

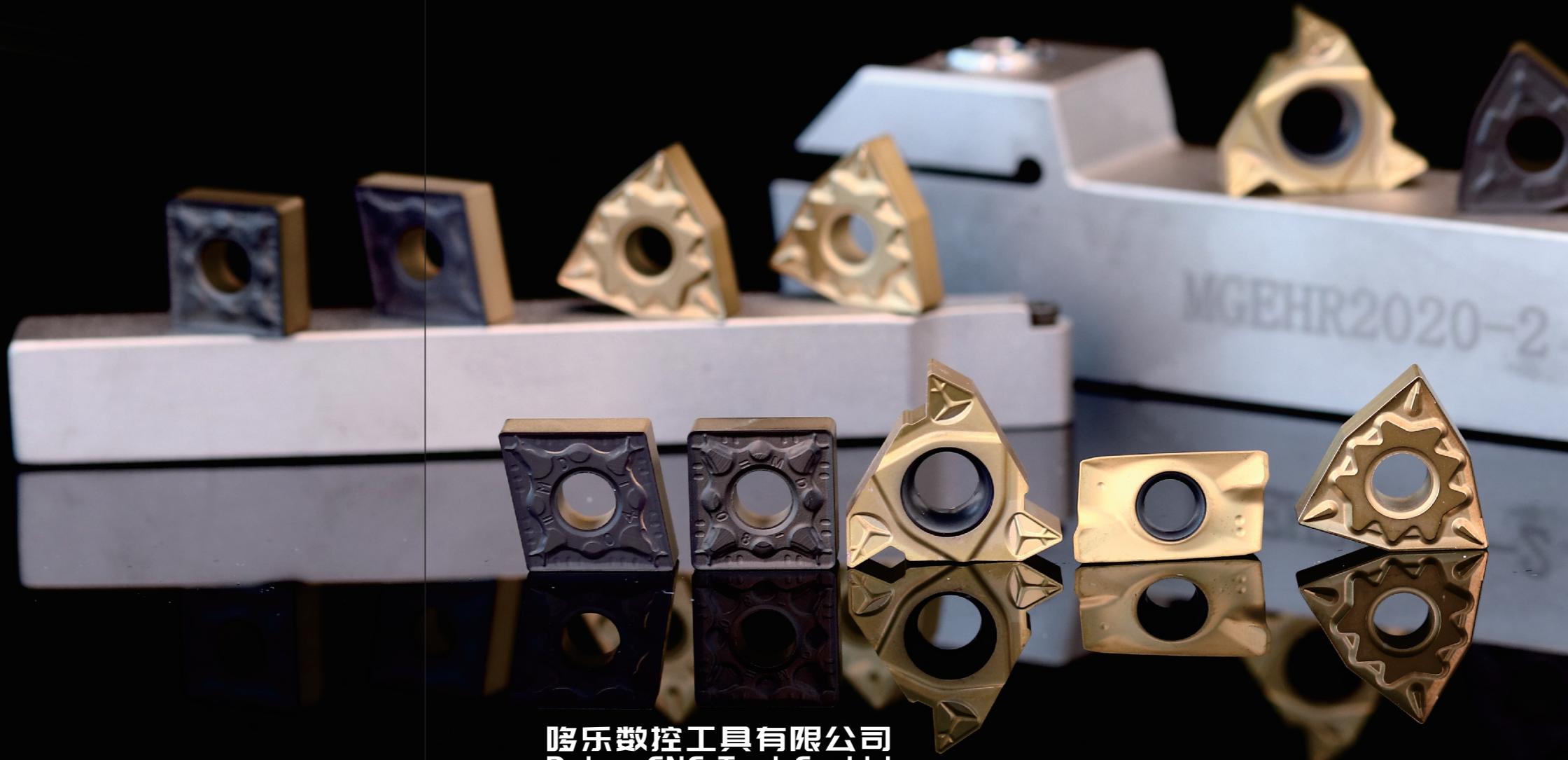
DOHRE®

鲨鱼
SHARK SERIES 系列

刀片目录 Carbide Insert

专业加工高温钛合金，高硬不锈钢

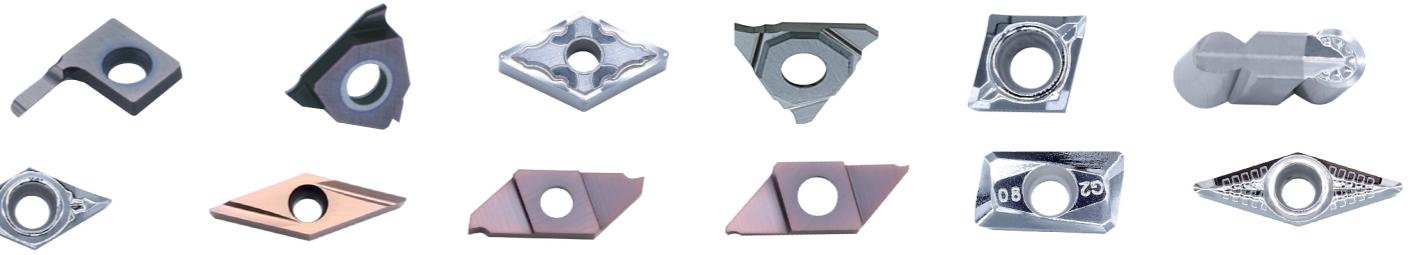
Professional processing high temperature titanium alloy,
high hardness stainless steel



哆乐数控工具有限公司
Dohre CNC Tool Co.,Ltd

[Http://www.dohrecnc.com](http://www.dohrecnc.com) E-mail:dohre@dohrecnc.com

2020



哆樂數控工具有限公司是CNC切削刀具專業制造銷售商和技術服務商，主要面向全世界各工業城市的數控機床使用企業，提供高品質，高性價比，短交貨期的切削工具和全方位的技術支持。

哆樂數控工具有限公司一直倡導誠信、務實、創新、高效率的經營理念，引進德國最先進的CNC五軸磨床設備和CNC五軸全自動測量設，領先磨刀技術，公司現有進口磨床20台，採用國內外最優質的棒材，從而形成了優質、高效、先進的生產制造系統，所生產的高品質CNC鎢鋼銑刀、成型刀具，CNC高精度刀柄，高精度筒夾，和全方位切削刀具設計方案。在國內外受到眾多使用者的好評。帶着最優質的產品，最有競爭力的價格和最快捷的服務，哆樂將以完全的自信來滿足您的需求。

Production 生产



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采用進口Walter&ANCA 5軸加工中心生產 **5 axis machining center**

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High Precision & High Efficiency

高精度，高效率

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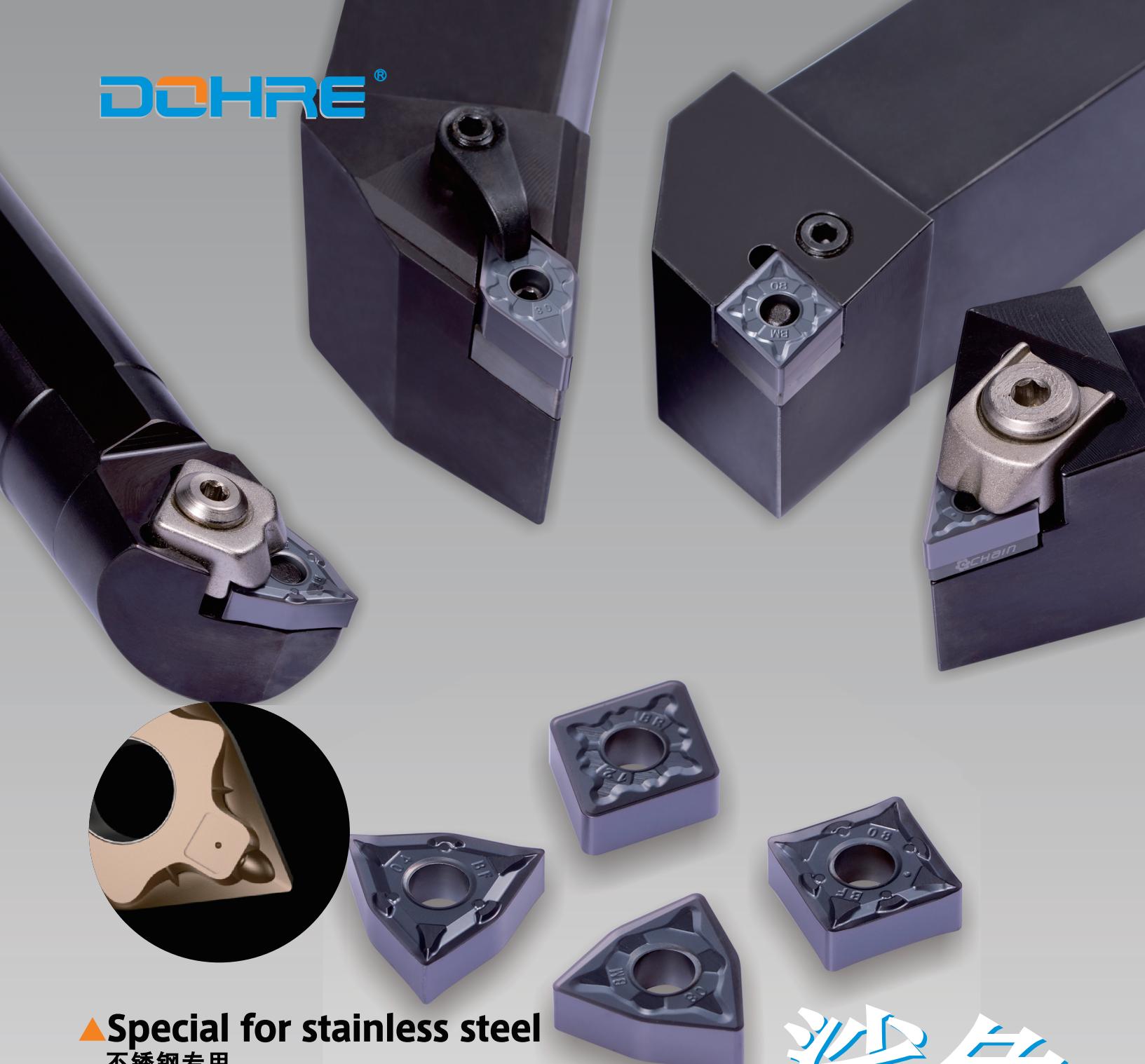
Equipment level 装备



公司拥有从粉末原料制备、模具制作、压制成型、压力烧结、研磨加工、涂层和涂层后处理的完整刀片制造工艺装备生产线。公司混合料装备喷雾干燥制粒系统，先进的工艺和设备确保原料物理性能和表观成型性能最佳。压制成型采用世界上最先进的电动直驱自动压力机，其高精度和高性能满足了产品精度，高稳定性等要求。烧结方面应用最适合可转位刀片内在质量和表查质量要求的最先进压力烧结设备。研磨加工采用数控周边磨床等，保证产品形状和精度要求。涂层也是采用世界上最先进的物理涂层和化学涂层。先进的涂层后处理设备，保证产品性能的更加优化。全套世界一流的一流的生产线确保每一片刀片品质如一。

The company has everything from powder raw material preparation, mold making, press forming, pressure sintering, grinding, coating and A complete blade manufacturing process equipment line for post-coating treatment. The company mixes equipment spray drying granulation system, Advanced processes and equipment ensure optimum physical properties and apparent forming properties. Press molding is the most internationally. The advanced electric direct drive automatic press has high precision and high performance to meet the requirements of product precision and high stability. For sintering, the most advanced pressure sintering is applied to the intrinsic quality and apparent quality requirements of indexable inserts device. Grinding processing uses CNC peripheral grinding machines to ensure product shape and accuracy requirements. Coating is also adopted. The most advanced physical coatings and chemical coatings on the world. Advanced coating post-processing equipment to ensure better product performance optimization. A full world-class production line ensures that each blade is of the same quality.





▲Special for stainless steel

不锈钢专用

- ◆ 德国原材料
- ◆ 全新压铸工艺
- ◆ 瑞士高端涂层工艺
- ◆ 高温不锈钢专用配方

- ◆ German raw materials
- ◆ New pressing technology
- ◆ Swiss high-end coating technology
- ◆ Formula of Special for high temperature stainless steel

▲Stainless steel turning insert features

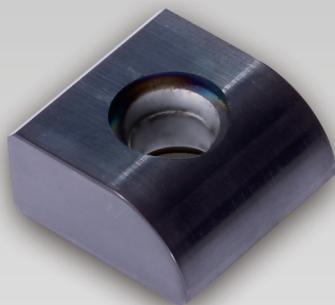
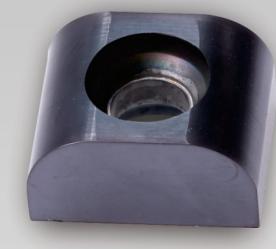
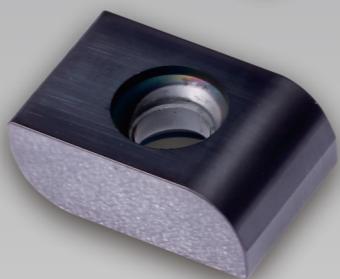
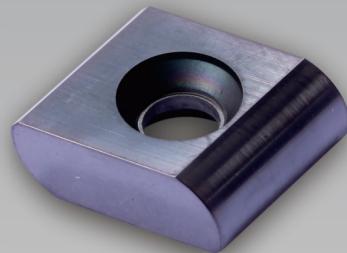
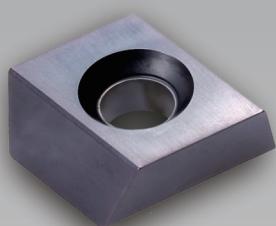
不锈钢车削刀片特点

- ◆ The specially designed chip breaker is excellent for rough, semi-finishing and finished processing of stainless steel.
- ◆ DF type is used for finished, semi-finishing for stainless steel and has a good machined surface. The specific chip breaker design solves the burr of machined surface.
- ◆ DM type insert has both sharpness and strength, and is the preferred chip breaker type for general-purpose machining of stainless steel. Suitable for semi-finishing and rough machining of stainless steel.
- ◆ Effectively solve the processing difficulties of stainless steel, such as chip breaking, sticking and surface work hardening, obtaining a good surface quality.
- ◆ The uniquely designed chip breaker type effectively controls the flow of chip breaking, making the cutting process light and reducing the production of built-up edge (BUE) .
- ◆ Different roughing, semi-finishing and finishing with different cutting edge designs. The finished and semi-finishing inserts focus on the sharpness of the cutting edge, the roughing blade edge optimization design, balanced edge security and sharpness, and improved tool efficiency.
- ◆ 特殊设计的槽型针对不锈钢材的粗、半精、精加工有出色表现。
- ◆ DF针对不锈钢精、半精加工，具有良好的加工表面，特定的槽型设计解决了加工表面产生的毛刺现象。
- ◆ DM槽型刀片刃口兼具锋利性和强度，是不锈钢通用加工首选槽型，适用于不锈钢半精、粗加工使用。
- ◆ 有效解决不锈钢不易断屑、粘刀和表面加工硬化等加工难点，可获得高质量的加工表面。
- ◆ 独特设计的断屑槽型有效控制切屑流向，使切削加工轻快，减少积屑瘤的产生。
- ◆ 针对不同粗、半精、精加工有着不同的刀口设计。精、半精加工刀片着重刃口的锋利度，粗加工刀片刃口优化设计，平衡刃口安全性和锋利性，提高刀具使用效率。



▲ Gravity follow-up cutting 重力, 随动切削

- ◆ 德国原材料 ◆ German raw material
- ◆ 日本压制工艺 ◆ Japanese pressing technology
- ◆ 瑞士高端涂层 ◆ Swiss high-end coating
- ◆ 重力切削配方 ◆ Gravity cutting formula



▲ Precise digital-controlled machine tool Dedicated 走心机专用

- ◆ 瑞士原材料 ◆ Swiss raw materials
- ◆ 瑞士高端涂层 ◆ Swiss high-end coating
- ◆ 日本磨利工艺 ◆ Japanese Sharpening technology
- ◆ 特别角度设计 ◆ Special angle design





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▲ Milling insert 铣削刀片

- ◆ 德国原材料
- ◆ 独特角度设计
- ◆ 日本钝化工艺
- ◆ 高精压制技术
- ◆ 瑞士高端涂层

- ◆ German raw materials
- ◆ Unique angle design
- ◆ Japanese passivation technology
- ◆ High precision pressing technology
- ◆ Swiss high-end coating

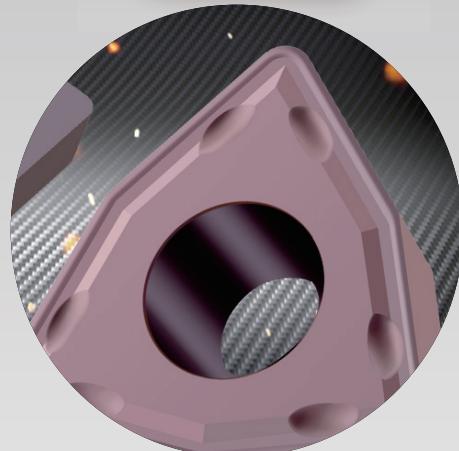


▲ Features of Milling insert 铣削刀片特点

- ◆ The fine grained carbide special substrate is complemented by a unique control process and superb coating technology to achieve the perfect match of blade hardness, toughness and thermal stability.
- ◆ Stable use of materials with different hardness, accurately predict tool life, realize unmanned automatic processing, and improve production efficiency.
- ◆ Suitable for all kinds of plane milling, square shoulder step milling, cavity milling, slope and copying and other machining forms..
- ◆ Solve the problem of tool selection and tool change in mold manufacturing enterprises, reduce tool inventory cost
- ◆ Strong versatility, good stability and long service life, very cost-effective.
- ◆ 采用细颗粒硬质合金特殊基体辅以独特控制工艺和精湛的涂层技术。实现刀片硬度、韧性和热稳定性的完美匹配。
- ◆ 针对不同硬度材料稳定使用，准确预测刀具寿命，实现无人化自动加工，提高生产效率。
- ◆ 适应各种的平面铣、方肩台阶铣、型腔铣、斜坡和仿型等多种加工形式。
- ◆ 解决模具制造企业刀具选择和换刀困难，降低刀具库存成本。
- ◆ 通用性强、稳定性好、使用寿命长，极具性价比。



DOHRE®



▲ High speed drilling 高速钻削

- 瑞士原材料
- 特别钻削设计工艺
- 瑞士高端涂层工艺
- Swiss raw materials
- Special drilling design technology
- Swiss high-end coating technology

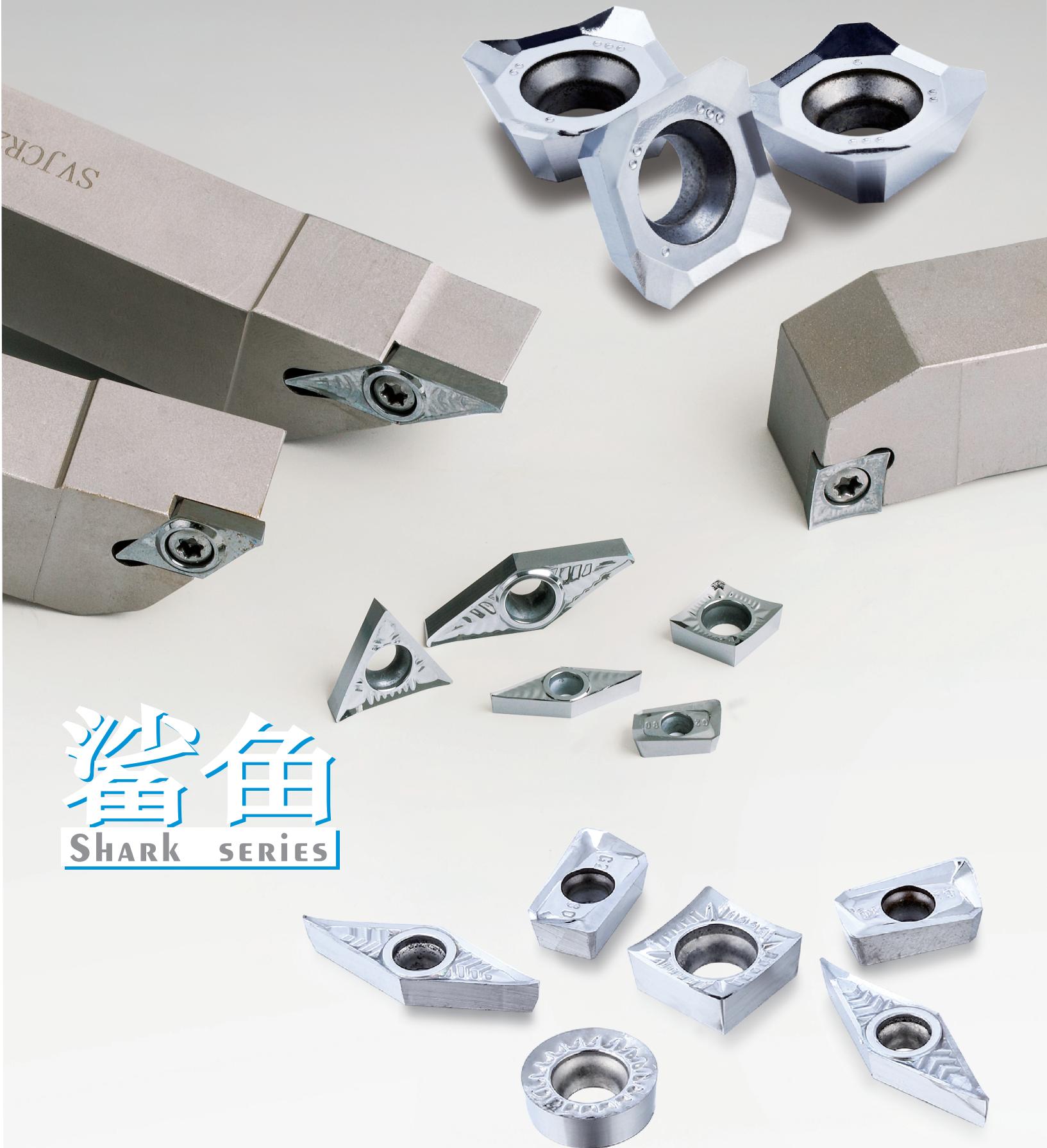
▲ Shallow hole drill blade features 浅孔钻刀片特点

- 中心刀片和外周刀片采用相同刀片，刀片更换更简单。
- 具有锋利的切削刃，切削加工振动小，有利于获得粗糙度较低的加工表面。
- 优化的刀片槽型结构，提高了切削性能和切屑控制，使切削更加轻快。
- 特定的硬质合金基体和涂层相结合，很好地平衡了中心刀片和周边刀片的不同磨损形态。

- Center insert and the peripheral insert are same , making insert replacement easier.
- With a sharp cutting edge, the machining vibration is small, which is beneficial to obtain the machining surface with low roughness.
- The optimized chip breaker structure of the insert improves the cutting performance and control, making the cutting more brisk.
- The specific cemented carbide substrate is combined with the coating to well balance the different wear patterns of the central insert and the peripheral insert.

▲ Aluminum carbide inserts
铝用刀片

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鲨鱼
SHARK SERIES

▲ High performance cut off 高性能切断

- ◆ 德国原材料
 - ◆ 全新压制工艺
 - ◆ 瑞士高端涂层工艺
 - ◆ 不锈钢专用配方
-
- ◆ German raw materials
 - ◆ New pressing technology
 - ◆ Swiss high-end coating technology
 - ◆ Formula of Special for stainless steel



鲨鱼
Shark SERIES

▲ Features of cutting grooving turning inserts 切断切槽车削刀片特点

- ◆ QCMB□□刀片能够用于切槽和车削加工，是一款多功能通用加工刀片。
 - ◆ 优化的三维断屑槽型对切屑实现有效控制，最大限度降低了切削阻力，减小加工振动。
 - ◆ 槽加工专门开发的硬质合金基体和涂层的结合，兼备耐磨性和韧性，提高了加工寿命和加工可靠性。
-
- ◆ "QCMBoo" inserts can be used for grooving and turning, and are a versatile general purpose machining insert.
 - ◆ Optimized 3D chipbreaker for effective control of chips, minimizing cutting resistance and reducing machining vibration
 - ◆ Groove machining is specially developed for the combination of cemented carbide matrix and coating, both wear resistance and toughness, which improves processing life and processing reliability.

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▲ Thread Machining 螺纹切削

- ◆ 德国原材料
- ◆ 日本压制工艺
- ◆ 瑞士高端涂层
- ◆ 特殊切断工艺
- ◆ German raw materials
- ◆ Japanese pressing technology
- ◆ Swiss high-end coating
- ◆ Special Cut-off Technology



▲ Features of thread turning inserts 螺纹车削刀片特点

- ◆ Precision Mold Compression Molding ,The high precision and perfect edge quality of the thread tooth type of the inserts are guaranteed.
- ◆ Strict size control ensures that the range of size fluctuation rang between the pieces is small and Product be consistent from beginning to end
- ◆ Unique edge processing technology, Small arc tip processing more professional, rationalization
- ◆ The inserts is provided with a cutting groove, which Improve the ability of iron chip treatment when the insert is in process and has excellent processing stability.
- ◆ The DT7115 grade developed for thread turning ensures that the insert is effectively resistant to plastic deformation and wear during threading

More series of thread turning inserts are under development.....

- ◆ 精密模具压制成型，保证了刀片螺纹齿型的高精度和完美的刃口质量。
- ◆ 严格的尺寸控制，确保片与片之间的尺寸波动范围更小，产品始终如一。
- ◆ 独特的刃口处理技术，小圆弧刀尖的刃口处理更加专业化、合理化。
- ◆ 刀片设有断屑槽，提高了刀片加工时铁屑处理能力，具有优秀的加工稳定性。
- ◆ 针对螺纹车削开发的DT7115牌号，确保刀片在螺纹加工中有效抵抗塑性变形和磨损

更多螺纹车削刀片系列正在开发中.....

TURBOCHARGER APPLICATION CASES

涡轮增压器壳体加工案例



非标两面刃铣刀，
用于加工法兰背面的平面。



ASM90-LN13，切向布齿方肩铣刀，刀片具
有4个有效切削刃，加工涡轮壳上的凸台面。



AFM40-ON05-C-45，45°主偏角，刀片具
有16个有效切削刃，刀片带修光刃，用于
涡轮壳法兰面的精铣。



AFM45-XN07七边形面铣刀，纳米PVD涂
层刀片，14个有效切削刃，粗铣法兰面，
性价比极高。





非标组合镗刀，用于加工涡轮壳组合孔系。



AP100S/AP301M最新牌号的
PVD涂层刀片，用于涡轮壳的
外圆及端面的粗精车削加工。



ATD系列平头和圆头槽刀片，
用于加工外圆、端面和V带槽。

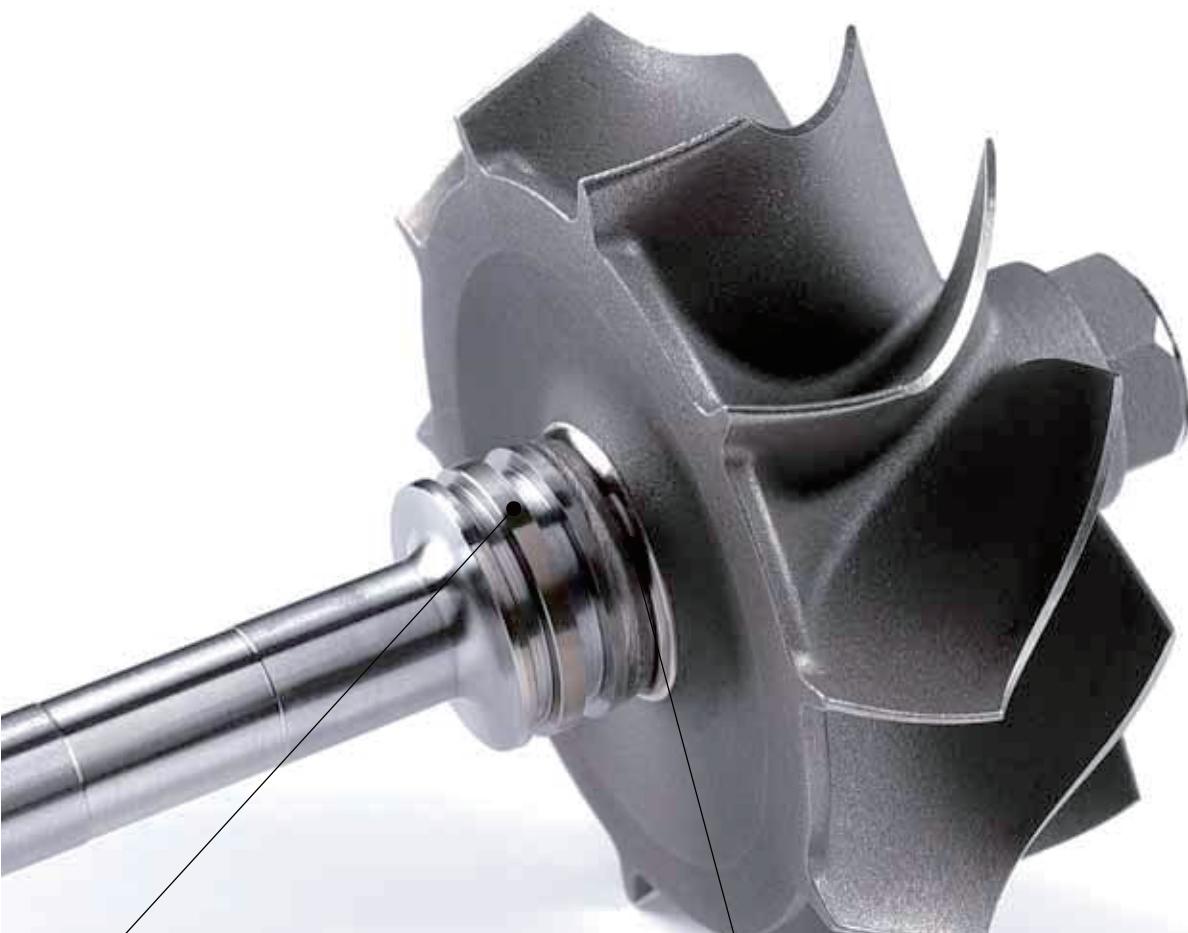


16ER 1.00 ISO AP351U螺纹车削刀片，
用于加工涡轮轴杆身细端的螺纹。



TURBO-SHAFT APPLICATION CASES 涡轮轴加工方案

DOHRE®



DNMG150608-SC3 AP100S高温合金车削刀片，
用于涡轮盘和杆通过摩擦焊的过渡圆弧面的仿形加工。

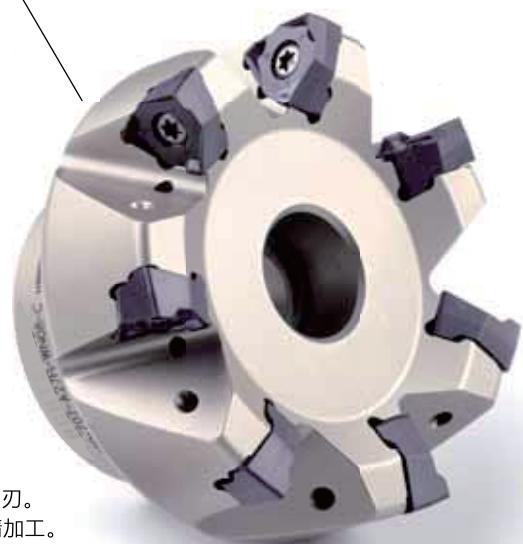
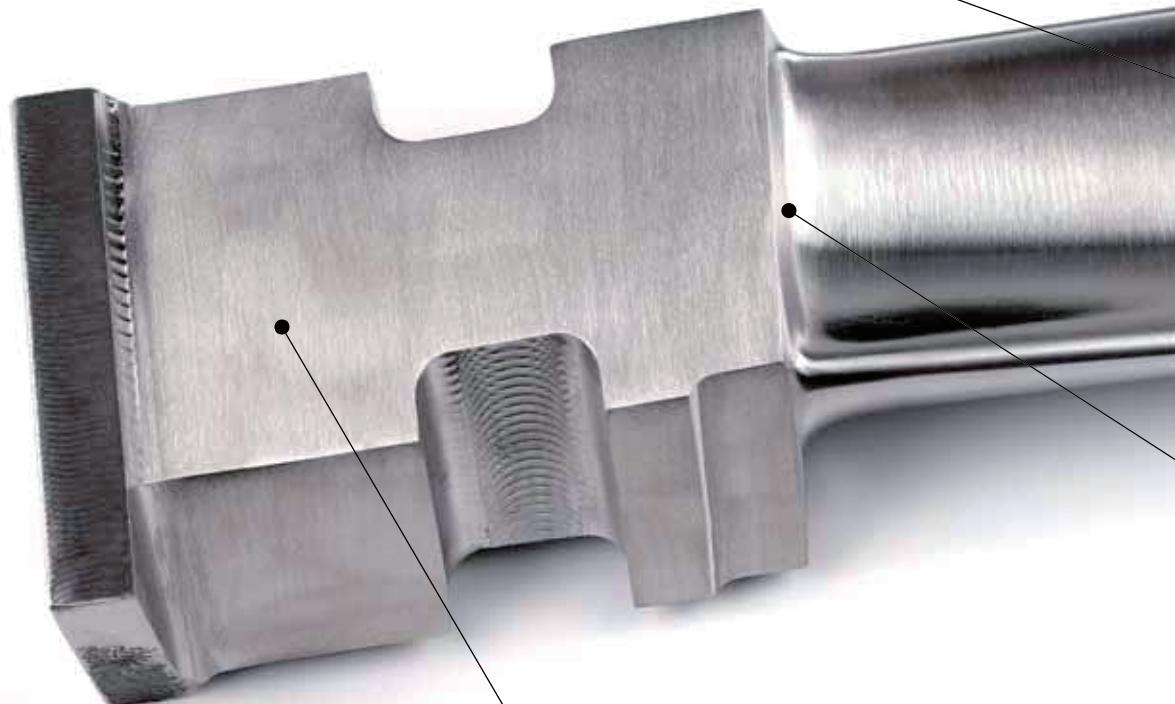


槽刀杆ATSER 2525- 3T12
槽刀片 ATD 302-TS AP301U
用于加工涡轮轴杆身的外圆槽。





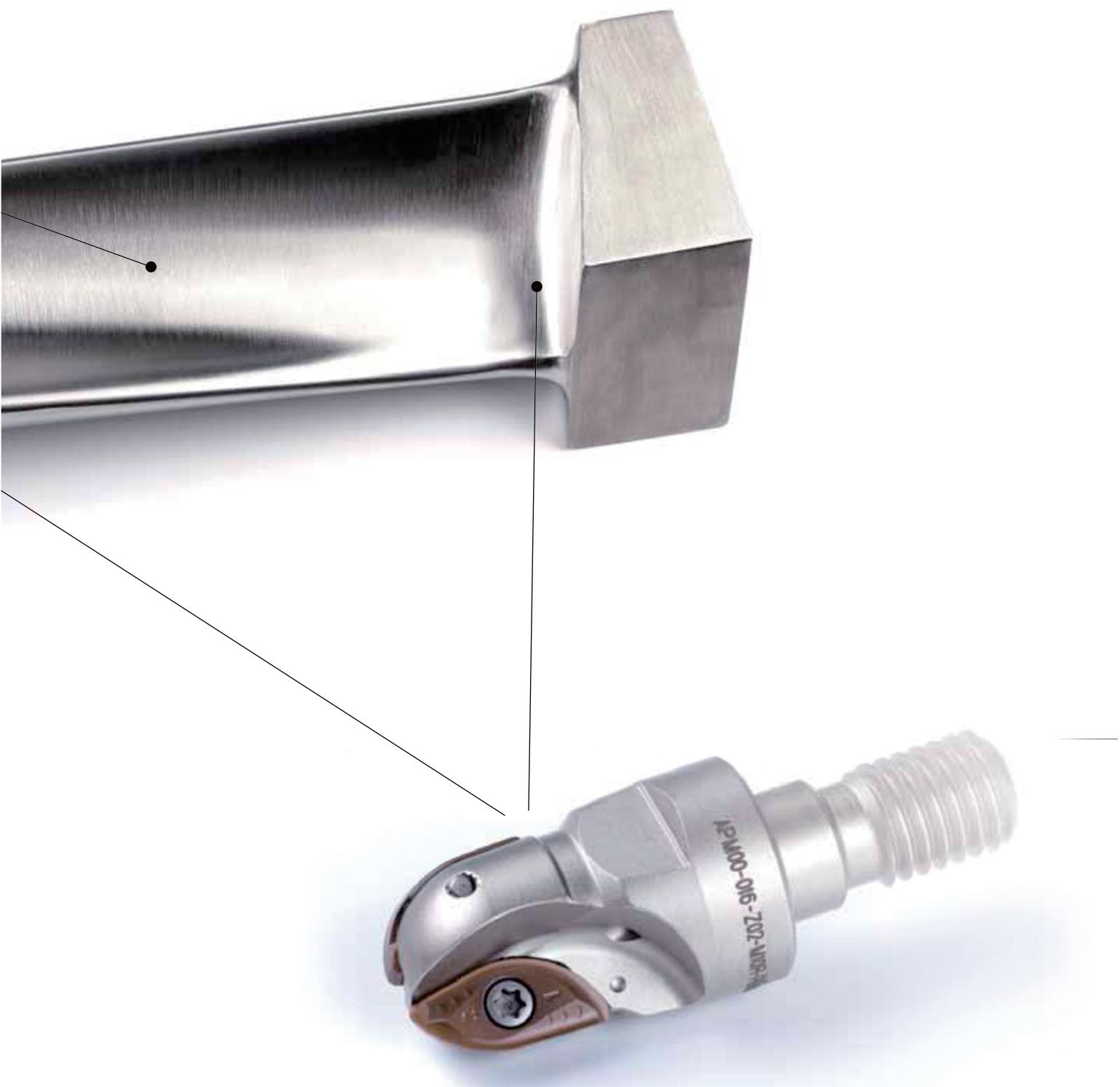
APM00-RP06-12铣刀，
用于叶片型面的粗加工。



ASM90-WN08负型方肩铣刀，六个有效切削刃。
精确的90°设计，用于叶根、叶冠平面的粗精加工。

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**SOLUTION OF GAS- & STEAMTURBINES
AND AERO-ENGINE FAN BLADES**
汽轮机及航空叶片解决方案



APM00-RBM08-20柳叶刀系列，用于加工叶片型面和叶根圆弧连接处。

CATALOGUE

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车削刀片

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车削刀片

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CODE KEY FOR INDEXABLE MILLING INSERTS

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Turning Blade

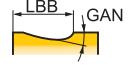
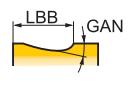
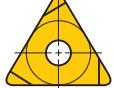
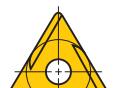
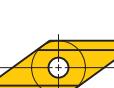
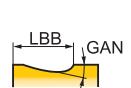
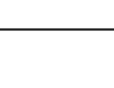
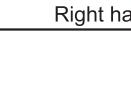
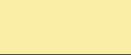
車削刀片

Precision breaker system 高精度槽型系統

NEGATIVE INSERTS 负角刀片

STANDARD OF INSERTS WITH HAND OF TOOL

Unit : mm

Geometry	Insert Number	LBB	LE	GAN
  Right hand insert shown.	DNGG150404R/L	2.8	—	15
	DNGG150408R/L	2.8	—	15
  Right hand insert shown.	SNGG090304R/L	1.8	1.6	15
	SNGG090308R/L	1.8	1.6	15
  Right hand insert shown.	SNGG120404R/L	2.3	3.7	15
	SNGG120408R/L	2.3	3.7	15
  Right hand insert shown.	TNGG160402R/L-FS	1.3	—	15
	TNGG160404R/L-FS	1.3	—	15
  Right hand insert shown.	TNGG160408R/L-FS	1.3	—	15
	TNGG160402R/L-F	2.5	—	15
  Right hand insert shown.	TNGG160404R/L-F	2.5	—	15
	TNGG160408R/L-F	2.5	—	15
  Right hand insert shown.	TNGG160402R/L-K	1.5	7.1	15
	TNGG160404R/L-K	1.5	5.4	15
  Right hand insert shown.	TNGG110302R/L	1.3	3.2	15
	TNGG110304R/L	1.3	3.0	15
  Right hand insert shown.	TNGG110308R/L	1.3	2.7	15
	TNGG160304R/L	2.3	5.4	15
  Right hand insert shown.	TNGG160402R/L	1.3	8.7	15
	TNGG160404R/L	2.3	5.4	15
  Right hand insert shown.	TNGG160408R/L	2.3	5.1	15
	TNGG220404R/L	2.8	9.4	15
 Right hand insert shown.	TNGG220408R/L	2.8	9.1	15
	VNGG160404R/L	1.8	—	15
	VNGG160408R	1.8	—	15

Turning Blade

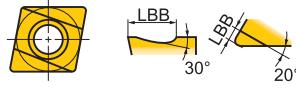
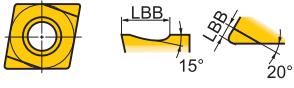
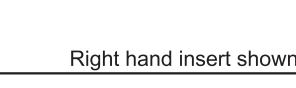
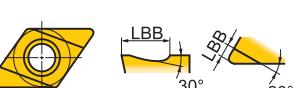
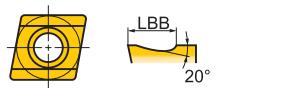
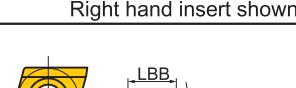
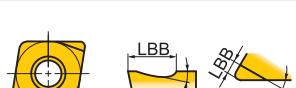
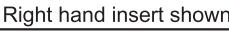
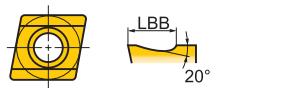
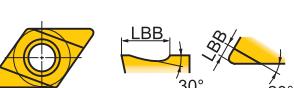
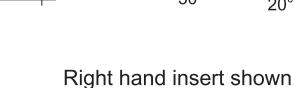
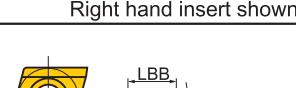
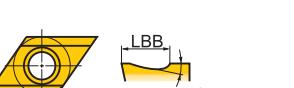
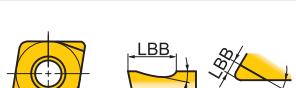
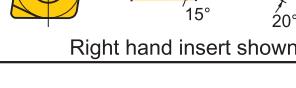
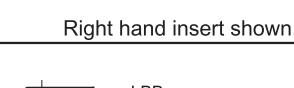
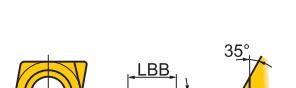
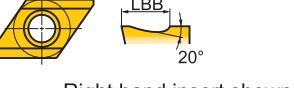
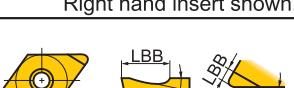
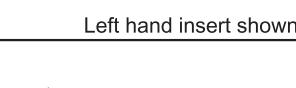
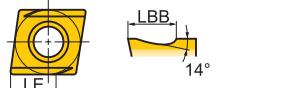
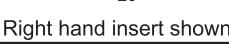
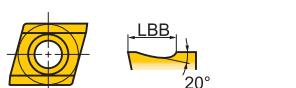
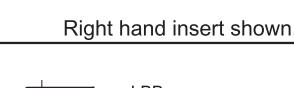
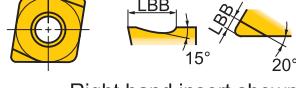
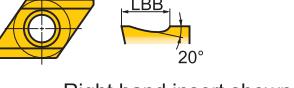
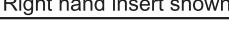
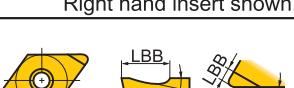
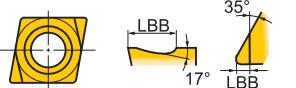
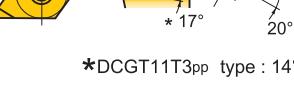
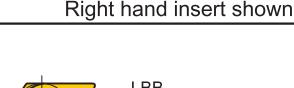
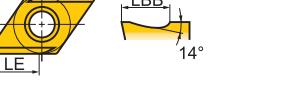
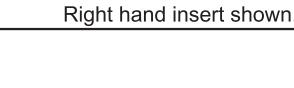
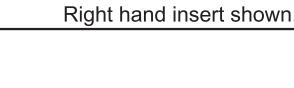
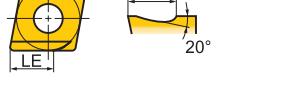
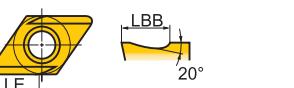
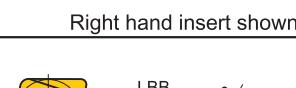
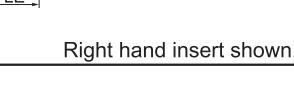
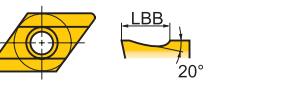
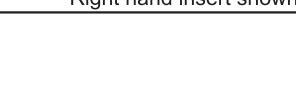
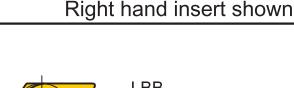
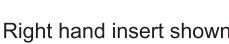
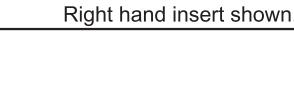
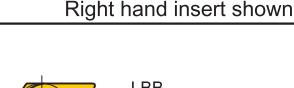
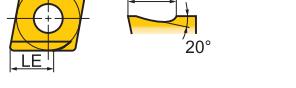
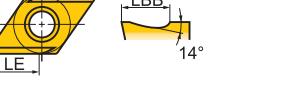
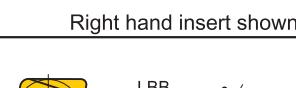
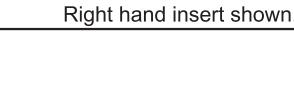
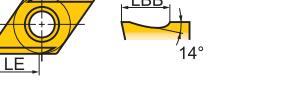
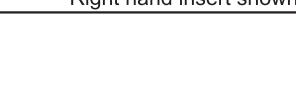
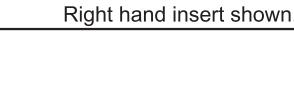
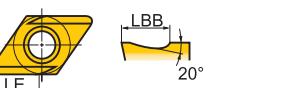
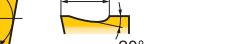
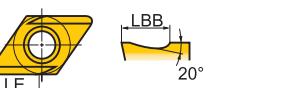
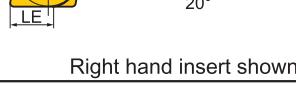
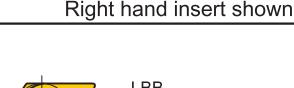
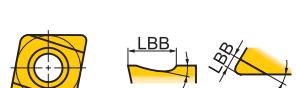
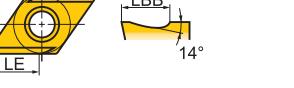
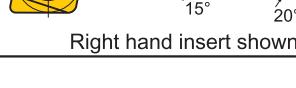
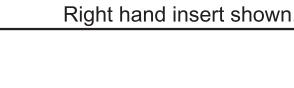
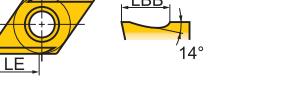
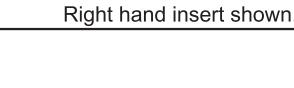
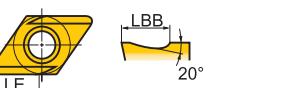
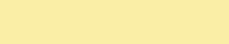
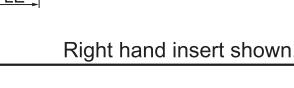
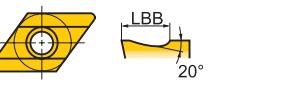
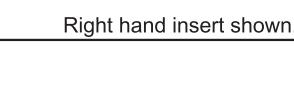
車削刀片

Precision breaker system 高精度槽型系統

POSITIVE INSERTS 正角刀片

STANDARD OF INSERTS WITH HAND OF TOOL

Unit : mm

Geometry	Insert Number	LBB	LE	Geometry	Insert Number	LBB	LE
	CCET 0602V3R/L-SR	2.2	—		CPMH080204R/L-F	1.0	—
	CCET 060201R/L-SR	2.2	—		CPMH090304R/L-F	1.4	—
	CCET 060202R/L-SR	2.2	—				
	CCET 060204R/L-SR	2.2	—				
	CCET 09T3V3R/L-SR	3.2	—				
	CCET 09T301R/L-SR	3.2	—				
	CCET 09T302R/L-SR	3.2	—				
	CCET 09T304R/L-SR	3.2	—				
	Right hand insert shown.				Right hand insert shown.		
	CCET 060200R/L-SN	1.0	—		DCET 0702V3R/L-SR	2.5	—
	CCET 0602V3R/L-SN	1.0	—		DCET 070201R/L-SR	2.5	—
	CCET 060201R/L-SN	1.0	—		DCET 070202R/L-SR	2.5	—
	CCET 060202R/L-SN	1.0	—		DCET 070204R/L-SR	2.5	—
	CCET 060204R/L-SN	1.0	—		DCET 11T3V3R/L-SR	3.7	—
	CCET 09T300R/L-SN	1.5	—		DCET 11T301R/L-SR	3.7	—
	CCET 09T3V3R/L-SN	1.5	—		DCET 11T302R/L-SR	3.7	—
	CCET 09T301R/L-SN	1.5	—		DCET 11T304R/L-SR	3.7	—
	CCET 09T302R/L-SN	1.5	—				
	CCET 09T304R/L-SN	1.5	—				
	Right hand insert shown.				Right hand insert shown.		
	CCET 0602V3R/LW-SN	1.0	—		DCET 070200R/L-SN	1.0	—
	CCET 09T3V3R/LW-SN	1.5	—		DCET 0702V3R/L-SN	1.0	—
	Right hand insert shown.				DCET 11T3V3R/LW-SN	1.5	—
	CCGH 060202R/L-F	1.2	—		Right hand insert shown.		
	CCGH 060204R/L-F	1.4	—		DCGT 0702V3R/L-SN	1.0	—
	Right hand insert shown.				DCGT 11T3V3R/LW-SN	1.5	—
	CCGT 03S1V3L-F	0.8	—		Right hand insert shown.		
	CCGT 03S101L-F	0.8	—		DCGT 070202R/L-F	1.0	—
	CCGT 03S102L-F	0.8	—		DCGT 070204R/L-F	1.0	—
	CCGT 03S104L-F	0.8	—		DCGT 11T302R/L-F	1.0	—
	CCGT 04T0V3L-F	1.0	—		DCGT 11T304R/L-F	1.0	—
	CCGT 04T001L-F	1.0	—				
	CCGT 04T002L-F	1.0	—				
	CCGT 04T004L-F	1.0	—				
	Left hand insert shown.				*DCGT11T3pp type : 14°		
	Right hand insert shown.				Right hand insert shown.		
	CCGT 0602V3R/L-SS	1.0	3.0		DCGT 0702V3R/L-SS	1.0	3.5
	CCGT 060201R/L-SS	1.0	3.0		DCGT 070201R/L-SS	1.0	3.5
	CCGT 060202R/L-SS	1.0	3.0		DCGT 070202R/L-SS	1.0	3.5
	CCGT 09T3V3R/L-SS	1.0	5.0		DCGT 11T3V3R-SS	1.0	6.5
	CCGT 09T301R/L-SS	1.0	5.0		DCGT 11T301R-SS	1.0	6.5
	CCGT 09T302R/L-SS	1.0	5.0		DCGT 11T302R-SS	1.0	6.5
	Right hand insert shown.				Right hand insert shown.		
	CCGT 0602V3R/L-SN	1.0	3.0		DCGT 0702V3R/SN	1.0	3.5
	CCGT 060201R/L-SN	1.0	3.0		DCGT 070201R/SN	1.0	3.5
	CCGT 060202R/L-SN	1.0	3.0		DCGT 070202R/L-SN	1.0	3.5
	CCGT 09T3V3R/L-SN	1.5	5.0		DCGT 11T3V3R/L-SN	1.5	6.5
	CCGT 09T301R/L-SN	1.5	5.0		DCGT 11T301R/L-SN	1.5	6.5
	CCGT 09T302R/L-SN	1.5	5.0		DCGT 11T302R/L-SN	1.5	6.5
	Right hand insert shown.				DCGT 11T304R/L-SN	1.5	6.5
	CPGT 080204R/L-F	0.6	—		DEGX 150402R/L	2.8	—
	CPGT 090302R/L-F	0.8	—		DEGX 150404R/L	2.8	—
	CPGT 090304R/L-F	0.8	—				
	Right hand insert shown.						

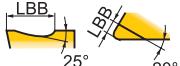
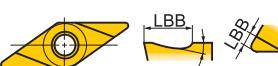
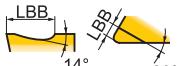
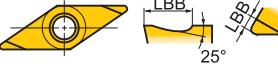
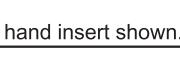
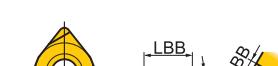
Turning Blade

車削刀片

Classification 類別

POSITIVE INSERTS 正角刀片

Unit : mm

	Insert Number	LBB	LE	Geometry	Insert Number	LBB	LE
  Right hand insert shown.	DEGX150402R/L-F DEGX150404R/L-F	2.5 2.5	— —	 Right hand insert shown.	VBGT110302R/L-F VBGT110304R/L-F VBGT160402R/L-F VBGT160404R/L-F	1.0 1.0 1.5 1.5	— — — —
  Right hand insert shown.	SPGR090304R	1.8	1.6	 Right hand insert shown.	VBET1103V3R/L-SR VBET110301R/L-SR VBET110302R/L-SR VBET110304R/L-SR	2.5 2.5 2.5 2.5	— — — —
  Left hand insert shown.	TCGT0601V3L-F TCGT060101L-F TCGT060102R/L-F TCGT060104R/L-F	1.0 1.0 1.0 1.0	— — — —	 Right hand insert shown.	VBET110300R/L-SN VBET1103V3R/L-SN VBET110301R/L-SN VBET110302R/L-SN VBET110304R/L-SN	1.0 1.0 1.0 1.0 1.0	— — — — —
  Right hand insert shown.	TEGX160302R/L TEGX160304R/L	2.0 2.0	6.0 6.0	 Right hand insert shown.	VBET1103V3R/LW-SN	1.0	—
  *TPGH1603pp type : 14° Right hand insert shown.	TPGH080202R/L-FS TPGH080204R/L-FS TPGH090202R/L-FS TPGH090204R/L-FS TPGH110302R/L-FS TPGH110304R/L-FS TPGH160304R/L-FS TPGH160308R/L-FS	0.9 0.9 1.0 1.0 1.4 1.4 2.0 2.0	— — — — — — — —	 Right hand insert shown.	VCGT080202R/L-F VCGT080204R/L-F	0.8 0.8	— —
  Right hand insert shown.	TPGR110304R/L TPGR160304R/L TPGR160308R/L	1.3 2.3 2.3	3.0 5.4 5.1	 Right hand insert shown.	VDGX160302R/L VDGX160304R/L	2.0 2.0	— —
  Right hand insert shown.	TPGX080202R/L TPGX080204R/L TPGX090202R/L TPGX090204R/L TPGX090208R/L TPGX110302L TPGX110304R/L TPGX110308R/L	1.3 1.3 1.6 1.6 1.4 1.8 1.8 1.8	— — — — — — — —	 Right hand insert shown.	WBGT0201V3L-F WBGT020101L-F WBGT020102L-F WBGT020104L-F WBGTL302V3L-F WBGTL30201L-F WBGTL30202R/L-F WBGTL30204R/L-F	1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	— — — — — — — —
  Right hand insert shown.	WCGT020102R/L WCGT020104R/L WCGTL30202L WCGTL30204L	1.0 1.0 1.0 1.0	— — — —	 Right hand insert shown.	WP GT040204R/L-FS WP GT060304R/L-FS	1.0 1.0	— —

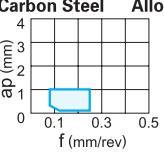
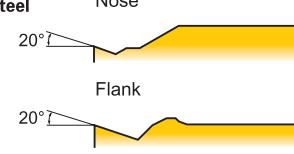
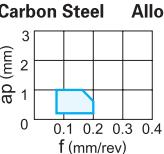
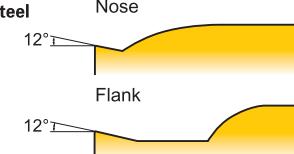
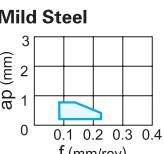
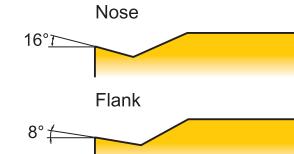
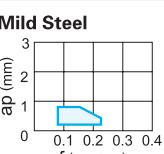
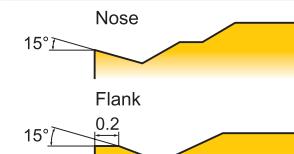
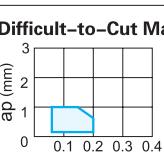
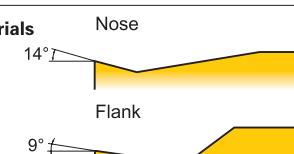
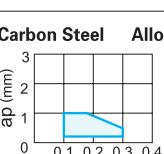
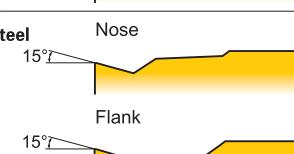
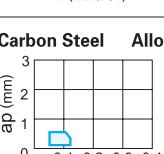
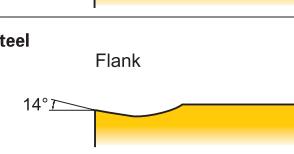
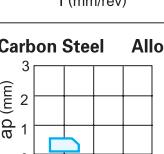
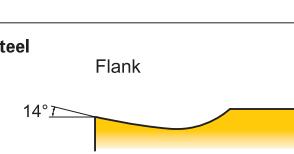
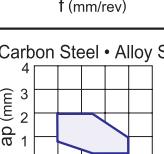
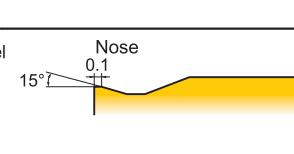
Turning Blade

車削刀片

Classification 類別

NEGATIVE INSERTS WITH HOLE 负角刀片

04

Application	Tolerance	Breaker Name and Picture	Features	Cross Section Geometry
Finish Cutting	M	D01	First recommendation for finishing carbon steel and alloy steel Controls chip clogging during high-feed cutting and prevents chips of soft work materials from running onto their surfaces. Large rake angle controls vibrations and work deformation when machining low-rigidity workpieces.	 
		D02	First recommendation for finishing carbon steel, alloy steel and stainless steel Double sided chipbreaker. Stable chip control even at small depth of cut.	 
		D03	Alternative chipbreaker for finishing mild steel Double sided chipbreaker. Stable chip control even at small depth of cut. Sharp edge gives best performance.	 
	G	D04	First recommendation for finishing mild steel Double sided chipbreaker. Effectively controls adhesive chips. Suitable for mild steel finishing.	 
		D05	First recommendation for finishing difficult-to-cut materials Double sided chipbreaker. Ideal for heat-resistant alloy and titanium alloy. The sharp edge produces good cutting surface. The curved edge allows smooth chip discharge.	 
		D06	Alternative chipbreaker for finishing carbon steel and alloy steel Double sided chipbreaker. G class insert tolerance is suitable for workpieces requiring close dimensional tolerances. Stable chip control even at small depth of cut.	 
	G	D07	Precise finishing Double sided chipbreaker. A narrow lead chipbreaker for good chip control. The sharp edge produces a good surface finish.	 
		D08	Finishing Double sided chipbreaker. Lead chipbreaker controls chip flow. The sharp edge produces a good surface finish.	 
Light Cutting	M	D09	First recommendation for light cutting of carbon steel and alloy steel Double sided chipbreaker. Stable chip control at light cutting range. The curved edge allows smooth chip discharge.	 

Turning Blade

車削刀片

Classification 類別

Rhombic 80°	Rhombic 55°	Square 90°	Triangular 60°	Rhombic 35°	Trigon 80°	Round	Breaker Name and Cross Section
							D01

05

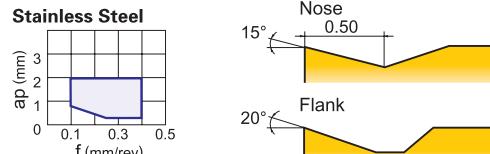
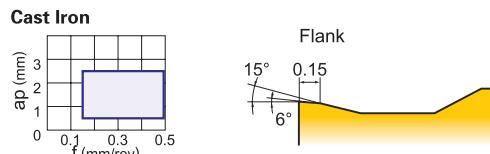
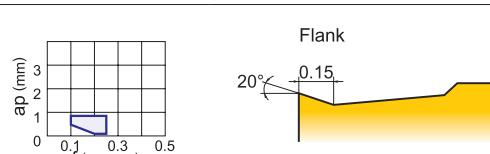
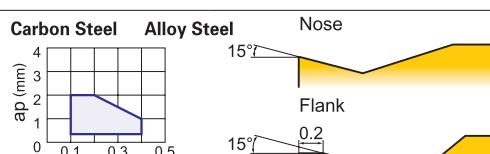
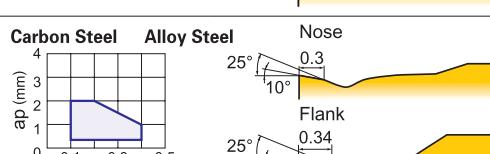
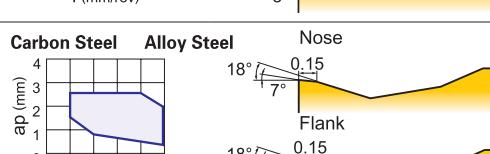
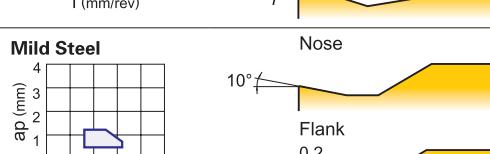
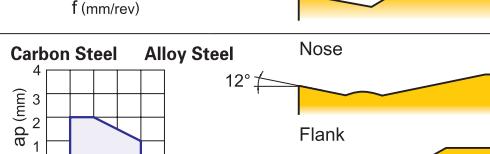
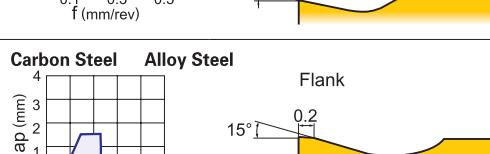
Turning Blade

車削刀片

Classification 類別

NEGATIVE INSERTS WITH HOLE 负角刀片

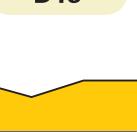
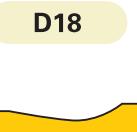
06

Application Tolerance	Breaker Name and Picture	Features	Cross Section Geometry
Light Cutting M	D10	First recommendation for light cutting of stainless steel M class double sided chip breaker. Stable chip control at light cutting range. Breaker with high rake angle provides excellent burr control.	 Stainless Steel ap (mm) f (mm/rev)
	D11	First recommendation for light cutting of cast iron Narrow positive land provides low cutting resistance and excellent finish.	 Cast Iron ap (mm) f (mm/rev)
	D12	First recommendation for light cutting of difficult-to-cut materials Enhanced chip disposal for depth of cut smaller than the corner R.	 Flank ap (mm) f (mm/rev)
	D13	Alternative chipbreaker for light cutting of carbon steel and alloy steel Double sided chipbreaker. Can be used at low depth of cuts and high feed rates. The curved edge allows smooth chip discharge. Recommended for workpieces in the 160–250HB range.	 Carbon Steel Alloy Steel Nose Flank ap (mm) f (mm/rev)
	D14	Alternative chipbreaker for light cutting of carbon steel and alloy steel Double sided chipbreaker. Superior chip control at small depth of cuts. Covers copying and back turning with wavy edge. Recommended for workpieces in the 200–300HB range.	 Carbon Steel Alloy Steel Nose Flank ap (mm) f (mm/rev)
	D15	Wiper insert for light cutting of carbon steel and alloy steel Double sided chipbreaker. The wiper allows up to two times higher feed. Wiper design for increased productivity and improved surface finish.	 Carbon Steel Alloy Steel Nose Flank ap (mm) f (mm/rev)
	D16	First recommendation for light cutting of mild steel Double sided chipbreaker. Effectively controls adhesive chips. Suitable for mild steel light cutting.	 Mild Steel Nose Flank ap (mm) f (mm/rev)
	D17	Alternative chipbreaker for light cutting of carbon steel and alloy steel Double sided chipbreaker. Suitable for light cutting. The curved edge allows smooth chip discharge.	 Carbon Steel Alloy Steel Nose Flank ap (mm) f (mm/rev)
	D18	Alternative chipbreaker for light cutting of carbon steel and alloy steel Double sided chipbreaker. Parallel chipbreaker controls chip flow. Suitable for finish-light cutting. Precision chipbreaker.	 Carbon Steel Alloy Steel Flank ap (mm) f (mm/rev)

Turning Blade

車削刀片

Classification 類別

Rhombic 80° 	Rhombic 55° 	Square 90° 	Triangular 60° 	Rhombic 35° 	Trigon 80° 	Round 	Breaker Name and Cross Section
CNMG_□□ 	DNMG_□□ 	SNMG_□□ 	TNMG_□□ 	VNMG_□□ 	WNMG_□□ 		D10 
CNMG_□□ 	DNMG_□□ 	SNMG_□□ 	TNMG_□□ 	VNMG_□□ 	WNMG_□□ 		D11 
CNMG_□□ 	DNMG_□□ 		TNMG_□□ 	VNMG_□□ 	WNMG_□□ 		D12 
CNMG_□□ 	DNMG_□□ 	SNMG_□□ 	TNMG_□□ 	VNMG_□□ 	WNMG_□□ 		D13 
CNMG_□□ 	DNMG_□□ 	SNMG_□□ 	TNMG_□□ 	VNMG_□□ 	WNMG_□□ 		D14 
CNMG_□□ 	DNMX_□□ 		TNMX_□□ 	□□	WNMG_□□ 		D15 
CNMG_□□ 	DNMG_□□ 	SNMG_□□ 	TNMG_□□ 		WNMG_□□ 		D16 
CNMG_□□ 	DNMG_□□ 	SNMG_□□ 	TNMG_□□ 		WNMG_□□ 		D17 
		SNMG_□□ 	TNMG_□□ 		WNMG_□□ 		D18 

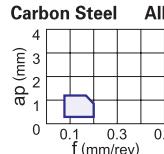
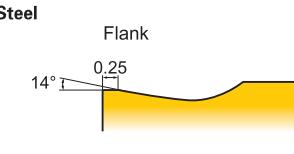
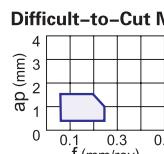
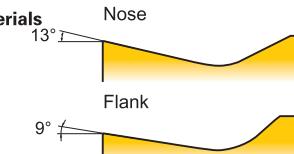
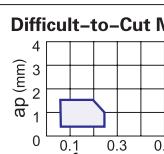
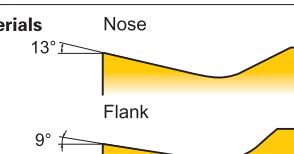
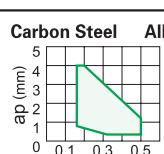
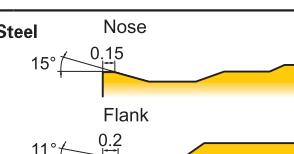
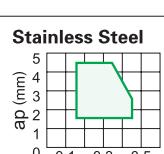
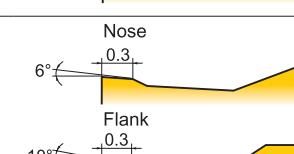
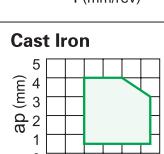
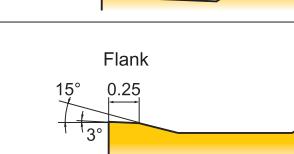
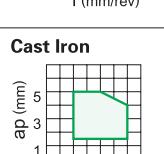
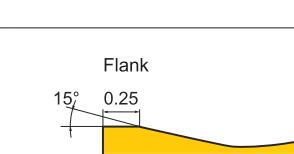
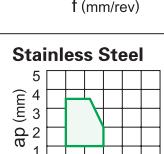
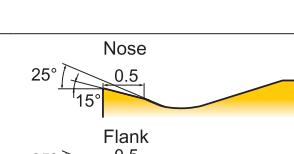
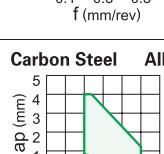
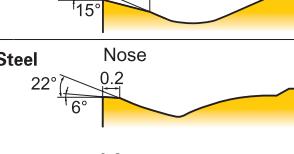
Turning Blade

車削刀片

Classification 類別

NEGATIVE INSERTS WITH HOLE 负角刀片

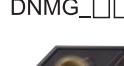
08

Application	Tolerance	Breaker Name and Picture	Features	Cross Section Geometry
Light Cutting	G	D19	Light cutting Double sided chipbreaker. Parallel chipbreaker. Excellent chip control at low to medium feed rates.	 
	M	D20	First recommendation for light cutting of difficult-to-cut materials Double sided chipbreaker. Ideal for heat-resistant alloy and titanium alloy. The sharp edge produces a good surface finish. The curved edge allows smooth chip discharge.	 
	G	D21	First recommendation for light cutting of difficult-to-cut materials Double sided chipbreaker, Single sided chipbreaker (D type, V type). The sharp edge produces a good surface finish. Ideal for heat-resistant alloy and titanium alloy. The curved edge allows smooth chip discharge.	 
Medium Cutting	M	D22	First recommendation for medium cutting of carbon steel and alloy steel Double sided chipbreaker. Suitable for medium to light cutting. Breaker geometry appropriate for copying and back turning. Cutting edge geometry for an optimum balance of sharpness and fracture resistance.	 
		D23	First recommendation for medium cutting of stainless steel M class double sided chip breaker. Optimized land geometry by simulation analysis technology controls the plastic deformation of the corner and achieves the long tool life.	 
		D24	First recommendation for medium cutting of cast iron Optimum balance between sharpness and high edge strength for general use.	 
	G	D25	Alternative chip breaker for medium cutting for cast iron Breakers are suitable for a wide range of applications. Maintenance of high stability by the flat-land.	 
	M	D26	Alternative chip breaker for light to medium cutting of stainless steel M class double sided chip breaker. Alternative chip breaker of main chip breaker LM and MM. Excellent notch wear resistance for light to medium cutting.	 
		D27	First recommendation for medium cutting of carbon steel and alloy steel Alternative chipbreaker for finishing and light cutting of cast iron Double sided chipbreaker. Positive land provides sharp cutting action.	 

Turning Blade

車削刀片

Classification 類別

Rhombic 80° 	Rhombic 55° 	Square 90° 	Triangular 60° 	Rhombic 35° 	Trigon 80° 	Round 	Breaker Name and Cross Section
			TNGG_□□ 				D19 
CNMG_□□ 	DNMG_□□ 		TNMG_□□ 	VNMG_□□ 	WNMG_□□ 		D20  09
CNGG_□□ 	DNGM_□□ 			VNGM_□□ 			D21 
CNMG_□□ 	DNMG_□□ 	SNMG_□□ 	TNMG_□□ 	VNMG_□□ 	WNMG_□□ 		D22 
CNMG_□□ 	DNMG_□□ 	SNMG_□□ 	TNMG_□□ 	VNMG_□□ 	WNMG_□□ 		D23 
CNMG_□□ 	DNMG_□□ 	SNMG_□□ 	TNMG_□□ 	VNMG_□□ 	WNMG_□□ 		D24 
CNMG_□□ 	DNMG_□□ 	SNMG_□□ 	TNMG_□□ 	VNMG_□□ 	WNMG_□□ 		D25 
CNMG_□□ 	DNMG_□□ 	SNMG_□□ 	TNMG_□□ 	VNMG_□□ 	WNMG_□□ 		D26 
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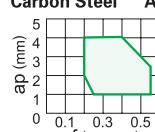
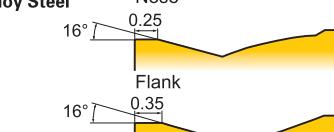
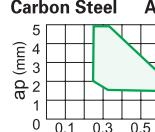
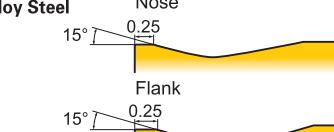
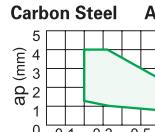
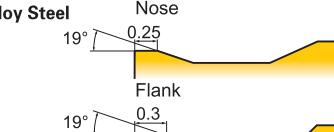
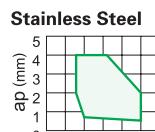
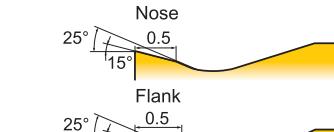
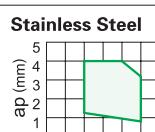
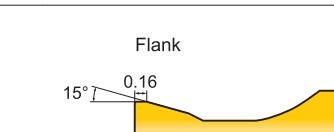
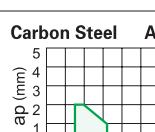
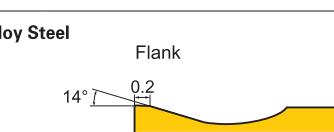
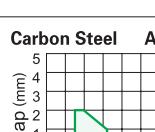
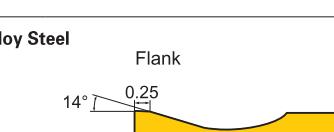
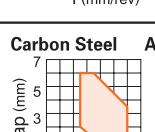
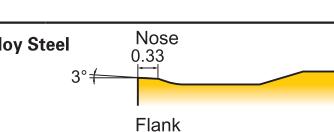
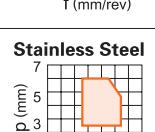
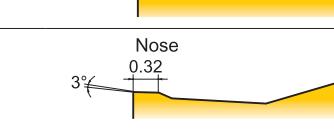
Turning Blade

車削刀片

Classification 類別

NEGATIVE INSERTS WITH HOLE 负角刀片

10

Application Tolerance	Breaker Name and Picture	Features	Cross Section Geometry
M	D28	First recommendation for rough cutting of mild steel Alternative chipbreaker for medium cutting of carbon steel and alloy steel Double sided chipbreaker. Flat land offers high edge strength.	 
	D29	First recommendation for medium cutting of cast iron Alternative chipbreaker for medium cutting of carbon steel and alloy steel Double sided chipbreaker. Flat land offers high edge strength.	 
	D30	Wiper insert for medium cutting carbon steel and alloy steel Double sided chipbreaker. The wiper allows up to two times higher feed. A wide chip pocket prevents chip jamming.	 
	D31	First recommendation for medium cutting of stainless steel, mild steel and difficult-to-cut materials Double sided chipbreaker. The sharp edge gives best performance.	 
	D32	Alternative chipbreaker for medium cutting of stainless steel Double sided chipbreaker. Good balance of edge strength and sharpness. Right- or left-hand breaker for unidirectional chip control.	 
	D33	Alternative chipbreaker for medium cutting of carbon steel and alloy steel Double sided chipbreaker. Parallel chipbreaker controls chip flow. Suitable for light to medium cutting.	 
G	D34	Medium cutting Double sided chipbreaker. Parallel chipbreaker. Good chip control for medium feed rates.	 
Rough Cutting M	D35	First recommendation for rough cutting of carbon steel and alloy steel Double sided chip breaker. For interrupted cuts and removing scale. Good balance of cutting edge strength and low cutting resistance because of suitable rake angle.	 
	D36	First recommendation for rough cutting of stainless steel M class double sided chip breaker. Excellent fracture resistance at interrupted cutting due to the optimum land angle and honing geometry.	 

Turning Blade

車削刀片

Classification 類別

Rhombic 80° 	Rhombic 55° 	Square 90° 	Triangular 60° 	Rhombic 35° 	Trigon 80° 	Round 	Breaker Name and Cross Section
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CNMG_□□ 	DNMX_□□ 		TNMX_□□ 		WNMG_□□ 		D30 
CNMG_□□ 	DNMG_□□ 	SNMG_□□ 	TNMG_□□ 	VNMG_□□ 	WNMG_□□ 		D31 
			TNMG_□□ 				D32 
			TNMG_□□ 				D33 
	DNGG_□□ 	SNGG_□□ 	TNGG_□□ 	VNGG_□□ 			D34 
CNMG_□□ 	DNMG_□□ 	SNMG_□□ 	TNMG_□□ 		WNMG_□□ 		D35 
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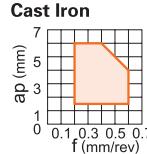
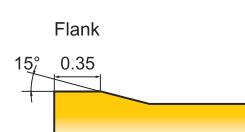
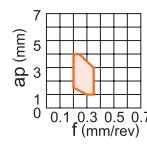
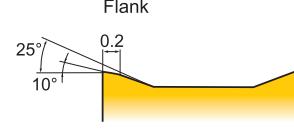
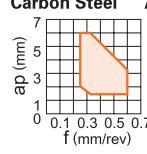
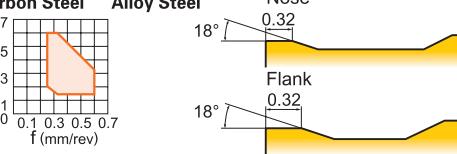
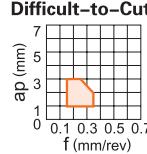
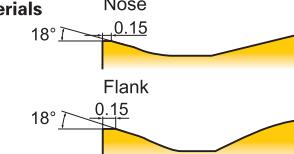
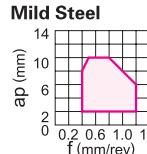
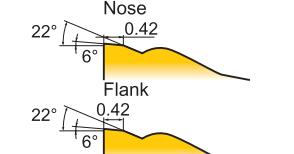
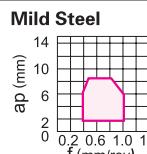
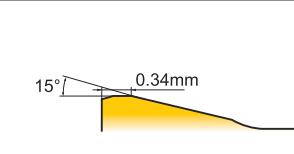
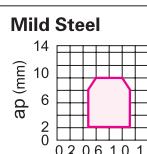
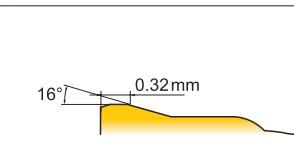
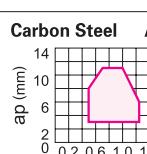
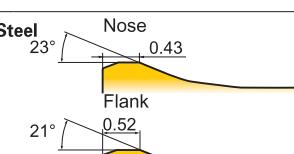
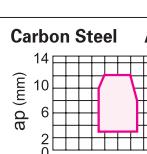
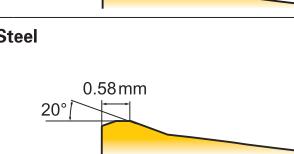
Turning Blade

車削刀片

Classification 類別

NEGATIVE INSERTS WITH HOLE 负角刀片

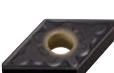
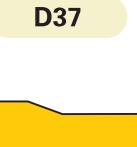
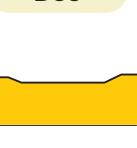
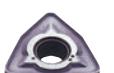
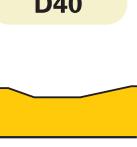
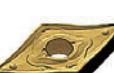
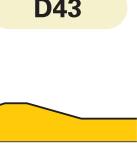
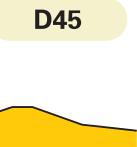
12

Application Tolerance	Breaker Name and Picture	Features	Cross Section Geometry
Rough Cutting M	D37	For rough cutting of carbon steel, alloy steel and stainless steel Seating surface and wide land 3 or more times that of conventional products and provide high cutting stability for interrupted machining and scale removal.	 
	D38	First recommendation for rough cutting of difficult-to-cut materials Positive land increases welding resistance and suppresses chip welding and abrasion at low speed cutting.	 
	D39	For rough cutting of carbon steel, alloy steel and stainless steel Double sided chipbreaker. For interrupted cuts and removing scale. A combination of wide land and a large chip pocket allows high feed rates.	 
	D40	First recommendation for rough cutting of difficult-to-cut materials Double sided chipbreaker. Excellent balance of edge sharpness and strength. Edge geometry with high face wear resistance.	 
Heavy Cutting M	D41	First recommendation for heavy cutting of mild steel and stainless steel Single sided chipbreaker. Covers the lower end of the heavy cutting region. Low cutting resistance due to positive land and curved edge. Teardrop dots improve chip control without increasing cutting resistance.	 
	D42	First recommendation for mild steel and stainless steel Low resistance due to narrow flat land. Achieves high chip breaking ability.	 
	D43	Assist breaker for mild steel and stainless steel Flat land provides outstanding balance between cutting edge strength and sharpness.	 
	D44	First recommendation for heavy cutting of carbon steel and alloy steel Single sided chipbreaker. Covers the medium range of the heavy cutting region. Owing to the straight edge and chamfer, it gives a balance of sharpness and strength. Variable land and a wavy chipbreaker for good chip control.	 
	D45	Assist breaker for general steel and alloy steel High cutting edge strength. Excellent chip discharge even with high feed and high depth of cut.	 

Turning Blade

車削刀片

Classification 類別

Rhombic 80° 	Rhombic 55° 	Square 90° 	Triangular 60° 	Rhombic 35° 	Trigon 80° 	Round 	Breaker Name and Cross Section
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CNMG_□□ 	DNMG_□□ 	SNMG_□□ 	TNMG_□□ 		WNMG_□□ 		D38 
CNMG_□□ 	DNMG_□□ 	SNMG_□□ 	TNMG_□□ 		WNMG_□□ 		D39 
CNMG_□□ 	DNMG_□□ 				WNMG_□□ 		D40 
CNMM_□□ 	DNMM_□□ 	SNMM_□□ 	TNMM_□□ 				D41 
CNMM_□□ 	DNMM_□□ 	SNMM_□□ 	TNMM_□□ 				D42 
CNMM_□□ 		SNMM_□□ 					D43 
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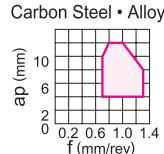
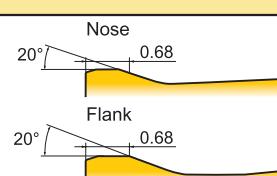
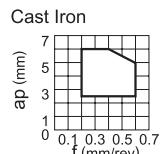
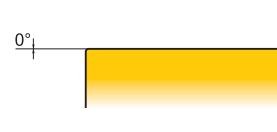
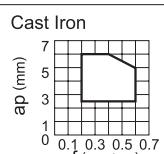
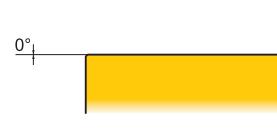
Turning Blade

車削刀片

Classification 類別

NEGATIVE INSERTS WITH HOLE 负角刀片

14

Application	Tolerance	Breaker Name and Picture	Features	Cross Section Geometry
Heavy Cutting	M	D46	Alternative chipbreaker for heavy cutting of carbon steel and alloy steel Single sided chipbreaker. Covers the upper end of the heavy cutting region. Wide land and large chamfer offer high edge strength. A wide chipbreaker prevents chip jamming.	Carbon Steel • Alloy Steel  
For Cast Iron	M	D47	First recommendation for rough cutting of cast iron Double sided flat insert. Most effective for unstable machining due to its high edge strength.	Cast Iron  
	G	D48	For cast iron Double sided flat insert. Most effective for unstable machining due to its high edge strength. Can be used on workpieces requiring close tolerances due to G class insert tolerance.	Cast Iron  

Turning Blade

車削刀片

Classification 類別

Rhombic 80°	Rhombic 55°	Square 90°	Triangular 60°	Rhombic 35°	Trigon 80°	Round	Breaker Name and Cross Section
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							D47
CNMA	DNMA	SNMA	TNMA		WNMA		
	DNGA	SNGA	TNGA	VNGA			D48

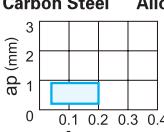
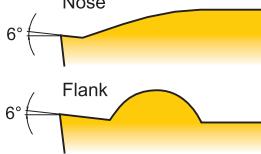
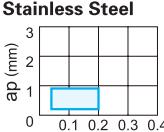
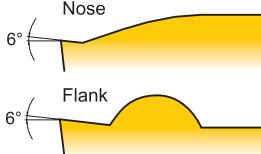
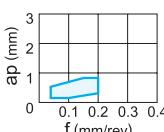
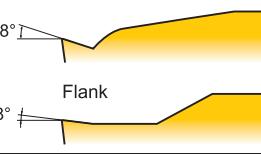
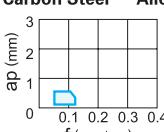
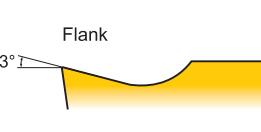
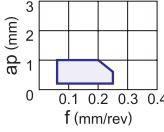
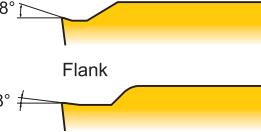
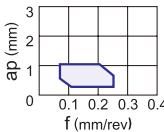
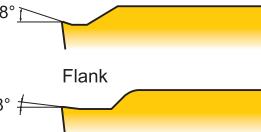
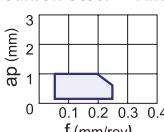
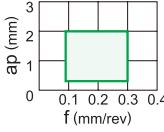
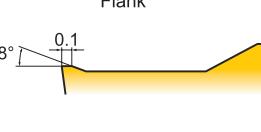
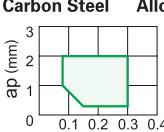
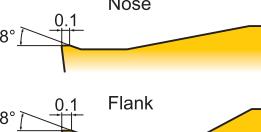
Turning Blade

車削刀片

Classification 類別

5° POSITIVE INSERTS WITH HOLE 正角刀片

16

Application	Tolerance	Breaker Name and Picture	Features	Cross Section Geometry
Finish Cutting	M	D49	First recommendation for finishing carbon steel and alloy steel Breaker protrusion at the corner tip controls chips even at small depth of cut. Maintains the edge strength at the corner and prevents sudden fractures.	 
		D50	First recommendation for finishing stainless steel Breaker protrusion at the corner tip controls chips even at small depth of cut. Maintains the edge strength at the corner and prevents sudden fractures.	 
		D51	First recommendation for finishing carbon steel, alloy steel, mild steel and stainless steel Suitable for low depths of cut and low feed rates. Sharp cutting edge and low resistance design achieves excellent cutting performance.	 
Light Cutting	M	D52	Finishing Lead chipbreaker controls chip flow. Sharp cutting edge gives a good surface finish.	 
		D53	First recommendation for light cutting of carbon steel and alloy steel Sharp cutting edge due to a large rake angle. Prevents welding of the insert and controls white turbidity of the surface finish. Breaker protrusion suitable for depth of cut area achieves a wide range of chip control.	 
		D54	First recommendation for light cutting of stainless steel Sharp cutting edge due to a large rake angle. Prevents welding of the insert and controls white turbidity of the surface finish. Breaker protrusion suitable for depth of cut area achieves a wide range of chip control.	 
Medium Cutting	M	D55	Light cutting of carbon steel, alloy steel, mild steel and stainless steel Large rake angle provides sharp cutting action. A peninsular dot ensures chip control at depths of cut under 1mm.	 
		D56	First recommendation for medium cutting of cast iron Optimum balance between sharpness and high edge strength for general use.	 
		D57	First recommendation for medium cutting of carbon steel and alloy steel Good balance of wear resistance and fracture resistance because of the flat land cutting edge. A wide chip pocket controls increasing of the cutting resistance and reduces vibration and chip jamming even at large depth of cut.	 

Turning Blade

車削刀片

Classification 類別

Rhombic 80°	Rhombic 55°	Square 90°	Triangular 60°	Rhombic 35°	Trigon 80°	Round	Breaker Name and Cross Section
							D49
				 			D50
				 			D51
				 	 		D52
				 			D53
				 			D54
				 			D55
				 			D56
				 			D57

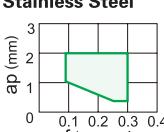
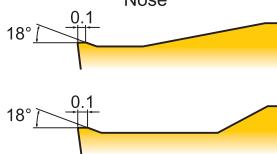
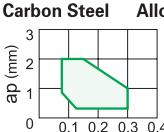
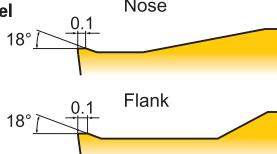
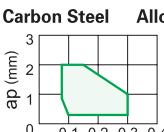
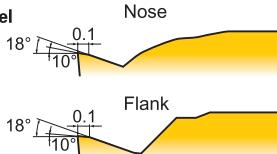
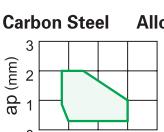
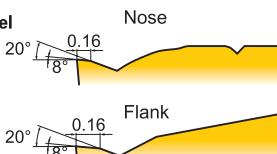
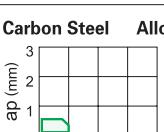
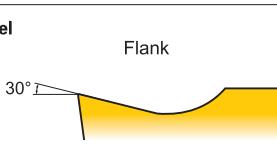
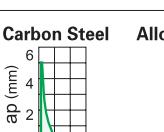
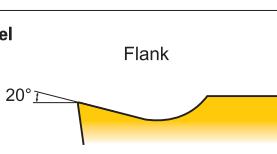
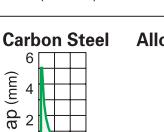
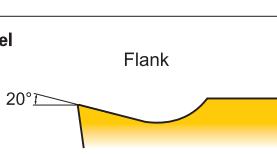
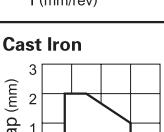
Turning Blade

車削刀片

Classification 類別

5° POSITIVE INSERTS WITH HOLE 正角刀片

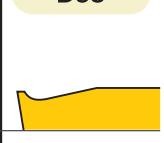
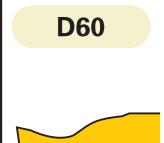
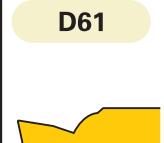
18

Application	Tolerance	Breaker Name and Picture	Features	Cross Section Geometry
Medium Cutting	M	D58	First recommendation for medium cutting of stainless steel Good balance of wear resistance and fracture resistance because of the flat land cutting edge. A wide chip pocket controls increasing of the cutting resistance and reduces vibration and chip jamming even at large depth of cut.	 
		D59	Medium cutting of carbon steel, alloy steel and stainless steel Balance of edge strength and sharpness due to a combination of a flat land and large rake angle.	 
		D60	Medium cutting of carbon steel, alloy steel, mild steel and stainless steel A positive insert with a large rake angle achieves sharp cutting edge performance. The double breakers and round-shaped dots in the rake face achieve a wide range of chip discharge.	 
		D61	Medium cutting of carbon steel, alloy steel, mild steel and stainless steel A positive insert with a large rake angle achieves sharp cutting edge performance. The double breakers and round-shaped dots in the rake face achieve a wide range of chip discharge.	 
		D62	Medium cutting of automatic lathe machining A wide lead chipbreaker. Insert designed for low resistance chip control.	 
For Cast Iron	M	D63	Medium cutting of automatic lathe machining A parallel chipbreaker. Excellent chip control for low to medium feed rates.	 
		D64	Medium cutting of automatic lathe machining A parallel chipbreaker. Excellent chip control for low to medium feed rates. The wiper produces good cutting surface.	 
		D65	Heavy cutting of cast iron Flat top. Most effective for unstable machining due to its high edge strength.	 

Turning Blade

車削刀片

Classification 類別

Rhombic 80° 	Rhombic 55° 	Square 90° 	Triangular 60° 	Rhombic 35° 	Trigon 80° 	Round 	Breaker Name and Cross Section
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				VBMT 			D59 
				VBMT_□□ 			D60 
				WBMT_□□ 			D61 
				VBET_□□ 			D62 
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				VBET_□□ 			D64 
				VBMW 			D65 

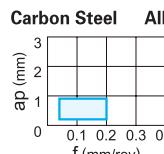
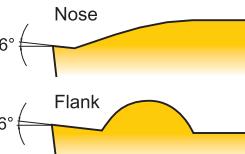
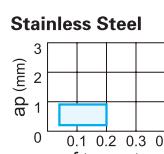
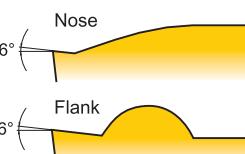
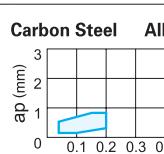
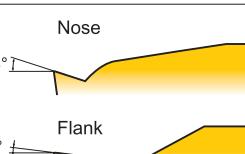
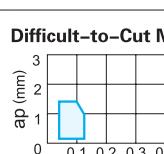
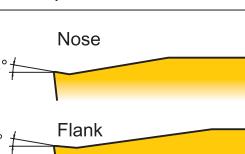
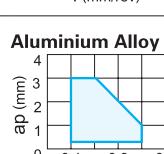
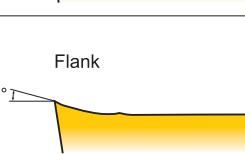
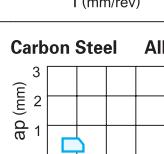
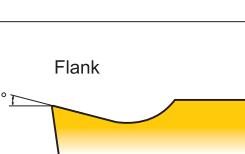
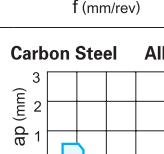
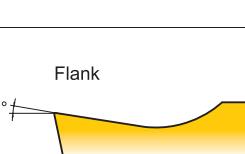
Turning Blade

車削刀片

Classification 類別

7° POSITIVE INSERTS WITH HOLE 正角刀片

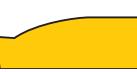
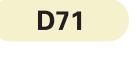
20

Application Tolerance	Breaker Name and Picture	Features	Cross Section Geometry
M	D66	First recommendation for finishing carbon steel and alloysteel Breaker protrusion at the corner tip controls chips even at small depth of cut. Maintains the edge strength at the corner and prevents sudden fractures.	 
	D67	First recommendation for finishing stainlesssteel Breaker protrusion at the corner tip controls chips even at small depth of cut. Maintains the edge strength at the corner and prevents sudden fractures.	 
	D68	First recommendation for finishing carbon steel, alloysteel, mildsteel and stainlesssteel Suitable for low depths of cut and low feed rates. Sharp cutting edge and low resistance design achieves excellent cutting performance.	 
	D69	First recommendation for finishing difficult-to-cut materials Ideal for heat-resistant alloy and titanium alloy. The sharp edge produces a good surface finish. The curved edge allows smooth chip discharge.	 
	D70	For aluminiumalloy The high rake angle and 3D curved cutting edge provides sharpness at the cutting point. Additionally the 3D shape of the rake face enables excellent chip control. Lapping of the top surface gives a mirror finish for improved welding resistance.	 
	D71	Finishing Lead chipbreaker controls chip flow. Sharp cutting edge gives a good surface finish.	 
	D72	Finishing Lead chipbreaker. Excellent chip control at low feed rates.	 

Turning Blade

車削刀片

Classification 類別

Rhombic 80° 	Rhombic 55° 	Square 90° 	Triangular 60° 	Rhombic 35° 	Trigon 80° 	Rhombic 25° 	Round 	Breaker Name and Cross Section
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CCMT_□□	DCMT_□□	SCMT_□□	TCMT_□□	VCMT_□□				D67 
								
CCMT_□□	DCMT_□□	SCMT_□□	TCMT_□□	VCMT_□□				D68 
								
CCGT_□□								D69 
								
CCGT_□□	DCGT_□□		TCGT_□□	VCGT_□□			RCGT_□□ 	D70 
								
CCGT_□□ CCGH_□□	DCGT_□□		TCGT_□□	VCGT_□□				D71 
								
				WCGT_□□ 				D72 

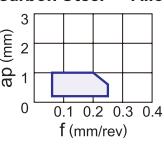
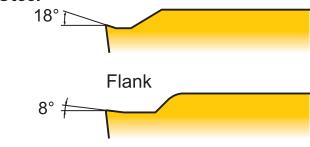
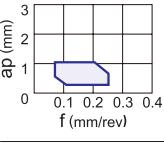
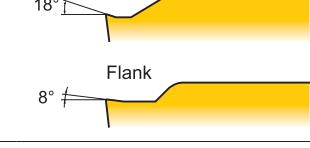
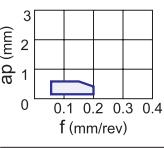
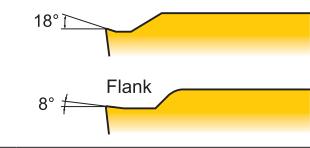
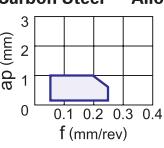
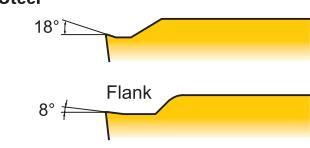
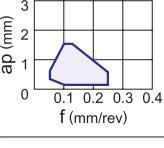
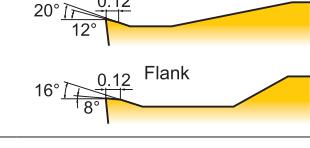
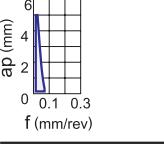
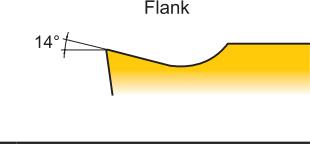
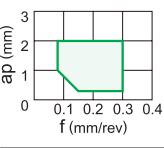
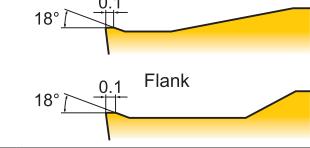
Turning Blade

車削刀片

Classification 類別

7° POSITIVE INSERTS WITH HOLE 正角刀片

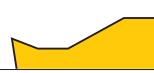
22

Application	Tolerance	Breaker Name and Picture	Features	Cross Section Geometry
Light Cutting	M	D73	First recommendation for light cutting of carbon steel and alloy steel Sharp cutting edge due to a large rake angle. Prevents welding of the insert and controls white turbidity of the surface finish. Breaker protrusion suitable for depth of cut area achieves a wide range of chip control.	 
		D74	First recommendation for light cutting of stainless steel Sharp cutting edge due to a large rake angle. Prevents welding of the insert and controls white turbidity of the surface finish. Breaker protrusion suitable for depth of cut area achieves a wide range of chip control.	 
		D75	Light cutting of carbon steel and alloy steel Chip control is improved by having a chip breaker geometry suitable for copying.	 
		D76	Alternative chipbreaker for light cutting of carbon steel, alloy steel, mild steel and stainless steel Large rake angle provides sharp cutting action. A peninsular dot ensures chip control at depths of cut under 1mm.	 
		D77	Wiper insert for light cutting of carbon steel, alloy steel, mild steel and stainless steel The wiper allows up to two times higher feed. Positive land improves sharpness.	 
		D78	Light cutting of automatic lathe machining A parallel chipbreaker. Excellent chip control at low feed rates.	 
Medium Cutting	M	D79	First recommendation for medium cutting of carbon steel and alloy steel Good balance of wear resistance and fracture resistance because of the flat land cutting edge. A wide chip pocket controls increasing of the cutting resistance and reduces vibration and chip jamming even at large depth of cut.	 

Turning Blade

車削刀片

Classification 類別

Rhombic 80° 	Rhombic 55° 	Square 90° 	Triangular 60° 	Rhombic 35° 	Trigon 80° 	Rhombic 25° 	Round 	Breaker Name and Cross Section
CCMT_□□	DCMT_□□	SCMT_□□	TCMT_□□	VCMT_□□				D73 
								D74 
								D75 
CCMH_□□	DCMT_□□			VCMT_□□				D76 
								D77 
CCGT_□□	DCGT_□□							D78 
CCMT_□□	DCMT_□□	SCMT_□□	TCMT_□□	VCMT_□□				D79 
								

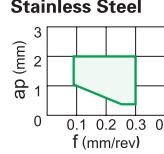
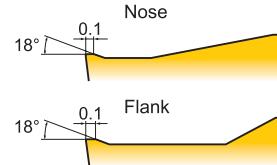
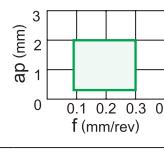
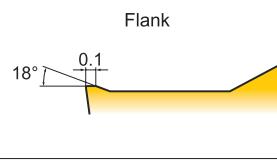
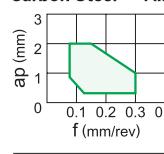
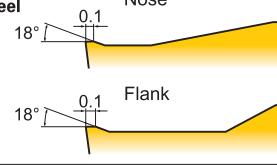
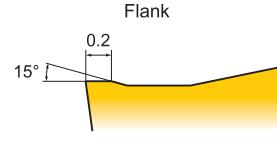
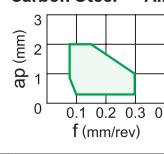
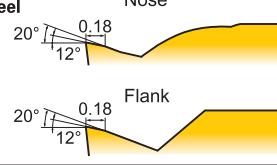
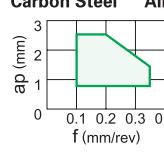
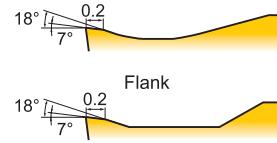
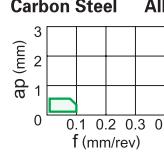
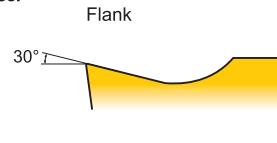
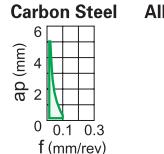
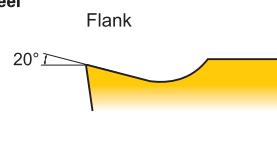
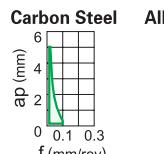
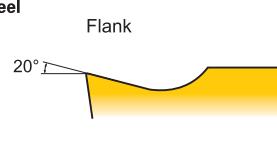
Turning Blade

車削刀片

Classification 類別

7° POSITIVE INSERTS WITH HOLE 正角刀片

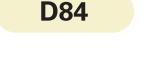
24

Application	Tolerance	Breaker Name and Picture	Features	Cross Section Geometry
Medium Cutting	M	D80	First recommendation for medium cutting of stainless steel Good balance of wear resistance and fracture resistance because of the flat land cutting edge. A wide chip pocket controls increasing of the cutting resistance and reduces vibration and chip jamming even at large depth of cut.	 
		D81	First recommendation for medium cutting of cast iron Optimum balance between sharpness and high edge strength for general use.	 
	M	D82	First recommendation for medium cutting of carbon steel, alloy steel, mild steel, stainless steel and cast iron Balance of edge strength and sharpness due to a combination of a flat land and large rake angle.	  
		D83	Alternative chipbreaker for medium cutting of carbon steel, alloy steel, mild steel and stainless steel A positive insert and the large rake angle achieve sharp cutting edge performance. The double breakers and round shape in the rake face achieve a wide range of chip discharge.	 
	E	D84	Wiper insert for medium cutting of carbon steel, alloy steel, mild steel and stainless steel The wiper allows up to two times higher feed. A wide chip pocket prevents chip jamming.	 
		D85	Medium cutting of automatic lathe machining A wide lead chipbreaker. Insert designed for low resistance chip control.	 
	G	D86	Medium cutting of automatic lathe machining A parallel chipbreaker. Excellent chip control at low to medium feed rates. Suitable for precise machining with E class tolerance.	 
		D87	Medium cutting of automatic lathe machining A parallel chipbreaker. Excellent chip control at low to medium feed rates.	 

Turning Blade

車削刀片

Classification 類別

Rhombic 80° 	Rhombic 55° 	Square 90° 	Triangular 60° 	Rhombic 35° 	Trigon 80° 	Rhombic 25° 	Round 	Breaker Name and Cross Section
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CCMT	DCMT	SCMT	TCMT	VCMT	WCMT		RCMT 	D82 
								
							RCMX 	D83 
	DCMT_□□ 			VCMT_□□ 				
CCMT_□□ 								D84 
CCET_□□ 	DCET_□□ 							D85 
								
CCET_□□ 	DCET_□□ 							D86 
								
CCGT_□□ 	DCGT_□□ 							D87 

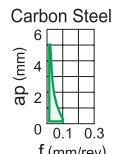
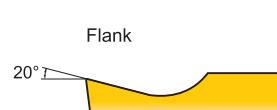
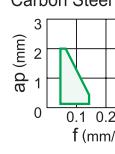
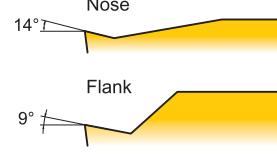
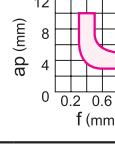
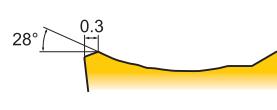
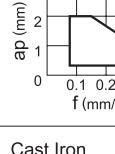
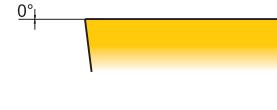
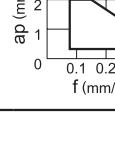
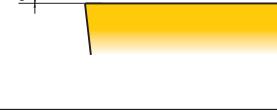
Turning Blade

車削刀片

Classification 類別

7° POSITIVE INSERTS WITH HOLE 正角刀片

26

Application	Tolerance	Breaker Name and Picture	Features	Cross Section Geometry
Medium Cutting	E	D88	Medium cutting of automatic lathe machining A parallel chipbreaker. Excellent chip control at low to medium feed rates. The wiper produces a good surface finish.	Carbon Steel • Alloy Steel  
Medium Cutting	G	D89	Medium cutting of automatic lathe machining 3D moulded chipbreaker provides good chip control. G class insert gives sharp cutting action, allowing high precision machining. Breaker geometry appropriate for copying and back turning.	Carbon Steel • Alloy Steel  
Heavy Cutting	M	D90	Heavy cutting of carbon steel and alloy steel A wide groove chipbreaker prevents chips from jamming at large depths of cut. Small dimples improve chip control at small depths of cut.	Carbon Steel • Alloy Steel  
For Cast Iron	M	D91	Heavy cutting of cast iron Flat top. Most effective for unstable machining due to its high edge strength.	Cast Iron  
For Cast Iron	G	D92	For cast iron Flat top. Most effective for unstable machining due to its high edge strength. Can be used on workpieces requiring close tolerances due to G class insert tolerance.	Cast Iron  

Turning Blade

車削刀片

Classification 類別

Rhombic 80°	Rhombic 55°	Square 90°	Triangular 60°	Rhombic 35°	Trigon 80°	Rhombic 25°	Round	Breaker Name and Cross Section
CCET_R/LW-SN	DCET_R/LW-SN							D88
CCGT_SMG	DCGT_SMG							D89
							RCMX_RR	D90
CCMW	DCMW	SCMW	TCMW	VCMW				D91
CCGW	DCGW							D92

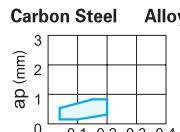
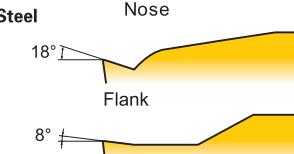
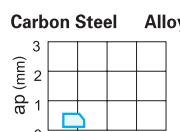
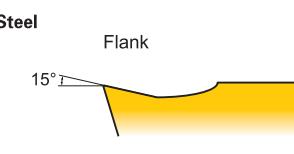
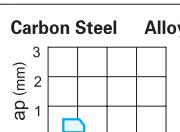
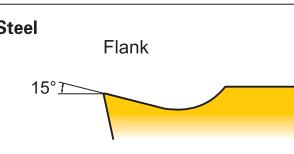
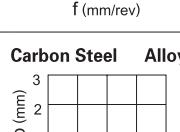
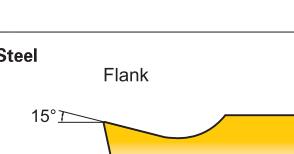
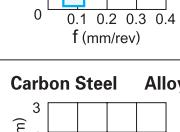
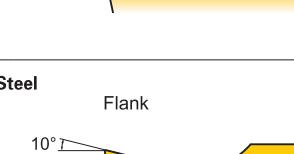
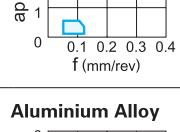
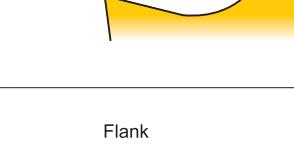
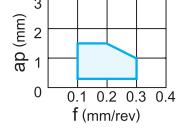
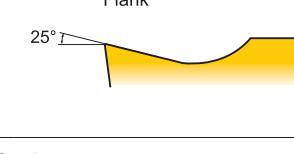
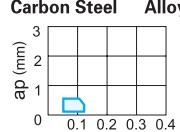
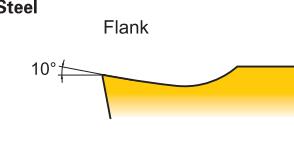
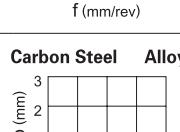
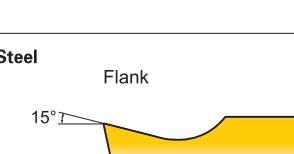
Turning Blade

車削刀片

Classification 類別

11° POSITIVE INSERTS WITH HOLE 正角刀片

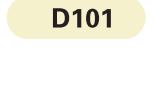
28

Application	Tolerance	Breaker Name and Picture	Features	Cross Section Geometry
Finish Cutting	M	D93	First recommendation for finishing carbon steel, alloy steel, mild steel and stainless steel Suitable for low depths of cut and low feed rates. Sharp cutting edge and low resistance design achieves excellent cutting performance.	 
	G	D94	Alternative chipbreaker for finishing carbon steel, alloy steel, stainless steel, cast iron and aluminium alloy Small wide lead chipbreaker. Sharp cutting edge gives a good surface finish.	 
	M	D95	Finishing Lead chipbreaker controls chip flow. Sharp cutting edge gives a good surface finish.	 
	M	D96	Finishing Lead chipbreaker controls chip flow. Sharp cutting edge gives a good surface finish.	 
	G	D97	Finishing Lead chipbreaker controls chip flow. Good chip control for low to medium feed rates.	 
	M	D98	Finishing Lead chipbreaker controls chip flow. Good chip control for low to medium feed rates.	 
	M	D99	Finishing Lead chipbreaker controls chip flow. Good chip control for low to medium feed rates.	 
	E	D100	Finishing Lead chipbreaker controls chip flow. Sharp cutting edge gives a good surface finish.	 
	G	D101	Medium cutting of automation machining 3D moulded chipbreaker provides good chip control. G class insert gives sharp cutting action, allowing high precision machining. Breaker geometry appropriate for copying and back turning.	 

Turning Blade

車削刀片

Classification 類別

Rhombic 80° 	Rhombic 55° 	Square 90° 	Triangular 60° 	Rhombic 35° 	Trigon 80° 	Round 	Breaker Name and Cross Section
CPMH_□□ 			TPMH_□□ 				D93 
			TPGH_□□ 		WPGT_□□ 		D94 
CPMH_□□ 							D95 
CPGT_□□ 							D96 
			TPGX_□□ 				D97 
CPGT 							D98 
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				VPET_□□ 			D100 
				VPGT_□□ 			D101 

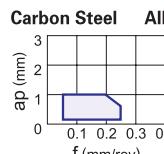
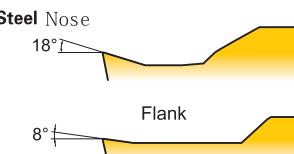
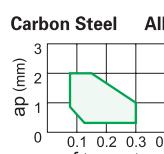
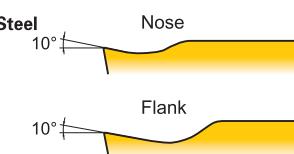
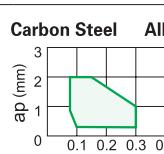
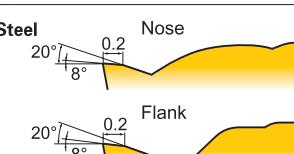
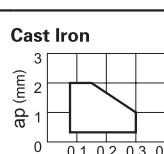
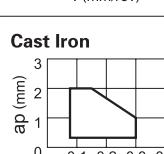
Turning Blade

車削刀片

Classification 類別

11° POSITIVE INSERTS WITH HOLE 正角刀片

30

Application	Tolerance	Breaker Name and Picture	Features	Cross Section Geometry
Light Cutting	M	D102	First recommendation for light cutting of carbon steel, alloy steel, mild steel, stainless steel and cast iron Large rake angle provides sharp cutting action. A peninsular dot ensures chip control at depths of cut under 1mm.	 
Medium Cutting	M	D103	Alternative chipbreaker for medium cutting of carbon steel, alloy steel and stainless steel Standard, general purpose chipbreaker.	 
		D104	First recommendation for medium cutting of carbon steel, alloy steel, mild steel, stainless steel and cast iron A positive insert and large rake angle achieves sharp cutting edge performance. Double breakers in the rake face achieve a wide range of chip discharge.	 
For Cast Iron	M	D105	Heavy cutting of cast iron Flat top. Most effective for unstable machining due to its high edge strength.	 
	G	D106	For cast iron Flat top. Most effective for unstable machining due to its high edge strength. Can be used on workpieces requiring close tolerances due to G class insert tolerance.	 

Turning Blade

車削刀片

Classification 類別

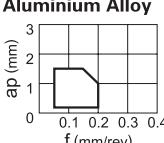
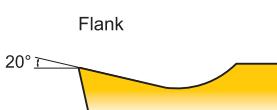
Rhombic 80° 	Rhombic 55° 	Square 90° 	Triangular 60° 	Rhombic 35° 	Trigon 80° 	Round 	Breaker Name and Cross Section
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CPMX 		SPMT 	TPMX 				D103 
CPMH_□□ 			TPMH_□□ 		WPMT_□□ 		D104 
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		SPGX 	TPGX 				D106 

Turning Blade

車削刀片

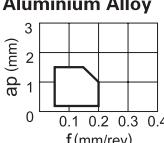
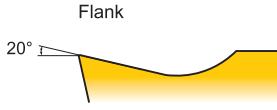
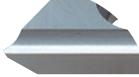
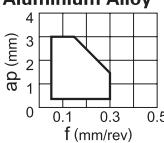
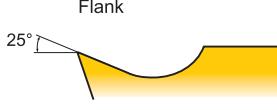
Classification 類別

15° POSITIVE INSERTS WITH HOLE 正角刀片

Application For Aluminium Alloy	Tolerance G	Breaker Name and Picture 	Features	Cross Section Geometry
		D107	For aluminium alloy cutting Lead chipbreaker. Sharp cutting edge gives a good surface finish.	 

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20° POSITIVE INSERTS WITH HOLE 正角刀片

Application For Aluminium Alloy	Tolerance G	Breaker Name and Picture	Features	Cross Section Geometry
		D108 	For aluminium alloy cutting Lead chipbreaker. Sharp cutting edge gives a good surface finish.	 
		D109 	For aluminium alloy cutting A parallel chipbreaker. Sharp cutting edge gives a good surface finish. Good chip control for medium feed rates.	 

Turning Blade

車削刀片

Classification 類別

Rhombic 80°	Rhombic 55°	Square 90°	Triangular 60°	Rhombic 35°	Trigon 80°	Round	Breaker Name and Cross Section
							D107

33

Rhombic 80°	Rhombic 55°	Square 90°	Triangular 60°	Rhombic 35°	Trigon 80°	Round	Breaker Name and Cross Section
							D108
	DEGX_□□ 						D109

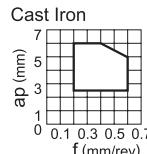
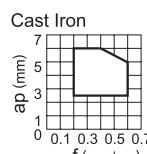
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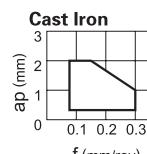
Classification 類別

NEGATIVE INSERTS WITHOUT HOLE 负角刀片

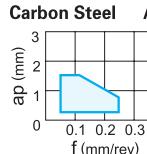
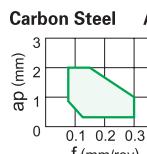
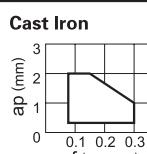
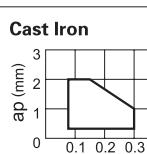
34

Application	Tolerance	Breaker Name and Picture	Features	Cross Section Geometry
For Cast Iron	M	D110	Heavy cutting of cast iron Double sided flat insert. Most effective for unstable machining due to high edge strength and stable insert clamping.	 
	G	D111	For cast iron Double sided flat insert. Most effective for unstable machining due to high edge strength and stable insert clamping. Can be used on workpieces requiring close tolerances due to G class insert tolerance.	 

7° POSITIVE INSERTS WITHOUT HOLE 正角刀片

Application	Tolerance	Breaker Name and Picture	Features	Cross Section Geometry
For Cast Iron	G	D112	For cast iron Double sided flat insert. Most effective for unstable machining due to high edge strength and stable insert clamping. Can be used on workpieces requiring close tolerances due to G class insert tolerance.	 

11° POSITIVE INSERTS WITHOUT HOLE 正角刀片

Application	Tolerance	Breaker Name and Picture	Features	Cross Section Geometry
Finish Cutting	G	D113	Finishing A parallel chipbreaker. Good chip control for low to medium feed rates.	 
	M	D114	Light to medium cutting of carbon steel, alloy steel and stainless steel Standard, general purpose chipbreaker.	 
For Cast Iron	M	D115	Heavy cutting of cast iron Flat top. Most effective for unstable machining due to high edge strength and stable insert clamping.	 
	G	D116	For cast iron Flat top. Most effective for unstable machining due to high edge strength and stable insert clamping. Can be used on workpieces requiring close tolerances due to G class insert tolerance.	 

Turning Blade

車削刀片

Classification 類別

Rhombic 80°	Square 90°	Triangular 60°	Breaker Name and Cross Section
			D110
CNMM	SNMN	TNMN	
			
	SNGN	TNGN	D111
			

SPECIAL PURPOSE INSERTS 特殊刀片

Application	Tolerance	Tool Holder Type	Inserts
Special	G	D117	

Rhombic 80°	Square 90°	Triangular 60°	Breaker Name and Cross Section
			D112
		TCGN	

Rhombic 80°	Square 90°	Triangular 60°	Breaker Name and Cross Section
	SPGR_R	TPGR_R/L	D113
			
	SPMR	TPMR	D114
			
	SPMN	TPMN	D115
			
	SPGN	TPGN	D116
			

Turning Blade

車削刀片

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CNMG_□□	CNMG_□□	CNMG_□□	CNMG_□□	CNMG_□□	CNMG_□□
					
D120	D121	D122	D123	D124	D125
CNMG_□□	CNMG_□□	CNMM_□□	CNMG_□□	CNMA_□□	CNMG_□□
					
D126	D127	D128	D129	D130	D131
DNMG_□□	DNMG_□□	DNMG_□□	DNMG_□□	DNMG_□□	DNMG_□□
					
D132	D133	D134	D135	D136	D137
DNMG_□□	DNMA_□□	SNMG_□□	SNMG_□□	SNMG_□□	SNMG_□□
					
D138	D139	D140	D141	D142	D143
SNMG_□□	SNMG_□□	SNMG_□□	SNMG_□□	SNMG_□□	SNMA_□□
					
D144	D145	D136	D147	D148	D149
TNMG_□□	TNMG_□□	TNMG_□□	TNMG_□□	TNMG_□□	TNMG_□□
					
D150	D151	D152	D153	D154	D155
TNMG_□□	TNMG_□□	TNMA_□□	VNMG_□□	VNMG_□□	VNMG_□□
					
D156	D157	D158	D159	D160	D161

Turning Blade

車削刀片

CCMT_□□	DCMT_□□	DCMT_□□	DCMT_□□	DCMT_□□	RCMX_□□

RCMX_□□	SCMT_□□	SCMT_□□	SCMT_□□	SCMT_□□	TCMT_□□

TCMT_□□	TCMT_□□	TCMT_□□	VCMT_□□	VCMT_□□	VCMT_□□

VCMT_□□	VBMT_□□	VBMT_□□	VBMT_□□	VBMT_□□	VBMT_□□

TBGH_□□	TPGH_□□	KNUX_□□	175.32

Turning Blade

車削刀片

VNMG_□□	VNMG_□□	VNMG_□□	VNMG_□□	VNMA_□□	WNMG_□□
					
D174	D175	D176	D177	D178	D179
WNMG_□□	WNMG_□□	WNMG_□□	WNMG_□□	WNMG_□□	WNMG_□□
					
D180	D181	D182	D183	D184	D185
WNMG_□□	WNMA_□□	CCMT_□□	CCMT_□□	CCMT_□□	CCMT_□□
					
D186	D187	D188	D189	D190	D191

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铝加工刀片一览表 Insert for aluminum

CCGX_□□	DCGX_□□	SCGX_□□	TCGX_□□	VCGX_□□
				
D192	D193	D194	D195	D196

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

Q**W_□□	ZQMX_□□	Q**D_□□
		
D197	D198	D199

Turning Blade

車削刀片

铝加工刀片一览表 Insert for aluminum

APKT_□□	APKT_□□	CCGT_□□	CCGT_□□	CNMG_□□	DCGT_□□
					
D200	D201	D202	D203	D204	D205
DCGT_□□	DCGT_□□	DCGT_□□	DNMG_□□	DNMG_□□	GIP_□□
					
D206	D207	D208	D209	D210	D211
GIP_□□	SCGT_□□	SDGT_□□	TCGT_□□	TCGT_□□	VCGT_□□
					
D212	D213	D214	D215	D216	D217
VCGT_□□	VCGT_□□	VCGT_□□	WC GT_□□	WC GT_□□	WC GT_□□
					
D218	D219	D220	D221	D222	D223

FOR EXTERNAL TURNING AND BORING

外圆加工用、内孔加工用

					
D224	D225	D226	D227	D228	D229
					
D230	D231	D232	D233	D234	D235

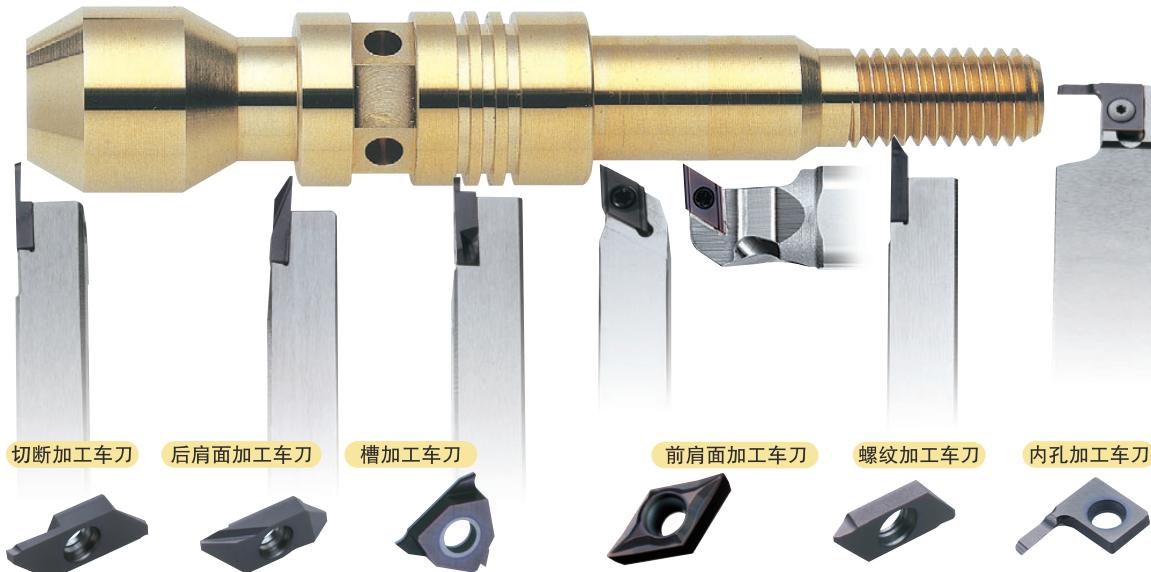
Turning Blade

車削刀片

Outline of small tools 小型刀具概述

TOOLS FOR GANG TYPE AUTOMATIC LATHES (FOR EXTERNAL TURNING AND BORING)
自動車床平列式刀架上安装的刀具 (外圆加工用、内孔加工用)

40

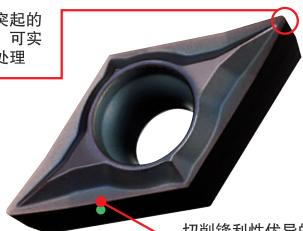


a 带SMG断屑槽的刀片

刀尖圆弧半径R为负公差

- 最适用于多要求负公差的精密零部件加工
- 型号标记中用【M】表示负公差
- 刀片标签的侧面标记刀尖圆弧半径R值，容易识别

曲线切削刃与突起的断屑槽相结合，可实现良好的切屑处理



a 刀尖圆弧半径精度R



带SMG断屑槽的刀片
RE₀ -0.05 mm
E级品
(以往G级品
(RE e 0.10 mm))
RE₀ -0.02 mm

切削锋利性优异的锋利刃口

a 切断加工

刃宽 0.7-3.0mm

切断直径

& 35

a 后肩面加工

有效切削刃长 6.0mm

宽 3.5mm

悬伸量 -7.5mm

a 螺纹加工

加工至端面

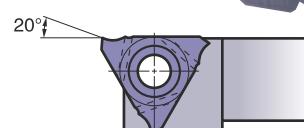
加工半径差 6.5mm

a 背面夹紧机构

使用表背面通用螺钉，
可以从背面进行拧紧操作。

a 槽加工

- 3个刃角
- 槽宽 0.3-3.0mm
- 可用于横肩面加工



a 前肩面加工

- E级精度ISO刀片
- 小刀尖圆弧半径R
- 前角 30°



Turning Blade

車削刀片

Outline of small tools 小型刀具概述

适用几乎所有小工件的加工

外圆加工	前肩面、后肩面、切槽、螺纹、切断
内孔加工	镗孔、孔内切槽、切螺纹
钻孔加工	钻削
立铣加工	铣削

刀具可安装在各种 CNC 自动车床、小型车床上

刀架类型	平列式、转塔式、凸轮式（放射形）
刀柄尺寸	方刀柄：8 ~ 16 mm 圆刀柄：<25.4 以下

高质量、长寿命、高效率的可转位刀片

高质量	E 级精度、刃口锋利、高精度小刀尖圆弧半径 R、超平滑的刀具表面
长寿命	MIRACLE 涂层 (VP15TF)、金属陶瓷 (NX2525)、硬质合金 (HTi10)
高效率	可转位车刀不需重磨，刀片种类丰富

凸輪式自動車床用刀具

- a 最适用于凸轮式自动车床（放射状刀架）
- a 最适合加工 <5mm 以下的小零件
- a 一个刀柄能进行前肩面、后肩面、切槽、切螺纹、切断加工。



内孔加工用刀具

整体双头小型镗刀



小型可调式镗刀杆
最小加工直径 >5.0-



鑽孔加工刀具

- a 各种硬质合金钻头
- a 各种高速钢钻头



立铣加工刀具

- a 各种硬质合金立铣刀
- a 各种高速钢立铣刀



Turning Blade

車削刀片

List of slot processing 槽加工一覽表

外圆用

名称和外形	刀片外形	特点	各种形状的槽宽 (mm)					
			浅槽	深槽	切断加	工仿形	拐角	端面槽
		模块型 a. 压板夹紧式 a. 模块型, 可实现高刚性、高精度 (TRI-LOCK机构) a. 刀片种类多 一体型 a. 弹性夹紧式	1.5 2.24 2.39 2.5 2.74 3. 3.18 3.24 4. 4.24 4.75 5 5.24 6 6.31 6.35	1.5 2.24 2.39 2.5 2.74 3. 3.18 3.24 4. 4.24 4.75 5 5.24 6 6.31 6.35	1.5 2.24 2.39 2.5 2.74 3. 3.18 3.24 4. 4.24 4.75 5 5.24 6 6.31 6.35	2 2.5 3 3.18 3.24 4 4.24 4.75 5 5.24 6 6.31 6.35	2 2.5 3 3.18 3.24 4 4.24 4.75 5 5.24 6 6.31 6.35	2 2.24 2.39 2.5 2.74 3. 3.18 3.24 4. 4.24 4.75 5 5.24 6 6.31 6.35
		a. 弹性夹紧式 a. 加强刀片夹紧力 a. 分体型、整体型刀柄已系列化 a. 最大切削直径: 120mm	2.2 3.1 4.1 5.1	2.2 3.1 4.1 5.1	2.2 3.1 4.1 5.1			
		a. 压板夹紧式 a. 采用精密级刀片 a. 正角刃型, 不易产生振动, 能获得良好的表面质量	1.25 6					
		a. 螺钉夹紧式 a. 采用精密级刀片 a. 正角刃型, 不易产生振动, 能获得良好的表面质量	0.5 1.3					
小型刀具		a. 可安装在平列刀架式自动车床上 a. 8mm~16mm的小型刀柄 a. 可从背面夹紧 a. 高刚性纵刃设计 a. 可使用3个刃角, 经济性好	0.3 3.0					
		a. 可安装在平列刀架式自动车床上 a. 8mm~16mm的小型刀柄 a. 切削刃有切削方向, 工件中心的加工残留极少 a. 高刚性纵刃设计 a. 最大切削直径: 12mm	0.7 1.0 1.5 2.0	0.7 1.0 1.5 2.0	0.7 1.0 1.5 2.0			
		a. 可安装在平列刀架式自动车床上 a. 10mm~16mm的小型刀柄 a. 可安装后肩面加工用与切断加工用二种刀片 a. 高刚性纵刃设计 a. 最大切削直径: 16mm	1.5 2.0	1.5 2.0	1.5 2.0			
		a. 可安装在平列刀架式自动车床上 a. 10mm、12mm的小型刀柄 a. 切削刃锋利, 排屑性能良好 a. 最大切削直径: 20mm	2.2 2.5	2.2 2.5	2.2 2.5			
		a. 可安装在平列刀架式自动车床上 a. 16mm的小型刀柄 a. 切削刃锋利, 排屑性能良好 a. 最大切削直径: 23~35mm	2.5	2.5	2.5			
		a. 可安装在平列刀架式自动车床上 a. 16mm的小型刀柄 a. 切削刃锋利, 排屑性能良好 a. 最大切削直径: 23~35mm	3.0	3.0	3.0			

Turning Blade

車削刀片

List of slot processing 槽加工一覽表

外圆用

名称和外形		刀片外形	特点	各种形状的槽宽 (mm)				
				浅槽	深槽	切削加工	仿形	端面槽
小型刀具			<ul style="list-style-type: none"> a 可装在凸轮控制式刀架的自动车床上 a 7mm~12mm的小型刀柄 a 可进行前肩面加工、后肩面加工、槽加工、螺纹加工与切断加工 a 最适宜加工直径&5mm的小型零件 a 最大加工槽深：0.3~2.5mm a 最大切削直径：3~5mm 	0.25 1.5		0.6 1.5		

内孔用

名称和外形	刀片外形	特点	最小加工直径 (mm)	槽宽 (mm)	最大槽深 (mm)
		模块型 <ul style="list-style-type: none"> a 压板夹紧式 a 模块型，可实现高刚性、高精度 (TRI-LOCK机构) a 刀片种类多 一体型 a 弹性夹紧式 	25	2 6.35	4 13
		<ul style="list-style-type: none"> a 螺钉夹紧式 a 采用精密级刀片 a 可加工螺纹 a 最大加工槽深：3mm 	10	1.2 4.0	1.0 3.0
		<ul style="list-style-type: none"> a 销锁紧式 a 采用精密级刀片 a 镗刀头与刀杆分离，刀头为可换型 	40	1.25 4.5	1.2 4.5
双头小型镗刀		<ul style="list-style-type: none"> a 整体硬质合金式 a 镗刀2端各有1个切削刃 	3.0	1.0 2.0	1.0 2.0
小型镗刀		<ul style="list-style-type: none"> a 整体硬质合金式 a 可对刃形进行加工以满足各用途需要 	3.2	2.0 3.0	1.0 2.0

Turning Blade

车削刀片

螺纹刀片一览表

Threading Insert

60° V牙形螺纹刀片 60° general pitch threads	55° V牙形螺纹刀片 55° general pitch threads	ISO 米制螺纹刀片 ISO metric threads	Un美制螺纹刀片 United threads	W惠氏螺纹刀片 Whitworth threads	BSPT英制锥管螺纹刀片 British standard taper pipe threads
					

NPT 英制锥管螺纹刀片 NPT American standard taper pipe threads	UNJ 美制航空螺纹刀片 UNJ American standard aerospace and aviation threads	RD DIN405圆管30° 螺纹刀片 30° DIN405 round threads	APIRD 石油管螺纹刀片 Petroleum pipeline threads	TR 公制30° 梯形螺纹刀片 30° ISO metric threading insert	ACME 美制29° 梯形螺纹刀片 29° American standard ACME threads
					

STACME 矮牙美制29° 梯形螺纹刀片
29° American standard STACME threads

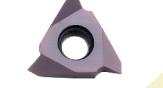
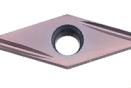


D248

Precise digital-controlled machine tool Dedicated

走心机专用

APKT-K0	APKT-K0	CCGT-K0	CCGT-K0	CNMG-K0	DCGT-K0
					

APKT-K0	APKT-K0	CCGT-K0	CCGT-K0	CNMG-K0	DCGT-K0
					

APKT-K0	APKT-K0
	

Milling Blade

銑削刀片

SEET_□□	SEET_□□	SEET_□□	SEET_□□	SEET_□□	SEET_□□
					

SPKN_□□	SPKR_□□	APKT_□□	APKT_□□	SPMT_□□	SPMT_□□
					

SPMT_□□	SPMT_□□	RCKT_□□	RCKT_□□	RDKW_□□	RDKX_□□
					

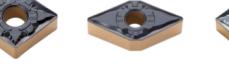
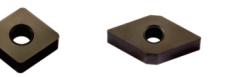
RPEW_□□	WPGT_□□	SDMT_□□	APMT_□□	APMT_□□	APMT_□□
					

Turning Blade

車削刀片

Trough type 槽型匯集

● 带孔负角刀片

断屑槽	刀片外形及特点					用途	精度	推荐切削参数	
MT							钢件加工	M	ap: 1.00~ 5.00 fn: 0.20~ 0.5
M							M	ap: 1.00~ 4.00 fn: 0.20~ 0.5	
GF							钢件加工	M	ap: 0.15~2.00 fn: 0.08~0.18
GT							钢件加工	M	ap:1.00~5.0 fn:0.20~0.50
BF							M	不锈钢加工 ap: 0.15~2.00 fn: 0.08~0.18	
BM							M	不锈钢加工 ap: 0.50~8.50 fn: 0.10~0.55	
BR							M	不锈钢加工 ap: 1.50~11.00 fn: 0.15~1.00	
通槽							铸铁加工	M	ap: 0.20~8.00 fn: 0.15~0.60
无槽							M	铸铁加工 ap: 0.20~12.00 fn: 0.10~1.20	

● 带孔正角刀片

断屑槽	刀片外形及特点					用途	精度	推荐切削参数	
MP							不锈钢加工	M	ap: 0.10~ 3.6 fn: 0.03~ 0.4
AK							G	铝合金加工 ap: 0.10~ 8.00 fn: 0.10~ 0.50	

Turning Blade

車削刀片

Overview 型號預覽(按型號系列)

● 普通车削负角刀片 General turning negative inserts

CNMG_□□	CNMA_□□						
D287	D28	D289	D290	D291	D292	D293	D294

DNMG_□□	DNMG_□□	DNMG_□□	DNMG_□□	DNMG_□□	DNMG_□□	DNMA_□□	
D295	D296	D297	D298	D299	D300	D301	

SNMG_□□	SNMA_□□						
D302	D303	D304	D305	D306	D307	D308	D309

TNMG_□□	TNMA_□□							
D310	D311	D312	D313	D314	D315	D316	D317	D318

VNMG_□□								
D319	D320	D321	D322	D323	D324	D325		

| WNMG_□□ |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| D326 | D327 | D328 | D329 | D330 | D331 | D332 | D333 | D334 |

● 普通车削正角刀片 General turning positive inserts

CCMT_□□	DCMT_□□	SCMT_□□	TCMT_□□	TCMT_□□	RCMX_□□		
D335	D336	D337	D338	D339	D340		

● 铝合金车削刀片系列(正角刀片) Aluminum alloy turning inserts series

DCGT	DCGT	TCGT	VCGT				
D341	D342	D343	D344				

Negative Blade

負角車削

Application cases 應用案例

輪轂單元高速連續車削

Automobile Hub unit continuous turning in high speed

加工材料	65Mn鋼汽車輪轂單元
加工方式	濕式外圓、端面連續半精車
使用刀片	WNMG080408-GF
加工參數	Vc=330m/min, f=0.3mm/r, ap=0.8mm
切削性能	哆樂刀片壽命：23~30件/刃，國外T品牌：13~21件/刃。
Workpiece	Automobile Hub unit steel 65Mn
Machining way	Wet continuous/ intermittent semi-finish external turning
Inserts	WNMG080408-GF WS8115
Machining parameter	Vc=330m/min, f=0.3mm/r, ap=0.8mm
Result of cutting	DOHRE: 23~30pcs/cutting edge Brand T:13~21pcs/cutting edge

輪轂單元連續中速車削

Automobile Hub unit continuous turning in intermediate speed

加工材料	65Mn鋼汽車輪轂單元
加工方式	濕式外圓、端面連續半精車
使用刀片	WNMG080408-GF
加工參數	Vc=190m/min, f=0.2mm/r, ap=0.5~0.6mm
切削性能	哆樂刀片壽命：63~87件/刃，國外T品牌：40~65件/刃。
Workpiece	Automobile Hub unit steel 65Mn
Machining way	Wet continuous/ intermittent semi-finish external turning
Inserts	WNMG080408-GF WS8115
Machining parameter	Vc=190m/min, f=0.2mm/r, ap=0.5~0.6mm
Result of cutting	DOHRE: 63~87pcs/cutting edge Brand T:40~65pcs/cutting edge

球籠內弧孔連續粗、精車

Cage steel continuous turning

球籠材料	55#鋼
加工方式	球籠內弧孔連續粗、精車
使用刀片	TNMG160408-GF
加工參數	Vc=320m/min, f=0.24~0.27mm/r, ap=0.5~1.5mm
切削性能	哆樂刀片車削零件表面質量更好，平均壽命130件/刃，國外T品牌：120件/刃。
Workpiece	Cage steel 55#
Machining way	Cage steel continuous semi-finishing and finishing external turning
Inserts	WNMG080408-GF WS8115
Machining parameter	Vc=320m/min, f=0.24~0.27mm/r, ap=0.5~1.5mm
Result of cutting	DOHRE: 130pcs/cutting edge Brand T:120pcs/cutting edge

銷軸外圓、錐度粗車

Hinge pin external and taper roughing turning

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銷軸材料	42CrMo調質HRC38
加工方式	帶乳化液連續車削A頭端面，外圓
使用刀片	WNMG080408-GF
加工參數	Vc=125m/min, f=0.25mm/r, ap=1.0~2.5mm
切削性能	哆樂刀片壽命：134+件/刃，國內O品牌76件/刃。
Workpiece	42CrMo tempering to HRC38
Machining way	Continuous turning with emulsion for facing A and external turning
Inserts	WNMG080408-GF WS8115/WS8125
Machining parameter	Vc=125m/min, f=0.25mm/r, ap=1.0~2.5mm
Result of cutting	DOHRE: 134+pcs/cutting edge Brand L:76pcs/cutting edge

锥度处原用进口通用槽型刀片排屑效果差。后采用GF槽型排屑效果很好，寿命得到极大地提高。
Hardstone's GF chipbreaker better than previous chipbreaker which imported from other country, the results show that the life and stability has increased.

輪轂單元斷續車削

Automobile Hub unit intermittent / continuous turning

銷軸材料	42CrMo調質HRC38
加工方式	帶乳化液粗車端面
使用刀片	WNMG080408-GT
加工參數	Vc=175m/min, f=0.2~0.25mm/r, ap=1.5~1.8mm
切削性能	哆樂刀片壽命：152+件/刃，國內O品牌70件/刃。
Workpiece	42CrMo tempering to HRC38
Machining way	Turning with emulsion for facing turning
Inserts	WNMG080408-GT WS8115
Machining parameter	Vc=175m/min, f=0.2~0.25mm/r, ap=1.5~1.8mm
Result of cutting	DOHRE: 152+pcs/cutting edge Brand O:70pcs/cutting edge

輪轂單元斷續、連續車削

Automobile Hub unit intermittent / continuous turning

加工材料	55#鋼汽車輪轂單元
加工方式	濕式外圓連續、端面斷續半精車
使用刀片	WNMG080408-MT
加工參數	Vc=220~300m/min, f=0.15~0.28mm/r, ap=0.8mm
切削性能	哆樂刀片壽命：80~100件/刃，國外T品牌：70~90件/刃。
Workpiece	Automobile Hub unit steel 55#
Machining way	Wet continuous/ intermittent semi-finish external turning
Inserts	WNMG080408-MT WS8125
Machining parameter	Vc=220~300m/min, f=0.15~0.28mm/r, ap=0.8mm
Result of cutting	DOHRE: 80~100pcs/cutting edge Brand T:70~90pcs/cutting edge

輪轂單元高速斷續、連續車削

Flange intermittent / continuous turning in high speed

加工材料	55#鋼法兰盤
加工方式	濕式連續粗車軸領接R及斷續精車端面
使用刀片	VNMG160408-MT
加工參數	Vc=250~310m/min, f=0.167mm/r, ap=0.45mm
切削性能	哆樂刀片壽命：20~21件/刃，國外T品牌：15~16件/刃。
Workpiece	Flange steel 55#
Machining way	Wet journal shaft continuous/ intermittent finishing turning
Inserts	VNMG160408-MT WS8115
Machining parameter	Vc=230~310m/min, f=0.167mm/r, ap=0.45mm
Result of cutting	DOHRE: 20~21pcs/cutting edge Brand T:15~16pcs/cutting edge

輪轂單元內孔連續車削

Automobile Hub unit hole intermittent / continuous turning

加工材料	65Mn鋼汽車輪轂單元
加工方式	濕式連續半精車孔道
使用刀片	VNMG160408-MT
加工參數	Vc=300m/min, f=0.24mm/r, ap=0.5mm
切削性能	哆樂刀片壽命：160~180件/刃，國外T品牌：160~180件/刃。
Workpiece	Automobile Hub unit steel 65Mn
Machining way	Wet intermittent semi-finishing turning
Inserts	VNMG160408-MT WS8115
Machining parameter	Vc=300m/min, f=0.24mm/r, ap=0.5mm
Result of cutting	DOHRE: 160~180pcs/cutting edge Brand T:160~180pcs/cutting edge

Negative Blade

負角車削

Application cases 應用案例

三柱壳外圆断续粗车

Housing intermittent roughing turning



加工材料	CF53钢三柱壳外圆
加工方式	混式轴颈断续粗车
使用刀片	CNMG120408-MT
加工参数	Vc=220m/min, f=0.2mm/r, ap=1.5mm
切削性能	哆乐刀片寿命: 40~50件/刃, 国外T品牌: 30~40件/刃。
Workpiece	Steel Gcr15
Machining way	Wet journal shaft intermittent finishing turning
Inserts	CNMG120408-MT WS8125
Machining parameter	Vc=220m/min, f=0.2mm/r, ap=1.5mm
Result of cutting	DOHRE: 40~50pcs/cutting edge Brand T:30~40pcs/cutting edge

三柱壳外圆断续、连续车削

Housing intermittent / continuous roughing turning



加工材料	CF53钢三柱壳外圆
加工方式	混式外圆连续、断续半精车
使用刀片	DNMG150408-MT
加工参数	Vc=286m/min, f=0.33mm/r, ap=0.2mm
切削性能	哆乐刀片寿命: 48~63件/刃, 国外T品牌: 40~50件/刃。
Workpiece	CF53
Machining way	Wet continuous/ intermittent semi-finish external turning
Inserts	DNMG150408-MT WS8125
Machining parameter	Vc=286m/min, f=0.33mm/r, ap=0.2mm
Result of cutting	DOHRE: 46~63pcs/cutting edge Brand T:40~50pcs/cutting edge

轴承车削

Bearing turning



加工材料	GCr15轴承
加工方式	混式粗车B端面、外圆
使用刀片	WNMG080408-MT
加工参数	Vc=260m/min, f=0.32mm/r, ap=2mm
切削性能	哆乐刀片寿命: 130~150件/刃, 国外T品牌: 130~150件/刃。
Workpiece	Bearing Gcr15
Machining way	Wet rough turning with facing B and external turning
Inserts	WNMG080408-MT WS8125
Machining parameter	Vc=260m/min, f=0.32mm/r, ap=2mm
Result of cutting	DOHRE: 130~150pcs/cutting edge Brand T:130~150pcs/cutting edge

法兰盘精车

Flange finishing turning



加工材料	不锈钢SUS304
加工方式	连续精车外圆、端面
使用刀片	WNMG080408-BF
加工参数	Vc=220m/min, f=0.14mm/r, ap=0.1mm (Ra≤0.8)
切削性能	哆乐刀片寿命: 242件/刃, 国外C品牌: 212件/刃。
Workpiece	Stainless steel SUS304
Machining way	Continuous external finishing turning
Inserts	WNMG080408-BF WS7125
Machining parameter	Vc=220m/min, f=0.14mm/r, ap=0.1mm (Ra≤0.8) Surface roughness: lower than Ra1.6 DOHRE: 242 pieces / cutting edge Brand C: 212 pieces / cutting edge
Result of cutting	

密封环精车

Flange finishing turning



加工材料	不锈钢SUS304
加工方式	连续精车端面、外圆
使用刀片	WNMG080408-BF
加工参数	Vc=210m/min, f=0.1mm/r, ap=0.1mm (Ra≤0.8)
切削性能	哆乐刀片表面质量更高, 寿命: 740件/刃, 国内Z品牌: 450件/刃。
Workpiece	Stainless steel SUS304
Machining way	Continuous external finishing turning
Inserts	WNMG080408-BF WS7125
Machining parameter	Vc=210m/min, f=0.1mm/r, ap=0.1mm (Ra≤0.8) Surface roughness: lower than Ra1.6 DOHRE: 740 pieces / cutting edge Brand Z: 450 pieces / cutting edge
Result of cutting	

气缸

Air cylinder



加工材料	HT250
加工方式	粗车外圆及端面
使用刀片	WNMG080412
加工参数	Vc=415m/min, f=0.15mm/r, ap=0.4mm
切削性能	哆乐刀片寿命: 60~70件/刃, 国外M品牌: 60~70件/刃。
Workpiece	HT250
Machining way	External and end face rough turning
Inserts	WNMG080412 WS6115
Machining parameter	Vc=415m/min, f=0.15mm/r, ap=0.4mm
Result of cutting	DOHRE: 60~70 pieces/cutting edge Brand M: 60~70 pieces/cutting edge

法兰车削

Flange turning



加工材料	D138法兰, HT250
加工方式	干式连续、断续粗车外圆、端面
使用刀片	WNMG080408
加工参数	Vc=563m/min, f=0.25mm/r, ap=1mm
切削性能	哆乐刀片寿命: 70~80件/刃, 国外M品牌: 70~80件/刃。
Workpiece	D138 Flange HT250
Machining way	Dry continuous/interruption rough turning external and end face
Inserts	WNMG080408 WS6115
Machining parameter	Vc=563m/min, f=0.25mm/r, ap=1mm
Result of cutting	DOHRE: 70~80pieces/cutting edge Brand M: 70~80 pieces/cutting edge

轴承车削

Bearing turning



加工材料	GCR15轴承
加工方式	混式粗车A端面、倒角
使用刀片	WNMG080408-MT
加工参数	Vc=369m/min, f=0.31mm/r, ap=1mm
切削性能	哆乐刀片寿命: 65~72件/刃, 国外T品牌: 60~70件/刃。
Workpiece	Bearing Gcr15
Machining way	Wet rough turning with facing A and chamfer turning
Inserts	WNMG080408-MT WS8125
Machining parameter	Vc=369m/min, f=0.31mm/r, ap=1mm
Result of cutting	DOHRE: 65~72pcs/cutting edge Brand T:60~70pcs/cutting edge

活塞杆粗车

Piston rod roughing turning

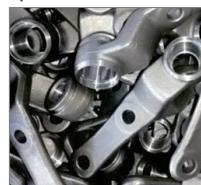


加工材料	27SiMn
加工方式	干式粗车
使用刀片	TNMG160408R-M
加工参数	Vc=100m/min, f=0.4mm/r, ap=2.5mm
切削性能	哆乐刀片寿命: 50~60件/刃, 国内Z品牌震动大, 不能正常切削。
Workpiece	27SiMn
Machining way	Dry rough turning
Inserts	TNMG160408R-M WS8125
Machining parameter	Vc=100m/min, f=0.4mm/r, ap=2.5mm
Result of cutting	DOHRE: 50~60pcs/cutting edge Brand Z: its fail when machining cause vibration is too large.

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球壳内孔车削

Spherical shells hole turning



加工材料	45#钢
加工方式	湿式连续粗车内孔
使用刀片	CCMT09T308-TM
加工参数	Vc=238m/min, f=0.14~0.26mm/r, ap=1mm
切削性能	哆乐刀片寿命: 882~908件/刃, 国内Z品牌: 600~850件/刃。
Workpiece	Steel 45#
Machining way	Wet continuous semi-finishing turning
Inserts	CCMT09T308-TM WS8115
Machining parameter	Vc=238m/min, f=0.14~0.26mm/r, ap=1mm
Result of cutting	DOHRE: 882~908pcs/cutting edge Brand Z:600~850pcs/cutting edge

法兰盘粗车

Flange roughing turning



加工材料	不锈钢SUS201
加工方式	连续车削端面、外圆
使用刀片	WNMG080408-BM
加工参数	Vc=273m/min, f=0.3mm/r, ap=1.0mm
切削性能	哆乐刀片寿命: 37~42件/刃, 国外M品牌: 38~42件/刃。
Workpiece	Stainless steel SUS201
Machining way	The continuous turning for end face and excircle
Inserts	WNMG080408-BM WS7125
Machining parameter	Vc=273m/min, f=0.3mm/r, ap=1.0mm
Result of cutting	DOHRE: 37~42pcs/cutting edge Brand M:38~42pcs/cutting edge

曲轴车削

Crankshaft



加工材料	曲轴, QT550
加工方式	连续粗车
使用刀片	WNMG080408
加工参数	Vc=190m/min, f=0.4mm/r, ap=1mm
切削性能	哆乐刀片寿命: 170~176件/刃, 国内A品牌: 120~140件/刃。
Workpiece	Crankshaft QT550
Machining way	Continuous rough turning
Inserts	WNMG080408 WS6115
Machining parameter	Vc=190m/min, f=0.4mm/r, ap=1mm
Result of cutting	DOHRE: 96~102 pieces/cutting edge Brand A:99~102 pieces/cutting edge

皮带轮外圆、端面车削

External and facing lathe machining for belt pulley



加工材料	H1200
加工方式	干式连续粗车外圆、端面
使用刀片	CNMG12408
加工参数	Vc=438m/min, f=0.3mm/r, ap=1.2mm
切削性能	哆乐刀片寿命: 140件/刃, 国外M品牌130~140件/刃。
Workpiece	H1200
Machining way	continuous cutting external and face with dry-type
Inserts	CNMG12408 WS6115
Machining parameter	Vc=438m/min, f=0.3mm/r, ap=1.2mm
Result of cutting	DOHRE: 130~140 pieces/cutting edge Brand A:130~140pieces/cutting edge

Threading Blade

螺紋車削

Application cases 應用案例

閥杆內螺紋車削

Valve rod internal thread turning



加工材料	不锈钢SUS304
加工方式	内螺纹车削M20
使用刀片	16R14W
加工参数	Vc=75m/min, 走刀次数=12次
切削性能	哆乐刀片寿命: 460件/刃, 品牌Z: 390件/刃。
Workpiece	Stainless steel SUS 304
Machining way	Internal thread turning M20
Inserts	16R14W WS5125
Machining parameter	Vc=75m/min, 走刀次数=12次
Result of cutting	DOHRE: 460 pieces/cutting edge Brand Z: 390 pieces/cutting edge

閥體內螺紋車削

Valve body internal thread turning



加工材料	不锈钢SUS201
加工方式	车内螺纹M56
使用刀片	16R11W
加工参数	Vc=120m/min, 走刀次数=16次
切削性能	哆乐刀片寿命: 120件/刃, 国外Z品牌: 96件/刃。
Workpiece	Stainless steel 201
Machining way	Internal thread turning M56
Inserts	16R11W WS5125
Machining parameter	Vc=120m/min, 走刀次数=16次
Result of cutting	DOHRE: 120 pieces/cutting edge Brand Z: 96 pieces/cutting edge

閥体内螺紋車削

Pipe joint internal thread turning

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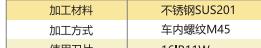
加工材料	不锈钢SUS201
加工方式	车内螺纹M45
使用刀片	16R11W
加工参数	Vc=77.7m/min, 走刀: 16次
切削性能	切削70件结果对比: 哆乐刀片 WS5125轻微磨损, Z品牌刀片磨损比较大
Workpiece	Stainless steel SUS201
Machining way	Internal thread turning
Inserts	16R11W WS5125
Machining parameter	Vc=93.3m/min, Cutting times: 17 times
Result of cutting	Comparison result of cutting 50 pcs parts: DOHRE: slight wear Brand Z: severe wear



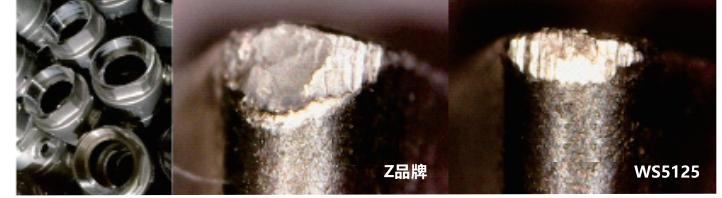
閥蓋內螺紋車削

Valve deck internal thread turning

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加工材料	不锈钢SUS201
加工方式	车内螺纹M45
使用刀片	16R11W
加工参数	Vc=98.9m/min, 走刀次数=16次
切削性能	切削70件结果对比: 哆乐刀片 WS5125轻微磨损, Z品牌刀片磨损比较大
Workpiece	Stainless steel 201
Machining way	Internal thread turning M45
Inserts	16R11W WS5125
Machining parameter	Vc=98.9m/min , cutting times:16 times,
Result of cutting	Comparison result of cutting 50 pcs parts: DOHRE: slight wear Brand Z: severe wear



密封槽端面切槽

Grooving seal groove end face



加工材料	不锈钢SUS304
加工方式	连续车削端面槽
使用刀片	QCMB3004-T
加工参数	Vc=130m/min, f=0.05mm/r
切削性能	哆乐刀片寿命: 1300件/刃, 国外C品牌, 1100 件/刃。
Workpiece	stainless steel SUS304
Machining way	Continuous turning end face
Inserts	QCMB3004-T WS7125
Machining parameter	Vc=130m/min , f=0.05mm/r
Result of cutting	DOHRE: 1300 pieces/cutting edge Brand C:1100 pieces/ cutting edge

法兰盤端面切槽

Grooving end turning



加工材料	铸造不锈钢 (CF-3M)
加工方式	连续切槽、外圆车削
使用刀片	QCMB3004-M
加工参数	Vc=120m/min, f=0.1mm/r
切削性能	哆乐刀片寿命: 11件/刃, 国外C品牌, 10件/刃。
Workpiece	Casting stainless steel
Machining way	Continuous grooving, external turning
Inserts	QCMB3004-M WS7125
Machining parameter	Vc=120m/min , f=0.1mm/r
Result of cutting	DOHRE: 11 pieces/cutting edge Brand C : 10 pieces/cutting edge

法兰盤端面切槽

Grooving flange end face



加工材料	不锈钢SUS304
加工方式	连续车削端面槽
使用刀片	QCMB4004-M
加工参数	Vc=147.2m/min, f=0.04mm/r
切削性能	哆乐刀片寿命: 352件/刃, 国外C品牌, 218件/刃。
Workpiece	Stainless steel SUS304
Machining way	Continuous turning end face
Inserts	QCMB4004-M WS7125
Machining parameter	Vc=147.2m/min , f=0.04mm/r
Result of cutting	DOHRE: 352 pieces/cutting edge Brand M:218 pieces/cutting edge

Heavy Milling Blade

重力銑削刀片

Overview 型号预览(按型号系列)

● 方肩铣刀系列 Face milling cutters

APMT_□□	APMT_□□	SPMT_□□	SPHX	SEMT_□□	TPKN		
D345	D346	D347	D348	D349	D350		

● 45° 面铣刀系列 45 face milling cutters

SEET_□□	SEET_□□	SEMT	SEEN	OFKR_□□	ODMW	ODKT	
D351	D352	D353	D354	D355	D356	D357	

● 仿形铣刀系列 Molding milling cutter

RCKT_□□	RCKT_□□	RCKT_□□	RDMW_□□	RPMT_□□	RPMT_□□		
D358	D359	D360	D361	D362	D363		

● 75° 面铣刀系列 75 face milling cutters

SPKR_□□	SPKN						
D364	D365						

● 大进给铣系列 High feed milling

WDMW	WPMT	SDMW	SDMT				
D366	D367	D368	D369				

Heavy Milling Blade

重力銑削刀片

Application cases 應用案例

45#鋼開框

45# steel cavity milling



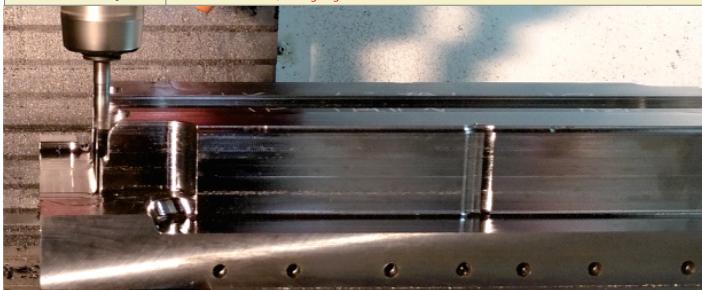
零件名称	模体45#钢
加工方式	D50-Z4-L125悬深 BT40柄干式粗铣模框
使用刀片	RPMT1003MO-FM
加工参数	Vc=180m/min, fz=0.8mm/z, ap=0.4mm ae=32mm
切削性能	哆乐刀片寿命: 240min/刃正常磨损, 国外D品牌: 210min/刃微崩刃。
Workpiece	Steel 45#
Machining way	D50-Z4-L125 overhang BT40 dry rough cavity milling
Inserts	RPMT1003MO-FM WS5130
Machining parameter	Vc=180m/min, fz=0.8mm/z, ap=0.4mm ae=32mm
Result of cutting	DOHRE: 240min/cutting edge,normal wear, Foreign brand M : 210min/cutting edge,digit chipping.

738H預硬鋼清根

738H clean-up machining



零件名称	738H预硬钢 (HRC30~35)
加工方式	D16-Z2-L65悬深 BT40柄干式清根
使用刀片	APMT1135PDER-FM
加工参数	Vc=150m/min, fz=0.4mm/z, ap=0.25mm ae=10mm
切削性能	哆乐刀片寿命: 240+min/刃正常磨损。
Workpiece	pre-hardened steel 738H (HRC38~42)
Machining way	D16-Z2-L65 overhang BT40 dry clean-up machining
Inserts	APMT1135PDER-FM WS5130
Machining parameter	Vc=150m/min, fz=0.4mm/z, ap=0.25mm ae=10mm
Result of cutting	DOHRE: 240+min/cutting edge with normal wear.



NAK80粗銑

NAK80 Rough Milling



零件名称	高抛光模具NAK80预硬钢 (HRC38~42)
加工方式	D16-Z2-L60悬深 BT40柄干式粗铣各面
使用刀片	APMT1135PDER-FM
加工参数	Vc=125m/min, fz=0.4mm/z, ap=0.25mm ae=12mm
切削性能	哆乐刀片寿命: 46min/刃正常磨损, 国外D品牌: 38min/刃正常磨损。
Workpiece	High polished pre-hardened steel NAK80 (HRC38~42)
Machining way	D16-Z2-L60 overhang BT40 dry rough face milling
Inserts	APMT1135PDER-FM WS5130
Machining parameter	Vc=125m/min, fz=0.4mm/z, ap=0.25mm ae=12mm
Result of cutting	DOHRE: 46min/cutting edge,normal wear , Foreign brand D : 38min/cutting edge,normal wear.

H13鋁材挤压模

H13 Aluminium Extrusion Mould



零件名称	铝型材挤压模H13
加工方式	D16-Z2-L104悬深 BT40柄干式相铣孔
使用刀片	APMT1135PDER-FM
加工参数	Vc=177m/min, fz=0.55mm/z, ap=0.28mm ae=16mm
切削性能	哆乐刀片寿命: 50min/刃正常磨损, 国外D品牌: 48min/刃正常磨损。
Workpiece	Aluminium Extrusion Mould H13
Machining way	D16-Z2-L104 overhang BT40 dry rough hole milling
Inserts	APMT1135PDER-FM WS5130
Machining parameter	Vc=177m/min, fz=0.55mm/z, ap=0.28mm ae=16mm
Result of cutting	DOHRE: 50min/cutting edge,normal wear, Foreign brand D : 48min/cutting edge,normal wear.

Cr12沖壓模具銑孔

Cr12 Punch Mould Hole-Milling



零件名称	Cr12冲压模具
加工方式	D30-Z2-L75悬深 BT40柄干式相铣孔
使用刀片	RPMT1003MO-FM
加工参数	Vc=170m/min, fz=0.89mm/z, ap=0.3mm
切削性能	使用58min磨耗对比: WS5130轻微磨损, 国外D品牌涂层磨损明显。
Workpiece	Cr12 Punch Mould
Machining way	D30-Z2-L75 Overhang BT40 Dry Rough Hole-Milling
Inserts	RPMT1003MO-FM WS5130
Machining parameter	Vc=170m/min, fz=0.89mm/z, ap=0.3mm
Result of cutting	Comparison under 58min/cutting edge, WS5130 slight chipping , While foreign brand D heavily worn



DOHRE®

718H粗銑

718H rough milling



零件名称	塑料灯泡阴模718H顶硬钢 (HRC38~42)
加工方式	D17-Z2-L65悬深 BT40柄干式粗铣球窝
使用刀片	APMT1135PDER-FM
加工参数	Vc=160m/min, fz=0.8mm/z, ap=0.25mm ae=10mm
切削性能	哆乐刀片寿命: 91min/刃正常磨损, 国外D品牌: 80min/刃正常磨损。
Workpiece	Plastic bulbs female mould pre-hardened steel 718H (HRC38~42)
Machining way	D17-Z2-L65 overhang BT40 dry rough milling ball socket
Inserts	APMT1135PDER-FM WS5130
Machining parameter	Vc=160m/min, fz=0.8mm/z, ap=0.25mm ae=10mm
Result of cutting	DOHRE: 91min/cutting edge,normal wear , Foreign brand D : 80min/cutting edge,normal wear,

738H粗銑

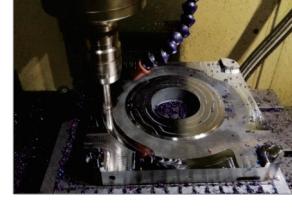
738H Rough Milling



零件名称	738H预硬钢 (HRC30~35)
加工方式	D35-Z3-L80悬深 BT40柄干式粗铣
使用刀片	RPMT1003MO-FM
加工参数	Vc=165m/min, fz=0.67mm/z, ap=0.3mm ae=22mm
切削性能	哆乐刀片寿命: 164min/刃正常磨损, 国外D品牌: 95min/刃正常磨损。
Workpiece	738H rough milling
Machining way	D35-Z3-L80 overhang BT40 rough milling
Inserts	RPMT1003MO-FM WS5130
Machining parameter	Vc=165m/min , fz=0.67mm/z , ap=0.3mm ae=22mm
Result of cutting	DOHRE: 164 min/cutting edge, normal wear Brand D : 95 min/cutting edge, normal wear

H13淬硬鋼壓鑄模

H13 Hardened Steel Die-casting Mould



零件名称	压铸模H13淬硬钢 (HRC48~51)
加工方式	D21-Z2-L60悬深 BT40柄干式粗铣各面
使用刀片	APMT1135PDER-FM
加工参数	Vc=148m/min, fz=0.44mm/z, ap=0.2mm ae=13mm
切削性能	哆乐刀片寿命: 17min/刃正常磨损, 国外D品牌: 11min/刃磨损崩刃。
Workpiece	Die-Casting Mould H13 Hardened Steel (HRC48~51)
Machining way	D21-Z2-L60 overhang BT40 dry rough face milling
Inserts	APMT1135PDER-FM WS5130
Machining parameter	Vc=148m/min , fz=0.44mm/z , ap=0.2mm ae=13mm
Result of cutting	DOHRE: 17min/cutting edge,edge abrasion and chipping , Foreign brand D : 11min/cutting edge,heavy worn.

S136耐腐蝕模具鋼粗銑

S136 Corrosion-resistant Mould Steel Rough Milling



零件名称	S136耐腐蚀模钢
加工方式	D17-Z2-L70~105悬深 BT40柄干式粗铣各面
使用刀片	APMT1135PDER-FM
加工参数	Vc=160m/min, fz=0.6mm/z, ap=0.25mm ae=10mm
切削性能	哆乐刀片寿命: 287min/刃正常磨损。
Workpiece	S136 corrosion-resistant mould steel
Machining way	D17-Z2-L70 overhang BT40 dry rough face milling
Inserts	APMT1135PDER-FM WS5130
Machining parameter	Vc=160m/min , fz=0.6mm/z , ap=0.25mm ae=10mm
Result of cutting	DOHRE: 287min/cutting edge,normal wear.



S136淬硬鋼粗銑

S136 Hardened Steel Rough Milling



零件名称	S136淬硬钢 (HRC48)
加工方式	D17-Z2-L65悬深 BT40柄干式粗铣各面
使用刀片	APMT1135PDER-FM
加工参数	Vc=128m/min, fz=0.38mm/z, ap=0.2mm ae=5~10mm
切削性能	哆乐刀片寿命: 74min/刃正常磨损。
Workpiece	S136 Hardened Steel Mould (HRC48)
Machining way	D17-Z2-L65 Overhang BT40 dry Rough Milling
Inserts	APMT1135PDER-FM WS5130
Machining parameter	Vc=128m/min , fz=0.38mm/z , ap=0.2mm ae=5~10mm
Result of cutting	DOHRE: 74Min/Cutting Edge normal Wear.



Heavy Milling Blade

重力銑削刀片

Overview 型號預覽(按型號系列)

● C ***- 系列

CN□□-4e	CN□□-2R	CN□□-4R					
			D370	D371	D372		

● F ***- 系列

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FQ**-□□	FQ**-□□	FQ**-□□					
			D373	D374	D375		

● LN ***- 系列

LN**-4e	LN**-DR	LN**-NR	LN**-2NR	LN**-2R	LN**-2R-1	LN**-4R	
							D382

● SN ***- 系列

SN**-4e	SN**-2R	SN**-DR	SN**-2NR	SN**-4R	SN**-S4R		
						D387	D388

● ZN ***- 系列

ZNEB-□□							
	D389						

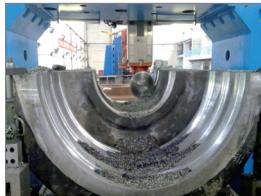
Milling Blade

銑削刀片

Application cases 應用案例

汽缸

Cylinder stator



加工材料	汽轮机缸体15Cr1MoV
加工方式	干式三面刃粗铣
使用刀片	CNEF161406-408(CNE454)
加工参数	Vc=120m/min, f=0.2mm/z, ap=20mm, ae=140mm
切削性能	多乐刀片寿命160min/刃，国外T品牌150~180min/刃。
Workpiece	Turbine cylinder 15Cr1MoV
Machining way	Face and side milling with dry
Inserts	CNEF161406-408(CNE454) WS8130
Machining parameter	Vc=120m/min, f=0.2mm/z, ap=20mm, ae=140mm
Result of cutting	DOHRE:160min/cutting edge Brand i:150~180min/cutting edge

道岔尖轨

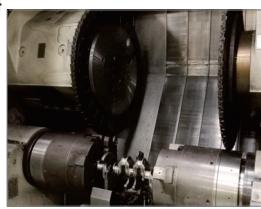
Switch rail



加工材料	U75V
加工方式	粗铣侧轨
使用刀片	LNEF151207-400(N18-1)
加工参数	Vc=180m/min, f=0.2mm/z, ae=20mm, ap=50mm
切削性能	多乐刀片寿命15m/刃，国外Z品牌10m/刃。
Workpiece	U75V
Machining way	Rough milling for wing rail
Inserts	LNEF151207-400(N18-1) WS8130
Machining parameter	Vc=180m/min, f=0.2mm/z, ae=20mm, ap=50mm
Result of cutting	DOHRE:15m/cutting edge Brand Z:10m/cutting edge

曲轴铣削
Crankshaft milling

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加工材料	42CrMo
加工方式	粗铣轴颈
使用刀片	XNER11C10A0A/XNER14E0904/XNER14E10A06A
加工参数	Vc=202m/min, fz=0.12mm/z, ap=1.5~2.5mm
切削性能	多乐刀片寿命1100件/刃，国外K品牌：1000件/刃。
Workpiece	42CrMo
Machining way	Rough milling for shaft
Inserts	XNER11C10A0A/XNER14E0904/XNER14E10A06A WS8130
Machining parameter	Vc=202m/min, fz=0.12mm/z, ap=1.5~2.5mm
Result of cutting	DOHRE:1100pcs/cutting edge Brand K:1000pcs/cutting edge

粗铣齿轮外齿
External gear



加工材料	50Mn
加工方式	干式粗齿
使用刀片	LNEF191405-2R35M23-16
加工参数	Vc=113m/min, fz=0.12mm/z, ap=12mm
切削性能	多乐刀片试用寿命460m/组刀，国外S品牌平均寿命300m/组刀。
Workpiece	50Mn
Machining way	Rough milling for gear with dry
Inserts	LNEF191405-2R35M23-16 WS8130
Machining parameter	Vc=113m/min, fz=0.12mm/z, ap=12mm
Result of cutting	DOHRE:460m/set Brand S:300m/set

浅孔钻刀片应用案例 Application cases

冷凝管板钻孔
Condensing plate drilling



加工材料	304不锈钢
加工方式	内冷钻孔D23.5
使用刀片	SPMG07T308DG
加工参数	Vc=140m/min, fn=0.10mm/z,
切削性能	多乐刀片寿命：3.0M/刃 国外D品牌：2.0~3.0/刃
Workpiece	Stainless steel 304
Machining way	Inter-cooled drilling D23.5
Inserts	SPMG07T308DG WS5131
Machining parameter	Vc=140m/min, fn=0.10mm/z ,
Result of cutting	DOHRE: 3.0 M/cutting edge Brand A : 2.5~3.0 M / cutting edge

伞齿轮钻孔
Bevel Gear Drilling



齿轮材料	锻造20CrMnTi
加工方式	内冷钻孔D58
使用刀片	WCMX080412
加工参数	Vc=143.9m/min, f=0.089mm/r
切削性能	多乐刀片寿命平均180孔/刃，国外S品牌：平均150孔/刃。
Workpiece	Forge 20CrMnTi
Machining way	Drilling with Coolant D58
Inserts	WCMX080412 WS5131
Machining parameter	Vc=143.9m/min, f=0.089mm/r
Result of cutting	DOHRE: 180hole/cutting edge Brand S:150hole/cutting edge

阀门端面钻孔

Flange end face drilling



阀门材料	不锈钢SUS304
加工方式	两个零件贴合面钻孔D14.5深25
使用刀片	SPMG050204
加工参数	Vc=159.4m/min, f=0.034mm/r (≤Ra1.6)
切削性能	多乐刀片寿命240孔/刃，国外T品牌：200孔/刃。
Workpiece	Stainless steel SUS 304
Machining way	Deep hole D14.5 25 depth
Inserts	SPMG050204 WS5131
Machining parameter	Vc=159.4m/min, f=0.034mm/r (≤Ra1.6)
Result of cutting	DOHRE: 240 hole/cutting edge Brand D : 200 hole / cutting edge

联轴器钻孔

Coupling Drilling



联轴器材料	40Cr
加工方式	外冷双头钻孔D54
使用刀片	WCMX080412
加工参数	Vc=76.3m/min, f=0.133mm/r
切削性能	多乐刀片寿命60孔/刃，国外T品牌：平均50孔/刃。
Workpiece	40Cr
Machining way	External coolant double-headed drill D54
Inserts	WCMX080412 WS5131
Machining parameter	Vc=76.3m/min, f=0.133mm/r
Result of cutting	DOHRE : 60hole/cutting edge Brand T:50hole/cutting edge

General Milling

普通銑削

Grades overview 牌號特性

PVD coating PVD 塗層

抗磨損性能 ← → 韌性

Grade 牌号	Coating 涂層	Recommend for application 应用推荐									
			05	10	15	20	25	30	35	40	45
AH120	PVD	<p>Ingredient: A PVD Multi-Coating Material, substrate for a non carbide alloy with high resistance to deformation. This new type of coating can improve the stability of the cutting edge, and And for a variety of cutting speed and feed processing.</p> <p>Application: AH120 is a ideal materials to process a variety of workpiece material,no matter finishing or general machining using a variety of cutting speed and feed rate for machining. And has a superior performance in a stable machining conditions to process variety of steel, stainless.</p> <p>成份：一种PVD多层涂层材料，基质为一种具有强抗变形能力的非合金碳化物。这种经过改良的新型涂层可以提高刃口的稳定性，并可用于多种切削速度和进给量的加工。</p> <p>运用：AH120是对多种工件材料进行精加工至一般加工的理想材质，在加工过程中可采用多种切削速度和进给量。在多种钢材料、不锈钢材料、铸铁材料、非铁金属材料、以及超合金材料的加工中具有卓越的性能；具有更好的刃口韧性，以及更高的切削速度/进给率性能。</p>	P								
AH121	PVD	<p>Ingredient: an advanced PVD material with hard ALTiN coating, as well as ultra-fine grain non-alloy matrix. This new type of coating can improve the stability of the cutting edge, and And for a variety of cutting speed and feed processing.</p> <p>Application: AH121 is a ideal material for general machining a variety of steel, stainless steel, high temperature alloys, titanium, iron and non-ferrous metal materials. It can use a variety of cutting speed and feed rate for machining, edge has better toughness, even can be used to high speed interrupted cutting.</p> <p>成份：一种高级PVD材质，具有硬质ALTiN涂层，以及细晶粒的非合金基体。这种经过改良的新型涂层可以提高刃口的稳定性，并用于多种切削速度和进给量的加工。</p> <p>运用：AH121材质是用于多种钢材料、不锈钢、高温合金、钛、铁，以及非铁金属材料通用加工的理想材质；可采用多种切削速度和进给率进行加工，刃口具有更好的韧性，可进行高进给断续切削加工。</p>	P								
AH122	PVD	<p>Ingredient: an advanced PVD ALTiN coating material, substrate for a non carbide alloy with high resistance to deformation. The cutting speed can be increased by 50% -100%</p> <p>Application: AH122 is a ideal materials to process a variety of workpiece material,no matter finishing or general machining. Has a higher cutting speed. Also has a superior performance in a stable machining conditions to process variety of steel, stainless steel, cast iron, non-ferrous metals and super alloy. Even in the hardened material and the processing of short-chipping materials, also has good performance.</p> <p>成份：一种行进的PVD ALTiN涂层材质，基体为一种具有强抗变形能力的非合金碳化物。这种新型并经过改良的涂层可以使切削速度增加500-100%。</p> <p>运用：AH122是对多种工件材料进行精加工至通用加工的理想材质，并具有更高的切削速度。在多种钢材料、不锈钢材料、铸铁材料、非铁金属材料、以及超合金材料的稳定工况加工中具有卓越的性能。并且在淬火材料和短切屑材料的加工中同样具有很好的性能。</p>	P								
DP	220	硬質合金	<p>Ingredient: carbide, cobalt 10%, ultra-fine grain material.</p> <p>Application: when processing aluminum, aluminum alloy, copper, cast iron ,it is not easy to stick the knife. Has excellent cutting force, a longer life and reliable performance.</p> <p>成份：硬质合金含钴量10%，超细晶粒材质。</p> <p>运用：在加工铝、合金铝铜、压铸铝时不易粘刀，具有出色的切削力，从而具有更长的使用寿命，以及可靠的性能。</p>								
DH			M								
DO			K								
DL			N								
DP	221	金屬陶瓷	<p>Ingredient: Metal ceramic material with PCD / TiN / TiCN / and TiN composite coating.</p> <p>Application: Suit for processing the many kinds of carbon material ,alloy ,stainless steel on the condition of finishing or common machining with high speed. There is also a excellent processing performance with milling the cast iron and nodular cast iron.the carbide inserts will have a long tool life and and outstanding finishing machining performance.</p> <p>成份：一种采用PVD/TiN/TiCN/TiN复合涂层的金属陶瓷车刀材质。</p> <p>运用：用于对多种碳材料、合金材料、以及不锈钢材料进行高速精密切削和一般加工。在加工铸造件和球墨铸铁材质加工中同样具有出色的加工性能。具有超长并稳定的刀具使用寿命，并且具有卓越的工件精加工性能。</p>								
DH			P								
DO			M								
DL			K								
DP	222	金屬陶瓷 (超細顆粒)	<p>Ingredient: metal ceramic material with PCD / TiN / TiCN / and TiN composite coating.</p> <p>Application: Suit for processing the many kinds of carbon material ,alloy ,stainless steel on the condition of finishing or common machining with high speed.</p> <p>成份：一种采用PVD/TiN/TiCN/TiN复合涂层的金属陶瓷车刀材质。</p> <p>运用：用于对多种碳材料、合金材料、以及不锈钢材料进行高速精密切削和一般加工。铸造件和球墨铸铁材质加工中同样具有出色的加工性能。具有超长并稳定的刀具使用寿命，并且具有卓越的工件精加工性能。</p>								
DH			P								
DO			M								
DL			K								

General Milling

普通銑削

Grades overview 牌號特性

PVD coating PVD 塗層

				抗磨損性能 ← → 韌性								
Grade 牌 号		Coating 涂 层	Recommend for application 应用推荐	05	10	15	20	25	30	35	40	45
DP	121	PVD	Ingredient: A PVD Multi-Coating Materia , substrate for a non carbide alloy with high resistance to deformation.This new type of coating can improve the stability of the cutting edge, and And for a variety of cutting speed and feed processing. Application: DP121 is a ideal materials to process a variety of workpiece material,no matter finishing or general machining using a variety of cutting speed and feed rate for machining. And has a superior performance in a stable machining conditions to process variety of steel, stainless.	P								
DH				M								
DO				K								
DL	120	PVD	成份: 一种PVD多层涂层材料,基质为一种具有强抗变形能力的非合金碳化物。这种经过改良的新型涂层可以提高刃口的稳定性,并可用于多种切削速度和进给量的加工。 运用: DP121是对多种工件材料进行精加工至一般加工的理想材质,在加工过程中可采用多种切削速度和进给量。在多种钢材料、不锈钢材料、铸铁材料、非铁金属材料、以及超合金材料的加工中具有卓越的性能;具有更好的刃口韧性,以及更高的切削速度/进给率性能。	N								
DP	231	PVD	Ingredient: a super fine grain Tungsten carbide material with advanced PVD ALTin coating. Application: DP231 material suit for the processing the high temperature alloy material efficiently.while the cutting speed is twice higher with advanced PVD coating compared with common PVD coating.	S								
DH				H								
DO				P								
DL	232	PVD	成份: 一种具有高级PVD ALTIN涂层的细晶粒碳化钨材质。 运用: DP231材质特别用于高温合金材料的高效加工应用。钴含量为6%的超细晶粒碳化钨基体具有出色的韧性和抗变形性能;同时,高级PVD涂层与常规PVD涂层刀具相比,金属切削速度可提高一倍。	M								
DP	122	PVD (复合涂层)	Ingredient: a super fine grain ,high cobalt carbide material with advanced PVD ALTin coating. Application: DP122 KC5510 material with the same advanced PVD coating material, the matrix containing 10% of cobalt carbide material of fine grain, high cobalt intermittent cutting improved safety, while fine grain Wc in the high-speed cutting, have a good anti-hard variant capabilities for high-temperature alloys generally severe intermittent cutting machining.	K								
DH				N								
DO				S								
DL	123	PVD (复合涂层)	成份: 一种具有高级PVD ALTIN细晶粒涂层的高钴碳化物材质。 运用: DP122材质采用了与KC5510材质相同的高级PVD涂层。基体为钴含量10%的超细晶粒碳化钨材料,较高的钴含量提高了断续切削的安全性,同时,细晶粒的WC在高速切削时具有很好的抗硬变形能力,用与高温合金材料的一般至严重断续切削加工。	H								
DP				P								
DH	199	硬質合金 未塗層	Ingredient: Super Wc/Co micro grain size solid carbide material ,which has a little abrasive grain. Application: DL119 material can keep good Wear Performance for processing the Wrought Steel , austenite stainless steel ,nonmetal Extremely high temperature workpiece.	M								
DO			成份: 一种硬质,含有较少结合剂的,WC/Co超细晶粒材质。 运用: DL119材质在切削铸铁、奥氏体不锈钢、非铁金属、非金属、以及极高温合金工件时,具有出色的抗磨损性能。一种用于非铁材料通用加工的材质。	K								
DL				N								
DP				S								
DH	100	CVD	Ingredient : New advanced material which is High cobalt and has non-deformability , coated with excellent emplastic MTCVD-TiCN-AL203 coating . Application : Suit for processing the different kind of steel ,cast iron , martensite stainless, PH stainless steel . Wrought Steel on condition of half finishing machining and finishing machining .There is a outstanding processing performance, super long tool life ,and super quality of processing surface for the workpiece.	P								
DO			成份: 一种新型,具有很强抗变形能力的高钴含量基质,涂层为专门设计的,具有粘着性能的MTCVD-TiCN-AL203材料。 运用: 用于对多种钢材料、铁素体、马氏体、PH不锈钢,以及铸造材料进行精加工至半精加工的应用范围。具有卓越的抗变形性能以及出色的刀片刃口强度。采用先进的涂层去应力处理工艺的新型涂层,具有出色的加工效率,超长并可以预测的刀具使用寿命,以及卓越的工件表面加工质量	K								
DL				P								
DP				M								
DH	112	CVD (雙色複合)	Ingredient : solid carbide material,which is High cobalt and has good toughness , covered with excellent emplastic MTCVD-TiCN-AL203 coating. Application : Suit for processing the different kind of steel material ,cast iron , martensite stainless steel. The carbide inserts has good resistance to deformation , excellent intensity on inserts tips.Composite coating will make a good wear -resistance for the tool.	K								
DO			成份: 一种韧性很好的高钴硬质合金材质,以及最新设计,具有出色涂层粘着性的MTCVD-TiCN-AL203多层涂层。 运用: 是用于对多种钢材料、铁素体和马氏体不锈钢材料进行通用车削加工的最佳刀片材质。基体具有足够的抗变形性能,并具有出色的刀片刃口强度。复合涂层在多种切削条件下具有良好的耐磨性,涂层去应力处理工艺减少了微崩刃现象,提高了涂层与基体间的粘着性能,从而延长了刀具的使用寿命。	P								
DL				M								

General Milling

普通銑削

Grades overview 牌號特性

PVD coating PVD 塗層

抗磨損性能 ← → 韌性

Grade 牌 号	Coating 涂 层	Recommend for application 应用推荐	抗磨損性能 ← → 韌性								
			05	10	15	20	25	30	35	40	45
DP	320	DLC	Ingredient: solid carbide material with coating ,which including performance of diamond material.	P							
SH			Application: Suit for processing the alloy,stainless steel,different kinds of aluminum on the condition of high-speed and finishing machining,keeping good smoothness,better wear-resistance,and longer tool life.								
SO			成份：一种含有金钢石材质功能的涂层，在硬质合金上。 运用：对各种铝、合金、不锈钢的高速精密切削加工，加工光洁度好，刀具更耐用，寿命更长。	K							
DL											

General Turning

普通車削

Grades overview 牌號特性

PVD coating PVD 塗層

抗磨損性能 ← → 韌性

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Grade 牌号	Coating 涂層	Recommend for application 应用推荐									
			05	10	15	20	25	30	35	40	45
AH1200	PVD	<p>Ingredient: A PVD Multi-Coating Material, substrate for a non carbide alloy with high resistance to deformation. This new type of coating can improve the stability of the cutting edge, and for a variety of cutting speed and feed processing.</p> <p>Application: AH1200 is a ideal materials to process a variety of workpiece material,no matter finishing or general machining using a variety of cutting speed and feed rate for machining. And has a superior performance in a stable machining conditions to process variety of steel, stainless.</p> <p>成份：一种PVD多层涂层材料，基质为一种具有强抗变形能力的非合金碳化物。这种经过改良的新型涂层可以提高刃口的稳定性，并可用于多种切削速度和进给量的加工。</p> <p>运用：AH1200是对多种工件材料进行精加工至一般加工的理想材质，在加工过程中可采用多种切削速度和进给量。在多种钢材料、不锈钢材料、铸铁材料、非铁金属材料、以及超合金材料的加工中具有卓越的性能；具有更好的刃口韧性，以及更高的切削速度/进给率性能。</p>	P								
AH1210	PVD	<p>Ingredient: an advanced PVD material with hard ALTiN coating, as well as ultra-fine grain non -alloy matrix. This new type of coating can improve the stability of the cutting edge, and for a variety of cutting speed and feed processing.</p> <p>Application: AH1210 is a ideal material for general machining a variety of steel, stainless steel, high temperature alloys, titanium, iron and non-ferrous metal materials. It can use a variety of cutting speed and feed rate for machining, edge has better toughness, even can be used to high speed interrupted cutting.</p> <p>成份：一种高级PVD材质，具有硬质ALTiN涂层，以及细晶粒的非合金基体。这种经过改良的新型涂层可以提高刃口的稳定性，并用于多种切削速度和进给量的加工。</p> <p>运用：AH1210材质是用于多种钢材料、不锈钢、高温合金、钛、铁，以及非铁金属材料通用加工的理想材质；可采用多种切削速度和进给率进行加工，刃口具有更好的韧性，可进行高进给断续切削加工。</p>	P								
AH1220	PVD	<p>Ingredient: an advanced PVD ALTiN coating material, substrate for a non carbide alloy with high resistance to deformation. The cutting speed can be increased by 50% –100%</p> <p>Application: AH1220 is a ideal materials to process a variety of workpiece material,no matter finishing or general machining. Has a higher cutting speed. Also has a superior performance in a stable machining conditions to process variety of steel, stainless steel, cast iron, non-ferrous metals and super alloy. Even in the hardened material and the processing of short-chipping materials, also has good performance.</p> <p>成份：一种行进的PVD ALTiN涂层材质,基体为一种具有强抗变形能力的非合金碳化物。这种新型并经过改良的涂层可以使切削速度增加500–100%。</p> <p>运用：AH1220是对多种工件材料进行精加工至通用加工的理想材质,并具有更高的切削速度。在多种钢材料、不锈钢材料、铸铁材料、非铁金属材料、以及超合金材料的稳定工况加工中具有卓越的性能。并且在淬火材料和短切屑材料的加工中同样具有很好的性能。</p>	P								
DP	2200	硬質合金	<p>Ingredient: carbide, cobalt 10%, ultra-fine grain material.</p> <p>Application: when processing aluminum, aluminum alloy, copper, cast iron ,it is not easy to stick the knife. Has excellent cutting force, a longer life and reliable performance.</p> <p>成份：硬质合金,含钴量10%，超细晶粒材质。</p> <p>运用：在加工铝、合金铝铜、压铸铝时不粘刀，具有出色的切削力，从而具有更长的使用寿命，以及可靠的性能。</p>								
DH			M								
DO			K								
DL			N								
DP	2210	金屬陶瓷	<p>Ingredient: Metal ceramic material with PCD / TiN / TiCN / and TiN composite coating.</p> <p>Application: Suit for processing the many kinds of carbon material ,alloy ,stainless steel on the condition of finishing or common machining with high speed. There is also a excellent processing performance with milling the cast iron and nodular cast iron.the carbide inserts will have a long tool life and and outstanding finishing machining performance.</p> <p>成份：一种采用PCD/TiN/TiCN/TiN复合涂层的金属陶瓷车刀材质。</p> <p>运用：用于对多种碳材料、合金材料、以及不锈钢材料进行高速精密切削和一般加工。在加工铸造件和球墨铸铁材质加工中同样具有出色的加工性能。具有超长并稳定的刀具使用寿命，并且具有卓越的工件精加工性能。</p>								
DH			P								
DO			M								
DL			K								
DP	2220	金屬陶瓷	<p>Ingredient: metal ceramic material with PCD / TiN / TiCN / and TiN composite coating.</p> <p>Application: Suit for processing the many kinds of carbon material ,alloy ,stainless steel on the condition of finishing or common machining with high speed.</p> <p>成份：一种采用PCD/TiN/TiCN/TiN复合涂层的金属陶瓷车刀材质。</p> <p>运用：用于对多种碳材料、合金材料、以及不锈钢材料进行高速精密切削和一般加工。在加工铸造件和球墨铸铁材质加工中同样具有出色的加工性能。具有超长并稳定的刀具使用寿命，并且具有卓越的工件精加工性能。</p>								
DH			P								
DO			M								
DL			K								

General Turning

普通車削

Grades overview 牌號特性

PVD coating PVD 塗層

Grade 牌号		Coating 涂层	Recommend for application 应用推荐	抗磨损性能 ← → 韧性									
				05	10	15	20	25	30	35	40	45	
DP	1200	PVD	<p>成份：一种高级PVD ALTiN涂层材料，基体为一种具有韧性、超细晶粒非合金物质。 运用：适用于对多种钢材料、不锈钢、高温合金、钛、铁、以及非铁金属材料进行通用机械加工。切削速度可以从低速到中速，并且可以进行高进给断续切削。</p>	P									
DH				M									
DO	1201	PVD		K									
DL				N									
DP	1210	PVD	<p>成份：一种具有高级PVD ALTiN涂层的细晶粒碳化钨材质。 运用：DP1210材质特别用于高温合金材料的高效加工应用。钴含量为6%的超细晶粒碳化钨基体具有出色的韧性和抗变形性能；同时，高级PVD涂层与常规PVD涂层刀具相比，金属切削速度可提高一倍。</p>	S									
DH				P									
DO	1211	PVD		M									
DL				K									
DP	1220	PVD (复合涂层)	<p>成份：一种具有高级PVD ALTiN涂层的高钴碳化物材质。 运用：DP1220材质采用了与KC5510材质相同的高级PVD涂层。基体为钴含量10%的超细晶粒碳化钨材料，较高的钴含量提高了断续切削的安全性，同时，细晶粒的WC在高速切削时具有很好的抗硬变形能力，用与高温合金材料的一般至严重断续切削加工。</p>	N									
DH				S									
DO	1221	PVD (复合涂层)		H									
DL				P									
DP	1990	硬质合金 未涂层	<p>成份：一种硬质，含有较少结合剂的WC/Co超细晶粒材质。 运用：DL1190材质在切削铸铁、奥氏体不锈钢、非铁金属、非金属、以及极高温合金工件时，具有出色的抗磨损性能。一种用于非铁材料通用加工的材质。</p>	M									
DH				K									
DO				N									
DL				S									
DP	DIC10	CVD	<p>成份：一种新型，具有很强抗变形能力的高钴含量基质，涂层为专门设计的，具有粘着性能的MTCVD-TiCN-Al2O3材料。 运用：对于多种钢材料、铁素体、马氏体、PH不锈钢，以及铸造材料进行精加工至半精加工的应用范围。具有卓越的抗变形性能以及出色的刀片刃口强度。采用先进的涂层去应力处理工艺的新型涂层，具有出色的加工效率，超长并可以预测的刀具使用寿命，以及卓越的工作件表面加工质量。</p>	P									
DH				K									
DO													
DL													
DP	3120	CVD (雙色复合)	<p>成份：一种韧性很好的高钴硬质合金材质，以及最新设计，具有出色涂层粘着性的MTCVD-TiCN-Al2O3多层涂层。 运用：是用于对多种钢材料、铁素体和马氏体不锈钢材料进行通用车削加工的最佳刀片材质。基体具有足够的抗变形性能，并具有出色的刀片刃口强度。复合涂层在多种切削条件下具有良好的耐磨性，涂层去应力处理工艺减少了微崩刃现象，提高了涂层与基体间的粘着性能，从而延长了刀具的使用寿命。</p>	P									
DH				K									
DO													
DL													

General Turning

普通車削

Grades overview 牌號特性

PVD coating PVD 塗層

抗磨損性能 ← → 韌性

Grade 牌号	Coating 涂层	Recommend for application 应用推荐	抗磨損性能 ← → 韧性								
			05	10	15	20	25	30	35	40	45
DP	3200	DLC	Ingredient: solid carbide material with coating ,which including performance of diamond material.	P							
SH			Application: Suit for processing the alloy,stainless steel,different kinds of aluminum on the condition of high-speed and finishing machining,keeping good smoothness,better wear-resistance,and longer tool life.								
SO			成份：一种含有金钢石材质功能的涂层，在硬质合金上。	K							
DL			运用：对各种铝、合金、不锈钢的高速精密切削加工，加工光洁度好，刀具更耐用，寿命更长。								

General turning inserts code key

普通車削刀片命名規格

Inserts Shape/Code 刀片形狀/代號			Metric 公制						
Code 代號	With/without hole 有無孔	With/without chipbreaker 有無斷屑槽	Section plane of insert 刀片剖面	Code 代號	With/without hole 有無孔	With/without chipbreaker 有無斷屑槽	Section plane of insert 刀片剖面		
B	With 有	Without 無	>65°	N	Without 無	Without 無			
H	With 有	Single-side 單面	>65°	R	Without 無	Single-side 單面			
C	With 有	Without 無	>65°	F	Without 無	Double-side 雙面			
J	With 有	Double-side 雙面	>65°	A	With 有	Without 無			
W	With 有	Without 無	≤65°	M	With 有	Single-side 單面			
T	With 有	Single-side 單面	≤65°	G	With 有	Double-side 雙面			
Q	With 有	Without 無	≤65°	X	—	—	Special 特殊		
U	With 有	Double-side 雙面	≤65°						
Inserts Shape 形狀代號			Chipbreaker and clamping system 斷屑槽及夾固形式						

Clarence angle of main cutting edge 主切削刃後角			
Code 代號	Clarence angle 後角	Code 代號	Clarence angle 後角
A	3°	B	5°
C	7°	D	15°
E	20°	F	25°
G	30°	N	0°
P	11°	O	Other Clarence angle 其它的後角

Tolerance 公差							
Code 代號	Tolerance range m 允許公差 (mm)	Inscribed circle tolerance(mm) 內接圓Φ1.C 允許公差 (mm)	Thickness S Tolerance(mm) 厚度 S允許公差 (mm)	(Reference) Details of M-class tolerance (Identified by shape and size) (參考) M級精度詳細情況 (按形狀、大小分) Nose height tolerance(mm) 刀尖高度允許公差 (mm)			
A	± 0.005	± 0.025	± 0.025	Inscribed circle 內接圓	Regular triangle 正三角形	Square 正方形	Diamond with 80° 80° 斜形
F	± 0.005	± 0.013	± 0.025	6.35	± 0.08	± 0.08	± 0.08
C	± 0.013	± 0.025	± 0.025	9.525	± 0.08	± 0.08	± 0.08
H	± 0.013	± 0.013	± 0.025	12.7	± 0.13	± 0.13	± 0.13
E	± 0.025	± 0.025	± 0.025	15.875	± 0.15	± 0.15	± 0.15
G	± 0.025	± 0.025	± 0.13	19.05	± 0.15	± 0.15	± 0.18
				25.4	--	± 0.18	--
Tolerance inscribed circle ΦD1(mm) 內接圓Φ1.C允許公差 (mm)							
J	± 0.005	± 0.05 ± 0.13	± 0.025	Inscribed circle 內接圓	Regular triangle 正三角形	Square 正方形	Diamond with 55° 55° 斜形
K	± 0.013	± 0.05 ± 0.13	± 0.025	6.35	± 0.05	± 0.05	± 0.05
L	± 0.025	± 0.05 ± 0.13	± 0.025	9.525	± 0.05	± 0.05	± 0.05
M	± 0.08 ± 0.18	± 0.05 ± 0.13	± 0.13	12.7	± 0.08	± 0.08	± 0.08
N	± 0.08 ± 0.18	± 0.05 ± 0.13	± 0.025	15.875	± 0.10	± 0.10	± 0.10
U	± 0.1308 ± 0.38	± 0.08 ± 0.25	± 0.13	19.05	± 0.10	± 0.10	± 0.10
				25.4	--	± 0.13	--

General turning inserts code key

普通車削刀片命名規格

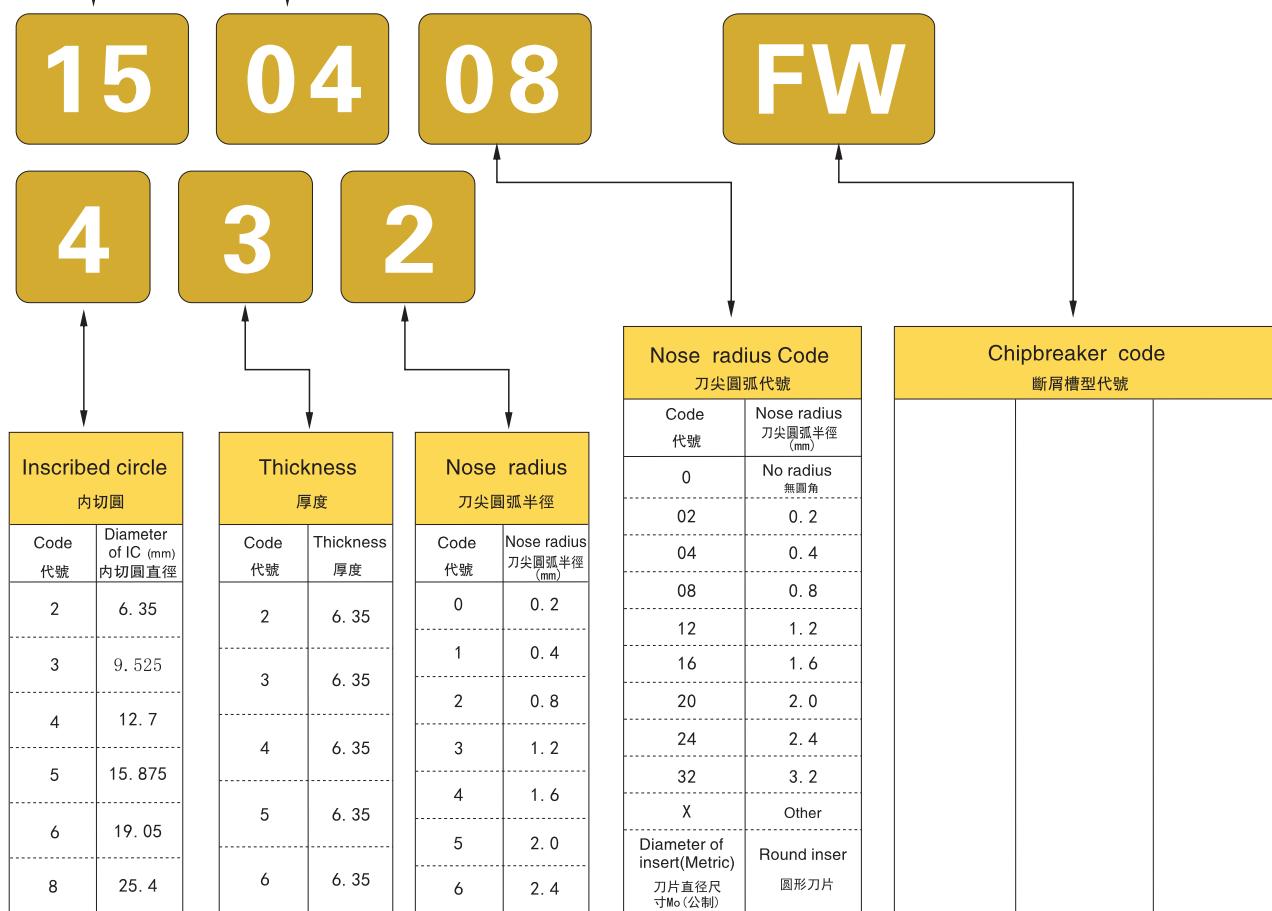
62

Diameter of IC (mm) 内切圆直径	Inser shape 刀片形状							
	C	D	R	S	T	V	W	K
3.97					06			
5.0			05					
5.56					09			
6.0	06		06					
6.35					11			
8.0	09		08					
9.525		07	09	09	16		06	16
10.0			10					
12.0	12	11	12			11		
12.7	16	16	12	12	22		08	
15.875			15	15	27	16	10	
16.0	19	15	16					
19.05		19	19	19	33			
20.0			20			22		
25.0	25		25	25	38			
25.4			25	25				
31.75			31		44			
32			32		53			

Lengh of Cutting edge 切削刃長度

Code 代号	Inser thickness(mm) 刀片厚度 (mm)	★
00	0.79	
T0	0.99	
01	1.59	
T1	1.98	
02	2.38	
T2	2.58	
03	3.18	
T3	3.97	
04	4.76	
T4	4.96	
05	5.56	
T5	5.95	
06	6.35	
T6	6.75	
07	7.94	
09	9.52	
T9	9.72	
11	11.11	
12	12.70	

Insert thickness 刀片厚度

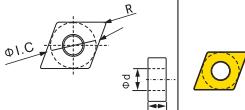
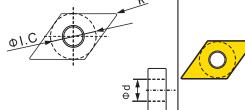
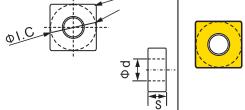
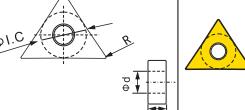
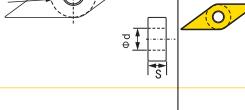
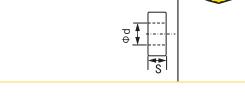


General Turning

普通車削

Inserts for processing steel 鋼加工刀片Finishing 精加工

The basic shape of negative rake inserts
負前角基本形狀刀片

The basic shape of blade 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation 材質推薦									
						CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號				Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號	
		ΦI.C	S	Φd	R	DP3200	DP3120	AH1200	DP1210	DP1201	DP1211	DP1220	DP1221	DP2220	DP2210
	CNMG	090304-FW	9.525	3.18	3.81	0.4	●	●							
		090308-FW	9.525	3.18	3.81	0.8	●	●							
		120404-FW	12.7	4.76	5.16	0.4	●	●				●			
		120408-FW	12.7	4.76	5.16	0.8	●	●				●			
	DNMC	110404-FW	9.525	4.76	3.81	0.4	●	●				●			
		110408-FW	9.525	4.76	3.81	0.8	●	●				●			
		150404-FW	12.7	4.76	5.16	0.4	●	●				●			
		150408-FW	12.7	4.76	5.16	0.8	●	●				●			
		150604-FW	12.7	6.35	5.16	0.4	●	●				●			
	SNMG	120408-FW	12.7	4.76	5.16	0.8	●	●				●			
		120412-FW	12.7	4.76	5.16	1.2	●	●				●			
	TNMG	160404-FW	9.525	4.76	3.81	0.4	●	●				●			
		160408-FW	9.525	4.76	3.81	0.8	●	●				●			
		220404-FW	12.7	4.76	5.16	0.4	●	●				●			
		220408-FW	12.7	4.76	5.16	0.8	●	●				●			
	VNMG	160404-FW	9.525	4.76	3.81	0.4	●	●				●			
		160408-FW	9.525	4.76	3.81	0.8	●	●				●			
	WNMG	060404-FW	9.525	4.76	3.81	0.4	●	●				●			
		060408-FW	9.525	4.76	3.81	0.8	●	●				●			
		060412-FW	9.525	4.76	3.81	1.2	●	●				●			
		080404-FW	12.7	4.76	5.16	0.4	●	●				●			
		080408-FW	12.7	4.76	5.16	0.8	●	●				●			

General Turning

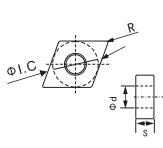
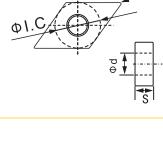
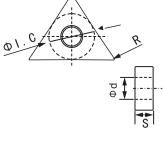
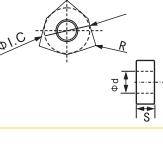
普通車削

Inserts for processing steel 鋼加工刀片Finishing 精加工

The basic shape of negative rake inserts

負前角基本形狀刀片

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The basic shape of blade 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation 材質推薦									
						CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號		
		ΦI.C	S	Φd	R	DP3200	AH1200	DP3120	DP1200	DP1210	DP1220	DP1221	DP2220	DP2210	DP2200
	CNGG	090402L/R-S	9.525	4.76	3.81	0.2									
		090404L/R-S	9.525	4.76	3.81	0.4									
		090408L/R-S	9.525	4.76	3.81	0.8									
	DNGG	110402L/R-S	9.525	4.76	3.81	0.2									
		110404L/R-S	9.525	4.76	3.81	0.4									
		110408L/R-S	9.525	4.76	3.81	0.8									
	TNGG	110402L/R-S	6.35	4.76	2.4	0.2				●					
		110404L/R-S	6.35	4.76	2.4	0.4				●					
		110408L/R-S	6.35	4.76	2.4	0.8				●					
	WNGG	160402L/R-S	9.525	4.76	3.81	0.2				●					
		160404L/R-S	9.525	4.76	3.81	0.4				●					
		160408L/R-S	9.525	4.76	3.81	0.8				●					
		060402L/R-S	9.525	4.76	3.81	0.2									
		060404L/R-S	9.525	4.76	3.81	0.4									
		060408L/R-S	9.525	4.76	3.81	0.8									

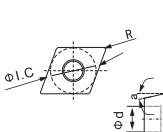
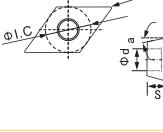
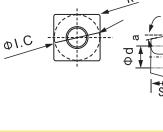
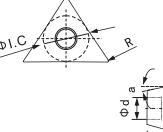
General Turning

普通車削

Inserts for processing steel 鋼加工刀片Finishing 精加工

The basic shape of positive rake inserts

正前角基本形狀刀片

The basic shape of blade 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦							
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號		DP2200			
		ΦI.C	S	Φd	R	α °	DP3200	DP3120	AH1200	DP1210	DP1220	DP1211	DP1201	
	CCMT	060202-FW	6.35	2.38	2.8	0.2	7	●	●					
		060204-FW	6.35	2.38	2.8	0.4	7	●	●					
		09T302-FW	9.525	3.97	4.4	0.2	7	●	●					
		09T308-FW	9.525	3.97	4.4	0.4	7	●	●					
		120404-FW	9.525	3.97	4.4	0.8	7	●	●					
		070202-FW	12.7	4.76	5.5	0.4	7	●	●					
	DCMT	070204-FW	6.35	2.38	2.8	0.2	7	●	●					
		11T302-FW	6.35	2.38	2.8	0.4	7	●	●					
		11T304-FW	9.525	3.97	4.4	0.4	7	●	●					
		11T308-FW	9.525	3.97	4.4	0.8	7	●	●					
		09T304-FW	9.525	3.18	4.4	0.4	7	●	●					
		09T308-FW	9.525	3.18	4.4	0.8	7	●	●					
	SCMT	090202-FW	5.56	2.38	2.5	0.2	7	●	●					
		090204-FW	5.56	2.38	2.5	0.4	7	●	●					
		110302-FW	6.35	3.18	2.8	0.2	7	●	●					
		110304-FW	6.35	3.18	2.8	0.4	7	●	●					
		110308-FW	6.35	3.18	2.8	0.8	7	●	●					
		16T304-FW	9.525	3.97	4.4	0.4	7	●	●					
	TCMT	110302-FW	6.35	3.18	2.8	0.2	7	●	●					
		110304-FW	6.35	3.18	2.8	0.4	7	●	●					
		110308-FW	6.35	3.18	2.8	0.8	7	●	●					
		16T304-FW	9.525	3.97	4.4	0.4	7	●	●					
		110302-FW	6.35	3.18	2.8	0.2	7	●	●					
		110304-FW	6.35	3.18	2.8	0.4	7	●	●					
	VCMT	040202-FW	6	2.38	2.5	0.2	11	●	●					
		040204-FW	6	2.38	2.5	0.4	11	●	●					
	WPMT	040202-FW	6	2.38	2.5	0.2	11	●	●					
		040204-FW	6	2.38	2.5	0.4	11	●	●					

General Turning

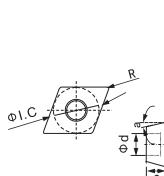
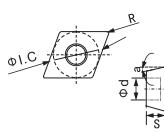
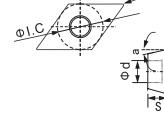
普通車削

Inserts for processing steel 鋼加工刀片 Finishing 精加工

The basic shape of positive rake inserts

正前角基本形狀刀片

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The basic shape of blade 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦									
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號							
		ΦI.C	S	Φd	R	α°	DP3200	DP3120	AH1200	AH1220	DP1200	DP1210	DP1220	DP1221	DP2220	DP2210
	CCGT	060202L/R-S	6.35	2.38	2.8	0.2	7				●					
		060204L/R-S	6.35	2.38	2.8	0.4	7				●					
		09T302L/R-S	9.525	3.97	4.4	0.2	7				●					
		09T304L/R-S	9.525	3.97	4.4	0.4	7				●					
		09T308L/R-S	9.525	3.97	4.4	0.8	7				●					
		120402L/R-S	12.7	4.76	5.5	0.2	7				●					
		120404L/R-S	12.7	4.76	5.5	0.4	7				●					
		120408L/R-S	12.7	4.76	5.5	0.8	7									
	CCGH	060202L/R-S	6.35	2.38	2.8	0.2	7									
		060204L/R-S	6.35	2.38	2.8	0.4	7									
		070201L/R-S	6.35	2.38	2.8	0.1	7									
		070202L/R-S	6.35	2.38	2.8	0.2	7									
	DCET	070204L/R-S	6.35	2.38	2.8	0.4	7									
		11T301L/R-S	9.525	3.97	4.4	0.1	7									
		11T302L/R-S	9.525	3.97	4.4	0.2	7									
		11T304L/R-S	9.525	3.97	4.4	0.4	7									

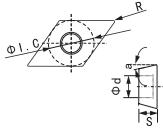
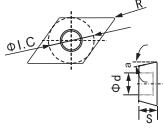
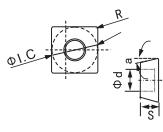
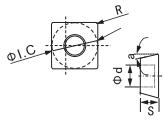
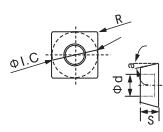
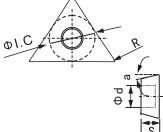
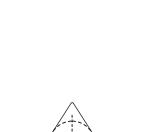
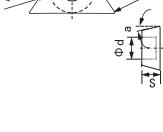
General Turning

普通車削

Inserts for processing steel 鋼加工刀片Finishing 精加工

The basic shape of positive rake inserts

正前角基本形狀刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦										
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷			Uncoated grade 非塗層牌號							
		ΦI.C	S	Φd	R	α°	DP3200	DP3120	AH1200	AH1210	DP1220	DP1211	DP1201	DP1210	DP1221	DP2220	DP2210
	DCGT	070202L/R-S	6.35	2.38	2.8	0.2	7										
		070204L/R-S	6.35	2.38	2.8	0.4	7										
		11T302L/R-S	9.525	3.97	4.4	0.2	7										
		11T304L/R-S	9.525	3.97	4.4	0.4	7										
	DPET	070201L/R-S	6.35	2.38	2.8	0.1	11										
		070202L/R-S	6.35	2.38	2.8	0.2	11										
		11T301L/R-S	9.525	3.97	4.4	0.1	11										
		11T302L/R-S	9.525	3.97	4.4	0.2	11										
	SCGT	09T304L/R-S	9.525	3.97	4.4	0.4	7										
		09T308L/R-S	9.525	3.97	4.4	0.8	7										
		090304L/R-S	9.525	3.18	4.4	0.4	11										
		090308L/R-S	9.525	3.18	4.4	0.8	11										
	SPGH	120304L/R-S	12.7	3.18	5.5	0.4	11										
		120308L/R-S	12.7	3.18	5.5	0.8	11										
		090304L/R-S	9.525	3.18	4.4	0.4	11										
		090308L/R-S	9.525	3.18	4.4	0.8	11										
	SPGT	120304L/R-S	12.7	3.18	5.5	0.2	11										
		120308L/R-S	12.7	3.18	5.5	0.4	11										
		110304L/R-S	6.35	3.18	2.8	0.2	7						•				•
		110304L/R-S	6.35	3.18	2.8	0.4	7					•					•
	TCGT	110302L/R-S	6.35	3.18	2.8	0.2	7										
		110304L/R-S	6.35	3.18	2.8	0.4	7										
		090202L/R-S	5.56	2.38	2.5	0.2	11						•				•
		090204L/R-S	5.56	2.38	2.5	0.4	11					•					•
	TPGH	110202L/R-S	6.35	2.38	3.4	0.2	11					•					•
		110204L/R-S	6.35	2.38	3.4	0.4	11					•					•
		110302L/R-S	6.35	3.18	3.4	0.2	11					•					•
		110304L/R-S	6.35	3.18	3.4	0.4	11					•					•
	TPGH	110308L/R-S	6.35	3.18	3.4	0.8	11					•					•
		160302L/R-S	9.525	3.18	4.4	0.2	11					•					•
		160304L/R-S	9.525	3.18	4.4	0.4	11					•					•
		160308L/R-S	9.525	3.18	4.4	0.8	11					•					•

General Turning

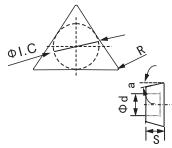
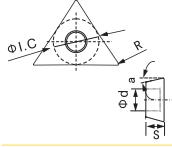
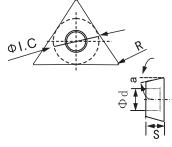
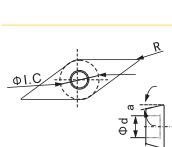
普通車削

Inserts for processing steel 鋼加工刀片Finishing 精加工

The basic shape of positive rake inserts

正前角基本形狀刀片

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The basic shape of inserts 刀片基本形状	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦												
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號										
		ΦI.C	S	Φd	R	α °	DP3200	DP3120	AH1200	DP1220	DP1211	DP1201	DP1210	DP1200	AH1210	DP2220	DP2210	DP2211	DP2210
	TPGR	090202L/R-S	5.56	2.38		0.2	11												
		090204L/R-S	5.56	2.38		0.4	11												
		090208L/R-S	5.56	2.38		0.8	11												
	TPET	110301L/R-S	6.35	3.18	3.4	0.1	11												
		110302L/R-S	6.35	3.18	3.4	0.2	11												
		090202L/R-S	5.56	2.38	2.5	0.2	11						●						
	TPGX	090204L/R-S	5.56	2.38	2.5	0.4	11					●							
		090208L/R-S	5.56	2.38	2.5	0.8	11				●								
		110302L/R-S	6.35	3.18	3.4	0.2	11				●								
	VBET	110304L/R-S	6.35	3.18	3.4	0.4	11				●								
		110308L/R-S	6.35	3.18	3.4	0.8	11				●								
		110301L/R-S	6.35	3.18	2.8	0.1	5				●								
	VBET	110302L/R-S	6.35	3.18	2.8	0.2	5												

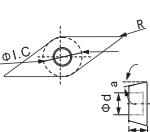
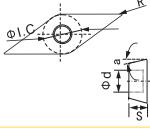
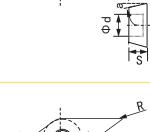
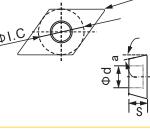
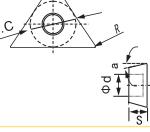
General Turning

普通車削

Inserts for processing steel 鋼加工刀片 Finishing 精加工

The basic shape of positive rake inserts

正前角基本形狀刀片

The basic shape of inserts 刀片基本形状	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦										
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號								
		ΦI.C	S	Φd	R	α°	DP3200	DP3120	AH1200	DP1210	DP1220	DP1211	DP1201	DP1221	DP2220	DP2210	DP220
	VBGT	110301L/R-S	6.35	3.18	2.8	0.1	5				●						
		110302L/R-S	6.35	3.18	2.8	0.2	5				●						
		110304L/R-S	6.35	3.18	2.8	0.4	5				●						
		160402L/R-S	9.525	4.76	4.4	0.2	5				●						
		160404L/R-S	9.525	4.76	4.4	0.4	5				●						
		160404L/R-S	9.525	4.76	4.4	0.4	7				●						
		160408L/R-S	9.525	4.76	4.4	0.8	7				●						
	VCGT	160302L/R-S	9.525	3.18	4.4	0.2	15										
		160304L/R-S	9.525	3.18	4.4	0.4	15										
		160302L/R-S	9.525	3.18	4.4	0.2	15										
		160304L/R-S	9.525	3.18	4.4	0.4	15										
		110301L/R-S	6.35	3.18	2.8	0.1	11										
		110302L/R-S	6.35	3.18	2.8	0.2	11										
		110304L/R-S	6.35	3.18	2.8	0.4	11										
	VDGT	060304L/R-S	9.525	4.76	4.4	0.4	11										
		060308L/R-S	9.525	4.76	4.4	0.8	11										
		060304L/R-S	9.525	4.76	4.4	0.4	11										
		060308L/R-S	9.525	4.76	4.4	0.8	11										
		070204L/R-S	6.35	2.38	2.8	0.4	7										
		11T302L/R-S	9.525	3.97	4.4	0.2	7										
		11T304L/R-S	9.525	3.97	4.4	0.4	7										
	VPET	160404L/R-S	9.525	3.81	3.81	0.4	-										
		160408L/R-S	9.525	3.81	3.81	0.8	-										
		160404L/R-S	9.525	3.81	3.81	0.4	-										
		160408L/R-S	9.525	3.81	3.81	0.8	-										
		070204L/R-S	6.35	2.38	2.8	0.4	7										
		11T302L/R-S	9.525	3.97	4.4	0.2	7										
		11T304L/R-S	9.525	3.97	4.4	0.4	7										
	WPGT	060304L/R-S	9.525	4.76	4.4	0.4	11										
		060308L/R-S	9.525	4.76	4.4	0.8	11										
		060304L/R-S	9.525	4.76	4.4	0.4	11										
		060308L/R-S	9.525	4.76	4.4	0.8	11										
		070204L/R-S	6.35	2.38	2.8	0.4	7										
		11T302L/R-S	9.525	3.97	4.4	0.2	7										
		11T304L/R-S	9.525	3.97	4.4	0.4	7										
	DCET	160404L/R-S	9.525	3.81	3.81	0.4	-										
		11T302L/R-S	9.525	3.97	4.4	0.2	7										
		11T304L/R-S	9.525	3.97	4.4	0.4	7										
		160404L/R-S	9.525	3.81	3.81	0.4	-										
		160408L/R-S	9.525	3.81	3.81	0.8	-										
		160404L/R-S	9.525	3.81	3.81	0.4	-										
		160408L/R-S	9.525	3.81	3.81	0.8	-										
	TNCG	070204L/R-S	6.35	2.38	2.8	0.4	7										
		11T302L/R-S	9.525	3.97	4.4	0.2	7										
		11T304L/R-S	9.525	3.97	4.4	0.4	7										
		160404L/R-S	9.525	3.81	3.81	0.4	-										
		160408L/R-S	9.525	3.81	3.81	0.8	-										
		160404L/R-S	9.525	3.81	3.81	0.4	-										
		160408L/R-S	9.525	3.81	3.81	0.8	-										

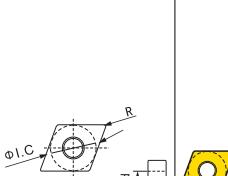
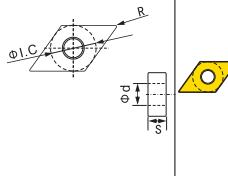
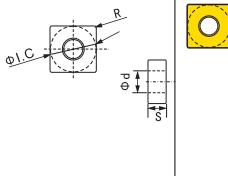
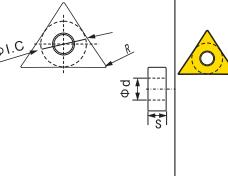
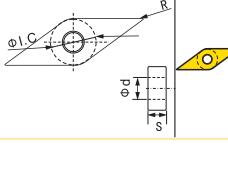
General Turning

普通車削

Inserts for processing steel 鋼加工刀片Finishing 精加工

The basic shape of positive rake inserts

正前角基本形狀刀片

The basic shape of inserts 刀片基本形状	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation						Material recommendation				
						CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號			
		ΦI.C.	S	Φd	R	DP3200	DP3120	AH1200	AH1210	DP1200	DP1210	DP1211	DP1220	DP1221	DP2220	DP2210
		090304-MD	9.525	3.18	3.81	0.4	●	●								
		090308-MD	9.525	3.18	3.81	0.8	●	●								
		120404-MD	12.7	4.76	5.16	0.4	●	●								
		120408-MD	12.7	4.76	5.16	0.8	●	●								
		120412-MD	12.7	4.76	5.16	1.2	●	●								
		160608-MD	15.875	6.35	6.35	0.8	●	●								
		160612-MD	15.875	6.35	6.35	1.2	●	●								
		190608-MD	19.05	6.35	7.93	0.8	●	●								
		190612-MD	19.05	6.35	7.93	1.2	●	●								
		110404-MD	9.525	4.76	3.81	0.4	●	●								
		110408-MD	9.525	4.76	3.81	0.8	●	●								
		110412-MD	9.525	4.76	3.81	1.2	●	●								
		150404-MD	12.7	4.76	5.16	0.4	●	●								
		150408-MD	12.7	4.76	5.16	0.8	●	●								
		150412-MD	12.7	4.76	5.16	1.2	●	●								
		150604-MD	12.7	6.35	5.16	0.4	●	●								
		150608-MD	12.7	6.35	5.16	0.8	●	●								
		150612-MD	12.7	6.35	5.16	1.2	●	●								
		090304-MD	9.525	3.18	3.81	0.4	●	●								
		090308-MD	9.525	3.18	3.81	0.8	●	●								
		120404-MD	12.7	4.46	5.16	0.4	●	●								
		120408-MD	12.7	4.76	5.16	0.8	●	●								
		120412-MD	12.7	4.76	5.16	1.2	●	●								
		150608-MD	15.875	6.35	6.35	0.8	●	●								
		150612-MD	15.875	6.35	6.35	1.2	●	●								
		150616-MD	15.875	6.35	6.35	1.6	●	●								
		190608-MD	19.05	6.35	7.93	0.8	●	●								
		190612-MD	19.05	6.35	7.93	1.2	●	●								
		160404-MD	9.525	4.76	3.81	0.4	●	●								
		160408-MD	9.525	4.76	3.81	0.8	●	●								
		160412-MD	9.525	4.76	3.81	1.2	●	●								
		220404-MD	12.7	4.76	5.16	0.4	●	●								
		220408-MD	12.7	4.76	5.16	0.8	●	●								
		220412-MD	12.7	4.76	5.16	1.2	●	●								
		160404-MD	9.525	4.76	3.81	0.4	●	●								
		160408-MD	9.525	4.76	3.81	0.8	●	●								
		160412-MD	9.525	4.76	3.81	1.2	●	●								

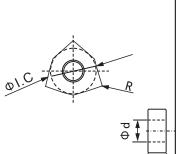
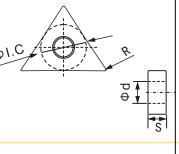
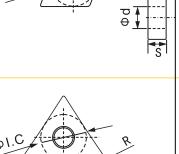
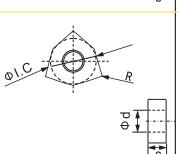
General Turning

普通車削

Inserts for processing steel 鋼加工刀片Semi finishing 半精加工

The basic shape of negative rake inserts

負前角基本形狀刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation 材質推薦									
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號				Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號					
		ΦI.C	S	Φd	R	DP3200	DP3120	AH1200	DP1210	DP1220	DP1211	DP1221	DP2220	DP2210	DP2200
		060404-MD	9.525	4.76	3.81	0.4	●	●							
		060408-MD	9.525	4.76	3.81	1.2	●	●							
		060412-MD	9.525	4.76	3.81	1.2	●	●							
		080404-MD	12.7	4.76	5.16	0.4	●	●							
		080404-MD	12.7	4.76	5.16	0.8	●	●							
		080412-MD	12.7	4.76	5.16	1.2	●	●							
		160404-HQ	9.525	4.76	3.81	0.4	●	●				●			
		160408-HQ	9.525	4.76	3.81	0.8	●	●				●			
		120404-MA	12.7	4.76		0.4	●	●				●			
		120408-MA	12.7	4.76		0.8	●	●				●			
		160404-MA	9.525	4.76		0.4	●	●				●			
		160408-MA	9.525	4.76		0.8	●	●				●			
		080404-MA	12.7	4.76		0.4	●	●				●			
		080408-MA	12.7	4.76		0.8	●	●				●			

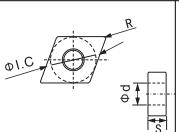
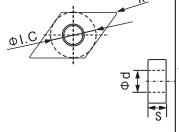
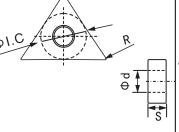
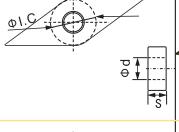
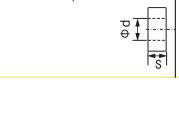
General Turning

普通車削

Inserts for processing steel 鋼加工刀片Semi finishing 半精加工

The basic shape of negative rake inserts

負前角基本形狀刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation 材質推薦									
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號						
		ΦI.C	S	Φd	R	DP3200	DP3120	AH1200	DP1210	DP1220	DP1211	DP1221	DP2220	DP2210	DP2200
	WNMG	120404-TM	12.7	4.76	5.16	0.4	●	●							
		120408-TM	12.7	4.76	5.16	0.8	●	●							
		120412-TM	12.7	4.76	5.16	1.2	●	●							
	TNMG	150408-TM	12.7	4.76	5.16	0.8	●	●							
		150608-TM	12.7	6.35	5.16	0.8	●	●							
	CNMG	160404-TM	9.525	4.76	3.81	0.4	●	●							
		160408-TM	9.525	4.76	3.81	0.8	●	●							
		160412-TM	9.525	4.76	3.81	1.2	●	●							
	TNMG	220404-TM	12.7	4.76	5.16	0.4	●	●							
		220408-TM	12.7	4.76	5.16	0.8	●	●							
		220412-TM	12.7	4.76	5.16	1.2	●	●							
	TNMG	160404-TM	9.525	4.76	3.81	0.4	●	●							
		160408-TM	9.525	4.76	3.81	0.8	●	●							
		160412-TM	9.525	4.76	3.81	1.2	●	●							
	WNMG	080404-TM	12.7	4.76	5.16	0.4	●	●							
		080408-TM	12.7	4.76	5.16	0.8	●	●							
		080412-TM	12.7	4.76	5.16	1.2	●	●							

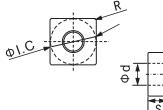
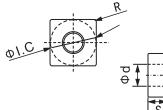
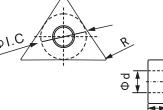
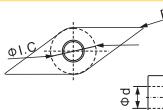
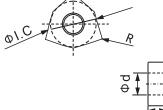
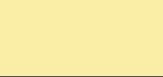
General Turning

普通車削

Inserts for processing steel 鋼加工刀片Semi finishing 半精加工

The basic shape of negative rake inserts

負前角基本形狀刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation 材質推薦										
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號				Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號						
		ΦI.C	S	Φd	R	DP3200	AH1200	DP3120	AH1210	DP1200	DP1210	DP1220	DP1221	DP2220	DP2210	DP2200
	SNMG	120404L/R-N	12.7	4.76	5.16	0.4	●									
		120404L/R-N	12.7	4.76	5.16	0.8	●									
	SNGG	090304L/R-N	9.525	3.18	3.81	0.4										
		090308L/R-N	9.525	3.18	3.81	0.8										
	TNCG	120404L/R-N	12.7	4.76	5.16	0.4										
		120408L/R-N	12.7	4.76	5.16	0.8										
	VNGG	110302L/R-N	6.35	3.81	2.4	0.2										
		110304L/R-N	6.35	3.81	2.4	0.4										
	WNCG	110308L/R-N	6.35	3.81	2.4	0.8										
		160304L/R-N	9.525	3.81	3.81	0.4										
	TNCG	160402L/R-N	9.525	4.76	3.81	0.2										
		160404L/R-N	9.525	4.76	3.81	0.4										
	TNCG	160408L/R-N	9.525	4.76	3.81	0.8										
		160412L/R-N	9.525	4.76	3.81	1.2										
	TNCG	160416L/R-N	9.525	4.76	3.81	1.6	●									
		220404L/R-N	12.7	4.76	5.16	0.4	●									
	TNCG	220408L/R-N	12.7	4.76	5.16	0.8										
		220412L/R-N	12.7	4.76	5.16	1.2										
	VNGG	110302L/R-N	6.35	3.18	2.4	0.2										
		110304L/R-N	6.35	3.18	2.4	0.4										
	VNGG	160402L/R-N	9.525	4.76	3.81	0.2										
		160404L/R-N	9.525	4.76	3.81	0.4										
	WNCG	060404L/R-N	9.525	4.76	3.81	0.8										
		060408L/R-N	9.525	4.76	3.81	1.2										

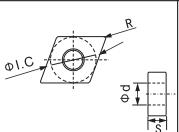
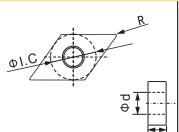
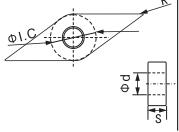
General Turning

普通車削

Inserts for processing steel 鋼加工刀片Semi finishing 半精加工

The basic shape of negative rake inserts

負前角基本形狀刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation 材質推薦												
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號									
		ΦI.C	S	Φd	R	DP3200	DP3120	AH1200	DP1210	DP1220	DP1211	DP1201	DP1221	DP2220	DP2210	DP2200		
	CNGG	090404L/R-H	9.525	4.76	3.81	0.4				●								
		090408L/R-H	9.525	4.76	3.81	0.8				●								
		120404L/R-H	12.7	4.76	5.16	0.4				●								
		120408L/R-H	12.7	4.76	5.16	0.8				●								
	DNGG	110404L/R-H	9.525	4.76	3.81	0.4				●								
		110408L/R-H	9.525	4.76	3.81	0.8				●								
		150404L/R-H	12.7	4.76	5.16	0.4				●								
		150408L/T-H	12.7	4.76	5.16	0.8												
	VNGG	160402L/R-H	9.525	4.76	3.81	0.2												
		160404L/R-H	9.525	4.76	3.81	0.4												
		160408L/R-H	9.525	4.76	3.81	0.8												

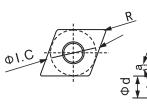
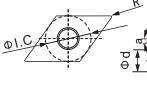
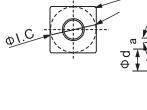
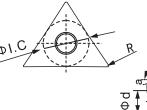
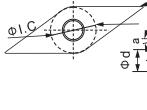
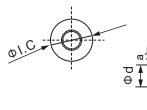
General Turning

普通車削

Inserts for processing steel 鋼加工刀片Semi finishing 半精加工

The basic shape of positive rake inserts

正前角基本形狀刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦											
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號									
		ΦI.C	S	Φd	R	α °	DP3200	DP3120	AH1200	DP1220	DP1211	DP1201	DP1210	DP1220	DP1221	DP2220	DP2210	DP2200
 CCMT	060204-MD	6.35	2.38	2.8	0.4	7	●	●										
	060208-MD	6.35	2.38	2.8	0.8	7	●	●										
	09T304-MD	9.525	3.97	4.4	0.4	7	●	●										
	09T308-MD	9.525	3.97	4.4	0.8	7	●	●										
	120404-MD	12.7	4.76	5.5	0.4	7	●	●										
	120408-MD	12.7	4.76	5.5	0.8	7	●	●										
	120412-MD	12.7	4.76	5.5	1.2	7	●	●										
	070204-MD	6.35	2.38	2.8	0.4	7	●	●										
	070208-MD	6.35	2.38	2.8	0.8	7	●	●										
	11T304-MD	9.525	3.97	4.4	0.4	7	●	●										
 DCMT	11T308-MD	9.525	3.97	4.4	0.8	7	●	●										
	11T312-MD	9.525	3.97	4.4	1.2	7	●	●										
	09T304-MD	9.525	3.97	4.4	0.4	7	●	●										
	09T308-MD	9.525	3.97	4.4	0.8	7	●	●										
	09T312-MD	9.525	3.97	4.4	1.2	7	●	●										
	120404-MD	9.525	4.76	5.5	0.4	7	●	●										
	120408-MD	12.7	4.76	5.5	0.8	7	●	●										
	120412-MD	12.7	4.76	5.5	1.2	7	●	●										
	090204-MD	5.56	2.38	2.5	0.4	7	●	●										
	090208-MD	5.56	2.38	2.5	0.8	7	●	●										
 SCMT	110304-MD	6.35	3.18	2.8	0.4	7	●	●										
	110308-MD	6.35	3.18	2.8	0.8	7	●	●										
	110312-MD	6.35	3.18	2.8	1.2	7	●	●										
	16T304-MD	9.525	3.97	4.4	0.4	7	●	●										
	16T308-MD	9.525	3.97	4.4	0.8	7	●	●										
	16T312-MD	9.525	3.97	4.4	1.2	7	●	●										
	110304-MD	6.35	3.18	2.8	0.4	7	●	●										
	110308-MD	6.35	3.18	2.8	0.8	7	●	●										
	160404-MD	9.525	4.76	4.4	0.4	5	●	●										
	160408-MD	9.525	4.76	4.4	0.8	5	●	●										
 TCMT	0803M0E-R1	8	2.38	3.3	-	7				●	●							
	10T3M0E-R1	10	3.97	4.5	-	7				●	●							
	1204M0E-R2	12	4.76	4.4	-	7				●	●							
	1606M0E-R3	16	6.35	5.5	-	7				●	●							
	2006M0E-R4	20	6.35	6.5	-	7				●	●							
 VCMT VBMT	0803M0E-R1	8	2.38	3.3	-	7				●	●							
	10T3M0E-R1	10	3.97	4.5	-	7				●	●							
	1204M0E-R2	12	4.76	4.4	-	7				●	●							
	1606M0E-R3	16	6.35	5.5	-	7				●	●							
	2006M0E-R4	20	6.35	6.5	-	7				●	●							
 RCMT	0803M0E-R1	8	2.38	3.3	-	7				●	●							
	10T3M0E-R1	10	3.97	4.5	-	7				●	●							
	1204M0E-R2	12	4.76	4.4	-	7				●	●							
	1606M0E-R3	16	6.35	5.5	-	7				●	●							
	2006M0E-R4	20	6.35	6.5	-	7				●	●							

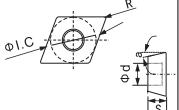
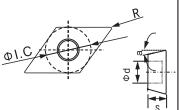
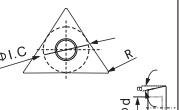
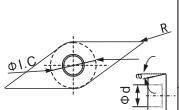
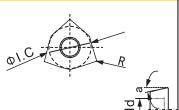
General Turning

普通車削

Inserts for processing steel 鋼加工刀片 Semi finishing 半精加工

The basic shape of positive rake inserts

正前角基本形狀刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦										
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號								
		ΦI.C	S	Φd	R	α °	DP3200	DP3120	AH1200	DP1220	DP1211	DP1201	DP1210	DP1221	DP2220	DP2210	DP2200
	CPMH	090304L/R-N	9.525	3.18	4.4	0.4	11										
		090304L/R-N	9.525	3.18	4.4	0.8	11										
	DCGT	070201L/R-N	6.35	2.38	2.8	0.1	7									●	
		070202L/R-N	6.35	2.38	2.8	0.2	7									●	
	TPGH	11T301L/R-N	9.525	3.97	4.4	0.1	7										●
		11T302L/R-N	9.525	3.97	4.4	0.2	7										●
	VBGT	110302L/R-N	6.35	3.18	3.4	0.2	11									●	●
		110304L/R-N	6.35	3.18	3.4	0.4	11										●
	WPGT	110308L/R-N	6.35	3.18	3.4	0.8	11										
		160304L/R-N	9.525	3.18	4.4	0.4	11										
	WPGT	160308L/R-N	9.525	3.18	4.4	0.8	11										
		110301L/R-N	6.35	3.18	2.8	0.1	5										
	WPGT	110302L/R-N	6.35	3.18	2.8	0.2	5										
		110304L/R-N	6.35	3.18	2.8	0.4	5									●	
	WPGT	110308L/R-N	6.35	3.18	2.8	0.8	5									●	
		160402L/R-N	9.525	4.76	4.4	0.2	5									●	
	WPGT	160404L/R-N	9.525	4.76	4.4	0.4	5									●	
		160408L/R-N	9.525	4.76	4.4	0.8	5									●	
	WPGT	060304L/R-N	9.525	4.76	4.4	0.4	11										
		060308L/R-N	9.525	4.76	4.4	0.8	11										

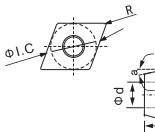
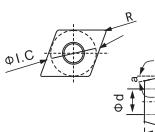
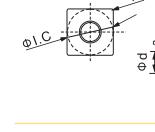
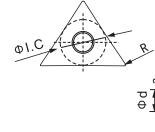
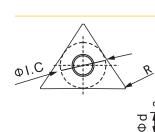
General Turning

普通車削

Inserts for processing steel 鋼加工刀片 Semi finishing 半精加工

The basic shape of positive rake inserts

正前角基本形狀刀片

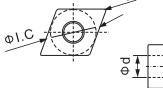
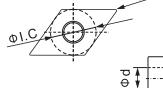
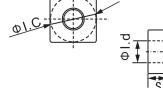
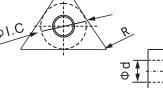
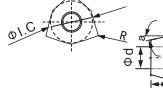
The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦											
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號									
		ΦI.C	S	Φd	R	α°	DP3200	DP3120	AH1200	AH1210	DP1220	DP1211	DP1201	DP1210	DP1221	DP2220	DP2210	DP2200
	CCET	060201L/R-E	6.35	2.38	2.8	0.1	7											
		060202L/R-E	6.35	2.38	2.8	0.2	7											
		060204L/R-E	6.35	2.38	2.8	0.4	7											
		09T301L/R-E	9.525	3.97	4.4	0.1	7											
		09T302L/R-E	9.525	3.97	4.4	0.2	7											
		09T304L/R-E	9.525	3.97	4.4	0.4	7											
	CCGT	060201L/R-E	6.35	2.38	2.8	0.1	7			●						●		●
		060202L/R-E	6.35	2.38	2.8	0.2	7			●						●		●
		060204L/R-E	6.35	2.38	2.8	0.4	7			●						●		●
		09T301L/R-E	9.525	3.97	4.4	0.1	7			●						●		●
		09T302L/R-E	9.525	3.97	4.4	0.2	7			●						●		●
		09T304L/R-E	9.525	3.97	4.4	0.4	7			●						●		●
	SPGT	090304L/R-E	9.525	3.18	4.4	0.4	11											
		090308L/R-E	9.525	3.18	4.4	0.8	11											
		120304L/R-E	12.7	3.18	5.5	0.4	11											
		120308L/R-E	12.7	3.18	5.5	0.8	11											
	TPET	110302L/R-E	6.35	3.18	2.8	0.2	11											
	TCGT	110302L/R-E	6.35	3.18	2.8	0.2	7			●						●		●
	DCET	070202L/R-E	6.35	2.38	2.8	0.2	7											
		070204L/R-E	6.35	2.38	2.8	0.4	7											
		11T302L/R-E	9.525	3.97	4.4	0.2	7											
		11T302L/R-E	9.525	3.97	4.4	0.4	7											

General Turning

普通車削

Inserts for processing steel 鋼加工刀片 Rough machining 粗加工

The basic shape of negative rake inserts
負前角基本形狀刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation 材質推薦										
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號				Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號						
		ΦI.C	S	Φd	R	DP3200	DP3120	AH1200	DP1220	DP1211	DP1201	DP1210	DP1221	DP2220	DP2210	DP2200
	CNMG	120408-RA	12.7	4.76	5.16	0.8	●	●								
		120412-RA	12.7	4.76	5.16	1.2	●	●								
		120416-RA	12.7	4.76	5.16	1.6	●	●								
		160608-RA	15.875	6.35	6.35	0.8	●	●								
		160612-RA	15.875	6.35	6.35	1.2	●	●								
		160616-RA	15.875	6.35	6.35	1.6	●	●								
		190612-RA	19.05	6.35	7.93	1.2	●	●								
		150408-RA	12.7	4.76	5.16	0.8	●	●								
		150412-RA	12.7	4.76	5.16	1.2	●	●								
		150416-RA	12.7	4.76	5.16	1.6	●	●								
	DNMG	150608-RA	12.7	6.35	5.16	0.8	●	●								
		150612-RA	12.7	6.35	5.16	1.2	●	●								
		150616-RA	12.7	6.35	5.16	1.6	●	●								
		120408-RA	12.7	4.46	5.16	0.8	●	●								
		120412-RA	12.7	4.76	5.16	1.2	●	●								
		120416-RA	12.7	4.76	5.16	1.6	●	●								
		150608-RA	15.875	6.35	6.35	0.8	●	●								
		150612-RA	15.875	6.35	6.35	1.2	●	●								
		150616-RA	15.875	6.35	6.35	1.6	●	●								
		190608-RA	19.05	6.35	7.93	0.8	●	●								
	SNMG	190612-RA	19.05	6.35	7.93	1.2	●	●								
		190616-RA	19.05	6.35	7.93	1.6	●	●								
		120408-RA	12.7	4.46	5.16	0.8	●	●								
		120412-RA	12.7	4.76	5.16	1.2	●	●								
		120416-RA	12.7	4.76	5.16	1.6	●	●								
		150608-RA	15.875	6.35	6.35	0.8	●	●								
		150612-RA	15.875	6.35	6.35	1.2	●	●								
		150616-RA	15.875	6.35	6.35	1.6	●	●								
		190608-RA	19.05	6.35	7.93	0.8	●	●								
		190612-RA	19.05	6.35	7.93	1.2	●	●								
	TNMG	160408-RA	9.525	4.76	3.81	0.8	●	●								
		160412-RA	9.525	4.76	3.81	1.2	●	●								
		220408-RA	12.7	4.76	5.16	0.8	●	●								
		220412-RA	12.7	4.76	5.16	1.2	●	●								
		220416-RA	12.7	4.76	5.16	1.6	●	●								
	WNMG	060408-RA	9.525	4.76	3.81	0.8	●	●								
		060412-RA	9.525	4.76	3.81	1.2	●	●								
		080408-RA	12.7	4.76	5.16	0.8	●	●								
		080412-RA	12.7	4.76	5.16	1.2	●	●								
		080416-RA	12.7	4.76	5.16	1.6	●	●								

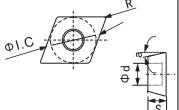
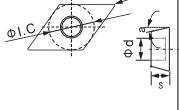
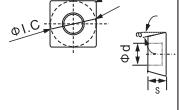
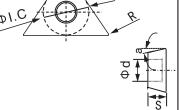
General Turning

普通車削

Inserts for processing steel and cast iron 鋼、鑄鐵加工刀片Rough machining 粗加工

The basic shape of positive rake inserts

正前角基本形狀刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦											
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號									
		ΦI.C	S	Φd	R	α °	DP3200	DP3120	AH1200	DP1220	DP1211	DP1201	DP1210	DP1220	DP2211	DP2220	DP2210	DP2200
	CCMT	060208-RA	6.35	2.38	2.8	0.8	7	●	●									
		09T308-RA	9.525	3.97	4.4	0.8	7	●	●									
		09T312-RA	9.525	3.97	4.4	1.2	7	●	●									
	DCMT	11T308-RA	9.525	3.97	4.4	0.8	7	●	●					●				
		11T312-RA	9.525	3.97	4.4	1.2	7	●	●					●				
	SCMT	09T308-RA	9.525	3.97	4.4	0.8	7	●	●					●				
		120408-RA	12.7	4.76	5.5	0.8	7	●	●					●				
		120412-RA	12.7	4.76	5.5	1.2	7	●	●					●				
	TCMT	110308-RA	6.35	3.18	2.8	0.8	7	●	●					●				
		110312-RA	6.35	3.18	2.8	1.2	7	●	●					●				
		16T308-RA	9.525	3.97	4.4	0.8	7	●	●					●				
		16T312-RA	9.525	3.97	4.4	1.2	7	●	●					●				

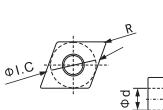
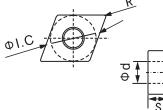
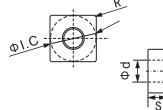
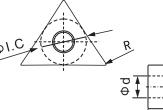
General Turning

普通車削

Inserts for processing stainless steel 不锈钢加工刀片Finishing 精加工

The basic shape of negative rake inserts

負前角基本形状刀片

The basic shape of inserts 刀片基本形状	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation 材質推薦										
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號							
		ΦI.C	S	Φd	R	DP3200	DP3120	AH1200	DP1220	DP1211	DP1201	DP1210	DP1220	DP2210	DP2220	DP220
	CNMG	090304-SJ	9.525	3.18	3.81	0.4	●	●				●				
		090304-SJ	9.525	3.18	3.81	0.8	●	●				●				
		120404-SJ	12.7	4.76	5.16	0.4	●	●				●				
		120408-SJ	12.7	4.76	5.16	0.8	●	●				●				
		120412-SJ	12.7	4.76	5.16	1.2	●	●				●				
		110404-SJ	9.525	4.76	3.81	0.4	●	●				●				
		110408-SJ	9.525	4.76	3.81	0.8	●	●				●				
		150404-SJ	12.7	4.76	5.16	0.4	●	●				●				
		150408-SJ	12.7	4.76	5.16	0.8	●	●				●				
		150412-SJ	12.7	4.76	5.16	1.2	●	●				●				
	DNMG	150604-SJ	12.7	6.35	5.16	0.4	●	●				●				
		150608-SJ	12.7	6.35	5.16	0.8	●	●				●				
		150612-SJ	12.7	6.35	5.16	1.2	●	●				●				
		090304-SJ	9.525	3.18	3.81	0.4	●	●				●				
		090308-SJ	9.525	3.18	3.81	0.8	●	●				●				
		090312-SJ	9.525	3.18	3.81	1.2	●	●				●				
		120404-SJ	12.7	4.76	5.16	0.4	●	●				●				
		120408-SJ	12.7	4.76	5.16	0.8	●	●				●				
		120412-SJ	12.7	4.76	5.16	1.2	●	●				●				
		120416-SJ	12.7	4.76	5.16	1.6	●	●				●				
	SNMG	150608-SJ	15.875	6.35	6.35	0.8	●	●				●				
		150612-SJ	15.875	6.35	6.35	1.2	●	●				●				
		110302-SJ	6.35	3.18	2.4	0.2	●	●				●				
		110304-SJ	6.35	3.18	2.4	0.4	●	●				●				
		110308-SJ	6.35	3.18	2.4	0.8	●	●				●				
		110312-SJ	9.525	4.76	3.81	1.2	●	●				●				
		160404-SJ	9.525	4.76	3.81	0.4	●	●				●				
		160408-SJ	9.525	4.76	3.81	0.8	●	●				●				
		160412-SJ	9.525	4.76	3.81	1.2	●	●				●				
		160416-SJ	9.525	4.76	3.81	1.6	●	●				●				
	TNMG	220404-SJ	12.7	4.76	5.16	0.4	●	●				●				
		220408-SJ	12.7	4.76	5.16	0.8	●	●				●				
		220412-SJ	12.7	4.76	5.16	1.2	●	●				●				
		220416-SJ	12.7	4.76	5.16	1.6	●	●				●				
		220420-SJ	12.7	4.76	5.16	2.0	●	●				●				
		220424-SJ	12.7	4.76	5.16	2.4	●	●				●				

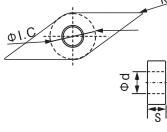
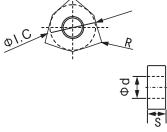
General Turning

普通車削

Inserts for processing stainless steel 不锈钢加工刀片Finishing 精加工

The basic shape of negative rake inserts

負前角基本形状刀片

The basic shape of inserts 刀片基本形状	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation 材質推薦								
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號					
		ΦI.C	S	Φd	R	DP3200	DP3120	AH1200	DP1210	DP1220	DP1221	DP2220	DP2210	DP2200
	VNMG	160404-SJ	9.525	4.76	3.81	0.4	●	●						
		160408-SJ	9.525	4.76	3.81	0.8	●	●						
	WNMG	060404-SJ	9.525	4.76	3.81	0.4	●	●			●			
		060408-SJ	9.525	4.76	3.81	0.8	●	●			●			
		080404-SJ	12.7	4.76	5.16	0.4	●	●			●			
		080408-SJ	12.7	4.76	5.16	0.8	●	●			●			

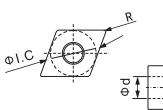
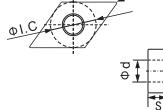
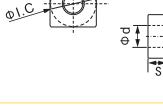
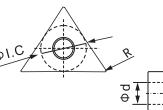
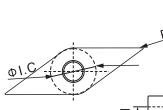
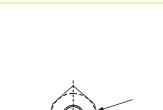
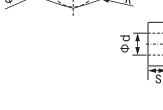
General Turning

普通車削

Inserts for processing stainless steel 不锈钢加工刀片Finishing 精加工

The basic shape of negative rake inserts

負前角基本形状刀片

The basic shape of inserts 刀片基本形状	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation 材質推薦										
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號							
		ΦI.C	S	Φd	R	DP3200	DP3120	AH1200	DP1220	DP1211	DP1201	DP1210	DP1221	DP2220	DP2210	DP2200
	CNMG	120404-LH	12.7	4.76	5.16	0.4	●	●								
		120408-LH	12.7	4.76	5.16	0.8	●	●								
		120412-LH	12.7	4.76	5.16	1.2	●	●								
	DNMG	150404-LH	12.7	4.76	5.16	0.4	●	●								
		150408-LH	12.7	4.76	5.16	0.8	●	●								
		150604-LH	12.7	6.35	5.16	0.4	●	●								
		150608-LH	12.7	6.35	5.16	0.8	●	●								
	SNMG	120404-LH	12.7	4.76	5.16	0.4	●	●								
		120408-LH	12.7	4.76	5.16	0.8	●	●								
		120412-LH	12.7	4.76	5.16	1.2	●	●								
	TNMG	160404-LH	9.525	4.76	3.81	0.4	●	●								
		160408-LH	9.525	4.76	3.81	0.8	●	●								
		160412-LH	9.525	4.76	3.81	1.2	●	●								
		220408-LH	12.7	4.76	5.16	0.8	●	●								
		220412-LH	12.7	4.76	5.16	1.2	●	●								
		160404-LH	9.525	4.76	3.81	0.4	●	●								
	VNMG	160408-LH	9.525	4.76	3.81	0.8	●	●								
		160401-LH	9.525	4.76	3.81	0.1	●	●								
		160402-LH	9.525	4.76	3.81	0.4	●	●								
		160404-LH	9.525	4.76	3.81	0.8	●	●								
	VNGG	060404-LH	9.525	4.76	3.81	0.4	●	●								
		060408-LH	9.525	4.76	3.81	0.8	●	●								
		080404-LH	12.7	4.76	5.16	0.4	●	●								
		080408-LH	12.7	4.76	5.16	0.8	●	●								
		080412-LH	12.7	4.76	5.16	1.2	●	●								
	WNMG	060404-LH	9.525	4.76	3.81	0.4	●	●								
		060408-LH	9.525	4.76	3.81	0.8	●	●								
		080404-LH	12.7	4.76	5.16	0.4	●	●								
		080408-LH	12.7	4.76	5.16	0.8	●	●								
	WNGG	080404-LH	12.7	4.76	5.16	0.4	●	●								
		080408-LH	12.7	4.76	5.16	0.8	●	●								

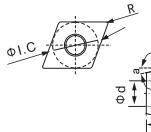
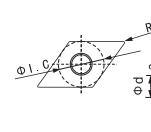
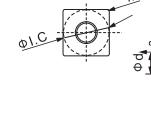
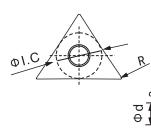
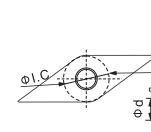
General Turning

普通車削

Inserts for processing stainless steel 不锈钢加工刀片Finishing 精加工

The basic shape of positive rake inserts

正前角基本形状刀片

The basic shape of inserts 刀片基本形状	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦										
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號								
		ΦI.C	S	Φd	R	α°	DP3200	DP3120	AH1200	DP1220	DP1211	DP1201	DP1210	DP2220	DP2210	DP2200	
	CCMT	060202-FW	6.35	2.38	2.8	0.2	7	●	●					●			
		060204-FW	6.35	2.38	2.8	0.4	7	●	●					●			
		09T302-FW	9.525	3.97	4.4	0.2	7	●	●					●			
		09T304-FW	9.525	3.97	4.4	0.4	7	●	●					●			
		09T308-FW	9.525	3.97	4.4	0.8	7	●	●					●			
		120404-FW	12.7	4.76	5.5	0.4	7	●	●					●			
		070202-FW	6.35	2.38	2.8	0.2	7	●	●					●			
		070204-FW	6.35	2.38	2.8	0.4	7	●	●					●			
	DCMT	11T302-FW	9.525	3.97	4.4	0.2	7	●	●					●			
		11T304-FW	9.525	3.97	4.4	0.4	7	●	●					●			
		11T308-FW	9.525	3.97	4.4	0.8	7	●	●					●			
		09T304-FW	9.525	3.18	4.4	0.4	7	●	●					●			
		09T308-FW	9.525	3.18	4.4	0.8	7	●	●					●			
		120404-FW	12.7	4.76	5.5	0.4	7	●	●					●			
		120408-FW	12.7	4.76	5.5	0.8	7	●	●					●			
		120412-FW	12.7	4.76	5.5	1.2	7	●	●					●			
	SCMT	090202-FW	5.56	2.38	2.5	0.2	7	●	●					●			
		090204-FW	5.56	2.38	2.5	0.4	7	●	●					●			
		110302-FW	6.35	3.18	2.8	0.2	7	●	●					●			
		110304-FW	6.35	3.18	2.8	0.4	7	●	●					●			
		110308-FW	6.35	3.18	2.8	0.8	7	●	●					●			
		16T304-FW	9.525	3.97	4.4	0.4	7	●	●					●			
		110302-FW	6.35	3.18	2.8	0.2	5	●	●					●			
		110304-FW	6.35	3.18	2.8	0.4	5	●	●					●			
	TCMT	110308-FW	6.35	3.18	2.8	0.8	5	●	●					●			
		16T304-FW	9.525	3.97	4.4	0.4	7	●	●					●			
		110302-FW	6.35	3.18	2.8	0.2	5	●	●					●			
		110304-FW	6.35	3.18	2.8	0.4	5	●	●					●			
		110308-FW	6.35	3.18	2.8	0.8	5	●	●					●			
		110304-FW	6.35	3.18	2.8	0.4	7	●	●					●			
		110308-FW	6.35	3.18	2.8	0.8	7	●	●					●			
		16T304-FW	9.525	3.97	4.4	0.4	7	●	●					●			
	VBMT	110302-FW	6.35	3.18	2.8	0.2	5	●	●					●			
		110304-FW	6.35	3.18	2.8	0.4	5	●	●					●			
		110308-FW	6.35	3.18	2.8	0.8	5	●	●					●			
		160402-FW	9.525	4.76	4.4	0.2	5	●	●					●			
		160404-FW	9.525	4.76	4.4	0.2	5	●	●					●			
		160408-FW	9.525	4.76	4.4	0.2	5	●	●					●			
		110302-FW	6.35	3.18	2.8	0.2	5	●	●					●			
		110304-FW	6.35	3.18	2.8	0.4	5	●	●					●			

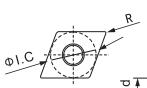
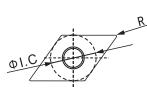
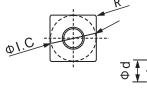
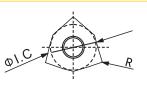
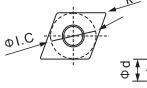
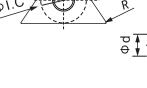
General Turning

普通車削

Inserts for processing stainless steel 不锈钢加工刀片Finishing 精加工

The basic shape of negative rake inserts

負前角基本形狀刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation 材質推薦										
						CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號			
		ΦI.C	S	Φd	R	DP3200	DP3120	AH1200	DP1220	DP1211	DP1201	DP1210	DP1221	DP2220	DP2210	DP2200
		120408-SN	12.7	4.76	5.16	0.8	●	●				●				
		120412-SN	12.7	4.76	5.16	1.2	●	●				●				
		160608-SN	15.875	6.35	6.35	0.8	●	●				●				
		160612-SN	15.875	6.35	6.35	1.2	●	●				●				
		190608-SN	19.05	6.35	7.93	0.8	●	●				●				
		190612-SN	19.05	6.35	7.93	1.2	●	●				●				
		110408-SN	9.525	4.76	3.81	0.8	●	●				●				
		110412-SN	9.525	4.76	3.81	1.2	●	●				●				
		150408-SN	12.7	4.76	5.16	0.8	●	●				●				
		150412-SN	12.7	4.76	5.16	1.2	●	●				●				
		150608-SN	12.7	6.35	5.16	0.8	●	●				●				
		150612-SN	12.7	6.35	5.16	1.2	●	●				●				
		120408-SN	12.7	4.76	5.16	0.8	●	●				●				
		120412-SN	12.7	4.76	5.16	1.2	●	●				●				
		150612-SN	15.875	6.35	6.35	1.2	●	●				●				
		160408-SN	9.525	4.76	3.81	0.8	●	●				●				
		160412-SN	9.525	4.76	3.81	1.2	●	●				●				
		220408-SN	12.7	4.76	5.16	0.8	●	●				●				
		220412-SN	12.7	4.76	5.16	1.2	●	●				●				
		160408-SN	9.525	4.76	3.81	0.8	●	●				●				
		160412-SN	9.525	4.76	3.81	1.2	●	●				●				
		160408-SN	9.525	4.76	3.81	0.8	●	●				●				
		160412-SN	9.525	4.76	3.81	1.2	●	●				●				
		220412-SN	12.7	4.76	5.16	1.2	●	●				●				
		060408-SN	9.525	4.76	3.81	0.8	●	●				●				
		060412-SN	9.525	4.76	3.81	1.2	●	●				●				
		080408-SN	12.7	4.76	5.16	0.8	●	●				●				
		080412-SN	12.7	4.76	5.16	0.2	●	●				●				
		120408-HM	12.7	4.76	5.16	0.8	●	●				●				
		120412-HM	12.7	4.76	5.16	1.2	●	●				●				
		160608-HM	15.875	6.35	6.35	0.8	●	●				●				
		160612-HM	15.875	6.35	6.35	1.2	●	●				●				
		190608-HM	19.05	6.35	7.93	0.8	●	●				●				
		190612-HM	19.05	6.35	7.93	1.2	●	●				●				
		160408-HM	9.525	4.76	3.81	0.8	●	●				●				
		160412-HM	9.525	4.76	3.81	1.2	●	●				●				
		220408-HM	12.7	4.76	5.16	0.8	●	●				●				
		220412-HM	12.7	4.76	5.16	1.2	●	●				●				
		160408-HM	9.525	4.76	3.81	0.8	●	●				●				
		160412-HM	9.525	4.76	3.81	1.2	●	●				●				
		220412-HM	12.7	4.76	5.16	1.2	●	●				●				
		220412-HM	12.7	4.76	5.16	1.2	●	●				●				

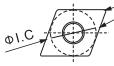
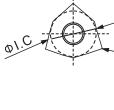
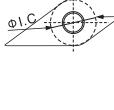
General Turning

普通車削

Inserts for processing stainless steel 不銹鋼加工刀片 Finishing 精加工

The basic shape of negative rake inserts

負前角基本形狀刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation 材質推薦										
						CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號				Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號			
		ΦI.C	S	Φd	R	DP3200	DP3120	AH1200	DP1210	DP1201	DP1220	DP1211	DP1221	DP2220	DP2210	DP2200
		120408-SA	12.7	4.76	5.16	0.8	●	●								
		120412-SA	12.7	4.76	5.16	1.2	●	●								
		160608-SA	15.875	6.35	6.35	0.8	●	●								
		160612-SA	15.875	6.35	6.35	1.2	●	●								
		190608-SA	19.05	6.35	7.93	0.8	●	●								
		190612-SA	19.05	6.35	7.93	1.2	●	●								
		060408-SA	9.525	4.76	3.81	0.8										
		060412-SA	9.525	4.76	3.81	1.2										
		080408-SA	12.7	4.76	5.16	0.8										
		080412-SA	12.7	4.76	5.16	1.2										
		160408-SA	9.525	4.76	3.81	0.8	●	●								
		160412-SA	9.525	4.76	3.81	1.2	●	●								

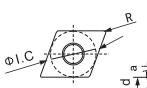
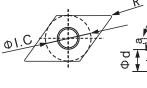
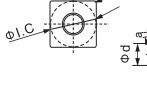
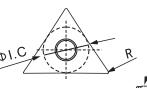
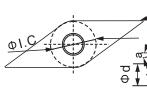
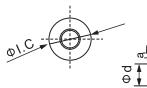
General Turning

普通車削

Inserts for processing castiron 鑄鐵加工刀片Finishing 精加工

The basic shape of positive rake inserts

正前角基本形狀刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦										
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號								
		ΦI.C	S	Φd	R	α°	DP3200	DP3120	AH1200	DP1220	DP1211	DP1201	DP1210	DP1221	DP2220	DP2210	DP2200
	CCMT	060204-MD	6.35	2.38	2.8	0.4	7	●	●								
		060208-MD	6.35	2.38	2.8	0.8	7	●	●								
		09T304-MD	9.525	3.97	4.4	0.4	7	●	●								
		09T308-MD	9.525	3.97	4.4	0.8	7	●	●								
		120404-MD	12.7	4.76	4.4	0.4	7	●	●								
		120408-MD	12.7	4.76	5.5	0.8	7	●	●								
		120412-MD	12.7	4.76	5.5	1.2	7	●	●								
		070204-MD	6.35	2.38	5.5	0.4	7	●	●								
		070208-MD	6.35	2.38	2.8	0.8	7	●	●								
		11T304-MD	9.525	3.97	2.8	0.4	7	●	●								
	DCMT	11T308-MD	9.525	3.97	4.4	0.8	7	●	●								
		11T312-MD	9.525	3.97	4.4	1.2	7	●	●								
		09T304-MD	9.525	3.97	4.4	0.4	7	●	●								
		09T308-MD	9.525	3.97	4.4	0.8	7	●	●								
		09T312-MD	9.525	3.97	4.4	1.2	7	●	●								
		120404-MD	12.7	4.76	5.5	0.4	7	●	●								
		120408-MD	12.7	4.76	5.5	0.8	7	●	●								
		120412-MD	12.7	4.76	5.5	1.2	7	●	●								
		090204-MD	5.56	2.38	2.5	0.4	7	●	●								
		090208-MD	5.56	2.38	2.5	0.8	7	●	●								
	SCMT	110304-MD	6.35	3.18	2.8	0.4	7	●	●								
		110308-MD	6.35	3.18	2.8	0.8	7	●	●								
		110312-MD	6.35	3.18	2.8	1.2	7	●	●								
		16T304-MD	9.525	3.97	4.4	0.4	7	●	●								
		16T308-MD	9.525	3.97	4.4	0.8	7	●	●								
		16T312-MD	9.525	3.97	4.4	1.2	7	●	●								
		110304-MD	6.35	3.18	2.8	0.4	7	●	●								
		110308-MD	6.35	3.18	2.8	0.8	7	●	●								
		160404-MD	9.525	4.76	4.4	0.4	5	●	●								
		160408-MD	9.525	4.76	4.4	0.8	5	●	●								
	TCMT	0803MOE-R1	8	2.38	3.3	-	7	●	●								
		10T3MOE-R1	10	3.97	4.5	-	7	●	●								
		1204MOE-R2	12	4.76	4.4	-	7	●	●								
		1606MOE-R3	16	6.35	5.5	-	7	●	●								
		2006MOE-R4	20	6.35	6.5	-	7	●	●								
	VCMT VBMT	0803MOE-R1	8	2.38	3.3	-	7	●	●								
		10T3MOE-R1	10	3.97	4.5	-	7	●	●								
		1204MOE-R2	12	4.76	4.4	-	7	●	●								
		1606MOE-R3	16	6.35	5.5	-	7	●	●								
		2006MOE-R4	20	6.35	6.5	-	7	●	●								
	RCMT	0803MOE-R1	8	2.38	3.3	-	7	●	●								
		10T3MOE-R1	10	3.97	4.5	-	7	●	●								
		1204MOE-R2	12	4.76	4.4	-	7	●	●								
		1606MOE-R3	16	6.35	5.5	-	7	●	●								
		2006MOE-R4	20	6.35	6.5	-	7	●	●								

General Turning

普通車削

Inserts for processing castiron 鑄鐵加工刀片Finishing 精加工

The basic shape of negative rake inserts

負前角基本形狀刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation 材質推薦										
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號							
		ΦI.C	S	Φd	R	DP3200	DP3120	AH1200	DP1220	DP1211	DP1201	DP1210	DP1221	DP2220	DP2210	DP220
		120404-U	12.7	4.76	5.16	0.4	●	●								
		120408-U	12.7	4.76	5.16	0.8	●	●								
		120412-U	12.7	4.76	5.16	1.2	●	●								
		160604-U	15.875	6.35	6.35	0.4	●	●								
		160608-U	15.875	6.35	6.35	0.8	●	●								
		160612-U	15.875	6.35	6.35	1.2	●	●								
		11T304-U	9.525	3.97	3.81	0.4	●	●								
		11T308-U	9.525	3.97	3.81	0.8	●	●								
		150404-U	12.7	4.76	5.16	0.4	●	●								
		150408-U	12.7	4.76	5.16	0.8	●	●								
		150604-U	12.7	6.35	5.16	0.4	●	●								
		150608-U	12.7	6.35	5.16	0.8	●	●								
		090304-U	9.525	3.18	3.81	0.4	●	●								
		090308-U	9.525	3.18	3.81	0.8	●	●								
		120404-U	12.7	4.76	5.16	0.4	●	●								
		120408-U	12.7	4.76	5.16	0.8	●	●								
		120412-U	12.7	4.76	5.16	1.2	●	●								
		150608-U	15.875	6.35	6.35	0.8	●	●								
		150612-U	15.875	6.35	6.35	1.2	●	●								
		16T304-U	9.525	3.97	3.81	0.4										
		16T308-U	9.525	3.97	3.81	0.8										
		16T312-U	9.525	3.97	3.81	1.2										
		160404-U	9.525	4.76	3.81	0.4	●	●								
		160408-U	9.525	4.76	3.81	0.8	●	●								
		220404-U	12.7	4.76	5.16	0.4	●	●								
		220408-U	12.7	4.76	5.16	0.8	●	●								
		220412-U	12.7	4.76	5.16	1.2	●	●								
		080404-U	12.7	4.76	5.16	0.4	●	●								
		080408-U	12.7	4.76	5.16	0.8	●	●								
		080412-U	12.7	4.76	5.16	1.2	●	●								

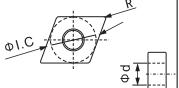
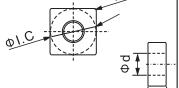
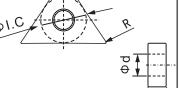
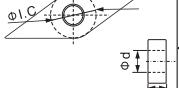
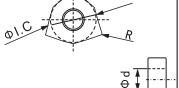
General Turning

普通車削

Inserts for processing castiron 鑄鐵加工刀片Finishing 精加工

The basic shape of negative rake inserts

負前角基本形狀刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation 材質推薦													
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號				Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號									
		ΦI.C	S	Φd	R	DP3200	DP3120	AH1200	AH1210	DP1200	DP1210	DP1211	DP1220	DP1221	DP2220	DP2210	DP2200		
	DNMG	110404-CX	9.525	3.97	3.81	0.4													
		110408-CX	9.525	3.97	3.81	0.8													
		150404-CX	12.7	4.76	5.16	0.4						●							
		150408-CX	12.7	4.76	5.16	0.8					●								
	SNMG	090304-CX	9.525	3.18	3.81	0.4						●							
		090308-CX	9.525	3.18	3.81	0.8					●								
		120404-CX	12.7	4.76	5.16	0.4					●								
		120408-CX	12.7	4.76	5.16	0.8					●								
	TNMG	120412-CX	12.7	4.76	5.16	1.2					●								
		150608-CX	15.875	6.35	6.35	0.8													
		150912-CX	15.875	6.35	6.35	1.2													
		160404-CX	9.525	4.76	3.81	0.4													
	WNMG	160408-CX	9.525	4.76	3.81	0.8													
		160412-CX	9.525	4.76	3.81	1.2													
		060404-CX	9.525	4.76	5.16	0.4													
		060408-CX	9.525	4.76	5.16	0.8													
	CNMG	080404-CX	12.7	4.76	5.16	0.4													
		080408-CX	12.7	4.76	5.16	0.8													
		080412-CX	12.7	4.76	5.16	1.2					●								
		120404-CX	12.7	4.76	5.16	0.4					●								
	AH1200	120408-CX	12.7	4.76	5.16	0.8					●								
		120412-CX	12.7	4.76	5.16	1.2					●								
		160604-CX	15.875	6.35	6.35	0.4					●								
		160608-CX	15.875	6.35	6.35	0.8					●								
	AH1210	160612-CX	15.875	6.35	6.35	1.2					●								

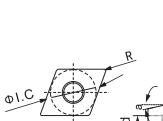
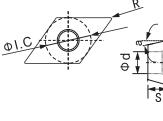
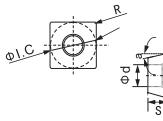
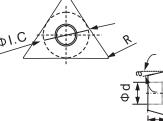
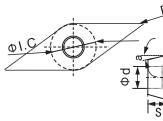
General Turning

普通車削

Inserts for processing castiron 鑄鐵加工刀片Finishing 精加工

The basic shape of positive rake inserts

正前角基本形狀刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦									
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號							
		ΦI.C	S	Φd	R	α °	DP3200	DP3120	AH1200	DP1220	DP1211	DP1201	DP1220	DP2220	DP2210	DP220
	CCMT	060202-FW	6.35	2.38	2.8	0.2	7	●	●							
		060204-FW	6.35	2.38	2.8	0.4	7	●	●							
		09T302-FW	9.525	3.97	4.4	0.2	7	●	●							
		09T304-FW	9.525	3.97	4.4	0.4	7	●	●							
		09T308-FW	9.525	3.97	4.4	0.8	7	●	●							
		120404-FW	12.7	4.76	5.5	0.4	7	●	●							
	DCMT	070202-FW	6.35	2.38	2.8	0.2	7	●	●							
		070204-FW	6.35	2.38	2.8	0.4	7	●	●							
		11T302-FW	9.525	3.97	4.4	0.2	7	●	●							
		11T304-FW	9.525	3.97	4.4	0.4	7	●	●							
		11T308-FW	9.525	3.97	4.4	0.8	7	●	●							
		09T304-FW	9.525	3.18	4.4	0.4	7	●	●							
	SCMT	09T308-FW	9.525	3.18	4.4	0.8	7	●	●							
		110302-FW	6.35	3.18	2.8	0.2	7	●	●							
		110304-FW	6.35	3.18	2.8	0.4	7	●	●							
		16T304-FW	9.525	3.97	4.4	0.4	7	●	●							
		110302-FW	6.35	3.18	2.8	0.2	5									
		110304-FW	6.35	3.18	2.8	0.4	5									
	TCMT	110308-FW	6.35	3.18	2.8	0.8	5									
		110304-FW	6.35	3.18	2.8	0.4	7	●	●							
		16T304-FW	9.525	3.97	4.4	0.4	7	●	●							
		110302-FW	6.35	3.18	2.8	0.2	5									
		110304-FW	6.35	3.18	2.8	0.4	5									
		110308-FW	6.35	3.18	2.8	0.8	5									
	VBMT	160402-FW	9.525	4.76	4.4	0.2	5									
		160404-FW	9.525	4.76	4.4	0.2	5									
		160408-FW	9.525	4.76	4.4	0.2	5									

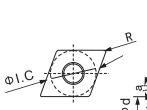
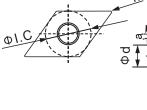
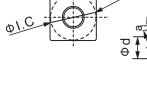
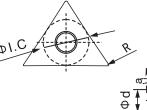
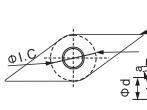
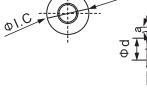
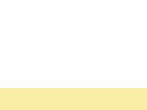
General Turning

普通車削

Inserts for processing cast iron 鑄鐵加工刀片 Semi Finishing 半精加工

The basic shape of positive rake inserts

正前角基本形狀刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦										
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號								
		ΦI.C	S	Φd	R	α °	DP3200	DP3120	DP1200	DP1210	DP1220	DP1211	DP1201	DP1221	DP2220	DP2210	DP2200
	CCMT	060204-MD	6.35	2.38	2.8	0.4	7	●	●								
		060208-MD	6.35	2.38	2.8	0.8	7	●	●								
		09T304-MD	9.525	3.97	4.4	0.4	7	●	●								
		09T308-MD	9.525	3.97	4.4	0.8	7	●	●								
		120404-MD	12.7	4.76	4.4	0.4	7	●	●								
		120408-MD	12.7	4.76	5.5	0.8	7	●	●								
	DCMT	120412-MD	12.7	4.76	5.5	1.2	7	●	●								
		070204-MD	6.35	2.38	5.5	0.4	7	●	●								
		070208-MD	6.35	2.38	2.8	0.8	7	●	●								
		11T304-MD	9.525	3.97	2.8	0.4	7	●	●								
		11T308-MD	9.525	3.97	4.4	0.8	7										
		11T312-MD	9.525	3.97	4.4	1.2	7										
	SCMT	09T304-MD	9.525	3.97	4.4	0.4	7	●	●								
		09T308-MD	9.525	3.97	4.4	0.8	7	●	●								
		09T312-MD	9.525	3.97	4.4	1.2	7	●	●								
		120404-MD	12.7	4.76	5.5	0.4	7	●	●								
		120408-MD	12.7	4.76	5.5	0.8	7	●	●								
		120412-MD	12.7	4.76	5.5	1.2	7	●	●								
	TCMT	090204-MD	5.56	2.38	2.5	0.4	7										
		090208-MD	5.56	2.38	2.5	0.8	7										
		110304-MD	6.35	3.18	2.8	0.4	7	●	●								
		110308-MD	6.35	3.18	2.8	0.8	7	●	●								
		110312-MD	6.35	3.18	2.8	1.2	7										
		16T304-MD	9.525	3.97	4.4	0.4	7										
	VCMT	16T308-MD	9.525	3.97	4.4	0.8	7										
		16T312-MD	9.525	3.97	4.4	1.2	7										
		110304-MD	6.35	3.18	2.8	0.4	7	●	●								
		110308-MD	6.35	3.18	2.8	0.8	7	●	●								
		160404-MD	9.525	4.76	4.4	0.4	5	●	●								
		160408-MD	9.525	4.76	4.4	0.8	5	●	●								
	VBMT	0803M0E-R1	8	2.38	3.3	-	7				●						
		10T3M0E-R1	10	3.97	4.5	-	7				●						
		1204M0E-R2	12	4.76	4.4	-	7				●						
		1606M0E-R3	16	6.35	5.5	-	7				●						
		2006M0E-R4	20	6.35	6.5	-	7				●						
	RCMT																

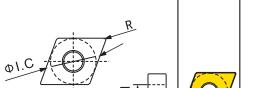
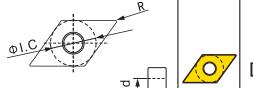
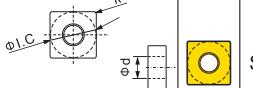
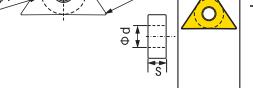
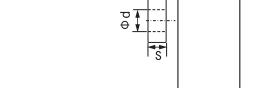
General Turning

普通車削

Inserts for processing cast iron 鑄鐵加工刀片 Semi Finishing 半精加工

The basic shape of negative rake inserts

負前角基本形狀刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation 材質推薦									
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號				Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號					
		ΦI.C.	S	Φd	R	DP3200	DP3120	AH1200	AH1210	DP1200	DP1210	DP1211	DP1220	DP1221	DP220
	CNMG	120404-CQ	12.7	4.76	5.16	0.4									
		120408-CQ	12.7	4.76	5.16	0.8									
		120412-CQ	12.7	4.76	5.16	1.2					●				
		120416-CQ	12.7	4.76	5.16	1.6				●					
		160608-CQ	15.875	6.35	6.35	0.8				●					
		160612-CQ	15.875	6.35	6.35	1.2			●						
		160616-CQ	15.875	6.35	6.35	1.6			●						
		110408-CQ	9.525	4.76	3.81	0.8			●						
		110412-CQ	9.525	4.76	3.81	1.2			●						
		150408-CQ	12.7	4.76	5.16	0.8									
	DNMG	150412-CQ	12.7	4.76	5.16	1.2									
		150608-CQ	12.7	6.35	5.16	0.8									
		150612-CQ	12.7	6.35	5.16	1.2									
		120408-CQ	12.7	4.76	5.16	0.8									
		120412-CQ	12.7	4.76	5.16	1.2									
		120416-CQ	12.7	4.76	5.16	1.6									
		150612-CQ	15.875	6.35	6.35	1.2									
		150616-CQ	15.875	6.35	6.35	1.6									
		160408-CQ	9.525	4.76	3.81	0.8									
		160412-CQ	9.525	4.76	3.81	1.2									
	SNMG	220408-CQ	12.7	4.76	5.16	0.8									
		220412-CQ	12.7	4.76	5.16	1.2									
		060408-CQ	9.525	4.76	3.81	0.8									
		060412-CQ	9.525	4.76	3.81	1.2									
		080404-CQ	12.7	4.76	5.16	0.4									
		080408-CQ	12.7	4.76	5.16	0.8									
		080412-CQ	12.7	4.76	5.16	1.2									
		080416-CQ	12.7	4.76	5.16	1.6									
		160404-CQ	9.525	4.76	3.81	0.4									
		160408-CQ	9.525	4.76	3.81	0.8									
	WNMG	160412-CQ	9.525	4.76	3.81	1.2									
		080404-CQ	12.7	4.76	5.16	0.4									
		080408-CQ	12.7	4.76	5.16	0.8									
	VNMG	080412-CQ	12.7	4.76	5.16	1.2									
		080416-CQ	12.7	4.76	5.16	1.6									
		160404-CQ	9.525	4.76	3.81	0.4									

General Turning

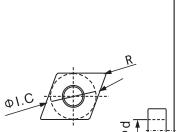
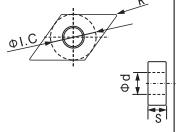
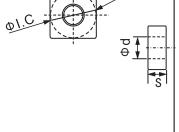
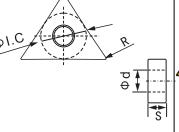
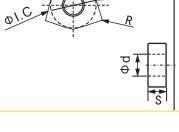
普通車削

Inserts for processing cast iron 鑄鐵加工刀片 Rough machining 粗加工

The basic shape of negative rake inserts

負前角基本形狀刀片

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The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation 材質推薦											
						CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號				
		ΦI.C.	S	Φd	R	DP3200	DP3120	AH1200	AH1210	DP1200	DP1210	DP1220	DP1211	DP1201	DP2220	DP2210	DP2200
	CNMG	120408-RA	12.7	4.76	5.16	0.8				●							
		120412-RA	12.7	4.76	5.16	1.2				●							
		120416-RA	12.7	4.76	5.16	1.6				●							
		160612-RA	15.875	6.35	6.35	1.2				●							
		160616-RA	15.875	6.35	6.35	1.6				●							
		190612-RA	19.05	6.35	7.93	1.2				●							
	DNMG	190616-RA	19.05	6.35	7.93	1.6				●							
		150408-RA	12.7	4.76	5.16	0.8				●							
		150412-RA	12.7	4.76	5.16	1.2				●							
		150608-RA	12.7	6.35	5.16	0.8				●							
		150612-RA	12.7	6.35	5.16	1.2				●							
	SNMG	150616-RA	12.7	6.35	5.16	1.6				●							
		120408-RA	12.7	4.76	5.16	0.8				●							
		120412-RA	12.7	4.76	5.16	1.2				●							
		120416-RA	12.7	4.76	5.16	1.6				●							
		150612-RA	15.875	6.35	6.35	1.2				●							
		150616-RA	15.875	6.35	6.35	1.6				●							
	TNMG	190616-RA	19.05	6.35	7.93	1.6				●							
		250724-RA	25.4	7.94	9.12	2.4				●							
		160408-RA	9.525	4.76	3.81	0.8				●							
		160412-RA	9.525	4.76	3.81	1.2				●							
		160416-RA	9.525	4.76	3.81	1.6				●							
	WNMG	220408-RA	12.7	4.76	5.16	0.8				●							
		220412-RA	12.7	4.76	5.16	1.2				●							
		220416-RA	12.7	4.76	5.16	1.6				●							
		060408-RA	9.525	4.76	3.81	0.8				●							
		060412-RA	9.525	4.76	3.81	1.2				●							
		080408-RA	12.7	4.76	5.16	0.8				●							
		080412-RA	12.7	4.76	5.16	1.2				●							

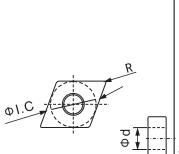
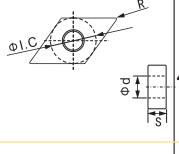
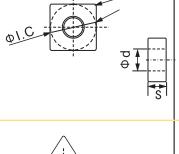
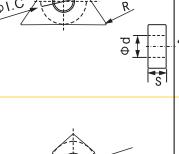
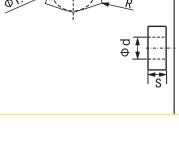
General Turning

普通車削

Inserts for processing cast iron 鑄鐵加工刀片 Rough machining 粗加工

The basic shape of negative rake inserts

負前角基本形狀刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Basic dimensions				Grade recommendation 材質推薦										
						CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號				Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號		
		ΦI.C	S	Φd	R	DP3200	DP3120	AH1200	AH1220	DP1210	DP1220	DP1211	DP1201	DP1221	DP2220	DP2210
	CNMG	120408-GH	12.7	4.76	5.16	0.8	●	●			●					
		120412-GH	12.7	4.76	5.16	1.2	●	●			●					
		120416-GH	12.7	4.76	5.16	1.6	●	●			●					
		160608-GH	15.875	6.35	6.35	0.8	●	●			●					
		160612-GH	15.875	6.35	6.35	1.2	●	●			●					
		190608-GH	19.05	6.35	7.93	0.8	●	●			●					
	DNMG	190612-GH	19.05	6.35	7.93	1.2	●	●			●					
		110408-GH	9.525	4.76	3.81	0.8	●	●			●					
		150408-GH	12.7	4.76	5.16	0.8	●	●			●					
		150608-GH	12.7	6.35	5.16	0.8	●	●			●					
		120408-GH	12.7	4.76	5.16	0.8	●	●			●					
		120412-GH	12.7	4.76	5.16	1.2	●	●			●					
	SNMG	150608-GH	15.875	6.35	6.35	0.8	●	●			●					
		150612-GH	15.875	6.35	6.35	1.2	●	●			●					
		160408-GH	9.525	4.76	3.81	0.8	●	●			●					
		160412-GH	9.525	4.76	3.81	1.2	●	●			●					
		220408-GH	12.7	4.76	5.16	0.8	●	●			●					
		220412-GH	12.7	4.76	5.16	1.2	●	●			●					
	TNMG	060408-GH	9.525	4.76	3.81	0.8	●	●			●					
		160412-GH	9.525	4.76	3.81	1.2	●	●			●					
		220412-GH	12.7	4.76	5.16	1.2	●	●			●					
		060412-GH	9.525	4.76	3.81	1.2	●	●			●					
		080408-GH	12.7	4.76	5.16	0.8	●	●			●					
		080412-GH	12.7	4.76	5.16	1.2	●	●			●					
	WNMG	080416-GH	12.7	4.76	5.16	1.6	●	●			●					
		080416-GH	12.7	4.76	5.16	1.6	●	●			●					

General Turning

普通車削

Rough machining of cast iron 鑄鐵的粗加工.....Rough machining 粗加工

The basic shape of negative rake inserts

負前角基本形狀刀片

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The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation 材質推薦										
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號				Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號						
		ΦI.C	S	Φd	R	DP3200	DP3120	AH1200	AH1210	DP1200	DP1210	DP1201	DP1220	DP1221	DP220	DP2210
		120404	12.7	4.76	5.16	0.4					●					
		120408	12.7	4.76	5.16	0.8					●					
		120412	12.7	4.76	5.16	1.2					●					
		160604	15.875	6.35	6.35	0.4					●					
		160608	15.875	6.35	6.35	0.8					●					
		160612	15.875	6.35	6.35	1.2					●					
		160616	15.875	6.35	6.35	1.6					●					
		110408	9.525	4.76	3.81	0.8					●					
		110412	9.525	4.76	3.81	1.2					●					
		150404	12.7	4.76	5.16	0.4					●					
		150408	12.7	4.76	5.16	0.8					●					
		150412	12.7	4.76	5.16	1.2					●					
		150604	12.7	6.35	5.16	0.4					●					
		150608	12.7	6.35	5.16	0.8					●					
		150612	12.7	6.35	5.16	1.2					●					
		090304	9.525	3.18	3.81	0.4					●					
		090308	9.525	8.18	3.81	0.8					●					
		120404	12.7	4.76	5.16	0.4					●					
		120408	12.7	4.76	5.16	0.8					●					
		120412	12.7	4.76	5.16	1.2					●					
		150608	15.875	6.35	6.35	0.8					●					
		150612	15.875	6.35	6.35	1.2					●					
		190608	19.05	6.35	7.93	0.8					●					
		190612	19.05	6.35	7.93	1.2					●					
		160408	9.525	4.76	3.81	0.8										
		160412	9.525	4.76	3.81	1.2										
		220404	12.7	4.76	5.16	0.4										
		220408	12.7	4.76	5.16	0.8										
		220412	12.7	4.76	5.16	1.2										
		060404	9.525	4.76	3.81	0.4										
		060408	9.525	4.76	3.81	0.8										
		060412	9.525	4.76	3.81	1.2										
		220404	12.7	4.76	5.16	0.4										
		220408	12.7	4.76	5.16	0.8										
		060404	9.525	4.76	3.81	0.4										
		060408	9.525	4.76	3.81	0.8										
		060412	9.525	4.76	3.81	1.2										
		080404	12.7	4.76	5.16	0.4										
		080408	12.7	4.76	5.16	0.8										
		080412	12.7	4.76	5.16	1.2										

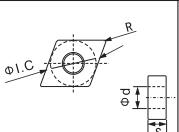
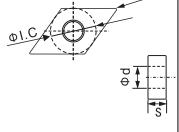
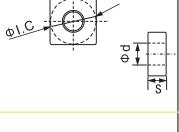
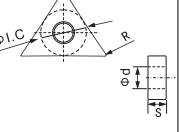
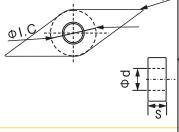
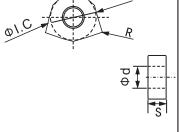
General Turning

普通車削

Aluminum processing 鋁的加工刀片

The basic shape of negative rake inserts

負前角基本形狀刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation 材質推薦										
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號							
		ΦI.C	S	Φd	R	DP3200	DP3120	AH1200	DP1200	DP1210	DP1201	DP1220	DP1221	DP2220	DP2210	DP2200
	CNGG	120404-LH	12.7	4.76	5.16	0.4										
		120408-LH	12.7	4.76	5.16	0.8										
		120412-LH	12.7	4.76	5.16	1.2										
	DNGG	150404-LH	12.7	4.76	5.16	0.4										
		150408-LH	12.7	4.76	5.16	0.8										
		150604-LH	12.7	6.35	5.16	0.4										
	SNGG	120404-LH	12.7	4.76	5.16	0.4										
		120408-LH	12.7	4.76	5.16	0.8										
		120412-LH	12.7	4.76	5.16	1.2										
	TNGG	160404-LH	9.525	4.76	3.81	0.4										
		160408-LH	9.525	4.76	3.81	0.8										
		160412-LH	9.525	4.76	3.81	1.2										
	VNGG	220408-LH	12.7	4.76	5.16	0.8										
		220412-LH	12.7	4.76	5.16	1.2										
		160404-LH	9.525	4.76	3.81	0.4										
	WNGG	160408-LH	9.525	4.76	3.81	0.8										
		060404-LH	9.525	4.76	3.81	0.4										
		060408-LH	9.525	4.76	3.81	0.8										
	080404-LH	080404-LH	12.7	4.76	5.16	0.4										
		080408-LH	12.7	4.76	5.16	0.8										
	080412-LH	080412-LH	12.7	4.76	5.16	1.2										

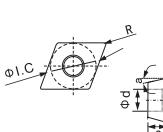
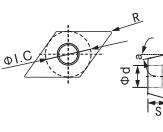
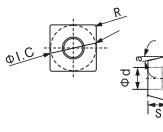
General Turning

普通車削

Aluminum processing 鋁的加工刀片

The basic shape of negative rake inserts

正前角基本形狀刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation				材質推薦				
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號						
		ΦI.C	S	Φd	R	α°	DP3200	DP3120	AH1200	DP1220	DP1211	DP1201	DP1210	DP2220	DP2210
	CCGT	060202-LH	6.35	2.38	2.8	0.2	7			●				●	●
		060204-LH	6.35	2.38	2.8	0.4	7			●				●	●
		060208-LH	6.35	2.38	2.8	0.8	7			●				●	●
		09T302-LH	9.525	3.97	4.4	0.2	7			●				●	●
		09T304-LH	9.525	3.97	4.4	0.4	7			●				●	●
		09T308-LH	9.525	3.97	4.4	0.8	7			●				●	●
		120402-LH	12.7	4.76	5.5	0.2	7			●				●	●
		120404-LH	12.7	4.76	5.5	0.4	7			●				●	●
		120408-LH	12.7	4.76	5.5	0.8	7			●				●	●
		070202-LH	6.35	2.38	2.8	0.2	7			●				●	●
	DCGT	070204-LH	6.35	2.38	2.8	0.4	7			●				●	●
		070208-LH	6.35	2.38	2.8	0.8	7			●				●	●
		11T302-LH	9.525	3.97	4.4	0.2	7			●				●	●
		11T304-LH	9.525	3.97	4.4	0.4	7			●				●	●
		11T308-LH	9.525	3.97	4.4	0.8	7			●				●	●
		11T312-LH	9.525	3.97	4.4	1.2	7			●				●	●
		09T302-LH	9.525	3.97	4.4	0.2	7			●				●	●
		09T304-LH	9.525	3.97	4.4	0.4	7			●				●	●
		09T308-LH	9.525	3.97	4.4	0.8	7			●				●	●
		120402-LH	12.7	4.76	5.5	0.2	7			●				●	●
	SCGT	120404-LH	12.7	4.76	5.5	0.4	7			●				●	●
		120408-LH	12.7	4.76	5.5	0.8	7			●				●	●
		120412-LH	12.7	4.76	5.5	1.2	7			●				●	●
		120416-LH	12.7	4.76	5.5	1.6	7			●				●	●

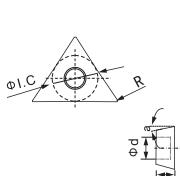
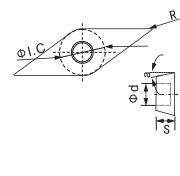
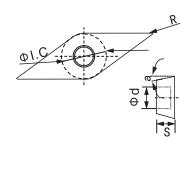
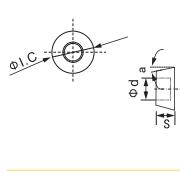
General Turning

普通車削

Aluminum processing 鋁的加工刀片

The basic shape of negative rake inserts

正前角基本形狀刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦										
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號									
		ΦI.C	S	Φd	R	α °	DP3200	DP3120	AH1200	DP1220	DP1211	DP1201	DP1210	DP1220	DP2220	DP2210	DP220
	TCGT	090202-LH	5.56	2.38	2.5	0.2	7										●
		090204-LH	5.56	2.38	2.5	0.4	7										●
		090208-LH	5.56	2.38	2.5	0.8	7										●
		110202-LH	6.35	2.38	2.8	0.2	7										●
		110204-LH	6.35	2.38	2.8	0.4	7										●
		110208-LH	6.35	2.38	2.8	0.8	7										●
		16T302-LH	9.525	3.97	4.4	0.2	7										●
		16T304-LH	9.525	3.97	4.4	0.4	7										●
		16T308-LH	9.525	3.97	4.4	0.8	7										●
	VCGT	110302-LH	6.35	3.18	2.8	0.2	7										●
		110304-LH	6.35	3.18	2.8	0.4	7										●
		110308-LH	6.35	3.18	2.8	0.8	7										●
		130302-LH	7.86	3.18	3.4	0.2	7										●
		130304-LH	7.86	3.18	3.4	0.4	7										●
		160402-LH	9.525	4.76	4.4	0.2	7										●
		160404-LH	9.525	4.76	4.4	0.4	7										●
		160408-LH	9.525	4.76	4.4	0.8	7										●
		160412-LH	9.525	4.76	4.4	1.2	7										●
	VBGT	220520-LH	12.7	5.96	5.5	2	7										
		220530-LH	12.7	5.96	5.5	3	7										
		110302-LH	6.35	3.18	2.8	0.2	5										
		110304-LH	6.35	3.18	2.8	0.4	5										
		110308-LH	6.35	3.18	2.8	0.8	5										
		160402-LH	9.525	4.76	4.4	0.2	5										
		160404-LH	9.525	4.76	4.4	0.4	5										
		160408-LH	9.525	4.76	4.4	0.8	5										
		160412-LH	9.525	4.76	4.4	1.2	5										
	RCGT	220516-LH	12.7	5.96	5.5	1.6	5										
		220525-LH	12.7	5.96	5.5	2.5	5										
		220530-LH	12.7	5.96	5.5	3	5										
		0602M0-LH	6	2.38	2.5	-	7										●
		0803M0-LH	8	3.18	3.4	-	7										●
		1003M0-LH	10	3.18	4.4	-	7										●
	RCGT	10T3M0-LH	10	3.97	4.4	-	7										●
		1204M0-LH	12	4.76	5.5	-	7										●

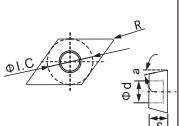
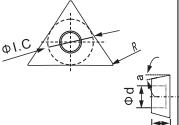
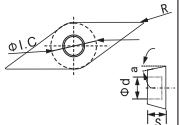
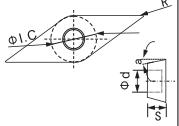
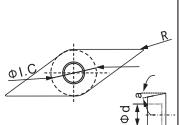
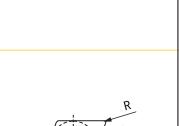
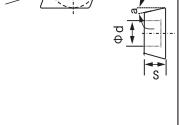
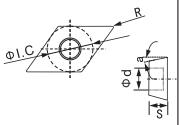
General Turning

普通車削

Aluminum processing 鋁的加工刀片

The basic shape of negative rake inserts

正前角基本形狀刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation				材質推薦					
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號							
		ΦI.C	S	Φd	R	α°	DP3200	DP3120	AH1200	DP1220	DP1211	DP1201	DP1210	DP1220	DP2210	DP2220
	DCGT	11T304-LH2	9.525	3.97	4.4	0.4	7									●
		11T308-LH2	9.525	3.97	4.4	0.8	7									●
	TCGT	16T304-LH2	9.525	3.97	4.4	0.4	7									●
		16T308-LH2	9.525	3.97	4.4	0.8	7									●
	VCGT	160404-LH2	9.525	4.76	4.4	0.4	7									●
		160408-LH2	9.525	4.76	4.4	0.8	7									●
	VPGT	220530-LH2	12.7	5.96	5.5	3	11									
	VPET	1103003L-E	6.35	3.18	2.8	0.03	11									
		110301L-E	6.35	3.18	2.8	0.1	11									
		110302L-E	6.35	3.18	2.8	0.2	11									
		1103003R-E	6.35	3.18	2.8	0.03	11									
		110301R-E	6.35	3.18	2.8	0.1	11									
		110302R-E	6.35	3.18	2.8	0.2	11									
	CCGT	060202-LH3	6.35	2.38	2.8	0.2	7									●
		060204-LH3	6.35	2.38	2.8	0.4	7									●
		09T302-LH3	9.525	3.97	4.4	0.2	7									●
		09T304-LH3	9.525	3.97	4.4	0.4	7									●
		09T308-LH3	9.525	3.97	4.4	0.8	7									●
		120404-LH3	12.7	4.76	5.5	0.4	7									●
	DCGT	070202-LH3	6.35	2.38	2.8	0.2	7									●
		070204-LH3	6.35	2.38	2.8	0.4	7									●
		11T302-LH3	9.525	3.97	4.4	0.2	7									●
		11T304-LH3	9.525	3.97	4.4	0.4	7									●
		11T308-LH3	9.525	3.97	4.4	0.8	7									●
		110204-LH3	6.35	2.38	2.8	0.4	7									●
	TCGT	16T304-LH3	9.525	3.97	4.4	0.4	7									●

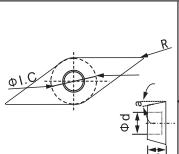
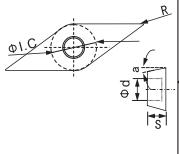
General Turning

普通車削

Aluminum processing 鋁的加工刀片

The basic shape of negative rake inserts

正前角基本形狀刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation				材質推薦	
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號			
		ΦI.C	S	Φd	R	α°	DP3200	DP3120	AH1200	DP1220	DP1211	DP1201
	VCGT	110302-LH3	6.35	3.18	2.8	0.2	7					
		110304-LH3	6.35	3.18	2.8	0.4	7					
		160402-LH3	9.525	4.76	4.4	0.2	7					
		160404-LH3	9.525	4.76	4.4	0.4	7					
	DCGT	160408-LH3	9.525	4.76	4.4	0.8	7					
		11T302-LA	9.525	3.97	4.4	0.2	7					
		11T304-LA	9.525	3.97	4.4	0.4	7					
		11T308-LA	9.525	3.97	4.4	0.8	7					
	VCGT	110302-LA	6.35	3.18	2.8	0.2	7					
		110304-LA	6.35	3.18	2.8	0.4	7					
		160402-LA	9.525	4.76	4.4	0.2	7					
		160404-LA	9.525	4.76	4.4	0.4	7					
		160408-LA	9.525	4.76	4.4	0.8	7					

General Turning

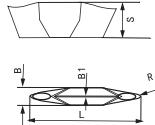
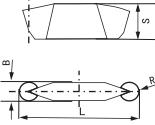
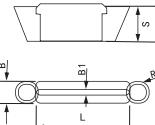
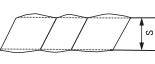
普通車削

Aluminum processing 鋁的加工刀片

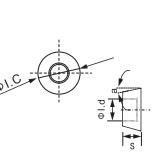
Inserts for processing wheel

輪轂刀

100

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦											
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號										
		L	B	B1	S	R	DP2200	DP3200	DP3120	DP3120	DP1220	DP1211	DP1201	DP1210	DP1200	DP1221	DP2210	DP220
	GIPA7YZ-35V -1.2-LH	30	7.2	6	8.2	1.2												
	GDMA840-LH	30	8	5.6	8.2	4												
	MRGN	400-A-LH 500-A-LH 600-A-LH 800-A-LH	21 26 26 31	4 5 6 8	3.3 4.1 5 6	4.8 5.8 5.8 6.5	2. 2.5 3 4											
	GIP600E-3.00-LH	18	6	4.8	6.5	3												

B1-9 Turning inserts for bearing 軸承車刀

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation 材質推薦												
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號		Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號											
		ΦI.C	S	Φd	α °	DLC10	AH120	AH121	AH122	DP122S	DP122	DP121S	DP121X	DP120X	DP120S	DL221	DL22S	DL119
	RDMT	0802MO-V1 10T3MO-V1	8 10	2.38 3.97	3.3 4.5	15 15		●	●									
		1204MO-V2 1203MO-V2	12 12	3.18 4.76	4.4 4.4	15 11		●	●									
	RPMT	16T4MO-V3	16	4.96	5.5	11		●	●									

Code key for indexable milling inserts

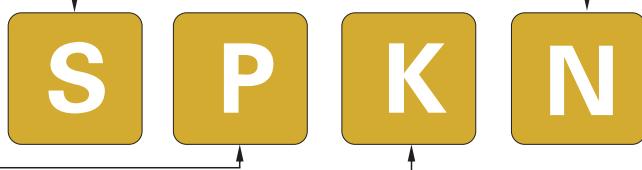
銑刀可用轉位刀片表示方法

Inserts Shape/Code 刀片形状/代号			Metric 公制						
Code 代號	With/without hole 有無孔	With/without chipbreaker 有無斷屑槽	Section plane of insert 刀片剖面	Code 代號	With/without hole 有無孔	With/without chipbreaker 有無斷屑槽	Section plane of insert 刀片剖面		
B	With 有	Without 無	>65°	N	Without 無	Without 無			
H	With 有	Single-side 單面	>65°	R	Without 無	Single-side 單面			
C	With 有	Without 無	>65°	F	Without 無	Double-side 雙面			
J	With 有	Double-side 雙面	>65°	A	With 有	Without 無			
W	With 有	Without 無	≤65°	M	With 有	Single-side 單面			
T	With 有	Single-side 單面	≤65°	G	With 有	Double-side 雙面			
Q	With 有	Without 無	≤65°	X	—	—	Special 特殊		
U	With 有	Double-side 雙面	≤65°						

Inserts Shape
形狀代號

Chipbreaker and clamping system
斷屑槽及夾固形式

101



Clarence angle of main cutting edge 主切削刃後角				Tolerance 公差						
Code 代號	Clarence angle 後角	Code 代號	Clarence angle 後角	Code 代號	Tolerance range m 允許公差 (mm)	Inscribed circle tolerance(mm) 內接圓Φ.I.C 允許公差 (mm)	Thickness S Tolerance(mm) 厚度 S允許公差 (mm)	(Reference)Details of M-class tolerance (Identified by shape and size) (參考)M級精度詳細情況(按形狀、大小分)	• Nose height tolerance(mm) 刀尖高度允許公差 (mm)	
A	3°	B	5°	A	± 0.005	± 0.025	± 0.025	Inscribed circle 內接圓 Regular triangle 正三角形	± 0.08	
C	7°	D	15°	F	± 0.005	± 0.013	± 0.025	Square 正方形	± 0.08	
E	20°	F	25°	C	± 0.013	± 0.025	± 0.025	Diamond with 80° 80° 菱形	± 0.08	
G	30°	N	0°	H	± 0.013	± 0.013	± 0.025	Diamond with 55° 55° 菱形	± 0.11	
P	11°	Other Clearance angle 其它的後角	Other Clearance angle 其它的後角	E	± 0.025	± 0.025	± 0.025	Diamond with 35° 35° 菱形	± 0.16	
				G	± 0.025	± 0.025	± 0.13	Round 圓形	—	
				J	± 0.005	± 0.05~± 0.13	± 0.025	• Tolerance inscribed circle Φ D1(mm) 內接圓Φ.I.C允許公差 (mm)		
				K	± 0.013	± 0.05~± 0.13	± 0.025	Inscribed circle 內接圓 Regular triangle 正三角形	± 0.05	
				L	± 0.025	± 0.05~± 0.13	± 0.025	Square 正方形	± 0.05	
				M	± 0.08~± 0.18	± 0.05~± 0.13	± 0.13	Diamond with 80° 80° 菱形	± 0.08	
				N	± 0.08~± 0.18	± 0.05~± 0.13	± 0.025	Diamond with 55° 55° 菱形	± 0.10	
				U	± 0.1308~± 0.38	± 0.08~± 0.25	± 0.13	Diamond with 35° 35° 菱形	± 0.10	
								Round 圓形	± 0.13	

Code key for indexable milling inserts

銑刀可用轉位刀片表示方法

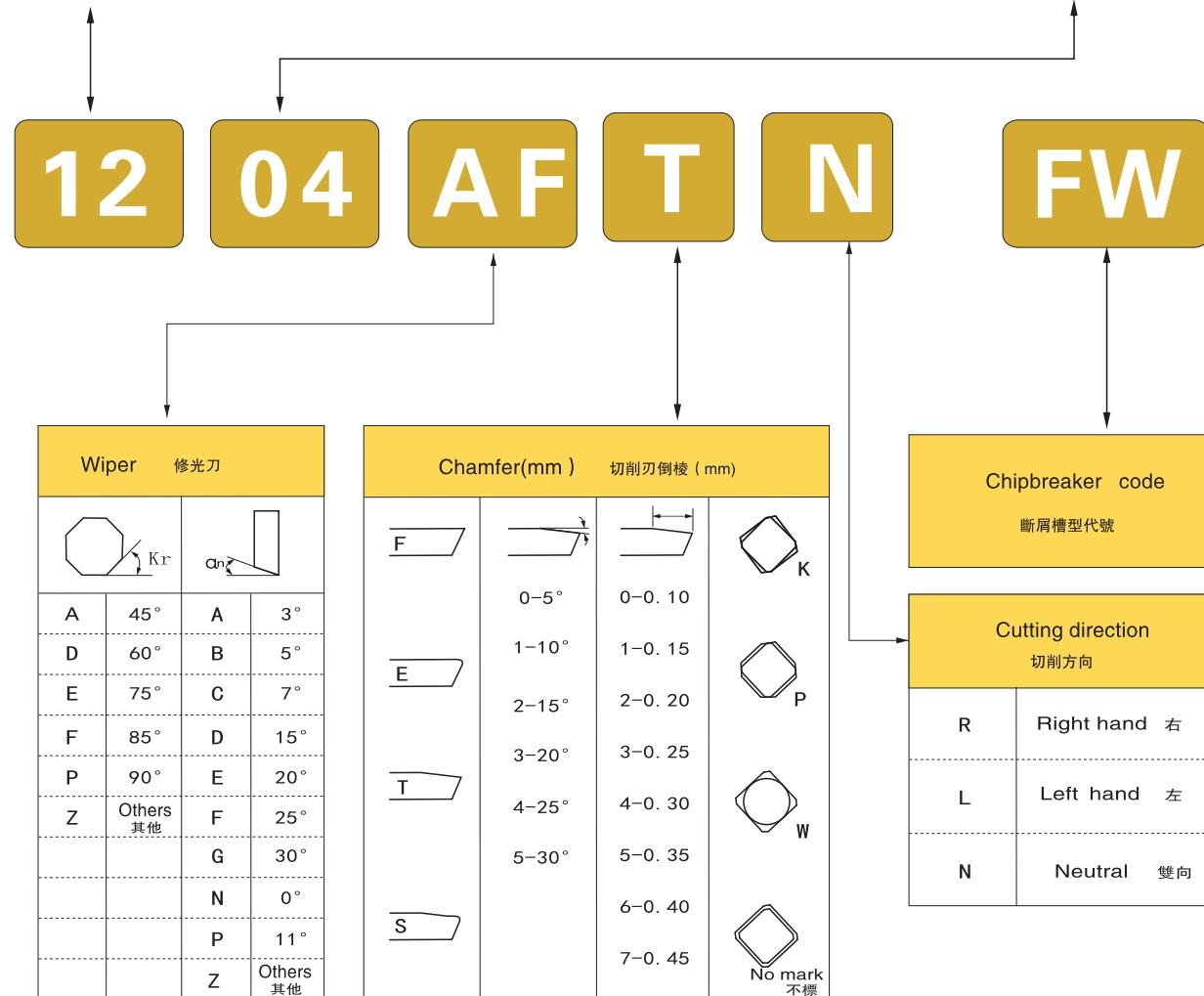
102

Diameter of IC (mm) 内切圆直径	Insert shape 刀片形状						
	C	D	R	S	T	V	W
3.97							
5.0			05				
5.56							
6.0	06		06				
6.35							06
8.0	09		08		06		
9.525		07	09	09			
10.0			10		09		08
12.0	12	11	12			11	10
12.7	16	16	12	12	11		
15.875			15	15		16	
16.0	19	15	16		16		
19.05		19	19	19			
20.0			20			22	
25.0	25		25		22		
25.4			25	25	27		
31.75			31				
32			32		33		

Lengh of Cutting edge 切削刃長度

Code 代號	Insert thickness(mm) 刀片厚度 (mm)	★	
00	0.79		
T0	0.99		
01	1.59		
T1	1.98		
02	2.38		
T2	2.58		
03	3.18		
T3	3.97		
04	4.76		
T4	4.96		
05	5.56		
T5	5.95		
06	6.35		
T6	6.75		
07	7.94		
09	9.52		
T9	9.72		
11	11.11		
12	12.70		

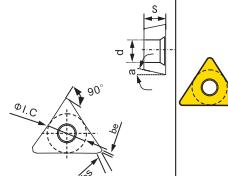
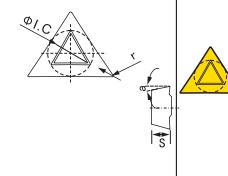
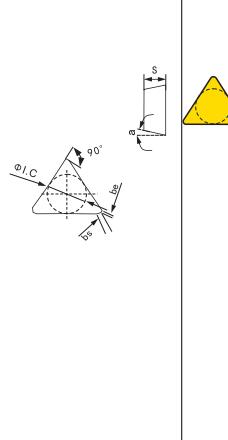
Insert thickness 刀片厚度



General Milling

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Inserts for face milling 面銑刀片

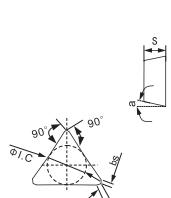
The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸						Grade recommendation 材質推薦					
								CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號		Ceramic 金屬陶瓷	
		ΦI.C	S	d	Bs	Be	α°	DP199	DP123	DP122	DL221	DL220	
	TPCW	2204PDL/R	12.7	4.76	5.5	1.4	0.7	11				DP199	
		2204PPL/R	12.7	4.76	5.5	1.4	0.7	11				DP123	
												DP122	
	TPMR	090204	5.56	2.38	0.4	11						DP199	
		110304	6.35	3.18	0.4	11						DP123	
		110308	6.35	3.18	0.4	11						DP122	
	TPKN	1603PPL/R	9.525	3.18	1.2	≈0.7	11	●	●			DP199	●
		1603PDL/R	9.525	3.18	1.2	≈0.7	11	●	●			DP123	●
		2204PDL/R	12.7	4.76	1.4	≈0.7	11	●	●			DP122	
	TPAN	1603PDL/R	9.525	3.18	1.3	≈0.7	11	●	●			DP231	
		2204PDL/R	12.7	4.76	1.4	≈0.7	11	●	●			DP232	
	TPCN	1603PDL/R	9.525	3.18	1.3	≈0.7	11					AH122	
		2204PDL/R	12.7	4.76	1.4	≈0.7	11					AH121	
	TECN	1603PEL/R	9.525	3.18	2	0.3~0.4	20					AH120	
		2204PDL/R	12.7	4.76	1.4	≈0.7	15						
	TDKN	2204PDL/R	12.7	4.76	1.4	≈0.7	20						
	TEKN	2204PDL/R	12.7	4.76	2.5	≈0.7	25						
	TFAN	2203PFL/R	12.7	3.18									

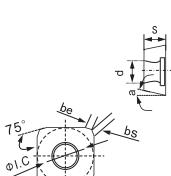
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Inserts for face milling 面銑刀片

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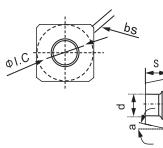
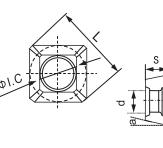
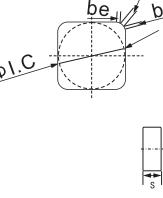
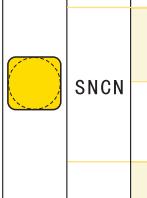
The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation 材質推薦									
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		ΦI.C	S	Bs	α°	DLC10	DLC12	DP231	DP232	DP199	DP123	DP122	DL221	DL222	DL220
 	TPAN	1103PPN	6.35	3.18	0.7	11									
		1603PPN	9.525	3.18	1.2	11									
		2204PPN	12.7	4.76	1.3	11									
	TPCN	1103PPN	6.35	3.18	0.7	11									
		1603PPN	9.525	3.18	1.2	11									
		2204PPN	12.7	4.76	1.3	11									
	TPKN	1103PPN	6.35	3.18	0.7	11									
		1603PPN	9.525	3.18	1.2	11									
		2204PPN	12.7	4.76	1.3	11									

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸						Grade recommendation 材質推薦									
								CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號		Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號				
		ΦI.C	S	d	Bs	Be	α°	DLC10	DLC12	DP231	DP232	DP199	DP123	DP122	DL221	DL222	DL220
 	SPKW	1204EDFL/R	12.7	4.76	5.5	1.4	1	11									
		1204EDFL/R	12.7	4.76	5.5	1.4	1	11									
		1204EDFL/R	12.7	4.76	5.5	1.4	1	11									
	SPCW	1504EDFL/R	15.875	4.76	5.5	1.5	1	11									
		1504EDFL/R	15.875	4.76	5.5	1.5	1	11									

General Milling

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Inserts for face milling 面銑刀片

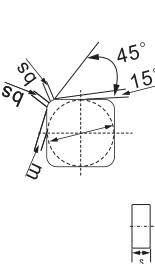
The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦				
							CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號		
		I.C	S	D	α°	Bs	DP199	DP123	DP122	DL221	DL220
	SEEW1504AFN	15.875	4.76	5.5	20	2.85	●	●			
The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦				
							CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號		
		I.C	S	D	α°	Bs	DP199	DP123	DP122	DL221	DL220
	SEKT1204AESN	12.7	4.76	5.5	20	15.23	●	●			
The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦				
							CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號		
		Φ I.C	S	Bs	Be	DP199	DP123	DP122	DL221	DL220	
	SNAN	1204ANN	12.7	4.76	2	-	DP199	DP123	DP122	DL221	DL220
		1504ANN	15.875	4.76	2.5	-					
		1904ANN	19.05	4.76	3	-					
	SNCN	1204ANN	12.7	4.76	2	-	●	●	●		
		1504ANN	15.875	4.76	2.5	-					
		1904ANN	19.05	4.76	3	-					
	SNKN	1204ANN	12.7	4.76	2	-					
		1504ANN	15.875	4.76	2.5	-					
		1904ANN	19.05	4.76	3	-					

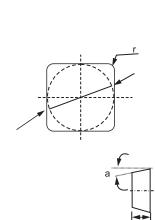
General Milling

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Inserts for face milling 面銑刀片

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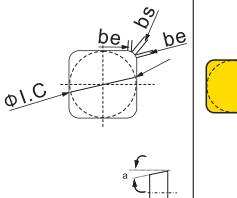
The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation 材質推薦						
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		I.C	S	Bs	m	DLC10	DLC12	DP199	DP123	DP122	DL221	DL222
	SNAN	1204ENN	12.7	4.76	1.4	0.8			●			
		1504ENN	15.875	4.76	1.4	1.5			●			
		1904ENN	19.05	4.76	2	1.3			●			
	SNCN	1204ENN	12.7	4.76	1.4	0.8			●			
		1504ENN	15.875	4.76	1.4	1.5			●			
		1904ENN	19.05	4.76	2	1.3			●			
	SNKN	1204ENN	12.7	4.76	1.4	0.8			●			
		1504ENN	15.875	4.76	1.4	1.5			●			
		1905ENN	19.05	4.76	2	1.3			●			

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation 材質推薦						
						CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號		Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號	
		I.C	S	α°	B _e	DLC10	DLC12	DP199	DP123	DP122	DL221	DL220
	SPGN	090304	9.525	3.18	11	0.4						
		090308	9.525	3.18	11	0.8						
	SPEN	120308	12.7	3.18	11	0.8						
		120408	12.7	4.76	11	0.8						
	SPGN	120404	12.7	4.76	11	0.4						
		120408	12.7	4.76	11	0.8						
	SPEN	150412	15.875	4.76	11	1.2						
		190416	19.05	4.76	11	1.6						

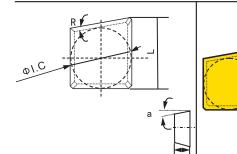
General Milling

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Inserts for face milling 面銑刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦						
							CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號		Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號	
		Φ I.C	S	Bs	Be	α°	DLC10	DLC12	DP199	DP123	DP122	DL221	DL220
	SPCN	1204APN	12.7	4.76	2.22	-	11						
		1904APN	19.05	4.76	4.48	-	11						
		1203AEN	12.7	3.18	2.48	-	20			●			
		1504AEN	15.875	4.76	1.9		15			●			
	SEKN	1203AFFN	12.7	3.18	1.8	-	20			●			
		1203AFTN-1	12.7	3.18	1.8	-	20			●			
		1203AFN	12.7	3.18	2.46	r1	20			●			
		1204AFN	12.7	4.76	1.8	-	20			●			
	SEKN	1204AFTN	12.7	4.76	1.8	-	20			●			
		1504AFN	15.875	4.76	1.6	-	20			●			
		1504AFTN	15.875	4.76	1.6	-	20			●			
	SPKN	1504AFTN	15.875	4.76	1.8	1	11						
	SEMN	1204AEN	12.7	4.76	2.1	-	20						

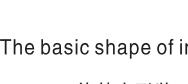
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The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦						
							CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號		Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號	
		I.C	S	α°	R	L1	DLC10	DLC12	DP199	DP123	DP122	DL221	DL220
	SPEX	1203EDL/R	12.7	3.18	11	500	15						
		1504EDFL/R	15.88	4.76	11	500	19.37						

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Inserts for face milling 面銑刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation			材質推薦		
						CVD coating grade CVD塗層牌號	PVD coating grade PVD塗層牌號	Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號		
		I.C	S	r	α °	DLC10	DLC12	DP122	DL220	DP121S	
	SEMNN1203AFTN	12.7	3.18	20	10	AH120	AH122	AH121	AH120	DP199	DL221

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸	Grade recommendation					材質推薦							
			CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號						
			I.C	S	α°	Bs	Be	DLC10	DLC12	AH120	AH121	AH122	DP199	DL221	DL222
	SEKR	1203AZ-YM	12.7	3.18	20	1.6	0.8						DP121S		
		12T3AZ-MY	12.7	3.98	20	1.6	0.8						DP123		
		1204AZ-MY	12.7	4.76	20	1.6	0.8						DP122		
		1504AZ-YM	12.7	4.76	20	1.6	0.8						DP232		

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Inserts for face milling 面銑刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦				
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號		Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號				
		I.C	S	α°	d	r	DL220	DL222	DL221	DL221S	
	SMPT	120408-D51 09T308-D51	12.7 9.525	3.97 4.76	11 4.4	5.5 0.8	DP199 DP123 DP122 DP232 DP231 AH122 AH121 AH120 AH120 AH121 AH122 AH121 AH120	DP199 DP123 DP122 DP232 DP231 AH122 AH121 AH120 AH120 AH121 AH122 AH121 AH120	DP199 DP123 DP122 DP232 DP231 AH122 AH121 AH120 AH120 AH121 AH122 AH121 AH120	DP199 DP123 DP122 DP232 DP231 AH122 AH121 AH120 AH120 AH121 AH122 AH121 AH120	DP199 DP123 DP122 DP232 DP231 AH122 AH121 AH120 AH120 AH121 AH122 AH121 AH120

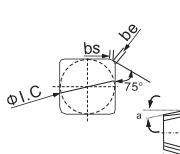
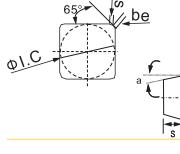
The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦				
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號		Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號				
		L	W	S	D	R	DL220	DL222	DL221	DL221S	
	LPMT	150412R-D51 15T308R-D51	15.875 15	12.7 9.525	4.91 3.97	5.5 4.4	1.2 0.8	DP199 DP123 DP122 DP232 DP231 AH122 AH121 AH120 AH120 AH121 AH122 AH121 AH120	DP199 DP123 DP122 DP232 DP231 AH122 AH121 AH120 AH120 AH121 AH122 AH121 AH120	DP199 DP123 DP122 DP232 DP231 AH122 AH121 AH120 AH120 AH121 AH122 AH121 AH120	DP199 DP123 DP122 DP232 DP231 AH122 AH121 AH120 AH120 AH121 AH122 AH121 AH120

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦			
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號		Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號			
		I.C	S	α°	Bs	Be	DL220	DL222	DL221	DL221S
	SPKN	1203EDFL/R 1203EDFL/R 1504EDFL/R 1504EDFL/R	12.7 12.7 15.875 15.875	3.18 3.98 4.76 4.76	11 11 11 11	1.4 1.4 1.4 1.4	≈ 1 ≈ 1 ≈ 1 ≈ 1	DP199 DP123 DP122 DP232 DP231 AH122 AH121 AH120 AH120 AH121 AH122 AH121 AH120	DP199 DP123 DP122 DP232 DP231 AH122 AH121 AH120 AH120 AH121 AH122 AH121 AH120	DP199 DP123 DP122 DP232 DP231 AH122 AH121 AH120 AH120 AH121 AH122 AH121 AH120

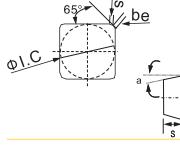
General Milling

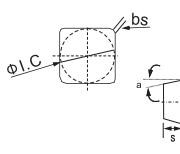
普通銑削

Inserts for face milling 面銑刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦				
							CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號		Ceramic 金屬陶瓷
		I.C	S	α°	Bs	Be	DP199	DL222	DL221	DP123	DP122
	SPAN	1203EDL/R	12.7	3.18	11	1.4	≈1				
		1504EDL/R	15.875	4.76	11	1.4	≈1				
		1504EDL/R	15.875	4.76	11	1.4	≈1				
		1203EDL/R	12.7	3.18	11	1.4	≈1				
		1504EDL/R	15.875	4.76	11	1.4	≈1				
		1203EEL/R	12.7	3.18	20	2.5	-				
	SPCN	1203EFL/R	12.7	3.18	25	2.5	-				
		1504EFL/R	12.7	3.18	25	2.5	-				
		1203EFL/R	12.7	3.18	25	2.5	-				
		1504EFL/R	12.7	3.18	25	2.5	-				
		1203EFL/R	12.7	3.18	25	2.5	-				
		1504EFL/R	12.7	3.18	25	2.5	-				

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The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦				
							CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號		Ceramic 金屬陶瓷
		I.C	S	α°	Bs	Be	DP199	DL222	DL221	DP123	DP122
	SPKN	1204ZETL/R	12.7	4.76	11	1.93	0.6				
		1504ZEFL/R	15.875	4.76	11	2	0.8				
		1504ZETL/R	15.875	4.76	11	2	1				
		1204ZETL/R	12.7	4.76	11	1.93	0.6				
		1504ZEFL/R	15.875	4.76	11	2	0.8				
		1504ZETL/R	15.875	4.76	11	2	1				

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦				
							CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號		Ceramic 金屬陶瓷
		ΦI.C	S	r	α°	DLC10	AH120	AH121	AH122	DP199	DL222
	SDHW0903AEFN	9.53	3.18	0.75	15						

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Inserts for face milling 面銑刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸							Grade recommendation 材質推薦				
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號				
		L	ΦI.C	S	D	R	α°	DP199	DP123	DP122	DL220	DL220	
	OFMT	05T305-NN	5.26	12.7	3.97	4.4	0.5	25					
		070405-NN	7.46	18	4.76	5.5	0.5	25					

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸							Grade recommendation 材質推薦				
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號				
		ΦI.C	S	r	α°	DP199	DP123	DP122	DL220	DL220	DL220	DL220	
	HEEN532												
		15.875	4.76	0.8	20								

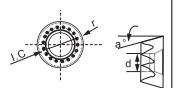
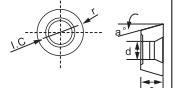
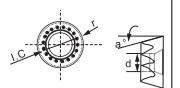
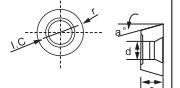
The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸							Grade recommendation 材質推薦				
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		L	ΦI.C	S	D	R	α°	DP199	DP123	DP122	DL220	DL220	
	OFER070405NN	7.46	18	4.76	2.3	0.5	25						

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸							Grade recommendation 材質推薦				
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷		Uncoated grade 非塗層牌號				
		L	ΦI.C	S	D	R	α°	DP199	DP123	DP122	DL220	DL220	
	ODHW0504ZZN	5.26	12.7	4.76	4.4	0.5	15						

General Milling

普通銑削

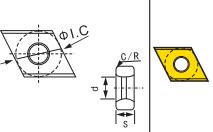
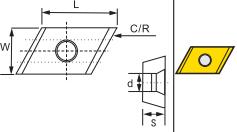
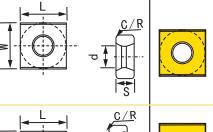
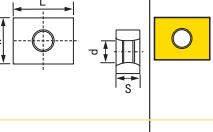
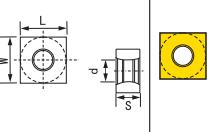
Inserts for face milling 面銑刀片

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation 材質推薦									
						CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號		Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號				
		I.C	S	d	α°	DLC10	DLC12	AH120	AH121	DP199	DP123	DP122	DL221	DL222	DL220
		RPMT	0803MOE-G	8	3.18	3.4	11		●	●					
			10T3MOE-G	10	3.97	4.4	11		●	●	●				
			1204MOE-G	12	4.76	4.4	11		●	●	●				
			10T3MOE-BJS	10	3.97	4.4	11		●	●	●				
			1204MOE-BJS	12	4.76	4.4	11		●	●	●				
			0827MO-BJS	8	2.7	3.4	11		●	●	●				
		RPMW	0803MOE	8	3.18	3.4	11		●	●					
			1003MOE	10	3.18	4.4	11		●	●					
			10T3MOE	10	3.97	4.4	11		●	●					
			1204MOE	12	4.76	4.4	11		●	●					

General Milling

普通銑削

Inserts for heavy-cutting milling 重型銑刀

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation				Material recommendation	
							CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號		Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號
		Φ1.C	W	S	d	C/R	DP199	DP123	DP122	DL221	DL220	DL220
	CNE	44102	12.7	12.7	6.35	5.4	C0.5					
		323-405	12.7	9.525	4.76	4.3	C0.5					
		44-405	12.7	12.7	6.35	5.5	C0.5					
		454-4R1	16.3	14.288	6.35	5.5	R1.0					
	CDE	CDE05T305-NN	12.7	9.525	4.76	4.5	C1.0					
		CDE070405-NN	12.7	9.525	4.76	4.5	C1.0					
	LNE	LNE434-02	19.05	14.29	6.35	5.4	C1.0					
		N18404-JH	15.875	12.7	7.94	5.5	C0.4					
		LNE0904TL-Φ4.1	9.53	9.53	4.76	4.1	C0.5					
	N18	N18-1	15.875	12.7	7.94	5.5						
		L19.05*14.3*	19.05	14.29	6.35	5.35						
		6.35-R7-Φ5.35										
	SNE	SNE33-01	9.525	9.525	4.76	4.4						
		SNC44	12.7	12.7	6.35	4.4						
		SNC55	15.875	15.875	7.94	5.5						

General Milling

普通銑削

Inserts for heavy-cutting milling 重型銑刀

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The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦									
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號								
		L	W	S	d	C/R	DLC10	DLC12	AH120	AH121	DP199	DP123	DP122	DL221	DL222	DL220
	LND424-DA	13	12.7	6.35	6	2-R2										
	GLOL20023R4	12.7	12.7	6.35	5.5	4-R0.4										
	N136	15.875	12.7	7.94	5.5	4-R2										
	GLOL20023R4	15.875	12.7	6.35	5.4	R5.0										
	SNE1507-4R3	15.88	15.88	7.94	5.5	R3.0										
	LNC305-YT	17.46	12.7	7.15	5.5	R5.0										

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦									
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號								
		L	W	S	d	C/R	DLC10	DLC12	AH120	AH121	DP199	DP123	DP122	DL221	DL222	DL220
	LNE323-02	15.875	9.525	4.76	4.4	2										
	LND624-DA	15.5	12.7	7.35	6	2R2										
	N135	15.88	9.52	7.94	5.5	13										

General Milling

普通銑削

Inserts for heavy-cutting milling 重型銑刀

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The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦			
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號		
		L	W	S	d	R	DP199	DP122	DL220	DL220
	SN155R10-P50	15.875	15.875	7.94	5.5	10				
	SN55R8-EB50	16.875	16.875	7.94	5.5	8				
	SN55R6.5	15.875	15.875	7.94	5.5	6.5				
	SN55R40	15.875	15.875	7.94	5.5	40				

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦			
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號		
		L	W	S	d	R	DP199	DP122	DL220	DL220
	GL0L20021R5	15.28	12.7	7.94	5.4	5.0				
	N182R5-JH	15.875	12.7	7.94	5.5	5.0	●			
	LNC306	15.875	12.7	7.15	5.5	4.7	●			
	FNC306-YT	23.5	11.5	6.4	4.4	6.5	●			
	FNC484-103	51	14.3	6.3	5.6	6.3	●			

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦			
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號		
		L	W	S	d	R	DP199	DP122	DL220	DL220
	SN55RK13-ING	15.875	15.875	7.93	5.5	12.7				
	SN55-R15-R00P50	15.875	15.875	7.93	5.5	15				

General Milling

普通銑削

Inserts for heavy-cutting milling 重型銑刀

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The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦			
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號		
		L	W	S	d	R	DP199	DP122	DL221	DL220
	LNE425-R13	15.875	12.7	7.93	5.5	13				
	SN55R20-P50	15.875	15.875	7.93	5.5	20				
	SNC55R18-EB50	15.875	15.875	7.93	5.5	18				
	LNXH1906	19	14.3	6.35	5.5	-				
	LNXH2509	25.4	14.3	6.35	5.5	-				

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦			
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號		
		L	W	S	d	DP199	DP122	DL221	DL220	
	NXE324-104	12.7	11.89	6.35	4.5					
	LNXK1506PN-N-MM	15	13.9	6	4.6	●				

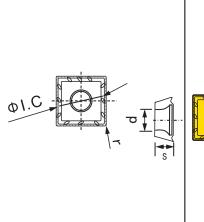
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		L	W	S	d	R1	R2	DP199	DP122	DL221	DL220	
	DIN7168-M	15.875	114.53	6	5.4	8.0	22					

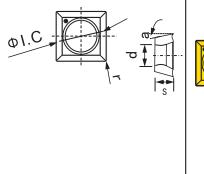
General Milling

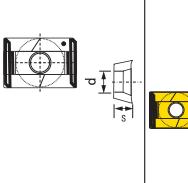
普通銑削

Inserts for shallow hole drilling 淺孔鑽

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The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation				材質推薦	
						CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號		Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號
		I.C	S	d	r	DP199	DP122	DP121	DL220	DL221	DL222
	SPGT	060204-PM	6	2.38	2.6	0.4					
		07T308-PM	7.94	3.97	2.8	0.8					
		090408-PM	9.8	4.3	4.2	0.8					
		110408-PM	11.5	4.76	4.4	0.8					
		140512-PM	14.3	5.2	5.75	1.2					

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation				材質推薦	
						CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號		Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號
		I.C	S	d	r	DP199	DP122	DP121	DL220	DL221	DL222
	SPMG	050204-ZV	5.56	2.38	2.5	0.4					
		060204-ZV	6.0	2.38	2.8	0.4					
		07T308-ZV	7.94	3.97	2.8	0.8					
		090408-ZV	9.8	4.3	4.1	0.8					
		110408-ZV	11.5	4.76	4.1	0.8					
		140512-ZV	14.3	5.56	5.5	1.2					

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation				材質推薦	
						CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號		Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號
		I.W	L	S	d	DP199	DP122	DP121	DL220	DL221	DL222
	APMT1504T-WT	15.88	12.7	4.76	5.5	AH120	AH122	AH121	DL220	DL221	DL222

General Milling

普通銑削

Inserts for shallow hole drilling 淺孔鑽

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation 材質推薦			
						CVD coating grade CVD塗層牌號	PVD coating grade PVD塗層牌號	Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號
		I.C	S	d	r	DP199	DP122	DL221	DL220
	TPMX	1403-RG	8.45	3.55	2.88	0.80		DP199	
		1704-RG	10.30	4.02	3.90	0.80		DP122	
		2405-RG	14.21	5.50	4.40	1.20		DL221	
							DP121S		DL220

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The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation 材質推薦			
						CVD coating grade CVD塗層牌號	PVD coating grade PVD塗層牌號	Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號
		I.C	S	d	r	DP199	DP122	DL221	DL220
	WCGX	030204-ZV	5.56	2.38	2.5	0.4		DP199	
		040204-ZV	6.35	2.38	2.8	0.4		DP122	
		050308-ZV	7.94	3.18	3.4	0.8		DL221	
		06T308-ZV	9.525	3.97	4.4	0.8		DP121S	
		080408-ZV	12.7	4.76	5.5	0.8			DL220

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸						Grade recommendation 材質推薦			
								CVD coating grade CVD塗層牌號	PVD coating grade PVD塗層牌號	Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號
		ΦI.C	S	Φd	L	R	α °	DP199	DP122	DL221	DL220
	ZDET	08T2R10	6.75	2.78	2.8	8.4	10	14		DP199	
		1103R12.5	8.5	3.18	2.8	10.6	12.5	14		DP122	
	ZPNT	13T3R16	10.5	3.97	4.4	13.2	13.2	14		DL221	
		2204R20	12.7	4.76	5.5	16.1	16.1	11		DP121S	
		2204R25	12.7	4.76	5.5	16.9	16.9	11			DL220
		2204R31	12.7	4.76	5.5	17.6	17.6	11			

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸						Grade recommendation 材質推薦			
								CVD coating grade CVD塗層牌號	PVD coating grade PVD塗層牌號	Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號
		ΦI.C	S	Φd	L	r	α °	DP199	DP122	DL221	DL220
	SPMT	060304	6.35	3.18	2.8	6.35	0.4	11		DP199	
		120408	12.7	4.76	5.5	12.7	0.8	11		DP122	
	SDMT	090308	9.525	3.18	4.4	9.525	0.8	15		DL221	

General Milling

普通銑削

Inserts for square shoulder milling 方肩銑刀片

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The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦				
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號			
		I.W	L	S	d	r	DL221S	DP199	DP123	DP122	DL220
		1135PDER-H2	6.2	11.21	3.5	2.8	0.8				●
		1604PDER-H2	9.28	17.15	4.76	4.4	0.8				●
		160432PDER-H8	9.33	16.31	4.76	4.4	3.2				●
		1135PDER-M2	6.2	11.21	3.5	2.8	0.8				●
		1604PDER-M2	9.28	17.15	4.76	4.4	0.8				●
		1135PDER-EM	6.24	11.2	3.5	2.8	0.8				●
		1604PDER-EM	9.41	17.24	5.28	4.4	-				●
		170508-EM	10.8	18.54	5.56	4.4	0.8				●
		170516R-EM	10.8	18.54	5.56	4.4	1.6				●
		1135DFR-G2	6.17	11.31	3.5	2.8	0.8				●
		113504PDFR-G2	6.17	11.31	3.5	2.8	0.4				●
		1604PDFR-G2	9.525	17.12	4.76	4.4	0.8				●

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦				
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號			
		I.W	L	S	ϕ d	r	DL221S	DP199	DP123	DP122	DL220
		APKW160404	9.525	16.8	4.76	4.4	0.4				●

General Milling

普通銑削

Inserts for square shoulder milling 方肩銑刀片

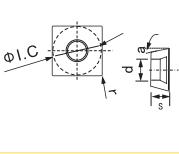
120

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸	Grade recommendation 材質推薦																	
			CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號											
			I.W	L	S	φ d	r	DLC10	DLC12	AH120	AH121	AH122	DP231	DP232	DP199	DP123	DP122	DL221	DL222	DL220
	APKT	1003PDSR-30 1604PDSR-30	6.66 9.53	11.09 17.1	3.5 5.2	2.8 4.4	0.4 06						●	●					●	●
	APLX	1003PDTR-LMNA 1604PDTR-LMNA	6.73 9.525	11.21 17.03	3.5 4.76	2.8 4.4	0.4 1						●	●					●	●
	APKT	BR390-11T308-PM BR390-170408-PM BR390-11T308-PL	6.9 9.6 6.9	11.72 17.82 11.72	3.58 4.76 3.58	2.8 4.12 2.8	0.8 0.8 0.8						●	●	●	●	●	●	●	●
	AOMT	120408R-FA 12430R-FA	7.66 7.6	14.04 12.8	4.76 4.76	3.4 3.4	0.8 4						●	●					●	●

General Milling

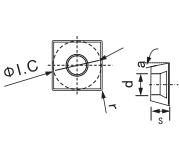
普通銑削

Inserts for chamfer milling 倒角銑刀

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation 材質推薦			
						CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號	
		I.C	S	d	r	DP199	DP123	DL222	DL220
	SPMT120408	12.7	4.76	5.5	0.8	 	 	 	 

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D10 Inserts for T-Slot milling T型槽銑刀

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸				Grade recommendation 材質推薦				
						CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號		
		ΦI.C	S	d	r	DP199	DP123	DL222	DL220	
	MPHT	060304-MD 080305-MD 120408-MD	6.35 8.3 12.7	3.18 3.18 4.76	2.8 3.4 5.5	0.4 0.5 0.8	 	 	 	 

General Milling

普通銑削

Inserts for high feed milling 大進給銑刀

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The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦			
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號		
		I.C	S	d	r	α°	DP121S	DL222	DL220	
	SDMT	09T312-MD	9.525	3.97	4	1.2	15		DP121S	
		120412-MD	12.7	4.76	4.4	2	15	●	DP121	
									DL221	
									DL222	
									DL220	

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦			
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號		
		I.C	S	d	r	α°	DP121S	DL222	DL220	
	WPGT	050315ZSR	7.94	3.5	4	1.5	11		DP121S	
		060415ZSR	9.525	4.2	4.4	1.5	11	●	DP121	
		080615ZSR	12.85	6.35	5.5	1.5	11	●	DL221	
		090725ZSR	15	7	5.5	2.5	11	●	DL222	
									DL220	

General Milling

普通銑削

Inserts for aluminum processing milling 鋁合金加工用銑刀

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦			
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號		
		I.W	L	S	d	r				
	APKT	11T304-LH	6.5	12.24	3.6	2.8	0.4			DL220
		11T308-LH	6.5	12.24	3.6	2.8	0.8			
	APKT	160402PDFR-LH	9.8	16.88	4.76	4.4	0.2		DP199	
		160404PDFR-LH	9.8	16.88	4.76	4.4	0.4	●	DP123	
		160408PDFR-LH	9.8	16.88	4.76	4.4	0.8	●	DP122	
		160416PDFR-LH	9.8	16.88	4.76	4.4	1.6	●	DP232	
		160432PDFR-LH	9.8	16.88	4.76	4.4	3.2	●	DP231	
									AH121	
									AH120	
									DLC10	
									DLC12	
										DL221
										DP121S
										DL222
										DL221

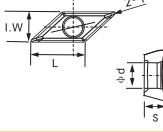
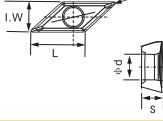
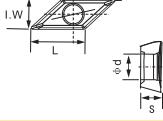
123

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦			
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號		
		I.C	S	d	α°	L				
	SEKT	1204AFFN-LH2	12.7	4.76	5.5	20	16			DL220
	SDHT	1204AFFN-LH2	12.7	4.76	5.5	15	15.76			
	SDKT	13T3AEFN-LH	13.4	3.97	4.4	20		●		
		13T3AZFN-LH	13.4	3.97	4.4	20		●		
		0903AEFN-LH1	9.525	3.18	3.4	15		●		
		090AEFN-LH	9.525	3.18	3.4	15		●		
	OFGR	070404-LH	17.94	4.76	0.4	25		●		
		070408-LH	17.94	4.76	0.8	25				
	RCGT	0602MOF-LH	6	2.38	2.8	7	-			
		0803MOF-LH	8	3.18	3.4	7	-			
		1003MO-LH	10	3.18	4.4	7	-			
		10T3MO-LH	10	3.97	4.4	7	-			
		1204MO-LH	12	4.76	4.4	7	-			

General Milling

普通銑削

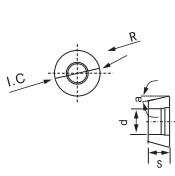
Inserts for aluminum processing milling 鋁合金加工用銑刀

The basic shape of inserts 刀片基本形狀	Type 型號	Dimension(mm) 基本尺寸					Grade recommendation 材質推薦									
		CVD coating grade CVD塗層牌號		PVD coating grade PVD塗層牌號			Ceramic 金屬陶瓷	Uncoated grade 非塗層牌號								
		I.W	L	S	d	r	DLC10	DLC12	AH120	AH121	DP199	DP123	DP122	DL221	DL222	DL220
	XDGT2206PDFR-LH	13.67	30	6.35	5.67	0.8				●						
	XEKT19M530FR-LH	11.38	22.05	5	4.4	3				●						
	XPGT13T3PDFR-LH	7.78	14.7	3.97	3.4	0.4				●						

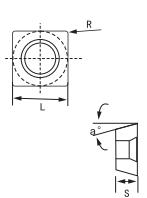
General Milling

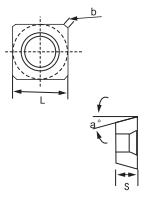
普通銑削

Others 其他

Inserts shape 刀片外形	Type 型號	Dimension(mm) 基本尺寸			
		I.C	S	α°	d
	P22215-00	8	2.38	14	3.4
	P22215-14	12	4.76	11	5.5

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Inserts shape 刀片外形	Type 型號	Dimension(mm) 基本尺寸			
		L	S	α°	r
	P2801-0	9.52	3.18	14	0.8
	P2808-1	12.7	4.76	11	0.8
	P2809-1	12.7	4.76	11	0.8
	P28415-00	6.35	3.18	11	0.4
	P28415-0	9.52	3.18	14	0.8
	P28495-1	12.7	4.76	11	0.8
	P2800-0	9.52	3.18	11	0.8
	P2800-2	15.88	4.76	11	1.2
	P2816-1	12.7	4.76	11	0.7

Inserts shape 刀片外形	Type 型號	Dimension(mm) 基本尺寸			
		L	S	α°	b
	P2894-1	12.7	4.76	20	2
	P2894-2	15.88	4.76	20	2.1
	P2803-1R	12.7	4.76	11	1.4
	P2803-1L	12.7	4.76	11	1.4
	P28451-1	12.7	4.76	11	1.4

General Milling

普通銑削

Others 其他

Inserts shape 刀片外形	Type 型號	Dimension(mm) 基本尺寸					
		I.C	L	S	α°	ϵ°	r
	P29221-04	6.35	6.45	2.38	7	80	0.4
	P29221-14	9.525	9.67	3.97	7	80	0.4
	P29223-02	6.35	6.45	2.38	7	80	0.2
	P29223-12	9.525	9.525	3.97	7	80	0.2

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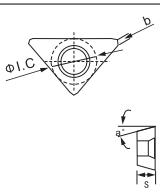
Inserts shape 刀片外形	Type 型號	Dimension(mm) 基本尺寸			
		L	S	α°	ϵ°
	P28467-1	6.35	2.38	14	90
	P28467-2	7.8	3.18	14	90
	P28467-3	9.52	3.97	11	96
	P28467-4	11	3.97	11	96
	P28467-5	12.7	4.76	11	96
	P28467-6	15	4.76	11	96
	P28467-7	17.6	5.56	11	96
	P28467-1	6.35	2.38	14	90
	P28467-2	7.8	3.18	14	90
	P28467-3	9.52	3.97	11	96
	P28467-4	11	3.97	11	96
	P28467-5	12.7	4.76	11	96
	P28467-6	15	4.76	11	96
	P28467-7	17.6	5.56	11	96

Inserts shape 刀片外形	Type 型號	Dimension(mm) 基本尺寸					
		L	W	S	α°	C/R	b
	P2700-0	8.3	8.3	3.18	11	R0.5	
	P2700-3R	15	9.52	3.18	14	R0.8	
	P2700-3L	15	9.52	3.18	14	R0.8	
	P2703-3R	15	12.7	3.18	14		1.4
	P2703-4R	20	12.7	4.76	11		1.5
	P2706-3R	15.88	12.7	4.76	11	C1.1	
	P2706-4R	20	12.7	4.76	11	C0.8	
	P2706-4L	20	12.7	4.76	11	C0.8	
	P2707-3R	15.88	12.7	4.76	11	C1.1	
	P2707-4R	20	12.7	4.76	11	C0.8	

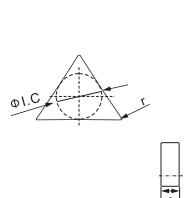
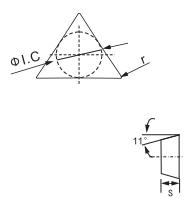
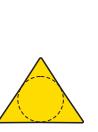
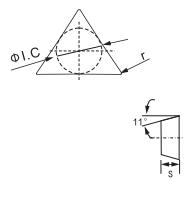
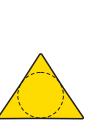
General Milling

普通銑削

Others 其他

Inserts shape 刀片外形	Type 型號	Dimension(mm) 基本尺寸			
		I.C	S	α°	b
	P2603-2	9.52	4.76	11	1.2
	P2603-3	12.7	4.76	11	1.2

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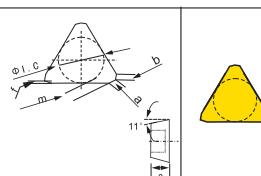
Inserts shape 刀片外形	Type 型號	Dimension(mm) 基本尺寸		
		I.C	S	r
	304050	4.0 ± 0.05	2.5 ± 0.13	0.5
	307050	7.0 ± 0.05	3.0 ± 0.13	0.5
	310030	10.0 ± 0.05	3.5 ± 0.13	0.5
	313050	13.0 ± 0.08	4.5 ± 0.13	0.5
	316050	16.0 ± 0.10	5.5 ± 0.13	0.5
	316100	16.0 ± 0.10	5.5 ± 0.13	1
	307058	7.0 ± 0.05	3.0 ± 0.13	0.5
	310058	10.0 ± 0.05	3.5 ± 0.13	0.5
	313058	13.0 ± 0.05	4.5 ± 0.13	0.5
	313108	13.0 ± 0.08	4.5 ± 0.13	1
	316058	16.0 ± 0.10	5.5 ± 0.13	0.5
	316108	16.0 ± 0.10	5.5 ± 0.13	1
	3070511	7.0 ± 0.05	3.0 ± 0.13	0.5
	3100511	10.0 ± 0.05	3.5 ± 0.13	0.5
	3130511	13.0 ± 0.05	4.5 ± 0.13	0.5
	3131011	13.0 ± 0.08	4.5 ± 0.13	1
	3160511	16.0 ± 0.10	5.5 ± 0.13	0.5
	3161011	16.0 ± 0.10	5.5 ± 0.13	1

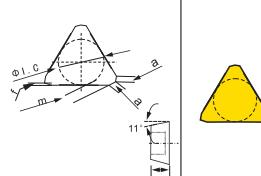
General Milling

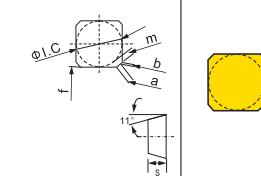
普通銑削

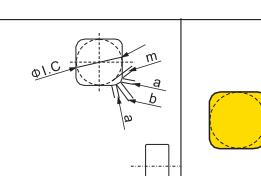
Clamping system inserts 機夾刀片

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Inserts shape 刀片外形	Type 型號		Dimension(mm) 基本尺寸					
	Left	Right	I.C±0.025	S±0.025	M±0.013	a	b	f
	3XH06Y	3XH06Z	6	2.8	1.651	0.8	0.2	0.1
	3XH08Y	3XH08Z	8	3.5	2.23	1	0.3	0.1
	3XH10Y	3XH10Z	10	3.5	2.756	1.2	0.5	0.2
	3XH13Y	3XH13Z	13	4.5	3.669	1.4	0.7	0.4
	3XH16Y	3XH16Z	16	5.5	4.528	1.6	1	0.6

Inserts shape 刀片外形	Type 型號	Dimension(mm) 基本尺寸				
		I.C±0.025	S±0.025	M±0.013	a	f
	3XH07	7	3	1.696	1	0.2
	3XH10	10	3.5	2.621	1.2	0.2
	3XH13	13	4.5	3.548	1.4	0.4
	3XH16	16	5.5	4.469	1.6	0.6

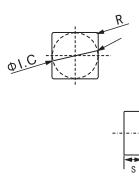
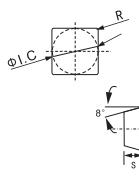
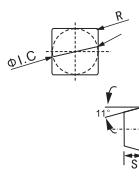
Inserts shape 刀片外形	Type 型號	Dimension(mm) 基本尺寸					
		Left	Right	I.C±0.025	S±0.025	M±0.013	a
	4XH13Y	4XH13Z	13	3.5	0.926	1.4	1
	4XH16Y	4XH16Z	16	4.5	1.263	1.4	1
	4XH19Y	4XH19Z	19	5.5	1.513	1.6	1.2
	4XH25Y	4XH25Z	25	7	2.186	1.6	1.2
							0.6

Inserts shape 刀片外形	Type 型號	Dimension(mm) 基本尺寸				
		I.C±0.025	S±0.025	M±0.013	a	b
	4X13	13	4	0.834	1.4	1
	4X16	16	4.5	1.171	1.4	1
	4X19	19	5.5	1.408	1.6	1.2
	4X25	25	7	2.082	1.6	1.2

General Milling

普通銑削

Clamping system inserts 機夾刀片

Inserts shape 刀片外形	Type 型號	Dimension(mm) 基本尺寸		
		I.C	S	r
	410050	10±0.05	3.5±0.13	0.5
	413050	13±0.08	4.5±0.13	0.5
	413100	13±0.08	4.5±0.13	1
	413200	13±0.10	4.5±0.13	2
	416050	16±0.10	4.5±0.13	0.5
	416100	16±0.10	4.5±0.13	1
	416200	16±0.10	4.5±0.13	2
	419100	19±0.10	5.5±0.13	1
	419200	19±0.10	5.5±0.13	2
	410058	10±0.05	3±0.13	0.5
	413058	13±0.08	3.5±0.13	0.5
	413108	13±0.08	3.5±0.13	1
	416058	16±0.10	4.5±0.13	0.5
	416108	16±0.10	4.5±0.13	1
	416158	16±0.10	4.5±0.13	1.5
	419108	19±0.10	5.5±0.13	1
	419208	19±0.10	5.5±0.13	2
	420108	20±0.13	7.0±0.13	1
	4100511	10±0.05	3±0.13	0.5
	4130511	13±0.08	3.5±0.13	0.5
	4130511T	13±0.08	4.5±0.13	0.5
	413011	13±0.08	3.5±0.13	1
	413011T	13±0.08	4.5±0.13	1
	4160511	16±0.10	4.5±0.13	0.5
	4161011	16±0.10	4.5±0.13	1
	4161511	16±0.10	4.5±0.13	1.5
	4191011	19±0.10	5.5±0.13	1
	4192011	19±0.10	5.5±0.13	2
	4251011	25±0.13	7.0±0.13	1
	4252011	25±0.13	7.0±0.13	2

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COMPANY INTRODUCE



DOHRE Tool Co.,Ltd is professional manufacturer and services provider of CNC cutting tools, mainly service for the users of cnc machines from different cities in the world, provide high quality, favourable price, earlier delivery and full technology supports.

DOHRE Tool Co.,Ltd always advocates "integrity, pragmatism, innovation, efficiency" operation principle, introduced the latest German cnc 5 axis grinding machines, cnc 5 axis automatic detection equipments and advanced grinding technology. Till now, we have 20 imported grinding machines, adopted the top quality carbide rods from home and abroad, thus developed high-class, high efficiency, advanced manufacturing system, the good quality products we produced--cnc tungsten carbide end mills, forming cutting tools, cnc high accuracy tool holder, high precision collets, and full range cutting tools design program has been well received in lots of users. DOHRE will be confident to meet your needs with good quality products, competitive prices and fast services.

MEMO
MEMO

Cemented Carbide Products Safety Standard

硬質合金產品安全標準

1. Safety responsibilities

Before using our products, please provide necessary safety training for operators, and carefully read the 'NOTE' and 'CAUTION' contents on the product package. We are not liable for any responsibility caused by not complying with the request for operation.

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2. Features of cemented carbide materials

Cemented carbide cutting tools are mainly composed of W, C, Co, N, Ti, Si, Al, O, etc elements and their chemical compound, and come into shape after sintering and a series of subsequent machining. Cemented carbide tool has good chemical stability, high strength and very good wear resistance. It is the ideal tool to cut most metals and high-strength nonmetals.

3. Cautions for safely using cemented carbide tools

- 1) Cemented carbide cutting tools are hard and frangible material, liable to brittle rupture and breakage due to larger force or partial stress, cutting tools have sharp edge.
- 2) In the cutting process, it is unavoidable to generate chips and brittle discs, etc. Please make sure necessary labor protection articles are prepared before machining.
- 3) Most cemented carbide is mainly composed of W and Co with high density. In the process of transport and storage, it should be treated as great heavy object and be handled with care.
- 4) Cemented carbide tools should be stored in dry environment, away from corrosive atmosphere.
- 5) Cemented carbide and steel have different thermal expansion coefficients. To avoid breakage caused by concentrated stress, welding should be conducted under suitable temperature.
- 6) For longer life of machine tool and cutting tools, Coolant is needed in the cutting process, please select correct coolant to prolong machine and tool life.
- 7) If cracks are generated in the machining process, please stop using the tool.
- 8) Long use of cemented carbide tool will lead to cutting edge passivation and lower strength. Please make sure it is regrinded by professionals.
- 9) Please collect the broken tools and chips properly to avoid injury to other people.



General Technical Data

通用技術資料

Cautions for safety using cutting tools

使用切削工具可能出現的安全問題及防護措施

Danger	Protective measure
During rotary cutting, clothes, gloves, etc. are easily to get wringed in the machine at high speed, thus cause casualties.	The operator should not wear gloves during rotary cutting.
	Please put your long hair in the working cap.
	Please pay attention that the clothes should not contact the operational parts of machine.
Improper use of tools may cause tool breakage and expulsion from machine, causing injuries.	Please read catalogue and safety standard before operating.
	Please wear safeguard glasses and protective clothes.
	Please use labor protection articles such as gloves when assembling or disassembling cutting tools on machine.
Direct contact with the sharp cutting edges may cause injuries.	Please use tools such as pliers to clear away the chips in time.
	Please wear safeguard glasses , protective gloves and clothes.
	Please do not touch the burrs on the workpiece with bare hand.
Burr s on workpiece are very sharp and likely to cause injuries.	Please wear protective gloves and clothes.
	Make sure the workpiece is clamped firmly.
	Please wear safeguard glasses, protective gloves and clothes.
If inserts or spare parts are not clamped properly, they may become loose and fly off, causing risk of injuries.	Make sure the inserts and spare parts are clamped firmly before machining.
	Safeguard articles such as protective cover, screen, etc. should be used.
	Please wear safeguard glasses, protective clothes and gloves.
During cutting at high speed, the chips flying off rapidly may cause injuries.	Use the tools within recommended cutting conditions.
	Please wear safeguard glasses and protective clothes.
	Please do not clamp tools too tightly with bushing.
Milling cutters have sharp cutting edges and direct contact with them may cause injuries.	For your safety, please wear protective gloves if you need to touch inserts.
	Change the tool with excessive abrasion without delay.
	Please wear safeguard glasses and protective clothes.
Rapid increase of cutting resistance due to excessive abrasion and severe impact may lead to breakage of tool and spatter of chips, thus cause injuries to operator.	Clear away the Inflammable and explosive materials in the cutting area.
	Please make sure the fire extinguishers are ready for use.
	Please do not clamp tools too tightly with bushing.
In cutting process, sparks and hot chips may cause fire and explosion hazard.	Check whether the machine is loose or has any abnormal noise before cutting.
	Please wear safeguard glasses and protective clothes.
	Please use the tools within the range of recommended rotating speed.
At high speed, the machine will vibrate severely because of poor balance of holder, causing tool breakage.	Check and adjust machine balance periodically.
	Reduce tool vibration and conduct machining at suitable speed.
	Please wear safeguard glasses, protective clothes and gloves.
If inserts and tool are clamped too tightly with screw and clamp, they face the risk of breakage and spatter.	Please do not clamp tools too tightly with bushing.
	Please use the tools within the range of recommended rotating speed.
	Check and adjust machine balance periodically.
Off-center or poor balance of tools in rotating machining will cause vibration, breakage and splash of tool, thus will cause injuries.	Reduce tool vibration and conduct machining at suitable speed.
	Please wear safeguard glasses, protective clothes and gloves.
	Please use them strictly according to instructions and specified purposes.
Note: We are not responsible for any accidents caused by private modified tools without our permission.	

General Technical Data

通用技術資料

Metric and Inch Comparison Table of Inserts

刀片規格公、英制對照

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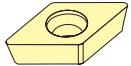
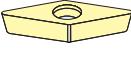
C type negative angle	ISO	Inch	Chipbreaker		W type negative	ISO	Inch	Chipbreaker
	090304	321				06T304	3(2.5)1	
	090308	322				06T308	3(2.5)2	BF
	120404	431				06T312	3(2.5)3	BM
	120408	432				060404	331	BR
	120412	433				060408	332	MT
	120416	434				060412	333	M
	160608	542				080404	431	(All round) (Without chipbreaker)
	160612	543				080408	432	
	160616	544				080412	433	
	190608	642				T type negative angle	ISO	Chipbreaker
	190612	643				110304	221	
	190616	644				110308	222	
	190624	646				160404	331	BF
	250724	856				160408	332	BM
	250732	858				160412	333	BR
	250924	866				220404	431	MT
	250932	868				220408	432	M
D type negative angle	ISO	Inch	Chipbreaker			220412	433	(All round) (Without chipbreaker)
	110404	331				220416	434	
	110408	332				270608	542	
	110412	333				270612	543	
	150404	431				270616	544	
	150408	432				S type negative angle	ISO	Chipbreaker
	150412	433				090304	321	
	150604	441				090308	322	
	150608	442				090312	323	
	150612	443				120404	431	BF
	150616	444				120408	432	BM
	190608	542				120412	433	BR
	190612	543				120416	434	MT
V type negative angle	ISO	Inch	Chipbreaker			160608	542	M
	160404	331				160612	543	(All round) (Without chipbreaker)
	160408	332				160616	544	
	160412	333				190412	633	
						190424	636	
						190612	643	
R type negative angle	ISO	Inch	Chipbreaker			190616	644	
	0903MO	32				250724	856	
	1204MO	43				250732	858	
						250924	866	
						250932	868	

General Technical Data

通用技術資料

Metric and Inch Comparison Table of Inserts

刀片規格公、英制對照

C type positive angle	ISO	Inch	Chipbreaker	D type positive angle	ISO	Inch	Chipbreaker	
	060202	2(1.5)0	MP AK (Without chipbreaker)		070202	2(1.5)0	MP AK (Without chipbreaker)	
	060204	2(1.5)1			070204	2(1.5)1		
	060208	2(1.5)2			070208	2(1.5)2		
	09T302	3(2.5)0			11T302	3(2.5)0		
	09T304	3(2.5)1			11T304	3(2.5)1		
	09T308	3(2.5)2			11T308	3(2.5)2		
	120404	431			11T312	3(2.5)3		
	120408	432			060204	2(1.5)1	MP AK (Without chipbreaker)	
	120412	433			09T302	3(2.5)0		
T type positive angle	ISO	Inch	Chipbreaker		09T304	3(2.5)1		
	06T102	1.2(1.2)0	MP AK (Without chipbreaker)		09T308	3(2.5)2		
	06T104	1.2(1.2)1			120404	431		
	06T108	1.2(1.2)2			120408	432		
	090202	1.8(1.5)0			120412	433		
	090204	1.8(1.5)1			150404	531		
	090208	1.8(1.5)2			150408	532		
	110202	2(1.5)0			150412	533		
	110204	2(1.5)1			190408	632		
	110208	2(1.5)2			190412	633		
	110302	220			190416	634		
	110304	221		110202	2(1.5)0	AK (Without chipbreaker)		
	110308	222		110204	2(1.5)1			
	16T302	3(2.5)0		110208	2(1.5)2			
	16T304	3(2.5)1		110302	220			
	16T308	3(2.5)2		110304	221			
	16T312	3(2.5)3		110308	222			
	160400	330		160402	330			
	220408	432		160404	331			
	220412	433		160408	332			
	220416	434		160412	333			
	270408	532						
	270412	533						
	330612	643						
	330616	644						

Cemented Carbide Rockwell hardness and Vickers hardness comparison table

硬質合金維氏、洛氏硬度對照

Vickers hardness (Hv3)	Rockwell hardness(HRA)	Vickers hardness (Hv3)	Rockwell hardness(HRA)
894	85.0	1450	90.1
942	85.5	1500	90.5
1004	86.0	1560	91.0
1076	86.5	1600	91.5
1140	87.0	1650	91.7
1150	87.6	1680	92.0
1200	88.1	1700	92.3
1250	88.5	1750	92.5
1330	89.0	1800	93.0
1370	89.5	1850	93.1
1400	89.9	1900	93.5
1430	90.0	1925	94.0

General Technical Data

通用技術資料

CVD Coating grades

各國主要生產廠家牌號對照

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ISO	Dohre	Sandvik	Kennametal	Iscar	Walter	Inger-soll	Cera-tizit	Seco Tool	Dijet	Korloy	Mitsubishi Material	TaeguTec	Sumitomo	Tungaloy	Kyocera	Hitachi Tool	ZCC. CT
P10	1200	GC4015	KC9110 KCP10	IC9150 IC9015	WPP10 WPP10S	TT7310	CTCP115 CTCK110 CTC3110	TP1500	JC110V	NC3010 NC3220	UE6010	TT8115	AC810P AC700G	T9115	CA5515	HG8010	YBC152
P20	1210	GC4025 GC4225	KC9125 KC9225	IC9250 IC9025	WPP20 WPP20S WKP25	TT8115 TT8125 IN5015	CTCP115 CTCP125 CTC1425	TP2000	JC215V	NC3020 NC3120 NC3220	UE6020	TT8125	AC2000 AC820P	T9025 T9125	CA5525	HG8025 HG8010 GM8020 GX2030	YBC252
P40	1220	GC4035 GC4235	KC9140 KC9240	IC635	WAK30 WKP35 WKP35S	TT7100 IN6530	CTC1135 CTCP125 CTC2135	TP3000	JC325V JC450V	NC3030 NC5330	UE6035 UH6400 US735	TT5100 TT8135	AC830P AC630M	T9035 T9135 T3130	CA5535	GM8035 GX30	YBC351
M30	1200	GC2040	KCM35 KC9240 KC9245	IC9350		TT5100 TT7100 TT9235	CTC2135 CTC1435 CTC5235	TM4000	JC215V JC325V	NCM325 NCM335	F7030	TT5100	AC630M	T6030		CM25	YBM351
K10	2200	GC3205 GC3210	KCK05	IC9150 IC9080	WPP01			TK1000	JC105V		UC5105		AC410K	T5105	CA4505 CA4010		YBD052
K20	2210	GC3215	KCK15 KCK20 KC9315	IC9150 IC9015 IC4010	WAK10 WKK10S	TT1300 TT7310	CTC3110 CTC1425 CTC3215 SR216	TK2000	JC110V JC215V	N305K NNCM310	UC5115	TT1300	AC410K AC420K AC700G	T5115	CA4515 CA4010 CA4115	HG8010	YBD152
K30	2200	GC3220 GC3020	KC9325		WPP20 WAK30		CTCP125 CTCP115		JC215	N315K NCM320	UE6110	TT1500		T5125		HG8025	YBD252
P30	1200	GC1025 GC1030	KC5025 KC5525 KC725M	IC508 IC950 IC900	WSM30	TT7220 TT9020 TT9030 IN1040 IN1540 IN2540	CTPM125 CTP1235 CTP1625	CP500 MP3000 F30M	JC5015 JC8015	PC3500	VP15TF VP20RT	TT9080 TT9030	ACP200 ACP300	AH725 AH120 AH130 AH140 GH130 AH730	PR660 PR1230	JS4060 JX1045 PTH30E HC844 CY250 CY25 IP3000	YBG202 YBG205
M20	1210	GC1025 GC1030	KC5025 KC715M KC5525	IC354 IC808 IC908	WSM20 WSM21 WXM15	TT9020 TT9030	CTP2120 CTPM125 CTP1625	TS2500 CP200 CP500 F25M	JC5015 JC5030 JC5040	PC210	VP15TF VP20MF VP20RT	TT9030 TT5030	ACP200 ACP300	AH725 AH120 GH330 AH330	PR730 PR660 PR1025 PR1225	CY150 CY150 JX1015 IP100S	YBG202 YBG205
M30	1221	GC1030 GC1040 GC2030	KC5025 KC5525 KC725M	IC300 IC928 IC1008	WSM30 WSM35 WSM36	TT8020 IN1515 IN1530 IN2005 IN2030	CTPM125 CTP2440 CTP1625	CP500 F30M F40M	JC5015 JC5030 JC5040	PC9030 PC9530	VP15TF VP20MF VP20RT	TT9030TT 9080	ACP300	AH120 AH725 AH130 AH140 GH130 AH730	PR660	JX1045 HC844 CY250 CY25 IP100S	YBG202 YBG205
M40	1220	GC1040 GC2035	KC735M	IC228 IC328 IC928	WSP45 WSM35 WSM36	TT8020 IN2030	CM45 CTP2440 CTP2235	F40M	JC5015 JC5118 JC8050	PC3545	VP30RT	TT8020				JX1060 GF30	YBG302 YBG402
K10	120	GC1210	KC5010 KC5510 KC510M	IC900 IC910	WHH15 WXM15	IN2004	CTP6215	CP200	JC5003 JC5015	PC205F PC6510	VP10RT			GH110 AH110		CY9020 CY100H CY10H	YBG102 YBG105
K20	121	GC1020 GC1220	KC5025 KC520M KU25T	IC3088 IC508 IC350	WSM35 WKK25 WSM15	IN1030 IN1515 IN2010 IN2015 IN2510 IN2505	CTP2120 CTP3220 CM45 CTP6215	CP200 CP250	JC5015	PC215K PC5300	VP10RT VP15TF VP20RT	TT6030	ACK300	AH120	PR1210 PR905	CY150 CY15 PTH13S	YBG202
K30	122		KC5025 KC5525 KU25T	IC350 IC830 IC1008	WSM35 WKK25	IN1530 IN2015 IN2510 IN2015 IN2030	CM45	CP500	JC5015	PC220	VP15TF VP20RT			GH130		JX1045 PTH40H CY250 CY25	YBG302

Note: Document of grade comparison is based on different manufacture catalogue and public documents data collection and collation. Compiled not solicit opinions from the manufacturers, please understanding.