CN12-12030	12	30	85	12	2	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
4≤D≤12	0 -0.04

单位 unit(mm)

工件材料 Workpiece Material					
P		M	N		
1234	5	123	123	4	5
碳钢、合金钢 Carbon steels、 Alloy steels＜ 35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铝合金 Aluminum Alloys	铜合金 Copper Alloys	复合材料 CFRP/GFRP
					◎

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P208
Recommended Cutting Data ※ P208

推荐切削参数
Recommended Cutting Data

SD200-CN
碳纤维复合材料 CFRP——侧铣Side milling

工件材料 Workpiece Material		切削量 Cutting Depth (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	2	4	6	8	10	12
N	碳纤维 CFRP	ap≤2D	140 (80-200)	转速Speed (min^{-1})	12700	11140	7430	5570	4460	3715
		ae≤0.2D		进给速度Feed Rate (mm/min)	900	665	445	445	445	370
	玻璃纤维 GFRP	ap≤2D	150 (100-200)	转速Speed (min^{-1})	14000	11940	7960	5970	4775	3980
		ae≤0.2D		进给速度Feed Rate (mm/min)	900	710	475	475	475	400

SD200-CN
碳纤维复合材料 CFRP——槽铣 Slotting

工件材料 Workpiece Material		切削量 Cutting Depth (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	2	4	6	8	10	12
N	碳纤维 CFRP	ap≤1D	120 (80-160)	转速Speed (min^{-1})	12700	11140	7430	5570	4460	3715
		ae≤1D		进给速度Feed Rate (mm/min)	550	385	255	285	305	320
	玻璃纤维 GFRP	ap≤1D	150 (100-200)	转速Speed (min^{-1})	14000	11940	7960	5970	4775	3980
		ae≤1D		进给速度Feed Rate (mm/min)	550	480	320	360	380	400

1、请使用刚性较高的机床和刀柄。
2、请根据切削速度、设备刚性等情况可适当调整转速和进给速度。
3、上表是按照刀具悬长为直径4倍以下时所制订的，如果刀具悬长过长，加工时易产生振动，此时，请适当调整转速，进给速度和切深量。

1、Please attention to use machine and holder with high rigidity .
2、Please adjust the speed,feed and cutting depth according to actual cutting conditions.
3、The milling conditions are for an end mill where the tool overhang length is less than 4*D (mill dia).When the tool overhang length is longer, please adjust the speed,feed and cutting depth.

DNM100-RS1 NEW

1刃圆角头
1 flute Corner Radius

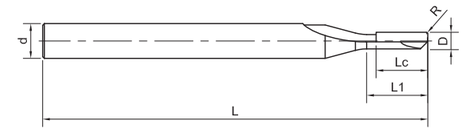


Fig1

SHANK h6 | 1 | Corner-R

订货号 OrderingCode	D	Lc	R	L1	L	d	图号 Figure No.	库存 Stock
DNM100-RS1-02001	2	6	0.1	8	50	4	1	●
DNM100-RS1-02002	2	6	0.2	8	50	4	1	●
DNM100-RS1-02003	2	6	0.3	8	50	4	1	●
DNM100-RS1-03001	3	6	0.1	8	50	4	1	●
DNM100-RS1-03002	3	6	0.2	8	50	4	1	●
DNM100-RS1-03003	3	6	0.3	8	50	4	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
D≤3	±0.02

单位unit (mm)

工件材料 Workpiece Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎	◎	◎

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P212
Recommended Cutting Data ※ P212

DNM100-RS2 NEW

2刃圆角头
2 flute Corner Radius

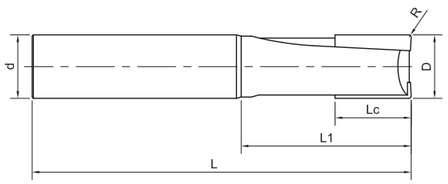


Fig1

订货号 Ordering code	D	Lc	R	L1	L	d	图号 Figure No.	库存 Stock
DNM100-RS2-04001	4	6	0.1	8	50	6	1	●
DNM100-RS2-04002	4	6	0.2	8	50	6	1	●
DNM100-RS2-04005	4	6	0.5	8	50	6	1	●
DNM100-RS2-06001	6	10	0.1	20	75	6	1	●
DNM100-RS2-06002	6	10	0.2	20	75	6	1	●
DNM100-RS2-06003	6	10	0.3	20	75	6	1	●
DNM100-RS2-06005	6	10	0.5	20	75	6	1	●
DNM100-RS2-08001	8	15	0.1	30	75	10	1	●
DNM100-RS2-08002	8	15	0.2	30	75	10	1	●
DNM100-RS2-08005	8	15	0.5	30	75	10	1	●
DNM100-RS2-08010	8	15	1	30	75	10	1	●
DNM100-RS2-10001	10	15	0.1	35	75	10	1	●
DNM100-RS2-10002	10	15	0.2	35	75	10	1	●
DNM100-RS2-10005	10	15	0.5	35	75	10	1	●
DNM100-RS2-10010	10	15	1	35	75	10	1	●
DNM100-RS2-10020	10	15	2	35	75	10	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
D≤10	±0.02

单位 unit (mm)

工件材料 Workpiece Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎	◎	◎

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P212
Recommended Cutting Data ※ P212

DNM100-RS3 NEW

3刃圆角头
3 flute Corner Radius

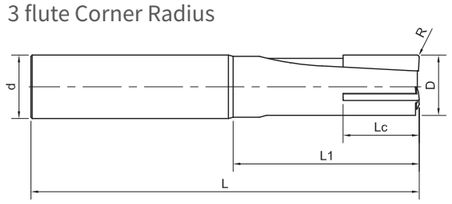


Fig1

订货号 Ordering code	D	Lc	R	L1	L	d	图号 Figure No.	库存 Stock
DNM100-RS3-10001	10	15	0.1	35	75	10	1	●
DNM100-RS3-10002	10	15	0.2	35	75	10	1	●
DNM100-RS3-10005	10	15	0.5	35	75	10	1	●
DNM100-RS3-10010	10	15	1	35	75	10	1	●
DNM100-RS3-10020	10	15	2	35	75	10	1	●
DNM100-RS3-12002	12	15	0.2	40	75	12	1	●
DNM100-RS3-12005	12	15	0.5	40	75	12	1	●
DNM100-RS3-12010	12	15	1	40	75	12	1	●
DNM100-RS3-12020	12	15	2	40	75	12	1	●
DNM100-RS3-16002	16	15	0.2	45	100	16	1	●
DNM100-RS3-16005	16	15	0.5	45	100	16	1	●
DNM100-RS3-16010	16	15	1	45	100	16	1	●
DNM100-RS3-16020	16	15	2	45	100	16	1	●
DNM100-RS3-16030	16	15	3	45	100	16	1	●

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
D≤16	±0.02

单位unit (mm)

工件材料 Workpiece Material						
P		M	K	N		
1234	5	123	123	123	4	5
碳钢、合金钢 Carbon steels、Alloy steels＜35HRC	合金钢 Alloy steels ＜48HRC	不锈钢 Stainless steel	铸铁 Cast Iron	铝合金 Aluminium Alloys	铜合金 Copper Alloys	石墨 Graphite
				◎	◎	◎

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P212
Recommended Cutting Data ※ P212

推荐切削参数
Recommended Cutting Data

DNM100-RS1/RS2/ RS3
复合材料/铝合金——侧铣
Side milling:Compound Material、Aluminium Alloy

工件材料 Workpiece Material		切削量 Cutting Depth (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	2	4	6	8	10	12	16
N	增强树脂基复合材料 Compound Material	ap≤1.5D	400 (100~450)	转速Speed (min-1)	18000	16000	13270	11775	11145	10615	8000
		ae≤0.2D		进给速度Feed Rate (mm/min)	1800	2400	2650	2350	2230	2120	2400
	铝合金 Aluminium Alloy	ap≤1.5D	150 (100~250)	转速Speed (min-1)	16000	12000	12000	10000	8000	8000	5000
		ae≤0.1D		进给速度Feed Rate (mm/min)	2000	2000	2400	2000	1600	1600	1500

DNM100-RS1/RS2/ RS3
复合材料/铝合金——面铣
Face Milling： Compound Material、Aluminium Alloy

工件材料 Workpiece Material		切削量 Cutting Depth (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	6	8	10	12	16
N	增强树脂基复合材料 Compound Material	ap≤0.1D	400 (100~450)	转速Speed (min-1)	13270	11775	11145	10615	8000
		ae≤0.6D		进给速度Feed Rate (mm/min)	2650	2350	2230	2120	2400
	铝合金 Aluminium Alloy	ap≤0.1D	150 (100~250)	转速Speed (min-1)	12000	10000	8000	8000	5000
		ae≤0.6D		进给速度Feed Rate (mm/min)	2400	2000	1600	1600	1500

1、请使用刚性较高的机床和刀柄。
2、请根据切削速度、设备刚性等情况可适当调整转速和进给速度。
3、上表是按照刀具悬长为直径4倍以下时所制订的，如果刀具悬长过长，加工时易产生振动，此时，请适当调整转速，进给速度和切深量。

1、Use machine and holder with high rigidity .
2、Adjust the speed, feed and cutting depth according to actual cutting condition.
3、The milling conditions should be applied for the tool overhang length less than 4*D (mill dia).If the tool overhang length is too long, please adjust the speed, feed and cutting depth.

DNR100-C3 NEW

3刃波齿铣刀

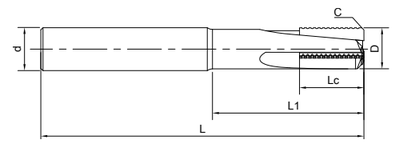


Fig1

订货号 OrderingCode	D	Lc	C	L1	L	d	图号 Figure No.	库存 Stock
DNR100-C3-06010	6	10	0.3	22	90	8	1	●
DNR100-C3-06015	6	15	0.3	27	90	8	1	●
DNR100-C3-08015	8	15	0.3	31	90	10	1	●
DNR100-C3-08020	8	20	0.3	35	90	10	1	●
DNR100-C3-10010	10	10	0.3	22	100	10	1	○
DNR100-C3-10015	10	15	0.3	27	100	10	1	○
DNR100-C3-10020	10	20	0.3	32	100	10	1	○
DNR100-C3-12020	12	20	0.3	34	100	12	1	○
DNR100-C3-12025	12	25	0.3	39	100	12	1	○

●标准库存 Stock ○需预定 Available upon Order

D	公差Tol
D≤12	±0.02

单位unit (mm)

工件材料 Workpiece Material			
N			
123	4	5	6
铝合金 Aluminium Alloys	铜合金 Copper Alloys	复合材料 Composite Materials	石墨 Graphite
		◎	○

◎ 最适合 Most Suitable ○ 适合 Suitable

推荐切削参数 ※ P214
Recommended Cutting Data ※ P214

推荐切削参数
Recommended Cutting Data

DNR100-C3
复合材料——侧铣
Side milling:Compound Material

工件材料 Workpiece Material		切削量 Cutting Depth (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	6	8	10	12
N	增强树脂基复合材料 Compound Material	ap≤1.5D	500 (250~600)	转速Speed (min^{-1})	26539	19904	15923	13270
		ae≤0.2D		进给速度Feed Rate (mm/min)	3184	2388	1910	1592

DNR100-C3
复合材料——槽铣
Slot milling:Compound Material

工件材料 Workpiece Material		切削量 Cutting Depth (mm)	切削速度 Cutting Speed (m/min)	刃径 Tool Diameter (mm)	6	8	10	12
N	增强树脂基复合材料 Compound Material	ap≤1.5D	400 (250~600)	转速Speed (min^{-1})	21231	15923	12738	10615
		ae≤0.2D		进给速度Feed Rate (mm/min)	1910	1433	1146	955

1、请使用刚性较高的机床和刀柄。
2、请根据切削速度、设备刚性等情况可适当调整转速和进给速度。
3、上表是按照刀具悬长为直径4倍以下时所制订的，如果刀具悬长过长，加工时易产生振动，此时，请适当调整转速，进给速度和切深量。

1、Use machine and holder with high rigidity .
2、Adjust the speed, feed and cutting depth according to actual cutting condition.
3、The milling conditions should be applied for the tool overhang length less than 4*D (mill dia).If the tool overhang length is too long, please adjust the speed, feed and cutting depth.

C

孔加工 Holemaking

CUTTING TOOLS FOR AEROSPACE | 航空航天切削工具

钻头系列目录
Content of Drills Series

产品系列 Drills Series	刀具名称及外形 Description and profile		钻尖角 Point Angle	柄部类型 Shank Type	涂层/牌号 Coating/Grade	孔加工深度 L/D Drilling Depth L/D	冷却形式 Coolant Type	系列类型 Tool Type	尺寸范围 Dimension Range	孔精度等级 Hole accuracy class	尺寸表页码 Dimension Table Page	切削参数页码 Cutting Parameters Page	工件材料 WorkPiece Material													
													P			M	K		N				S		H	
													1 2 3 4	5	6 7	1 2 3	1 2	3	1 2	3	4	5	1 2 3	4	1	2
													碳钢、合金钢 Carbon Steels, Alloy Steels	合金钢、工具钢 Alloy Steels, Tool Steels	PH 与铁素体/马氏体钢 PH and Ferritic/Martensitic Stainless Steel	不锈钢 Stainless Steel	灰铸铁、球墨铸铁 Gray Cast Iron, Ductile Cast Iron	高合金铸铁 High Alloy Cast Iron	锻造铝合金、铸造铝合金 Forged Aluminium Alloys, Cast Aluminium Alloys	铸造铝合金 Cast Aluminium Alloys	铜合金 Copper Alloys	复合材料 Com-pound Material	高温合金 Heat Resistant Super Alloys	钛合金 Titanium Alloys	淬硬钢 Hardened Steels	淬硬钢 Hardened Steels
													(<35HRC)	(35-48HRC)			(<35HRC)	(35-45HRC)	(Si<12%)	(Si>12%)	(<HB 200)		(<HB 450)	(<HB400)	(45-55HRC)	(55-60HRC)
D968S	3D 外冷 麻花钻 3D External Cooling,Twist Drill		140°	SHANK DIN 6535HA	AlTiN nano	3D		D968S-A3N	D1～D20	IT9-10	P221	P241	○			◎							○	○		
	3D 内冷 麻花钻 3D InnerCooling, Twist Drill		140°	SHANK DIN 6535HA	AlTiN nano	3D		D968S-A3C	D3～D20	IT9-10	P225	P241	○			◎			○	○	○		○	○		
	5D 外冷 麻花钻 5D External Cooling,Twist Drill		140°	SHANK DIN 6535HA	AlTiN nano	5D		D968S-A5N	D1～D20	IT9-10	P228	P241	○			◎										
	5D 内冷 麻花钻 5D Inner Cooling,Twist Drill		140°	SHANK DIN 6535HA	AlTiN nano	5D		D968S-A5C	D3～D20	IT9-10	P230	P241	○			◎			○	○	○		○	○		
D966	5D 外冷 麻花钻 5D External Cooling,Twist Drill		140°	SHANK DIN 6535HA		5D		D966-A5N	D3～D16	IT9-10	P233	P243							◎	◎	○	○				
	5D 内冷 麻花钻 5D Inner Cooling,Twist Drill		140°	SHANK DIN 6535HA		5D		D966-A5C	D3～D16	IT9-10	P234	P243							◎	◎	○	○				
D998	3D 外冷 麻花钻 3D External Cooling,Twist Drill		140°	SHANK Hb	AlTiN nano	3D		D998-Y3N	D4～D16	IT9-10	P235	P244		○			○	○							◎	○
D612	4刃 匕首钻 4 Flute,Triple-angle Drill		118°	SHANK	U-DIA	3D		D612-Y3N	D3-D8.0	IT9-10	P236	P246										◎				
D973	5D 外冷 麻花钻 5D, External Cooling,Twist Drill		120°	SHANK	AlCrN/TiSiN	5D		D973-Y5N	D2.5-D8.0	IT9-10	P237	P246	○	○	○	○			◎	◎		◎		◎		
D573	3刃 外冷 扩孔钻 6 Flute, External Cooling,Core drills			SHANK	AlCrN/TiSiN	3D	3	D573-Y3N	D4-D9.3	IT8-9	P238	P247	○	○	○	○			◎	◎		◎		◎		
R733-CM	6刃 左旋 铰刀 6 Flute, Left reamer			SHANK	AlCrN/TiSiN	3D	6	R733-CM	D4-D12.7	IT8-9	P239	P248	○	○	○	○			◎	◎		◎		◎		
DND100	PCD 锪钻 PCD Countersink Drill		100°					DND100	D2.5-D5		P240	P249										◎				

◎ 最适合Most Suitable ○ 适合 Suitable

C 孔加工 HOLEMAKING

C 孔加工 HOLEMAKING

整体硬质合金钻头型号（订货号）表示规则
Solid Carbide Drills Identification System

D966 –	A	5	C –	1200
①	②	③	④	⑤

工件材料 Workpiece	①钻头系列号 Drills Series	
不锈钢 Stainless Steel	D968S	不锈钢加工麻花钻 Twist Drills for Stainless Steel
铝合金 Aluminium Alloy	D966	铝合金加工麻花钻 Twist Drills for Aluminium Alloy
高硬钢 Hardened Steel	D998	高硬钢加工麻花钻 Twist Drills for Hardened Steel

②柄部类型 Shank Type	
A	圆柱直柄 DIN6535HA
E	斜削柄 DIN6535HE
B	削平柄 DIN6535HB
Y	普通圆柱直柄 Straight Cylindrical Shank
M	莫氏锥柄 Mose Shank

③钻孔深度 Drilling Depth	
3	钻深≤3D Depth≤3D
5	钻深≤5D Depth≤5D
8	钻深≤8D Depth≤8D
12	钻深≤12D Depth≤12D
15	钻深≤15D Depth≤15D
M	90°顶角 90°Point Angle
N	120°顶角 120°Point Angle
P	145°顶角 145°Point Angle

④冷却方式 Coolant Type	
C	内冷 Internal Coolant
N	外冷 External Coolant

⑤刃部直径 Drill Diameter	
0325	刃径为Φ3.25 Dia： Φ3.25
0600	刃径为Φ6.00 Dia： Φ6.00
1200	刃径为Φ12.00 Dia： Φ12.00

C 孔加工 HOLEMAKING

名词解释
Explanation

	标示 Sign	说明 Notes
柄部形状 Shank Type	SHANK h6	h6圆柄 Cylindrical Shank
	SHANK DIN 6535HA	DIN6535HA柄 DIN6535HA Shank
涂层 Coating	TiAlN	TiAlN涂层 TiAlN Coating
	AlTiN nano	AlTiN纳米涂层 Nano-Coating
	AlCrN/ TiSiN	AlCrN/TiSiN多层涂层 AlCrN/TiSiN Multiple Coating
刀具类型 Tool Type		外冷麻花钻 External Cooling Twist Drill
		内冷麻花钻 Internal Cooling Twist Drill
		定心钻 Centre Drill
ISO材料分类 ISO Material classification	P	ISO分类 钢 ISO Steel
	M	ISO分类 不锈钢 ISO Stainless Steel
	K	ISO分类 铸铁 ISO Cast Iron
	N	ISO分类 有色材料 ISO Nonferrous Metal
	S	ISO分类 耐热合金钛合金 ISO HRSA
	H	高硬度材料 Hardened Material
长径比 Length/Diameter Ratio	3D	3倍径 3D
	5D	5倍径 5D
	8D	8倍径 8D
	12D	12倍径 12D
	15D	15倍径 15D

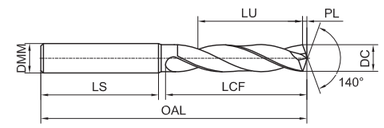
	标示 Sign	说明 Notes
尺寸参数 Dimension Data	DC	刃径 Diameter of Drill
	DMM	柄径 Diameter of Shank
	LCF	槽长 Flute Length
	LU	推荐最大钻深 Recommend Maximum drilling Depth
	LS	柄长 Shank Length
	OAL	全长 Overall Length
	PL	钻尖高 Drill Tip Height
	LPR	悬伸长度 Hangout Length

D968S-A3N

NEW

SHANK DIN 6535HA | AlTiN nano | 3D

高效不锈钢加工3D外冷麻花钻
High Efficient 3D External Coolant Twist Drills for Stainless Steel



订货号 Ordering Code	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存 Stock
D968S-A3N-0100	1.00	7	45	4	30	5.5	0.18	●
D968S-A3N-0110	1.10	7	45	4	30	5.4	0.20	●
D968S-A3N-0120	1.20	7	45	4	30	5.2	0.22	●
D968S-A3N-0130	1.30	7	45	4	30	5.1	0.24	●
D968S-A3N-0140	1.40	7	45	4	30	4.9	0.25	●
D968S-A3N-0150	1.50	9	55	4	38	6.8	0.27	●
D968S-A3N-0160	1.60	9	55	4	38	6.6	0.29	●
D968S-A3N-0175	1.75	9	55	4	38	6.4	0.32	●
D968S-A3N-0180	1.80	9	55	4	38	6.3	0.33	●
D968S-A3N-0190	1.90	9	55	4	38	6.2	0.35	●
D968S-A3N-0200	2.00	13	55	4	36	10.0	0.36	●
D968S-A3N-0210	2.10	13	55	4	36	9.9	0.38	●
D968S-A3N-0220	2.20	13	55	4	36	9.7	0.40	●
D968S-A3N-0230	2.30	13	55	4	36	9.6	0.42	●
D968S-A3N-0240	2.40	17	55	4	33	13.4	0.44	●
D968S-A3N-0250	2.50	17	55	4	33	13.3	0.45	●
D968S-A3N-0260	2.60	17	55	4	33	13.1	0.47	●
D968S-A3N-0270	2.70	17	55	4	33	13.0	0.49	●
D968S-A3N-0280	2.80	17	55	4	33	12.8	0.51	●
D968S-A3N-0290	2.90	17	55	4	33	12.7	0.53	●
D968S-A3N-0295	2.95	17	55	4	33	12.6	0.54	○
D968S-A3N-0300	3.00	20	62	6	36	15.5	0.55	●
D968S-A3N-0305	3.05	20	62	6	36	15.4	0.56	○
D968S-A3N-0310	3.10	20	62	6	36	15.4	0.56	●
D968S-A3N-0315	3.15	20	62	6	36	15.3	0.57	○
D968S-A3N-0320	3.20	20	62	6	36	15.2	0.58	●
D968S-A3N-0325	3.25	20	62	6	36	15.1	0.59	○

订货号 Ordering Code	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存 Stock
D968S-A3N-0330	3.30	20	62	6	36	15.1	0.60	●
D968S-A3N-0340	3.40	20	62	6	36	14.9	0.62	●
D968S-A3N-0350	3.50	20	62	6	36	14.8	0.64	●
D968S-A3N-0360	3.60	20	62	6	36	14.6	0.66	●
D968S-A3N-0370	3.70	20	62	6	36	14.5	0.67	●
D968S-A3N-0380	3.80	24	66	6	36	18.3	0.69	●
D968S-A3N-0390	3.90	24	66	6	36	18.2	0.71	●
D968S-A3N-0400	4.00	24	66	6	36	18.0	0.73	●
D968S-A3N-0410	4.10	24	66	6	36	17.9	0.75	●
D968S-A3N-0420	4.20	24	66	6	36	17.7	0.76	●
D968S-A3N-0430	4.30	24	66	6	36	17.6	0.78	●
D968S-A3N-0440	4.40	24	66	6	36	17.4	0.80	●
D968S-A3N-0450	4.50	24	66	6	36	17.3	0.82	●
D968S-A3N-0460	4.60	24	66	6	36	17.1	0.84	●
D968S-A3N-0465	4.65	24	66	6	36	17.0	0.85	●
D968S-A3N-0470	4.70	24	66	6	36	17.0	0.86	●
D968S-A3N-0480	4.80	28	66	6	36	20.8	0.87	●
D968S-A3N-0490	4.90	28	66	6	36	20.7	0.89	●
D968S-A3N-0500	5.00	28	66	6	36	20.5	0.91	●
D968S-A3N-0510	5.10	28	66	6	36	20.4	0.93	●
D968S-A3N-0515	5.15	28	66	6	36	20.3	0.94	●
D968S-A3N-0520	5.20	28	66	6	36	20.2	0.95	●
D968S-A3N-0530	5.30	28	66	6	36	20.1	0.96	●
D968S-A3N-0540	5.40	28	66	6	36	19.9	0.98	●
D968S-A3N-0550	5.50	28	66	6	36	19.8	1.00	●
D968S-A3N-0555	5.55	28	66	6	36	19.7	1.01	●
D968S-A3N-0560	5.60	28	66	6	36	19.6	1.02	●

● 标准库存 Stock ○ 需预定Available upon Order

备注：D1-D20刀具接受非标订制
Note：Accept customization from D1 to D20 tool

单位Unit(mm)

工件材料 Workpiece Material

P			M	K		N				S		H	
1 2 3 4	5	6 7	1 2 3	1 2	3	1 2	3	4	5	1 2 3	4	1	2
碳钢、合金钢 Carbon Steel，Alloy Steel	合金钢、工具钢 Alloy Steels,Tool Steels	PH与铁素体/马氏体不锈钢 PH and Ferritic/ Martensitic Stainless Steel	不锈钢 Stainless Steel	灰铸铁、球墨铸铁 Gray Cast Iron, Ductile Cast Iron	高合金铸铁 High Alloy Cast Iron	锻造铝合金、铸造铝合金 Forged Aluminium Alloys,Cast Aluminium Alloys	铸造铝合金 Cast Aluminium Alloys	铜合金 Copper Alloys	复合材料 Compound Material	高温合金 Heat Resistant Super Alloys	钛合金 Titanium Alloys	淬硬钢 Hardened Steels	淬硬钢 Hardened Steels
＜35HRC	35-48HRC			＜35HRC	35-45HRC	Si＜12%	Si＞12%	＜HB200		＜HB450	＜HB400	45-55HRC	55-60HRC
○			◎							○	○		

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P241
Recommended Cutting Data ※ P241

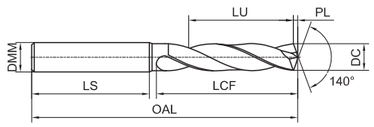
D968S-A3N

NEW

SHANK DIN 6535HA | AlTiN nano | 3D

高效不锈钢加工3D外冷麻花钻

High Efficient 3D External Coolant Twist Drills for Stainless Steel



》续前

订货号 Ordering Code	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存 Stock
D968S-A3N-0570	5.70	28	66	6	36	19.5	1.04	○
D968S-A3N-0580	5.80	28	66	6	36	19.3	1.06	●
D968S-A3N-0590	5.90	28	66	6	36	19.2	1.07	●
D968S-A3N-0600	6.00	28	66	6	36	19.0	1.09	●
D968S-A3N-0605	6.05	34	79	8	36	24.9	1.10	○
D968S-A3N-0610	6.10	34	79	8	36	24.9	1.11	●
D968S-A3N-0620	6.20	34	79	8	36	24.7	1.13	●
D968S-A3N-0630	6.30	34	79	8	36	24.6	1.15	●
D968S-A3N-0640	6.40	34	79	8	36	24.4	1.16	●
D968S-A3N-0650	6.50	34	79	8	36	24.3	1.18	●
D968S-A3N-0660	6.60	34	79	8	36	24.1	1.20	●
D968S-A3N-0670	6.70	34	79	8	36	24.0	1.22	●
D968S-A3N-0680	6.80	34	79	8	36	23.8	1.24	●
D968S-A3N-0690	6.90	34	79	8	36	23.7	1.26	●
D968S-A3N-0700	7.00	34	79	8	36	23.5	1.27	●
D968S-A3N-0710	7.10	41	79	8	36	30.4	1.29	●
D968S-A3N-0720	7.20	41	79	8	36	30.2	1.31	●
D968S-A3N-0730	7.30	41	79	8	36	30.1	1.33	○
D968S-A3N-0740	7.40	41	79	8	36	29.9	1.35	●
D968S-A3N-0745	7.45	41	79	8	36	29.8	1.36	●
D968S-A3N-0750	7.50	41	79	8	36	29.8	1.36	●
D968S-A3N-0755	7.55	41	79	8	36	29.7	1.37	○
D968S-A3N-0760	7.60	41	79	8	36	29.6	1.38	●
D968S-A3N-0770	7.70	41	79	8	36	29.5	1.40	○
D968S-A3N-0780	7.80	41	79	8	36	29.3	1.42	●
D968S-A3N-0790	7.90	41	79	8	36	29.2	1.44	○
D968S-A3N-0800	8.00	41	79	8	36	29.0	1.46	●

订货号 Ordering Code	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存 Stock
D968S-A3N-0810	8.10	47	89	10	40	34.9	1.47	○
D968S-A3N-0820	8.20	47	89	10	40	34.7	1.49	○
D968S-A3N-0830	8.30	47	89	10	40	34.6	1.51	●
D968S-A3N-0840	8.40	47	89	10	40	34.4	1.53	●
D968S-A3N-0850	8.50	47	89	10	40	34.3	1.55	●
D968S-A3N-0860	8.60	47	89	10	40	34.1	1.57	●
D968S-A3N-0870	8.70	47	89	10	40	34.0	1.58	○
D968S-A3N-0880	8.80	47	89	10	40	33.8	1.60	●
D968S-A3N-0890	8.90	47	89	10	40	33.7	1.62	●
D968S-A3N-0900	9.00	47	89	10	40	33.5	1.64	●
D968S-A3N-0910	9.10	47	89	10	40	33.4	1.66	●
D968S-A3N-0920	9.20	47	89	10	40	33.2	1.67	●
D968S-A3N-0930	9.30	47	89	10	40	33.1	1.69	○
D968S-A3N-0935	9.35	47	89	10	40	33.0	1.70	○
D968S-A3N-0940	9.40	47	89	10	40	32.9	1.71	○
D968S-A3N-0945	9.45	47	89	10	40	32.8	1.72	○
D968S-A3N-0950	9.50	47	89	10	40	32.8	1.73	●
D968S-A3N-0955	9.55	47	89	10	40	32.7	1.74	○
D968S-A3N-0960	9.60	47	89	10	40	32.6	1.75	●
D968S-A3N-0970	9.70	47	89	10	40	32.5	1.77	○
D968S-A3N-0980	9.80	47	89	10	40	32.3	1.78	●
D968S-A3N-0990	9.90	47	89	10	40	32.2	1.80	○
D968S-A3N-1000	10.00	47	89	10	40	32.0	1.82	●
D968S-A3N-1010	10.10	55	102	12	45	39.9	1.84	○
D968S-A3N-1020	10.20	55	102	12	45	39.7	1.86	●
D968S-A3N-1025	10.25	55	102	12	45	39.6	1.87	●
D968S-A3N-1030	10.30	55	102	12	45	39.6	1.87	●

● 标准库存 Stock ○ 需预定Available upon Order

备注：D1-D20刀具接受非标订制
Note：Accept customization from D1 to D20 tool

单位Unit(mm)

工件材料 Workpiece Material

P			M	K		N				S		H	
1234	5	67	123	12	3	12	3	4	5	123	4	1	2
碳钢、合金钢 Carbon Steel，Alloy Steel	合金钢、工具钢 Alloy Steels,Tool Steels	PH与铁素体/马氏体不锈钢 PH and Ferritic/Martensitic Stainless Steel	不锈钢 Stainless Steel	灰铸铁、球墨铸铁 Gray Cast Iron, Ductile Cast Iron	高合金铸铁 High Alloy Cast Iron	锻造铝合金、铸造铝合金 Forged Aluminium Alloys,Cast Aluminium Alloys	铸造铝合金 Cast Aluminium Alloys	铜合金 Copper Alloys	复合材料 Compound Material	高温合金 Heat Resistant Super Alloys	钛合金 Titanium Alloys	淬硬钢 Hardened Steels	淬硬钢 Hardened Steels
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○			◎							○	○		

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P241
Recommended Cutting Data ※ P241

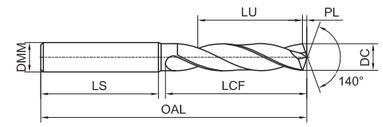
D968S-A3N

NEW

SHANK DIN 6535HA | AlTiN nano | 3D

高效不锈钢加工3D外冷麻花钻

High Efficient 3D External Coolant Twist Drills for Stainless Steel



》续前

订货号 Ordering Code	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存 Stock
D968S-A3N-1040	10.40	55	102	12	45	39.4	1.89	●
D968S-A3N-1050	10.50	55	102	12	45	39.3	1.91	●
D968S-A3N-1060	10.60	55	102	12	45	39.1	1.93	●
D968S-A3N-1070	10.70	55	102	12	45	39.0	1.95	○
D968S-A3N-1080	10.80	55	102	12	45	38.8	1.97	○
D968S-A3N-1090	10.90	55	102	12	45	38.7	1.98	○
D968S-A3N-1100	11.00	55	102	12	45	38.5	2.00	●
D968S-A3N-1110	11.10	55	102	12	45	38.4	2.02	●
D968S-A3N-1120	11.20	55	102	12	45	38.2	2.04	○
D968S-A3N-1130	11.30	55	102	12	45	38.1	2.06	○
D968S-A3N-1140	11.40	55	102	12	45	37.9	2.07	●
D968S-A3N-1150	11.50	55	102	12	45	37.8	2.09	●
D968S-A3N-1160	11.60	55	102	12	45	37.6	2.11	○
D968S-A3N-1170	11.70	55	102	12	45	37.5	2.13	○
D968S-A3N-1180	11.80	55	102	12	45	37.3	2.15	●
D968S-A3N-1190	11.90	55	102	12	45	37.2	2.17	○
D968S-A3N-1200	12.00	55	102	12	45	37.0	2.18	●
D968S-A3N-1210	12.10	60	107	14	45	41.9	2.20	○
D968S-A3N-1220	12.20	60	107	14	45	41.7	2.22	○
D968S-A3N-1225	12.25	60	107	14	45	41.6	2.23	○
D968S-A3N-1230	12.30	60	107	14	45	41.6	2.24	○
D968S-A3N-1240	12.40	60	107	14	45	41.4	2.26	○
D968S-A3N-1250	12.50	60	107	14	45	41.3	2.27	●
D968S-A3N-1260	12.60	60	107	14	45	41.1	2.29	○
D968S-A3N-1270	12.70	60	107	14	45	41.0	2.31	○
D968S-A3N-1275	12.75	60	107	14	45	40.9	2.32	○
D968S-A3N-1280	12.80	60	107	14	45	40.8	2.33	○

订货号 Ordering Code	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存 Stock
D968S-A3N-1290	12.90	60	107	14	45	40.7	2.35	○
D968S-A3N-1300	13.00	60	107	14	45	40.5	2.37	●
D968S-A3N-1310	13.10	60	107	14	45	40.4	2.38	●
D968S-A3N-1320	13.20	60	107	14	45	40.2	2.40	○
D968S-A3N-1330	13.30	60	107	14	45	40.1	2.42	○
D968S-A3N-1340	13.40	60	107	14	45	39.9	2.44	○
D968S-A3N-1350	13.50	60	107	14	45	39.8	2.46	○
D968S-A3N-1370	13.70	60	107	14	45	39.5	2.49	○
D968S-A3N-1380	13.80	60	107	14	45	39.3	2.51	○
D968S-A3N-1390	13.90	60	107	14	45	39.2	2.53	○
D968S-A3N-1400	14.00	60	107	14	45	39.0	2.55	●
D968S-A3N-1410	14.10	65	115	16	48	43.9	2.57	○
D968S-A3N-1420	14.20	65	115	16	48	43.7	2.58	○
D968S-A3N-1425	14.25	65	115	16	48	43.6	2.59	○
D968S-A3N-1430	14.30	65	115	16	48	43.6	2.60	○
D968S-A3N-1440	14.40	65	115	16	48	43.4	2.62	○
D968S-A3N-1450	14.50	65	115	16	48	43.3	2.64	●
D968S-A3N-1460	14.60	65	115	16	48	43.1	2.66	○
D968S-A3N-1470	14.70	65	115	16	48	43.0	2.68	○
D968S-A3N-1475	14.75	65	115	16	48	42.9	2.68	○
D968S-A3N-1480	14.80	65	115	16	48	42.8	2.69	○
D968S-A3N-1490	14.90	65	115	16	48	42.7	2.71	○
D968S-A3N-1500	15.00	65	115	16	48	42.5	2.73	●
D968S-A3N-1510	15.10	65	115	16	48	42.4	2.75	○
D968S-A3N-1520	15.20	65	115	16	48	42.2	2.77	●
D968S-A3N-1530	15.30	65	115	16	48	42.1	2.78	○
D968S-A3N-1540	15.40	65	115	16	48	41.9	2.80	○

● 标准库存 Stock ○ 需预定Available upon Order

备注：D1-D20刀具接受非标订制
Note：Accept customization from D1 to D20 tool

单位Unit(mm)

工件材料 Workpiece Material

P			M	K		N				S		H	
1234	5	67	123	12	3	12	3	4	5	123	4	1	2
碳钢、合金钢 Carbon Steel，Alloy Steel	合金钢、工具钢 Alloy Steels,Tool Steels	PH与铁素体/马氏体不锈钢 PH and Ferritic/Martensitic Stainless Steel	不锈钢 Stainless Steel	灰铸铁、球墨铸铁 Gray Cast Iron, Ductile Cast Iron	高合金铸铁 High Alloy Cast Iron	锻造铝合金、铸造铝合金 Forged Aluminium Alloys,Cast Aluminium Alloys	铸造铝合金 Cast Aluminium Alloys	铜合金 Copper Alloys	复合材料 Compound Material	高温合金 Heat Resistant Super Alloys	钛合金 Titanium Alloys	淬硬钢 Hardened Steels	淬硬钢 Hardened Steels
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○			◎							○	○		

◎ 最适合Most Suitable ○ 适合Suitable

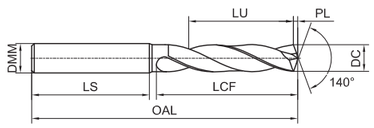
推荐切削参数 ※ P241
Recommended Cutting Data ※ P241

D968S-A3N

NEW

SHANK DIN 6535HA | AlTiN nano | 3D

高效不锈钢加工3D外冷麻花钻
High Efficient 3D External Coolant Twist Drills for Stainless Steel



》续前

订货号 Ordering Code	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存 Stock
D968S-A3N-1550	15.50	65	115	16	48	41.8	2.82	○
D968S-A3N-1570	15.70	65	115	16	48	41.5	2.86	○
D968S-A3N-1580	15.80	65	115	16	48	41.3	2.88	○
D968S-A3N-1590	15.90	65	115	16	48	41.2	2.89	○
D968S-A3N-1600	16.00	65	115	16	48	41.0	2.91	○
D968S-A3N-1620	16.20	73	123	18	48	48.7	2.95	○
D968S-A3N-1630	16.30	73	123	18	48	48.6	2.97	○
D968S-A3N-1640	16.40	73	123	18	48	48.4	2.98	○
D968S-A3N-1650	16.50	73	123	18	48	48.3	3.00	○
D968S-A3N-1660	16.60	73	123	18	48	48.1	3.02	○
D968S-A3N-1670	16.70	73	123	18	48	48.0	3.04	○
D968S-A3N-1675	16.75	73	123	18	48	47.9	3.05	○
D968S-A3N-1680	16.80	73	123	18	48	47.8	3.06	○
D968S-A3N-1700	17.00	73	123	18	48	47.5	3.09	○
D968S-A3N-1720	17.20	73	123	18	48	47.2	3.13	○
D968S-A3N-1730	17.30	73	123	18	48	47.1	3.15	○

订货号 Ordering Code	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存 Stock
D968S-A3N-1740	17.40	73	123	18	48	46.9	3.17	○
D968S-A3N-1750	17.50	73	123	18	48	46.8	3.18	○
D968S-A3N-1760	17.60	73	123	18	48	46.6	3.20	○
D968S-A3N-1770	17.70	73	123	18	48	46.5	3.22	○
D968S-A3N-1780	17.80	73	123	18	48	46.3	3.24	○
D968S-A3N-1800	18.00	73	123	18	48	46.0	3.28	○
D968S-A3N-1840	18.40	79	131	20	50	51.4	3.35	○
D968S-A3N-1850	18.50	79	131	20	50	51.3	3.37	○
D968S-A3N-1860	18.60	79	131	20	50	51.1	3.38	○
D968S-A3N-1880	18.80	79	131	20	50	50.8	3.42	○
D968S-A3N-1900	19.00	79	131	20	50	50.5	3.46	○
D968S-A3N-1910	19.10	79	131	20	50	50.4	3.48	○
D968S-A3N-1950	19.50	79	131	20	50	49.8	3.55	○
D968S-A3N-1980	19.80	79	131	20	50	49.3	3.60	○
D968S-A3N-1990	19.90	79	131	20	50	49.2	3.62	○
D968S-A3N-2000	20.00	79	131	20	50	49.0	3.64	○

● 标准库存 Stock ○ 需预定Available upon Order

备注：D1-D20刀具接受非标订制
Note：Accept customization from D1 to D20 tool

单位Unit(mm)

尺寸范围 Nominal Size Range	DC(m7)	DMM(h6)
⩾2—3	+0.002/+0.012	0.000/-0.006
>3—6	+0.004/+0.016	0.000/-0.008
>6—10	+0.006/+0.021	0.000/-0.009
>10—18	+0.007/+0.025	0.000/-0.011
>18—20	+0.008/+0.029	0.000/-0.013

工件材料 Workpiece Material

P			M	K		N				S		H	
1234	5	67	123	12	3	12	3	4	5	123	4	1	2
碳钢、合金钢 Carbon Steel，Alloy Steel	合金钢、工具钢 Alloy Steels,Tool Steels	PH与铁素体/马氏体不锈钢 PH and Ferritic/Martensitic Stainless Steel	不锈钢 Stainless Steel	灰铸铁、球墨铸铁 Gray Cast Iron, Ductile Cast Iron	高合金铸铁 High Alloy Cast Iron	锻造铝合金、铸造铝合金 Forged Aluminium Alloys,Cast Aluminium Alloys	铸造铝合金 Cast Aluminium Alloys	铜合金 Copper Alloys	复合材料 Compound Material	高温合金 Heat Resistant Super Alloys	钛合金 Titanium Alloys	淬硬钢 Hardened Steels	淬硬钢 Hardened Steels
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○			◎							○	○		

◎ 最适合Most Suitable ○ 适合Suitable

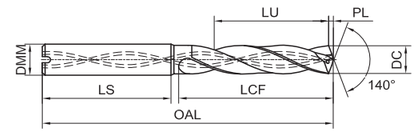
推荐切削参数 ※ P241
Recommended Cutting Data ※ P241

D968S-A3C

NEW

SHANK DIN 6535HA | AlTiN nano | 3D

高效不锈钢加工3D内冷麻花钻
High Efficient 3D Internal Coolant Twist Drills for Stainless Steel



订货号 Ordering Code	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存 Stock
D968S-A3C-0300	3.00	20	62	6	36	15.5	0.55	●
D968S-A3C-0310	3.10	20	62	6	36	15.4	0.56	○
D968S-A3C-0320	3.20	20	62	6	36	15.2	0.58	○
D968S-A3C-0325	3.25	20	62	6	36	15.1	0.59	○
D968S-A3C-0330	3.30	20	62	6	36	15.1	0.60	●
D968S-A3C-0340	3.40	20	62	6	36	14.9	0.62	○
D968S-A3C-0350	3.50	20	62	6	36	14.8	0.64	○
D968S-A3C-0360	3.60	20	62	6	36	14.6	0.66	○
D968S-A3C-0370	3.70	20	62	6	36	14.5	0.67	○
D968S-A3C-0380	3.80	24	66	6	36	18.3	0.69	●
D968S-A3C-0390	3.90	24	66	6	36	18.2	0.71	○
D968S-A3C-0400	4.00	24	66	6	36	18.0	0.73	●
D968S-A3C-0410	4.10	24	66	6	36	17.9	0.75	○
D968S-A3C-0420	4.20	24	66	6	36	17.7	0.76	●
D968S-A3C-0430	4.30	24	66	6	36	17.6	0.78	○
D968S-A3C-0440	4.40	24	66	6	36	17.4	0.80	○
D968S-A3C-0450	4.50	24	66	6	36	17.3	0.82	●
D968S-A3C-0460	4.60	24	66	6	36	17.1	0.84	○
D968S-A3C-0465	4.65	24	66	6	36	17.0	0.85	○
D968S-A3C-0470	4.70	24	66	6	36	17.0	0.86	○
D968S-A3C-0480	4.80	28	66	6	36	20.8	0.87	○
D968S-A3C-0490	4.90	28	66	6	36	20.7	0.89	○
D968S-A3C-0500	5.00	28	66	6	36	20.5	0.91	●
D968S-A3C-0510	5.10	28	66	6	36	20.4	0.93	○
D968S-A3C-0515	5.15	28	66	6	36	20.3	0.94	●
D968S-A3C-0520	5.20	28	66	6	36	20.2	0.95	●
D968S-A3C-0530	5.30	28	66	6	36	20.1	0.96	○

订货号 Ordering Code	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存 Stock
D968S-A3C-0540	5.40	28	66	6	36	19.9	0.98	○
D968S-A3C-0550	5.50	28	66	6	36	19.8	1.00	●
D968S-A3C-0555	5.55	28	66	6	36	19.7	1.01	○
D968S-A3C-0560	5.60	28	66	6	36	19.6	1.02	○
D968S-A3C-0570	5.70	28	66	6	36	19.5	1.04	○
D968S-A3C-0580	5.80	28	66	6	36	19.3	1.06	○
D968S-A3C-0590	5.90	28	66	6	36	19.2	1.07	○
D968S-A3C-0600	6.00	28	66	6	36	19.0	1.09	●
D968S-A3C-0610	6.10	34	79	8	36	24.9	1.11	●
D968S-A3C-0620	6.20	34	79	8	36	24.7	1.13	○
D968S-A3C-0630	6.30	34	79	8	36	24.6	1.15	○
D968S-A3C-0640	6.40	34	79	8	36	24.4	1.16	○
D968S-A3C-0650	6.50	34	79	8	36	24.3	1.18	●
D968S-A3C-0660	6.60	34	79	8	36	24.1	1.20	○
D968S-A3C-0670	6.70	34	79	8	36	24.0	1.22	○
D968S-A3C-0680	6.80	34	79	8	36	23.8	1.24	●
D968S-A3C-0690	6.90	34	79	8	36	23.7	1.26	○
D968S-A3C-0700	7.00	34	79	8	36	23.5	1.27	●
D968S-A3C-0710	7.10	41	79	8	36	30.4	1.29	○
D968S-A3C-0720	7.20	41	79	8	36	30.2	1.31	○
D968S-A3C-0730	7.30	41	79	8	36	30.1	1.33	○
D968S-A3C-0740	7.40	41	79	8	36	29.9	1.35	○
D968S-A3C-0745	7.45	41	79	8	36	29.8	1.36	○
D968S-A3C-0750	7.50	41	79	8	36	29.8	1.36	○
D968S-A3C-0755	7.55	41	79	8	36	29.7	1.37	○
D968S-A3C-0760	7.60	41	79	8	36	29.6	1.38	○
D968S-A3C-0770	7.70	41	79	8	36	29.5	1.40	○

● 标准库存 Stock ○ 需预定Available upon Order

备注：D3-D20刀具接受非标订制
Note：Accept customization from D3 to D20 tool

单位Unit(mm)

工件材料 Workpiece Material

P			M	K		N				S		H	
1234	5	67	123	12	3	12	3	4	5	123	4	1	2
碳钢、合金钢 Carbon Steel，Alloy Steel	合金钢、工具钢 Alloy Steels,Tool Steels	PH与铁素体/马氏体不锈钢 PH and Ferritic/Martensitic Stainless Steel	不锈钢 Stainless Steel	灰铸铁、球墨铸铁 Gray Cast Iron, Ductile Cast Iron	高合金铸铁 High Alloy Cast Iron	锻造铝合金、铸造铝合金 Forged Aluminium Alloys,Cast Aluminium Alloys	铸造铝合金 Cast Aluminium Alloys	铜合金 Copper Alloys	复合材料 Compound Material	高温合金 Heat Resistant Super Alloys	钛合金 Titanium Alloys	淬硬钢 Hardened Steels	淬硬钢 Hardened Steels
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○			◎			○	○	○		○	○		

◎ 最适合Most Suitable ○ 适合Suitable

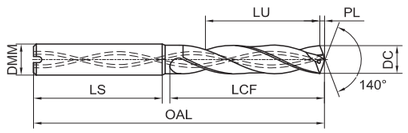
推荐切削参数 ※ P241
Recommended Cutting Data ※ P241

D968S-A3C

NEW

SHANK DIN 6535HA | AlTiN nano | 3D

高效不锈钢加工3D内冷麻花钻
High Efficient 3D Internal Coolant Twist Drills for Stainless Steel



》续前

订货号 Ordering Code	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存 Stock
D968S-A3C-0775	7.75	41	79	8	36	29.4	1.41	○
D968S-A3C-0780	7.80	41	79	8	36	29.3	1.42	○
D968S-A3C-0790	7.90	41	79	8	36	29.2	1.44	●
D968S-A3C-0800	8.00	41	79	8	36	29.0	1.46	●
D968S-A3C-0810	8.10	47	89	10	40	34.9	1.47	○
D968S-A3C-0815	8.15	47	89	10	40	34.8	1.48	○
D968S-A3C-0820	8.20	47	89	10	40	34.7	1.49	●
D968S-A3C-0830	8.30	47	89	10	40	34.6	1.51	●
D968S-A3C-0840	8.40	47	89	10	40	34.4	1.53	○
D968S-A3C-0850	8.50	47	89	10	40	34.3	1.55	●
D968S-A3C-0860	8.60	47	89	10	40	34.1	1.57	○
D968S-A3C-0870	8.70	47	89	10	40	34.0	1.58	○
D968S-A3C-0880	8.80	47	89	10	40	33.8	1.60	○
D968S-A3C-0890	8.90	47	89	10	40	33.7	1.62	○
D968S-A3C-0900	9.00	47	89	10	40	33.5	1.64	●
D968S-A3C-0910	9.10	47	89	10	40	33.4	1.66	○
D968S-A3C-0920	9.20	47	89	10	40	33.2	1.67	●
D968S-A3C-0925	9.25	47	89	10	40	33.1	1.68	○
D968S-A3C-0930	9.30	47	89	10	40	33.1	1.69	○
D968S-A3C-0935	9.35	47	89	10	40	33.0	1.70	○
D968S-A3C-0940	9.40	47	89	10	40	32.9	1.71	○
D968S-A3C-0950	9.50	47	89	10	40	32.8	1.73	●
D968S-A3C-0955	9.55	47	89	10	40	32.7	1.74	○
D968S-A3C-0960	9.60	47	89	10	40	32.6	1.75	○
D968S-A3C-0970	9.70	47	89	10	40	32.5	1.77	○
D968S-A3C-0980	9.80	47	89	10	40	32.3	1.78	○
D968S-A3C-0990	9.90	47	89	10	40	32.2	1.80	○

订货号 Ordering Code	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存 Stock
D968S-A3C-1000	10.00	47	89	10	40	32.0	1.82	●
D968S-A3C-1010	10.10	55	102	12	45	39.9	1.84	○
D968S-A3C-1020	10.20	55	102	12	45	39.7	1.86	●
D968S-A3C-1030	10.30	55	102	12	45	39.6	1.87	●
D968S-A3C-1040	10.40	55	102	12	45	39.4	1.89	○
D968S-A3C-1050	10.50	55	102	12	45	39.3	1.91	●
D968S-A3C-1060	10.60	55	102	12	45	39.1	1.93	○
D968S-A3C-1070	10.70	55	102	12	45	39.0	1.95	○
D968S-A3C-1080	10.80	55	102	12	45	38.8	1.97	●
D968S-A3C-1090	10.90	55	102	12	45	38.7	1.98	○
D968S-A3C-1100	11.00	55	102	12	45	38.5	2.00	●
D968S-A3C-1110	11.10	55	102	12	45	38.4	2.02	○
D968S-A3C-1120	11.20	55	102	12	45	38.2	2.04	○
D968S-A3C-1130	11.30	55	102	12	45	38.1	2.06	○
D968S-A3C-1140	11.40	55	102	12	45	37.9	2.07	○
D968S-A3C-1150	11.50	55	102	12	45	37.8	2.09	○
D968S-A3C-1160	11.60	55	102	12	45	37.6	2.11	○
D968S-A3C-1170	11.70	55	102	12	45	37.5	2.13	○
D968S-A3C-1180	11.80	55	102	12	45	37.3	2.15	●
D968S-A3C-1190	11.90	55	102	12	45	37.2	2.17	○
D968S-A3C-1200	12.00	55	102	12	45	37.0	2.18	●
D968S-A3C-1210	12.10	60	107	14	45	41.9	2.20	○
D968S-A3C-1220	12.20	60	107	14	45	41.7	2.22	○
D968S-A3C-1230	12.30	60	107	14	45	41.6	2.24	○
D968S-A3C-1240	12.40	60	107	14	45	41.4	2.26	○
D968S-A3C-1250	12.50	60	107	14	45	41.3	2.27	●
D968S-A3C-1260	12.60	60	107	14	45	41.1	2.29	●

● 标准库存 Stock ○ 需预定Available upon Order

备注：D3-D20刀具接受非标订制
Note：Accept customization from D3 to D20 tool

单位Unit(mm)

工件材料 Workpiece Material													
P			M	K		N				S		H	
1 2 3 4	5	6 7	1 2 3	1 2	3	1 2	3	4	5	1 2 3	4	1	2
碳钢、合金钢 Carbon Steel，Alloy Steel	合金钢、工具钢 Alloy Steels,Tool Steels	PH与铁素体/马氏体不锈钢 PH and Ferritic/ Martensitic Stainless Steel	不锈钢 Stainless Steel	灰铸铁、球墨铸铁 Gray Cast Iron, Ductile Cast Iron	高合金铸铁 High Alloy Cast Iron	锻造铝合金、铸造铝合金 Forged Aluminium Alloys,Cast Aluminium Alloys	铸造铝合金 Cast Aluminium Alloys	铜合金 Copper Alloys	复合材料 Compound Material	高温合金 Heat Resistant Super Alloys	钛合金 Titanium Alloys	淬硬钢 Hardened Steels	淬硬钢 Hardened Steels
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○			◎			○	○	○		○	○		

◎ 最适合Most Suitable ○ 适合Suitable

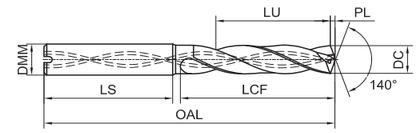
推荐切削参数 ※ P241
Recommended Cutting Data ※ P241

D968S-A3C

NEW

SHANK DIN 6535HA | AlTiN nano | 3D

高效不锈钢加工3D内冷麻花钻
High Efficient 3D Internal Coolant Twist Drills for Stainless Steel



》续前

订货号 Ordering Code	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存 Stock
D968S-A3C-1270	12.70	60	107	14	45	41.0	2.31	○
D968S-A3C-1280	12.80	60	107	14	45	40.8	2.33	○
D968S-A3C-1285	12.85	60	107	14	45	40.7	2.34	○
D968S-A3C-1290	12.90	60	107	14	45	40.7	2.35	○
D968S-A3C-1300	13.00	60	107	14	45	40.5	2.37	●
D968S-A3C-1310	13.10	60	107	14	45	40.4	2.38	○
D968S-A3C-1340	13.40	60	107	14	45	39.9	2.44	○
D968S-A3C-1350	13.50	60	107	14	45	39.8	2.46	○
D968S-A3C-1360	13.60	60	107	14	45	39.6	2.47	○
D968S-A3C-1370	13.70	60	107	14	45	39.5	2.49	○
D968S-A3C-1375	13.75	60	107	14	45	39.4	2.50	○
D968S-A3C-1380	13.80	60	107	14	45	39.3	2.51	○
D968S-A3C-1400	14.00	60	107	14	45	39.0	2.55	●
D968S-A3C-1405	14.05	60	107	14	45	38.9	2.56	○
D968S-A3C-1420	14.20	65	115	16	48	43.7	2.58	○
D968S-A3C-1430	14.30	65	115	16	48	43.6	2.60	○
D968S-A3C-1450	14.50	65	115	16	48	43.3	2.64	●
D968S-A3C-1460	14.60	65	115	16	48	43.1	2.66	○
D968S-A3C-1470	14.70	65	115	16	48	43.0	2.68	○
D968S-A3C-1480	14.80	65	115	16	48	42.8	2.69	○
D968S-A3C-1500	15.00	65	115	16	48	42.5	2.73	●
D968S-A3C-1520	15.20	65	115	16	48	42.2	2.77	○
D968S-A3C-1530	15.30	65	115	16	48	42.1	2.78	○

订货号 Ordering Code	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存 Stock
D968S-A3C-1550	15.50	65	115	16	48	41.8	2.82	○
D968S-A3C-1570	15.70	65	115	16	48	41.5	2.86	○
D968S-A3C-1580	15.80	65	115	16	48	41.3	2.88	○
D968S-A3C-1600	16.00	65	115	16	48	41.0	2.91	○
D968S-A3C-1630	16.30	73	123	18	48	48.6	2.97	○
D968S-A3C-1650	16.50	73	123	18	48	48.3	3.00	○
D968S-A3C-1660	16.60	73	123	18	48	48.1	3.02	○
D968S-A3C-1680	16.80	73	123	18	48	47.8	3.06	○
D968S-A3C-1700	17.00	73	123	18	48	47.5	3.09	○
D968S-A3C-1750	17.50	73	123	18	48	46.8	3.18	○
D968S-A3C-1760	17.60	73	123	18	48	46.6	3.20	○
D968S-A3C-1770	17.70	73	123	18	48	46.5	3.22	○
D968S-A3C-1780	17.80	73	123	18	48	46.3	3.24	○
D968S-A3C-1800	18.00	73	123	18	48	46.0	3.28	○
D968S-A3C-1840	18.40	79	131	20	50	51.4	3.35	○
D968S-A3C-1850	18.50	79	131	20	50	51.3	3.37	○
D968S-A3C-1880	18.80	79	131	20	50	50.8	3.42	○
D968S-A3C-1900	19.00	79	131	20	50	50.5	3.46	○
D968S-A3C-1950	19.50	79	131	20	50	49.8	3.55	○
D968S-A3C-1960	19.60	79	131	20	50	49.6	3.57	○
D968S-A3C-1980	19.80	79	131	20	50	49.3	3.60	○
D968S-A3C-2000	20.00	79	131	20	50	49.0	3.64	○

● 标准库存 Stock ○ 需预定Available upon Order

备注：D3-D20刀具接受非标订制
Note：Accept customization from D3 to D20 tool

单位Unit(mm)

尺寸范围 Nominal Size Range	DC(m7)	DMM(h6)
⩾2—3	+0.002/+0.012	0.000/-0.006
>3—6	+0.004/+0.016	0.000/-0.008
>6—10	+0.006/+0.021	0.000/-0.009
>10—18	+0.007/+0.025	0.000/-0.011
>18—20	+0.008/+0.029	0.000/-0.013

工件材料 Workpiece Material													
P			M	K		N				S		H	
1 2 3 4	5	6 7	1 2 3	1 2	3	1 2	3	4	5	1 2 3	4	1	2
碳钢、合金钢 Carbon Steel，Alloy Steel	合金钢、工具钢 Alloy Steels,Tool Steels	PH与铁素体/马氏体不锈钢 PH and Ferritic/ Martensitic Stainless Steel	不锈钢 Stainless Steel	灰铸铁、球墨铸铁 Gray Cast Iron, Ductile Cast Iron	高合金铸铁 High Alloy Cast Iron	锻造铝合金、铸造铝合金 Forged Aluminium Alloys,Cast Aluminium Alloys	铸造铝合金 Cast Aluminium Alloys	铜合金 Copper Alloys	复合材料 Compound Material	高温合金 Heat Resistant Super Alloys	钛合金 Titanium Alloys	淬硬钢 Hardened Steels	淬硬钢 Hardened Steels
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○			◎			○	○	○		○	○		

◎ 最适合Most Suitable ○ 适合Suitable

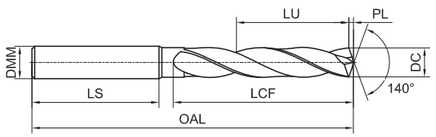
推荐切削参数 ※ P241
Recommended Cutting Data ※ P241

D968S-A5N

NEW

SHANK DIN 6535HA | AlTiN nano | 5D

高效不锈钢加工5D外冷麻花钻
High Efficient 5D External Coolant Twist Drills for Stainless Steel



订货号 Ordering Code	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存 Stock
D968S-A5N-0170	1.70	12	55	4	35	9.5	0.31	●
D968S-A5N-0180	1.80	12	55	4	35	9.5	0.31	●
D968S-A5N-0200	2.00	18	62	4	38	15.0	0.36	●
D968S-A5N-0205	2.05	18	62	4	38	14.9	0.37	●
D968S-A5N-0220	2.20	18	62	4	38	14.7	0.40	●
D968S-A5N-0250	2.50	22	62	4	34	18.3	0.45	●
D968S-A5N-0260	2.60	22	62	4	34	18.1	0.47	●
D968S-A5N-0300	3.00	28	66	6	36	23.5	0.55	●
D968S-A5N-0310	3.10	28	66	6	36	23.4	0.56	●
D968S-A5N-0320	3.20	28	66	6	36	23.2	0.58	○
D968S-A5N-0330	3.30	28	66	6	36	23.1	0.60	●
D968S-A5N-0340	3.40	28	66	6	36	22.9	0.62	●
D968S-A5N-0350	3.50	28	66	6	36	22.8	0.64	●
D968S-A5N-0360	3.60	28	66	6	36	22.6	0.66	○
D968S-A5N-0370	3.70	28	66	6	36	22.5	0.67	○
D968S-A5N-0380	3.80	36	74	6	36	30.3	0.69	○
D968S-A5N-0400	4.00	36	74	6	36	30.0	0.73	●
D968S-A5N-0420	4.20	36	74	6	36	29.7	0.76	●
D968S-A5N-0430	4.30	36	74	6	36	29.6	0.78	●
D968S-A5N-0450	4.50	36	74	6	36	29.3	0.82	●
D968S-A5N-0480	4.80	44	82	6	36	36.8	0.87	●
D968S-A5N-0490	4.90	44	82	6	36	36.7	0.89	●
D968S-A5N-0500	5.00	44	82	6	36	36.5	0.91	●

订货 Ordering Code	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存 Stock
D968S-A5N-0510	5.10	44	82	6	36	36.4	0.93	●
D968S-A5N-0540	5.40	44	82	6	36	35.9	0.98	●
D968S-A5N-0550	5.50	44	82	6	36	35.8	1.00	●
D968S-A5N-0560	5.60	44	82	6	36	35.6	1.02	●
D968S-A5N-0600	6.00	44	82	6	36	35.0	1.09	●
D968S-A5N-0650	6.50	53	91	8	36	43.3	1.18	○
D968S-A5N-0660	6.60	53	91	8	36	43.1	1.20	●
D968S-A5N-0670	6.70	53	91	8	36	43.0	1.22	○
D968S-A5N-0680	6.80	53	91	8	36	42.8	1.24	●
D968S-A5N-0700	7.00	53	91	8	36	42.5	1.27	●
D968S-A5N-0730	7.30	53	91	8	36	42.1	1.33	○
D968S-A5N-0800	8.00	53	91	8	36	41.0	1.46	●
D968S-A5N-0820	8.20	61	103	10	40	48.7	1.49	●
D968S-A5N-0850	8.50	61	103	10	40	48.3	1.55	●
D968S-A5N-0860	8.60	61	103	10	40	48.1	1.57	●
D968S-A5N-0900	9.00	61	103	10	40	47.5	1.64	●
D968S-A5N-0950	9.50	61	103	10	40	46.8	1.73	○
D968S-A5N-0980	9.80	61	103	10	40	46.3	1.78	●
D968S-A5N-1000	10.00	61	103	10	40	46.0	1.82	●
D968S-A5N-1020	10.20	71	118	12	45	55.7	1.86	○
D968S-A5N-1030	10.30	71	118	12	45	55.6	1.87	●
D968S-A5N-1050	10.50	71	118	12	45	55.3	1.91	○
D968S-A5N-1100	11.00	71	118	12	45	54.5	2.00	●

● 标准库存 Stock ○ 需预定Available upon Order

备注：D1-D20刀具接受非标订制
Note：Accept customization from D1 to D20 tool

单位Unit(mm)

工件材料 Workpiece Material

P			M	K		N				S		H	
1234	5	67	123	12	3	12	3	4	5	123	4	1	2
碳钢、合金钢 Carbon Steel，Alloy Steel	合金钢、工具钢 Alloy Steels,Tool Steels	PH与铁素体/马氏体不锈钢 PH and Ferritic/Martensitic Stainless Steel	不锈钢 Stainless Steel	灰铸铁、球墨铸铁 Gray Cast Iron, Ductile Cast Iron	高合金铸铁 High Alloy Cast Iron	锻造铝合金、铸造铝合金 Forged Aluminium Alloys,Cast Aluminium Alloys	铸造铝合金 Cast Aluminium Alloys	铜合金 Copper Alloys	复合材料 Compound Material	高温合金 Heat Resistant Super Alloys	钛合金 Titanium Alloys	淬硬钢 Hardened Steels	淬硬钢 Hardened Steels
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○			◎										

◎ 最适合Most Suitable ○ 适合Suitable

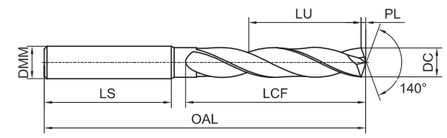
推荐切削参数 ※ P241
Recommended Cutting Data ※ P241

D968S-A5N

NEW

SHANK DIN 6535HA | AlTiN nano | 5D

高效不锈钢加工5D外冷麻花钻
High Efficient 5D External Coolant Twist Drills for Stainless Steel



》续前

订货号 Ordering Code	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存 Stock
D968S-A5N-1180	11.80	71	118	12	45	53.3	2.15	●
D968S-A5N-1200	12.00	71	118	12	45	53.0	2.18	●
D968S-A5N-1250	12.50	77	124	14	45	58.3	2.27	○
D968S-A5N-1300	13.00	77	124	14	45	57.5	2.37	●
D968S-A5N-1400	14.00	77	124	14	45	56.0	2.55	●
D968S-A5N-1450	14.50	83	133	16	48	61.3	2.64	○
D968S-A5N-1500	15.00	83	133	16	48	60.5	2.73	○
D968S-A5N-1600	16.00	83	133	16	48	59.0	2.91	○

● 标准库存 Stock ○ 需预定Available upon Order

备注：D1-D20刀具接受非标订制
Note：Accept customization from D1 to D20 tool

单位Unit(mm)

尺寸范围 Nominal Size Range	DC(m7)	DMM(h6)
≥2—3	+0.002/+0.012	0.000/-0.006
>3—6	+0.004/+0.016	0.000/-0.008
>6—10	+0.006/+0.021	0.000/-0.009
>10—18	+0.007/+0.025	0.000/-0.011
>18—20	+0.008/+0.029	0.000/-0.013

工件材料 Workpiece Material

P			M	K		N				S		H	
1234	5	67	123	12	3	12	3	4	5	123	4	1	2
碳钢、合金钢 Carbon Steel，Alloy Steel	合金钢、工具钢 Alloy Steels,Tool Steels	PH与铁素体/马氏体不锈钢 PH and Ferritic/Martensitic Stainless Steel	不锈钢 Stainless Steel	灰铸铁、球墨铸铁 Gray Cast Iron, Ductile Cast Iron	高合金铸铁 High Alloy Cast Iron	锻造铝合金、铸造铝合金 Forged Aluminium Alloys,Cast Aluminium Alloys	铸造铝合金 Cast Aluminium Alloys	铜合金 Copper Alloys	复合材料 Compound Material	高温合金 Heat Resistant Super Alloys	钛合金 Titanium Alloys	淬硬钢 Hardened Steels	淬硬钢 Hardened Steels
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○			◎										

◎ 最适合Most Suitable ○ 适合Suitable

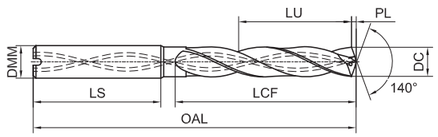
推荐切削参数 ※ P241
Recommended Cutting Data ※ P241

D968S-A5C

NEW

SHANK DIN 6535HA | AlTiN nano | 5D

高效不锈钢加工5D内冷麻花钻
High Efficient 5D Internal Coolant Twist Drills for Stainless Steel



订货号 Ordering Code	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存 Stock
D968S-A5C-0300	3.00	28	66	6	36	23.5	0.55	●
D968S-A5C-0310	3.10	28	66	6	36	23.4	0.56	○
D968S-A5C-0320	3.20	28	66	6	36	23.2	0.58	○
D968S-A5C-0330	3.30	28	66	6	36	23.1	0.60	●
D968S-A5C-0340	3.40	28	66	6	36	22.9	0.62	●
D968S-A5C-0350	3.50	28	66	6	36	22.8	0.64	●
D968S-A5C-0360	3.60	28	66	6	36	22.6	0.66	○
D968S-A5C-0370	3.70	28	66	6	36	22.5	0.67	○
D968S-A5C-0380	3.80	36	74	6	36	30.3	0.69	○
D968S-A5C-0390	3.90	36	74	6	36	30.2	0.71	●
D968S-A5C-0400	4.00	36	74	6	36	30.0	0.73	●
D968S-A5C-0410	4.10	36	74	6	36	29.9	0.75	○
D968S-A5C-0420	4.20	36	74	6	36	29.7	0.76	●
D968S-A5C-0430	4.30	36	74	6	36	29.6	0.78	●
D968S-A5C-0440	4.40	36	74	6	36	29.4	0.80	○
D968S-A5C-0450	4.50	36	74	6	36	29.3	0.82	●
D968S-A5C-0460	4.60	36	74	6	36	29.1	0.84	○
D968S-A5C-0470	4.70	36	74	6	36	29.0	0.86	○
D968S-A5C-0480	4.80	44	82	6	36	36.8	0.87	○
D968S-A5C-0490	4.90	44	82	6	36	36.7	0.89	○
D968S-A5C-0500	5.00	44	82	6	36	36.5	0.91	●
D968S-A5C-0510	5.10	44	82	6	36	36.4	0.93	●
D968S-A5C-0520	5.20	44	82	6	36	36.2	0.95	●
D968S-A5C-0530	5.30	44	82	6	36	36.1	0.96	○
D968S-A5C-0540	5.40	44	82	6	36	35.9	0.98	○
D968S-A5C-0550	5.50	44	82	6	36	35.8	1.00	●
D968S-A5C-0555	5.55	44	82	6	36	35.7	1.01	○

订货号 Ordering Code	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存 Stock
D968S-A5C-0560	5.60	44	82	6	36	35.6	1.02	○
D968S-A5C-0570	5.70	44	82	6	36	35.5	1.04	○
D968S-A5C-0580	5.80	44	82	6	36	35.3	1.06	○
D968S-A5C-0590	5.90	44	82	6	36	35.2	1.07	○
D968S-A5C-0600	6.00	44	82	6	36	35.0	1.09	●
D968S-A5C-0610	6.10	53	91	8	36	43.9	1.11	○
D968S-A5C-0620	6.20	53	91	8	36	43.7	1.13	●
D968S-A5C-0630	6.30	53	91	8	36	43.6	1.15	○
D968S-A5C-0640	6.40	53	91	8	36	43.4	1.16	○
D968S-A5C-0650	6.50	53	91	8	36	43.3	1.18	●
D968S-A5C-0660	6.60	53	91	8	36	43.1	1.20	○
D968S-A5C-0670	6.70	53	91	8	36	43.0	1.22	○
D968S-A5C-0680	6.80	53	91	8	36	42.8	1.24	●
D968S-A5C-0690	6.90	53	91	8	36	42.7	1.26	○
D968S-A5C-0700	7.00	53	91	8	36	42.5	1.27	●
D968S-A5C-0710	7.10	53	91	8	36	42.4	1.29	○
D968S-A5C-0720	7.20	53	91	8	36	42.2	1.31	○
D968S-A5C-0730	7.30	53	91	8	36	42.1	1.33	○
D968S-A5C-0735	7.35	53	91	8	36	42.0	1.34	○
D968S-A5C-0740	7.40	53	91	8	36	41.9	1.35	○
D968S-A5C-0750	7.50	53	91	8	36	41.8	1.36	●
D968S-A5C-0760	7.60	53	91	8	36	41.6	1.38	○
D968S-A5C-0770	7.70	53	91	8	36	41.5	1.40	○
D968S-A5C-0780	7.80	53	91	8	36	41.3	1.42	●
D968S-A5C-0790	7.90	53	91	8	36	41.2	1.44	○
D968S-A5C-0800	8.00	53	91	8	36	41.0	1.46	●
D968S-A5C-0810	8.10	61	103	10	40	48.9	1.47	●

● 标准库存 Stock ○ 需预定Available upon Order

备注：D2-D20刀具接受非标订制
Note：Accept customization from D2 to D20 tool

单位Unit(mm)

工件材料 Workpiece Material													
P			M	K		N				S		H	
1234	5	67	123	12	3	12	3	4	5	123	4	1	2
碳钢、合金钢 Carbon Steel，Alloy Steel	合金钢、工具钢 Alloy Steels,Tool Steels	PH与铁素体/马氏体不锈钢 PH and Ferritic/Martensitic Stainless Steel	不锈钢 Stainless Steel	灰铸铁、球墨铸铁 Gray Cast Iron, Ductile Cast Iron	高合金铸铁 High Alloy Cast Iron	锻造铝合金、铸造铝合金 Forged Aluminium Alloys,Cast Aluminium Alloys	铸造铝合金 Cast Aluminium Alloys	铜合金 Copper Alloys	复合材料 Compound Material	高温合金 Heat Resistant Super Alloys	钛合金 Titanium Alloys	淬硬钢 Hardened Steels	淬硬钢 Hardened Steels
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○			◎			○	○	○		○	○		

◎ 最适合Most Suitable ○ 适合Suitable

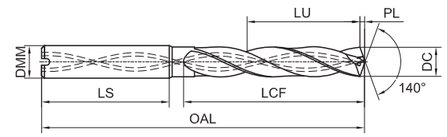
推荐切削参数 ※ P241
Recommended Cutting Data ※ P241

D968S-A5C

NEW

SHANK DIN 6535HA | AlTiN nano | 5D

高效不锈钢加工5D内冷麻花钻



》续前

订货号 Ordering Code	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存 Stock
D968S-A5C-0820	8.20	61	103	10	40	48.7	1.49	○
D968S-A5C-0830	8.30	61	103	10	40	48.6	1.51	○
D968S-A5C-0840	8.40	61	103	10	40	48.4	1.53	○
D968S-A5C-0850	8.50	61	103	10	40	48.3	1.55	●
D968S-A5C-0860	8.60	61	103	10	40	48.1	1.57	●
D968S-A5C-0870	8.70	61	103	10	40	48.0	1.58	●
D968S-A5C-0880	8.80	61	103	10	40	47.8	1.60	○
D968S-A5C-0890	8.90	61	103	10	40	47.7	1.62	○
D968S-A5C-0900	9.00	61	103	10	40	47.5	1.64	●
D968S-A5C-0910	9.10	61	103	10	40	47.4	1.66	○
D968S-A5C-0920	9.20	61	103	10	40	47.2	1.67	○
D968S-A5C-0930	9.30	61	103	10	40	47.1	1.69	○
D968S-A5C-0940	9.40	61	103	10	40	46.9	1.71	○
D968S-A5C-0950	9.50	61	103	10	40	46.8	1.73	○
D968S-A5C-0960	9.60	61	103	10	40	46.6	1.75	○
D968S-A5C-0970	9.70	61	103	10	40	46.5	1.77	○
D968S-A5C-0980	9.80	61	103	10	40	46.3	1.78	●
D968S-A5C-0990	9.90	61	103	10	40	46.2	1.80	○
D968S-A5C-1000	10.00	61	103	10	40	46.0	1.82	●
D968S-A5C-1010	10.10	71	118	12	45	55.9	1.84	○
D968S-A5C-1020	10.20	71	118	12	45	55.7	1.86	●
D968S-A5C-1025	10.25	71	118	12	45	55.6	1.87	○
D968S-A5C-1030	10.30	71	118	12	45	55.6	1.87	○
D968S-A5C-1040	10.40	71	118	12	45	55.4	1.89	○
D968S-A5C-1050	10.50	71	118	12	45	55.3	1.91	●
D968S-A5C-1060	10.60	71	118	12	45	55.1	1.93	○
D968S-A5C-1070	10.70	71	118	12	45	55.0	1.95	○

订货号 Ordering Code	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存 Stock
D968S-A5C-1080	10.80	71	118	12	45	54.8	1.97	○
D968S-A5C-1090	10.90	71	118	12	45	54.7	1.98	○
D968S-A5C-1100	11.00	71	118	12	45	54.5	2.00	●
D968S-A5C-1110	11.10	71	118	12	45	54.4	2.02	○
D968S-A5C-1120	11.20	71	118	12	45	54.2	2.04	○
D968S-A5C-1130	11.30	71	118	12	45	54.1	2.06	○
D968S-A5C-1140	11.40	71	118	12	45	53.9	2.07	○
D968S-A5C-1150	11.50	71	118	12	45	53.8	2.09	○
D968S-A5C-1160	11.60	71	118	12	45	53.6	2.11	○
D968S-A5C-1170	11.70	71	118	12	45	53.5	2.13	○
D968S-A5C-1180	11.80	71	118	12	45	53.3	2.15	○
D968S-A5C-1190	11.90	71	118	12	45	53.2	2.17	●
D968S-A5C-1200	12.00	71	118	12	45	53.0	2.18	●
D968S-A5C-1210	12.10	77	124	14	45	58.9	2.20	○
D968S-A5C-1220	12.20	77	124	14	45	58.7	2.22	○
D968S-A5C-1230	12.30	77	124	14	45	58.6	2.24	○
D968S-A5C-1240	12.40	77	124	14	45	58.4	2.26	○
D968S-A5C-1250	12.50	77	124	14	45	58.3	2.27	●
D968S-A5C-1260	12.60	77	124	14	45	58.1	2.29	○
D968S-A5C-1270	12.70	77	124	14	45	58.0	2.31	○
D968S-A5C-1280	12.80	77	124	14	45	57.8	2.33	○
D968S-A5C-1290	12.90	77	124	14	45	57.7	2.35	○
D968S-A5C-1300	13.00	77	124	14	45	57.5	2.37	●
D968S-A5C-1310	13.10	77	124	14	45	57.4	2.38	○
D968S-A5C-1320	13.20	77	124	14	45	57.2	2.40	○
D968S-A5C-1330	13.30	77	124	14	45	57.1	2.42	○
D968S-A5C-1340	13.40	77	124	14	45	56.9	2.44	○

● 标准库存 Stock ○ 需预定Available upon Order

备注：D2-D20刀具接受非标订制
Note：Accept customization from D2 to D20 tool

单位Unit(mm)

工件材料 Workpiece Material													
P			M	K		N				S		H	
1234	5	67	123	12	3	12	3	4	5	123	4	1	2
碳钢、合金钢 Carbon Steel，Alloy Steel	合金钢、工具钢 Alloy Steels,Tool Steels	PH与铁素体/马氏体不锈钢 PH and Ferritic/Martensitic Stainless Steel	不锈钢 Stainless Steel	灰铸铁、球墨铸铁 Gray Cast Iron, Ductile Cast Iron	高合金铸铁 High Alloy Cast Iron	锻造铝合金、铸造铝合金 Forged Aluminium Alloys,Cast Aluminium Alloys	铸造铝合金 Cast Aluminium Alloys	铜合金 Copper Alloys	复合材料 Compound Material	高温合金 Heat Resistant Super Alloys	钛合金 Titanium Alloys	淬硬钢 Hardened Steels	淬硬钢 Hardened Steels
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○			◎			○	○	○		○	○		

◎ 最适合Most Suitable ○ 适合Suitable

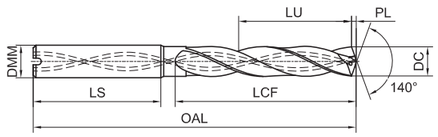
推荐切削参数 ※ P241
Recommended Cutting Data ※ P241

D968S-A5C

NEW

SHANK DIN 6535HA | AlTiN nano | 5D

高效不锈钢加工5D内冷麻花钻
High Efficient 5D Internal Coolant Twist Drills for Stainless Steel



》续前

订货号 Ordering Code	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存 Stock
D968S-A5C-1350	13.50	77	124	14	45	56.8	2.46	○
D968S-A5C-1360	13.60	77	124	14	45	56.6	2.47	○
D968S-A5C-1370	13.70	77	124	14	45	56.5	2.49	○
D968S-A5C-1380	13.80	77	124	14	45	56.3	2.51	○
D968S-A5C-1390	13.90	77	124	14	45	56.2	2.53	○
D968S-A5C-1400	14.00	77	124	14	45	56.0	2.55	●
D968S-A5C-1410	14.10	83	133	16	48	61.9	2.57	○
D968S-A5C-1420	14.20	83	133	16	48	61.7	2.58	○
D968S-A5C-1430	14.30	83	133	16	48	61.6	2.60	○
D968S-A5C-1450	14.50	83	133	16	48	61.3	2.64	●
D968S-A5C-1460	14.60	83	133	16	48	61.1	2.66	○
D968S-A5C-1470	14.70	83	133	16	48	61.0	2.68	○
D968S-A5C-1480	14.80	83	133	16	48	60.8	2.69	○
D968S-A5C-1490	14.90	83	133	16	48	60.7	2.71	○
D968S-A5C-1500	15.00	83	133	16	48	60.5	2.73	●
D968S-A5C-1510	15.10	83	133	16	48	60.4	2.75	○
D968S-A5C-1520	15.20	83	133	16	48	60.2	2.77	○
D968S-A5C-1530	15.30	83	133	16	48	60.1	2.78	○
D968S-A5C-1550	15.50	83	133	16	48	59.8	2.82	○

订货号 Ordering Code	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存 Stock
D968S-A5C-1570	15.70	83	133	16	48	59.5	2.86	○
D968S-A5C-1580	15.80	83	133	16	48	59.3	2.88	○
D968S-A5C-1600	16.00	83	133	16	48	59.0	2.91	●
D968S-A5C-1650	16.50	93	143	18	48	68.3	3.00	○
D968S-A5C-1680	16.80	93	143	18	48	67.8	3.06	○
D968S-A5C-1690	16.90	93	143	18	48	67.7	3.08	○
D968S-A5C-1700	17.00	93	143	18	48	67.5	3.09	○
D968S-A5C-1720	17.20	93	143	18	48	67.2	3.13	○
D968S-A5C-1750	17.50	93	143	18	48	66.8	3.18	○
D968S-A5C-1770	17.70	93	143	18	48	66.5	3.22	○
D968S-A5C-1780	17.80	93	143	18	48	66.3	3.24	○
D968S-A5C-1800	18.00	93	143	18	48	66.0	3.28	○
D968S-A5C-1850	18.50	101	153	20	50	73.3	3.37	○
D968S-A5C-1860	18.60	101	153	20	50	73.1	3.38	○
D968S-A5C-1880	18.80	101	153	20	50	72.8	3.42	○
D968S-A5C-1900	19.00	101	153	20	50	72.5	3.46	○
D968S-A5C-1950	19.50	101	153	20	50	71.8	3.55	○
D968S-A5C-1980	19.80	101	153	20	50	71.3	3.60	○
D968S-A5C-2000	20.00	101	153	20	50	71.0	3.64	○

● 标准库存 Stock ○ 需预定Available upon Order

备注：D2-D20刀具接受非标订制
Note：Accept customization from D2 to D20 tool

单位Unit(mm)

尺寸范围 Nominal Size Range	DC(m7)	DMM(h6)
⩾2—3	+0.002/+0.012	0.000/-0.006
>3—6	+0.004/+0.016	0.000/-0.008
>6—10	+0.006/+0.021	0.000/-0.009
>10—18	+0.007/+0.025	0.000/-0.011
>18—20	+0.008/+0.029	0.000/-0.013

工件材料 Workpiece Material

P			M	K		N				S		H	
1 2 3 4	5	6 7	1 2 3	1 2	3	1 2	3	4	5	1 2 3	4	1	2
碳钢、合金钢 Carbon Steel，Alloy Steel	合金钢、工具钢 Alloy Steels,Tool Steels	PH与铁素体/马氏体不锈钢 PH and Ferritic/Martensitic Stainless Steel	不锈钢 Stainless Steel	灰铸铁、球墨铸铁 Gray Cast Iron, Ductile Cast Iron	高合金铸铁 High Alloy Cast Iron	锻造铝合金、铸造铝合金 Forged Aluminium Alloys,Cast Aluminium Alloys	铸造铝合金 Cast Aluminium Alloys	铜合金 Copper Alloys	复合材料 Compound Material	高温合金 Heat Resistant Super Alloys	钛合金 Titanium Alloys	淬硬钢 Hardened Steels	淬硬钢 Hardened Steels
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○			◎			○	○	○		○	○		

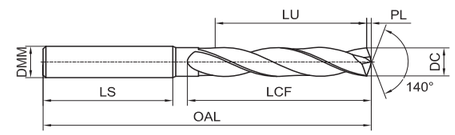
◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P241
Recommended Cutting Data ※ P241

D966-A5N

SHANK DIN 6535HA | AlCrN/TiSiN | 5D

铝合金加工5D外冷麻花钻
5D External Coolant Twist Drills for Aluminium Alloy



订货号 Ordering Code	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存 Stock
D966-A5N-0300	3.00	28	66	6	36	23.5	0.55	○
D966-A5N-0330	3.30	28	66	6	36	23.1	0.60	○
D966-A5N-0400	4.00	36	74	6	36	30.0	0.73	○
D966-A5N-0420	4.20	36	74	6	36	29.7	0.76	○
D966-A5N-0500	5.00	44	82	6	36	36.5	0.91	○
D966-A5N-0550	5.50	44	82	6	36	36.5	0.91	○
D966-A5N-0600	6.00	44	82	6	36	35.0	1.09	○
D966-A5N-0680	6.80	53	91	8	36	42.8	1.24	○
D966-A5N-0700	7.00	53	91	8	36	42.5	1.27	○
D966-A5N-0800	8.00	53	91	8	36	41.0	1.46	○
D966-A5N-0850	8.50	61	103	10	40	48.3	1.55	○

订货号 Ordering Code	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存 Stock
D966-A5N-0900	9.00	61	103	10	40	47.5	1.64	○
D966-A5N-1000	10.00	61	103	10	40	46.0	1.82	○
D966-A5N-1050	10.50	71	118	12	45	55.3	1.91	○
D966-A5N-1100	11.00	71	118	12	45	54.5	2.00	○
D966-A5N-1200	12.00	71	118	12	45	53.0	2.18	○
D966-A5N-1250	12.50	77	124	14	45	58.3	2.27	○
D966-A5N-1300	13.00	77	124	14	45	57.5	2.37	○
D966-A5N-1400	14.00	77	124	14	45	56.0	2.55	○
D966-A5N-1450	14.50	83	133	16	48	61.3	2.64	○
D966-A5N-1500	15.00	83	133	16	48	60.5	2.73	○
D966-A5N-1600	16.00	83	133	16	48	59.0	2.91	○

● 标准库存 Stock ○ 需预定Available upon Order

备注：D3-D20刀具接受非标订制
Note：Accept customization from D3 to D20 tool

单位Unit(mm)

尺寸范围 Nominal Size Range	DC(m7)	DMM(h6)
⩾2—3	+0.002/+0.012	0.000/-0.006
>3—6	+0.004/+0.016	0.000/-0.008
>6—10	+0.006/+0.021	0.000/-0.009
>10—18	+0.007/+0.025	0.000/-0.011
>18—20	+0.008/+0.029	0.000/-0.013

工件材料 Workpiece Material

P			M	K		N				S		H	
1 2 3 4	5	6 7	1 2 3	1 2	3	1 2	3	4	5	1 2 3	4	1	2
碳钢、合金钢 Carbon Steel，Alloy Steel	合金钢、工具钢 Alloy Steels,Tool Steels	PH与铁素体/马氏体不锈钢 PH and Ferritic/Martensitic Stainless Steel	不锈钢 Stainless Steel	灰铸铁、球墨铸铁 Gray Cast Iron, Ductile Cast Iron	高合金铸铁 High Alloy Cast Iron	锻造铝合金、铸造铝合金 Forged Aluminium Alloys,Cast Aluminium Alloys	铸造铝合金 Cast Aluminium Alloys	铜合金 Copper Alloys	复合材料 Compound Material	高温合金 Heat Resistant Super Alloys	钛合金 Titanium Alloys	淬硬钢 Hardened Steels	淬硬钢 Hardened Steels
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
						◎	◎	○	○				

◎ 最适合Most Suitable ○ 适合Suitable

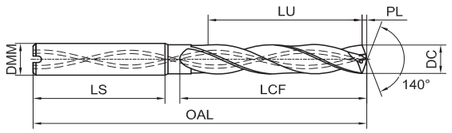
推荐切削参数 ※ P243
Recommended Cutting Data ※ P243

D966-A5C

SHANK DIN 6535HA | AlCrN/TiSiN | 5D

铝合金加工5D内冷麻花钻

5D Internal Coolant Twist Drills for Aluminium Alloy



订货号 Ordering Code	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存 Stock
D966-A5C-0300	3.00	28	66.0	6	36	23.5	0.55	○
D966-A5C-0330	3.30	28	66.0	6	36	23.1	0.60	○
D966-A5C-0400	4.00	36	74.0	6	36	30.0	0.73	○
D966-A5C-0420	4.20	36	74.0	6	36	29.7	0.76	○
D966-A5C-0500	5.00	44	82.0	6	36	36.5	0.91	○
D966-A5C-0600	6.00	44	82.0	6	36	35.0	1.09	○
D966-A5C-0680	6.80	53	91.0	8	36	42.8	1.24	○
D966-A5C-0700	7.00	53	91.0	8	36	42.5	1.27	○
D966-A5C-0800	8.00	53	91.0	8	36	41.0	1.46	○
D966-A5C-0850	8.50	61	103.0	10	40	48.3	1.55	○
D966-A5C-0900	9.00	61	103.0	10	40	47.5	1.64	○

订货号 Ordering Code	DC (m7)	LCF	OAL	DMM (h6)	LS	LU	PL	库存 Stock
D966-A5C-1000	10.00	61	103.0	10	40	46.0	1.82	○
D966-A5C-1050	10.50	71	118.0	12	45	55.3	1.91	○
D966-A5C-1100	11.00	71	118.0	12	45	54.5	2.00	○
D966-A5C-1200	12.00	71	118.0	12	45	53.0	2.18	○
D966-A5C-1250	12.50	77	124.0	14	45	58.3	2.27	○
D966-A5C-1300	13.00	77	124.0	14	45	57.5	2.37	○
D966-A5C-1400	14.00	77	124.0	14	45	56.0	2.55	○
D966-A5C-1450	14.50	83	133.0	16	48	61.3	2.64	○
D966-A5C-1500	15.00	83	133.0	16	48	60.5	2.73	○
D966-A5C-1600	16.00	83	133.0	16	48	59.0	2.91	○

● 标准库存 Stock ○ 需预定Available upon Order

备注：D3-D20刀具接受非标订制
Note：Accept customization from D3 to D20 tool

单位Unit(mm)

尺寸范围 Nominal Size Range	DC(m7)	DMM(h6)
⩾2—3	+0.002/+0.012	0.000/-0.006
>3—6	+0.004/+0.016	0.000/-0.008
>6—10	+0.006/+0.021	0.000/-0.009
>10—18	+0.007/+0.025	0.000/-0.011
>18—20	+0.008/+0.029	0.000/-0.013

工件材料 Workpiece Material													
P			M	K		N				S		H	
1234	5	67	123	12	3	12	3	4	5	123	4	1	2
碳钢、合金钢 Carbon Steel，Alloy Steel	合金钢、工具钢 Alloy Steels,Tool Steels	PH与铁素体/马氏体不锈钢 PH and Ferritic/Martensitic Stainless Steel	不锈钢 Stainless Steel	灰铸铁、球墨铸铁 Gray Cast Iron, Ductile Cast Iron	高合金铸铁 High Alloy Cast Iron	锻造铝合金、铸造铝合金 Forged Aluminium Alloys,Cast Aluminium Alloys	铸造铝合金 Cast Aluminium Alloys	铜合金 Copper Alloys	复合材料 Compound Material	高温合金 Heat Resistant Super Alloys	钛合金 Titanium Alloys	淬硬钢 Hardened Steels	淬硬钢 Hardened Steels
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
						◎	◎	○	○				

◎ 最适合Most Suitable ○ 适合Suitable

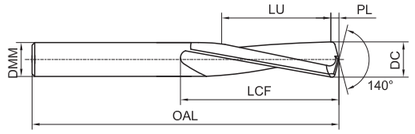
推荐切削参数 ※ P243
Recommended Cutting Data ※ P243

D998-Y3N

SHANK h6 | AlTiN nano | 3D

高硬钢加工3D外冷麻花钻

3D External Coolant Twist Drills for Hardened Steel



订货号 Ordering Code	DC (h7)	LCF	OAL	DMM (h6)	LU	PL	库存 Stock
D998-Y3N-0400	4.00	22	55	4	16.0	0.73	○
D998-Y3N-0500	5.00	26	62	5	18.5	0.91	○
D998-Y3N-0600	6.00	28	66	6	19.0	1.09	○
D998-Y3N-0700	7.00	34	74	7	23.5	1.27	○
D998-Y3N-0800	8.00	37	79	8	25.0	1.46	○
D998-Y3N-0900	9.00	40	84	9	26.5	1.64	○
D998-Y3N-1000	10.00	43	89	10	28.0	1.82	○

订货号 Ordering Code	DC (h7)	LCF	OAL	DMM (h6)	LU	PL	库存 Stock
D998-Y3N-1100	11.00	47	95	11	30.5	2.00	○
D998-Y3N-1200	12.00	51	102	12	33.0	2.18	○
D998-Y3N-1300	13.00	51	102	13	31.5	2.37	○
D998-Y3N-1400	14.00	54	107	14	33.0	2.55	●
D998-Y3N-1500	15.00	56	111	15	33.5	2.73	○
D998-Y3N-1600	16.00	58	115	16	34.0	2.91	○

● 标准库存 Stock ○ 需预定Available upon Order

备注：D3-D20刀具接受非标订制
Note：Accept customization from D3 to D20 tool

单位Unit(mm)

尺寸范围 Nominal Size Range	DC(h7)	DMM(h6)
⩾2—3	0.000/-0.010	0.000/-0.006
⩾3—6	0.000/-0.012	0.000/-0.008
>6—10	0.000/-0.015	0.000/-0.009
>10—18	0.000/-0.018	0.000/-0.011
>18—20	0.000/-0.021	0.000/-0.013

工件材料 Workpiece Material													
P			M	K		N				S		H	
1234	5	67	123	12	3	12	3	4	5	123	4	1	2
碳钢、合金钢 Carbon Steel，Alloy Steel	合金钢、工具钢 Alloy Steels,Tool Steels	PH与铁素体/马氏体不锈钢 PH and Ferritic/Martensitic Stainless Steel	不锈钢 Stainless Steel	灰铸铁、球墨铸铁 Gray Cast Iron, Ductile Cast Iron	高合金铸铁 High Alloy Cast Iron	锻造铝合金、铸造铝合金 Forged Aluminium Alloys,Cast Aluminium Alloys	铸造铝合金 Cast Aluminium Alloys	铜合金 Copper Alloys	复合材料 Compound Material	高温合金 Heat Resistant Super Alloys	钛合金 Titanium Alloys	淬硬钢 Hardened Steels	淬硬钢 Hardened Steels
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
	○			○	○							◎	○

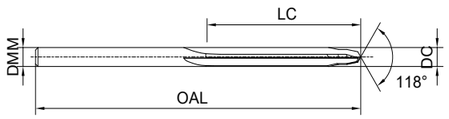
◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P244
Recommended Cutting Data ※ P244

D612-Y3N

SHANK U-DIN 3D

复材加工匕首钻
Triple-angle Drills for Composite Mmaterial



订货号 Ordering Code	DC (mm)	DC (in)	Lc	OAL	DMM	刃数	线号 Linenumber	库存 Stock
D612-Y3N-0300	3	0.1181	18	60	3	4	——	★
D612-Y3N-0320	3.2	0.126	20	75	3.2	4	——	★
D612-Y3N-0326	3.26	0.1283	20	75	3.26	4	30#	★
D612-Y3N-0400	4	0.1575	30	75	4	4	——	★
D612-Y3N-0409	4.09	0.161	30	75	4.09	4	20#	★
D612-Y3N-0450	4.5	0.1772	30	75	4.5	4	16#	★
D612-Y3N-0480	4.8	0.189	30	75	4.8	4	12#	★
D612-Y3N-04826	4.826	0.19	30	75	4.83	4	——	★
D612-Y3N-0491	4.91	0.1933	30	75	4.91	4	10#	★
D612-Y3N-0500	5	0.1969	35	100	5	4	——	★
D612-Y3N-0505	5.05	0.1988	35	100	5.05	4	8#	★
D612-Y3N-0522	5.22	0.2055	35	100	5.22	4	5#	★
D612-Y3N-0600	6	0.2362	40	100	6	4	——	★
D612-Y3N-0635	6.35	0.25	40	100	6.35	4	——	★
D612-Y3N-0794	7.94	0.3126	40	100	7.94	4	——	★

★需非标定制 Non-standard Customization

单位Unit(mm)

工件材料 Workpiece Material Material													
P			M	K		N				S		H	
1 2 3 4	5	6 7	1 2 3	1 2	3	1 2	3	4	5	1 2 3	4	1	2
碳钢、合金钢 Carbon Steel，Alloy Steel	合金钢、工具钢 Alloy Steels,Tool Steels	PH与铁素体/马氏体不锈钢 PH and Ferritic/Martensitic Stainless Steel	不锈钢 Stainless Steel	灰铸铁、球墨铸铁 Gray Cast Iron, Ductile Cast Iron	高合金铸铁 High Alloy Cast Iron	锻造铝合金、铸造铝合金 Forged Aluminium Alloys,Cast Aluminium Alloys	铸造铝合金 Cast Aluminium Alloys	铜合金 Copper Alloys	复合材料 Compound Material	高温合金 Heat Resistant Super Alloys	钛合金 Titanium Alloys	淬硬钢 Hardened Steels	淬硬钢 Hardened Steels
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
									◎				

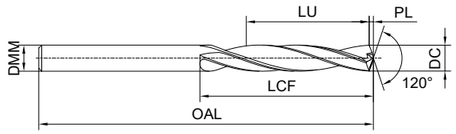
◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P246
Recommended Cutting Data ※ P246

D973-Y5N

SHANK AlCrN/TiSiN 5D

复材+金属叠层材料加工麻花钻
Twist Drills for Composite and Metal



订货号 Ordering Code	DC (mm)	DC (in)	LCF	OAL	DMM	LU	PL	线号 Linenumber	库存 Stock
D973-Y5N-0250	2.5	0.0984	25	75	2.5	21.3	0.72	——	★
D973-Y5N-0270	2.7	0.1063	25	75	2.7	21.0	0.78	——	★
D973-Y5N-0300	3	0.1181	25	75	3	20.5	0.87	——	★
D973-Y5N-0310	3.1	0.122	25	75	3.1	20.4	0.89	——	★
D973-Y5N-0326	3.26	0.1285	35	75	3.26	30.1	0.94	30#	★
D973-Y5N-0400	4	0.1575	35	100	4	29.0	1.15	——	★
D973-Y5N-0409	4.09	0.161	40	100	4.09	33.9	1.18	20#	★
D973-Y5N-0417	4.17	0.164	40	100	4.17	33.7	1.20	——	★
D973-Y5N-0470	4.7	0.185	40	100	4.7	33.0	1.36	13#	★
D973-Y5N-0483	4.83	0.19	40	100	4.83	32.8	1.39	——	★
D973-Y5N-0500	5	0.1969	40	100	5	32.5	1.44	——	★
D973-Y5N-0556	5.56	0.219	40	100	5.56	31.7	1.61	——	★
D973-Y5N-0595	5.95	0.2344	40	100	5.95	31.1	1.72	15/64	★
D973-Y5N-0600	6	0.2362	40	100	6	31.0	1.73	——	★
D973-Y5N-0635	6.35	0.25	40	100	6.35	30.5	1.83	1/4	★
D973-Y5N-0750	7.5	0.2953	45	120	7.5	33.8	2.17	——	★
D973-Y5N-0794	7.94	0.3125	45	120	7.94	33.1	2.29	5/16	★

★需非标定制 Non-standard Customization

单位Unit(mm)

工件材料 Workpiece Material Material													
P			M	K		N				S		H	
1 2 3 4	5	6 7	1 2 3	1 2	3	1 2	3	4	5	1 2 3	4	1	2
碳钢、合金钢 Carbon Steel，Alloy Steel	合金钢、工具钢 Alloy Steels,Tool Steels	PH与铁素体/马氏体不锈钢 PH and Ferritic/Martensitic Stainless Steel	不锈钢 Stainless Steel	灰铸铁、球墨铸铁 Gray Cast Iron, Ductile Cast Iron	高合金铸铁 High Alloy Cast Iron	锻造铝合金、铸造铝合金 Forged Aluminium Alloys,Cast Aluminium Alloys	铸造铝合金 Cast Aluminium Alloys	铜合金 Copper Alloys	复合材料 Compound Material	高温合金 Heat Resistant Super Alloys	钛合金 Titanium Alloys	淬硬钢 Hardened Steels	淬硬钢 Hardened Steels
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○	○	○	○			◎	◎		◎		◎		

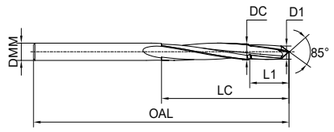
◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P246
Recommended Cutting Data ※ P246

D573-Y3N

SHANK AlCrN/TiSiN 3

复材+金属叠层材料加工扩孔钻
Core Drills for Composite and Metal



订货号 Ordering Code	DC (mm)	DC (in)	D1	L1	Lc	DMM	OAL	线号 Linenumber	库存 Stock
D573-Y3N-0400	4	0.157	3.26	8	40	4	80	——	★
D573-Y3N-0409	4.09	0.161	3.37	8	40	4.09	80	20#	★
D573-Y3N-0417	4.17	0.164	3.37	8	40	4.17	80	——	★
D573-Y3N-0437	4.37	0.172	4.1	8	40	4.37	80	17#	★
D573-Y3N-0450	4.5	0.177	4.1	8	40	4.5	100	——	★
D573-Y3N-0470	4.7	0.185	4.17	8	40	4.7	100	13#	★
D573-Y3N-0485	4.85	0.191	4.37	8	40	4.85	100	11#	★
D573-Y3N-0500	5	0.197	4.37	10	50	5	100	——	★
D573-Y3N-0518	5.18	0.204	4.85	10	50	5.18	100	6#	★
D573-Y3N-0556	5.56	0.219	4.7	10	50	5.56	100	——	★
D573-Y3N-0595	5.95	0.234	5.56	10	50	5.95	100	——	★
D573-Y3N-0625	6.25	0.246	5.95	10	50	6.25	100	——	★
D573-Y3N-0754	7.54	0.297	6.35	10	50	7.54	100	——	★
D573-Y3N-0767	7.67	0.302	6.35	10	50	7.67	120	——	★
D573-Y3N-0930	9.3	0.366	8.4	10	50	9.3	120	——	★

★需非标定制 Non-standard Customization

单位Unit(mm)

工件材料 Workpiece Material Material													
P			M	K		N				S		H	
1234	5	67	123	12	3	12	3	4	5	123	4	1	2
碳钢、合金钢 Carbon Steel，Alloy Steel	合金钢、工具钢 Alloy Steels,Tool Steels	PH与铁素体/马氏体不锈钢 PH and Ferritic/Martensitic Stainless Steel	不锈钢 Stainless Steel	灰铸铁、球墨铸铁 Gray Cast Iron, Ductile Cast Iron	高合金铸铁 High Alloy Cast Iron	锻造铝合金、铸造铝合金 Forged Aluminium Alloys,Cast Aluminium Alloys	铸造铝合金 Cast Aluminium Alloys	铜合金 Copper Alloys	复合材料 Compound Material	高温合金 Heat Resistant Super Alloys	钛合金 Titanium Alloys	淬硬钢 Hardened Steels	淬硬钢 Hardened Steels
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○	○	○	○			◎	◎		◎		◎		

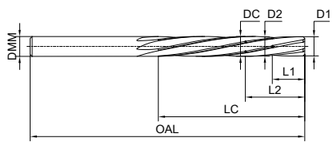
◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P247
Recommended Cutting Data ※ P247

R733-CM

SHANK AlCrN/TiSiN 6

复材+金属叠层材料加工铰刀
Reamer for Composite and Metal



订货号 Ordering Code	DC (mm)	DC (in)	D1	L1	D2	L2	Lc	OAL	DMM	线号 Linenumber	库存 Stock
R733-CM-0400	4	0.157	3.45	6.5	3.86	13	35	75	4	-	★
R733-CM-0417	4.17	0.164	3.86	6.5	4	13	40	100	4.17	-	★
R733-CM-0450	4.5	0.177	4.17	6.5	4.39	13	40	100	4.5	-	★
R733-CM-0485	4.85	0.191	4.5	6.5	4.7	13	40	100	4.85	11#	★
R733-CM-0500	5	0.197	4.7	6.5	4.85	13	40	100	5	-	★
R733-CM-0536	5.36	0.211	4.85	6.5	5.2	13	40	100	5.36	6#	★
R733-CM-0556	5.56	0.219	5.18	6.5	5.4	13	40	100	5.56	7/32	★
R733-CM-0595	5.95	0.234	5.56	6.5	5.79	13	40	100	5.95	15/64	★
R733-CM-0600	6	0.236	5.56	6.5	5.85	13	40	100	6	-	★
R733-CM-0635	6.35	0.25	5.95	7.5	6.2	15	40	100	6.35	1/4	★
R733-CM-0794	7.94	0.313	7.54	7.5	7.67	15	45	120	7.94	5/16	★
R733-CM-0953	9.53	0.375	9	7.5	9.3	15	50	120	9.53	3/8	★
R733-CM-1270	12.7	0.5	12	7.5	12.4	15	60	150	12.7	1/2	★

★需非标定制 Non-standard Customization

单位Unit(mm)

工件材料 Workpiece Material Material													
P			M	K		N				S		H	
1234	5	67	123	12	3	12	3	4	5	123	4	1	2
碳钢、合金钢 Carbon Steel，Alloy Steel	合金钢、工具钢 Alloy Steels,Tool Steels	PH与铁素体/马氏体不锈钢 PH and Ferritic/Martensitic Stainless Steel	不锈钢 Stainless Steel	灰铸铁、球墨铸铁 Gray Cast Iron, Ductile Cast Iron	高合金铸铁 High Alloy Cast Iron	锻造铝合金、铸造铝合金 Forged Aluminium Alloys,Cast Aluminium Alloys	铸造铝合金 Cast Aluminium Alloys	铜合金 Copper Alloys	复合材料 Compound Material	高温合金 Heat Resistant Super Alloys	钛合金 Titanium Alloys	淬硬钢 Hardened Steels	淬硬钢 Hardened Steels
<35HRC	35-48HRC			<35HRC	35-45HRC	Si<12%	Si>12%	<HB200		<HB450	<HB400	45-55HRC	55-60HRC
○	○	○	○			◎	◎		◎		◎		

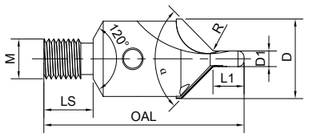
◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P248
Recommended Cutting Data ※ P248

DND100

复材加工PCD锪钻

Twist PCD Countersink Drills for steel Composite



订货号 Ordering Code	D1	L1	D	R	α	OAL	LS	M	库存 Stock
DND100-L100-026100	2.58	5	12	0.5	100°	35	6.5	1/4-28UNF-2A	★
DND100-L100-040100	3.99	5	12	0.5	100°	35	6.5	1/4-28UNF-2A	★
DND100-L100-050100	4.99	5	12	0.5	100°	35	6.5	1/4-28UNF-2A	★

★需非标定制 Non-standard Customization

单位Unit(mm)

工件材料 Workpiece Material Material													
P			M	K		N				S		H	
1 2 3 4	5	6 7	1 2 3	1 2	3	1 2	3	4	5	1 2 3	4	1	2
碳钢、合金钢 Carbon Steel，Alloy Steel	合金钢、工具钢 Alloy Steels,Tool Steels	PH与铁素体/马氏体不锈钢 PH and Ferritic/ Martensitic Stainless Steel	不锈钢 Stainless Steel	灰铸铁、球墨铸铁 Gray Cast Iron, Ductile Cast Iron	高合金铸铁 High Alloy Cast Iron	锻造铝合金、铸造铝合金 Forged Aluminium Alloys,Cast Aluminium Alloys	铸造铝合金 Cast Aluminium Alloys	铜合金 Copper Alloys	复合材料 Compound Material	高温合金 Heat Resistant Super Alloys	钛合金 Titanium Alloys	淬硬钢 Hardened Steels	淬硬钢 Hardened Steels
＜35HRC	35-48HRC			＜35HRC	35-45HRC	Si＜12%	Si＞12%	＜HB200		＜HB450	＜HB400	45-55HRC	55-60HRC
									◎				

◎ 最适合Most Suitable ○ 适合Suitable

推荐切削参数 ※ P249
Recommended Cutting Data ※ P249

推荐切削参数

D968S不锈钢加工麻花钻

Recommended Cutting Data

D918S Series High Performance Twist Drill for Steel

工件材料 Workpiece		切削速度 Cutting Speed Vc (m/min)		进给量 Feed Rate fn（mm/rev）				
				Φ3	Φ4	Φ6	Φ8	Φ10
P	低碳钢，长切屑 Low Carbon Steel, Long Chip (＜125HB)	100-80-50	140-100-60	0.09-0.13-0.16	0.11-0.15-0.19	0.14-0.19-0.23	0.19-0.25-0.31	0.23-0.30-0.38
P	低碳钢，短切屑，易切钢 Low Carbon Steel, Short Chip, Free Cutting Steel (＜125HB)	100-75-50	140-100-60	0.09-0.13-0.16	0.11-0.15-0.19	0.14-0.19-0.23	0.19-0.25-0.31	0.23-0.30-0.38
P	高碳钢及中碳钢 Carbon Steel and Medium Carbon Steel (＜25HRC)	90-70-45	120-80-60	0.09-0.13-0.16	0.11-0.15-0.19	0.14-0.19-0.23	0.19-0.25-0.31	0.23-0.30-0.38
P	合金钢，工具钢 Alloy Steel, Tool Steel (＜35HRC)	90-70-45	110-80-50	0.09-0.13-0.16	0.11-0.15-0.19	0.14-0.19-0.23	0.19-0.25-0.31	0.23-0.30-0.38
M	奥氏体不锈钢 Austenitic Stainless Steel (130- 200HB)	40-30-20	80-60-40	0.03-0.06-0.08	0.04-0.08-0.10	0.05-0.08-0.10	0.06-0.10-0.12	0.07-0.11-0.14
M	高强度的奥氏体和铸造不锈钢 High Strength Austenitic and Cast Stainless Steels (＜25HRC)	40-30-20	80-60-40	0.03-0.06-0.08	0.04-0.08-0.10	0.05-0.08-0.10	0.06-0.10-0.12	0.07-0.11-0.14
M	双相不锈钢 Duplex Stainless Steel (<30HRC)	35-25-20	60-45-30	0.03-0.06-0.08	0.04-0.08-0.10	0.05-0.08-0.10	0.06-0.10-0.12	0.07-0.11-0.14
S	铁基高温合金 Iron Base Superalloy (160-260HB)	25-15-10	35-25-15	0.03-0.04-0.06	0.04-0.06-0.08	0.05-0.08-0.10	0.06-0.09-0.11	0.07-0.10-0.12
S	钴基高温合金 Cobalt Base Superalloy (250-450HB)	25-15-10	35-25-15	0.03-0.04-0.06	0.04-0.06-0.08	0.05-0.08-0.10	0.06-0.09-0.11	0.07-0.10-0.12
S	镍基高温合金 Nickel Base Superalloy (160-450HB)	25-15-10	35-25-15	0.03-0.04-0.06	0.04-0.06-0.08	0.05-0.08-0.10	0.06-0.09-0.11	0.07-0.10-0.12
S	钛及钛合金 Titanium and Titanium Alloy (300-400HB)	40-30-15	50-40-25	0.03-0.05-0.08	0.04-0.07-0.10	0.05-0.09-0.10	0.06-0.10-0.12	0.07-0.12-0.14

备注：5D 外冷钻头不适用于 S 类工件材料加工

Note：5D external cooling drill is not suitable for machining S-type workpiece material

【注意】

1. 请使用刚性较高的机床，建议采用液压刀柄、热涨刀柄、带弹簧夹头的强力刀柄
   Make sure work piece and machine are stable and use a precision holder, use hydraulic chucks, high quality collet chucks.
2. 刀具安装时需确保钻头刀尖径向跳动小于0.02mm
   Make sure total indicated run-out(TIR) is less than 0.02mm.
3. 此标准切削条件表适用于水溶性切削液
   The recommended cutting condition is suitable for apply water soluble.
4. 对于表中没有的刀具刃径规格，请参照表中最接近的刃径规格选择切削参数，同时加工时请根据实际加工情况适当调整切削参数
   If the tool size is not in the table, please refer to the table closest to the blade diameter size selection of cutting parameters, adjust cutting parameters according to actual working conditions during processing.

推荐切削参数
D968S不锈钢加工麻花钻
Recommended Cutting Data
D918S Series High Performance Twist Drill for Steel

工件材料 Workpiece		切削速度 Cutting Speed Vc (m/min)		进给量 Feed Rate fn（mm/rev）				
				Φ12	Φ14	Φ16	Φ18	Φ20
P	低碳钢，长切屑 Low Carbon Steel, Long Chip（<125HB）	100-80-50	140-100-60	0.24-0.33-0.41	0.28-0.38-0.45	0.30-0.42-0.50	0.33-0.42-0.50	0.34-0.43-0.51
P	低碳钢，短切屑，易切钢 Low Carbon Steel, Short Chip, Free Cutting Steel（<125HB）	100-75-50	140-100-60	0.24-0.33-0.41	0.28-0.38-0.45	0.30-0.42-0.50	0.33-0.42-0.50	0.34-0.43-0.51
P	高碳钢及中碳钢 Carbon Steel and Medium Carbon Steel（<25HRC）	90-70-45	120-80-60	0.24-0.33-0.41	0.28-0.38-0.45	0.30-0.42-0.50	0.33-0.42-0.50	0.34-0.43-0.51
P	合金钢，工具钢 Alloy Steel, Tool Steel（<35HRC）	90-70-45	110-80-50	0.24-0.33-0.41	0.28-0.38-0.45	0.30-0.42-0.50	0.33-0.42-0.50	0.34-0.43-0.51
M	奥氏体不锈钢 Austenitic Stainless Steel (130- 200HB)	40-30-20	80-60-40	0.10-0.17-0.22	0.11-0.18-0.24	0.12-0.20-0.24	0.13-0.22-0.26	0.14-0.24-0.28
M	高强度的奥氏体和铸造不锈钢 High Strength Austenitic and Cast Stainless Steels（<25HRC）	40-30-20	80-60-40	0.08-0.13-0.16	0.09-0.13-0.18	0.10-0.14-0.18	0.10-0.14-0.20	0.12-0.16-0.22
M	双相不锈钢 Duplex Stainless Steel (<30HRC)	35-25-20	60-45-30	0.08-0.13-0.16	0.09-0.13-0.18	0.10-0.14-0.18	0.10-0.14-0.20	0.12-0.16-0.22
S	铁基高温合金 Iron Base Superalloy (160-260HB)	25-15-10	35-25-15	0.03-0.04-0.06	0.04-0.06-0.08	0.05-0.08-0.10	0.06-0.09-0.11	0.07-0.10-0.12
S	钴基高温合金 Cobalt Base Superalloy (250-450HB)	25-15-10	35-25-15	0.03-0.04-0.06	0.04-0.06-0.08	0.05-0.08-0.10	0.06-0.09-0.11	0.07-0.10-0.12
S	镍基高温合金 Nickel Base Superalloy (160-450HB)	25-15-10	35-25-15	0.03-0.04-0.06	0.04-0.06-0.08	0.05-0.08-0.10	0.06-0.09-0.11	0.07-0.10-0.12
S	钛及钛合金 Titanium and Titanium Alloy (300-400HB)	40-30-15	50-40-25	0.03-0.05-0.08	0.04-0.07-0.10	0.05-0.09-0.10	0.06-0.10-0.12	0.07-0.12-0.14

备注：5D 外冷钻头不适用于 S 类工件材料加工

Note：5D external cooling drill is not suitable for machining S-type workpiece material

【注意】
1. 请使用刚性较高的机床，建议采用液压刀柄、热涨刀柄、带弹簧夹头的强力刀柄
   Make sure work piece and machine are stable and use a precision holder, use hydraulic chucks, high quality collet chucks.
2. 刀具安装时需确保钻头刀尖径向跳动小于0.02mm
   Make sure total indicated run-out(TIR) is less than 0.02mm.
3. 此标准切削条件表适用于水溶性切削液
   The recommended cutting condition is suitable for apply water soluble.
4. 对于表中没有的刀具刃径规格，请参照表中最接近的刃径规格选择切削参数，同时加工时请根据实际加工情况适当调整切削参数
   If the tool size is not in the table, please refer to the table closest to the blade diameter size selection of cutting parameters, adjust cutting parameters according to actual working conditions during processing.

推荐切削参数
D966铝合金加工麻花钻
Recommended Cutting Data
D966 Twist Drill for Aluminium

工件材料 Workpiece Material		切削速度 Vc Cutting Speed (m/min)		进给量 fn Feed Rate (mm/rev)				
				Φ3	Φ4	Φ6	Φ8	Φ10
N	锻造铝合金 Forged Aluminium Alloy (Si<12%)	250-150-80	315-230-90	0.06-0.09-0.11	0.13-0.20-0.26	0.16-0.22-0.28	0.18-0.26-0.32	0.20-0.30-0.38
N	铸造铝合金 Casted Aluminium Alloy (Si<12%)	230-150-80	315-230-90	0.06-0.09-0.11	0.13-0.20-0.26	0.16-0.22-0.28	0.18-0.26-0.32	0.20-0.30-0.38
N	铸造铝合金 Casted Aluminium Alloy (Si>12%)	230-150-80	270-180-90	0.06-0.09-0.11	0.13-0.20-0.26	0.16-0.22-0.28	0.18-0.26-0.32	0.20-0.30-0.38
N	铜，铜合金 Copper, Copper Alloy (<200HB)	160-120-70	180-135-90	0.06-0.09-0.11	0.13-0.20-0.26	0.16-0.22-0.28	0.18-0.26-0.32	0.20-0.30-0.38

工件材料 Workpiece Material		切削速度Vc (m/min)		进给量fn (mm/rev)				
				Φ12	Φ14	Φ16	Φ18	Φ20
N	锻造铝合金 Forged Aluminium Alloy (Si<12%)	250-150-80	315-230-90	0.22-0.34-0.42	0.24-0.36-0.44	0.28-0.38-0.46	0.32-0.40-0.48	0.34-0.42-0.48
N	铸造铝合金 Casted Aluminium Alloy (Si<12%)	230-150-80	315-230-90	0.22-0.34-0.42	0.24-0.36-0.44	0.28-0.38-0.46	0.32-0.40-0.48	0.34-0.42-0.48
N	铸造铝合金 Casted Aluminium Alloy (Si>12%)	230-150-80	270-180-90	0.22-0.34-0.42	0.24-0.36-0.44	0.28-0.38-0.46	0.32-0.40-0.48	0.34-0.42-0.48
N	铜，铜合金 Copper, Copper Alloy (<200HB)	160-120-70	180-135-90	0.22-0.34-0.42	0.24-0.36-0.44	0.28-0.38-0.46	0.32-0.40-0.48	0.34-0.42-0.48

【注意】
1. 请使用刚性较高的机床，建议采用液压刀柄、热涨刀柄、带弹簧夹头的强力刀柄
   Make sure work piece and machine are stable and use a precision holder, use hydraulic chucks, high quality collet chucks.
2. 刀具安装时需确保钻头刀尖径向跳动小于0.02mm
   Make sure total indicated run-out(TIR) is less than 0.02mm.
3. 此标准切削条件表适用于水溶性切削液
   The recommended cutting condition is suitable for apply water soluble.
4. 对于表中没有的刀具刃径规格，请参照表中最接近的刃径规格选择切削参数，同时加工时请根据实际加工情况适当调整切削参数
   If the tool size is not in the table, please refer to the table closest to the blade diameter size selection of cutting parameters, adjust cutting parameters according to actual working conditions during processing.

推荐切削参数
D998高硬钢加工麻花钻
Recommended Cutting Data
D998 Twist Drill for Hardened Steel

工件材料 Workpiece Material		切削速度 Cutting Speed Vc（m/min）	进给量fn Feed Rate（mm/rev）				
			Φ3	Φ4	Φ6	Φ8	Φ10
P	合金钢，工具钢 Alloy Steel, Tool Steel (35-48HRC)	80-60-30	0.09-0.13-0.16	0.10-0.14-0.17	0.13-0.17-0.22	0.17-0.23-0.29	0.21-0.28-0.35
K	灰铸铁、球墨铸铁 Gray Cast Iron, Ductile Cast Iron (<28HRC)	100-80-60	0.13-0.17-0.20	0.15-0.20-0.23	0.17-0.25-0.30	0.20-0.27-0.35	0.23-0.30-0.40
K	中等加工难度的合金铸铁，球墨铸铁 Cast Iron Alloy, Ductile Cast Iron (<28HRC)	100-80-60	0.11-0.15-0.18	0.13-0.17-0.20	0.15-0.20-0.25	0.17-0.25-0.32	0.20-0.28-0.36
K	难加工的高合金铸铁，球墨铸铁 High Cast Iron Alloy, Ductile Cast Iron (<45HRC)	90-70-60	0.06-0.09-0.11	0.08-0.10-0.13	0.10-0.13-0.16	0.12-0.16-0.20	0.14-0.20-0.26
H	淬硬钢淬硬钢 Hardened Steel (45-55HRC)	40-30-20	0.04-0.06-0.08	0.05-0.08-0.10	0.06-0.10-0.13	0.08-0.12-0.15	0.09-0.14-0.16
H	淬硬钢淬硬钢 Hardened Steel (55-60HRC)	30-20-15	0.03-0.05-0.07	0.03-0.06-0.08	0.04-0.08-0.12	0.06-0.10-0.13	0.08-0.12-0.15

【注意】
1. 请使用刚性较高的机床，建议采用液压刀柄、热涨刀柄、带弹簧夹头的强力刀柄
   Make sure work piece and machine are stable and use a precision holder, use hydraulic chucks, high quality collet chucks.
2. 刀具安装时需确保钻头刀尖径向跳动小于0.02mm
   Make sure total indicated run-out(TIR) is less than 0.02mm.
3. 此标准切削条件表适用于水溶性切削液
   The recommended cutting condition is suitable for apply water soluble.
4. 对于表中没有的刀具刃径规格，请参照表中最接近的刃径规格选择切削参数，同时加工时请根据实际加工情况适当调整切削参数
   If the tool size is not in the table, please refer to the table closest to the blade diameter size selection of cutting parameters, adjust cutting parameters according to actual working conditions during processing.

CUTTING TOOLS FOR AEROSPACE | 航空航天切削工具

推荐切削参数
D998高硬钢加工麻花钻
Recommended Cutting Data
D998 Twist Drill for Hardened Steel

工件材料 Workpiece Material		切削速度 Cutting Speed Vc（m/min）	进给量fn Feed Rate（mm/rev）				
			Φ12	Φ14	Φ16	_	_
P	合金钢，工具钢 Alloy Steel, Tool Steel (35-48HRC)	80-60-30	0.22-0.30-0.37	0.26-0.35-0.41	0.28-0.37-0.44	_	_
K	灰铸铁、球墨铸铁 Gray Cast Iron, Ductile Cast Iron (<28HRC)	100-80-60	0.25-0.33-0.45	0.28-0.36-0.48	0.30-0.40-0.50	_	_
K	中等加工难度的合金铸铁，球墨铸铁 Cast Iron Alloy, Ductile Cast Iron (<28HRC)	100-80-60	0.22-0.30-0.42	0.24-0.33-0.45	0.25-0.35-0.48	_	_
K	难加工的高合金铸铁，球墨铸铁 High Cast Iron Alloy, Ductile Cast Iron (<45HRC)	90-70-60	0.16-0.22-0.28	0.18-0.24-0.30	0.20-0.26-0.32	_	_
H	淬硬钢淬硬钢 Hardened Steel (45-55HRC)	40-30-20	0.10-0.15-0.17	0.10-0.16-0.20	0.10-0.16-0.20	_	_
H	淬硬钢淬硬钢 Hardened Steel (55-60HRC)	30-20-15	0.09-0.13-0.16	0.10-0.14-0.17	0.10-0.14-0.17	_	_

【注意】
1. 请使用刚性较高的机床，建议采用液压刀柄、热涨刀柄、带弹簧夹头的强力刀柄
   Make sure work piece and machine are stable and use a precision holder, use hydraulic chucks, high quality collet chucks.
2. 刀具安装时需确保钻头刀尖径向跳动小于0.02mm
   Make sure total indicated run-out(TIR) is less than 0.02mm.
3. 此标准切削条件表适用于水溶性切削液
   The recommended cutting condition is suitable for apply water soluble.
4. 对于表中没有的刀具刃径规格，请参照表中最接近的刃径规格选择切削参数，同时加工时请根据实际加工情况适当调整切削参数
   If the tool size is not in the table, please refer to the table closest to the blade diameter size selection of cutting parameters, adjust cutting parameters according to actual working conditions during processing.

推荐切削参数
D612复材加工匕首钻
Recommended Cutting Data
D612Triple-angle Drill for Composite Material

应用 Application	工件材料 Workpiece		切削速度Vc		进给量fn	
			m/min	ft/min	mm/rev	inch/rev
钻削 Drilling	N	CFRP、GFRP	60	197	0.08	0.0031

CFRP: 碳纤维增强塑料 Carbon fiberreinforcedplastic
GFRP: 玻璃纤维增强塑料 Glass fiberreinforcedplastic

1.请使用刚性较好的风动工具，配合钻套使用，保证加工稳定性；
2.使用小规格刀具加工时，适当减小刀具进给量20%-30%。
1.Please use the pneumatic tools with better rigidity, drill set, ensure processing stability
2.When using the small size cutting tool, reduce the tool feed 20%-30%

推荐切削参数
D973复材+金属叠层材料加工麻花钻
Recommended Cutting Data
D973 Twist Drills for Composite and Metal

应用 Application	工件材料 Workpiece		切削速度Vc		进给量fn	
			m/min	ft/min	mm/rev	inch/rev
钻削 Drilling	N	CFRP+铝合金 CFRP、Aluminium Alloys	60	197	0.08	0.0031
	N S	CFRP+钛合金 CFRP、Titanium alloy	20	66	0.05	0.0020
	N	铝合金 Aluminium Alloys	60	197	0.08	0.0031
	S	钛合金 Titanium alloy	15	49	0.05	0.0020
	M	不锈钢 Stainless Steel	15	49	0.05	0.0020

CFRP:碳纤维增强塑料 Carbon fiber reinforced plastic
GFRP:玻璃纤维增强塑料 Glass fiber reinforced plastic

1.请使用刚性较好的风动工具，配合钻套使用，保证加工稳定性；
2.使用小规格刀具加工时，适当减小刀具进给量20%-30%。
1.Please use the pneumatic tools with better rigidity, drill set, ensure processing stability
2.When using the small size cutting tool, reduce the tool feed 20%-30%

推荐切削参数
D573复材+金属叠层材料扩孔钻
Recommended Cutting Data
D573 Core Drills for Composite and Metal

应用 Application	工件材料 Workpiece		切削速度Vc		进给量fn	
			m/min	ft/min	mm/rev	inch/rev
钻削 Drilling	N	CFRP	60	197	0.08	0.0031
	N	CFRP+铝合金 CFRP、Aluminium	60	197	0.08	0.0031
	N S	CFRP+钛合金 CFRP、Titanium allo	20	66	0.05	0.0020
	N	铝合金 Aluminium Alloys	60	197	0.08	0.0031
	S	钛合金 Titanium alloy	15	49	0.05	0.0020
	M	不锈钢 Stainless Steel	15	49	0.05	0.0020

CFRP: 碳纤维增强塑料 Carbon fiber reinforced plastic
GFRP: 玻璃纤维增强塑料 Glass fiber reinforced plastic

1. 请使用刚性较好的风动工具，配合钻套使用，保证加工稳定性；
2. 使用小规格刀具加工时，适当减小刀具进给量 20%-30%。
1.Please use the pneumatic tools with better rigidity, drill set, ensure processing stability
2.When using the small size cutting tool, reduce the tool feed 20%-30%

推荐切削参数
R733-CM复材+金属材料加工铰刀
Recommended Cutting Data
R733-CM Reamer for Composite and Metal

应用 Application	工件材料 Workpiece		切削速度Vc		进给量fn	
			m/min	ft/min	mm/rev	inch/rev
铰削 Reaming	N	CFRP	60	197	0.08	0.0031
	N	CFRP+铝合金 CFRP、Aluminium	60	197	0.08	0.0031
	N S	CFRP+钛合金 CFRP、Titanium allo	20	66	0.05	0.0020
	N	铝合金 Aluminium Alloys	60	197	0.08	0.0031
	S	钛合金 Titanium alloy	15	49	0.05	0.0020
	M	不锈钢 Stainless Steel	15	49	0.05	0.0020

CFRP: 碳纤维增强塑料 Carbon fiber reinforced plastic
GFRP: 玻璃纤维增强塑料 Glass fiber reinforced plastic

1. 请使用刚性较好的风动工具，配合钻套使用，保证加工稳定性；
2. 使用小规格刀具加工时，适当减小刀具进给量 20%-30%。
1.Please use the pneumatic tools with better rigidity, drill set, ensure processing stability
2.When using the small size cutting tool, reduce the tool feed 20%-30%

推荐切削参数
DND100-L复材加工锪钻
Recommended Cutting Data
Twist Countersink Drills for steel Composite

应用 Application	工件材料 Workpiece		转速（rpm）	每转给量fz
			r/min	mm/rev
钻削 Drilling	N	CFRP、GFRP	1500-6000	0.02-0.1

CFRP:碳纤维增强塑料 Carbon fiber reinforced plastic
GFRP:玻璃纤维增强塑料 Glass fiber reinforced plastic

1.请使用刚性较好的风动工具；
2.使用小规格刀具加工时，适当减小刀具进给量20%-30%。
1.Please use the pneumatic tools with better rigidity
2.When using the small size cutting tool, reduce the tool feed 20%-30%

D

附录 Appendix

工件材料表
Workpiece Material Table

材料组 ISO Material Group	MC	工件材料 Workpiece Material	含量 Content	抗拉强度 Tensile Strength N/mm2	布氏硬度 Brinell Hardness HB	洛氏硬度 Rockwell Hardness HRC
P 钢 Steels	P1	低碳钢，长切屑 Low-carbon Steels，Long Chipping	C<0.25%	<530	<125	
	P2	低碳钢，短切屑，易切钢 Low-carbon Steels，Short Chipping，Freecutting Steels	C<0.25%	<530	<125	
	P3	高碳钢及中碳钢 High-carbon Steels, Medium-carbon Steels	C>0.25%	>530	<220	<25
	P4	合金钢，工具钢 Alloy Steels，Tool Steels	C>0.25%	600-850	<330	<35
	P5	合金钢，工具钢 Alloy Steels，Tool Steels	C>0.25%	850-1400	340-450	35-48
	P6	铁素体不锈钢，马氏体不锈钢，PH 不锈钢 Ferritic Stainless Steels，Martensitic Stainless Steels，PH Stainless Steels	C=(0-0.4)%	600-900	<330	<35
	P7	高强度铁素体不锈钢，马氏体不锈钢 , PH 不锈钢 High-strength Ferritic Stainless Steels，Martensitic Stainless Steels，PH Stainless Steels	C=(0.1-0.6)%	900-1350	330-450	35-48
M 不锈钢 Stainless Steels	M1	奥氏体不锈钢 Austenitic Stainless Steels	C=(0.05-0.15)%	<600	130-200	
	M2	高强度的奥氏体和铸造不锈钢 High-Strength Austenitic Stainless Steels and Cast Stainless Steels	C=(0.05-0.15)%	600-800	150-230	<25
	M3	双相不锈钢 Duplex Stainless Steels	C=(0.05-0.20)%	<800	135-275	<30
K 铸铁 Cast Iron	K1	灰铸铁 Grey Cast Iron		125-500	120-290	＜ 32
	K2	中等加工难度的合金铸铁，球墨铸铁 Moderately Difficult Alloy Cast iron，Nodular Cast Iron		<600	130-260	＜ 28
	K3	难加工的高合金铸铁，球墨铸铁 Difficult High-alloy Cast Iron，Nodular Cast Iron		>600	180-350	＜ 43
N 有色材料 Non-ferrous Materials	N1	锻造铝合金 Wrought Aluminium Alloys		<520	60-90	
	N2	铸造铝合金 Cast Aluminium Alloys	Si<12%	<350	70-100	
	N3	铸造铝合金 Cast Aluminium Alloys	Si>12%	200-320	60-120	
	N4	铜，铜合金 Copper，Copper Alloys		200-650	60-200	
	N5	石墨，复合材料 Graphite，CFK，CFRP Graphite，Composite Materials		600-1500		
	N6	铝基复合材料 (MMCs) GFK，CFK Aluminium-based Composite Materials (MMCs)		<700	<210	
S 耐热合金钛合金 Heat-resistant SuperAlloys、Titanium Alloys	S1	铁基高温合金 Iron-based Heat-resistant Alloys		500-1200	160-260	25-48
	S2	钴基高温合金 Cobalt-based Heat-resistant Alloys		1000-1450	250-450	25-48
	S3	镍基高温合金 Nickel-based Heat-resistant Alloys		600-1700	160-450	<48
	S4	钛及钛合金 Titanium and Titanium Alloys		900-1600	300-400	33-48
H 高硬度硬材料 Hardened Materials	H1	淬硬钢 Hardened Steels				45-55
	H2	淬硬钢 Hardened Steels				55-60
	H3	淬硬钢 Hardened Steels				60-65
	H4	淬硬钢 Hardened Steels				>65

切削定义及计算
Cutting Calculations and Definitions

常用参数及其单位 Parameter and Unit			
D 刀具直径 D Diameter	(mm) (mm)	fn 每转进给量 (mm/rev) fn Feed per Revolution (mm/rev)	
ap 切削深度 ap Cutting Depth	(mm) (mm)	fz 每刃进给量 (mm/tooth) fz Feeding per Teeth (mm/tooth)	
ae 切削宽度 ae Cutting Width	(mm) (mm)	Z 刀刃数 Z Number of Teeth	
Vf 进给速度 Vf Feed Rate	(mm/min) (mm/min)	n 主轴转速 (rev/min) N Spindle Speed (rev/min)	
Vc 切削速度(工件长度+ 铣刀直径：l+D) Vc Cutting Speed	(m/min) (m/min)	L 工作台总进给长度 (mm) L Length (mm)	
Q 金属切削率 Q Rate of Metal Removal	(cm^3/min) (cm^3/min)	Tc 加工时间 (min) Tc Processing Time (min)	

通用计算公式 General Formula	
n 主轴转速 n Spindle Speed	$n = \frac{Vc \cdot 1000}{\pi \cdot D}$ (rev/min)
Vc 切削速度 Vc Cutting Speed	$Vc = \frac{\pi \cdot D \cdot n}{1000}$ (m/min)
Vf 进给速度 Vf Feed Rate	$Vf = fz \cdot z \cdot n$ (mm/min)
fz 每刃进给量 fz Feed per Teeth	$fz = \frac{Vf}{z \cdot n}$ (mm)
Q 金属切削率 Q Rate of Metal Removal	$Q = \frac{ae \cdot ap \cdot Vf}{1000}$ (cm^3/min)
Tc 加工时间 Tc Processing Time	$Tc = \frac{L}{Vf}$ (min)

抗拉强度、布氏硬度、洛氏硬度对照表
Comparison Table for Tensile Strength , Brinell Hardness and Rockwell

N/mm2	HV10	HB	HRC
240	75	71	
255	80	76	
270	85	81	
285	90	86	
305	95	90	
320	100	95	
335	105	100	
350	110	105	
370	115	109	
385	120	114	
400	125	119	
415	130	124	
430	135	128	
450	140	133	
465	145	138	
480	150	143	
495	155	147	
510	160	152	
530	165	157	
545	170	162	
560	175	166	
575	180	171	
595	185	176	
610	190	181	
625	195	185	
640	200	190	
660	205	195	
675	210	199	
690	215	204	
705	220	209	
720	225	214	
740	230	219	
755	235	223	
770	240	228	
785	245	233	
800	250	238	22
820	255	242	23
835	260	247	24
860	268	255	25
870	272	258	26
900	280	266	27

N/mm2	HV10	HB	HRC
920	287	273	28
940	293	278	29
970	302	287	30
995	310	295	31
1020	317	301	32
1050	327	311	33
1080	336	319	34
1110	345	328	35
1140	355	337	36
1170	364	346	37
1200	373	354	38
1230	382	363	39
1260	392	372	40
1260	403	383	41
1330	413	393	42
1360	423	402	43
1400	434	413	44
1440	446	424	45
1480	458	435	46
1530	473	449	47
1570	484	460	48
1620	497	472	49
1680	514	488	50
1730	527	501	51
1790	544	517	52
1845	560	632	53
1910	578	549	54
1980	596	567	55
2050	615	584	56
2140	639	607	57
	655	622	58
	675		59
	698		60
	720		61
	745		62
	773		63
	800		64
	829		65
	864		66
	900		67
	940		68

线号字母分数对应公制尺寸表
Metric scale list

序号 N0.	线号表示 Wire	小数表示 Decimal	公制尺寸 Metric
	1-40#	in	mm
1	1#	0.2280	5.79
2	2#	0.2210	5.61
3	3#	0.2130	5.41
4	4#	0.2090	5.31
5	5#	0.2055	5.22
6	6#	0.2040	5.18
7	7#	0.2010	5.11
8	8#	0.1990	5.05
9	9#	0.1960	4.98
10	10#	0.1935	4.91
11	11#	0.1910	4.85
12	12#	0.1890	4.80
13	13#	0.1850	4.70
14	14#	0.1820	4.62
15	15#	0.1800	4.57
16	16#	0.1770	4.50
17	17#	0.1730	4.39
18	18#	0.1695	4.31
19	19#	0.1660	4.22
20	20#	0.1610	4.09
21	21#	0.1590	4.04
22	22#	0.1570	3.99
23	23#	0.1540	3.91
24	24#	0.1520	3.86
25	25#	0.1495	3.80
26	26#	0.1470	3.73
27	27#	0.1440	3.66
28	28#	0.1405	3.57
29	29#	0.1360	3.45
30	30#	0.1285	3.26
31	31#	0.1200	3.05
32	32#	0.1160	2.95
33	33#	0.1130	2.87
34	34#	0.1110	2.82
35	35#	0.1100	2.79
36	36#	0.1065	2.71
37	37#	0.1040	2.64
38	38#	0.1015	2.58
39	39#	0.0995	2.53
40	40#	0.0980	2.49

分数表示 Fractional	小数表示 Decimal	公制尺寸 Metric
in	in	mm
1/64	0.0156	0.40
1/32	0.0313	0.79
3/64	0.0469	1.19
1/16	0.0625	1.59
5/64	0.0781	1.98
3/32	0.0938	2.38
7/64	0.1094	2.78
1/8	0.1250	3.18
9/64	0.1406	3.57
5/32	0.1563	3.97
11/64	0.1719	4.37
3/16	0.1875	4.76
13/64	0.2031	5.16
7/32	0.2188	5.56
15/64	0.2344	5.95
1/4	0.2500	6.35
17/64	0.2656	6.75
9/32	0.2813	7.14
19/64	0.2969	7.54
5/16	0.3125	7.94
21/64	0.3281	8.33
11/32	0.3438	8.73
23/64	0.3594	9.13
3/8	0.3750	9.53
25/64	0.3906	9.92
13/32	0.4063	10.32
27/64	0.4219	10.72
7/16	0.4375	11.11
29/64	0.4531	11.51
15/32	0.4688	11.91
31/64	0.4844	12.30
1/2	0.5000	12.70

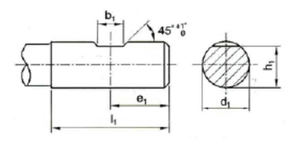
字母表示 Letter	小数表示 Decimal	公制尺寸 Metric
A-Z	in	mm
A	0.2340	5.94
B	0.2380	6.05
C	0.2420	6.15
D	0.2460	6.25
E	0.2500	6.35
F	0.2570	6.53
G	0.2610	6.63
H	0.2660	6.76
I	0.2720	6.91
J	0.2770	7.04
K	0.2810	7.14
L	0.2910	7.39
M	0.2950	7.49
N	0.3020	7.67
O	0.3160	8.03
P	0.3230	8.20
Q	0.3320	8.43
R	0.3390	8.61
S	0.3480	8.84
T	0.3580	9.09
U	0.3680	9.35
V	0.3770	9.58
W	0.3860	9.80
X	0.3970	10.08
Y	0.4040	10.26
Z	0.4130	10.49

柄部标准 -DIN 标准
The Structure of Shank-DIN Standard

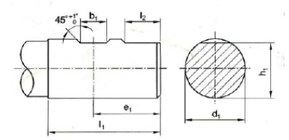
DIN 6535-HA

d_1h_6	2	3	4	5	6	8	10	12	14	16	18	20	25	32
l_1 +2 0	28				36		40	45		48		50	56	60

DIN 6535-HB



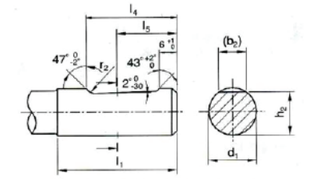
d_1=6~20mm



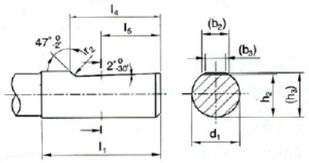
d_1=25~32mm

d_1 h_6	b_1 +0.05 0	e_1 0 -1	h_1 h_{11}	l_1 +2 0	l_2 +1 0
6.0	4.2	18.0	5.1	36.0	
8.0	5.5		6.9		
10	7.0	20.0	8.5	40.0	
12	8.0	22.5	10.4	45.0	
14			12.7		
16	10.0	24.0	14.2	48.0	
18			16.2		
20	11.0	25.0	18.2	50.0	
25	12.0	32.0	23.0	56.0	17.0
32	14.0	36.0	30.0	60.0	19.0

DIN 6535-HE



d_1=6~20mm



d_1=25~32mm

d_1	(b_2)	(b_3)	(h_2)	(h_3)	l_1	l_4	l_5	r_2
6.0	4.3		5.1		36.0	25.0	18.0	1.2
8.0	5.5		6.9					
10	7.1		8.5		40.0	28.0	20.0	
12	8.2		10.4		45.0	33.0	22.5	
14	8.1		12.7					
16	10.1		14.2		48.0	36.0	24.0	1.6
18	10.8		16.2					
20	11.4		18.2		50.0	38.0	25.0	
25	13.6	9.3	23.0	24.1	56.0	44.0	32.0	
32	15.5	9.9	30.0	31.2	60.0	48.0	35.0	

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