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切削刀片
CUTTING TOOLS

■ 车削刀片 ■ 铣削刀片 ■ 钻削刀片
TURNING INSERTS MILLING INSERTS U DRILL INSERTS



INTRODUCTION 公司简介

株洲圣达切削刀具有限公司是一家专业设计、制造及销售数控刀具及硬质合金产品的工厂。公司位于中国硬质合金生产基地-株洲。公司目前主要产品有：数控车刀、数控铣刀、孔加工刀具、数控刀片、工具系统及各类硬质合金制品。

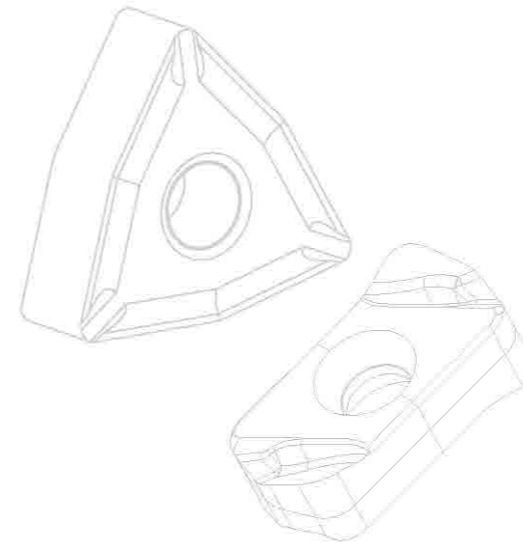


公司拥有强大的设计团队，通过了ISO9001质量管理体系认证；采用ERP系统进行高效准确的管理；拥有包括DMG、MAZAK五轴联动高精度加工中心，ANCA五轴联动高精度磨削中心，ZEISS三坐标高精度检测仪在内的多台数控加工设备以及各种检测设备；同时与包括NIHONG-TECHNO热处理公司在内的多家优秀供应商建立了协作关系，以确保“SANT”系列产品的质量始终处于行业领先水平。

公司拥有多年的设计及制造数控刀具及硬质合金产品的经验，能够为客户提供各类非标刀具，也能为您提供整套产品加工所需的刀具配套方案及各类硬质合金制品。公司秉承“质量第一，服务至上”的理念，与全世界许多客户建立了长期友好的合作。

数控刀片

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Zhuzhou Sant Cutting Tools Co., Ltd is a modern joint-stock company specializing in the designing, producing and selling of CNC cutting tools and cemented carbide tools. Located in Zhuzhou, one of the biggest manufacturing bases of cemented carbide cutting tools in China, our company mainly produces various cnc turning tools, milling tools, drilling tools, cnc inserts, tooling systems and various cemented carbide tools.

We have strong design team and complete quality-testing system and have passed the ISO9001 Certification of Quality Management System. Besides, ERP system is adopted to improve the efficient and accurate management. More importantly, We produce SANT carbide inserts with advanced high-precision equipment such as OSTERWALDER automatic press, WENDT automatic blade peripheral grinder, etc, to ensure SANT quality always keep the leading level in the industry. In order to make sure the quality of "SANT" series products always stands at the front of the industry, we have established collaboration relationships with many outstanding suppliers including NIHONG TECHNO - the heat treatment company.

With the experience of designing and manufacturing cnc cutting tools for many years, we can provide customers with various non-standard tool holders, and can also provide a complete set of supporting scheme for required tools during the processing as well as various carbide tools. In accordance with the principle "Quality First, Service Supreme", we have established long-term friendly cooperation relationships with many customers all over the world.

ISO使用	普通车削			涂层	硬质合金	切槽切断	
	代号	涂层				PVD	CVD
		CVD	PVD				
P 钢	01						
	10	SD5126					
	20	SD5136					
	30	SD5146					
	40						
M 不锈钢	01						
	10		SD2116				
	20		SD2126				
	30		SD2136				
	40		SD2146				
K 铸铁	01	SD4216					
	10	SD4226					
	20	SD4236					
	30	SD4316					
	40	SD4326					
N 有色金属	01						
	10						
	20						
	30						
	40						
S 钛合金、耐热合金	01						
	10		SD2126				
	20		SD2136				
	30						
	40						
H 高硬度材料	01						
	10						
	20						
	30						
	40						

★带孔负角刀片

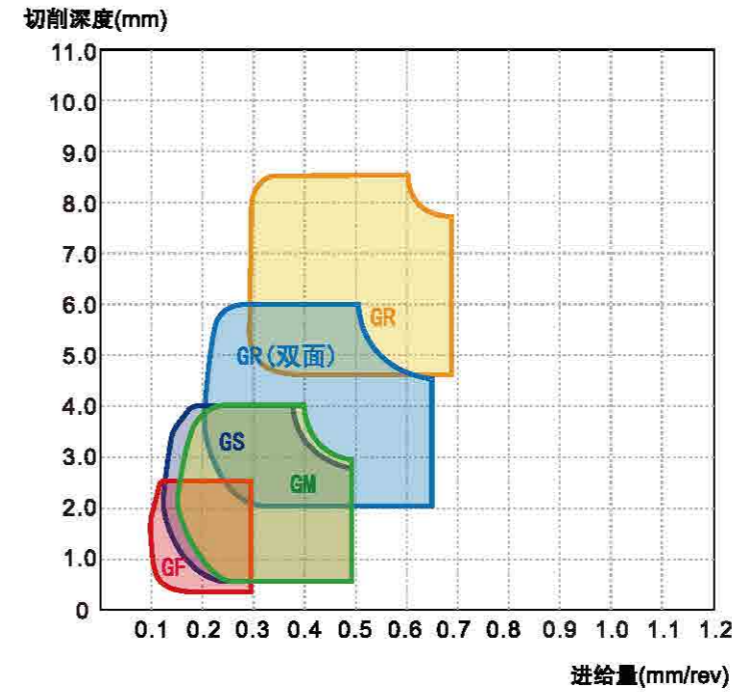
用途	断屑槽	精度	推荐切削用量	特点/刀片外形
粗加工 For roughing	GR双面	M	ap=3~12(mm) fn=0.3~0.8(mm/r)	P类、K类材料轻载粗加工推荐槽型 M级双面断屑槽，轻载粗加工首选槽型，金属切除率和刃口经济性可兼得。 Recommended chipbreaker for light roughing of P-type and K-type materials. Double-side chipbreaker with M-level tolerance is the first choice for light roughing, can achieve high evacuation rate and efficiency of cutting edge.
	GR单面	M	ap=3~15(mm) fn=0.3~0.8 (mm/r)	P类材料粗加工推荐槽型 M级单面断屑槽，刃口安全性高，在大切深，大进给量加工参数下可获得高金属切除率和低切削力。 Recommended chipbreaker for light-load roughing of P-type materials. Single-side general chipbreaker with M-level tolerance, has wide chip breaking range and sharp cutting edge is designed with inclined angle, which enables it to cut lightly and easily and control the chipping flow direction. Chip-lead-stages can reduce the contact area with chips, so that heat can easily be dissipated.
	BR	M	ap=2.5~8(mm) fn=0.2~0.6(mm/r)	M类材料粗加工推荐槽型 M级双面断屑槽，抗冲击能力强，槽型设计在刃口安全性和锋利性取得了最佳平衡点，解决了粗加工不锈钢过程中切削热大，粘刀等难点，获得了高效率。 Recommended chipbreaker for roughing of M-type materials. Double-sided chipbreaker with M-level tolerance has good capacity of impact-resistance. It is designed to achieve balance between security and sharpness of the cutting edge and it can achieve high efficiency by preventing the problems of adhering and high cutting heat when roughing stainless steel.
	KR	M	ap=5~15(mm) fn=0.3~1.0(mm/r)	K类材料重载加工推荐槽型 M级双面断屑槽，刃口强悍，具有高安全性，高金属切除率下抗塑性变形能力强。 Recommended chipbreaker for heavy-load machining of K-type materials. Double-side chipbreaker with M-level tolerance has good cutting edge strength and high security of cutting edge. Under high evacuation rate, liable to plastic deformation during machining.
	GS	M	ap=1.5~5(mm) fn=0.15~0.5(mm/r)	P类材料半精加工推荐槽型 M级双面断屑槽，切削力小，断屑范围宽，对粘性较高的合金钢也可获得较好的断屑效果。 Recommended chip breaker for semi-finishing of P-type materials. Double-side chipbreaker with M-level tolerance produces small cutting forces and has large chip breaking range which ensures good performance for machining highly adhesive alloy steel.
半精加工 For semi-finishing	GM	M	ap=1.5~5(mm) fn=0.15~0.5(mm/r)	P类材料半精加工推荐槽型 M级双面断屑槽，刃口强度较GS高，适合于工况不稳定的半精加工，也可用于铸铁加工，获得较低切削力。 Recommended chip breaker for semi-finishing of P-type materials. Double-sided chipbreaker with M-level tolerance has higher strength of cutting edge than chipbreaker M. It is suitable for semi-finishing under unstable working conditions as well as machining cast iron with small cutting forces.
	BM	M	ap=0.5~1.5(mm) fn=0.1~0.3(mm/r)	M类材料半精加工推荐槽型 M级双面断屑槽，有效解决不锈钢断屑，粘刀等加工难点，可获得比BF更高的加工效率。 Recommended chipbreaker for semi-finishing of M-type materials. Double-sided chipbreaker with M-class tolerance keeps high precision after inserts are turned with good capability to prevent wear and hardening to achieve higher machining efficiency than chipbreaker BF.
	通槽	M	ap=1.5~5(mm) fn=0.2~0.5(mm/r)	P类、M类、K类材料的半精至粗加工 M级双面断屑槽，刃口强度高，通用性好。 From semi-finishing to roughing of P-type, M-type, K-type materials. Double-sided chipbreaker with M-level tolerance has good cutting edge strength and wide application.
精加工 For finishing	GF	M	ap=0.3~2(mm) fn=0.05~0.35(mm/r)	P类材料精加工推荐槽型 M级双面断屑槽，精加工范围断屑理想，加工表面质量高。 Recommended chipbreaker for finishing of P-type materials. With M-level tolerance, it is suitable for internal and external finishing of various materials. And keep the surface be good quality.
	BF	M	ap=0.05~1(mm) fn=0.05~0.3 (mm/r)	M类材料精加工推荐槽型 M级双面断屑槽，刃口锋利，有效解决不锈钢断屑，粘刀、表面硬化等加工难点，获得高质量加工表面。 With M-level tolerance it has sharp cutting edges and is suitable for cutting adhesive materials such as stainless steel soft steel etc. It achieves high quality machining surface.

★ 带孔正角刀片

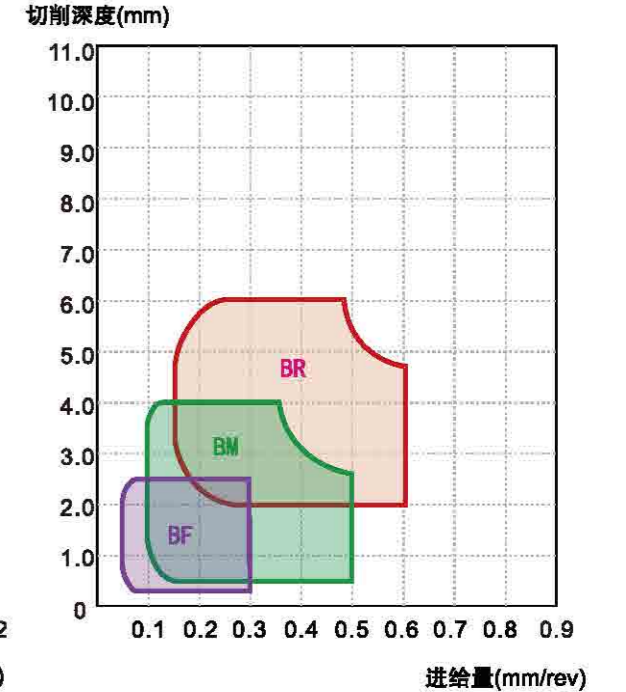
用途	断屑槽	精度	推荐切削用量	特点/刀片外形
粗加工 For roughing	HR	M	ap=3~7(mm) fn=0.3~0.7(mm/r)	粗加工通用槽型 M级精度, 适合钢, 不锈钢, 铸铁等材料的内孔及外圆粗加工。  Recommended Universal Groove for extra finishing. With M-level tolerance, it is suitable for the internal and external extra finishing of steel, stainless steel and Iron cast materials etc.
	HM			通用性较强的半精加工槽型 M级精度, 适合钢, 铸铁等材料的内孔及外圆半精加工。  For semi-finishing universal groove in Wide application. With M-level tolerance, it is suitable for the internal and external semi-finishing of steel, stainless steel and Iron cast materials etc.
精加工 For finishing	HF	G	ap=0.1~2(mm) fn=0.05~0.3 (mm/r)	通用性较强的精加工槽型 M级精度, 适合钢, 铸铁等材料的内孔及外圆精加工。  For finishing universal groove in Wide application. With M-level tolerance, it is suitable for the internal and external finishing of steel, stainless steel and iron cast materials etc.
铝加工 For Al machining	AC			铝加工槽型 G级精度, 大前角和后角使刀片刃口更加锋利, 在保证刀片有效的断屑情况下, 切削更加轻快。  Aluminum processing slot type With G-level tolerance large rake angle and clearance angle make the cutting edge sharper ensuring easy and fast cutting while remaining effective chip breaking.

★ 普通车削刀片主要槽型断屑范围

负角刀片

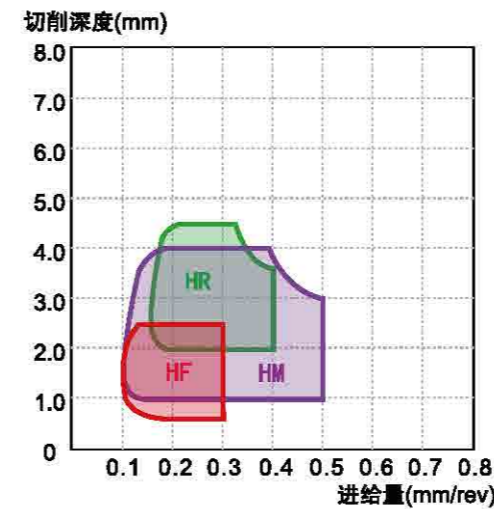


◆ 工件材料: 45#钢

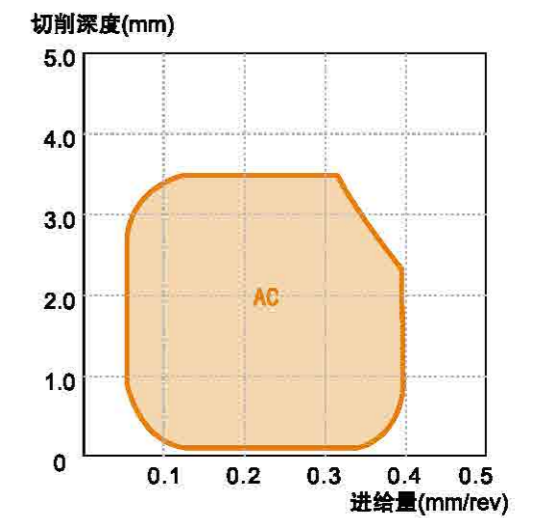


◆ 工件材料: 不锈钢(1Cr18Ni9Ti)

正角刀片



◆ 工件材料: 45#钢



◆ 工件材料: 不锈钢(1Cr18Ni9Ti)

◆ 工件材料: 铝合金



- 表面金黄色TiN具有减小摩擦和提供磨痕识别效果。
- 特殊结构的Al₂O₃ 沉积层具有最好的热屏障性能，保障高速干切削时，刀片基体抗塑性变形能力。
- TiCN层具有抗磨料磨损的性能，使刀片后刀面抗磨损的性能更强。
- 采用梯度烧结技术，刃口抗冲击性和耐磨性增强，从而提高刃口的抗碰撞能力。
- 含特殊晶体结构的碳化物，提高了刀片基体的红硬性，加强了刀片耐高温性能。

SD5126

高耐磨性的基体与MT-TiCN、厚Al₂O₃和TiN涂层的组合；是钢、铸钢和不锈钢材料精加工及在高速切削条件下的理想牌号。

SD5136

具有特殊强度与韧性刀刃的基体与MT-TiCN、厚Al₂O₃和TiN涂层的最佳组合；是钢材加工的通用牌号，适用于钢、铸钢和不锈钢的半精加工、精加工等。

SD5146

高强度与抗塑性变形基体与MT-TiCN、厚Al₂O₃和TiN涂层的结合；具有好的韧性及抗塑性变形，适用于钢、铸钢、不锈钢的轻型粗加工与粗加工。

SD5441

高硬度的基体，适用于中速、高速；轻、重负荷铣削加工低合金钢与非合金钢，也可以用于条件比价差的情况下的铣削加工

SD5451

耐磨性与韧性结合较好的基体，通用的涂层硬质合金牌号，用于钢、铸铁、淬火钢的中、低速铣削。

SD4216

涂层与坚硬基体结合能承受高温而不发生塑性变形。适用于球墨铸铁、高强度可锻铸铁和灰口铸铁的精加工到半精加工。

SD4226

高耐磨性基体与MT-Ti (CN)、厚Al₂O₃涂层的最佳组合，是球墨铸铁与灰口铸铁加工的首选牌号，允许有较高的切削速度。

SD4236

耐磨性与韧性适中的基体与MT-Ti (CN)、厚Al₂O₃涂层的最佳组合，是球墨铸铁与灰口铸铁偏粗加工，高金属去除率的首选牌号

SD5226

高耐磨性的基体与MT-TiCN、厚Al₂O₃涂层的组合；是钢、铸钢和不锈钢材料精加工在高速切削条件下的理想牌号。

SD5236

具有特殊强度与韧性刀刃的基体与MT-TiCN、超细Al₂O₃涂层的最佳组合，是钢材加工的通用牌号，适用于钢、铸钢和不锈钢的半精加工、精加工等。

SD5246

高强度与抗塑性变形基体与MT-TiCN、超细Al₂O₃涂层的结合，具有好的韧性及抗塑性变形；适用于钢、铸钢、不锈钢的轻型粗加工与粗加工。

刀片采用特殊表面技术，大幅度提高了刀片表面光洁度，有效降低了切削力，减少了刀具表面与被加工材料的粘附，极大的提高了刀片使用的稳定性。

纤维状TiCN和细晶粒Al₂O₃涂层的完美组合显著提高了刀片的抗磨损性能和抗崩刃性能。

厚Al₂O₃涂层与坚硬耐冲击的基体结合，使刀片具有稳定的高温红硬性和良好的抗冲击性能，在满足铸铁高速、高进给量加工要求的同时提高了刀片的耐磨性能。



表面处理前



表面处理后

刀片耐磨试验对比效果

工件材料: 42CrMo 刀片型号: CNMG120408-GS
切削参数: Vc=390m/min ap=1mm fr=0.2mm/r



SD5326

高耐磨性的基体与MT-TiCN、超细Al₂O₃、TiN涂层的组合；是钢、铸钢和不锈钢材料精加工在高速切削条件下的理想牌号。

SD4326

高耐磨性基体与MT-Ti (CN)、超细Al₂O₃、TiN涂层的最佳组合，是球墨铸铁与灰口铸铁加工的首选牌号，允许有较高的切削速度。

SD5336

具有特殊强度与韧性刀刃的基体与MT-TiCN、超细Al₂O₃、TiN涂层的最佳组合，是钢材加工的通用牌号，适用于钢、铸钢和不锈钢的半精加工、精加工等。

SD4336

耐磨性与韧性适中的基体与MT-Ti (CN)、超细Al₂O₃、TiN涂层的最佳组合，是球墨铸铁与灰口铸铁偏粗加工，高金属去除率的首选牌号。

SD5346

高强度与抗塑性变形基体与MT-TiCN、超细Al₂O₃、TiN涂层的结合，具有好的韧性及抗塑性变形；适用于钢、铸钢、不锈钢的轻型粗加工与粗加工。

SD4346

涂层与坚硬基体结合能承受高温而不发生塑性变形。适用于球墨铸铁、高强度可锻铸铁和灰口铸铁的精加工到半精加工。

PVD 涂层硬质合金

纳米涂层新牌号

让难加工材料的加工不再难

- 特殊的涂层工艺，使刀片表面光滑，降低摩擦力，排屑更流畅。
- 独特的纳米结构涂层，与基体结合更加紧密，韧性和硬度更高。
- 良好的热稳定性和化学稳定性为切削刃提供更有有效的保护。

纳米结构的高性能TiAlN涂层，确保了刀片具有极高的韧性和硬度。独特的涂层工艺使刀片具有光滑的表面和极高的耐磨性，突出的热稳定性和化学稳定性为切削刃提供了有效的保护。



nc-TiAlN涂层 (SD2136)



SD2136涂层表面

SD2136

2-4 μm的TiAlN PVD涂层与超细颗粒的高韧性基体结合，适用于各类被加工材料以及不锈钢和高温合金的精、半精加工。

SD2126

2-4 μm的TiAlN PVD涂层与细颗粒的高韧性基体结合，适用于各种被加工材料以及高温合金、钛合金的精、半精加工。

SD2336

2-4 μm的纳米级AlCrN+AlCrSiN PVD涂层与超细颗粒的高韧性基体结合，适用于各类被加工材料的轻、中等负荷铣削以及不锈钢和高温高硬度合金的精、半精加工。

SD2146

PVD涂层与韧性极好的基体结合，适用于各种材料的粗加工以及半精加工。



- Golden surface of TIN can reduce friction and enable easy distinction of the variety of wear.
- Special structure of Al₂O₃ deposit layer acts as a thermal barrier and strengthens the capability of substrate against plastic deformation under dry and high-speed cutting conditions.
- TiCN layer acts against abrasion, which leads to the best wear resistance of the flank.
- Thanks to the technology of gradient sintering, Impact resistance of cutting edge and wear resistance are improved which lead to improved capability of cutting edge against damage.
- Carbide with special crystal structure improves the Red Hardness of substrate and strengthens heat resistance of Insert.

SD5126

The combination of substrate with excellent wear resistance and coating composed of MT-TiCN thick layer of Al₂O₃ and TiN makes it ideal grade for steel, cast iron and stainless steel in finishing and in high speed cutting conditions.

SD5136

The best combination of substrate with high wear resistance and coating composed of MT-Ti (CN) thick Al₂O₃ layer and TiN makes it suitable for finishing and semi-finishing of steel, cast iron and stainless steel.

SD5146

The combination of substrate with high wear resistance and coating composed of MT-Ti (CN) thick Al₂O₃ layer and TiN with excellent resistance against diffusive wear and plastic deformation makes it suitable for slight roughing and roughing of steel, cast and stainless steel.

SD5441

Hard substrate is suitable for process low alloy steel and non-alloyed steel for slight & heavy milling in middle & high speed, it can also be used for milling process in rather bad conditions.

SD5451

Substrate combined with wear resistance and tenacity is the general grade for coated cemented carbide, can be used in middle & low speed milling for steel, cast iron and chilled hardened steel.

SD4216

CVD coated grade, which is the combination of hard substrate and coating (extra thick Al₂O₃ thick TiCN). The grade is suitable for the finishing and semi-finishing of nodular cast iron and gray cast iron.

SD4226

The best combination of substrate with excellent wear resistance and coating composed of MT-TiCN thick layer of Al₂O₃ and TiN, is the best grade for cutting nodular cast iron and gray cast iron, allowing rather high cutting speed.

SD4236

The best combination of substrate with excellent wear resistance and coating composed of MT-TiCN thick layer of Al₂O₃ and TiN, is the best grade for nodular cast iron and gray cast iron in rather heavy roughing.

SD5226

The best combination of substrate with excellent wear resistance and coating composed of MT-TiCN thick layer of Al₂O₃ and TiN, is the best grade for the finishing of steel, cast iron and stainless steel, allowing rather high cutting speed.

SD5236

The best combination of substrate with high wear resistance and coating composed of MT-Ti (CN) super thin Al₂O₃ layer and TiN makes it suitable for finishing and semi-finishing of steel, cast iron and stainless steel.

SD5246

The best combination of substrate with high wear resistance and coating composed of MT-Ti (CN) super thin Al₂O₃ layer and TiN makes it suitable for light roughing and roughing of steel, cast iron and stainless steel.

Roughness of insert surface is improved after special treatment on surface which effectively reduces cutting forces prevents workpiece adhering to surface of inserts and improves operation stability of inserts.



Before surface treatment



After surface treatment

The perfect combination of fibrous TiCN and fine grain Al₂O₃ obviously improves abrasion resistance and anti-breaking of inserts.



SD5326

The best combination of substrate with excellent wear resistance and coating composed of MT-TiCN, super thin layer of Al₂O₃ and TiN, is the best grade for the finishing of steel, cast iron and stainless steel, allowing rather high cutting speed.

SD4326

The best combination of substrate with excellent wear resistance and coating composed of MT-TiCN, super thin layer of Al₂O₃ and TiN, is the best grade for nodular cast iron and gray cast iron, allowing rather high cutting speed.

SD5336

The best combination of substrate with high strength and toughness and coating composed of MT-TiCN, super thin layer of Al₂O₃ and TiN, general grade for cutting steel, also the semi-finishing and finishing of steel, cast iron and stainless steel.

SD4336

The best combination of substrate with wear resistance and coating composed of MT-TiCN, super thin layer of Al₂O₃ and TiN, is the best grade for nodular cast iron and gray cast iron in rather heavy roughing with high metal removal rate.

SD5346

The best combination of substrate with high strength and toughness and coating composed of MT-TiCN, super thin layer of Al₂O₃ and TiN, suitable for the light roughing and roughing of steel, cast iron and stainless steel.

SD4346

The combination of coating and substrate has high capability against plastic deformation under high temperature. Suitable for nodular cast iron, high strength malleable cast iron and gray cast iron, when finishing machining and semi-finishing machining.

PVD Coated Cemented Carbide

Make it easy to machining hard material

New Nano coating grade

- Special coating techniques, low friction and unobstructed chip flow.
- Unique coating with Nano structure closely, higher toughness and hardness.
- Good thermal stability and chemical stability effectively protect cutting edge.

High-performance Nano structure coating guarantees good toughness and hardness of inserts. Special coating technology guarantees smooth surface and excellent wear resistance. Outstanding thermal stability and chemical stability protected edge.



NC-TiAlN coating (SD2136)



Coating surface (SD2136)

SD2136

2-4 micron TiAlN PVD coating and high toughness ultra-fine grain substrate makes it suitable for finishing and semi-finishing of various materials and turning of super alloy.

SD2126

2-4 micron TiAlN PVD coating and high toughness ultra-fine grain substrate makes it suitable for various materials and the finishing and semi-finishing of high temperature alloy, heat resistant alloy etc.

SD2336

2-4 micron of AlCrN and AlCrSiN PVD coating combined with high toughness ultra-fine grain substrate make it suitable for light, medium milling machining. It also can be used in finishing and semi-finishing of stainless, high temperature and high hardness alloy.

SD2146

PVD coating and high toughness substrate make it suitable for rough finish and semi-finishing of all kinds of materials.

车削刀片 | TURNING INSERTS



CVD涂层硬质合金 Carbide Inserts

★ 牌号与槽型推荐组合

P类加工		M类加工		K类加工	
牌号	槽型	牌号	槽型	牌号	槽型
SD5136 SD5236 SD5336	GS·GM	SD5136 SD5236 SD5336	GR(双面)	SD4216 SD4316 SD4226 SD4326	KR
SD5126 SD5226 SD5326	GF	SD5146 SD5246 SD5346	GR(单面)	SD5461 SD2146	BR
		SD5451 SD2136	BM	SD5441 SD2126	BF
				SD4236 SD4336	无槽

★ 推荐切削用量 / 加工案例

工件材料	加工范围	牌号	推荐切削速度 (m/min)
P 钢	精加工	SD5126	170-450
	半精加工	SD5226 SD5326	210-460
		SD5136	150-420
M 不锈钢	粗加工	SD5236 SD5336	170-460
	半精加工	SD5146	120-360
		SD5246 SD5346	120-360
K 铸铁	精加工	SD5441 SD2326	100-270
	半精加工	SD5451 SD2336	100-270
		SD5461 SD2346	100-270
	粗加工	SD4216	200-480
	半精加工	SD4316	210-500
		SD4226	160-430
	粗加工	SD4326	180-430
		SD4236 SD4336	130-360

使用刀片	型号	CNMG120408-GM	CNMG190616-BR	TNMA220412
刀片	牌号	SD5236	SD5451	SD4216
工件外形				
工件材质及硬度		42CrMo HB280	1Cr13 HB270	灰口铸铁 HB280
切削条件	参数	V=240m/min ap=1.5~2mm f=0.2mm/r	V=100m/min ap=1.3mm f=0.3mm/r	Vmax=400m/min ap=1.3~2.5mm f=0.4~1.1mm/r
	切削方式	干式切削	干式切削	干式切削
结果对比				
		SD5236 A公司	SD5451 A公司	SD4216 A公司
		加工零件数/刃口	加工零件数/刃口	加工零件数/刃口



车削刀片 | TURNING INSERTS

Carbide Inserts PVD涂层硬质合金

★ 牌号与槽型推荐组合

P类加工		M类加工	
牌号	槽型	牌号	槽型
SD2146 SD2346	GR	SD2146 SD5461	BR
SD2136 SD2336	GM	SD2136 SD5451	BM
SD2126 SD2116 SD2326 SD2316	GF	SD2126 SD5441	BF

★ 推荐切削用量 / 加工案例

工件材料	加工范围	牌号	推荐切削速度 (m/min)
P 钢	半精加工	SD2336	160-360
	粗加工	SD2346 SD5461	80-100
M 不锈钢		半精加工	SD2336 SD5451
	精加工	SD2326 SD5441	150-280

使用刀片	型号	CNMG120404-GM	DNMG150404-BM
	牌号	SD2136	SD2136
工件外形			
工件材质及硬度		40Cr HB280	1Cr18Ni9Ti HB240
切削条件	切削参数	V=220m/min ap=2mm f=0.15mm/r	Vc=150m/min ap=1.0mm f=0.15mm/r
	切削方式	干式切削	干式切削
加工效果			
		A公司 SD2136	A公司 SD2136
		加工零件数(个)/刃口	刀具寿命(min)



车削刀片 | TURNING INSERTS



硬质合金刀片 Carbide Inserts

★ 车削刀片命名规则 Naming Rules

刀片形状/代号			刀片类型							
			代号	有尖孔	有倒角/圆	刀片类型	代号	有尖孔	有倒角/圆	刀片类型
			B	有	无		M	无	无	
			H	有	有圆		M	无	有圆	
			C	有	无		F	无	有圆	
			J	有	有圆		A	有	无	
			W	有	无		M	有	有圆	
			T	有	有圆		G	有	有圆	
			Q	有	无		X	-	-	特殊
			U	有	有圆					

C N M G

车削刀片角度				公差			
代号	角度	代号	角度	公差			
A		B		公差			
C		D		公差			
E		F		公差			
G		H		公差			
I		J		公差			
K		L		公差			
M		N		公差			
P		Q		公差			

代号	刀片厚度公差 (mm)	内圆直径公差 (mm)	厚度 (H) 公差 (mm)	内圆直径公差 (mm)								
A	±0.008	±0.020	±0.020	内圆直径	30°倒角	无倒角	40°倒角	60°倒角	80°倒角	90°倒角	120°倒角	其他
F	±0.005	±0.010	±0.005	0.200	±0.01	±0.01	±0.01	±0.11	±0.10	-	-	-
C	±0.010	±0.020	±0.020	0.300	±0.01	±0.01	±0.01	±0.11	±0.10	-	-	-
H	±0.010	±0.010	±0.005	12.7	±0.10	±0.10	±0.10	±0.10	-	-	-	-
E	±0.020	±0.020	±0.020	15.875	±0.10	±0.10	±0.10	±0.10	-	-	-	-
Q	±0.020	±0.020	±0.10	19.05	±0.10	±0.10	±0.10	±0.10	-	-	-	-
J	±0.005	±0.005-±0.10	±0.005	25.4	-	±0.10	-	-	-	-	-	-
K	±0.010	±0.005-±0.10	±0.005	内圆直径公差 (mm)								
L	±0.020	±0.05-±0.10	±0.020	内圆直径	无倒角	30°倒角	40°倒角	60°倒角	80°倒角	90°倒角	120°倒角	其他
M	±0.005-±0.10	±0.005-±0.10	±0.10	0.200	±0.01	±0.01	±0.01	±0.05	±0.05	-	-	-
N	±0.005-±0.10	±0.005-±0.10	±0.020	0.300	±0.01	±0.01	±0.01	±0.05	±0.05	±0.05	±0.05	-
U	±0.10-±0.30	±0.005-±0.20	±0.10	12.7	±0.01	±0.01	±0.01	±0.05	-	-	±0.05	-
				15.875	±0.10	±0.10	±0.10	±0.10	-	-	-	±0.10
				19.05	±0.10	±0.10	±0.10	±0.10	-	-	-	±0.10
				25.4	-	±0.10	-	-	-	-	-	±0.10

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车削刀片 | TURNING INSERTS

硬质合金刀片 Carbide Inserts

内圆直径 (mm)	刀片类型								刀片厚度 (mm)	
	C	D	R	S	T	V	W	K		
3.97					08				08	0.70
5.0			08							0.80
6.05					08					1.00
8.0			08							1.20
8.55	06	07			11	11				1.50
9.0			08							2.00
9.825	09	11	09	09	10	10	09	10		2.50
10.0			10							3.00
12.0			12							3.97
12.7	12	14	12	12	22	22	22	22		4.75
15.875	15		15	15	27					5.50
16.0		10	10							6.00
19.05	19		19	19	33					6.50
20.0			20							7.00
25.0	25	26	25							7.84
26.4			25	25						8.00
31.75			31							8.75
32			32							11.11
										12.70

12 04 08 - BM (ISO)
4 3 2 (英寸)

内圆直径		厚度		刀片厚度公差		刀片类型代号		刀片材料代号		
代号	内圆直径 (mm)	代号	厚度 (mm)	代号	刀片厚度公差 (mm)	代号	刀片厚度公差 (mm)	HP	GM	GR
2	3.97	2	2.10	2	0.2	08	无倒角			
3	5.025	3	4.75	1	0.4	04	0.2			
4	12.7	4	6.05	2	0.8	08	0.4			
6	15.875	6	7.84	3	1.2	12	1.2			
8	19.05	8	9.82	4	1.6	16	1.6			
6	25.4	6	9.82	5	2.0	20	2.0			
				6	2.4	24	2.4			
						X	其他			
							刀片厚度公差 (英寸)			

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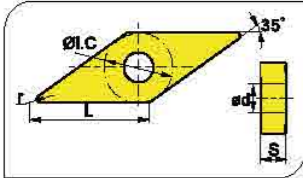


车削刀片 | TURNING INSERTS



硬质合金刀片 Carbide Inserts

VN□□ (负角型)



型号	L	φ1.C	S	φd
VN**1604**	16.6	9.525	4.76	3.81

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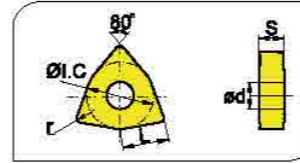
刀片外形	型号	尺寸 (mm)	涂层硬质合金												硬质合金											
			SD5126	SD5226	SD5326	SD5136	SD5236	SD5336	SD5146	SD5246	SD5346	SD2326	SD2336	SD2346	SD4216	SD4316	SD4226	SD4326	SD4236	SD4336	SP302	SP402	SP002	SP102	SP202	
通槽 	VNMG160404	0.4	○	★	★	★										○	★									
	VNMG160408	0.8	○	★	★	★										○	★									
GR 	VNMG160408-GM	0.8	○	★	★	★																				
	VNMG160412-GM	1.2	○	★	★	★																				
半精加工 	VNMG160404-BM	0.4														○	★									
	VNMG160408-BM	0.8														○	★									
半精加工 	VNMG160404-BF	0.4	○	★	★	★																				
	VNMG160408-BF	0.8	○	★	★	★																				
精加工 	VNMG160404-BF	0.4														○	★									
	VNMG160412-BF	1.2														○	★									



车削刀片 | TURNING INSERTS

Carbide Inserts 硬质合金刀片

WN□□ (负角型)



型号	L	φ1.C	S	φd
WN**06T3**	6.5	9.525	3.97	3.81
WN**0604**	6.5	9.525	4.76	3.81
WN**0804**	8.7	12.7	4.76	5.16

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刀片外形	型号	尺寸 (mm)	涂层硬质合金												硬质合金												
			SD5126	SD5226	SD5326	SD5136	SD5236	SD5336	SD5146	SD5246	SD5346	SD2326	SD2336	SD2346	SD4216	SD4316	SD4226	SD4326	SD4236	SD4336	SP302	SP402	SP002	SP102	SP202		
GR 	WNMG060408-GR	0.8				○	★	★	★																		
	WNMG060412-GR	0.8				○	★	★	★																		
	WNMG080408-GR	0.8				○	★	★	★																		
	WNMG080412-GR	1.2				○	★	★	★																		
粗加工 	WNMG080416-GR	1.6				○	★	★	★																		
	WNMG060408-BR	0.8																			○	★					
	WNMG060412-BR	0.8																			○	★					
	WNMG080408-BR	0.8																			○	★					
粗加工 	WNMG080412-BR	1.2																			○	★					
	WNMG080416-BR	1.6																			○	★					
	WNMG060412-KR	0.8																						★	★	○	
粗加工 	WNMG080408-KR	0.8																							★	★	○
	WNMG080412-KR	1.2																							★	★	○
	WNMG080416-KR	1.6																							★	★	
无槽 	WNMA06T308	0.8																								★	
	WNMA060404	0.4																								★	
	WNMA060408	0.8																								★	
	WNMA060412	1.2																								★	
	WNMA080404	0.4																								★	
	WNMA080408	0.8																								★	
	WNMA080412	1.2																								★	
	WNMA080416	1.6																								★	
通槽 	WNMG060408	0.8	○				★	★																			
	WNMG060412	1.2	○				★	★																			
	WNMG080408	0.8					★	★																			
	WNMG080412	1.2					★	★																			
	WNMG080416	1.6					★	★																			

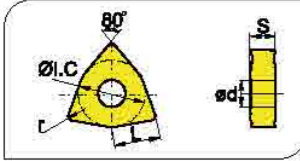


车削刀片 | TURNING INSERTS



硬质合金刀片 Carbide Inserts

WN□□ (负角型)



型号	L	ΦI.C	S	Φd
WN**06T3**	6.5	9.525	3.97	3.81
WN**06O4**	6.5	9.525	4.76	3.81
WN**08O4**	8.7	12.7	4.76	5.16

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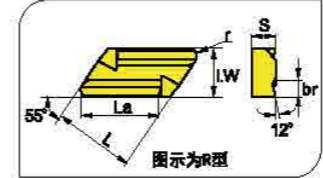
刀片外形	型号	尺寸 (mm)		涂层硬质合金														硬质合金									
		r		P							M							K									
				SD5126	SD5226	SD5326	SD5136	SD5236	SD5336	SD5146	SD5246	SD5346	SD2326	SD2336	SD2346	SD4216	SD4316	SD4226	SD4326	SD4236	SD4336	SP302	SP402	SP002	SP102	SP202	
 半精加工	WNMG060408-GM	0.8	○				★	★								○	★								★		
	WNMG060412-GM	1.2	○				★	★								○	★								★		
	WNMG080404-GM	0.4	○				★	★								○	★								★		
	WNMG080408-GM	0.8	○				★	★								○	★								★		
	WNMG080412-GM	1.2					★	★								○	★								★		
	WNMG080416-GM	1.6					★	★								○	★								★		
	WNMG080616-GM	1.6					★	★								○	★								★		
 半精加工	WNMG06T304-BM	0.4													○	★											
	WNMG06T308-BM	0.8													○	★											
	WNMG06T312-BM	1.2													○	★											
	WNMG060404-BM	0.4													○	★											
	WNMG060408-BM	0.8													○	★											
	WNMG080404-BM	0.4													○	★											
	WNMG080408-BM	0.8													○	★											
WNMG080412-BM	1.2													○	★												
 精加工	WNMG06T304-GF	0.4	★	★			○	★																			
	WNMG06T308-GF	0.8	★	★			○	★																			
	WNMG06T312-GF	1.2	★	★			○	★																			
	WNMG060404-GF	0.8	★	★			○	★																			
	WNMG060408-GF	1.2	★	★			○	★																			
	WNMG060412-GF	1.2	★	★			○	★																			
	WNMG080404-GF	0.4	★	★			○	★																			
	WNMG080408-GF	0.8	★	★			○	★																			
WNMG080412-GF	1.2													○	★												
 精加工	WNMG06T304-GF	0.4													○	★											
	WNMG06T308-GF	0.8													○	★											
	WNMG06T312-GF	1.2													○	★											
	WNMG060404-GF	0.8													○	★											
	WNMG060408-GF	1.2													○	★											
	WNMG060412-GF	1.2													○	★											
	WNMG080408-GF	0.8													○	★											

车削刀片 | TURNING INSERTS



Carbide Inserts 硬质合金刀片

KN□□ (负角型)



型号	L	ΦI.C	S	Φd
KN**16O4**	16	16.15	9.525	4.76

★主推牌号库存 ☆可选牌号库存 ○按单生产

刀片外形	型号	尺寸 (mm)		涂层硬质合金														硬质合金									
		r		P							M							K									
				SD5126	SD5226	SD5326	SD5136	SD5236	SD5336	SD5146	SD5246	SD5346	SD2326	SD2336	SD2346	SD4216	SD4316	SD4226	SD4326	SD4236	SD4336	SP302	SP402	SP002	SP102	SP202	
 仿形车削	KNLX160405L12	0.5																									
	KNLX160405R12	0.5					★			○																	
	KNLX160410L12	1.0					★			○																	
	KNLX160410R12	1.0					★			○																	
	KNLX160405L11	0.5						★			○																
	KNLX160405R11	0.5						★			○																
								★			○																

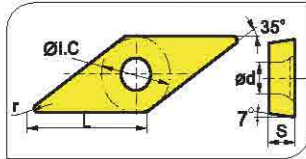


车削刀片 | TURNING INSERTS



硬质合金刀片 Carbide Inserts

VC□□ (正角型)



型号	L	Φ I.C	S	Φ d
TC**06T1**	11	6.35	2.38	2.8
TC**0902**	11	6.35	3.18	2.8

型号	L	Φ I.C	S	Φ d
TC**1102**	16.6	9.525	4.76	4.5
TC**16T3**	22	12.7	5.56	5.5

★主推牌号库存 ☆可选牌号库存 ○接单生产

刀片外形	型号	尺寸 (mm)	涂层硬质合金												硬质合金									
			P						M			K												
r	SD5126	SD5226	SD5326	SD5136	SD5236	SD5336	SD5146	SD5246	SD5346	SD2326	SD2336	SD2346	SD4216	SD4316	SD4226	SD4326	SD4236	SD4336	SP302	SP402	SP002	SP102	SP202	
AC	VCGX110202-AC	0.2																				☆	☆	
	VCGX110202-AC	0.4																					☆	☆
	VCGX110301-AC	0.1																					☆	☆
	VCGX110302-AC	0.2																					☆	☆
	VCGX110304-AC	0.4																					☆	☆
	VCGX110308-AC	0.8																					☆	☆
	VCGX160402-AC	0.2																					☆	☆
	VCGX160404-AC	0.4																					☆	☆
	VCGX160408-AC	0.8																					☆	☆
	VCGX160412-AC	1.2																					☆	☆
铝加工	VCGX220530-AC	3																					☆	☆



切断切槽刀片 | PARTING AND GROOVING TOOLS

Carbide Inserts 硬质合金刀片

小松鼠系列槽刀刀片选择 Matching Insert

型号 Type	SD2136	SD2336	SD4326	SD4226	SD4236	SD5346	SD5236	SD5451	SD5441	SD5146	基本尺寸(mm) Dimension		
											W	R	最大切深 La max
ZTED02503-MG	★	★		★				★	☆		2.5	0.3	17
ZTFD0303-MG	★	★		★				★	☆		3	0.3	17
ZTHD0404-MG	★	★		★				★	☆		4	0.4	22
ZTHD0504-MG	★	★		★				★	☆		5	0.4	22
ZTKD0608-MG	★	★		★				★	☆		6	0.8	22
ZTHS0504-MG	☆	☆		☆							5	0.4	-
ZTKS0608-MG	☆	☆		☆							6	0.8	-

P 钢	■	■						■	■	
M 不锈钢	□	■								
K 铸铁		■	■							
N 有色金属										
S 耐热合金、钛合金		■								
H 淬硬材料										

★ 常备库存 Unallocated stock ☆ 可备库存 Available stock ■ 推荐应用 Main application □ 拓展应用 Extended application

克洛伊系列槽刀刀片选择 Matching Insert

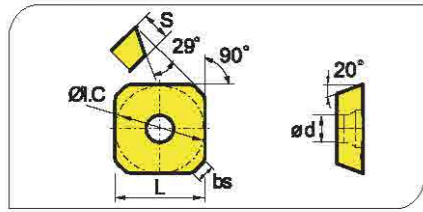
型号 Type	SD2136	SD2336	SD4326	SD4226	SD4236	SD5346	SD5236	SD5451	SD5441	SD5146	基本尺寸(mm) Dimension				
											b	r	l	d	t
MGMN200-M	★	★		★				★	☆		2	0.2	16	1.2	3.5
MGMN250-M	★	★		★				★	☆		2.5	0.2	18.5	2	3.85
MGMN300-M	★	★		★				★	☆		3	0.4	21	2.35	4.8
MGMN400-M	★	★		★				★	☆		4	0.4	21	3.3	4.8
MGMN500-M	★	★		★				★	☆		5	0.8	26	4.1	5.8
MGMN600-M	★	★		★				★	☆		6	0.8	26	5	5.8

P 钢	■	■						■	■	
M 不锈钢	□	■								
K 铸铁		■	■							
N 有色金属										
S 耐热合金、钛合金		■								
H 淬硬材料										

★ 常备库存 Unallocated stock ☆ 可备库存 Available stock ■ 推荐应用 Main application □ 拓展应用 Extended application



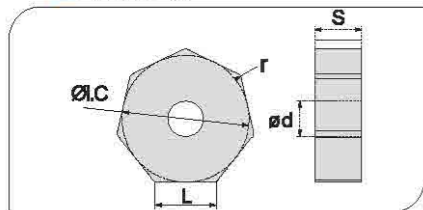
刀片选择



★主推牌号库存 ☆可选牌号库存 ○按单生产

刀片外形	型号	基本尺寸 (mm)					CVD涂层					PVD涂层	金属陶瓷	硬质合金					
		L	I.C	S	φd	bs	SD5146	SD5441	SD5451	SD5236	SD5346	SD4226	SD4326	SD2336	SD2136				
	SEET12T3-FM	13.4	13.4	3.97	4.1	2.55	☆	☆					☆	★	★				
	SEET12T3-SM	13.4	13.4	3.97	4.1	2.55	☆	☆	☆	☆	☆	☆	★	★	★				
	SEET12T3-SR	13.4	13.4	3.97	4.1	2.55	☆						☆						

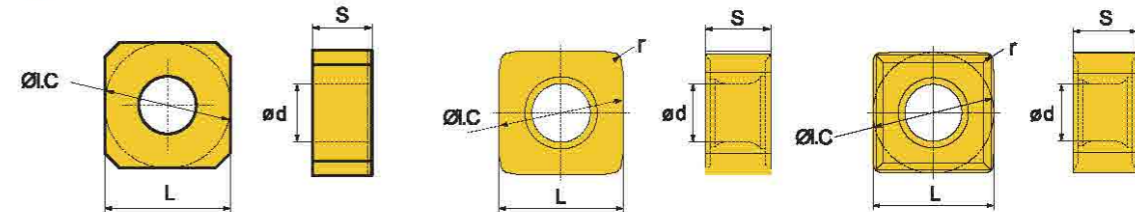
刀片选择



★主推牌号库存 ☆可选牌号库存 ○按单生产

刀片外形	型号	基本尺寸 (mm)					CVD涂层					PVD涂层	金属陶瓷	硬质合金							
		L	I.C	S	φd	r	SD5146	SD5441	SD5451	SD5236	SD5346	SD4236	SD4226	SD4326	SD2336	SD2136	SP210M				
	XNMX070508-GM	6.98	14.5	5.36	4.0	0.8												★			
	XNMX0705ZNN	6.98	14.5	5.36	4.0	0.8						☆	☆	★	☆						
	XNMX0705ANN	6.98	14.5	5.36	4.0	0.8						☆	☆	★	☆						

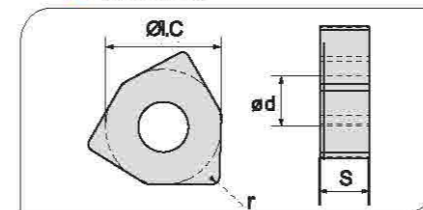
刀片选择



★主推牌号库存 ☆可选牌号库存 ○按单生产

刀片外形	型号	基本尺寸 (mm)					CVD涂层					PVD涂层	金属陶瓷	硬质合金								
		L	I.C	S	φd	r	SD5146	SD5441	SD5451	SD5236	SD5346	SD4236	SD4226	SD4326	SD2336	SD2136	SP210T	SP210M				
	SNGX1205ANN	12.7	12.7	6.5	5.9	0.8													☆	☆		
	SNMX1205ANN	12.7	12.7	6.5	5.9	0.8	★				☆	☆	☆	☆	★	★						
	SNGX1205ENN	12.7	12.7	6.5	5.9	0.8													☆	☆		
	SNMX1205ENN	12.7	12.7	6.5	5.9	0.8	★				☆	☆	☆	☆	★	★						
	SNGX1205PNN	12.7	12.7	6.5	5.9	0.8													☆	☆		
	SNMX1205PNN	12.7	12.7	6.5	5.9	0.8	★				☆	☆	☆	☆	★	★						

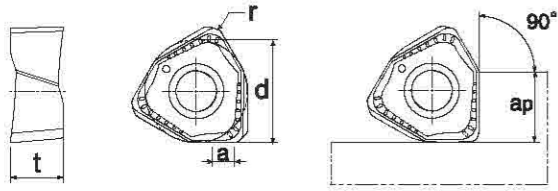
刀片选择



★主推牌号库存 ☆可选牌号库存 ○按单生产

刀片外形	型号	基本尺寸 (mm)					CVD涂层					PVD涂层	金属陶瓷	硬质合金								
		L	I.C	S	φd	r	SD5146	SD5441	SD5451	SD5236	SD5346	SD4236	SD4226	SD4326	SD2336	SD2136	SP210M					
	WNMU080608PN-GM	8.7	14.02	6.65	6.2	0.8													★			
	WNMU080608EN-GM	8.7	14.02	6.65	6.2	0.8	☆	☆			☆	☆	☆	★	★							

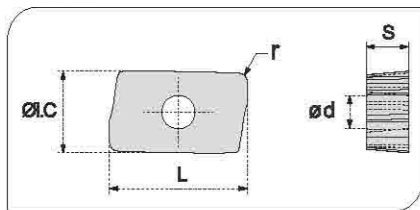
刀片选择



★主推牌号库存 ☆可选牌号库存 ○按单生产

刀片外形	型号	基本尺寸 (mm)					CVD涂层								PVD涂层	金属陶瓷	硬质合金			
		d	t	a	r	ap	SD5146	SD5441	SD5451	SD5236	SD5346	SD4236	SD4226	SD4326	SD2336	SD2136	SP210T			
	XNGU090508PRHDE-M	13.05	6.74	2.0	0.8	9.2											★			

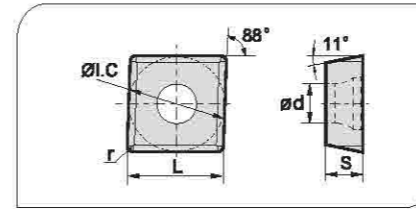
刀片选择



★主推牌号库存 ☆可选牌号库存 ○按单生产

刀片外形	型号	基本尺寸 (mm)					CVD涂层								PVD涂层	金属陶瓷	硬质合金			
		L	I.C	s	φd	r	SD5146	SD5441	SD5451	SD5236	SD5346	SD4236	SD4226	SD4326	SD2336	SD2136	SP210M			
	AXMT11T308-GM	11.7	6.93	3.6	2.8	0.8											★			
	AXMT170408-PM	17.6	9.6	4.76	4.3	0.8			☆			☆		★	★					

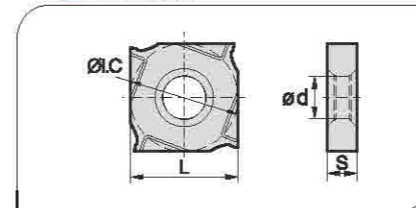
刀片选择



★主推牌号库存 ☆可选牌号库存 ○按单生产

刀片外形	型号	基本尺寸 (mm)					CVD涂层								PVD涂层	金属陶瓷	硬质合金			
		L/A	I.C	s	φd	r	SD5146	SD5441	SD5451	SD5236	SD5346	SD4236	SD4226	SD4326	SD2336	SD2136		SiC001		
	MPHT060304-DM	6.35	6.35	3.18	2.8	0.4			☆				☆	★	★				☆	
	MPHT080305-DM	8.3	8.3	3.18	3.4	0.5			☆				☆	★	★				☆	
	MPHT120408-DM	12.7	12.7	4.76	5.56	0.8			☆				☆	★	★				☆	

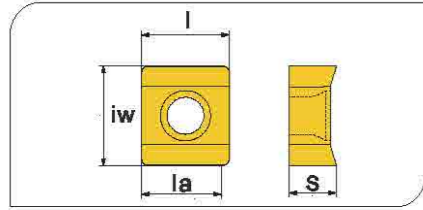
刀片选择



★主推牌号库存 ☆可选牌号库存 ○按单生产

刀片外形	型号	基本尺寸 (mm)					CVD涂层								PVD涂层	金属陶瓷	硬质合金			
		L	I.C	s	φd	L	SD5146	SD5441	SD5451	SD5236	SD5346	SD4226	SD4326	SD2336	SD2136					
	XSEQ1202		12.7	2.3	5	12.7									★	★				
	XSEQ1203		12.7	3	5	12.7									★	★				
	XSEQ12T3		12.7	3.5	5	12.7									★	★				
	XSEQ1204		12.7	4	5	12.7									★	★				

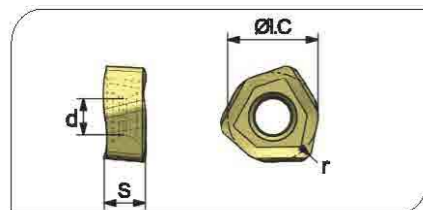
刀片选择



★主推牌号库存 ☆可选牌号库存 ○按单生产

刀片外形	型号	基本尺寸 (mm)					CVD涂层					PVD涂层		金属陶瓷	硬质合金		
		L	la	l	iw	S	SD5451	SD5236	SD5346	SD4226	SD4326	SD2336	SD2136	SP210T	SP210M		
	X3-084508H	7.7	8.5	9.5	4.95								☆	☆			
	X3-115008H	10.7	11.5	11.5	4.95								☆	☆			
	X3-145008H	13.7	14.5	11.5	4.95								☆	☆			

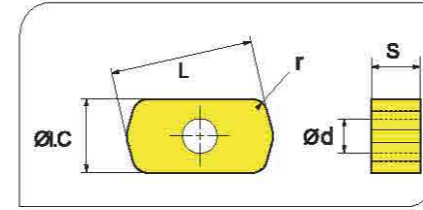
刀片选择



★主推牌号库存 ☆可选牌号库存 ○按单生产

刀片外形	型号	基本尺寸 (mm)					CVD涂层					PVD涂层		金属陶瓷	硬质合金					
		L	l.c	s	phi d	r	SD5146	SD5441	SD5451	SD5236	SD5346	SD4236	SD4226	SD4326	SD2336	SD2136	SP210M			
	WXMU080612R-GM	13.66	6.8	5.5	1.2													☆		

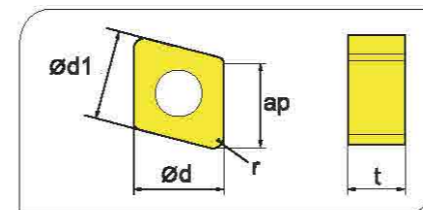
刀片选择



★主推牌号库存 ☆可选牌号库存 ○按单生产

刀片外形	型号	基本尺寸 (mm)					CVD涂层					PVD涂层		金属陶瓷	硬质合金					
		L	l.c	S	phi d	r	SD5451	SD5236	SD5346	SD4236	SD4226	SD4326	SD2336	SD2136	SD1525Z	SD1325Z				
	LNMU0303ZER	11.39	6	4.29	2.8	1.2	★		★				★	★	★	★				

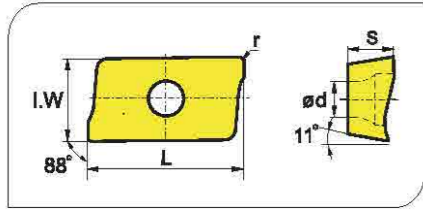
刀片选择





★主推牌号库存 ☆可选牌号库存 ○按单生产

刀片外形	型号	基本尺寸 (mm)					CVD涂层					PVD涂层		金属陶瓷	硬质合金					
		d	d1	t	ap	r	SD5146	SD5441	SD5451	SD5236	SD5346	SD4236	SD4226	SD4326	SD2336	SD2136	SD1525			
	4NKT060308R	6.6	6.6	4.6	5.5	0.8	☆	☆	☆									☆		

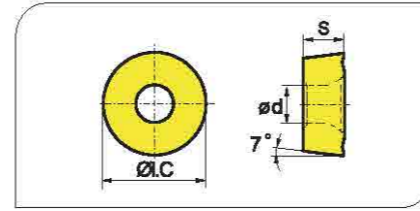
刀片选择






★主推牌号库存 ☆可选牌号库存 ○接单生产

刀片外形	型号	基本尺寸 (mm)					CVD涂层			PVD涂层			金属陶瓷		硬质合金							
		L	φ I.C	s	be	bs	SD5441	SD5451	SD5461	SPP302	SPP402	SD2126	SD2136	SD2146	SD2326	SD2336	SD2346	SP302	SK001	SK101	SK202	
	APKT11T304-GM	12.24	6.5	3.6	2.8	0.4	○	★						○	★							
	APKT11T308-GM	12.24	6.5	3.6	2.8	0.8	○	★						○	★							
	APKT160408-GM	17.877	9.33	5.76	4.4	0.8	○	★						○	★							
	APKT160408-AC	17.877	9.33	5.76	4.4	0.8														○	★	
	APMT1135PDER-H2	11.387	6.2	3.5	2.8	0.8						★			☆							
	APMT1604PDER-H2	17.247	9.25	4.76	4.4	0.8						★			☆							
	APMT1135PDER-M2	11.387	6.2	3.5	2.8	0.8						★			☆							
	APMT160408PDER-M2	17.26	9.24	4.76	4.4	0.8						★			☆							

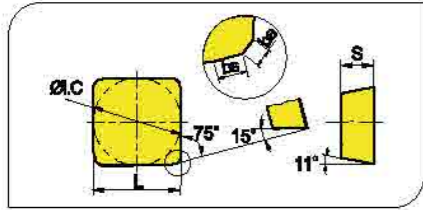
刀片选择



★主推牌号库存 ☆可选牌号库存 ○接单生产

刀片外形	型号	基本尺寸 (mm)					CVD涂层			PVD涂层			金属陶瓷		硬质合金							
		L	φ I.C	s	be	bs	SD5441	SD5451	SD5461	SPP302	SPP402	SD2126	SD2136	SD2146	SD2326	SD2336	SD2346	SP302	SK001	SK101	SK202	
	RPGT10T3MO	10	3.97	4.1								★			☆							
	RPGT1204MO	12	4.76	4.4								★			☆							
	RPMW0802MO	8	2.38	3.4								★			☆							
	RPMW08T2MO	8	2.78	3.2								★			☆							
	RPMW10T3MO	10	3.97	4.4								★			☆							
	RPMW1204MO	12	4.76	4.34								★			☆							
	RCGX0803MO-AC	8	3.18	3.4								★			☆							
	RCGX1003MO-AC	10	3.18	4								★			☆							
	RCGX1204MO-AC	12	4.76	4.4								★			☆							
	RCKT10T3MO	10	3.97	4.4								★			☆							
	RCKT1204MO	12	4.76	4.4								★			☆							
	RPMT08T2MOE-JS	8	2.58	3.4								★			☆							
	RPMT10T3MOE-JS	10	3.97	4.4								★			☆							
	RPMT1204MOE-JS	12	4.76	4.34								★			☆							
	RDMT0802MOTN	8	2.38	3.4								★			☆							
	RDMT10T3MOTN	10	3.97	4.4								★			☆							
	RDMT1204MOTN	12	4.76	4.4								★			☆							
	RDMT1604MOTN	16	4.76	5.5								★			☆							
	RCMT1606MOTN	16	6.35	5.5								★			☆							

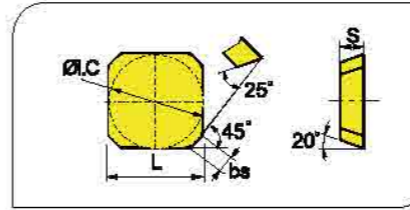
刀片选择



★主推牌号库存 ☆可选牌号库存 ○按单生产

刀片外形	型号	基本尺寸 (mm)					CVD涂层			PVD涂层			金属陶瓷		硬质合金						
		L	φ I.C	s	be	ba	SD5441	SD5451	SD5461	SPP302	SPP402	SD2126	SD2136	SD2146	SD2326	SD2336	SD2346	SP302	SK001	SK101	SK202
	SPKN1504EDER	15.875	15.875	4.76	1.00	1.4	★								☆			○			☆
	SPKN1504EDEL	15.875	15.875	4.76	1.00	1.4	★								☆			○			☆
	SPKN1504EDFR	15.875	15.875	4.76	1.00	1.4	★								☆			○			☆
	SPKN1504EDFL	15.875	15.875	4.76	1.00	1.4	★								☆			○			☆
	SPKN1504EDSKR	15.875	15.875	4.76	1.00	1.4	★							○	☆			○			☆
	SPKN1504EDSKL	15.875	15.875	4.76	1.00	1.4	★							○	☆			○			☆
	SPKN1504EDTKR	15.875	15.875	4.76	1.00	1.4	★							○	☆			○			☆
	SPKN1504EDTKL	15.875	15.875	4.76	1.00	1.4	★							○	☆			○			☆
	SPKN1504EDS32R	15.875	15.875	4.76	1.00	1.4	★							○	☆			○			☆
	SPKN1504EDS32L	15.875	15.875	4.76	1.00	1.4	★							○	☆			○			☆
	SPKN1504EDT32R	15.875	15.875	4.76	1.00	1.4	★							○	☆			○			☆
	SPKN1504EDT32L	15.875	15.875	4.76	1.00	1.4	★							○	☆			○			☆
	SPKN1203EDER	12.7	12.7	3.18	1.00	1.4	★								☆			○			☆
	SPKN1203EDEL	12.7	12.7	3.18	1.00	1.4	★								☆			○			☆
	SPKN1203EDFR	12.7	12.7	3.18	1.00	1.4	★								☆			○			☆
	SPKN1203EDFL	12.7	12.7	3.18	1.00	1.4	★								☆			○			☆
	SPKN1203EDSKR	12.7	12.7	3.18	1.00	1.4	★								☆			○			☆
	SPKN1203EDSKL	12.7	12.7	3.18	1.00	1.4	★								☆			○			☆
	SPKN1203EDTKR	12.7	12.7	3.18	1.00	1.4	★								☆			○			☆
SPKN1203EDTKL	12.7	12.7	3.18	1.00	1.4	★								☆			○			☆	
SPKN1203EDS31R	12.7	12.7	3.18	1.00	1.4	★								☆			○			☆	
SPKN1203EDS31L	12.7	12.7	3.18	1.00	1.4	★								☆			○			☆	
SPKN1203EDT31R	12.7	12.7	3.18	1.00	1.4	★								☆			○			☆	
SPKN1203EDT31L	12.7	12.7	3.18	1.00	1.4	★								☆			○			☆	

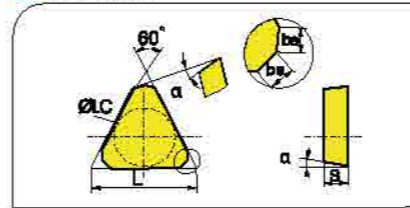
刀片选择



★主推牌号库存 ☆可选牌号库存 ○按单生产

刀片外形	型号	基本尺寸 (mm)					CVD涂层			PVD涂层			金属陶瓷		硬质合金							
		L	φ I.C	s	be	ba	SD5441	SD5451	SD5461	SPP302	SPP402	SD2126	SD2136	SD2146	SD2326	SD2336	SD2346	SP302	SK001	SK101	SK202	
	SEE (K) N1203AFTN	12.7	12.7	3.18		1.8	☆							☆	★						☆	
	SEE (K) N1203AFFN	12.7	12.7	3.18		1.8	☆															☆
	SEE (K) N1203AFN	12.7	12.7	3.18		1.8	☆								☆	★						☆
	SEE (K) N1203AFTN	12.7	12.7	3.18		1.8	☆								☆	★						☆
	SEE (K) N1504AFTN	15.875	15.875	4.76		1.6	☆								☆	★						☆
	SEE (K) N1504AFFN	15.875	15.875	4.76		1.6	☆															☆
	SEE (K) N1504AFN	15.875	15.875	4.76		1.6	☆								☆	★						☆
	SEE (K) N1504AFTN	15.875	15.875	4.76		1.6	☆								☆	★						☆

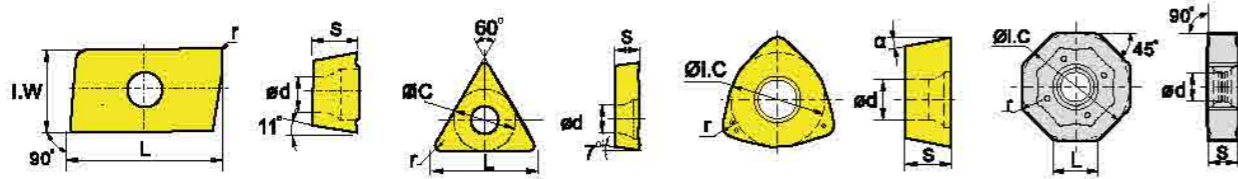
刀片选择



★主推牌号库存 ☆可选牌号库存 ○按单生产

刀片外形	型号	基本尺寸 (mm)					CVD涂层			PVD涂层			金属陶瓷		硬质合金								
		L	φ I.C	s	be	ba	SD5441	SD5451	SD5461	SPP302	SPP402	SD2126	SD2136	SD2146	SD2326	SD2336	SD2346	SP302	SK001	SK101	SK202		
	TPKN1603PDFR	16.5	9.525	3.175	1.4	0.7	★								☆	○						☆	
	TPKN1603PDFL	16.5	9.525	3.175	1.4	0.7	★									☆	○						☆
	TPKN1603PDR	16.5	9.525	3.175	1.4	0.7	★									☆	○						☆
	TPKN1603PDL	16.5	9.525	3.175	1.4	0.7	★									☆	○						☆
	TPKN2204PDFR	22	12.7	4.76	1.4	0.7	★									☆	○						☆
	TPKN2204PDFL	22	12.7	4.76	1.4	0.7	★									☆	○						☆
	TPKN2204PDR	22	12.7	4.76	1.4	0.7	★									☆	○						☆
	TPKN2204PDL	22	12.7	4.76	1.4	0.7	★									☆	○						☆
	TPKN2204PDTR	22	12.7	4.76	1.4	0.7	★									☆	○						☆
	TPKN2204PDTL	22	12.7	4.76	1.4	0.7	★									☆	○						☆

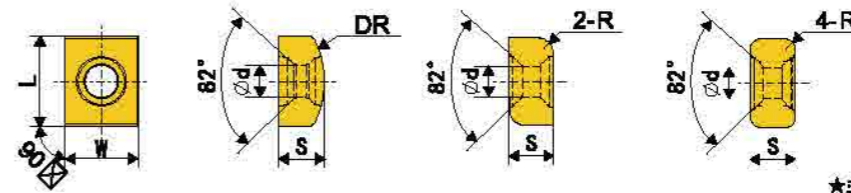
刀片选择



刀片外形	型号	基本尺寸 (mm)					CVD涂层					PVD涂层					金属陶瓷		硬质合金					
		L	φ I.C	s	be	bs	SD5441	SD5451	SD5461	SD4226	SD4326	SD2126	SD2136	SD2146	SD2326	SD2336	SD2346	SP302	SK001	SK101	SK202			
	R424.9-13T308-24	20.5	11.5	6.35	4.4	0.8						★	★	★										
	R424.9-180608-24	14.65	10	3.97	3.4	0.8						★	★	★										
	TPMT16T312R-22	9.525	3.97	3.4	1.2						★	★	★											
	XNEX080604TR-M13	12.48	6.45	4.7	0.4						★	★	★											
	XNEX080608TR-M13	12.48	6.45	4.7	0.8						★	★	★											
	XNEX080612TR-M13	12.48	6.45	4.7	1.2						★	★	★											
	XNEX080616TR-M13	12.48	6.45	4.7	1.6						★	★	★											
	LOGU030310ER-0M	12.05	6.2	4.91	3.45	1					★		★											
	HNMGO907ANSN-R	16.5	7.13	4.95	1						★	★	★											
	HNMGO907ANSN-M	16.5	7.1	4.9	1						★	★	★											
	ONHU06040B-GF	6.58	15.875	4.76	4.4	0.83	★				★		★											
	ONHU08T50B-GF	8.37	20.2	5.77	5.3	0.83	★				★		★											
	ONHU06040B-0M	6.58	15.875	4.76	4.4	0.83	★				★		★											
	ONGU08T50B-0M	8.37	20.2	5.77	5.3	0.83	★				★		★											
	ONHU08T50B-M	6.9	20.5	6	5.3	0.8	★				★		★											

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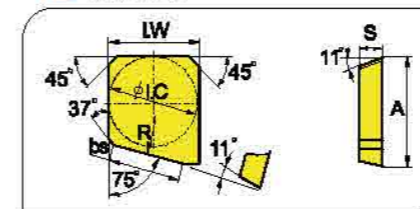
刀片选择



★主推牌号库存 ☆可选牌号库存 ○按单生产

刀片外形	型号	基本尺寸 (mm)					P		M	K			硬质合金				
		L	W	s	φ d	r	CVD		CVD	CVD			SP301	SK001	SK101	SK202	
	LNE151207-R14	15.875	12.7	7.94	5.5		★		○	★	★	★		★	★		○
	LNE151207-R60	15.875	12.7	7.94	5.5		★		○	★	★	★		★	★		○
	LNEM151207-R80	15.875	12.7	7.94	5.5		★		○	★	★	★		★	★		○
	LNEM151207-DR130	15.875	12.7	7.94	5.5		★		○	★	★	★		★	★		○
	LNEM151207-DR200	15.875	12.7	7.94	5.5		★		○	★	★	★		★	★		○
	LNEM151207-DR250	15.875	12.7	7.94	5.5		★		○	★	★	★		★	★		○
	LNEM151207-DR400	15.875	12.7	7.94	5.5		★		○	★	★	★		★	★		○
	LNEM151207-DR800	15.875	12.7	7.94	5.5		★		○	★	★	★		★	★		○
	LNE0151207-40B	15.875	12.7	7.94	5.5		★		○	★	★	★		★	★		○
	LNEM151207-4R30	15.875	12.7	7.94	5.5	30	★		○	★	★	★		★	★		○
	LNEM151207-4R50H	15.875	12.7	7.94	5.5		★		○	★	★	★		★	★		○
	LNEM151207-2R4.B	15.875	12.7	7.94	5.5	4.8	★		○	★	★	★		★	★		○
	N134	15.875	12.7	7.94	5.5		★		○	★	★	★		★	★		○
	N135	15.875	12.7	7.94	5.5		★		○	★	★	★		★	★		○
	N136	15.875	12.7	7.94	5.5		★		○	★	★	★		★	★		○
	N137	15.875	12.7	7.94	5.5		★		○	★	★	★		★	★		○

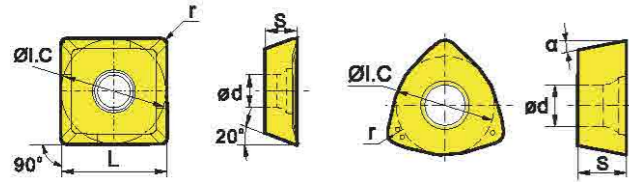
刀片选择



★主推牌号库存 ☆可选牌号库存 ○按单生产

刀片外形	型号	基本尺寸 (mm)					CVD涂层			PVD涂层			金属陶瓷		硬质合金							
		L/A	I.C	s	φ d	r	SD5441	SD5451	SD5461	SPP302	SPP402	SD2126	SD2136	SD2146	SD2326	SD2336	SD2346	SP302	SK001	SK101	SK202	
	SPEX1203EDL-1	15	12.7	3.18		500	★								★							★
	SPEX1203EDR-1	15	12.7	3.18		500	★								★							★
	SPEX1504EDL-1	18.2	15.875	4.76		500	★								★							★
	SPEX1504EDR-1	18.2	15.875	4.76		500	★								★							★

刀片选择



★主推牌号库存 ☆可选牌号库存 ○按单生产

刀片外形	型号	基本尺寸 (mm)					CVD涂层						PVD涂层						金属陶瓷		硬质合金											
		L	φ I.C	S	ba	ba	SD5441		SD5451		SD5461		ST9015		ST9110		SD2126		SD2136		SD2146		SD2326		SD2336		SD2346		SP302	SK001	SK101	SK202
							★	☆	★	☆	★	☆	★	☆	★	☆	★	☆	★	☆	★	☆	★	☆								
	SPMG050204	5	2.38	2.2	0.4														★													
	SPMG060204	6	2.38	2.6	0.4														★													
	SPMG07T308	7.94	3.97	2.8	0.8														★													
	SPMG090408	9.8	4.3	4.2	0.8														★													
	SPMG110408	11.5	4.76	4.4	0.8														★													
	SPMG140512	14.3	5.2	5.75	1.2														★													
	SPGT050204-SPM	5	2.38	2.2	0.4														★	★												
	SPGT060204-SPM	6	2.38	2.6	0.4														★	★												
	SPGT07T308-SPM	7.94	3.97	2.8	0.8														★	★												
	SPGT090408-SPM	9.8	4.3	4.2	0.8														★	★												
	SPGT110408-SPM	11.5	4.76	4.4	0.8														★	★												
	SPGT140512-SPM	14.3	5.2	5.75	1.2														★	★												
	WCMX030208R-PG	5.56	2.38	2.8	0.794													★			☆											
	WCMX040208R-PG	6.35	2.38	3.1	0.794													★			☆											
	WCMX050304R-PG	7.94	3.18	3.2	0.794													★			☆											
	WCMX06T308R-PG	9.525	3.97	3.7	0.794														★			☆										
	WCMX080412R-PG	12.7	4.76	4.4	1.2														★			☆										
	WCMX030208R-53	5.56	2.38	2.8	0.794													★			☆											
	WCMX040208R-53	6.35	2.38	3.1	0.794													★			☆											
	WCMX050304R-53	7.94	3.18	3.2	0.794													★			☆											
	WCMX06T308R-53	9.525	3.97	3.7	0.794													★			☆											
	WCMX080412R-53	12.7	4.76	4.4	1.2													★			☆											
	WCMX080412FN	12.7	4.76	4.4	1.2													★	☆		★											
	WCMX06T308FN	9.525	3.97	3.81	0.8													★	☆		★											
	WCMX050308FN	7.94	3.18	3.4	0.8													★	☆		★											
	WCMX040208FN	6.35	2.38	3	0.8													★	☆		★											
	WCMX030208FN	5.56	2.38	2.8	0.8													★	☆		★											

通用螺纹



★主推牌号库存 ☆可选牌号库存 ○按单生产

类型 Type	型号 Designation 右手 Right	型号 Designation 左手 Left	螺距 (mm)	TPI	尺寸 Dimensions (mm)				推荐牌号		推荐牌号	
					d	L	X	f	SD2136		SD2236	
									R	L	R	L
外螺纹 External (通用螺纹)	11ER-A60	11EL-A60	0.5-1.5	48-61	6.35	11	0.8	0.9	★	★	★	★
	11ER-G60	11EL-G60	1.75-3.0	14-8	9.525	16	1.2	1.7	★	★	★	★
	11ER-AG60	11EL-AG60	0.5-3.0	48-8	9.525	16	1.2	1.7	★	★	★	★
	22ER-N60	22EL-N60	3.5-5.0	7-5	12.7	22	1.7	2.5	★	★	★	★
	27ER-Q60	27EL-Q60	5.5-6.0	4.5-4	15.875	27	2.1	3.1	★	★	★	★

通用螺纹



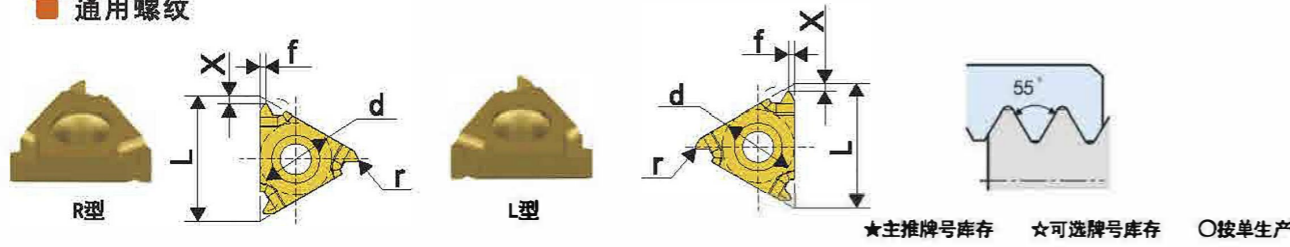
★主推牌号库存 ☆可选牌号库存 ○按单生产

类型 Type	型号 Designation 右手 Right	型号 Designation 左手 Left	螺距 (mm)	TPI	尺寸 Dimensions (mm)				推荐牌号		推荐牌号	
					d	L	X	f	SD2136		SD2236	
									R	L	R	L
内螺纹 Internal (通用螺纹)	11NR-A60	11NL-A60	0.5-1.5	48-61	6.35	11	0.8	0.9	★	★	★	★
	11NR-G60	11NL-G60	1.75-3.0	14-8	9.525	16	1.2	1.7	★	★	★	★
	11NR-AG60	11NL-AG60	0.5-3.0	48-8	9.525	16	1.2	1.7	★	★	★	★
	22NR-N60	22NL-N60	3.5-5.0	7-5	12.7	22	1.7	2.5	★	★	★	★
	27NR-Q60	27NL-Q60	5.5-6.0	4.5-4	15.875	27	1.8	2.7	★	★	★	★

钻削刀片 | U DRILL INSERTS

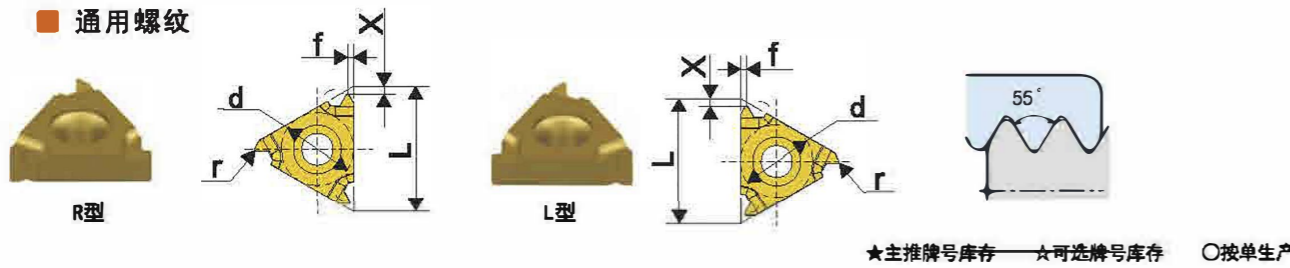


通用螺纹



类型 Type	型号 Designation 右手 Right	型号 Designation 左手 Left	螺距 (mm)	TPI	尺寸 Dimensions (mm)				推荐牌号		推荐牌号	
					d	L	X	f	SD2136		SD2236	
					R	L	R	L				
外螺纹 External (通用螺纹)	11ER-A55	11EL-A55	0.5-1.5	48-61	6.35	11	0.8	0.9	★	★	★	★
	11ER-G55	11EL-G55	1.75-3.0	14-8	9.525	16	1.2	1.7	★	★	★	★
	11ER-A655	11EL-A655	0.5-3.0	48-8	9.525	16	1.2	1.7	★	★	★	★
	22ER-N55	22EL-N55	3.5-5.0	7-5	12.7	22	1.7	2.5	★	★	★	★
	27ER-Q55	27EL-Q55	5.5-6.0	4.5-4	15.875	27	2	2.9	★	★	★	★

通用螺纹



类型 Type	型号 Designation 右手 Right	型号 Designation 左手 Left	螺距 (mm)	TPI	尺寸 Dimensions (mm)				推荐牌号		推荐牌号	
					d	L	X	f	SD2136		SD2236	
					R	L	R	L				
内螺纹 Internal (通用螺纹)	11NR-A55	11NL-A55	0.5-1.5	48-61	6.35	11	0.8	0.9	★	★	★	★
	11NR-G55	11NL-G55	1.75-3.0	14-8	9.525	16	1.2	1.7	★	★	★	★
	11NR-A655	11NL-A655	0.5-3.0	48-8	9.525	16	1.2	1.7	★	★	★	★
	22NR-N55	22NL-N55	3.5-5.0	7-5	12.7	22	1.7	2.5	★	★	★	★
	27NR-Q55	27NL-Q55	5.5-6.0	4.5-4	15.875	27	2	2.9	★	★	★	★

经营理念：

团结创新、开拓进取

诚信务实、互利共赢

