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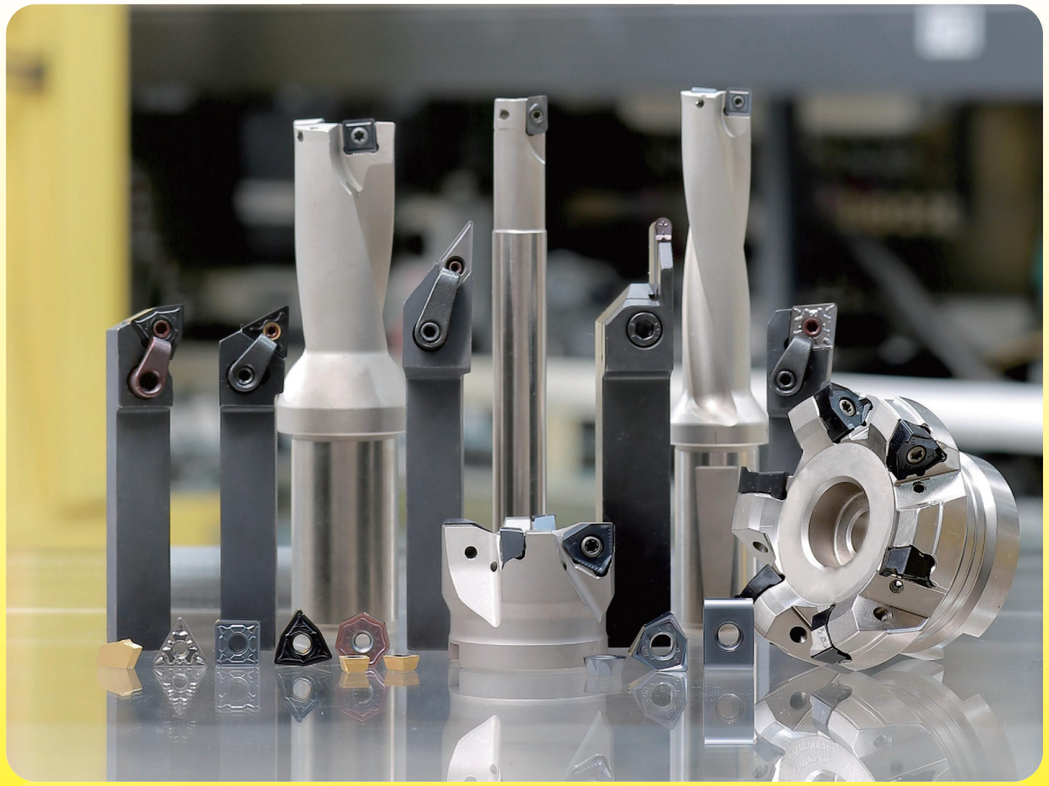
2023-2024样本

方瀚工具源头生产厂家

车刀片&铣刀片
Turning&Milling



上海方瀚精密工具有限公司
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上海方瀚精密工具有限公司
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精密机械加工刀具制造商，成立于2016 年，专业提供硬质合金、金属陶瓷刀具研发、生产、销售和服务的企业。

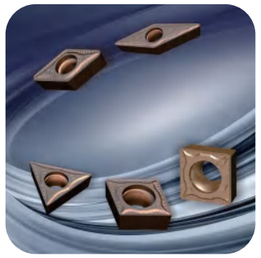
主要服务于航空航天、汽车、消费电子、液压气动、工程机械及精密机械等客户。

Manufacturer of precision machining tools, was established in 2016. The company specializes in providing tungsten carbide, cermet tools research and development, production, sales and service.
Mainly serve aerospace, automotive, consumer electronics, pneumatic hydraulic industry, engineering machinery and precision machinery customers.

公司提供的产品和服务
Products and services provided by the company

- 研究开发硬质合金材料、几何结构、涂层和加工工艺
- 依据客户要求开发非标刀具
- 客户服务和产品培训
- OEM-项目和加工工艺解决方案
- 效率和成本计算

- Researches and develops tungsten carbide materials, geometries, coatings and machining processes
- Develops special tools according to customer requirements
- Provides customer service and product training
- OEM - projects and machining process solutions
- Efficiency and cost calculation



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方瀚牌号命名规则

Fonhae Brand Naming Rules

FONHAE 方瀚

车削刀片/Turning Inserts

车削刀片牌号介绍 Grade Informations
产品牌号一览表 Recommended Grade Table
普通车削刀片型号命名规则 General Turning Inserts Naming Rules
钢件车削 General Turning Inserts for Steel
不锈钢车削 General Turning Inserts for Stainless Steel
铸铁车削 General Turning Inserts for Cast Iron
铝合金车削 General Turning Inserts for Aluminum
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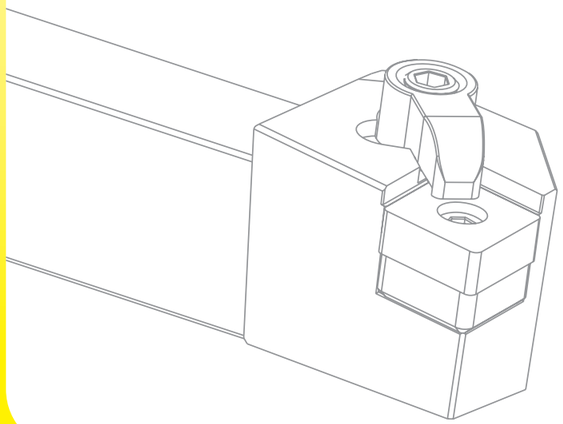
切断切槽车削 Parting and Grooving Inserts
切断切槽刀片型号命名规则 Parting and Grooving Inserts Naming Rules



车削刀片牌号介绍

Milling Insert Grade Informations

FONHAE 方瀚

产品牌号 Grade	ISO	涂层类型 Types of Coating	涂层组成 Coating Composition	特点及应用 Features and Applications
FT1153	P10~P25	CVD 双色 Bicolor	MT-TiCN+Al_2O_3+TiN	1.梯度结构的高硬度专用基体，结合中温TiCN和超细Al_2O_3涂层，刀片具备优异的耐磨性能。 2.适用于稳定工况下钢件的精加工，连续车削，追求高耐磨性场合。 1. Using the special high-hardness substrate of gradient structure, combined with medium temperature TiCN and ultra-fine Al_2O_3 coating, it has excellent performance of wear resistance. 2. It is suitable for finishing processing and continuous turning of steel under stable working conditions and in pursuit of high wear-resistant occasions.
FT1253	P15~P35	CVD 双色 Bicolor	MT-TiCN+Al_2O_3+TiN	1.全新的纳米柱状结构MT-TiCN和厚Al_2O_3涂层，与韧性、强度兼备的中钴梯度硬质合金基体相结合。 2.适用于碳钢、合金钢等材料的半精加工到粗加工，亦可用于断续加工，是钢件车削加工的首选牌号。 1. Using new nano-columnar structure of MT-TiCN and thick Al_2O_3 coating, combined with medium Cobalt gradient cemented carbide substrate with both toughness and strength. 2. It is suitable for semi-finishing to roughing processing of carbon steel, alloy steel and other materials. It can also be used for interrupted processing, and is the preferred grade for steel turning.
FT1373	P20~P40	CVD 双色 Bicolor	MT-TiCN+Al_2O_3+TiN	1.高韧性基体搭配合适厚度的MT-TiCN和Al_2O_3涂层，使得材质在强冲击力工况下仍能兼顾耐磨性和稳定性。 2.适用于碳钢、合金钢等材料的车削粗加工。 1. High toughness substrate with suitable thickness of MT-TiCN and Al_2O_3 coating, which makes the material keep the wear resistance and stability under strong impact conditions. 2. It is suitable for roughing processing of carbon steel, alloy steel and other materials turning.
FT3221	P20~P35	CVD 黄色 Yellow	MT-TiCN+Al_2O_3+TiN	1.采用中钴含量的韧性硬质合金基体，结合中温TiCN和厚的Al_2O_3涂层，具有优良的耐磨性和抗崩缺性能。 2.适用于软钢、低碳钢、低碳合金钢的广泛车削加工。 1. It uses medium Cobalt content tough cemented carbide substrate, combined with medium temperature TiCN and thick Al2O3 coating, which has excellent performance of wear resistance and chipping resistance. 2.It is suitable for a wide range of turning of soft steel, low carbon steel and low carbon alloy steel.
FT2252	P15~P35; M10~M30	CVD 双色 Bicolor	MT-TiCN+Al_2O_3	1.采用中钴成分的高韧性梯度合金基体，搭配细晶柱状TiCN和超细的薄的Al_2O_3涂层，具有优异的抗崩缺能力和高温强度。 2.适用于钢件、不锈钢材料的半精、粗车削加工，亦可用于恶劣工况下的大切深、大进给加工。 1. Using high toughness gradient cemented carbide substrate with medium Cobalt content, matched with fine crystalline columnar TiCN and ultra-fine Al_2O_3 coating, it has excellent performance of chipping resistance and high temperature resistance. 2. It is suitable for semi-finishing and roughing processing of steel and stainless steel turning. It can also be used for large depth of cut and large feed machining under severe working conditions.
FT1331	P25~P45	CVD 黄色 Yellow	MT-TiCN+Al_2O_3+TiN	1.采用良好韧性的高钴基体，结合专用CVD涂层，在强断续加工时稳定可靠。 2.适用于钢件的车削粗加工，常用于刮管、去毛刺等应用场合。 1. Using high Cobalt content substrate with good toughness, combined with special CVD coating, it is stable and reliable in strong interrupted machining. 2. It is suitable for roughing processing of steel turning, and is commonly used in applications such as pipe scraping and burring.
FT3123	K10~K25	CVD 双色 Bicolor	MT-TiCN+Al_2O_3	1.高耐磨性细晶粒基体，搭配细晶柱状中温TiCN和加厚Al_2O_3涂层，具有高的耐磨性和热稳定性。 2.适用于球墨铸铁的连续加工和高耐磨性场合，尤其适合灰口铸铁的加工。 1. Using high wear resistance fine crystalline substrate，combined with fine crystalline columnar medium temperature TiCN and thickened Al_2O_3 coating, it has excellent performance of wear resistance and thermal stability. 2. It is suitable for continuous processing of nodular cast iron and high wear resistance occasions, especially applicable to the processing of gray cast iron.
FT3263	K15~K35	CVD 双色 Bicolor	MT-TiCN+Al_2O_3	1.中等晶粒的强韧性基体，搭配全新升级的MT-TiCN和Al_2O_3涂层工艺，经特殊后处理工艺，刃口强度好，表面光滑。 2.适用于铸铁的半精加工到粗加工，亦可用于断续切削，是铸铁车削加工的首选牌号。 1.The strong and tough matrix of medium grain, combined with the newly upgraded MT-TiCN and Al_2O_3 coating process, after special post-treatment process, has good cutting edge strength and smooth surface. 2. It is suitable for semi-finishing to roughing processing of cast iron, and can also be used for interrupted cutting. It is the preferred grade for cast iron turning.

车削刀片牌号介绍

Milling Insert Grade Informations

FONHAE 方瀚

产品牌号 Grade	ISO	涂层类型 Types of Coating	涂层组成 Coating Composition	特点及应用 Features and Applications
FT3126	M05~M25 S05~S25	PVD 灰黑色 Gray-black	TiAlN	1. 高耐磨性的细晶粒低钴基体，搭配通用性好的TiAlN涂层，具有优异的耐磨性性能。 2. 适用于不锈钢、高温合金、钛合金等的连续精加工场合。 1. Using fine-grain low-cobalt substrate with high wear resistance, combined with high universality of TiAlN coating, it has excellent wear resistance. 2.It is suitable for continuous finishing of stainless steel，superalloy, titanium alloy, etc.
FT8204	M10~M25 S10~S25	PVD 古铜色 Copper	TiAlSiN	1. 采用亚微晶粒的中钴基体，搭配极高热稳定性的含硅PVD涂层，具有耐磨性好，耐高温性能优异的特点。 2. 适用于不锈钢、高温合金、钛合金等的连续车削场合，半精加工、偏精加工。 1. Using the submicron grain medium cobalt substrate, combined with silicon-containing PVD coating with extremely high thermal stability, the inserts have characteristics of good wear resistance and high temperature resistance. 2. It is suitable for continuous turning of stainless steel，superalloy, titanium alloy, etc, semi-finishing and partial finishing.
FT8206	P10~P25 M05~M25 S05~S25	PVD 灰黑色 Gray-black	TiAlN	1. 采用亚微晶粒的中钴基体，结合纳米结晶TiAlN涂层，具有良好的强韧性和通用性能。 2. 适用于合金钢、不锈钢、高温合金等的连续车削场合，半精加工。 1.The submicron grain medium cobalt substrate combined with nanocrystal TiAlN coating, which makes it has high-toughness and good generality. 2.It is suitable for continuous turning of alloy steel, stainless steel，superalloy, semi-finishing.
FT8207	S15~S30	PVD 银色 Silver	TiB2	1. 采用亚微晶粒的中钴基体，搭配极具润滑性的纳米TiB2涂层，具有提供优异的涂层附着力，极度光滑的涂层表面，可有效避免积屑瘤的产生。 2. 适用于钛合金的车削加工。 1.Using the submicron grain medium cobalt substrate, combined with strong lubricity of nano-TiB2 coating. The coating surface has excellent coating adhesion and is extremely smooth, which can effectively avoid the formation of debris accumulation. 2.It is suitable for turning titanium alloy.
FT8284	M15~M30 S15~S30	PVD 古铜色 Copper	TiAlSiN	1. 中钴含量的细晶粒硬质合金基体，结合热稳定性优异的TiAlSiN涂层，兼具耐磨性和韧性，且耐高温性能优异。 2. 适用于不锈钢、耐热合金的半精车削加工。 1.The fine grain cemented carbide substrate with medium cobalt combined with excellent thermal stability of TiAlSiN coating, which makes inserts have good wear resistance and toughness, and excellent high temperature resistance. 2.It is suitable for semi-finishing turning of stainless steel and heat-resistant alloy.
FT8286	P15~P30 M15~M30 S15~S30	PVD 灰黑色 Gray-black	TiAlN	1. 中钴含量的细晶粒硬质合金基体，具有良好的刃口强度，搭配全新的TiAlN涂层，具有良好的耐磨和通用性能。 2. 适用于合金钢、不锈钢等的半精车削加工，是不锈钢车削加工的通用牌号。 1. Using medium cobalt fine-grained cemented carbide substrate with good edge strength, combined with the new TiAlN coating, it has both good wear resistance and generality. 2. It is applicable to semi-finishing turning of alloy steel, stainless steel, etc. and it is a general grade of stainless steel turning.
FT8296	P15~P30 M15~M30 S15~S30	PVD 灰黑色 Gray-black	TiAlN	1. 较高耐磨性的细晶粒中钴基体，搭配通用性好的TiAlN涂层，具有良好的膜基结合力、耐磨性和抗氧化性能。 2. 适用于合金钢、不锈钢、高温合金等的半精车削加工。 1. The fine-grain medium cobalt substrate with high wear resistance is match with high universality of TiAlN coating, it has good film-based adhesion, wear resistance and oxidation resistance. 2.It is suitable for semi-finishing turning of alloy steel, stainless steel，superalloy, etc.
FT8326	P20~P30 M20~M35	PVD 灰黑色 Gray-black	TiAlN	1. 在韧性和耐磨性较高的硬质合金基体上，沉积纳米TiAlN涂层，具有优异的抗崩刃性，加工稳定性好，可获得了较好的刀具寿命。 2. 适用于合金钢、不锈钢等的半精加工和切槽加工，可用于断续车削加工。 1. Both high toughness and wear resistance of cemented carbide substrate is match with the deposition of nano-TiAlN coating, it has excellent edge collapse resistance, good processing stability and good tool life. 2. It is applicable to semi-finishing and grooving of alloy steel and stainless steel, and can be used for intermittent turning processing.

车削刀片牌号介绍

Milling Insert Grade Informations

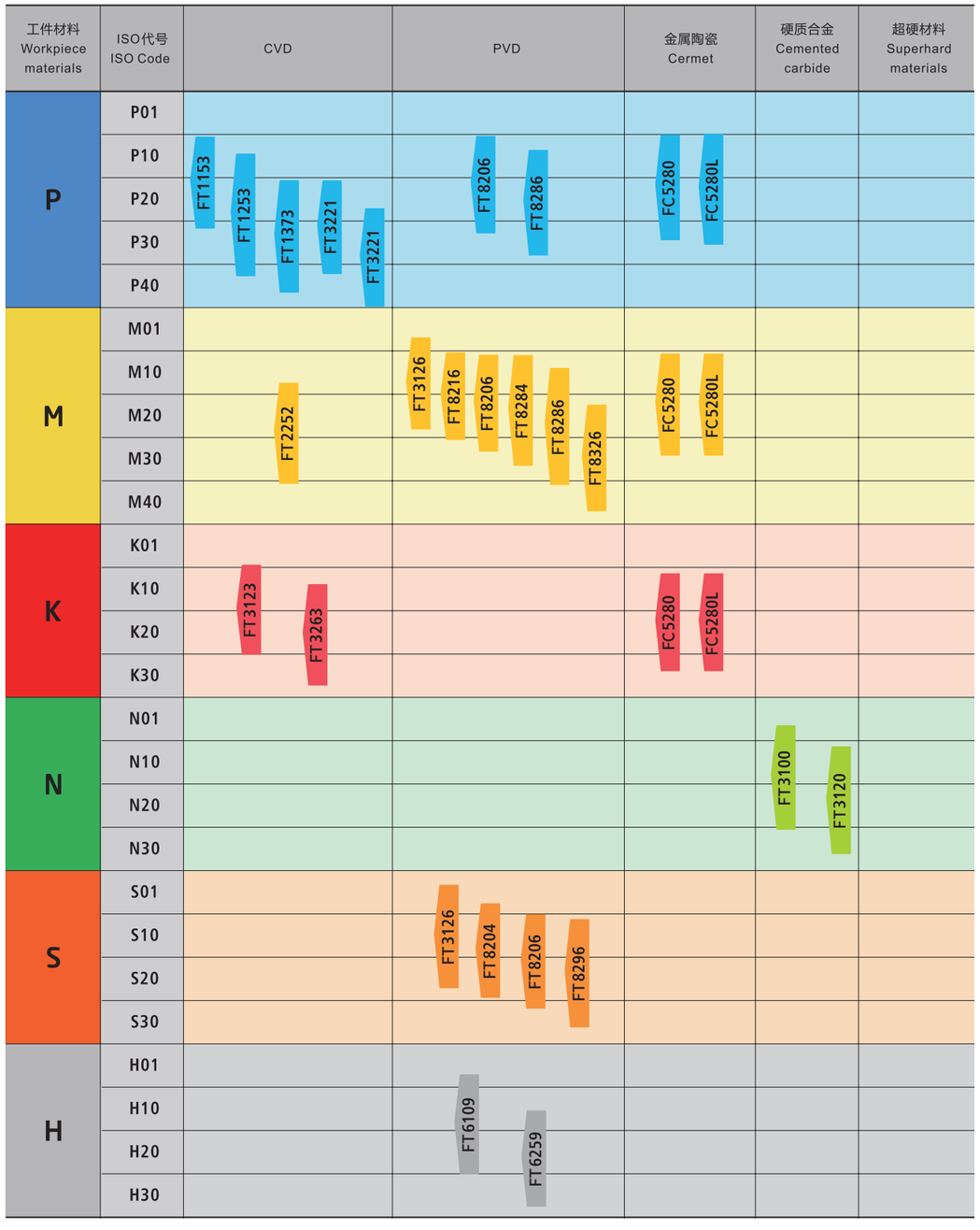
FONHAE 方瀚

产品牌号 Grade	ISO	涂层类型 Types of Coating	涂层组成 Coating Composition	特点及应用 Features and Applications
FT 8216	M10~M25 S10~S25	PVD 灰黑色 Gray-black	TiAlN	1. 采用中钴含量的亚微晶粒硬质合金基体，搭配纳米结构的TiAlN涂层，具有优异的涂层结合力，高耐磨性和抗氧化性能。 2. 适用于不锈钢、高温合金的精加工，小零件加工和螺纹加工。 1.The submicrograin cemented carbide matrix with medium Cobalt content combined with the nanostructures TiAlN coating , it has excellent coating adhesion, high wear resistance and oxidation resistance. 2. Suitable for finishing of stainless steel, high temperature alloy, small parts processing and thread processing.
FT 6109	H05~H25	PVD 七彩色 Multiple-Color	AlTiCrSiN	1.采用低钴含量的超细晶粒硬质合金基体，搭配全新升级的纳米结构PVD涂层，获得较强的涂层结合力、高耐磨性和高抗氧化性能。 2. 适用于淬硬钢的连续车削加工。 1.The ultra-fine grain cemented carbide matrix with low Cobalt content is used with the newly upgraded nanostructure PVD coating to obtain strong coating adhesion, high wear resistance and high oxidation resistance. 2.It is suitable for continuous turning processing of hardened steel.
FT 6259	H15~H30	PVD 七彩色 Multiple-Color	AlTiCrSiN	1.采用低钴含量的细晶粒硬质合金基体，结合优异性能的纳米结构PVD涂层，具有优异的耐磨性和耐高温性能。 2. 适用于淬硬钢的车削半精加工，轻断续加工场合。 1.The fine grain cemented carbide matrix with low Cobalt content is used, combined with excellent performance nanostructure PVD coating to obtain wear resistance and high temperature resistance. 2.It is suitable for turning semi-finishing of hardened steel, light intermittent processing occasions.
FC 5280	P10~P25 M15~M25 K10~K25	无涂层 Uncoated	\	1.TiCN基金属陶瓷牌号，细小弥散的硬质相颗粒、粘结相强化和环形相结构控制三者结合，使之表现出优异的耐磨性、红硬性和抗月牙洼磨损性能。 2.适用于钢件、不锈钢、铸铁等材料的精、半精加工。 1.TiCN-based cermet grade, fine dispersion hard phase particles, bonded phase reinforcement and annular phase structure control are combined to show excellent wear resistance, red hardness and crescent hole wear resistance. 2.It is suitable for finishing and semi-finishing of steel, stainless steel, cast iron etc.
FC 5280L	P15~P25 M15~M25 K10~K25	无涂层 Uncoated	\	1.TiCN基金属陶瓷牌号，特殊成分的添加，在耐磨性不降低的前提下，进一步增强了材质的抗弯强度和热稳定性能，极大地提高了金属陶瓷牌号的使用安全性。 2.适用于钢件、不锈钢、铸铁等材料的精、半精加工。 1.TiCN-based cermet grade, the addition of special components, under the premise of no reduction in wear resistance, further enhances the bending strength and thermal stability of the material, and greatly improves the safety of the use of cermet grades. 2.It is suitable for finishing and semi-finishing of steel, stainless steel, cast iron etc.
FT 3100	N05~N20	无涂层 Uncoated	\	1. 低钴的亚微晶粒硬质合金材质，结合特殊的后处理工艺，具有优异的耐磨性和抗黏结性。 2. 适用于有色金属的车削精加工。 1.Low Cobalt submicrograin cemented carbide grade, combined with a special post - treatment process, has excellent wear resistance and adhesion resistance. 2.It is suitable for turning finishing processing of non-ferrous metals.
FT 3120	N10-N30	无涂层 Uncoated	\	1. 低钴含量的细晶粒硬质合金材质，结合特殊的后处理工艺，具有优异的耐磨性和抗黏结性。 2. 适用于有色金属的车削加工。 1. The fine grain carbide grade with low cobalt content, combined with a special post-treatment process, has excellent wear resistance and adhesion resistance. 2.It is suitable for turning of non-ferrous metals.

车削产品牌号一览表

Recommended Grade Table

FONHAE 方瀚

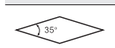


普通车削刀片命名规则
General Turning Inserts Naming Rules

FONHAE 方瀚

形状代号 Shape

T	N	M	G	16	04	08	—	MB

A	B	C
D	E	H
K	L	M
O	P	R
S	T	T
V	W	Z
		其 它

断屑槽及夹固形式代号 Chip Breaker and Hole

T	N	M	G	16	04	08	—	MB

代号 Symbol	有无孔 Center Hole	有无断屑槽 Chip Breaker	刀片剖面 Insert Profile	代号 Symbol	有无孔 Center Hole	有无断屑槽 Chip Breaker	刀片剖面 Insert Profile
B	有(Y)	无(N)		N	无(N)	无（N）	
H	有(Y)	单面(S)		R	无(N)	单面（S）	
C	有(Y)	无(N)		F	无(N)	双面（D）	
J	有(Y)	双面(D)		A	有(Y)	无（N）	
W	有(Y)	无(N)		M	有(Y)	单面（S）	
T	有(Y)	单面(S)		G	有(Y)	双面（D）	
Q	有(Y)	无(N)		X			
U	有(Y)	双面(D)					

后角代号 Clearance Angle

T	N	M	G	16	04	08	—	MB

A	B
C	D
E	F
G	N
P	O
	其它后角 Others

精度代号 Tolerance

T	N	M	G	16	04	08	—	MB

代号 Symbol	刀尖高度m 公差（mm） m(mm)	内接圆ΦI.C 公差（mm） d=I.C. (mm)	厚度S 公差（mm） s (mm)	（参考）M级精度详细情况（按形状、大小分）●刀尖高度公差(mm) (reference)M grade tolerance detail(according to shape, size.) Tolerance of insert nose height						
				内切圆 Inscribed Circle	正三角形 Regular Triangle	正方形 Square	80° 菱形 80° Rhombus	55° 菱形 55° Rhombus	35° 菱形 35° Rhombus	圆形 Round
				6.35	±0.08	±0.08	±0.08	±0.11	±0.16	···
				9.525	±0.08	±0.08	±0.08	±0.11	±0.16	···
				12.7	±0.13	±0.13	±0.13	±0.15	···	···
A	±0.005	±0.025	±0.025	15.875	±0.15	±0.15	±0.15	±0.18	···	···
F	±0.005	±0.013	±0.025	19.05	±0.15	±0.15	±0.15	±0.18	···	···
C	±0.013	±0.025	±0.025	25.4	···	±0.18	···	···	···	···
H	±0.013	±0.013	±0.013	●内切圆ΦI.C公差（mm）●Tolerance of Inscribed Circle						
E	±0.025	±0.025	±0.025	内切圆 Inscribed Circle	正三角形 Regular triangle	正方形 Square	80° 菱形 80° Rhombus	55° 菱形 55° Rhombus	35° 菱形 35° Rhombus	圆形 Round
G	±0.025	±0.025	±0.13							
J	±0.005	±0.05~±0.13	±0.025	6.35	±0.05	±0.05	±0.05	±0.05	±0.05	
K	±0.013	±0.05~±0.13	±0.025	9.525	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
L	±0.025	±0.05~±0.13	±0.025	12.7	±0.08	±0.08	±0.08	±0.08	···	±0.08
M	±0.08~±0.18	±0.05~±0.13	±0.13	15.875	±0.1	±0.1	±0.10	±0.10	···	±0.1
N	±0.08~±0.18	±0.05~±0.13	±0.025	19.05	±0.1	±0.1	±0.10	±0.10	···	±0.1
U	±0.13~±0.38	±0.08~±0.25	±0.13	25.4	···	···	±0.13	···	···	±0.13

普通车削刀片命名规则
General Turning Inserts Naming Rules
FONHAE 方瀚

切削刃长度代号 Cutting Edge Length

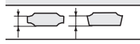
T	N	M	G	16	04	08	—	MB

内切圆直径 Inscribed Circle diameter(mm)	刀片外形 Insert Shape							
	C	D	R	S	T	V	W	K
3.97					06			
5			05					
5.56					09			
6			06					
6.35	06	07			11	11		
8			08					
9.525	09	11	09	09	16	16	06	16
10			10					
12			12					
12.7	12	15	12	12	22	22	08	
15.875	16		15	15	27			
16			16	16				
19.05	19		19	19	33			
20			20					
25	25	25	25					
25.4			25	25				
31.75			31					
32			32					

刀片厚度代号 Thickness

T	N	M	G	16	04	08	—	MB

代号 Symbol	刀片厚度 Thickness(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	12.7


厚度指刀片底面与切削刃最高部分之间的高度
The Height Between Insert Bottom And Nose

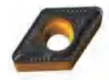
刀尖圆弧代号 Corner Radius

T	N	M	G	16	04	08	—	MB

代号 Symbol	刀尖圆弧半径（mm） Corner Radius（mm）
00	无圆角
02	0.2
04	0.4
08	0.8
12	1.2
16	1.6
20	2
24	2.4
32	3.2
X	其它 Special
刀片直径尺寸mo（公制） Diameter Dimension	圆形刀片 Round Insert

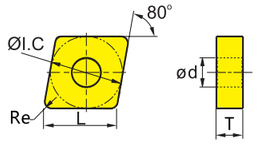
断屑槽型代号 Chip Breaker

T	N	M	G	16	04	08	—	MB

GMR	PMK	GM	PR
			
MJ	MF	GM	MM-B
GH	ZT		

Turning Inserts - Negative
CNMG / CNMA (80° Negative)

车削刀片 - 负角型
CNMG/CNMA （80°负角型）



√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																						
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√
M	不锈钢										√	√	√	○	○	○	×	×	×	√
K	铸铁																	×	×	
N	有色金属																			
S	耐热合金、钛合金																	×	×	
H	淬硬钢																			

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层								PVD涂层							金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
	CNMG090304-MB	9.7	9.525	3.18	3.81	0.4			●			▲			●								●	▲
	CNMG090308-MB	9.7	9.525	3.18	3.81	0.8			●			▲			●								●	▲
	CNMG120404-MB	12.9	12.7	4.76	5.16	0.4			●			▲			●								●	▲
	CNMG120408-MB	12.9	12.7	4.76	5.16	0.8			●			▲			●								●	▲
	CNMG120412-MB	12.9	12.7	4.76	5.16	1.2			●			▲			●								●	▲
	CNMG120416-MB	12.9	12.7	4.76	5.16	1.6			●			▲			●								●	▲
	CNMG160608-MB	16.1	15.875	6.35	6.35	0.8			●			▲			●								●	▲
	CNMG160612-MB	16.1	15.875	6.35	6.35	1.2			●			▲			●								●	▲
	CNMG160616-MB	16.1	15.875	6.35	6.35	1.6			●			▲			●								●	▲
	CNMG190608-MB	19.3	19.05	6.35	7.94	0.8			●			▲			●								●	▲
半精加工-精加工 Semi-finishing to Finishing	CNMG190612-MB	19.3	19.05	6.35	7.94	1.2			●			▲			●								●	▲
	CNMG190616-MB	19.3	19.05	6.35	7.94	1.6			●			▲			●								●	▲

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

MB

科学、合理的断屑筋须设计，具有非常好得断屑效果，可用于钢件的半精到精加工。

GMR

通用槽型，兼顾锋利性和强度，覆盖范围宽广，半精到粗加工槽型。

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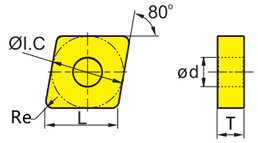
Turning Inserts - Negative
CNMG / CNMA (80° Negative)

车削刀片 - 负角型
CNMG/CNMA （80°负角型）



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工件材料 Workpiece Material																					
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√
M	不锈钢										√	√	√	○	○	○	×	×	×	√
K	铸铁																	×	×	
N	有色金属																			
S	耐热合金、钛合金																	×	×	
H	淬硬钢																			

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层									PVD涂层								金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
	CNMG120404-GMR	12.9	12.7	4.76	5.16	0.4			●			▲			●								●	●	
	CNMG120408-GMR	12.9	12.7	4.76	5.16	0.8			●			▲			●								●	●	
	CNMG120412-GMR	12.9	12.7	4.76	5.16	1.2			●			▲			●								●	●	
	CNMG160608-GMR	16.1	15.875	6.35	6.35	0.8			●			▲			●								●	●	
	CNMG160612-GMR	16.1	15.875	6.35	6.35	1.2			●			▲			●								●	●	
	CNMG160616-GMR	16.1	15.875	6.35	6.35	1.6			●			▲			●								●	●	
	CNMG190608-GMR	19.3	19.05	6.35	7.94	0.8			●			▲			●								●	●	
半精加工-粗加工 Semi-finishing to Roughing	CNMG190612-GMR	19.3	19.05	6.35	7.94	1.2			●			▲			●								●	●	
	CNMG190616-GMR	19.3	19.05	6.35	7.94	1.6			●			▲			●								●	●	

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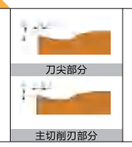

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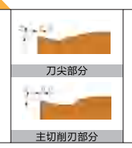
GMR



通用槽型，兼顾锋利性和强度，覆盖范围宽广，半精到粗加工槽型。

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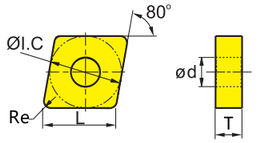

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工件材料 Workpiece Material																					
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√
M	不锈钢										√	√	√	○	○	○	×	×	×	√
K	铸铁																	×	×	
N	有色金属																			
S	耐热合金、钛合金																	×	×	
H	淬硬钢																			

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层									PVD涂层								金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
	CNMG090304-PMK	9.7	9.525	3.18	3.81	0.4			●			▲			●										
	CNMG090308-PMK	9.7	9.525	3.18	3.81	0.8			●			▲			●										
	CNMG120404-PMK	12.9	12.7	4.76	5.16	0.4			●			▲			●										
	CNMG120408-PMK	12.9	12.7	4.76	5.16	0.8			●			▲			●										
	CNMG120412-PMK	12.9	12.7	4.76	5.16	1.2			●			▲			●										
	CNMG120416-PMK	12.9	12.7	4.76	5.16	1.6			●			▲			●										
	CNMG160608-PMK	16.1	15.875	6.35	6.35	0.8			●			▲			●										
	CNMG160612-PMK	16.1	15.875	6.35	6.35	1.2			●			▲			●										
	CNMG160616-PMK	16.1	15.875	6.35	6.35	1.6			●			▲			●										
	CNMG190608-PMK	19.3	19.05	6.35	7.94	0.8			●			▲			●										
半精加工-粗加工 Semi-finishing to Roughing	CNMG190612-PMK	19.3	19.05	6.35	7.94	1.2			●			▲			●										
	CNMG190616-PMK	19.3	19.05	6.35	7.94	1.6			●			▲			●										

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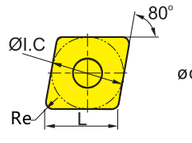

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工件材料 Workpiece Material																						
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√
M	不锈钢										√	√	√	○	○	○	×	×	×	√
K	铸铁																	×	×	
N	有色金属																			
S	耐热合金、钛合金																	×	×	
H	淬硬钢																			

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层									PVD涂层									金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
	CNMG120404-PR	12.9	12.7	4.76	5.16	0.4		●	▲		●	▲													
	CNMG120408-PR	12.9	12.7	4.76	5.16	0.8		●	▲		●	▲													
	CNMG120412-PR	12.9	12.7	4.76	5.16	1.2		●	▲		●	▲													
	CNMG160408-PR	16.1	15.875	6.35	6.35	0.8		●	▲		●	▲													
	CNMG160412-PR	16.1	15.875	6.35	6.35	1.2		●	▲		●	▲													
	CNMG160416-PR	16.1	15.875	6.35	6.35	1.6		●	▲		●	▲													
	CNMG190608-PR	19.3	19.05	6.35	7.94	0.8		●	▲		●	▲													
半精加工 Semi-finishing	CNMG190612-PR	19.3	19.05	6.35	7.94	1.2		●	▲		●	▲													
	CNMG190616-PR	19.3	19.05	6.35	7.94	1.6		●	▲		●	▲													

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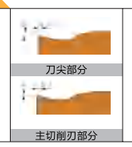

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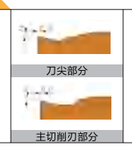
GMR



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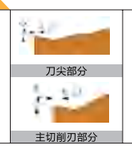

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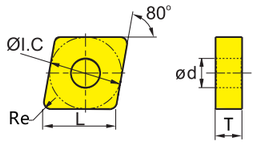
CNMG / CNMA (80° Negative)

车削刀片 - 负角型
CNMG/CNMA （80°负角型）



√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																						
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√
M	不锈钢										√	√	√	○	○	○	×	×	×	√
K	铸铁																	×	×	
N	有色金属																			
S	耐热合金、钛合金																	×	×	
H	淬硬钢																			

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层									PVD涂层									金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
	CNMG120404	12.9	12.7	4.76	5.16	0.4		●	▲	●		▲		●	●										
	CNMG120408	12.9	12.7	4.76	5.16	0.8		●	▲	●		▲		●	●										
	CNMG120412	12.9	12.7	4.76	5.16	1.2		●	▲	●		▲		●	●										
	CNMG160408	16.1	15.875	6.35	6.35	0.8		●	▲	●		▲		●	●										
	CNMG160412	16.1	15.875	6.35	6.35	1.2		●	▲	●		▲		●	●										
	CNMG160416	16.1	15.875	6.35	6.35	1.6		●	▲	●		▲		●	●										
	CNMG190608	19.3	19.05	6.35	7.94	0.8		●	▲	●		▲		●	●										
通槽 Standard	CNMG190612	19.3	19.05	6.35	7.94	1.2		●	▲	●		▲		●	●										
	CNMG190616	19.3	19.05	6.35	7.94	1.6		●	▲	●		▲		●	●										

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

MB

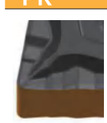
科学、合理的断屑筋须设计，具有非常好得断屑效果，可用于钢件的半精到精加工。

GMR

通用槽型，兼顾锋利性和强度，覆盖范围宽广，半精到粗加工槽型。

PMK

双面断屑槽，适合钢、不锈钢、铸铁等的内孔及外圆半精加工。

PR


超强碎屑能力，主要适用于产品的粗加工。

通槽

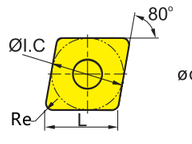
刃口强度好，适合半精加工。

L/R-X

大前角设计，适合粗加工。

Turning Inserts - Negative
CNMG / CNMA (80° Negative)

车削刀片 - 负角型
CNMG/CNMA （80°负角型）



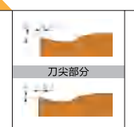
√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																						
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√
M	不锈钢										√	√	√	○	○	○	×	×	×	√
K	铸铁																	×	×	
N	有色金属																			
S	耐热合金、钛合金																	×	×	
H	淬硬钢																			

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层									PVD涂层								金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
通槽 Standard	CNMM120404	12.9	12.7	4.76	5.16	0.4		●	▲	●		▲		●	●									
	CNMM120408	12.9	12.7	4.76	5.16	0.8		●	▲	●		▲		●	●									
	CNMM120412	12.9	12.7	4.76	5.16	1.2		●	▲	●		▲		●	●									
	CNMM190608	19.3	19.05	6.35	7.94	0.8		●	▲	●		▲		●	●									
	CNMM190612	19.3	19.05	6.35	7.94	1.2		●	▲	●		▲		●	●									
	CNMM190616	19.3	19.05	6.35	7.94	1.6		●	▲	●		▲		●	●									
	CNMM190624	19.3	19.05	6.35	7.94	2.4		●	▲	●		▲		●	●									
左右手 L/R	CNMG120404L/R-X	12.9	12.7	4.76	5.16	0.4	●	●	▲	●											▲			▲
	CNMG120408L/R-X	12.9	12.7	4.76	5.16	0.8	●	●	▲	●											▲			▲
	CNMG120412L/R-X	12.9	12.7	4.76	5.16	1.2	●	●	▲	●											▲			▲

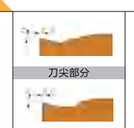
▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

MB



科学、合理的断屑筋须设计，具有非常好得断屑效果，可用于钢件的半精到精加工。

GMR

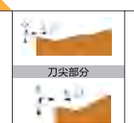


通用槽型，兼顾锋利性和强度，覆盖范围宽广，半精到粗加工槽型。

PMK

双面断屑槽，适合钢、不锈钢、铸铁等的内孔及外圆半精加工。

PR



超强碎屑能力，主要适用于产品的粗加工。

通槽

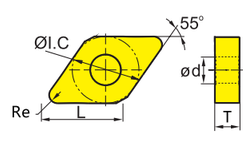
刃口强度好，适合半精加工。

L/R-X

大前角设计，适合粗加工。

Turning Inserts - Negative
DNMG / DNMA (55° Negative)

车削刀片 - 负角型
DNMG / DNMA (55°负角型)



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工件材料 Workpiece Material																						
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√
M	不锈钢										√	√	√	○	○	○	×	×	×	√
K	铸铁																	×	×	
N	有色金属																			
S	耐热合金、钛合金																	×	×	
H	淬硬钢																			

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层									PVD涂层								金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
半精加工-精加工 Semi-finishing to Finishing	DNMG110404-MB	11.6	9.525	4.76	3.81	0.4			●			▲			●								●	▲
	DNMG110408-MB	11.6	9.525	4.76	3.81	0.8			●			▲			●								●	▲
	DNMG110412-MB	11.6	9.525	4.76	3.81	1.2			●			▲			●								●	▲
	DNMG150404-MB	15.5	12.7	4.76	5.16	0.4			●			▲			●								●	▲
	DNMG150408-MB	15.5	12.7	4.76	5.16	0.8			●			▲			●								●	▲
	DNMG150412-MB	15.5	12.7	4.76	5.16	1.2			●			▲			●								●	▲
	DNMG150604-MB	15.5	12.7	6.35	5.16	0.4			●			▲			●								●	▲
	DNMG150608-MB	15.5	12.7	6.35	5.16	0.8			●			▲			●								●	▲
	DNMG150612-MB	15.5	12.7	6.35	5.16	1.2			●			▲			●								●	▲

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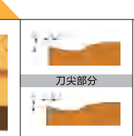
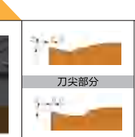
MB



科学、合理的断屑筋须设计，具有非常好得断屑效果，可用于钢件的半精到精加工。

GMR

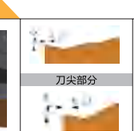


通用槽型，兼顾锋利性和强度，覆盖范围宽广，半精到粗加工槽型。

PMK

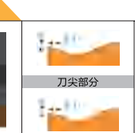
双面断屑槽，适合钢、不锈钢、铸铁等的内孔及外圆半精加工。

PR



超强碎屑能力，主要适用于产品的粗加工。

通槽



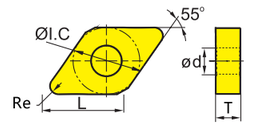
刃口强度好，适合半精加工。

L/R-X

大前角设计，适合粗加工。

Turning Inserts - Negative
DNMG / DNMA (55° Negative)

车削刀片 - 负角型
DNMG / DNMA (55°负角型)



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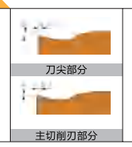
工件材料 Workpiece Material																						
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√
M	不锈钢										√	√	√	○	○	○	×	×	×	√
K	铸铁																	×	×	
N	有色金属																			
S	耐热合金、钛合金																	×	×	
H	淬硬钢																			

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层									PVD涂层								金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
	DNMG110404-GMR	11.6	9.525	4.76	3.81	0.4			●			▲			●								●	●	
	DNMG110408-GMR	11.6	9.525	4.76	3.81	0.8			●			▲			●								●	●	
	DNMG110412-GMR	11.6	9.525	4.76	3.81	1.2			●			▲			●								●	●	
	DNMG150404-GMR	15.5	12.7	4.76	5.16	0.4			●			▲			●								●	●	
	DNMG150408-GMR	15.5	12.7	4.76	5.16	0.8			●			▲			●								●	●	
	DNMG150412-GMR	15.5	12.7	4.76	5.16	1.2			●			▲			●								●	●	
	DNMG150604-GMR	15.5	12.7	6.35	5.16	0.4			●			▲			●								●	●	
	DNMG150608-GMR	15.5	12.7	6.35	5.16	0.8			●			▲			●								●	●	
半精加工-粗加工 Semi-finishing to Roughing	DNMG150612-GMR	15.5	12.7	6.35	5.16	1.2			●			▲			●								●	●	

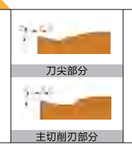
▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

MB



科学、合理的断屑筋须设计，具有非常好得断屑效果，可用于钢件的半精到精加工。

GMR

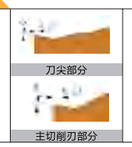


通用槽型，兼顾锋利性和强度，覆盖范围宽广，半精到粗加工槽型。

PMK

双面断屑槽，适合钢、不锈钢、铸铁等的内孔及外圆半精加工。

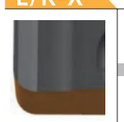
PR



超强碎屑能力，主要适用于产品的粗加工。

通槽

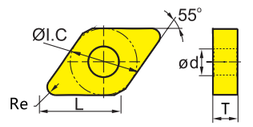
刃口强度好，适合半精加工。

L/R-X


大前角设计，适合粗加工。

Turning Inserts - Negative
DNMG / DNMA (55° Negative)

车削刀片 - 负角型
DNMG / DNMA (55°负角型)



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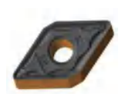
工件材料 Workpiece Material																						
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√
M	不锈钢										√	√	√	○	○	○	×	×	×	√
K	铸铁																	×	×	
N	有色金属																			
S	耐热合金、钛合金																	×	×	
H	淬硬钢																			

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层									PVD涂层								金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
	DNMG110404-PMK	11.6	9.525	4.76	3.81	0.4			●			▲			●										
	DNMG110408-PMK	11.6	9.525	4.76	3.81	0.8			●			▲			●										
	DNMG110412-PMK	11.6	9.525	4.76	3.81	1.2			●			▲			●										
	DNMG150404-PMK	15.5	12.7	4.76	5.16	0.4			●			▲			●										
	DNMG150408-PMK	15.5	12.7	4.76	5.16	0.8			●			▲			●										
	DNMG150412-PMK	15.5	12.7	4.76	5.16	1.2			●			▲			●										
	DNMG150604-PMK	15.5	12.7	6.35	5.16	0.4			●			▲			●										
	DNMG150608-PMK	15.5	12.7	6.35	5.16	0.8			●			▲			●										
半精加工-粗加工 Semi-finishing to Roughing	DNMG150612-PMK	15.5	12.7	6.35	5.16	1.2			●			▲			●										

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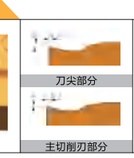
MB



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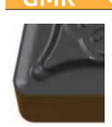
GMR


通用槽型，兼顾锋利性和强度，覆盖范围宽广，半精到粗加工槽型。

PMK

双面断屑槽，适合钢、不锈钢、铸铁等的内孔及外圆半精加工。

PR

超强碎屑能力，主要适用于产品的粗加工。

通槽

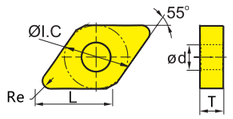
刃口强度好，适合半精加工。

L/R-X

大前角设计，适合粗加工。

Turning Inserts - Negative
DNMG / DNMA (55° Negative)

车削刀片 - 负角型
DNMG / DNMA (55°负角型)



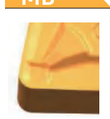
√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

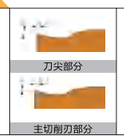
工件材料 Workpiece Material																						
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√
M	不锈钢										√	√	√	○	○	○	×	×	×	√
K	铸铁																	×	×	
N	有色金属																			
S	耐热合金、钛合金																	×	×	
H	淬硬钢																			

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层								PVD涂层								金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
	DNMG110404-PR	11.6	9.525	4.76	3.81	0.4		●	▲		●	▲													
	DNMG110408-PR	11.6	9.525	4.76	3.81	0.8		●	▲		●	▲													
	DNMG110412-PR	11.6	9.525	4.76	3.81	1.2		●	▲		●	▲													
	DNMG150404-PR	15.5	12.7	4.76	5.16	0.4		●	▲		●	▲													
	DNMG150408-PR	15.5	12.7	4.76	5.16	0.8		●	▲		●	▲													
	DNMG150412-PR	15.5	12.7	4.76	5.16	1.2		●	▲		●	▲													
	DNMG150604-PR	15.5	12.7	6.35	5.16	0.4		●	▲		●	▲													
半精加工 Semi-finishing	DNMG150608-PR	15.5	12.7	6.35	5.16	0.8		●	▲		●	▲													
	DNMG150612-PR	15.5	12.7	6.35	5.16	1.2		●	▲		●	▲													

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

MB





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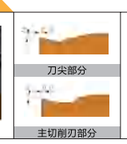
GMR

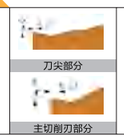


通用槽型，兼顾锋利性和强度，覆盖范围宽广，半精到粗加工槽型。

PMK

双面断屑槽，适合钢、不锈钢、铸铁等的内孔及外圆半精加工。

PR



超强碎屑能力，主要适用于产品的粗加工。

通槽

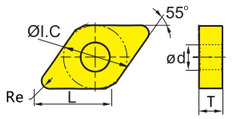
刃口强度好，适合半精加工。

L/R-X

大前角设计，适合粗加工。

Turning Inserts - Negative
DNMG / DNMA (55° Negative)

车削刀片 - 负角型
DNMG / DNMA (55°负角型)



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工件材料 Workpiece Material																						
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√
M	不锈钢										√	√	√	○	○	○	×	×	×	√
K	铸铁																	×	×	
N	有色金属																			
S	耐热合金、钛合金																	×	×	
H	淬硬钢																			

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层								PVD涂层								金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
通槽 Standard	DNMG150604	15.5	12.7	6.35	5.16	0.4		●	▲	●		▲		●	●										
	DNMG150608	15.5	12.7	6.35	5.16	0.8		●	▲	●		▲		●	●										
	DNMG150612	15.5	12.7	6.35	5.16	1.2		●	▲	●		▲		●	●										
	DNMG150616	15.5	12.7	6.35	5.16	1.6		●	▲	●		▲		●	●										
	DNMG190608	19.3	15.875	6.35	7.94	0.8		●	▲	●		▲		●	●										
	DNMG190612	19.3	15.875	6.35	7.94	1.2		●	▲	●		▲		●	●										
左右手 L/R	DNMG150604L/R-X	15.5	12.7	6.35	5.16	0.4	●	●	▲	●											▲				▲
	DNMG150608L/R-X	15.5	12.7	6.35	5.16	0.8	●	●	▲	●											▲				▲

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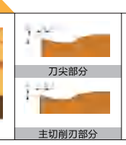
MB



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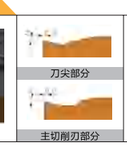
GMR



通用槽型，兼顾锋利性和强度，覆盖范围宽广，半精到粗加工槽型。

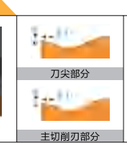
PMK

双面断屑槽，适合钢、不锈钢、铸铁等的内孔及外圆半精加工。

PR

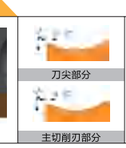
超强碎屑能力，主要适用于产品的粗加工。

通槽



刃口强度好，适合半精加工。

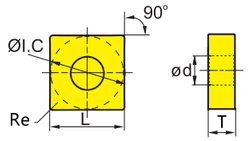
L/R-X



大前角设计，适合粗加工。

Turning Inserts - Negative
SNMG / SNMA (90° Negative)

车削刀片 - 负角型
SNMG/SNMA (90°负角型)



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工件材料 Workpiece Material																					
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√
M	不锈钢										√	√	√	○	○	○	×	×	×	√
K	铸铁																	×	×	
N	有色金属																			
S	耐热合金、钛合金																	×	×	
H	淬硬钢																			

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层								PVD涂层							金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
	SNMG090304-MB	9.525	9.525	3.18	3.81	0.4			●		▲				●								●	●	▲
	SNMG090308-MB	9.525	9.525	3.18	3.81	0.8			●		▲				●								●	●	▲
	SNMG090312-MB	9.525	9.525	3.18	3.81	1.2			●		▲				●								●	●	▲
	SNMG120404-MB	12.7	12.7	4.76	5.16	0.4			●		▲				●								●	●	▲
	SNMG120408-MB	12.7	12.7	4.76	5.16	0.8			●		▲				●								●	●	▲
	SNMG120412-MB	12.7	12.7	4.76	5.16	1.6			●		▲				●								●	●	▲
	SNMG120416-MB	12.7	12.7	4.76	5.16	1.6			●		▲				●								●	●	▲
	SNMG150608-MB	15.875	15.875	6.35	6.35	0.8			●		▲				●								●	●	▲
半精加工-精加工 Semi-finishing to Finishing	SNMG150612-MB	15.875	15.875	6.35	6.35	1.2			●		▲				●								●	●	▲

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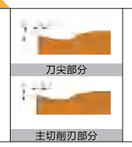
MB



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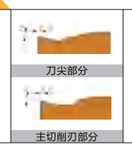
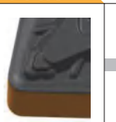
GMR

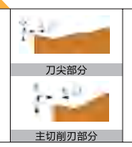


通用槽型，兼顾锋利性和强度，覆盖范围宽广，半精到粗加工槽型。

PMK


双面断屑槽，适合钢、不锈钢、铸铁等的内孔及外圆半精加工。

PR



超强碎屑能力，主要适用于产品的粗加工。

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刃口强度好，适合半精加工。

L/R-X

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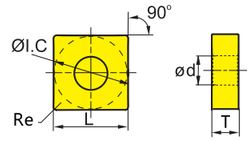
Turning Inserts - Negative
SNMG / SNMA (90° Negative)
车削刀片 - 负角型
SNMG/SNMA (90°负角型)



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M	不锈钢										√	√	√	○	○	○	×	×	×	√
K	铸铁																	×	×	
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产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层								PVD涂层							金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
	SNMG120404-GMR	12.7	12.7	4.76	5.16	0.4			●			▲			●								●	●	
	SNMG120408-GMR	12.7	12.7	4.76	5.16	0.8			●			▲			●								●	●	
	SNMG120412-GMR	12.7	12.7	4.76	5.16	1.2			●			▲			●								●	●	
	SNMG150608-GMR	15.875	15.875	6.35	6.35	0.8			●			▲			●								●	●	
	SNMG150612-GMR	15.875	15.875	6.35	6.35	1.2			●			▲			●								●	●	
	SNMG150616-GMR	15.875	15.875	6.35	6.35	1.6			●			▲			●								●	●	
半精加工-粗加工 Semi-finishing to Roughing	SNMG190612-GMR	19.05	19.05	6.35	6.35	1.2			●			▲			●								●	●	
	SNMG190616-GMR	19.05	19.05	6.35	6.35	1.6			●			▲			●								●	●	

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SNMG / SNMA (90° Negative)

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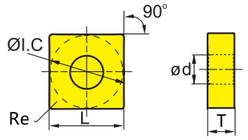
SNMG/SNMA (90°负角型)



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工件材料 Workpiece Material																						
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√		
M	不锈钢										√	√	√	○	○	○	×	×	×	√		
K	铸铁																	×	×			
N	有色金属																					
S	耐热合金、钛合金																	×	×			
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层								PVD涂层								金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
	SNMG090304-PMK	9.525	9.525	3.18	3.81	0.4			●			▲			●									
	SNMG090308-PMK	9.525	9.525	3.18	3.81	0.8			●			▲			●									
	SNMG120404-PMK	12.7	12.7	4.76	5.16	0.4			●			▲			●									
	SNMG120408-PMK	12.7	12.7	4.76	5.16	0.8			●			▲			●									
	SNMG120412-PMK	12.7	12.7	4.76	5.16	1.2			●			▲			●									
	SNMG150608-PMK	15.875	15.875	6.35	6.35	0.8			●			▲			●									
	SNMG150612-PMK	15.875	15.875	6.35	6.35	1.2			●			▲			●									
	SNMG150616-PMK	15.875	15.875	6.35	6.35	1.6			●			▲			●									
	SNMG190612-PMK	19.05	19.05	6.35	6.35	1.2			●			▲			●									
半精加工-粗加工 Semi-finishing to Roughing	SNMG190616-PMK	19.05	19.05	6.35	6.35	1.6			●			▲			●									

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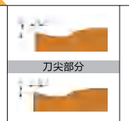
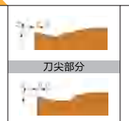
MB



科学、合理的断屑筋须设计，具有非常好得断屑效果，可用于钢件的半精到精加工。

GMR



通用槽型，兼顾锋利性和强度，覆盖范围宽广，半精到粗加工槽型。

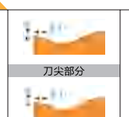
PMK

双面断屑槽，适合钢、不锈钢、铸铁等的内孔及外圆半精加工。

PR

超强碎屑能力，主要适用于产品的粗加工。

通槽



刃口强度好，适合半精加工。

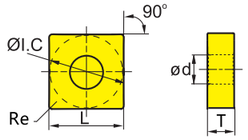
L/R-X

大前角设计，适合粗加工。

钢件车削
General Turning Inserts for Steel
FONHAE 方瀚

Turning Inserts - Negative
SNMG / SNMA (90° Negative)

车削刀片 - 负角型
SNMG/SNMA (90°负角型)



√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																						
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√		
M	不锈钢										√	√	√	○	○	○	×	×	×	√		
K	铸铁																	×	×			
N	有色金属																					
S	耐热合金、钛合金																	×	×			
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层								PVD涂层								金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
	SNMG120404-PR	12.7	12.7	4.76	5.16	0.4		●	▲		●	▲													
	SNMG120408-PR	12.7	12.7	4.76	5.16	0.8		●	▲		●	▲													
	SNMG120412-PR	12.7	12.7	4.76	5.16	1.2		●	▲		●	▲													
	SNMG150608-PR	15.875	15.875	6.35	6.35	0.8		●	▲		●	▲													
	SNMG150612-PR	15.875	15.875	6.35	6.35	1.2		●	▲		●	▲													
	SNMG190612-PR	19.05	19.05	6.35	6.35	1.2		●	▲		●	▲													
半精加工 Semi-finishing	SNMG190616-PR	19.05	19.05	6.35	6.35	1.6		●	▲		●	▲													
	SNMG090304	9.525	9.525	3.18	3.81	0.4		●	▲	●		▲		●	●										
	SNMG090308	9.525	9.525	3.18	3.81	0.8		●	▲	●		▲		●	●										
	SNMG120404	12.7	12.7	4.76	5.16	0.4		●	▲	●		▲		●	●										
	SNMG120408	12.7	12.7	4.76	5.16	0.8		●	▲	●		▲		●	●										
	SNMG120412	12.7	12.7	4.76	5.16	1.2		●	▲	●		▲		●	●										
	SNMG150608	15.875	15.875	6.35	6.35	0.8		●	▲	●		▲		●	●										
	SNMG150612	15.875	15.875	6.35	6.35	1.2		●	▲	●		▲		●	●										
	SNMG190612	19.05	19.05	6.35	7.94	1.2		●	▲	●		▲		●	●										
通槽 Standard	SNMG190616	19.05	19.05	6.35	7.94	1.6		●	▲	●		▲		●	●										

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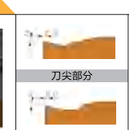
GMR



通用槽型，兼顾锋利性和强度，覆盖范围宽广，半精到粗加工槽型。

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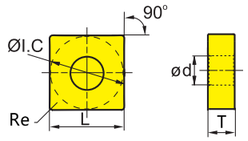
SNMG / SNMA (90° Negative)

车削刀片 - 负角型
SNMG/SNMA (90°负角型)



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工件材料 Workpiece Material																								
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√
M	不锈钢										√	√	√	○	○	○	×	×	×	√
K	铸铁																	×	×	
N	有色金属																			
S	耐热合金、钛合金																	×	×	
H	淬硬钢																			

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层								PVD涂层								金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
	SNMM090304	9.525	9.525	3.18	3.81	0.4		●	▲	●		▲		●	●									
	SNMM090308	9.525	9.525	3.18	3.81	0.8		●	▲	●		▲		●	●									
	SNMM120408	12.7	12.7	4.76	5.16	0.8		●	▲	●		▲		●	●									
	SNMM120412	12.7	12.7	4.76	5.16	1.2		●	▲	●		▲		●	●									
	SNMM120416	12.7	12.7	4.76	5.16	1.6		●	▲	●		▲		●	●									
	SNMM190608	19.05	19.05	6.35	7.94	0.8		●	▲	●		▲		●	●									
	SNMM190612	19.05	19.05	6.35	7.94	1.2		●	▲	●		▲		●	●									
	SNMM190616	19.05	19.05	6.35	7.94	1.6		●	▲	●		▲		●	●									
通槽 Standard	SNMM250724	25.4	25.4	7.94	9.12	2.4		●	▲	●		▲		●	●									
	SNMM250924	25.4	25.4	9.525	9.12	2.4		●	▲	●		▲		●	●									
	SNMG120404L/R-X	12.7	12.7	4.76	5.16	0.4	●	●	▲	●											▲			▲
	SNMG120408L/R-X	12.7	12.7	4.76	5.16	0.8	●	●	▲	●											▲			▲
	SNMG120412L/R-X	12.7	12.7	4.76	5.16	1.2	●	●	▲	●											▲			▲
左右手 L/R	SNMG150608L/R-X	15.875	15.875	6.35	6.35	0.8	●	●	▲	●											▲			▲

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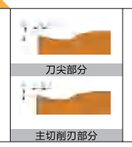

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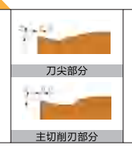
GMR

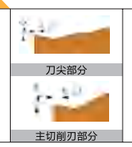


通用槽型，兼顾锋利性和强度，覆盖范围宽广，半精到粗加工槽型。

PMK

双面断屑槽，适合钢、不锈钢、铸铁等的内孔及外圆半精加工。

PR



超强碎屑能力，主要适用于产品的粗加工。

通槽

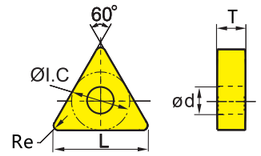
刃口强度好，适合半精加工。

L/R-X

大前角设计，适合粗加工。

Turning Inserts - Negative
TNMG / TNMA (60° Negative)

车削刀片 - 负角型
TNMG / TNMA (60°负角型)



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工件材料 Workpiece Material																								
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√
M	不锈钢										√	√	√	○	○	○	×	×	×	√
K	铸铁																	×	×	
N	有色金属																			
S	耐热合金、钛合金																	×	×	
H	淬硬钢																			

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层								PVD涂层								金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
	TNMG110304-MB	11	6.35	3.18	2.26	0.4			●			▲			●								●	▲
	TNMG110308-MB	11	6.35	3.18	2.26	0.8			●			▲			●								●	▲
	TNMG160404-MB	16.5	9.525	4.76	3.81	0.4			●			▲			●								●	▲
	TNMG160408-MB	16.5	9.525	4.76	3.81	0.8			●			▲			●								●	▲
	TNMG160412-MB	16.5	9.525	4.76	3.81	1.2			●			▲			●								●	▲
	TNMG220408-MB	22	12.7	4.76	5.16	0.8			●			▲			●								●	▲
半精加工-精加工 Semi-finishing to Finishing	TNMG220412-MB	22	12.7	4.76	5.16	1.2			●			▲			●								●	▲
	TNMG220416-MB	22	12.7	4.76	5.16	1.6			●			▲			●								●	▲
	TNMG160404-GMR	16.5	9.525	4.76	3.81	0.4			●			▲			●								●	
	TNMG160408-GMR	16.5	9.525	4.76	3.81	0.8			●			▲			●								●	
	TNMG160412-GMR	16.5	9.525	4.76	3.81	1.2			●			▲			●								●	
	TNMG220408-GMR	22	12.7	4.76	5.16	0.8			●			▲			●								●	
半精加工-粗加工 Semi-finishing to Roughing	TNMG220412-GMR	22	12.7	4.76	5.16	1.2			●			▲			●								●	
	TNMG220416-GMR	22	12.7	4.76	5.16	1.6			●			▲			●								●	

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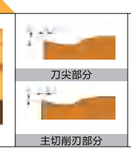

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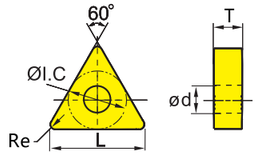
Turning Inserts - Negative
TNMG / TNMA (60° Negative)

车削刀片 - 负角型
TNMG / TNMA (60°负角型)



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工件材料 Workpiece Material																						
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√		
M	不锈钢										√	√	√	○	○	○	×	×	×	√		
K	铸铁																	×	×			
N	有色金属																					
S	耐热合金、钛合金																	×	×			
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层									PVD涂层								金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
半精加工-粗加工 Semi-finishing to Roughing	TNMG160404-PMK	16.5	9.525	4.76	3.81	0.4			●			▲			●										
	TNMG160408-PMK	16.5	9.525	4.76	3.81	0.8			●			▲			●										
	TNMG160412-PMK	16.5	9.525	4.76	3.81	1.2			●			▲			●										
	TNMG220408-PMK	22	12.7	4.76	5.16	0.8			●			▲			●										
	TNMG220412-PMK	22	12.7	4.76	5.16	1.2			●			▲			●										
	TNMG220416-PMK	22	12.7	4.76	5.16	1.6			●			▲			●										
半精加工 Semi-finishing	TNMG160404-PR	16.5	9.525	4.76	3.81	0.4		●	▲		●	▲													
	TNMG160408-PR	16.5	9.525	4.76	3.81	0.8		●	▲		●	▲													
	TNMG160412-PR	16.5	9.525	4.76	3.81	1.2		●	▲		●	▲													
	TNMG220408-PR	22	12.7	4.76	5.16	0.8		●	▲		●	▲													
	TNMG220412-PR	22	12.7	4.76	5.16	1.2		●	▲		●	▲													
	TNMG220416-PR	22	12.7	4.76	5.16	1.6		●	▲		●	▲													

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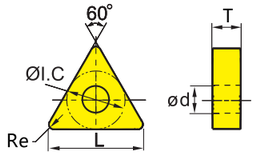
钢件车削
General Turning Inserts for Steel
FONHAE 方瀚

Turning Inserts - Negative
TNMG / TNMA (60° Negative)

车削刀片 - 负角型
TNMG / TNMA (60°负角型)



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工件材料 Workpiece Material																						
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√		
M	不锈钢										√	√	√	○	○	○	×	×	×	√		
K	铸铁																	×	×			
N	有色金属																					
S	耐热合金、钛合金																	×	×			
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层									PVD涂层								金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
通槽 Standard	TNMG110308	11	6.35	3.18	2.26	0.8		●	▲	●		▲		●	●										
	TNMG160404	16.5	9.525	4.76	3.81	0.4		●	▲	●		▲		●	●										
	TNMG160408	16.5	9.525	4.76	3.81	0.8		●	▲	●		▲		●	●										
	TNMG160412	16.5	9.525	4.76	3.81	1.2		●	▲	●		▲		●	●										
	TNMG220404	22	12.7	4.76	5.16	0.4		●	▲	●		▲		●	●										
	TNMG220408	22	12.7	4.76	5.16	0.8		●	▲	●		▲		●	●										
	TNMG220412	22	12.7	4.76	5.16	1.2		●	▲	●		▲		●	●										
	TNMG220416	22	12.7	4.76	5.16	1.6		●	▲	●		▲		●	●										
	TNMG270612	27.5	15.875	6.35	6.35	1.2		●	▲	●		▲		●	●										
	TNMG270616	27.5	15.875	6.35	6.35	1.6		●	▲	●		▲		●	●										
	TNMG330916	33	19.05	9.525	7.94	1.6		●	▲	●		▲		●	●										
	TNMG330924	33	19.05	9.525	7.94	2.4		●	▲	●		▲		●	●										

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

MB

科学、合理的断屑筋须设计，具有非常好得断屑效果，可用于钢件的半精到精加工。

GMR

通用槽型，兼顾锋利性和强度，覆盖范围宽广，半精到粗加工槽型。

PMK

双面断屑槽，适合钢、不锈钢、铸铁等的内孔及外圆半精加工。

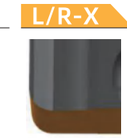
PR

超强碎屑能力，主要适用于产品的粗加工。

通槽

刃口强度好，适合半精加工。

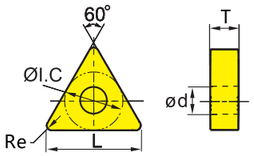
L/R-X



大前角设计，适合粗加工。

Turning Inserts - Negative
TNMG / TNMA (60˚ Negative)

车削刀片 - 负角型
TNMG / TNMA (60˚负角型)



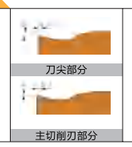
√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																						
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√
M	不锈钢										√	√	√	○	○	○	×	×	×	√
K	铸铁																	×	×	
N	有色金属																			
S	耐热合金、钛合金																	×	×	
H	淬硬钢																			

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层									PVD涂层								金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
通槽 Standard	TNMG160404	16.5	9.525	4.76	3.81	0.4		●	▲	●		▲		●	●										
	TNMG160408	16.5	9.525	4.76	3.81	0.8		●	▲	●		▲		●	●										
	TNMG160412	16.5	9.525	4.76	3.81	1.2		●	▲	●		▲		●	●										
	TNMG220408	22	12.7	4.76	5.16	0.8		●	▲	●		▲		●	●										
	TNMG220412	22	12.7	4.76	5.16	1.2		●	▲	●		▲		●	●										
	TNMG220416	22	12.7	4.76	5.16	1.6		●	▲	●		▲		●	●										
	TNMG270612	27.5	15.875	6.35	6.35	1.2		●	▲	●		▲		●	●										
左右手 L/R	TNMG160404L/R-X	16.5	9.525	4.76	3.81	0.4	●	●	▲	●									▲				▲		
	TNMG160408L/R-X	16.5	9.525	4.76	3.81	0.8	●	●	▲	●									▲				▲		
	TNMG160412L/R-X	16.5	9.525	4.76	3.81	1.2	●	●	▲	●									▲				▲		

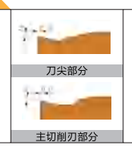
▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

MB



科学、合理的断屑筋须设计，具有非常好得断屑效果，可用于钢件的半精到精加工。

GMR

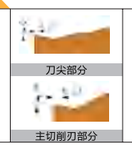


通用槽型，兼顾锋利性和强度，覆盖范围宽广，半精到粗加工槽型。

PMK

双面断屑槽，适合钢、不锈钢、铸铁等的内孔及外圆半精加工。

PR



超强碎屑能力，主要适用于产品的粗加工。

通槽

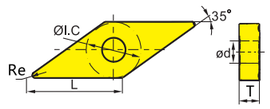
刃口强度好，适合半精加工。

L/R-X

大前角设计，适合粗加工。

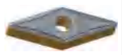
Turning Inserts - Negative
VNMG / VNMA (35˚ Negative)

车削刀片 - 负角型
VNMG / VNMA (35˚负角型)



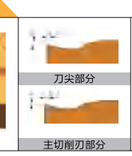
√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																						
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√
M	不锈钢										√	√	√	○	○	○	×	×	×	√
K	铸铁																	×	×	
N	有色金属																			
S	耐热合金、钛合金																	×	×	
H	淬硬钢																			

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层									PVD涂层								金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
半精加工-精加工 Semi-finishing to Finishing	VNMG160404-MB	16.6	9.525	4.76	3.81	0.4			●			▲			●								●	●	▲
	VNMG160408-MB	16.6	9.525	4.76	3.81	0.8			●			▲			●								●	●	▲
	VNMG160412-MB	16.6	9.525	4.76	3.81	1.2			●			▲			●								●	●	▲
	VNMG160404-GMR	16.6	9.525	4.76	3.81	0.4			●			▲			●								●	●	
 半精加工-粗加工 Semi-finishing to Roughing	VNMG160408-GMR	16.6	9.525	4.76	3.81	0.8			●			▲			●								●	●	
	VNMG160412-GMR	16.6	9.525	4.76	3.81	1.2			●			▲			●								●	●	

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

MB



科学、合理的断屑筋须设计，具有非常好得断屑效果，可用于钢件的半精到精加工。

GMR

通用槽型，兼顾锋利性和强度，覆盖范围宽广，半精到粗加工槽型。

PMK

双面断屑槽，适合钢、不锈钢、铸铁等的内孔及外圆半精加工。

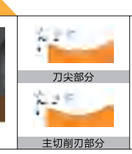
PR

超强碎屑能力，主要适用于产品的粗加工。

通槽

刃口强度好，适合半精加工。

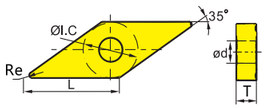
L/R-X



大前角设计，适合粗加工。

Turning Inserts - Negative
VNMG / VNMA (35° Negative)

车削刀片 - 负角型
VNMG / VNMA (35°负角型)



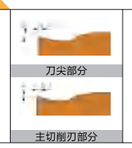
√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																							
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√
M	不锈钢										√	√	√	○	○	○	×	×	×	√
K	铸铁																	×	×	
N	有色金属																			
S	耐热合金、钛合金																	×	×	
H	淬硬钢																			

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层									PVD涂层								金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
半精加工-粗加工 Semi-finishing to Roughing	VNMG160404-PMK	16.6	9.525	4.76	3.81	0.4			●			▲			●										▲
	VNMG160408-PMK	16.6	9.525	4.76	3.81	0.8			●			▲			●										▲
	VNMG160412-PMK	16.6	9.525	4.76	3.81	1.2			●			▲			●										▲
半精加工 Semi-finishing	VNMG160404-PR	16.6	9.525	4.76	3.81	0.4		●	▲		●	▲													▲
	VNMG160408-PR	16.6	9.525	4.76	3.81	0.8		●	▲		●	▲													▲
	VNMG160412-PR	16.6	9.525	4.76	3.81	1.2		●	▲		●	▲													▲

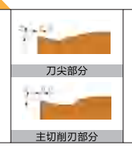
▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

MB



科学、合理的断屑筋须设计，具有非常好得断屑效果，可用于钢件的半精到精加工。

GMR

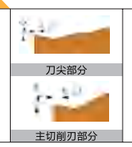


通用槽型，兼顾锋利性和强度，覆盖范围宽广，半精到粗加工槽型。

PMK

双面断屑槽，适合钢、不锈钢、铸铁等的内孔及外圆半精加工。

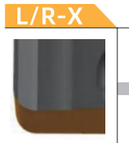
PR



超强碎屑能力，主要适用于产品的粗加工。

通槽

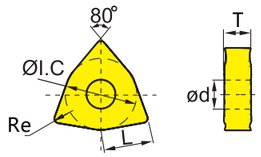
刃口强度好，适合半精加工。

L/R-X


大前角设计，适合粗加工。

Turning Inserts - Negative
WNMG / WNMA (80° Trigonal Negative)

车削刀片 - 负角型
WNMG/WNMA (80°桃形 负角型)



√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																							
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√
M	不锈钢										√	√	√	○	○	○	×	×	×	√
K	铸铁																	×	×	
N	有色金属																			
S	耐热合金、钛合金																	×	×	
H	淬硬钢																			

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层									PVD涂层								金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
半精加工-精加工 Semi-finishing to Finishing	WNMG060408-MB	6.5	9.525	4.76	3.81	0.8			●			▲			●								●	●	▲
	WNMG060412-MB	6.5	9.525	4.76	3.81	1.2			●			▲			●								●	●	▲
	WNMG080404-MB	8.7	12.7	4.76	5.16	0.4			●			▲			●								●	●	▲
	WNMG080408-MB	8.7	12.7	4.76	5.16	0.8			●			▲			●								●	●	▲
	WNMG080412-MB	8.7	12.7	4.76	5.16	1.2			●			▲			●								●	●	▲
	WNMG080416-MB	8.7	12.7	4.76	5.16	1.6			●			▲			●								●	●	▲
	WNMG080608-MB	8.7	12.7	6.35	5.16	0.8			●			▲			●								●	●	▲
半精加工-粗加工 Semi-finishing to Roughing	WNMG06T304-GMR	6.5	9.525	3.97	3.81	0.4			●			▲			●								●	●	
	WNMG06T308-GMR	6.5	9.525	3.97	3.81	0.8			●			▲			●								●	●	
	WNMG06T312-GMR	6.5	9.525	3.97	3.81	1.2			●			▲			●								●	●	
	WNMG060408-GMR	6.5	9.525	4.76	3.81	0.8			●			▲			●								●	●	
	WNMG060412-GMR	6.5	9.525	4.76	3.81	1.2			●			▲			●								●	●	
	WNMG080404-GMR	8.7	12.7	4.76	5.16	0.4			●			▲			●								●	●	
	WNMG080408-GMR	8.7	12.7	4.76	5.16	0.8			●			▲			●								●	●	
	WNMG080412-GMR	8.7	12.7	4.76	5.16	1.2			●			▲			●								●	●	
	WNMG080416-GMR	8.7	12.7	4.76	5.16	1.6			●			▲			●								●	●	

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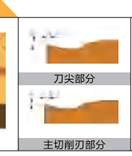
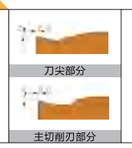
MB



科学、合理的断屑筋须设计，具有非常好得断屑效果，可用于钢件的半精到精加工。

GMR



通用槽型，兼顾锋利性和强度，覆盖范围宽广，半精到粗加工槽型。

PMK

双面断屑槽，适合钢、不锈钢、铸铁等的内孔及外圆半精加工。

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超强碎屑能力，主要适用于产品的粗加工。

通槽

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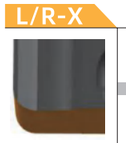
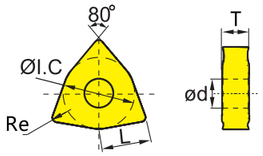
L/R-X


大前角设计，适合粗加工。

Turning Inserts - Negative
WNMG / WNMA (80° Trigonal Negative)

车削刀片 - 负角型
WNMG/WNMA (80°桃形 负角型)



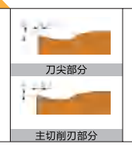
√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																						
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√
M	不锈钢										√	√	√	○	○	○	×	×	×	√
K	铸铁																	×	×	
N	有色金属																			
S	耐热合金、钛合金																	×	×	
H	淬硬钢																			

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层									PVD涂层								金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
半精加工-粗加工 Semi-finishing to Roughing	WNMG060408-PMK	6.5	9.525	4.76	3.81	0.8			●			▲			●									
	WNMG060412-PMK	6.5	9.525	4.76	3.81	1.2			●			▲			●									
	WNMG080404-PMK	8.7	12.7	4.76	5.16	0.4			●			▲			●									
	WNMG080408-PMK	8.7	12.7	4.76	5.16	0.8			●			▲			●									
	WNMG080412-PMK	8.7	12.7	4.76	5.16	1.2			●			▲			●									
半精加工 Semi-finishing	WNMG060408-PR	6.5	9.525	4.76	3.81	0.8		●	▲		●	▲												
	WNMG060412-PR	6.5	9.525	4.76	3.81	1.2		●	▲		●	▲												
	WNMG080404-PR	8.7	12.7	4.76	5.16	0.4		●	▲		●	▲												
	WNMG080408-PR	8.7	12.7	4.76	5.16	0.8		●	▲		●	▲												
	WNMG080412-PR	8.7	12.7	4.76	5.16	1.2		●	▲		●	▲												
	WNMG080416-PR	8.7	12.7	4.76	5.16	1.6		●	▲		●	▲												

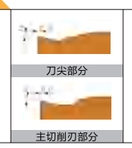
▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

MB



科学、合理的断屑筋须设计，具有非常好得断屑效果，可用于钢件的半精到精加工。

GMR

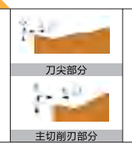


通用槽型，兼顾锋利性和强度，覆盖范围宽广，半精到粗加工槽型。

PMK

双面断屑槽，适合钢、不锈钢、铸铁等的内孔及外圆半精加工。

PR



超强碎屑能力，主要适用于产品的粗加工。

通槽

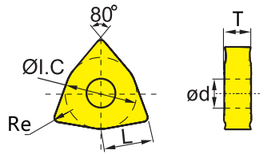
刃口强度好，适合半精加工。

L/R-X

大前角设计，适合粗加工。

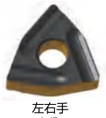
Turning Inserts - Negative
WNMG / WNMA (80° Trigonal Negative)

车削刀片 - 负角型
WNMG/WNMA (80°桃形 负角型)



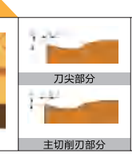
√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																						
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√
M	不锈钢										√	√	√	○	○	○	×	×	×	√
K	铸铁																	×	×	
N	有色金属																			
S	耐热合金、钛合金																	×	×	
H	淬硬钢																			

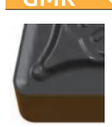
产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层									PVD涂层								金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
通槽 Standard	WNMG080404	8.7	12.7	4.76	5.16	0.4		●	▲	●		▲		●	●									
	WNMG080408	8.7	12.7	4.76	5.16	0.8		●	▲	●		▲		●	●									
	WNMG080412	8.7	12.7	4.76	5.16	1.2		●	▲	●		▲		●	●									
 左右手 L/R	WNMG080404L/R-X	8.7	12.7	4.76	5.16	0.4	●	●	▲	●											▲			▲
	WNMG080408L/R-X	8.7	12.7	4.76	5.16	0.8	●	●	▲	●											▲			▲
	WNMG080412L/R-X	8.7	12.7	4.76	5.16	1.2	●	●	▲	●											▲			▲

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

MB



科学、合理的断屑筋须设计，具有非常好得断屑效果，可用于钢件的半精到精加工。

GMR


通用槽型，兼顾锋利性和强度，覆盖范围宽广，半精到粗加工槽型。

PMK

双面断屑槽，适合钢、不锈钢、铸铁等的内孔及外圆半精加工。

PR

超强碎屑能力，主要适用于产品的粗加工。

通槽

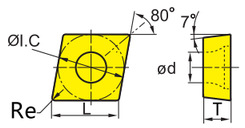
刃口强度好，适合半精加工。

L/R-X

大前角设计，适合粗加工。

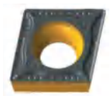
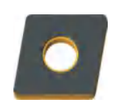
Turning Inserts - Positive
CCMT / CCMW (80° Positive)

车削刀片 - 正角型
CCMT/CCMW (80°正角型)



√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																						
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√
M	不锈钢										√	√	√	○	○	○	×	×	×	√
K	铸铁																	×	×	
N	有色金属																			
S	耐热合金、钛合金																	×	×	
H	淬硬钢																			

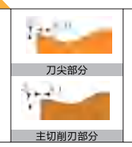
产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层								PVD涂层								金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
	CCMT060202-GM	6.4	6.35	2.38	2.8	0.2					●	▲												
	CCMT060204-GM	6.4	6.35	2.38	2.8	0.4					●	▲												
	CCMT060208-GM	6.4	6.35	2.38	2.8	0.8					●	▲												
	CCMT09T304-GM	9.7	9.525	3.97	4.4	0.4					●	▲												
	CCMT09T308-GM	9.7	9.525	3.97	4.4	0.8					●	▲												
	CCMT120404-GM	12.9	12.7	4.76	5.56	0.4					●	▲												
通用加工 Genaral Machining	CCMT120408-GM	12.9	12.7	4.76	5.56	0.8					●	▲												
	CCMT120412-GM	12.9	12.7	4.76	5.56	1.2					●	▲												
	CCMT060204-PMK	6.4	6.35	2.38	2.8	0.4			●			▲			●									
	CCMT060208-PMK	6.4	6.35	2.38	2.8	0.8			●			▲			●									
	CCMT09T304-PMK	9.7	9.525	3.97	4.4	0.4			●			▲			●									
	CCMT09T308-PMK	9.7	9.525	3.97	4.4	0.8			●			▲			●									
	CCMT120404-PMK	12.9	12.7	4.76	5.56	0.4			●			▲			●									
半精加工-粗加工 Semi-finishing to Roughing	CCMT120408-PMK	12.9	12.7	4.76	5.56	0.8			●			▲			●									
	CCMT120412-PMK	12.9	12.7	4.76	5.56	1.2			●			▲			●									
	CCMW060204	6.4	6.35	2.38	2.8	0.4						▲												
	CCMW09T304	9.7	9.525	3.97	4.4	0.4						▲												
	CCMW09T308	9.7	9.525	3.97	4.4	0.8						▲												
	CCMW120404	12.9	12.7	4.76	5.56	0.4						▲												
平板 Flat	CCMW120408	12.9	12.7	4.76	5.56	0.8						▲												

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

GM

单面断屑槽，适用于P、M、K类通用加工。

PMK



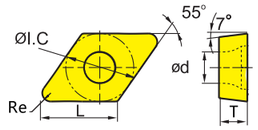
双面断屑槽，适合钢、不锈钢、铸铁等的内孔及外圆半精加工。

平板

刀尖刃口强度号，适合断续车削加工。

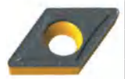
Turning Inserts - Positive
DCMT / DCMW (55° Positive)

车削刀片 - 正角型
DCMT/DCMW (55°正角型)



√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																						
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√
M	不锈钢										√	√	√	○	○	○	×	×	×	√
K	铸铁																	×	×	
N	有色金属																			
S	耐热合金、钛合金																	×	×	
H	淬硬钢																			

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层								PVD涂层								金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
	DCMT070202-GM	7.8	6.35	2.38	2.8	0.2					●	▲												
	DCMT070204-GM	7.8	6.35	2.38	2.8	0.4					●	▲												
	DCMT070208-GM	7.8	6.35	2.38	2.8	0.8					●	▲												
	DCMT11T302-GM	11.6	9.525	3.97	4.4	0.2					●	▲												
	DCMT11T304-GM	11.6	9.525	3.97	4.4	0.4					●	▲												
	DCMT11T308-GM	11.6	9.525	3.97	4.4	0.8					●	▲												
通用加工 Genaral Machining	DCMT11T312-GM	11.6	9.525	3.97	4.4	1.2					●	▲												
	DCMT070204-PMK	7.8	6.35	2.38	2.8	0.4						▲			●									
	DCMT070208-PMK	7.8	6.35	2.38	2.8	0.8						▲			●									
	DCMT11T302-PMK	11.6	9.525	3.97	4.4	0.2						▲			●									
	DCMT11T304-PMK	11.6	9.525	3.97	4.4	0.4						▲			●									
	DCMT11T308-PMK	11.6	9.525	3.97	4.4	0.8						▲			●									
半精加工-粗加工 Semi-finishing to Roughing	DCMT11T312-PMK	11.6	9.525	3.97	4.4	1.2						▲			●									
	DCMW070204	7.8	6.35	2.38	2.8	0.4						▲												
	DCMW11T304	11.6	9.525	3.97	4.4	0.4						▲												
	DCMW11T308	11.6	9.525	3.97	4.4	0.8						▲												
平板 Flat																								

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

GM

单面断屑槽，适用于P、M、K类通用加工。

PMK

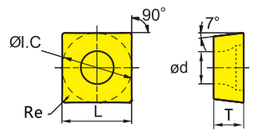
双面断屑槽，适合钢、不锈钢、铸铁等的内孔及外圆半精加工。

平板

刀尖刃口强度号，适合断续车削加工。

Turning Inserts - Positive
SCMT (Square Positive)

车削刀片 - 正角型
SCMT (正方形)



√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																						
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√
M	不锈钢										√	√	√	○	○	○	×	×	×	√
K	铸铁																	×	×	
N	有色金属																			
S	耐热合金、钛合金																	×	×	
H	淬硬钢																			

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层								PVD涂层								金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
通用加工 Genaral Machining	SCMT09T302-GM	9.525	9.525	3.97	4.4	0.2					●	▲												
	SCMT09T304-GM	9.525	9.525	3.97	4.4	0.4					●	▲												
	SCMT09T308-GM	9.525	9.525	3.97	4.4	0.8					●	▲												
	SCMT120404-GM	12.7	12.7	4.76	5.56	0.4					●	▲												
	SCMT120408-GM	12.7	12.7	4.76	5.56	0.8					●	▲												
	SCMT120412-GM	12.7	12.7	4.76	5.56	1.2					●	▲												
半精加工-粗加工 Semi-finishing to Roughing	SCMT09T304-PMK	9.525	9.525	3.97	4.4	0.4			●			▲			●									
	SCMT09T308-PMK	9.525	9.525	3.97	4.4	0.8			●			▲			●									
	SCMT09T312-PMK	9.525	9.525	3.97	4.4	1.2			●			▲			●									
	SCMT120404-PMK	12.7	12.7	4.76	5.56	0.4			●			▲			●									
	SCMT120408-PMK	12.7	12.7	4.76	5.56	0.8			●			▲			●									
	SCMT120412-PMK	12.7	12.7	4.76	5.56	1.2			●			▲			●									
平板 Flat	SCMW060204	6.35	6.35	2.38	2.8	0.4						▲												
	SCMW09T304	9.525	9.525	3.97	4.4	0.4						▲												
	SCMW09T308	9.525	9.525	3.97	4.4	0.8						▲												
	SCMW120408	12.7	12.7	4.76	5.56	0.8						▲												

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

GM

单面断屑槽，适用于P、M、K类通用加工。

PMK

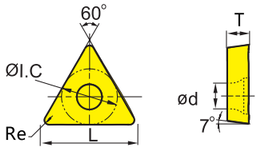
双面断屑槽，适合钢、不锈钢、铸铁等的内孔及外圆半精加工。

平板

刀尖刃口强度号，适合断续车削加工。

Turning Inserts - Negative
TCMT / TCGT (Triangle Positive)

车削刀片 - 正角型
TCMT/TCGT (三角形 正角型)



√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																						
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√
M	不锈钢										√	√	√	○	○	○	×	×	×	√
K	铸铁																	×	×	
N	有色金属																			
S	耐热合金、钛合金																	×	×	
H	淬硬钢																			

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层								PVD涂层								金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
通用加工 Genaral Machining	TCMT090202-GM	9.6	5.56	2.38	2.5	0.2					●	▲												
	TCMT090204-GM	9.6	5.56	2.38	2.5	0.4					●	▲												
	TCMT090208-GM	9.6	5.56	2.38	2.5	0.8					●	▲												
	TCMT110202-GM	11	6.35	2.38	2.8	0.2					●	▲												
	TCMT110204-GM	11	6.35	2.38	2.8	0.4					●	▲												
	TCMT110208-GM	11	6.35	2.38	2.8	0.8					●	▲												
	TCMT16T304-GM	16.5	9.525	3.97	4.4	0.4					●	▲												
	TCMT16T308-GM	16.5	9.525	3.97	4.4	0.8					●	▲												
	TCMT16T312-GM	16.5	9.525	3.97	4.4	1.2					●	▲												
半精加工-粗加工 Semi-finishing to Roughing	TCMT090204-PMK	9.6	5.56	2.38	2.5	0.4						▲			●			●					●	
	TCMT090208-PMK	9.6	5.56	2.38	2.5	0.8						▲			●			●					●	
	TCMT110204-PMK	11	6.35	2.38	2.8	0.4						▲			●			●					●	
	TCMT110208-PMK	11	6.35	2.38	2.8	0.8						▲			●			●					●	
	TCMT110212-PMK	11	6.35	2.38	2.8	1.2						▲			●			●					●	
	TCMT16T304-PMK	16.5	9.525	3.97	4.4	0.4						▲			●			●					●	
	TCMT16T308-PMK	16.5	9.525	3.97	4.4	0.8						▲			●			●					●	
	TCMT16T312-PMK	16.5	9.525	3.97	4.4	1.2						▲			●			●					●	

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

GM

单面断屑槽，适用于P、M、K类通用加工。

PMK

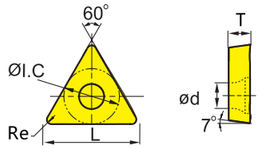
双面断屑槽，适合钢、不锈钢、铸铁等的内孔及外圆半精加工。

平板

刀尖刃口强度号，适合断续车削加工。

Turning Inserts - Negative
TCMT / TCMW (Triangle Positive)

车削刀片 - 负角型
TCMT/TCMW (三角形 正角型)



√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

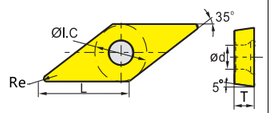
工件材料 Workpiece Material																						
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√
M	不锈钢										√	√	√	○	○	○	×	×	×	√
K	铸铁																	×	×	
N	有色金属																			
S	耐热合金、钛合金																	×	×	
H	淬硬钢																			

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层									PVD涂层								金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
	TCMW110204	11	6.35	2.38	2.8	0.4						▲												
	TCMW16T304	16.5	9.525	3.97	4.4	0.4						▲												
	TCMW16T308	16.5	9.525	3.97	4.4	0.8						▲												
	TCMW16T312	16.5	9.525	3.97	4.4	1.2						▲												
	TCMW220408	22	12.7	4.76	5.5	0.8						▲												
平板 Flat																								

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

Turning Inserts - Negative
VBMT/VBMW (35° Positive)

车削刀片 - 负角型
VBMT/VBMW (35°正角型)



√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																						
P	钢	√	√	√	○	○	○	×	×	×				○		○		×	×	√
M	不锈钢										√	√	√	○	○	○	×	×	×	√
K	铸铁																	×	×	
N	有色金属																			
S	耐热合金、钛合金																	×	×	
H	淬硬钢																			

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层									PVD涂层								金陶 Cermet
		L	ΦI.C	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT8204	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8296	FT8298	FC5280
通用加工 Genaral Machining	VBMT110304-GM	11	6.35	3.18	2.8	0.4					●	▲												
	VBMT110308-GM	11	6.35	3.18	2.8	0.8					●	▲												
	VBMT160404-GM	16.5	9.525	4.76	4.4	0.4					●	▲												
	VBMT160408-GM	16.5	9.525	4.76	4.4	0.8					●	▲												
	VBMT160412-GM	16.5	9.525	4.76	4.4	1.2					●	▲												
半精加工-粗加工 Semi-finishing to Roughing	VBMT110304-PMK	11	6.35	3.18	2.8	0.4				●		▲			●									
	VBMT110308-PMK	11	6.35	3.18	2.8	0.8				●		▲			●									
	VBMT160404-PMK	16.5	9.525	4.76	4.4	0.4				●		▲			●									
	VBMT160408-PMK	16.5	9.525	4.76	4.4	0.8				●		▲			●									
	VBMT160412-PMK	16.5	9.525	4.76	4.4	1.2				●		▲			●									
平板 Flat	VBMW160404	16.5	9.525	4.76	4.4	0.4						▲												
	VBMW160408	16.5	9.525	4.76	4.4	0.8						▲												

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GM

单面断屑槽，适用于P、M、K类通用加工。

PMK

双面断屑槽，适合钢、不锈钢、铸铁等的内孔及外圆半精加工。

平板

刀尖刃口强度号，适合断续车削加工。

GM

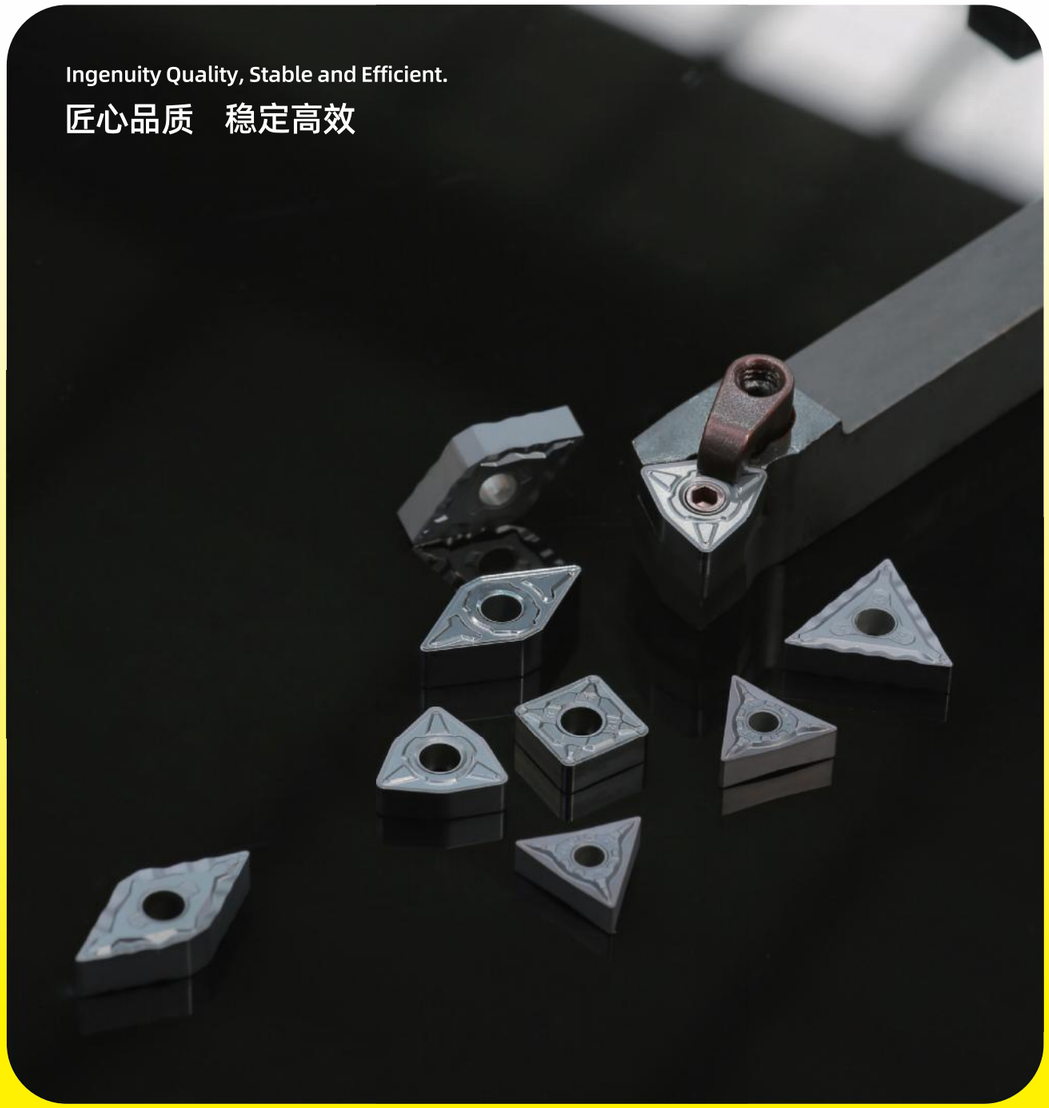
单面断屑槽，适用于P、M、K类通用加工。

PMK

双面断屑槽，适合钢、不锈钢、铸铁等的内孔及外圆半精加工。

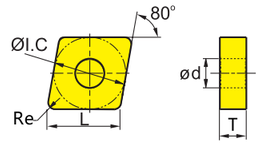
平板

刀尖刃口强度号，适合断续车削加工。



Turning Inserts - Negative
CNMG / CNMA (80° Negative)

车削刀片 - 负角型
CNMG/CNMA （80°负角型）



√ 良好工况Good working conditions　○ 一般工况 General working conditions　× 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																								
P	钢						○				○	×		×		×						√
M	不锈钢	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×	×	×	○	×	√
K	铸铁													×		×						
N	有色金属																					
S	耐热合金、钛合金																	√				
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																		金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
精加工 Finish Machining	CNMG090304-MF	9.7	9.525	3.18	3.81	0.4	●		▲					●												
	CNMG090308-MF	9.7	9.525	3.18	3.81	0.8	●		▲					●												
	CNMG120404-MF	12.9	12.7	4.76	5.16	0.4	●		▲					●												
	CNMG120408-MF	12.9	12.7	4.76	5.16	0.8	●		▲					●												
	CNMG120412-MF	12.9	12.7	4.76	5.16	1.2	●		▲					●												
精加工 Finish Machining	CNMG090304-MJ	9.7	9.525	3.18	3.81	0.4	●		▲					●												
	CNMG090308-MJ	9.7	9.525	3.18	3.81	0.8	●		▲					●												
	CNMG120404-MJ	12.9	12.7	4.76	5.16	0.4	●		▲					●												
	CNMG120408-MJ	12.9	12.7	4.76	5.16	0.8	●		▲					●												
	CNMG120412-MJ	12.9	12.7	4.76	5.16	1.2	●		▲					●												

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MF

有效解决不锈钢小余量、粘刀等加工难点。

MJ

切削刃锋利，阻力小；带刃倾角设计，导屑好；断屑台前移可在小余量加工状况下实现良好断屑。

MM-B

刀尖刃口同时兼具锋利性和强度。具有良好的排屑效果，适用于半精偏精加工。

L/R-M

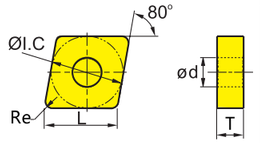
双面断屑槽，抗冲击能力强，槽型设计在刃口安全性和锋利性取得了最佳平衡点，解决不锈钢粗加工等问题。

MB

科学、合理的断屑筋须设计，具有非常好得断屑效果，可用于不锈钢的半精到精加工。

Turning Inserts - Negative
CNMG / CNMA (80° Negative)

车削刀片 - 负角型
CNMG/CNMA （80°负角型）



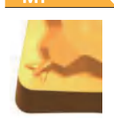
√ 良好工况Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material			PVD涂层																					金陶 Cermet
			FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
P	钢							○				○	×		×		×					√
M	不锈钢		√	√	√	√	√	○	○	○	○	○	×	×	×	×	×	×	×	○	×	√
K	铸铁														×		×					
N	有色金属																					
S	耐热合金、钛合金																		√			
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																	金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
半精加工-精加工 Semi-finishing to Finishing	CNMG090304-MM-B	9.7	9.525	3.18	3.81	0.4			●			●		▲											
	CNMG090308-MM-B	9.7	9.525	3.18	3.81	0.8			●			●		▲											
	CNMG120404-MM-B	12.9	12.7	4.76	5.16	0.4			●			●		▲											
	CNMG120408-MM-B	12.9	12.7	4.76	5.16	0.8			●			●		▲											
	CNMG120412-MM-B	12.9	12.7	4.76	5.16	1.2			●			●		▲											
	CNMG160608-MM-B	16.1	15.875	6.35	6.35	0.8			●			●		▲											
	CNMG160612-MM-B	16.1	15.875	6.35	6.35	1.2			●			●		▲											
	CNMG160616-MM-B	16.1	15.875	6.35	6.35	1.6			●			●		▲											

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

MF



有效解决不锈钢小余量、粘刀等加工难点。

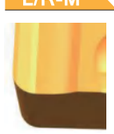
MJ

切削刃锋利，阻力小；带刃倾角设计，导屑好；断屑台前移可在小余量加工状况下实现良好断屑。

MM-B

刀尖刃口同时兼具锋利性和强度。具有良好的排屑效果，适用于半精偏精加工。

L/R-M



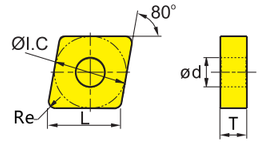
双面断屑槽，抗冲击能力强，槽型设计在刃口安全性和锋利性取得了最佳平衡点，解决不锈钢粗加工等问题。

MB

科学、合理的断屑筋须设计，具有非常好得断屑效果，可用于不锈钢的半精到精加工。

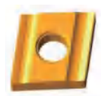
Turning Inserts - Negative
CNMG / CNMA (80° Negative)

车削刀片 - 负角型
CNMG/CNMA （80°负角型）



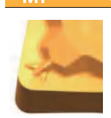
√ 良好工况Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material			PVD涂层																					金陶 Cermet
			FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
P	钢							○				○	×		×		×					√
M	不锈钢		√	√	√	√	√	○	○	○	○	○	×	×	×	×	×	×	×	○	×	√
K	铸铁														×		×					
N	有色金属																					
S	耐热合金、钛合金																		√			
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																	金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
半精加工-粗加工 Semi-finishing to Roughing	CNMG120404-MB	12.9	12.7	4.76	5.16	0.4			●			●		▲											
	CNMG120408-MB	12.9	12.7	4.76	5.16	0.8			●			●		▲											
	CNMG120412-MB	12.9	12.7	4.76	5.16	1.2			●			●		▲											
	CNMG160608-MB	16.1	15.875	6.35	6.35	0.8			●			●		▲											
	CNMG160612-MB	16.1	15.875	6.35	6.35	1.2			●			●		▲											
	CNMG160616-MB	16.1	15.875	6.35	6.35	1.6			●			●		▲											
	CNMG190608-MB	19.3	19.05	6.35	7.94	0.8			●			●		▲											
	CNMG190612-MB	19.3	19.05	6.35	7.94	1.2			●			●		▲											
	CNMG190616-MB	19.3	19.05	6.35	7.94	1.6			●			●		▲											
 左右手 R/L	CNMG120404L/R-M	12.9	12.7	4.76	5.16	0.4			●			●		▲											
	CNMG120408L/R-M	12.9	12.7	4.76	5.16	0.8			●			●		▲											
	CNMG120412L/R-M	12.9	12.7	4.76	5.16	1.2			●			●		▲											

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

MF



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切削刃锋利，阻力小；带刃倾角设计，导屑好；断屑台前移可在小余量加工状况下实现良好断屑。

MM-B

刀尖刃口同时兼具锋利性和强度。具有良好的排屑效果，适用于半精偏精加工。

L/R-M

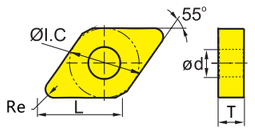
双面断屑槽，抗冲击能力强，槽型设计在刃口安全性和锋利性取得了最佳平衡点，解决不锈钢粗加工等问题。

MB

科学、合理的断屑筋须设计，具有非常好得断屑效果，可用于不锈钢的半精到精加工。

Turning Inserts - Negative
DNMG / DNMA (55° Negative)

车削刀片 - 负角型
DNMG / DNMA (55°负角型)



√ 良好工况Good working conditions　○ 一般工况 General working conditions　× 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																										
P	钢						○				○	×		×		×						√
M	不锈钢	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×	×	×	○	×	√
K	铸铁													×		×						
N	有色金属																					
S	耐热合金、钛合金																	√				
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																		金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
	DNMG110404-MF	11.6	9.525	4.76	3.81	0.4	●		▲					●												
	DNMG110408-MF	11.6	9.525	4.76	3.81	0.8	●		▲					●												
	DNMG110412-MF	11.6	9.525	4.76	3.81	1.2	●		▲					●												
	DNMG150404-MF	15.5	12.7	4.76	5.16	0.4	●		▲					●												
	DNMG150408-MF	15.5	12.7	4.76	5.16	0.8	●		▲					●												
	DNMG150412-MF	15.5	12.7	4.76	5.16	1.2	●		▲					●												
	DNMG150604-MF	15.5	12.7	6.35	5.16	0.4	●		▲					●												
精加工 Finishing	DNMG150608-MF	15.5	12.7	6.35	5.16	0.8	●		▲					●												
	DNMG150612-MF	15.5	12.7	6.35	5.16	1.2	●		▲					●												

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

MF

有效解决不锈钢小余量、粘刀等加工难点。

MJ

切削刃锋利，阻力小；带刃倾角设计，导屑好；断屑台前移可在小余量加工状况下实现良好断屑。

MM-B

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L/R-M

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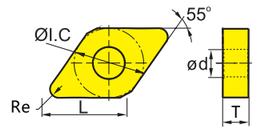
MB

科学、合理的断屑筋须设计，具有非常好得断屑效果，可用于不锈钢的半精到精加工。

不锈钢车削
General Turning Inserts for Stainless Steel
FONHAE 方瀚

Turning Inserts - Negative
DNMG / DNMA (55° Negative)

车削刀片 - 负角型
DNMG / DNMA (55°负角型)



√ 良好工况Good working conditions　○ 一般工况 General working conditions　× 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																										
P	钢						○				○	×		×		×						√
M	不锈钢	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×	×	×	○	×	√
K	铸铁													×		×						
N	有色金属																					
S	耐热合金、钛合金																	√				
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																		金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
	DNMG110404-MJ	11.6	9.525	4.76	3.81	0.4	●		▲					●												
	DNMG110408-MJ	11.6	9.525	4.76	3.81	0.8	●		▲					●												
	DNMG110412-MJ	11.6	9.525	4.76	3.81	1.2	●		▲					●												
	DNMG150404-MJ	15.5	12.7	4.76	5.16	0.4	●		▲					●												
	DNMG150408-MJ	15.5	12.7	4.76	5.16	0.8	●		▲					●												
	DNMG150412-MJ	15.5	12.7	4.76	5.16	1.2	●		▲					●												
	DNMG150604-MJ	15.5	12.7	6.35	5.16	0.4	●		▲					●												
精加工 Finishing	DNMG150608-MJ	15.5	12.7	6.35	5.16	0.8	●		▲					●												
	DNMG150612-MJ	15.5	12.7	6.35	5.16	1.2	●		▲					●												

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

MF

有效解决不锈钢小余量、粘刀等加工难点。

MJ

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MM-B

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L/R-M

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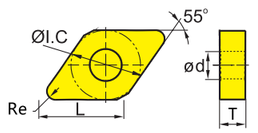
MB

科学、合理的断屑筋须设计，具有非常好得断屑效果，可用于不锈钢的半精到精加工。

Turning Inserts - Negative
DNMG / DNMA (55° Negative)

车削刀片 - 负角型
DNMG / DNMA (55°负角型)



√ 良好工况Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																							
P	钢						○				○	×		×		×						√
M	不锈钢	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×	×	×	○	×	√
K	铸铁													×		×						
N	有色金属																					
S	耐热合金、钛合金																	√				
H	淬硬钢																					

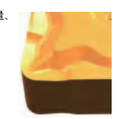
产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																	金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
	DNMG110404-MM-B	11.6	9.525	4.76	3.81	0.4			●			●		▲											
	DNMG110408-MM-B	11.6	9.525	4.76	3.81	0.8			●			●		▲											
	DNMG110412-MM-B	11.6	9.525	4.76	3.81	1.2			●			●		▲											
	DNMG150404-MM-B	15.5	12.7	4.76	5.16	0.4			●			●		▲											
	DNMG150408-MM-B	15.5	12.7	4.76	5.16	0.8			●			●		▲											
	DNMG150412-MM-B	15.5	12.7	4.76	5.16	1.2			●			●		▲											
	DNMG150604-MM-B	15.5	12.7	6.35	5.16	0.4			●			●		▲											
	DNMG150608-MM-B	15.5	12.7	6.35	5.16	0.8			●			●		▲											
半精加工-精加工 Semi-finishing to Finishing	DNMG150612-MM-B	15.5	12.7	6.35	5.16	1.2			●			●		▲											

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

MF

有效解决不锈钢小余量、粘刀等加工难点。

MJ



切削刃锋利，阻力小；带刃倾角设计，导屑好；断屑台前移可在小余量加工状况下实现良好断屑。

MM-B

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L/R-M

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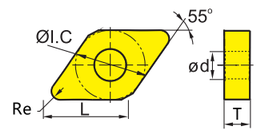
Turning Inserts - Negative
DNMG / DNMA (55° Negative)

车削刀片 - 负角型
DNMG / DNMA (55°负角型)



√ 良好工况Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																							
P	钢						○				○	×		×		×						√
M	不锈钢	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×	×	×	○	×	√
K	铸铁													×		×						
N	有色金属																					
S	耐热合金、钛合金																	√				
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																	金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
	DNMG110404-MB	11.6	9.525	4.76	3.81	0.4			●			●		▲											
	DNMG110408-MB	11.6	9.525	4.76	3.81	0.8			●			●		▲											
	DNMG110412-MB	11.6	9.525	4.76	3.81	1.2			●			●		▲											
	DNMG150404-MB	15.5	12.7	4.76	5.16	0.4			●			●		▲											
	DNMG150408-MB	15.5	12.7	4.76	5.16	0.8			●			●		▲											
	DNMG150412-MB	15.5	12.7	4.76	5.16	1.2			●			●		▲											
	DNMG150604-MB	15.5	12.7	6.35	5.16	0.4			●			●		▲											
	DNMG150608-MB	15.5	12.7	6.35	5.16	0.8			●			●		▲											
半精加工-粗加工 Semi-finishing to Roughing	DNMG150612-MB	15.5	12.7	6.35	5.16	1.2			●			●		▲											
	DNMG150604L/R-M	15.5	12.7	6.35	5.16	0.4			●			●		▲											
	DNMG150608L/R-M	15.5	12.7	6.35	5.16	0.8			●			●		▲											
左右手 R/L																									

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MF

有效解决不锈钢小余量、粘刀等加工难点。

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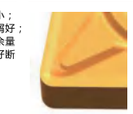
MM-B



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L/R-M

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MB

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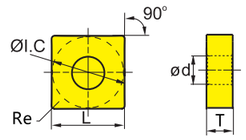
Turning Inserts - Negative
SNMG / SNMA (90° Negative)

车削刀片 - 负角型
SNMG/SNMA (90°负角型)



√ 良好工况Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																								
P	钢						○				○	×		×		×						√
M	不锈钢	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×	×	×	○	×	√
K	铸铁														×		×					
N	有色金属																					
S	耐热合金、钛合金																	√				
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																		金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
	SNMG090304 -MF	9.53	9.525	3.18	3.81	0.4	●		▲					●												
	SNMG090308 -MF	9.53	9.525	3.18	3.81	0.8	●		▲					●												
	SNMG090312 -MF	9.53	9.525	3.18	3.81	1.2	●		▲					●												
	SNMG120404 -MF	12.7	12.7	4.76	5.16	0.4	●		▲					●												
	SNMG120408 -MF	12.7	12.7	4.76	5.16	0.8	●		▲					●												
	SNMG120412 -MF	12.7	12.7	4.76	5.16	1.2	●		▲					●												
	SNMG150608 -MF	15.9	15.875	6.35	6.35	0.8	●		▲					●												
精加工 Finishing	SNMG150612 -MF	15.9	15.875	6.35	6.35	1.2	●		▲					●												

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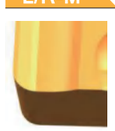
L/R-M



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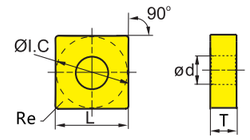
Turning Inserts - Negative
SNMG / SNMA (90° Negative)

车削刀片 - 负角型
SNMG/SNMA (90°负角型)



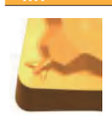
√ 良好工况Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																								
P	钢						○				○	×		×		×						√
M	不锈钢	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×	×	×	○	×	√
K	铸铁														×		×					
N	有色金属																					
S	耐热合金、钛合金																	√				
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																		金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
	SNMG090304 -MJ	9.53	9.525	3.18	3.81	0.4	●		▲					●												
	SNMG090308 -MJ	9.53	9.525	3.18	3.81	0.8	●		▲					●												
	SNMG120404 -MJ	12.7	12.7	4.76	5.16	0.4	●		▲					●												
	SNMG120408 -MJ	12.7	12.7	4.76	5.16	0.8	●		▲					●												
精加工 Finishing	SNMG120412 -MJ	12.7	12.7	4.76	5.16	1.2	●		▲					●												
	SNMG090304 -MM-B	9.53	9.525	3.18	3.81	0.4			●			●		▲												
	SNMG090308 -MM-B	9.53	9.525	3.18	3.81	0.8			●			●		▲												
	SNMG120404 -MM-B	12.7	12.7	4.76	5.16	0.4			●			●		▲												
	SNMG120408 -MM-B	12.7	12.7	4.76	5.16	0.8			●			●		▲												
半精加工-精加工 Semi-finishing to Finishing	SNMG120412 -MM-B	12.7	12.7	4.76	5.16	1.2			●			●		▲												

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

MF

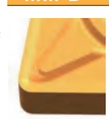


有效解决不锈钢小余量、粘刀等加工难点。

MJ

切削刃锋利，阻力小；带刃倾角设计，导屑好；断屑台前移可在小余量加工状况下实现良好断屑。

MM-B

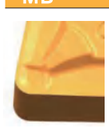


刀尖刃口同时兼具锋利性和强度。具有良好的排屑效果，适用于半精偏精加工。

L/R-M

双面断屑槽，抗冲击能力强，槽型设计在刃口安全性和锋利性取得了最佳平衡点，解决不锈钢粗加工等问题。

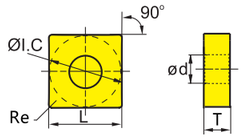
MB



科学、合理的断屑筋须设计，具有非常好得断屑效果，可用于不锈钢的半精到精加工。

Turning Inserts - Negative
SNMG / SNMA (90° Negative)

车削刀片 - 负角型
SNMG/SNMA (90°负角型)



√ 良好工况Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																								
P	钢						○				○	×		×		×						√
M	不锈钢	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×	×	×	○	×	√
K	铸铁													×		×						
N	有色金属																					
S	耐热合金、钛合金																	√				
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																	金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
半精加工-粗加工 Semi-finishing to Roughing	SNMG120404-MB	12.7	12.7	4.76	5.16	0.4			●			●		▲											
	SNMG120408-MB	12.7	12.7	4.76	5.16	0.8			●			●		▲											
	SNMG120412-MB	12.7	12.7	4.76	5.16	1.2			●			●		▲											
	SNMG150612-MB	15.9	15.875	6.35	6.35	1.2			●			●		▲											
	SNMG150616-MB	15.9	15.875	6.35	6.35	1.6			●			●		▲											
左右手 R/L	SNMG120404L/R-M	12.7	12.7	4.76	5.16	0.4			●			●		▲											
	SNMG120408L/R-M	12.7	12.7	4.76	5.16	0.8			●			●		▲											
	SNMG120412L/R-M	12.7	12.7	4.76	5.16	1.2			●			●		▲											
	SNMG150608L/R-M	15.9	15.875	6.35	6.35	0.8			●			●		▲											

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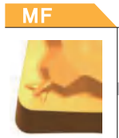

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MM-B

刀尖刃口同时兼具锋利性和强度。具有良好的排屑效果，适用于半精偏精加工。

L/R-M

双面断屑槽，抗冲击能力强，槽型设计在刃口安全性和锋利性取得了最佳平衡点，解决不锈钢粗加工等问题。

MB

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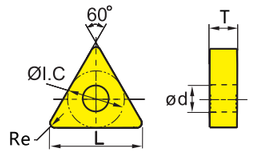
Turning Inserts - Negative
TNMG / TNMA (60° Negative)

车削刀片 - 负角型
TNMG / TNMA (60°负角型)



√ 良好工况Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																								
P	钢						○				○	×		×		×						√
M	不锈钢	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×	×	×	○	×	√
K	铸铁													×		×						
N	有色金属																					
S	耐热合金、钛合金																	√				
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																	金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
精加工 Finishing	TNMG110304-MF	11	6.35	3.18	2.26	0.4	●		▲					●											
	TNMG110308-MF	11	6.35	3.18	2.26	0.8	●		▲					●											
	TNMG160404-MF	16.5	9.525	4.76	3.81	0.4	●		▲					●											
	TNMG160408-MF	16.5	9.525	4.76	3.81	0.8	●		▲					●											
	TNMG160412-MF	16.5	9.525	4.76	3.81	1.2	●		▲					●											
	TNMG220404-MF	22	12.7	4.76	5.16	0.4	●		▲					●											
	TNMG220408-MF	22	12.7	4.76	5.16	0.8	●		▲					●											
	TNMG220412-MF	22	12.7	4.76	5.16	1.2	●		▲					●											

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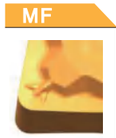

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MM-B

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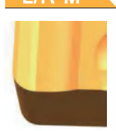
L/R-M



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MB

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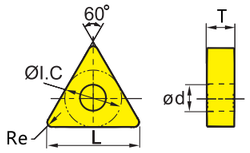
Turning Inserts - Negative
TNMG / TNMA (60° Negative)

车削刀片 - 负角型
TNMG / TNMA (60°负角型)



√ 良好工况Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																							
P	钢						○				○	×		×		×						√
M	不锈钢	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×	×	×	○	×	√
K	铸铁													×		×						
N	有色金属																					
S	耐热合金、钛合金																	√				
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																	金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
	TNMG110304 -MJ	11	6.35	3.18	2.26	0.4	●		▲					●											
	TNMG110308 -MJ	11	6.35	3.18	2.26	0.8	●		▲					●											
	TNMG160404 -MJ	16.5	9.525	4.76	3.81	0.4	●		▲					●											
	TNMG160408 -MJ	16.5	9.525	4.76	3.81	0.8	●		▲					●											
	TNMG160412 -MJ	16.5	9.525	4.76	3.81	1.2	●		▲					●											
	TNMG220404 -MJ	22	12.7	4.76	5.16	0.4	●		▲					●											
	TNMG220408 -MJ	22	12.7	4.76	5.16	0.8	●		▲					●											
精加工 Finishing	TNMG220412 -MJ	22	12.7	4.76	5.16	1.2	●		▲					●											

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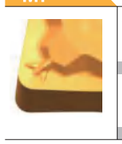
MF



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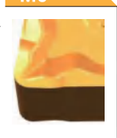
MJ



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MM-B

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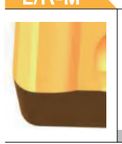
L/R-M



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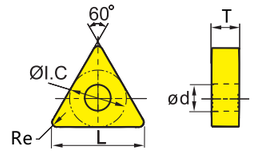
MB

科学、合理的断屑筋须设计，具有非常好得断屑效果，可用于不锈钢的半精到精加工。

不锈钢车削
General Turning Inserts for Stainless Steel
FONHAE 方瀚

Turning Inserts - Negative
TNMG / TNMA (60° Negative)

车削刀片 - 负角型
TNMG / TNMA (60°负角型)



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工件材料 Workpiece Material																							
P	钢						○				○	×		×		×						√
M	不锈钢	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×	×	×	○	×	√
K	铸铁													×		×						
N	有色金属																					
S	耐热合金、钛合金																	√				
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																	金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
	TNMG110304 -MM-B	11	6.35	3.18	2.26	0.4			●			●		▲											
	TNMG110308 -MM-B	11	6.35	3.18	2.26	0.8			●			●		▲											
	TNMG160404 -MM-B	16.5	9.525	4.76	3.81	0.4			●			●		▲											
	TNMG160408 -MM-B	16.5	9.525	4.76	3.81	0.8			●			●		▲											
	TNMG160412 -MM-B	16.5	9.525	4.76	3.81	1.2			●			●		▲											
	TNMG220404 -MM-B	22	12.7	4.76	5.16	0.4			●			●		▲											
	TNMG220408 -MM-B	22	12.7	4.76	5.16	0.8			●			●		▲											
半精加工-精加工 Semi-finishing to Finishing	TNMG220412 -MM-B	22	12.7	4.76	5.16	1.2			●			●		▲											

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MF

有效解决不锈钢小余量、粘刀等加工难点。

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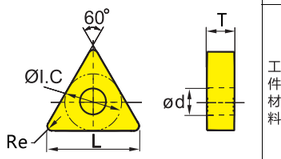
Turning Inserts - Negative
TNMG / TNMA (60° Negative)

车削刀片 - 负角型
TNMG / TNMA (60°负角型)



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工件材料 Workpiece Material																								
P	钢						○				○	×		×		×						√
M	不锈钢	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×	×	×	○	×	√
K	铸铁													×		×						
N	有色金属																					
S	耐热合金、钛合金																	√				
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																	金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
	TNMG110304-MB	11	6.35	3.18	2.26	0.4			●			●		▲											
	TNMG110308-MB	11	6.35	3.18	2.26	0.8			●			●		▲											
	TNMG160404-MB	16.5	9.525	4.76	3.81	0.4			●			●		▲											
	TNMG160408-MB	16.5	9.525	4.76	3.81	0.8			●			●		▲											
	TNMG160412-MB	16.5	9.525	4.76	3.81	1.2			●			●		▲											
半精加工-粗加工 Semi-finishing to Roughing	TNMG220404-MB	22	12.7	4.76	5.16	0.4			●			●		▲											
	TNMG220408-MB	22	12.7	4.76	5.16	0.8			●			●		▲											
	TNMG220412-MB	22	12.7	4.76	5.16	1.2			●			●		▲											
	TNMG160404L/R-M	16.5	9.525	4.76	3.81	0.4			●			●		▲											
	TNMG160408L/R-M	16.5	9.525	4.76	3.81	0.8			●			●		▲											
	TNMG160412L/R-M	16.5	9.525	4.76	3.81	1.2			●			●		▲											
左右手 R/L																								

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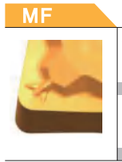
MF


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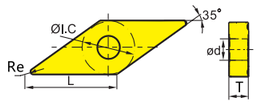
Turning Inserts - Negative
VNMG / VNMA (35° Negative)

车削刀片 - 负角型
VNMG / VNMA (35°负角型)

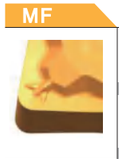


√ 良好工况Good working conditions　○ 一般工况 General working conditions　× 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																								
P	钢						○				○	×		×		×						√
M	不锈钢	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×	×	×	○	×	√
K	铸铁													×		×						
N	有色金属																					
S	耐热合金、钛合金																	√				
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																	金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
	VNMG160404-MF	16.6	9.525	4.76	3.81	0.4	●		▲					●											
	VNMG160408-MF	16.6	9.525	4.76	3.81	0.8	●		▲					●											
	VNMG160412-MF	16.6	9.525	4.76	3.81	1.2	●		▲					●											
精加工 Finishing																								
	VNMG160404-MJ	16.6	9.525	4.76	3.81	0.4	●		▲					●											
	VNMG160408-MJ	16.6	9.525	4.76	3.81	0.8	●		▲					●											
	VNMG160412-MJ	16.6	9.525	4.76	3.81	1.2	●		▲					●											
精加工 Finishing																								

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

MF


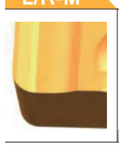
有效解决不锈钢小余量、粘刀等加工难点。

MJ

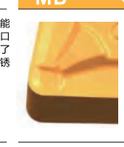
切削刃锋利，阻力小；带刃倾角设计，导屑好；断屑台前移可在小余量加工状况下实现良好断屑。

MM-B

刀尖刃口同时兼具锋利性和强度。具有良好的排屑效果，适用于半精偏精加工。

L/R-M


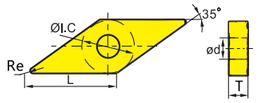
双面断屑槽，抗冲击能力强，槽型设计在刃口安全性和锋利性取得了最佳平衡点，解决不锈钢粗加工等问题。

MB


科学、合理的断屑筋须设计，具有非常好得断屑效果，可用于不锈钢的半精到精加工。

Turning Inserts - Negative
VNMG / VNMA (35° Negative)

车削刀片 - 负角型
VNMG / VNMA (35°负角型)



√ 良好工况Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																								
P	钢						○				○	×		×		×						√
M	不锈钢	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×	×	×	○	×	√
K	铸铁													×		×						
N	有色金属																					
S	耐热合金、钛合金																	√				
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																		金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
半精加工-精加工 Semi-finishing to Finishing	VNMG160404-MM-B	16.6	9.525	4.76	3.81	0.4			●			●		▲											
	VNMG160408-MM-B	16.6	9.525	4.76	3.81	0.8			●			●		▲											
	VNMG160412-MM-B	16.6	9.525	4.76	3.81	1.2			●			●		▲											
半精加工-粗加工 Semi-finishing to Roughing	VNMG160404-MB	16.6	9.525	4.76	3.81	0.4			●			●		▲											
	VNMG160408-MB	16.6	9.525	4.76	3.81	0.8			●			●		▲											
	VNMG160412-MB	16.6	9.525	4.76	3.81	1.2			●			●		▲											

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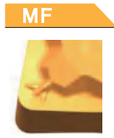
MF



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L/R-M

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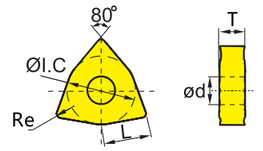
Turning Inserts - Negative
WNMG / WNMA (80° Trigonal Negative)

车削刀片 - 负角型
WNMG/WNMA (80°桃形 负角型)



√ 良好工况Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																								
P	钢						○				○	×		×		×						√
M	不锈钢	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×	×	×	○	×	√
K	铸铁													×		×						
N	有色金属																					
S	耐热合金、钛合金																	√				
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																		金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
精加工 Finishing	WNMG06T304-MF	6.5	9.525	3.97	3.81	0.4	●		▲					●											
	WNMG06T308-MF	6.5	9.525	3.97	3.81	0.8	●		▲					●											
	WNMG06T312-MF	6.5	9.525	3.97	3.81	1.2	●		▲					●											
	WNMG060404-MF	6.5	9.525	4.76	3.81	0.4	●		▲					●											
	WNMG060408-MF	6.5	9.525	4.76	3.81	0.8	●		▲					●											
	WNMG060412-MF	6.5	9.525	4.76	3.81	1.2	●		▲					●											
	WNMG080404-MF	8.7	12.7	4.76	5.16	0.4	●		▲					●											
	WNMG080408-MF	8.7	12.7	4.76	5.16	0.8	●		▲					●											
	WNMG080412-MF	8.7	12.7	4.76	5.16	1.2	●		▲					●											

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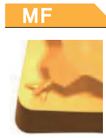
MF



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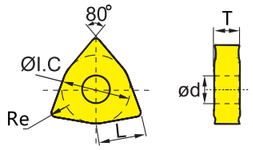
Turning Inserts - Negative
WNMG / WNMA (80° Trigonal Negative)

车削刀片 - 负角型
WNMG/WNMA (80°桃形 负角型)



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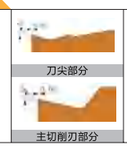
工件材料 Workpiece Material																							
P	钢						○				○	×		×		×						√
M	不锈钢	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×	×	×	○	×	√
K	铸铁													×		×						
N	有色金属																					
S	耐热合金、钛合金																	√				
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																	金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
	WNMG06T304-MJ	6.5	9.525	3.97	3.81	0.4	●		▲					●											
	WNMG06T308-MJ	6.5	9.525	3.97	3.81	0.8	●		▲					●											
	WNMG06T312-MJ	6.5	9.525	3.97	3.81	1.2	●		▲					●											
	WNMG060404-MJ	6.5	9.525	4.76	3.81	0.4	●		▲					●											
	WNMG060408-MJ	6.5	9.525	4.76	3.81	0.8	●		▲					●											
	WNMG060412-MJ	6.5	9.525	4.76	3.81	1.2	●		▲					●											
	WNMG080404-MJ	8.7	12.7	4.76	5.16	0.4	●		▲					●											
	WNMG080408-MJ	8.7	12.7	4.76	5.16	0.8	●		▲					●											
精加工 Finishing	WNMG080412-MJ	8.7	12.7	4.76	5.16	1.2	●		▲					●											

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

MF



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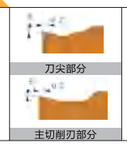
MM-B



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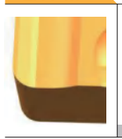
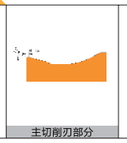
L/R-M

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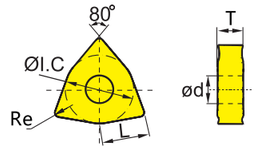
Turning Inserts - Negative
WNMG / WNMA (80° Trigonal Negative)

车削刀片 - 负角型
WNMG/WNMA (80°桃形 负角型)



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工件材料 Workpiece Material																							
P	钢						○				○	×		×		×						√
M	不锈钢	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×	×	×	○	×	√
K	铸铁													×		×						
N	有色金属																					
S	耐热合金、钛合金																	√				
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																	金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
	WNMG060408-MM-B	6.5	9.525	4.76	3.81	0.8			●			●		▲											
	WNMG060412-MM-B	6.5	9.525	4.76	3.81	1.2			●			●		▲											
	WNMG080404-MM-B	8.7	12.7	4.76	5.16	0.4			●			●		▲											
半精加工-精加工 Semi-finishing to Finishing	WNMG080408-MM-B	8.7	12.7	4.76	5.16	0.8			●			●		▲											
	WNMG080412-MM-B	8.7	12.7	4.76	5.16	1.2			●			●		▲											
	WNMG060408-MB	6.5	9.525	4.76	3.81	0.8			●			●		▲											
	WNMG060412-MB	6.5	9.525	4.76	3.81	1.2			●			●		▲											
	WNMG080404-MB	8.7	12.7	4.76	5.16	0.4			●			●		▲											
半精加工-粗加工 Semi-finishing to Roughing	WNMG080408-MB	8.7	12.7	4.76	5.16	0.8			●			●		▲											
	WNMG080412-MB	8.7	12.7	4.76	5.16	1.2			●			●		▲											

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MF

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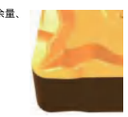
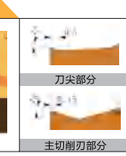
MJ

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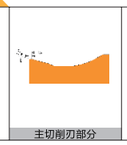
L/R-M



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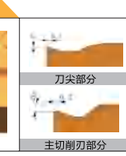

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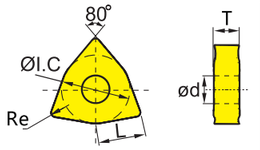
Turning Inserts - Negative
WNMG / WNMA (80° Trigonal Negative)

车削刀片 - 负角型
WNMG/WNMA (80°桃形 负角型)



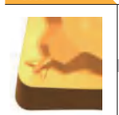
√ 良好工况Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																							
P	钢						○				○	×		×		×						√
M	不锈钢	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×	×	×	○	×	√
K	铸铁													×		×						
N	有色金属																					
S	耐热合金、钛合金																	√				
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																	金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
	WNMG080404L/R-M	8.7	12.7	4.76	5.16	0.4			●			●		▲											
	WNMG080408L/R-M	8.7	12.7	4.76	5.16	0.8			●			●		▲											
	WNMG080412L/R-M	8.7	12.7	4.76	5.16	1.2			●			●		▲											
左右手 R/L																									

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

MF



有效解决不锈钢小余量、粘刀等加工难点。

MJ

切削刃锋利，阻力小；带刃倾角设计，导屑好；断屑台前移可在小余量加工状况下实现良好断屑。

MM-B

刀尖刃口同时兼具锋利性和强度。具有良好的排屑效果，适用于半精偏精加工。

L/R-M

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MB

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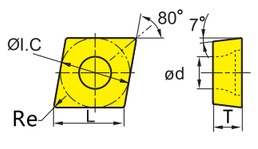
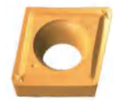
Turning Inserts - Positive
CCMT / CCGT (80° Positive)

车削刀片 - 正角型
CCMT/CCGT (80°正角型)



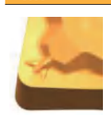
√ 良好工况Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																							
P	钢						○				○	×		×		×						√
M	不锈钢	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×	×	×	○	×	√
K	铸铁													×		×						
N	有色金属																					
S	耐热合金、钛合金																	√				
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																	金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
	CCMT060202-MF	6.4	6.35	2.38	2.8	0.2			●			●		▲											
	CCMT060204-MF	6.4	6.35	2.38	2.8	0.4			●			●		▲											
	CCMT060208-MF	6.4	6.35	2.38	2.8	0.8			●			●		▲											
	CCMT09T302-MF	9.7	9.525	3.97	4.4	0.2			●			●		▲											
	CCMT09T304-MF	9.7	9.525	3.97	4.4	0.4			●			●		▲											
	CCMT09T308-MF	9.7	9.525	3.97	4.4	0.8			●			●		▲											
	CCMT120404-MF	12.9	12.7	4.76	5.56	0.4			●			●		▲											
	CCMT120408-MF	12.9	12.7	4.76	5.56	0.8			●			●		▲											
精加工 Finishing	CCMT120412-MF	12.9	12.7	4.76	5.56	1.2			●			●		▲											

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

MF



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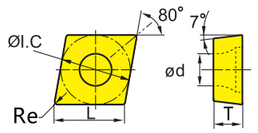
Turning Inserts - Positive
CCMT / CCGT (80° Positive)

车削刀片 - 正角型
CCMT/CCGT (80°正角型)



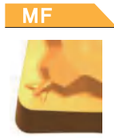
√ 良好工况Good working conditions　○ 一般工况 General working conditions　× 不稳定工况 Unstable working conditions

工件材料 Workpiece Material			P	M	K	N	S	H
		钢	○	○	×	×	×	√
		不锈钢	○	○	×	×	×	√
		铸铁	×	×	×	×	×	
		有色金属	×	×	×	×	×	
		耐热合金、钛合金	×	×	×	×	○	
		淬硬钢	×	×	×	×	×	√

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																	金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
	CCMT060202-MM	6.4	6.35	2.38	2.8	0.2			●			●		▲												
	CCMT060204-MM	6.4	6.35	2.38	2.8	0.4			●			●		▲												
	CCMT060208-MM	6.4	6.35	2.38	2.8	0.8			●			●		▲												
	CCMT09T302-MM	9.7	9.525	3.97	4.4	0.2			●			●		▲												
	CCMT09T304-MM	9.7	9.525	3.97	4.4	0.4			●			●		▲												
	CCMT09T308-MM	9.7	9.525	3.97	4.4	0.8			●			●		▲												
	CCMT120404-MM	12.9	12.7	4.76	5.56	0.4			●			●		▲												
半精加工 Semi-finishing	CCMT120408-MM	12.9	12.7	4.76	5.56	0.8			●			●		▲												
	CCMT120412-MM	12.9	12.7	4.76	5.56	1.2			●			●		▲												

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

MF



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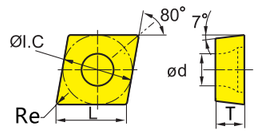
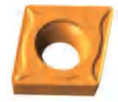
Turning Inserts - Positive
CCMT / CCGT (80° Positive)

车削刀片 - 正角型
CCMT/CCGT (80°正角型)



√ 良好工况Good working conditions　○ 一般工况 General working conditions　× 不稳定工况 Unstable working conditions

工件材料 Workpiece Material			P	M	K	N	S	H
		钢	○	○	×	×	×	√
		不锈钢	○	○	×	×	×	√
		铸铁	×	×	×	×	×	
		有色金属	×	×	×	×	×	
		耐热合金、钛合金	×	×	×	×	√	
		淬硬钢	×	×	×	×	×	√

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																	金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
	CCMT060202-GM	6.4	6.35	2.38	2.8	0.2			▲					●												
	CCMT060204-GM	6.4	6.35	2.38	2.8	0.4			▲					●												
	CCMT060208-GM	6.4	6.35	2.38	2.8	0.8			▲					●												
	CCMT09T304-GM	9.7	9.525	3.97	4.4	0.4			▲					●												
	CCMT09T308-GM	9.7	9.525	3.97	4.4	0.8			▲					●												
	CCMT09T312-GM	9.7	9.525	3.97	4.4	1.2			▲					●												
	CCMT120404-GM	12.9	12.7	4.76	5.56	0.4			▲					●												
通用加工 Genaral Machining	CCMT120408-GM	12.9	12.7	4.76	5.56	0.8			▲					●												
	CCMT120412-GM	12.9	12.7	4.76	5.56	1.2			▲					●												

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MF

有效解决不锈钢小余量、粘刀等加工难点。

GM

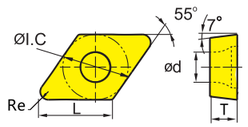
单面断屑槽，适用于P、M、K类通用加工。

MM

有效解决不锈钢中等余量加工难点。

Turning Inserts - Positive
DCMT / DCGT (55° Positive)

车削刀片 - 正角型
DCMT/DCGT (55°正角型)



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工件材料 Workpiece Material																							
P	钢						○				○	×		×		×						√
M	不锈钢	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×	×	×	○	×	√
K	铸铁													×		×						
N	有色金属																					
S	耐热合金、钛合金																	√				
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																	金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
精加工 Finishing	DCMT070202-MF	7.8	6.35	2.38	2.8	0.2			●			●		▲											
	DCMT070204-MF	7.8	6.35	2.38	2.8	0.4			●			●		▲											
	DCMT070208-MF	7.8	6.35	2.38	2.8	0.8			●			●		▲											
	DCMT11T302-MF	11.6	9.525	3.97	4.4	0.2			●			●		▲											
	DCMT11T304-MF	11.6	9.525	3.97	4.4	0.4			●			●		▲											
	DCMT11T308-MF	11.6	9.525	3.97	4.4	0.8			●			●		▲											
半精加工 Semi-finishing	DCMT070202-MM	7.8	6.35	2.38	2.8	0.2			●			●		▲											
	DCMT070204-MM	7.8	6.35	2.38	2.8	0.4			●			●		▲											
	DCMT070208-MM	7.8	6.35	2.38	2.8	0.8			●			●		▲											
	DCMT11T302-MM	11.6	9.525	3.97	4.4	0.2			●			●		▲											
	DCMT11T304-MM	11.6	9.525	3.97	4.4	0.4			●			●		▲											
	DCMT11T308-MM	11.6	9.525	3.97	4.4	0.8			●			●		▲											

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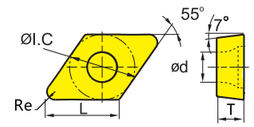
不锈钢车削
General Turning Inserts for Stainless Steel
FONHAE 方瀚

Turning Inserts - Positive
DCMT / DCGT (55° Positive)
车削刀片 - 正角型
DCMT/DCGT (55°正角型)



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工件材料 Workpiece Material																							
P	钢					○				○	×		×		×						√
M	不锈钢	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×	×	○	×	√
K	铸铁												×		×						
N	有色金属																				
S	耐热合金、钛合金															√				
H	淬硬钢																			

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																	金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
通用加工 General Machining	DCMT070202-GM	7.8	6.35	2.38	2.8	0.2			▲					●											
	DCMT070204-GM	7.8	6.35	2.38	2.8	0.4			▲					●											
	DCMT070208-GM	7.8	6.35	2.38	2.8	0.8			▲					●											
	DCMT11T304-GM	11.6	9.525	3.97	4.4	0.4			▲					●											
	DCMT11T308-GM	11.6	9.525	3.97	4.4	0.8			▲					●											
	DCMT11T312-GM	11.6	9.525	3.97	4.4	1.2			▲					●											

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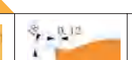
MF

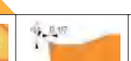
有效解决不锈钢小余量、粘刀等加工难点。

GM



单面断屑槽，适用于P、M、K类通用加工。

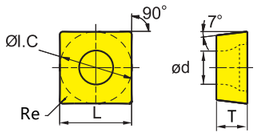
MM



有效解决不锈钢中等余量加工难点。

Turning Inserts - Positive
SCMT (Square Positive)

车削刀片 - 正角型
SCMT (正方形)



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工件材料 Workpiece Material		钢	不锈钢	铸铁	有色金属	耐热合金、钛合金	淬硬钢
	P		√				
	M		√				
	K						
	N						
	S						
	H						

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																	金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
精加工 Finishing	SCMT09T302-MF	9.53	9.525	3.97	4.4	0.2			●			●		▲											
	SCMT09T304-MF	9.53	9.525	3.97	4.4	0.4			●			●		▲											
	SCMT09T308-MF	9.53	9.525	3.97	4.4	0.8			●			●		▲											
	SCMT120404-MF	12.7	12.7	4.76	5.56	0.4			●			●		▲											
	SCMT120408-MF	12.7	12.7	4.76	5.56	0.8			●			●		▲											
	SCMT120412-MF	12.7	12.7	4.76	5.56	1.2			●			●		▲											
半精加工 Semi-finishing	SCMT09T302-MM	9.53	9.525	3.97	4.4	0.2			●			●		▲											
	SCMT09T304-MM	9.53	9.525	3.97	4.4	0.4			●			●		▲											
	SCMT09T308-MM	9.53	9.525	3.97	4.4	0.8			●			●		▲											
	SCMT120404-MM	12.7	12.7	4.76	5.56	0.4			●			●		▲											
	SCMT120408-MM	12.7	12.7	4.76	5.56	0.8			●			●		▲											
	SCMT120412-MM	12.7	12.7	4.76	5.56	1.2			●			●		▲											

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

MF

有效解决不锈钢小余量、粘刀等加工难点。

GM

单面断屑槽，适用于P、M、K类通用加工。

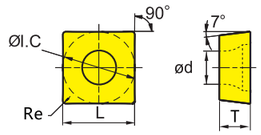
MM

有效解决不锈钢中等余量加工难点。

不锈钢车削
General Turning Inserts for Stainless Steel
FONHAE 方瀚

Turning Inserts - Positive
SCMT (Square Positive)

车削刀片 - 正角型
SCMT (正方形)



√ 良好工况Good working conditions　○ 一般工况 General working conditions　× 不稳定工况 Unstable working conditions

工件材料 Workpiece Material		钢	不锈钢	铸铁	有色金属	耐热合金、钛合金	淬硬钢
	P		√				
	M		√				
	K						
	N						
	S						
	H						

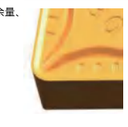
产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																	金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
通用加工 Genaral Machining	SCMT09T304-GM	9.53	9.525	3.97	4.4	0.4			▲					●											
	SCMT09T308-GM	9.53	9.525	3.97	4.4	0.8			▲					●											
	SCMT120404-GM	12.7	12.7	4.76	5.56	0.4			▲					●											
	SCMT120408-GM	12.7	12.7	4.76	5.56	0.8			▲					●											
	SCMT120412-GM	12.7	12.7	4.76	5.56	1.2			▲					●											

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

MF

有效解决不锈钢小余量、粘刀等加工难点。

GM



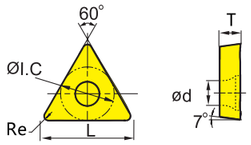
单面断屑槽，适用于P、M、K类通用加工。

MM

有效解决不锈钢中等余量加工难点。

Turning Inserts - Positive
TCMT / TCGT (Triangle Positive)

车削刀片 - 正角型
TCMT/TCGT (三角形 正角型)



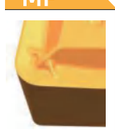
√ 良好工况Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material			PVD涂层																					金陶 Cermet
			FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
P	钢							○				○	×		×		×					√
M	不锈钢		√	√	√	√	√	○	○	○	○	○	×	×	×	×	×	×	×	○	×	√
K	铸铁														×		×					
N	有色金属																					
S	耐热合金、钛合金																		√			
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																	金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
精加工 Finishing	TCMT090202 -MF	9.6	5.56	2.38	2.5	0.2			●			●		▲											
	TCMT090204 -MF	9.6	5.56	2.38	2.5	0.4			●			●		▲											
	TCMT110202 -MF	11	6.35	2.38	2.8	0.2			●			●		▲											
	TCMT110204 -MF	11	6.35	2.38	2.8	0.4			●			●		▲											
	TCMT110208 -MF	11	6.35	2.38	2.8	0.8			●			●		▲											
	TCMT16T304 -MF	16.5	9.525	3.97	4.4	0.4			●			●		▲											
	TCMT16T308 -MF	16.5	9.525	3.97	4.4	0.8			●			●		▲											
半精加工 Semi-finishing	TCMT090202 -MM	9.6	5.56	2.38	2.5	0.2			●			●		▲											
	TCMT090204 -MM	9.6	5.56	2.38	2.5	0.4			●			●		▲											
	TCMT110202 -MM	11	6.35	2.38	2.8	0.2			●			●		▲											
	TCMT110204 -MM	11	6.35	2.38	2.8	0.4			●			●		▲											
	TCMT110208 -MM	11	6.35	2.38	2.8	0.8			●			●		▲											
	TCMT16T304 -MM	16.5	9.525	3.97	4.4	0.4			●			●		▲											
	TCMT16T308 -MM	16.5	9.525	3.97	4.4	0.8			●			●		▲											

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

MF



有效解决不锈钢小余量、粘刀等加工难点。

GM

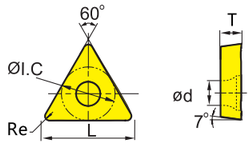
单面断屑槽，适用于P、M、K类通用加工。

MM

有效解决不锈钢中等余量加工难点。

Turning Inserts - Positive
TCMT / TCGT (Triangle Positive)

车削刀片 - 正角型
TCMT/TCGT (三角形 正角型)



√ 良好工况Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material			PVD涂层																					金陶 Cermet
			FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
P	钢							○				○	×		×		×					√
M	不锈钢		√	√	√	√	√	○	○	○	○	○	×	×	×	×	×	×	×	○	×	√
K	铸铁														×		×					
N	有色金属																					
S	耐热合金、钛合金																		√			
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																	金陶 Cermet
		L	ØI.C	T	Φd	r	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	FC5280
通用加工 Genaral Machining	TCMT090202 -GM	9.6	5.56	2.38	2.5	0.2			▲					●											
	TCMT090204 -GM	9.6	5.56	2.38	2.5	0.4			▲					●											
	TCMT090208 -GM	9.6	5.56	2.38	2.5	0.8			▲					●											
	TCMT110204 -GM	11	6.35	2.38	2.8	0.4			▲					●											
	TCMT110208 -GM	11	6.35	2.38	2.8	0.8			▲					●											
	TCMT16T304 -GM	16.5	9.525	3.97	4.4	0.4			▲					●											
	TCMT16T308 -GM	16.5	9.525	3.97	4.4	0.8			▲					●											
	TCMT16T312 -GM	16.5	9.525	3.97	4.4	1.2			▲					●											

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

MF

有效解决不锈钢小余量、粘刀等加工难点。

GM

单面断屑槽，适用于P、M、K类通用加工。

MM

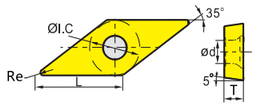
有效解决不锈钢中等余量加工难点。

Turning Inserts - Positive

VBMT (35° Positive)

车削刀片 - 正角型

VBMT (35°正角型)



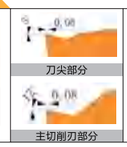
√ 良好工况Good working conditions　○ 一般工况 General working conditions　× 不稳定工况 Unstable working conditions

工件材料 Workpiece Material		P	M	K	N	S	H
		钢	不锈钢	铸铁	有色金属	耐热合金、钛合金	淬硬钢
FT8204			√				
FT8205			√				
FT8206			√				
FT8207			√				
FT8208			√				
FT8284		○	○				
FT8285			○				
FT8286			○				
FT8287			○				
FT8288		○	○				
FT8294		×	×				
FT8295			×				
FT8296		×	×	×			
FT8297			×				
FT8298		×	×	×			
FT3056			×				
FT8456			×			√	
FT8318			○				
FT8326			×				
FC5280	金陶 Cermet	√	√				

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm） L	ØI.C	T	Φd	r	PVD涂层 FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT3056	FT8456	FT8318	FT8326	金陶 Cermet FC5280
精加工 Finishing	VBMT110304 -MF	11	6.35	3.18	2.8	0.4			●			●		▲												
	VBMT110308 -MF	11	6.35	3.18	2.8	0.8			●			●		▲												
	VBMT160404 -MF	16.5	9.525	4.76	4.4	0.4			●			●		▲												
	VBMT160408 -MF	16.5	9.525	4.76	4.4	0.8			●			●		▲												
	VBMT160412 -MF	16.5	9.525	4.76	4.4	1.2			●			●		▲												
半精加工 Semi-finishing	VBMT110304 -MM	11	6.35	3.18	2.8	0.4			●			●		▲												
	VBMT110308 -MM	11	6.35	3.18	2.8	0.8			●			●		▲												
	VBMT160404 -MM	16.5	9.525	4.76	4.4	0.4			●			●		▲												
	VBMT160408 -MM	16.5	9.525	4.76	4.4	0.8			●			●		▲												
	VBMT160412 -MM	16.5	9.525	4.76	4.4	1.2			●			●		▲												
通用加工 Genaral Machining	VCMT160404 -GM	16.5	9.525	4.76	4.4	0.4			▲					●												
	VCMT160408 -GM	16.5	9.525	4.76	4.4	0.8			▲					●												
	VBMT160404 -GM	16.5	9.525	4.76	4.4	0.4			▲					●												
	VBMT160408 -GM	16.5	9.525	4.76	4.4	0.8			▲					●												
	VBMT160412 -GM	16.5	9.525	4.76	4.4	1.2			▲					●												

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

MF



有效解决不锈钢小余量、粘刀等加工难点。

GM

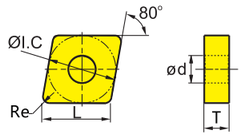
单面断屑槽，适用于P、M、K类通用加工。

MM

有效解决不锈钢中等余量加工难点。

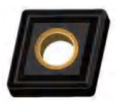
Turning Inserts - Negative
CNMG / CNMA (80° Negative)

车削刀片 - 负角型
CNMG/CNMA （80°负角型）



√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																						
P	钢	√	○	○												√		×		×	√
M	不锈钢				√	√	√	√	○	○	×	×	×	√	√	×	×	×	×	×	√
K	铸铁																×		×		
N	有色金属																				
S	耐热合金、钛合金																				
H	淬硬钢																				

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					CVD涂层											PVD涂层						金陶 Cermet
		L	ØI.C	T	Φd	r	FT1153	FT1251	FT1252	FT3122	FT3123A	FT3123B	FT3123QB	FT3262	FT3263	FT3263A	FT3263B	FT3263QB	FT8204	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
	CNMG120404-UC	12.7	12.7	4.76	5.16	0.4								▲		●									
	CNMG120408-UC	12.7	12.7	4.76	5.16	0.8								▲		●									
	CNMG120412-UC	12.7	12.7	4.76	5.16	1.2								▲		●									
	CNMG120416-UC	12.7	12.7	4.76	5.16	1.6								▲		●									
	CNMG160608-UC	16.1	15.875	6.35	6.35	0.8								▲		●									
	CNMG160612-UC	16.1	15.875	6.35	6.35	1.2								▲		●									
	CNMG160616-UC	16.1	15.875	6.35	6.35	1.6								▲		●									
	CNMG190608-UC	19.3	19.05	6.35	7.94	0.8								▲		●									
半精加工 Semi-finishing	CNMG190612-UC	19.3	19.05	6.35	7.94	1.2								▲		●									
	CNMG190616-UC	19.3	19.05	6.35	7.94	1.6								▲		●									

▲为主推荐牌号Recommeded grade(Always stock available)　●按订单生产可选牌号Maker-to-order

UC

双面断屑槽，刃口强度好，适合半精加工。

GH

M级双面断屑槽，轻载粗加工首选槽型，金属切除率和刃口经济性可兼得。

ZT

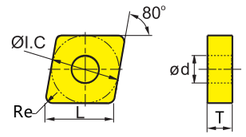
宽棱边与大容屑槽组合，实现高进给量加工。适用于断续切削、黑皮切削。

平板

双面加工，刃口强度高，是克服铸铁加工中砂眼，夹渣等不良加工因素的刀片结构的解决方案。

Turning Inserts - Negative
CNMG / CNMA (80° Negative)

车削刀片 - 负角型
CNMG/CNMA （80°负角型）



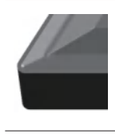
√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																						
P	钢	√	○	○												√		×		×	√
M	不锈钢				√	√	√	√	○	○	×	×	×	√	√	×	×	×	×	×	√
K	铸铁																×		×		
N	有色金属																				
S	耐热合金、钛合金																				
H	淬硬钢																				

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					CVD涂层											PVD涂层						金陶 Cermet
		L	ØI.C	T	Φd	r	FT1153	FT1251	FT1252	FT3122	FT3123A	FT3123B	FT3123QB	FT3262	FT3263	FT3263A	FT3263B	FT3263QB	FT8204	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
	CNMG120408-GH	12.7	12.7	4.76	5.16	0.8					●			▲	●	▲									
	CNMG120412-GH	12.7	12.7	4.76	5.16	1.2					●			▲	●	▲									
	CNMG160608-GH	16.1	15.875	6.35	6.35	0.8					●			▲	●	▲									
	CNMG160612-GH	16.1	15.875	6.35	6.35	1.2					●			▲	●	▲									
	CNMG160616-GH	16.1	15.875	6.35	6.35	1.6					●			▲	●	▲									
半精加工-粗加工 Semi-finishing to Roughing	CNMG190612-GH	19.3	19.05	6.35	7.94	1.2					●			▲	●	▲									
	CNMG190616-GH	19.3	19.05	6.35	7.94	1.6					●			▲	●	▲									
	CNMG120408-ZT	12.7	12.7	4.76	5.16	0.8								▲											
	CNMG120412-ZT	12.7	12.7	4.76	5.16	1.2								▲											
	CNMG160608-ZT	16.1	15.875	6.35	6.35	0.8								▲											
	CNMG160612-ZT	16.1	15.875	6.35	6.35	1.2								▲											
	CNMG160616-ZT	16.1	15.875	6.35	6.35	1.6								▲											
	CNMG190612-ZT	19.3	19.05	6.35	7.94	1.2								▲											
粗加工 Roughing	CNMG190616-ZT	19.3	19.05	6.35	7.94	1.6								▲											

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

UC



双面断屑槽，刃口强度好，适合半精加工。

GH

M级双面断屑槽，轻载粗加工首选槽型，金属切除率和刃口经济性可兼得。

ZT

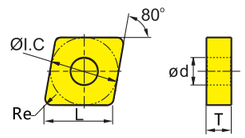
宽棱边与大容屑槽组合，实现高进给量加工。适用于断续切削、黑皮切削。

平板

双面加工，刃口强度高，是克服铸铁加工中砂眼，夹渣等不良加工因素的刀片结构的解决方案。

Turning Inserts - Negative
CNMG / CNMA (80° Negative)

车削刀片 - 负角型
CNMG/CNMA （80°负角型）



√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																						
P	钢	√	○	○												√		×		×		√
M	不锈钢				√	√	√	√	○	○	×	×	×	√	√	×	×	×	×	×		√
K	铸铁																×		×			
N	有色金属																					
S	耐热合金、钛合金																					
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					CVD涂层											PVD涂层						金陶 Cermet
		L	ØI.C	T	Φd	r	FT1153	FT1251	FT1252	FT3122	FT3123A	FT3123B	FT3123QB	FT3262	FT3263	FT3263A	FT3263B	FT3263QB	FT8204	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
	CNMA120404	12.7	12.7	4.76	5.16	0.4				●	●	●	●	▲			●	●							
	CNMA120408	12.7	12.7	4.76	5.16	0.8				●	●	●	●	▲			●	●							
	CNMA120412	12.7	12.7	4.76	5.16	1.2				●	●	●	●	▲			●	●							
	CNMA120416	12.7	12.7	4.76	5.16	1.6				●	●	●	●	▲			●	●							
	CNMA160612	16.1	15.875	6.35	6.35	1.2				●	●	●	●	▲			●	●							
	CNMA160616	16.1	15.875	6.35	6.35	1.6				●	●	●	●	▲			●	●							
	CNMA190612	19.3	19.05	6.35	7.94	1.2				●	●	●	●	▲			●	●							
	CNMA190616	19.3	19.05	6.35	7.94	1.6				●	●	●	●	▲			●	●							
平板 Flat																									

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

UC

双面断屑槽，刃口强度好，适合半精加工。

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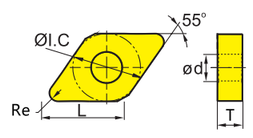
Turning Inserts - Negative
DNMG / DNMA (55° Negative)

车削刀片 - 负角型
DNMG/DNMA （55°负角型）



√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																						
P	钢	√	○	○												√		×		×		√
M	不锈钢				√	√	√	√	○	○	×	×	×	√	√	×	×	×	×	×		√
K	铸铁																×		×			
N	有色金属																					
S	耐热合金、钛合金																					
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					CVD涂层											PVD涂层						金陶 Cermet
		L	ØI.C	T	Φd	r	FT1153	FT1251	FT1252	FT3122	FT3123A	FT3123B	FT3123QB	FT3262	FT3263	FT3263A	FT3263B	FT3263QB	FT8204	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
	DNMG110408-UC	11.6	9.525	4.76	3.81	0.8								▲		●			●						●
	DNMG150404-UC	15.5	12.7	4.76	5.16	0.4								▲		●			●						●
	DNMG150408-UC	15.5	12.7	4.76	5.16	0.8								▲		●			●						●
	DNMG150412-UC	15.5	12.7	4.76	5.16	1.2								▲		●			●						●
	DNMG150416-UC	15.5	12.7	4.76	5.16	1.6								▲		●			●						●
	DNMG150604-UC	15.5	12.7	6.35	5.16	0.4								▲		●			●						●
	DNMG150608-UC	15.5	12.7	6.35	5.16	0.8								▲		●			●						●
	DNMG150612-UC	15.5	12.7	6.35	5.16	1.2								▲		●			●						●
半精加工 Semi-finishing	DNMG150616-UC	15.5	12.7	6.35	5.16	1.6								▲		●			●						●

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

UC

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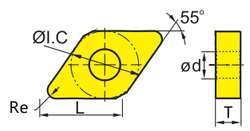
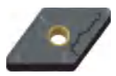
Turning Inserts - Negative
DNMG / DNMA (55° Negative)

车削刀片 - 负角型
DNMG/DNMA （55°负角型）



√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																						
P	钢	√	○	○												√		×		×	√
M	不锈钢				√	√	√	√	○	○	×	×	×	√	√	×	×	×	×	×	√
K	铸铁																×		×		
N	有色金属																				
S	耐热合金、钛合金																				
H	淬硬钢																				

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					CVD涂层												PVD涂层						金陶 Cermet
		L	ØI.C	T	Φd	r	FT1153	FT1251	FT1252	FT3122	FT3123A	FT3123B	FT3123QB	FT3262	FT3263	FT3263A	FT3263B	FT3263QB	FT8204	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
 半精加工-粗加工 Semi-finishing to Roughing	DNMG150408-GH	15.5	12.7	4.76	5.16	0.8				●			▲	●	▲									
	DNMG150412-GH	15.5	12.7	4.76	5.16	1.2				●			▲	●	▲									
	DNMG150608-GH	15.5	12.7	6.35	5.16	0.8				●			▲	●	▲									
	DNMG150612-GH	15.5	12.7	6.35	5.16	1.2				●			▲	●	▲									
粗加工 Roughing	DNMG150408-ZT	15.5	12.7	4.76	5.16	0.8							▲											●
	DNMG150412-ZT	15.5	12.7	4.76	5.16	1.2							▲											●
	DNMG150608-ZT	15.5	12.7	6.35	5.16	0.8				●			▲	●	▲									
	DNMG150612-ZT	15.5	12.7	6.35	5.16	1.2				●			▲	●	▲									
平板 Flat	DNMA150404	15.5	12.7	4.76	5.16	0.4				●	●	●	●	▲			●	●							●
	DNMA150408	15.5	12.7	4.76	5.16	0.8				●	●	●	●	▲			●	●							●
	DNMA150412	15.5	12.7	4.76	5.16	1.2				●	●	●	●	▲			●	●							●
	DNMA150604	15.5	12.7	6.35	5.16	0.4				●	●	●	●	▲			●	●							●
	DNMA150608	15.5	12.7	6.35	5.16	0.8				●	●	●	●	▲			●	●							●
	DNMA150612	15.5	12.7	6.35	5.16	1.2				●	●	●	●	▲			●	●							●

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

UC

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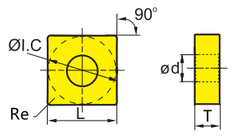
Turning Inserts - Negative
SNMG / SNMA (90° Negative)

车削刀片 - 负角型
SNMG/SNMA （90°负角型）



√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																						
P	钢	√	○	○												√		×		×	√
M	不锈钢				√	√	√	√	○	○	×	×	×	√	√	×	×	×	×	×	√
K	铸铁																×		×		
N	有色金属																				
S	耐热合金、钛合金																				
H	淬硬钢																				

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					CVD涂层												PVD涂层						金陶 Cermet
		L	ØI.C	T	Φd	r	FT1153	FT1251	FT1252	FT3122	FT3123A	FT3123B	FT3123QB	FT3262	FT3263	FT3263A	FT3263B	FT3263QB	FT8204	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
半精加工 Semi-finishing	SNMG090304-UC	9.525	9.525	3.18	3.81	0.4							▲		●			●						●
	SNMG090308-UC	9.525	9.525	3.18	3.81	0.8							▲		●			●						●
	SNMG120404-UC	12.7	12.7	4.76	5.16	0.4							▲		●			●						●
	SNMG120408-UC	12.7	12.7	4.76	5.16	0.8							▲		●			●						●
	SNMG120412-UC	12.7	12.7	4.76	5.16	1.2							▲		●			●						●
	SNMG120416-UC	12.7	12.7	4.76	5.16	1.6							▲		●			●						●
	SNMG150608-UC	15.875	15.875	6.35	6.35	0.8							▲		●			●						●
	SNMG150612-UC	15.875	15.875	6.35	6.35	1.2							▲		●			●						●
	SNMG190612-UC	19.05	19.05	6.35	7.94	1.2							▲		●			●						●
	SNMG190616-UC	19.05	19.05	6.35	7.94	1.6							▲		●			●						●

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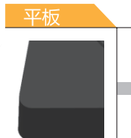
平板



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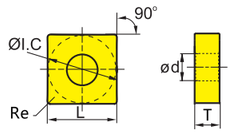
Turning Inserts - Negative
SNMG / SNMA (90° Negative)

车削刀片 - 负角型
SNMG/SNMA （90°负角型）



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工件材料 Workpiece Material																						
P	钢	√	○	○												√		×		×	√
M	不锈钢				√	√	√	√	○	○	×	×	×	√	√	×	×	×	×	×	√
K	铸铁																×		×		
N	有色金属																				
S	耐热合金、钛合金																				
H	淬硬钢																				

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层												PVD涂层						金陶 Cermet
		L	ØI.C	T	Φd	r	FT1153	FT1251	FT1252	FT3122	FT3123A	FT3123B	FT3123QB	FT3262	FT3263	FT3263A	FT3263B	FT3263QB	FT8204	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
半精加工-粗加工 Semi-finishing to Roughing	SNMG120408-GH	12.7	12.7	4.76	5.16	0.8					●			▲	●	▲									
	SNMG120412-GH	12.7	12.7	4.76	5.16	1.2					●			▲	●	▲									
	SNMG120416-GH	12.7	12.7	4.76	5.16	1.6					●			▲	●	▲									
	SNMG150612-GH	15.875	15.875	6.35	6.35	1.2					●			▲	●	▲									
	SNMG150616-GH	15.875	15.875	6.35	6.35	1.6					●			▲	●	▲									
粗加工 Roughing	SNMG120404-ZT	12.7	12.7	4.76	5.16	0.4								▲											●
	SNMG120408-ZT	12.7	12.7	4.76	5.16	0.8								▲											●
	SNMG120412-ZT	12.7	12.7	4.76	5.16	1.2								▲											●

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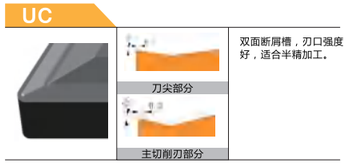
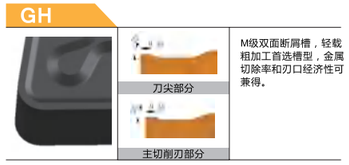
UC



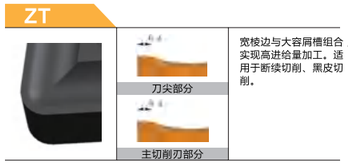
双面断屑槽，刃口强度好，适合半精加工。

GH



M级双面断屑槽，轻载粗加工首选槽型，金属切除率和刃口经济性可兼得。

ZT



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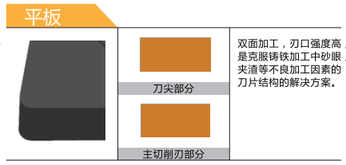
平板



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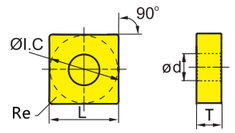
Turning Inserts - Negative
SNMG / SNMA (90° Negative)

车削刀片 - 负角型
SNMG/SNMA （90°负角型）



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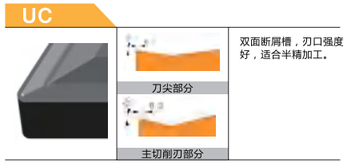
工件材料 Workpiece Material																						
P	钢	√	○	○												√		×		×	√
M	不锈钢				√	√	√	√	○	○	×	×	×	√	√	×	×	×	×	×	√
K	铸铁																×		×		
N	有色金属																				
S	耐热合金、钛合金																				
H	淬硬钢																				

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层												PVD涂层						金陶 Cermet
		L	ØI.C	T	Φd	r	FT1153	FT1251	FT1252	FT3122	FT3123A	FT3123B	FT3123QB	FT3262	FT3263	FT3263A	FT3263B	FT3263QB	FT8204	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
平板 Flat	SNMA090304	9.525	9.525	3.18	3.8	0.4				●	●	●	●	▲			●	●							●
	SNMA090308	9.525	9.525	3.18	3.8	0.8				●	●	●	●	▲			●	●							●
	SNMA120408	12.7	12.7	4.76	5.16	0.8				●	●	●	●	▲			●	●							●
	SNMA120412	12.7	12.7	4.76	5.16	1.2				●	●	●	●	▲			●	●							●
	SNMA120416	12.7	12.7	4.76	5.16	1.6				●	●	●	●	▲			●	●							●
	SNMA150612	15.875	15.875	6.35	6.35	1.2				●	●	●	●	▲			●	●							●
	SNMA150616	15.875	15.875	6.35	6.35	1.6				●	●	●	●	▲			●	●							●
	SNMA190612	19.05	19.05	6.35	7.94	1.2				●	●	●	●	▲			●	●							●
	SNMA190616	19.05	19.05	6.35	7.94	1.6				●	●	●	●	▲			●	●							●

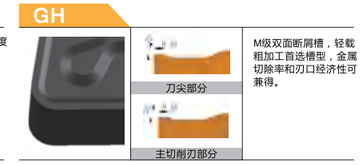
▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

UC



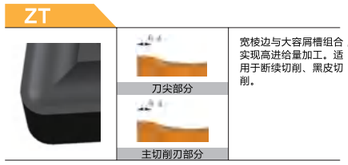
双面断屑槽，刃口强度好，适合半精加工。

GH



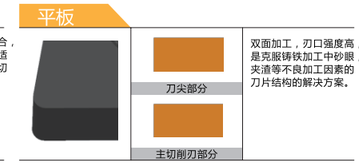
M级双面断屑槽，轻载粗加工首选槽型，金属切除率和刃口经济性可兼得。

ZT



宽棱边与大容屑槽组合，实现高进给量加工。适用于断续切削、黑皮切削。

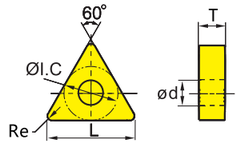
平板



双面加工，刃口强度高，是克服铸铁加工中砂眼，夹渣等不良加工因素的刀片结构的解决方案。

Turning Inserts - Negative
TNMG / TNMA (60° Negative)

车削刀片 - 负角型
TNMG/TNMA （60°负角型）



√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																							
P	钢	√	○	○												√		×		×	√
M	不锈钢				√	√	√	√	○	○	×	×	×	√	√	×	×	×	×	√
K	铸铁																×		×		
N	有色金属																				
S	耐热合金、钛合金																				
H	淬硬钢																				

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					CVD涂层											PVD涂层						金陶 Cermet
		L	ØI.C	T	Φd	r	FT1153	FT1251	FT1252	FT3122	FT3123A	FT3123B	FT3123QB	FT3262	FT3263	FT3263A	FT3263B	FT3263QB	FT8204	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
	TNMG110304-UC	11	6.35	3.18	2.26	0.4								▲		●			●						●
	TNMG110308-UC	11	6.35	3.18	2.26	0.8								▲		●			●						●
	TNMG160304-UC	16.5	9.525	3.18	3.81	0.4								▲		●			●						●
	TNMG160308-UC	16.5	9.525	3.18	3.81	0.8								▲		●			●						●
	TNMG160404-UC	16.5	9.525	4.76	3.81	0.4								▲		●			●						●
	TNMG160408-UC	16.5	9.525	4.76	3.81	0.8								▲		●			●						●
	TNMG160412-UC	16.5	9.525	4.76	3.81	1.2								▲		●			●						●
	TNMG160416-UC	16.5	9.525	4.76	3.81	1.6								▲		●			●						●
	TNMG220404-UC	22	12.7	4.76	3.81	0.4								▲		●			●						●
	TNMG220408-UC	22	12.7	4.76	3.81	0.8								▲		●			●						●
	TNMG220412-UC	22	12.7	4.76	3.81	1.2								▲		●			●						●
	TNMG220416-UC	22	12.7	4.76	3.81	1.6								▲		●			●						●
	TNMG270608-UC	27.5	15.875	6.35	6.35	0.8								▲		●			●						●
	TNMG270612-UC	27.5	15.875	6.35	6.35	1.2								▲		●			●						●
	TNMG270616-UC	27.5	15.875	6.35	6.35	1.6								▲		●			●						●
	TNMG330924-UC	33	19.05	9.53	7.94	2.4								▲		●			●						●

半精加工
Semi-finishing

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

UC

双面断屑槽，刀口强度好，适合半精加工。

GH

M级双面断屑槽，轻载粗加工首选槽型，金属切除率和刃口经济性可兼得。

ZT

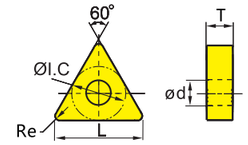
宽棱边与大容屑槽组合，实现高进给量加工。适用于断续切削、黑皮切削。

平板

双面加工，刃口强度高，是克服铸铁加工中砂眼，夹渣等不良加工因素的刀片结构的解决方案。

Turning Inserts - Negative
TNMG / TNMA (60° Negative)

车削刀片 - 负角型
TNMG/TNMA （60°负角型）



√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																							
P	钢	√	○	○												√		×		×	√
M	不锈钢				√	√	√	√	○	○	×	×	×	√	√	×	×	×	×	√
K	铸铁																×		×		
N	有色金属																				
S	耐热合金、钛合金																				
H	淬硬钢																				

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					CVD涂层											PVD涂层						金陶 Cermet
		L	ØI.C	T	Φd	r	FT1153	FT1251	FT1252	FT3122	FT3123A	FT3123B	FT3123QB	FT3262	FT3263	FT3263A	FT3263B	FT3263QB	FT8204	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
	TNMG160408-GH	16.5	9.525	4.76	3.81	0.8					●			▲	●	▲									
	TNMG160412-GH	16.5	9.525	4.76	3.81	1.2					●			▲	●	▲									
	TNMG220408-GH	22	12.7	4.76	5.16	0.8					●			▲	●	▲									
	TNMG220412-GH	22	12.7	4.76	5.16	1.2					●			▲	●	▲									
	TNMG220416-GH	22	12.7	4.76	5.16	1.6					●			▲	●	▲									
	TNMG270612-GH	27.5	15.875	6.35	6.35	1.2					●			▲	●	▲									
	TNMG270616-GH	27.5	15.875	6.35	6.35	1.6					●			▲	●	▲									
	TNMG160408-ZT	16.5	9.525	4.76	3.81	0.8								▲											●
	TNMG160412-ZT	16.5	9.525	4.76	3.81	1.2								▲											●
	TNMG160416-ZT	16.5	9.525	4.76	3.81	1.6								▲											●
	TNMG220408-ZT	22	12.7	4.76	5.16	0.8								▲											●
	TNMG220412-ZT	22	12.7	4.76	5.16	1.2								▲											●
	TNMG220416-ZT	22	12.7	4.76	5.16	1.6								▲											●

半精加工-粗加工
Semi-finishing to Roughing

粗加工
Roughing

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

UC

双面断屑槽，刀口强度好，适合半精加工。

GH

M级双面断屑槽，轻载粗加工首选槽型，金属切除率和刃口经济性可兼得。

ZT

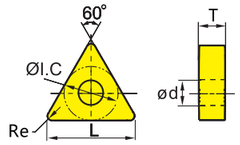
宽棱边与大容屑槽组合，实现高进给量加工。适用于断续切削、黑皮切削。

平板

双面加工，刃口强度高，是克服铸铁加工中砂眼，夹渣等不良加工因素的刀片结构的解决方案。

Turning Inserts - Negative
TNMG / TNMA (60° Negative)

车削刀片 - 负角型
TNMG/TNMA （60°负角型）



√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																						
P	钢	√	○	○												√		×		×	√
M	不锈钢				√	√	√	√	○	○	×	×	×	√	√	×	×	×	×	×	√
K	铸铁																×		×		
N	有色金属																				
S	耐热合金、钛合金																				
H	淬硬钢																				

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					CVD涂层											PVD涂层						金陶 Cermet
		L	ØI.C	T	Φd	r	FT1153	FT1251	FT1252	FT3122	FT3123A	FT3123B	FT3123QB	FT3262	FT3263	FT3263A	FT3263B	FT3263QB	FT8204	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
	TNMA160404	16.5	9.525	4.76	3.81	0.4				●	●	●	●	▲			●	●							●
	TNMA160408	16.5	9.525	4.76	3.81	0.8				●	●	●	●	▲			●	●							●
	TNMA160412	16.5	9.525	4.76	3.81	1.2				●	●	●	●	▲			●	●							●
	TNMA160416	16.5	9.525	4.76	3.81	1.6				●	●	●	●	▲			●	●							●
	TNMA220404	22	12.7	4.76	5.16	0.4				●	●	●	●	▲			●	●							●
	TNMA220408	22	12.7	4.76	5.16	0.8				●	●	●	●	▲			●	●							●
	TNMA220412	22	12.7	4.76	5.16	1.2				●	●	●	●	▲			●	●							●
平板 Flat	TNMA220416	22	12.7	4.76	5.16	1.6				●	●	●	●	▲			●	●							●

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

UC

双面断屑槽，刃口强度好，适合半精加工。

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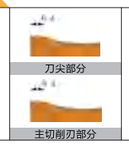
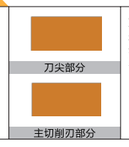


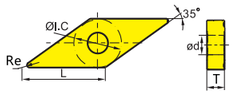
平板

双面加工，刃口强度高，是克服铸铁加工中砂眼，夹渣等不良加工因素的刀片结构的解决方案。



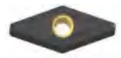
Turning Inserts - Negative
VNMG / VNMA (35° Negative)

车削刀片 - 负角型
VNMG/VNMA （35°负角型）



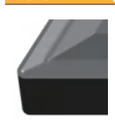
√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																						
P	钢	√	○	○												√		×		×	√
M	不锈钢				√	√	√	√	○	○	×	×	×	√	√	×	×	×	×	×	√
K	铸铁																×		×		
N	有色金属																				
S	耐热合金、钛合金																				
H	淬硬钢																				

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					CVD涂层											PVD涂层						金陶
		L	ØI.C	T	Φd	r	FT1153	FT1251	FT1252	FT3122	FT3123A	FT3123B	FT3123QB	FT3262	FT3263	FT3263A	FT3263B	FT3263QB	FT8204	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
	VNMG160404-UC	16.6	9.525	4.76	3.81	0.4								▲		●			●						●
	VNMG160408-UC	16.6	9.525	4.76	3.81	0.8								▲		●			●						●
半精加工 Semi-finishing	VNMG160412-UC	16.6	9.525	4.76	3.81	1.2								▲		●			●						●
	VNMG160404-ZT	16.6	9.525	4.76	3.81	0.4								▲											●
	VNMG160412-ZT	16.6	9.525	4.76	3.81	1.2								▲											●
精加工 Finishing																									
	VNMA160404	16.6	9.525	4.76	3.81	0.4					●	●	●	▲			●	●							●
	VNMA160408	16.6	9.525	4.76	3.81	0.8					●	●	●	▲			●	●							●
平板 Flat	VNMA160412	16.6	9.525	4.76	3.81	1.2					●	●	●	▲			●	●							●

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

UC



双面断屑槽，刃口强度好，适合半精加工。

GH

M级双面断屑槽，轻载粗加工首选槽型，金属切除率和刃口经济性可兼得。

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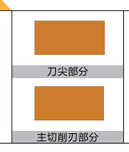
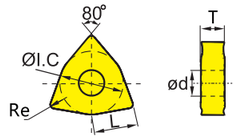


Turning Inserts - Negative
WNMG / WNMA (80° Negative)

车削刀片 - 负角型
WNMG/WNMA （80°负角型）



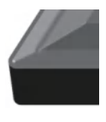
√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																						
P	钢	√	○	○												√		×		×	√
M	不锈钢				√	√	√	√	○	○	×	×	×	√	√	×	×	×	×	×	√
K	铸铁																×		×		
N	有色金属																				
S	耐热合金、钛合金																				
H	淬硬钢																				

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					CVD涂层											PVD涂层						金陶 Cermet
		L	ØI.C	T	Φd	r	FT1153	FT1251	FT1252	FT3122	FT3123A	FT3123B	FT3123QB	FT3262	FT3263	FT3263A	FT3263B	FT3263QB	FT8204	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
	WNMG060408-UC	6.5	9.525	4.76	3.81	0.8								▲		●			●						●
	WNMG060412-UC	6.5	9.525	4.76	3.81	1.2								▲		●			●						●
	WNMG080404-UC	8.7	12.7	4.76	5.16	0.4								▲		●			●						●
	WNMG080408-UC	8.7	12.7	4.76	5.16	0.8								▲		●			●						●
	WNMG080412-UC	8.7	12.7	4.76	5.16	1.2								▲		●			●						●
半精加工 Semi-finishing	WNMG080416-UC	8.7	12.7	4.76	5.16	1.6								▲		●			●						●

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

UC



双面断屑槽，刃口强度好，适合半精加工。

GH

M级双面断屑槽，轻载粗加工首选槽型，金属切除率和刃口经济性可兼得。

ZT

宽棱边与大容屑槽组合，实现高进给量加工，适用于断续切削、黑皮切削。

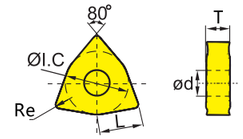
平板

双面加工，刃口强度高，是克服铸铁加工中砂眼，夹渣等不良加工因素的刀片结构的解决方案。

铸铁车削
General Turning Inserts for Cast Iron
FONHAE 方瀚

Turning Inserts - Negative
WNMG / WNMA (80° Negative)

车削刀片 - 负角型
WNMG/WNMA （80°负角型）



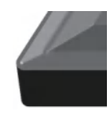
√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																						
P	钢	√	○	○												√		×		×	√
M	不锈钢				√	√	√	√	○	○	×	×	×	√	√	×	×	×	×	×	√
K	铸铁																×		×		
N	有色金属																				
S	耐热合金、钛合金																				
H	淬硬钢																				

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					CVD涂层											PVD涂层						金陶 Cermet
		L	ØI.C	T	Φd	r	FT1153	FT1251	FT1252	FT3122	FT3123A	FT3123B	FT3123QB	FT3262	FT3263	FT3263A	FT3263B	FT3263QB	FT8204	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
	WNMG080408-GH	8.7	12.7	4.76	5.16	0.8					●			▲	●	▲									
	WNMG080412-GH	8.7	12.7	4.76	5.16	1.2					●			▲	●	▲									
半精加工-粗加工 Semi-finishing to Roughing																									
	WNMG080408-ZT	8.7	12.7	4.76	5.16	0.8								▲											●
	WNMG080412-ZT	8.7	12.7	4.76	5.16	1.2								▲											●
	WNMG080416-ZT	8.7	12.7	4.76	5.16	1.6								▲											●
粗加工 Roughing																									

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

UC



双面断屑槽，刃口强度好，适合半精加工。

GH

M级双面断屑槽，轻载粗加工首选槽型，金属切除率和刃口经济性可兼得。

ZT

宽棱边与大容屑槽组合，实现高进给量加工，适用于断续切削、黑皮切削。

平板

双面加工，刃口强度高，是克服铸铁加工中砂眼，夹渣等不良加工因素的刀片结构的解决方案。

铸铁车削

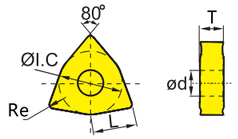
General Turning Inserts for Cast Iron

FONHAE 方瀚

Turning Inserts - Negative
WNMG / WNMA (80° Negative)

车削刀片 - 负角型

WNMG/WNMA （80°负角型）



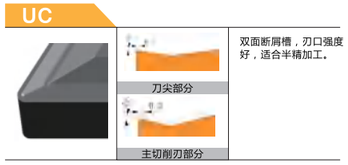
√ 良好工况 Good working conditions　○ 一般工况General working conditions　× 不稳定工况Unstable working conditions

工件材料 Workpiece Material																						
P	钢	√	○	○												√		×		×	√
M	不锈钢				√	√	√	√	○	○	×	×	×	√	√	×	×	×	×	√	
K	铸铁																×		×		
N	有色金属																				
S	耐热合金、钛合金																				
H	淬硬钢																				

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					CVD涂层											PVD涂层						金陶 Cermet
		L	ØI.C	T	Φd	r	FT1153	FT1251	FT1252	FT3122	FT3123A	FT3123B	FT3123QB	FT3262	FT3263	FT3263A	FT3263B	FT3263QB	FT8204	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
	WNMA060408	6.5	9.525	4.76	3.81	0.8				●	●	●	●	▲			●	●							●
	WNMA060412	6.5	9.525	4.76	3.81	1.2				●	●	●	●	▲			●	●							●
	WNMA080404	8.7	12.7	4.76	5.16	0.4				●	●	●	●	▲			●	●							●
	WNMA080408	8.7	12.7	4.76	5.16	0.8				●	●	●	●	▲			●	●							●
	WNMA080412	8.7	12.7	4.76	5.16	1.2				●	●	●	●	▲			●	●							●
平板 Flat	WNMA080416	8.7	12.7	4.76	5.16	1.6				●	●	●	●	▲			●	●							●

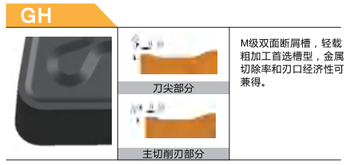
▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

UC



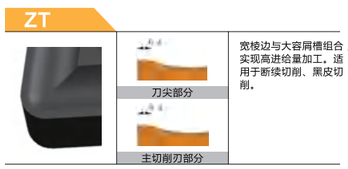
双面断屑槽，刃口强度好，适合半精加工。

GH



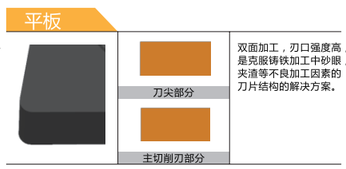
M级双面断屑槽，轻载粗加工首选槽型，金属切除率和刃口经济性可兼得。

ZT



宽棱边与大容屑槽组合，实现高进给量加工。适用于断续切削、黑皮切削。

平板



双面加工，刃口强度高，是克服铸铁加工中砂眼，夹渣等不良加工因素的刀片结构的解决方案。

铝合金车削

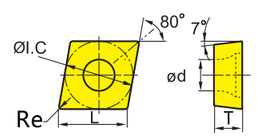
General Turning Inserts for Aluminum

FONHAE 方瀚

Turning Inserts - Positive
CCGX (80° Positive)

车削刀片 - 正角型

CCGX (80°正角型)



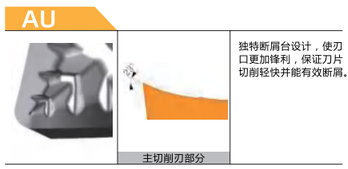
√ 良好工况Good working conditions　○ 一般工况 General working conditions　× 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																						
P	钢							○				○	×		×		×	√				
M	不锈钢			√	√	√	√	√	○	○	○	○	○	×		×	×	×	√			
K	铸铁															×		×				
N	有色金属	○	○																			
S	耐热合金、钛合金																					
H	淬硬钢																					

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					无涂层		PVD涂层														金陶 Cermet
		L	ØI.C	T	Φd	r	FT3150	FT3050	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
	CCGX060202K -AU	6.4	6.35	2.38	2.8	0.2	▲	●																
	CCGX060204K -AU	6.4	6.35	2.38	2.8	0.4	▲	●																
	CCGX09T302K -AU	9.7	9.525	3.97	4.4	0.2	▲	●																
	CCGX09T304K -AU	9.7	9.525	3.97	4.4	0.4	▲	●																
	CCGX09T308K -AU	9.7	9.525	3.97	4.4	0.8	▲	●																
	CCGX120404K -AU	12.9	12.7	4.76	5.56	0.4	▲	●																
精加工 Finishing	CCGX120408K -AU	12.9	12.7	4.76	5.56	0.8	▲	●																

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

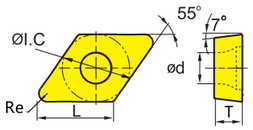
AU



独特断屑台设计，使刃口更加锋利，保证刀片切削轻快并能有效断屑。

Turning Inserts - Positive
DCGX (55° Positive)

车削刀片 - 正角型
DCGX（55°正角型）



√ 良好工况Good working conditions　○ 一般工况 General working conditions　× 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																							
P	钢									○				○	×		×		×	√
M	不锈钢			√	√	√	√	√	○	○	○	○	○	×		×	×	×	√
K	铸铁															×		×			
N	有色金属	○	○																		
S	耐热合金、钛合金																				
H	淬硬钢																				

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					无涂层		PVD涂层														金陶 Cermet
		L	ØI.C	T	Φd	r	FT3150	FT3050	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
	DCGX070201K -AU	7.8	6.35	2.38	2.8	0.1	▲	●																
	DCGX070202K -AU	7.8	6.35	2.38	2.8	0.2	▲	●																
	DCGX070204K -AU	7.8	6.35	2.38	2.8	0.4	▲	●																
	DCGX11T304K -AU	11.6	9.525	3.97	4.4	0.4	▲	●																
	DCGX11T308K -AU	11.6	9.525	3.97	4.4	0.8	▲	●																
精加工 Finishing																								

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

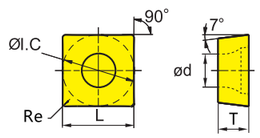
AU

主切削刃部分

独特断屑台设计，使刃口更加锋利，保证刀片切削轻快并能有效断屑。

Turning Inserts - Positive
SCGX (90° Positive)

车削刀片 - 正角型
SCGX (90°正角型)



√ 良好工况Good working conditions　○ 一般工况 General working conditions　× 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																							
P	钢									○				○	×		×		×	√
M	不锈钢			√	√	√	√	√	○	○	○	○	○	×		×	×	×	√
K	铸铁															×		×			
N	有色金属	○	○																		
S	耐热合金、钛合金																				
H	淬硬钢																				

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					无涂层		PVD涂层														金陶 Cermet
		L	ØI.C	T	Φd	r	FT3150	FT3050	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
	SCGX09T302K -AU	9.53	9.525	3.97	4.4	0.2	▲	●																
	SCGX09T304K -AU	9.53	9.525	3.97	4.4	0.4	▲	●																
	SCGX09T308K -AU	9.53	9.525	3.97	4.4	0.8	▲	●																
	SCGX120404K -AU	12.7	12.7	4.76	5.56	0.4	▲	●																
	SCGX120408K -AU	12.7	12.7	4.76	5.56	0.8	▲	●																
精加工 Finishing																								

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

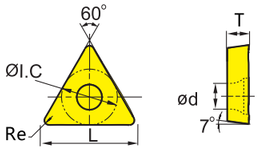
AU

主切削刃部分

独特断屑台设计，使刃口更加锋利，保证刀片切削轻快并能有效断屑。

Turning Inserts - Positive
TCGX (60° Positive)

车削刀片 - 正角型
TCGX (60°正角型)



√ 良好工况Good working conditions　○ 一般工况 General working conditions　× 不稳定工况 Unstable working conditions

工件材料 Workpiece Material

P	钢							○				○	×		×		×	√
M	不锈钢			√	√	√	√	√	○	○	○	○	×		×	×	×	√
K	铸铁														×		×	
N	有色金属	○	○															
S	耐热合金、钛合金																	
H	淬硬钢																	

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					无涂层		PVD涂层													金陶 Cermet
		L	ØI.C	T	Φd	r	FT3150	FT3050	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
	TCGX090202K -AU	9.6	5.56	2.38	2.5	0.2	▲	●																
	TCGX090204K -AU	9.6	5.56	2.38	2.5	0.4	▲	●																
	TCGX110202K -AU	11	6.35	2.38	2.8	0.2	▲	●																
	TCGX110204K -AU	11	6.35	2.38	2.8	0.4	▲	●																
	TCGX110208K -AU	11	6.35	2.38	2.8	0.8	▲	●																
	TCGX16T302K -AU	16.5	9.525	3.97	4.4	0.2	▲	●																
	TCGX16T304K -AU	16.5	9.525	3.97	4.4	0.4	▲	●																
精加工 Finishing	TCGX16T308K -AU	16.5	9.525	3.97	4.4	0.8	▲	●																

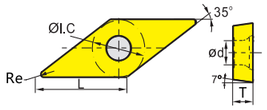
▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

AU

独特断屑台设计，使刃口更加锋利，保证刀片切削轻快并能有效断屑。

Turning Inserts - Positive
VCGX (35° Positive)

车削刀片 - 正角型
VCGX (35°正角型)



√ 良好工况Good working conditions　○ 一般工况 General working conditions　× 不稳定工况 Unstable working conditions

工件材料 Workpiece Material

P	钢							○				○	×		×		×	√
M	不锈钢			√	√	√	√	√	○	○	○	○	×		×	×	×	√
K	铸铁														×		×	
N	有色金属	○	○															
S	耐热合金、钛合金																	
H	淬硬钢																	

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					无涂层		PVD涂层													金陶 Cermet
		L	ØI.C	T	Φd	r	FT3150	FT3050	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
	VCGX110301K -AU	11	6.35	3.18	2.8	0.1	▲	●																
	VCGX110302K -AU	11	6.35	3.18	2.8	0.2	▲	●																
	VCGX110304K -AU	11	6.35	3.18	2.8	0.4	▲	●																
	VCGX110308K -AU	11	6.35	3.18	2.8	0.8	▲	●																
	VCGX160402K -AU	16.6	9.525	4.76	4.4	0.2	▲	●																
	VCGX160404K -AU	16.6	9.525	4.76	4.4	0.4	▲	●																
	VCGX160408K -AU	16.6	9.525	4.76	4.4	0.8	▲	●																
精加工 Finishing	VCGX160412K -AU	16.6	9.525	4.76	4.4	1.2	▲	●																

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

AU

独特断屑台设计，使刃口更加锋利，保证刀片切削轻快并能有效断屑。

Ingenuity Quality, Stable and Efficient.

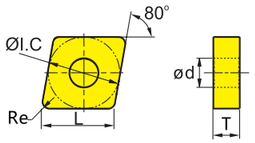
匠心品质　稳定高效

Turning Inserts - Negative

CNMG / CNMA (80° Negative)

车削刀片 - 负角型

CNMG/CNMA （80°负角型）



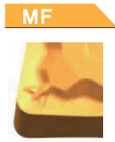
√ 良好工况Good working conditions　○ 一般工况 General working conditions　× 不稳定工况 Unstable working conditions

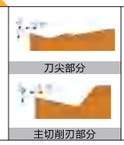
工件材料 Workpiece Material																										
P	钢										○				○	×		×		×					
M	不锈钢				√	√	√	√	√		○	○	○	○	○	×	×	×	×	×					
K	铸铁																	×		×					
N	有色金属																								
S	耐热合金、钛合金																								
H	淬硬钢	√	○	√						○															○

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																			
		L	ØI.C	T	Φd	r	FT6109	FT6259	FT8109	FT8204	FT8205	FT8206	FT8207	FT8208	FT8209	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT8299
半精加工 Semi-finishing	CNMG090304-HJ	9.7	9.525	3.18	3.81	0.4	▲																●			
	CNMG090308-HJ	9.7	9.525	3.18	3.81	0.8	▲																●			
	CNMG120404-HJ	12.9	12.7	4.76	5.16	0.4	▲																●			
	CNMG120408-HJ	12.9	12.7	4.76	5.16	0.8	▲																●			
	CNMG120412-HJ	12.9	12.7	4.76	5.16	1.2	▲																●			
	CNMG160608-HJ	16.1	15.875	6.35	6.35	0.8	▲																●			
	CNMG160612-HJ	16.1	15.875	6.35	6.35	1.2	▲																●			
	CNMG160616-HJ	16.1	15.875	6.35	6.35	1.6	▲																●			

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

MF





有效解决不锈钢小余量、粘刀等加工难点。

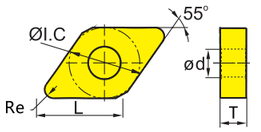
HJ

双面槽刀片，正前角-有效防止加工硬化现象的产生；增强型切削刃-有效避免刀片的崩刃；适用于淬硬刚的半精加工。

Turning Inserts - Negative

DNMG / DNMA (55° Negative)

DNMG/DNMA （55°负角型）

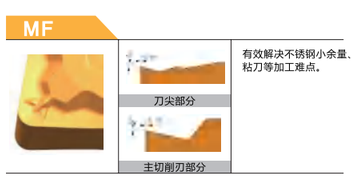


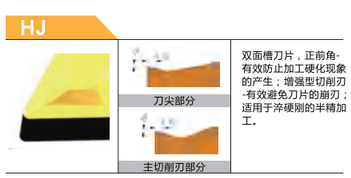
√ 良好工况Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																																	
P	钢											○				○	×		×		×												
M	不锈钢				√	√	√	√	√		○	○	○	○	○	×	×	×	×	×													
K	铸铁																		×		×												
N	有色金属																																
S	耐热合金、钛合金																																
H	淬硬钢	√	○	√						○																							○

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																										
		L	ØI.C	T	Φd	r	FT6109	FT6259	FT8109	FT8204	FT8205	FT8206	FT8207	FT8208	FT8209	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT8299
	DNMG110404-HJ	11.6	9.525	4.76	3.81	0.4	▲																●			
	DNMG110412-HJ	11.6	9.525	4.76	3.81	1.2	▲																●			
	DNMG150404-HJ	15.5	12.7	4.76	5.16	0.4	▲																●			
	DNMG150408-HJ	15.5	12.7	4.76	5.16	0.8	▲																●			
	DNMG150412-HJ	15.5	12.7	4.76	5.16	1.2	▲																●			
半精加工 Semi-finishing																										

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

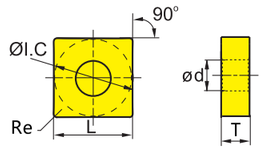




Turning Inserts - Negative

SNMG / SNMA (90° Negative)

SNMG/SNMA （90°负角型）

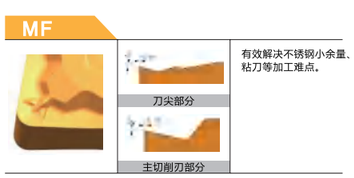


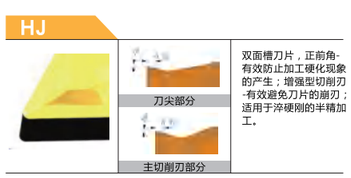
√ 良好工况Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																																	
P	钢											○				○	×		×		×												
M	不锈钢				√	√	√	√	√		○	○	○	○	○	×	×	×	×	×													
K	铸铁																		×		×												
N	有色金属																																
S	耐热合金、钛合金																																
H	淬硬钢	√	○	√						○																							○

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																										
		L	ØI.C	T	Φd	r	FT6109	FT6259	FT8109	FT8204	FT8205	FT8206	FT8207	FT8208	FT8209	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT8299
	SNMG120408-HJ	12.7	12.7	4.76	5.16	0.8	▲																●			
	SNMG120412-HJ	12.7	12.7	4.76	5.16	1.2	▲																●			
半精加工 Semi-finishing																										

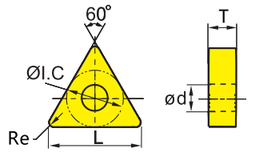
▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order





Turning Inserts - Negative
TNMG / TNMA (60° Negative)

车削刀片 - 负角型
TNMG/TNMA （60°负角型）



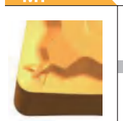
√ 良好工况Good working conditions　○ 一般工况 General working conditions　× 不稳定工况 Unstable working conditions

工件材料 Workpiece Material			PVD涂层																													
			FT6109	FT6259	FT8109	FT8204	FT8205	FT8206	FT8207	FT8208	FT8209	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT8299
P	钢										○					○	×		×		×	
M	不锈钢					√	√	√	√	√		○	○	○	○	○	×	×	×	×	×	
K	铸铁																		×		×	
N	有色金属																					
S	耐热合金、钛合金																					
H	淬硬钢		√	○	√						○											○

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																									
		L	ØI.C	T	Φd	r	FT6109	FT6259	FT8109	FT8204	FT8205	FT8206	FT8207	FT8208	FT8209	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT8299
	TNMG160308-HJ	16.5	9.525	3.18	3.81	0.8	▲																●			
	TNMG160404-HJ	16.5	9.525	4.76	3.81	0.4	▲																●			
	TNMG160408-HJ	16.5	9.525	4.76	3.81	0.8	▲																●			
	TNMG160412-HJ	16.5	9.525	4.76	3.81	1.2	▲																●			
	TNMG220404-HJ	22	12.7	4.76	5.16	0.4	▲																●			
	TNMG220408-HJ	22	12.7	4.76	5.16	0.8	▲																●			
半精加工 Semi-finishing	TNMG220412-HJ	22	12.7	4.76	5.16	1.2	▲																●			

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

MF



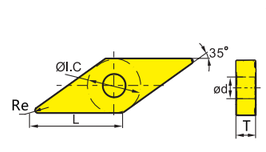
有效解决不锈钢小余量、粘刀等加工难点。

HJ

双面槽刀片，正前角-有效防止加工硬化现象的产生；增强型切削刃-有效避免刀片的崩刃；适用于淬硬刚的半精加工。

Turning Inserts - Negative
VNMG / VNMA (35° Negative)

车削刀片 - 负角型
VNMG/VNMA （35°负角型）



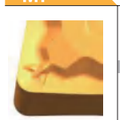
√ 良好工况Good working conditions　○ 一般工况 General working conditions　× 不稳定工况 Unstable working conditions

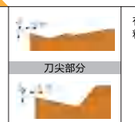
工件材料 Workpiece Material			PVD涂层																													
			FT6109	FT6259	FT8109	FT8204	FT8205	FT8206	FT8207	FT8208	FT8209	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT8299
P	钢										○					○	×		×		×	
M	不锈钢					√	√	√	√	√		○	○	○	○	○	×	×	×	×	×	
K	铸铁																		×		×	
N	有色金属																					
S	耐热合金、钛合金																					
H	淬硬钢		√	○	√						○											○

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					PVD涂层																									
		L	ØI.C	T	Φd	r	FT6109	FT6259	FT8109	FT8204	FT8205	FT8206	FT8207	FT8208	FT8209	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT8299
	VNMG160408-HJ	16.6	9.525	4.76	3.81	0.8	▲																●			
	VNMG160412-HJ	16.6	9.525	4.76	3.81	1.2	▲																●			
半精加工 Semi-finishing																										

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

MF





有效解决不锈钢小余量、粘刀等加工难点。

HJ

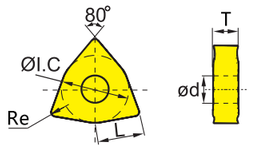
双面槽刀片，正前角-有效防止加工硬化现象的产生；增强型切削刃-有效避免刀片的崩刃；适用于淬硬刚的半精加工。

Turning Inserts - Negative

WNMG / WNMA (80° Negative)

车削刀片 - 负角型

WNMG/WNMA （80°负角型）



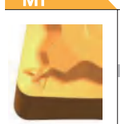
√ 良好工况Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

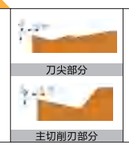
工件材料 Workpiece Material			FT6109	FT6259	FT8109	FT8204	FT8205	FT8206	FT8207	FT8208	FT8209	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT8299
P	钢										○					○	×		×		×	
M	不锈钢					√	√	√	√	√		○	○	○	○	○	×	×	×	×	×	
K	铸铁																		×		×	
N	有色金属																					
S	耐热合金、钛合金																					
H	淬硬钢	√	○	√							○											○

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm） L	ØI.C	T	Φd	r
	WNMG06T304-HJ	6.5	9.525	3.97	3.81	0.4
	WNMG060404-HJ	6.5	9.525	4.76	3.81	0.4
	WNMG06T308-HJ	6.5	9.525	3.97	3.81	0.8
	WNMG060408-HJ	6.5	9.525	4.76	3.81	0.8
	WNMG06T312-HJ	6.5	9.525	3.97	3.81	1.2
	WNMG060412-HJ	6.5	9.525	4.76	3.81	1.2
	WNMG080404-HJ	8.7	12.7	4.76	5.16	0.4
半精加工 Semi-finishing	WNMG080408-HJ	8.7	12.7	4.76	5.16	0.8
	WNMG080412-HJ	8.7	12.7	4.76	5.16	1.2

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

MF





有效解决不锈钢小余量、粘刀等加工难点。

HJ

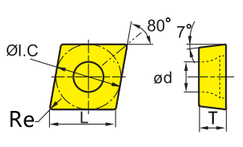
双面槽刀片，正前角-有效防止加工硬化现象的产生；增强型切削刃-有效避免刀片的崩刃；适用于淬硬刚的半精加工。

Turning Inserts - Positive

CCMT (80° Positive)

车削刀片 - 正角型

CCMT(80°正角型)



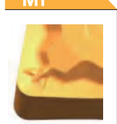
√ 良好工况Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

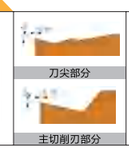
工件材料 Workpiece Material			FT6109	FT6259	FT8109	FT8204	FT8205	FT8206	FT8207	FT8208	FT8209	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT8299
P	钢										○				○	×		×		×		
M	不锈钢				√	√	√	√	√		○	○	○	○	○	×	×	×	×	×		
K	铸铁																	×		×		
N	有色金属																					
S	耐热合金、钛合金																					
H	淬硬钢	√	○	√							○											○

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm） L	ØI.C	T	Φd	r
	CCMT060204-MF	6.4	6.35	2.38	2.8	0.4
	CCMT060208-MF	6.4	9.525	3.97	4.4	0.2
	CCMT09T304-MF	9.7	9.525	3.97	4.4	0.4
	CCMT09T308-MF	9.7	9.525	3.97	4.4	0.8
	CCMT120404-MF	12.9	12.7	4.76	5.56	0.4
	CCMT120408-MF	12.9	12.7	4.76	5.56	0.8
半精加工 Semi-finishing						

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

MF





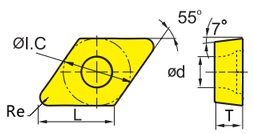
有效解决不锈钢小余量、粘刀等加工难点。

HJ

双面槽刀片，正前角-有效防止加工硬化现象的产生；增强型切削刃-有效避免刀片的崩刃；适用于淬硬刚的半精加工。

Turning Inserts - Positive
DCMT (55° Positive)

车削刀片 - 正角型
DCMT(55°正角型)

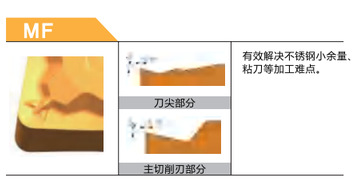


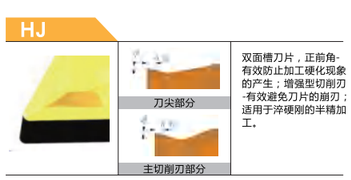
√ 良好工况Good working conditions　○ 一般工况 General working conditions　× 不稳定工况 Unstable working conditions

工件材料 Workpiece Material			FT6109	FT6259	FT8109	FT8204	FT8205	FT8206	FT8207	FT8208	FT8209	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT8299
P	钢										○					○	×		×		×	
M	不锈钢				√	√	√	√	√		○	○	○	○	○	×	×	×	×	×	×	
K	铸铁																		×		×	
N	有色金属																					
S	耐热合金、钛合金																					
H	淬硬钢	√	○	√							○											○

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm） L	ØI.C	T	Φd	r
	DCMT070204-MF	7.8	6.35	2.38	2.8	0.4
	DCMT070208-MF	7.8	6.35	2.38	2.8	0.8
	DCMT11T304-MF	11.6	9.525	3.97	4.4	0.4
	DCMT11T308-MF	11.6	9.525	3.97	4.4	0.8
半精加工 Semi-finishing						

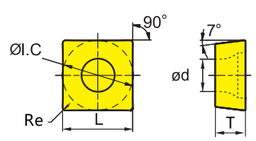
▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order





Turning Inserts - Positive
SCMT (90° Positive)

车削刀片 - 正角型
SCMT (90°正角型)

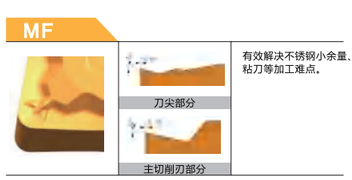


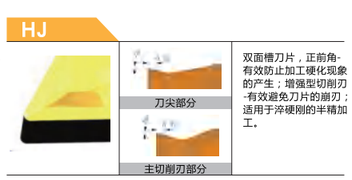
√ 良好工况Good working conditions　○ 一般工况 General working conditions　× 不稳定工况 Unstable working conditions

工件材料 Workpiece Material			FT6109	FT6259	FT8109	FT8204	FT8205	FT8206	FT8207	FT8208	FT8209	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT8299
P	钢										○				○	×		×		×		
M	不锈钢				√	√	√	√	√		○	○	○	○	○	×	×	×	×	×		
K	铸铁																	×		×		
N	有色金属																					
S	耐热合金、钛合金																					
H	淬硬钢	√	○	√							○											○

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm） L	ØI.C	T	Φd	r
	SCMT09T304-MF	9.53	9.525	3.97	2.8	0.4
	SCMT09T308-MF	9.53	9.525	3.97	2.8	0.8
	SCMT120404-MF	12.7	12.7	4.76	5.56	0.4
	SCMT120408-MF	12.7	12.7	4.76	5.56	0.8
半精加工 Semi-finishing						

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order



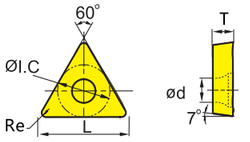


Turning Inserts - Positive

TCMT (60° Positive)

车削刀片 - 正角型

TCMT (60°正角型)



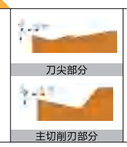
√ 良好工况Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material			FT6109	FT6259	FT8109	FT8204	FT8205	FT8206	FT8207	FT8208	FT8209	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT8299
P	钢										○					○	×		×		×	
M	不锈钢				√	√	√	√	√		○	○	○	○	○	×	×	×	×	×	×	
K	铸铁																		×		×	
N	有色金属																					
S	耐热合金、钛合金																					
H	淬硬钢	√	○	√							○											○

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm） L	ØI.C	T	Φd	r	PVD涂层 FT6109	FT6259	FT8109	FT8204	FT8205	FT8206	FT8207	FT8208	FT8209	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FT8299
	TCMT090204 -MF	9.6	5.56	2.38	2.5	0.4	▲																●			
	TCMT090208 -MF	9.6	6.35	2.38	2.8	0.2	▲																●			
	TCMT110204 -MF	11	6.35	2.38	2.8	0.4	▲																●			
	TCMT110208 -MF	11	6.35	2.38	2.8	0.8	▲																●			
	TCMT16T304 -MF	16.5	9.525	3.97	4.4	0.4	▲																●			
	TCMT16T308 -MF	16.5	9.525	3.97	4.4	0.8	▲																●			
半精加工 Semi-finishing																										

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

MF



有效解决不锈钢小余量、粘刀等加工难点。

HJ

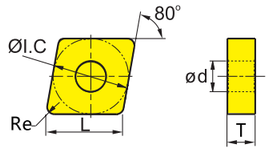
双面槽刀片，正前角-有效防止加工硬化现象的产生；增强型切削刃-有效避免刀片的崩刃；适用于淬硬刚的半精加工。

Ingenuity Quality, Stable and Efficient.

匠心品质 稳定高效

Turning Inserts - Negative
CNGU (80° Negative)

车削刀片 - 负角型
CNGU（80°负角型）

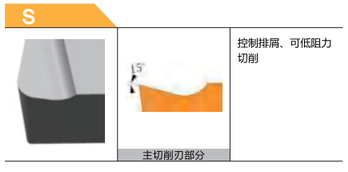


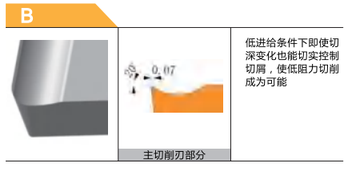
√ 良好工况 Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																				
P	钢							○			○	×		×		√				
M	不锈钢		√	√	√	√	√	○	○	○	○	×	×	×	×	√				
K	铸铁														×	×				
N	有色金属																			
S	耐热合金、钛合金																			
H	淬硬钢	√					√													

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					PVD涂层													金陶 Cermet
		L	ØI.C	T	Φd	r	FT8109	FT8204	FT8205	FT8206	FT8208	FT8209	FT8284	FT8285	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	CNGU070301L/R-B	7.6	7.5	3.18	3.6	0.2				●	▲				●	▲					▲
	CNGU070302L/R-B	7.6	7.5	3.18	3.6	0.4				●	▲				●	▲					▲
	CNGT070304L/R-B	7.6	7.5	3.18	3.6	0.2				●	▲				●	▲					▲
精加工 Finishing																					
	CNGU070301L/R-S	7.6	7.5	3.18	3.6	0.2				●	▲				●	▲					▲
	CNGU070302L/R-S	7.6	7.5	3.18	3.6	0.2				●	▲				●	▲					▲
	CNGU070304L/R-S	7.6	7.5	3.18	3.6	0.4				●	▲				●	▲					▲
精加工 Finishing																					

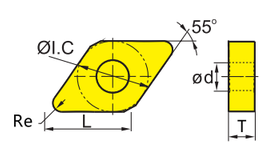
▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order





Turning Inserts - Negative
DNGU (55° Negative)

车削刀片 - 负角型
DNGU（55°负角型）

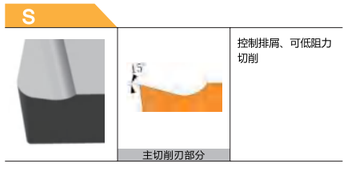


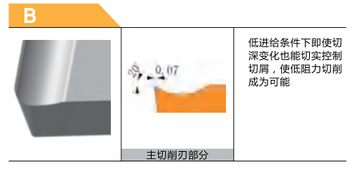
√ 良好工况 Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																				
P	钢							○			○	×		×		√				
M	不锈钢		√	√	√	√	√	○	○	○	○	×	×	×	×	√				
K	铸铁														×	×				
N	有色金属																			
S	耐热合金、钛合金																			
H	淬硬钢	√					√													

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					PVD涂层													金陶 Cermet
		L	ØI.C	T	Φd	r	FT8109	FT8204	FT8205	FT8206	FT8208	FT8209	FT8284	FT8285	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	DNGU080301L/R-B	8.5	7	3.18	3.6	0.1				●	▲				●	▲					▲
	DNGU080302L/R-B	8.5	7	3.18	3.6	0.2				●	▲				●	▲					▲
	DNGU080304L/R-B	8.5	7	3.18	3.6	0.4				●	▲				●	▲					▲
精加工 Finishing																					
	DNGU080301L/R-S	8.5	7	3.18	3.6	0.1				●	▲				●	▲					▲
	DNGU080302L/R-S	8.5	7	3.18	3.6	0.2				●	▲				●	▲					▲
	DNGU080304R/R-S	8.5	7	3.18	3.6	0.4				●	▲				●	▲					▲
精加工 Finishing																					

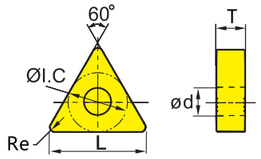
▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order





Turning Inserts - Negative
TNGU (60° Negative)

车削刀片 - 负角型
TNGU（60°负角型）



√ 良好工况 Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																				
P	钢							○			○	×		×	×	√
M	不锈钢		√	√	√	√	√	○	○	○	○	×	×	×	×	√
K	铸铁													×	×	
N	有色金属															
S	耐热合金、钛合金															
H	淬硬钢	√					√									

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					PVD涂层													金陶 Cermet
		L	ØI.C	T	Φd	r	FT8109	FT8204	FT8205	FT8206	FT8208	FT8209	FT8284	FT8285	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	TNGU090301L/R-B	9.6	5.56	3.18	3	0.2				●	▲				●	▲					▲
	TNGU090302L/R-B	9.6	5.56	3.18	3	0.2				●	▲				●	▲					▲
	TNGU090304L/R-B	9.6	5.56	3.18	3	0.4				●	▲				●	▲					▲
精加工 Finishing																					
	TNGU090301L/R-S	9.6	5.56	3.18	3	0.2				●	▲				●	▲					▲
	TNGU090302L/R-S	9.6	5.56	3.18	3	0.2				●	▲				●	▲					▲
	TNGU090304R/R-S	9.6	5.56	3.18	3	0.4				●	▲				●	▲					▲
精加工 Finishing																					

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

S

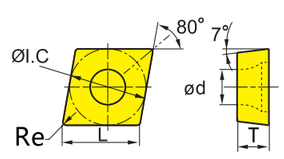
控制排屑、可低阻力切削

B

低进给条件下即使切深变化也能切实控制切屑，使低阻力切削成为可能

Turning Inserts - Positive
CCGT (80° Positive)

车削刀片 - 正角型
CCGT (80°正角型)



√ 良好工况 Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																				
P	钢							○			○	×		×	×	√
M	不锈钢		√	√	√	√	√	○	○	○	○	×	×	×	×	√
K	铸铁													×	×	
N	有色金属															
S	耐热合金、钛合金															
H	淬硬钢	√					√									

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					PVD涂层													金陶 Cermet
		L	ØI.C	T	Φd	r	FT8109	FT8204	FT8205	FT8206	FT8208	FT8209	FT8284	FT8285	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	CCGT030101L/R	3.6	3.5	1.4	1.9	0.1				●	▲				●	▲					▲
	CCGT030102L/R	3.6	3.5	1.4	1.9	0.2				●	▲				●	▲					▲
	CCGT030104L/R	3.6	3.5	1.4	1.9	0.4				●	▲				●	▲					▲
	CCGT040101L/R	4.4	4.3	1.8	2.3	0.1				●	▲				●	▲					▲
	CCGT040102L/R	4.4	4.3	1.8	2.3	0.2				●	▲				●	▲					▲
精加工 Finishing	CCGT040104L/R	4.4	4.3	1.8	2.3	0.4				●	▲				●	▲					▲
	CCGT060201L/R-B	6.4	6.35	2.38	2.8	0.1				●	▲				●	▲					▲
	CCGT060202L/R-B	6.4	6.35	2.38	2.8	0.2				●	▲				●	▲					▲
	CCGT060204L/R-B	6.4	6.35	2.38	2.8	0.4				●	▲				●	▲					▲
	CCGT09T301L/R-B	9.7	9.525	3.97	4.4	0.1				●	▲				●	▲					▲
	CCGT09T302L/R-B	9.7	9.525	3.97	4.4	0.2				●	▲				●	▲					▲
精加工 Finishing	CCGT09T304L/R-B	9.7	9.525	3.97	4.4	0.4				●	▲				●	▲					▲

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

S

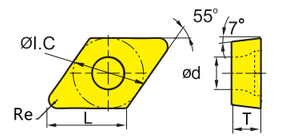
控制排屑、可低阻力切削

B

低进给条件下即使切深变化也能切实控制切屑，使低阻力切削成为可能

Turning Inserts - Positive
DCGT (55° Positive)

车削刀片 - 正角型
DCGT (55°正角型)



√ 良好工况 Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																				
P	钢							○			○	×		×	×	√
M	不锈钢		√	√	√	√	√	○	○	○	○	×	×	×	×	√
K	铸铁													×	×	
N	有色金属															
S	耐热合金、钛合金															
H	淬硬钢	√					√									

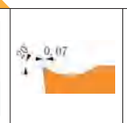
产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					PVD涂层													金陶 Cermet
		L	ØI.C	T	Φd	r	FT8109	FT8204	FT8205	FT8206	FT8208	FT8209	FT8284	FT8285	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
精加工 Finishing	DCGT070201L/R	7.8	6.35	2.38	2.8	0.1				●	▲				●	▲					▲
	DCGT070202L/R	7.8	6.35	2.38	2.8	0.2				●	▲				●	▲					▲
	DCGT070204L/R	7.8	6.35	2.38	2.8	0.4				●	▲				●	▲					▲
	DCGT11T301L/R	11.6	9.525	3.97	4.4	0.1				●	▲				●	▲					▲
	DCGT11T302L/R	11.6	9.525	3.97	4.4	0.2				●	▲				●	▲					▲
	DCGT11T304L/R	11.6	9.525	3.97	4.4	0.4				●	▲				●	▲					▲
精加工 Finishing	DCGT070201L/R-B	7.8	6.35	2.38	2.8	0.1				●	▲				●	▲					▲
	DCGT070202L/R-B	7.8	6.35	2.38	2.8	0.2				●	▲				●	▲					▲
	DCGT070204L/R-B	7.8	6.35	2.38	2.8	0.4				●	▲				●	▲					▲
	DCGT11T301L/R-B	11.6	9.525	3.97	4.4	0.1				●	▲				●	▲					▲
	DCGT11T302L/R-B	11.6	9.525	3.97	4.4	0.2				●	▲				●	▲					▲
	DCGT11T304L/R-B	11.6	9.525	3.97	4.4	0.4				●	▲				●	▲					▲

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

S

控制排屑、可低阻力切削

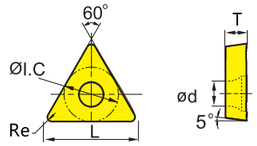
B



低进给条件下即使切深变化也能切实控制切屑，使低阻力切削成为可能

Turning Inserts - Positive
TBGT (60° Positive)

车削刀片 - 正角型
TBGT (60°正角型)



√ 良好工况 Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																				
P	钢							○			○	×		×	×	√
M	不锈钢		√	√	√	√	√	○	○	○	○	×	×	×	×	√
K	铸铁													×	×	
N	有色金属															
S	耐热合金、钛合金															
H	淬硬钢	√					√									

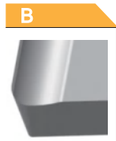
产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					PVD涂层													金陶 Cermet
		L	ØI.C	T	Φd	r	FT8109	FT8204	FT8205	FT8206	FT8208	FT8209	FT8284	FT8285	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
精加工 Finishing	TBGT060101L/R	6.4	3.97	1.59	2.3	0.1				●	▲				●	▲					▲
	TBGT060102L/R	6.4	3.97	1.59	2.3	0.2				●	▲				●	▲					▲
	TBGT060104L/R	6.4	3.97	1.59	2.3	0.4				●	▲				●	▲					▲

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

S

控制排屑、可低阻力切削

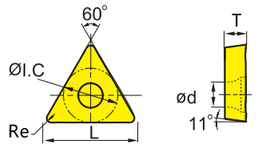
B



低进给条件下即使切深变化也能切实控制切屑，使低阻力切削成为可能

Turning Inserts - Positive
TPGH (60° Positive)

车削刀片 - 正角型
TPGH (60°正角型)



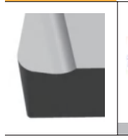
√ 良好工况 Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																			
P	钢							○			○	×		×	×	√
M	不锈钢		√	√	√	√	√	○	○	○	○	×	×	×	×	√
K	铸铁													×	×	
N	有色金属															
S	耐热合金、钛合金															
H	淬硬钢	√					√									

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					PVD涂层													金陶 Cermet
		L	ØI.C	T	Φd	r	FT8109	FT8204	FT8205	FT8206	FT8208	FT8209	FT8284	FT8285	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	TPGH080201L/R	8.2	4.76	2.38	2.3	0.1				●	▲				●	▲					▲
	TPGH080202L/R	8.2	4.76	2.38	2.3	0.2				●	▲				●	▲					▲
	TPGH080204L/R	8.2	4.76	2.38	2.3	0.4				●	▲				●	▲					▲
	TPGH090201L/R	9.6	5.56	2.38	3.2	0.1				●	▲				●	▲					▲
	TPGH090202L/R	9.6	5.56	2.38	3.2	0.2				●	▲				●	▲					▲
	TPGH090204L/R	9.6	5.56	2.38	3.2	0.4				●	▲				●	▲					▲
	TPGH110302L/R	11	6.35	3.18	3.3	0.2				●	▲				●	▲					▲
	TPGH110304L/R	11	6.35	3.18	3.3	0.4				●	▲				●	▲					▲
	TPGH110308L/R	11	6.35	3.18	3.3	0.8				●	▲				●	▲					▲
	TPGH160302L/R	16.5	9.525	3.18	4.7	0.2				●	▲				●	▲					▲
	TPGH160304L/R	16.5	9.525	3.18	4.7	0.4				●	▲				●	▲					▲
精加工 Finishing	TPGH160308L/R	16.5	9.525	3.18	4.7	0.8				●	▲				●	▲					▲

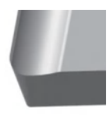
▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

S



控制排屑、可低阻力切削

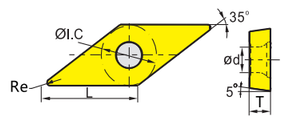
B



低进给条件下即使切深变化也能切实控制切屑，使低阻力切削成为可能

Turning Inserts - Positive
VBGT (35° Positive)

车削刀片 - 正角型
VBGT (35°正角型)



√ 良好工况 Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																			
P	钢							○			○	×		×	×	√
M	不锈钢		√	√	√	√	√	○	○	○	○	×	×	×	×	√
K	铸铁													×	×	
N	有色金属															
S	耐热合金、钛合金															
H	淬硬钢	√					√									

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					PVD涂层													金陶 Cermet
		L	ØI.C	T	Φd	r	FT8109	FT8204	FT8205	FT8206	FT8208	FT8209	FT8284	FT8285	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	VBGT110301L/R-H	11	6.35	3.18	2.8	0.1				●	▲				●	▲					▲
	VBGT110302L/R-H	11	6.35	3.18	2.8	0.2				●	▲				●	▲					▲
	VBGT110304L/R-H	11	6.35	3.18	2.8	0.4				●	▲				●	▲					▲
	VBGT110308L/R-H	11	6.35	3.18	2.8	0.8				●	▲				●	▲					▲
	VBGT160402L/R-H	16.6	9.525	4.76	4.4	0.2				●	▲				●	▲					▲
	VBGT160404L/R-H	16.6	9.525	4.76	4.4	0.4				●	▲				●	▲					▲
	VBGT160408L/R-H	16.6	9.525	4.76	4.4	0.8				●	▲				●	▲					▲
精加工 Finishing																					

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

S

控制排屑、可低阻力切削

B

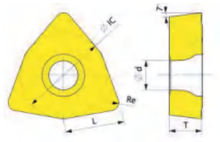
低进给条件下即使切深变化也能切实控制切屑，使低阻力切削成为可能

Turning Inserts - Positive

WBGT (80° Positive)

车削刀片 - 正角型

WBGT (80°正角型)



√ 良好工况 Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material																		
P	钢							○			○	×		×	×	√		
M	不锈钢		√	√	√	√	√	○	○	○	○	×	×	×	×	√		
K	铸铁													×	×			
N	有色金属																	
S	耐热合金、钛合金																	
H	淬硬钢	√					√											

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					PVD涂层												金陶 Cermet
		L	ØI.C	T	Φd	r	FT8109	FT8204	FT8205	FT8206	FT8208	FT8209	FT8284	FT8285	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
精加工 Finishing	WBGT020101L-2R	2.7	3.97	1.59	2.3	0.1				●	▲				●	▲					▲
	WBGT020102L-2R	2.7	3.97	1.59	2.3	0.2				●	▲				●	▲					▲
	WBGT020104L-2R	2.7	3.97	1.59	2.3	0.4				●	▲				●	▲					▲
	WBGT030201L-2R	3.3	4.76	2.38	2.3	0.1				●	▲				●	▲					▲
	WBGT030202L-2R	3.3	4.76	2.38	2.3	0.2				●	▲				●	▲					▲
	WBGT030204L-2R	3.3	4.76	2.38	2.3	0.4				●	▲				●	▲					▲
精加工 Finishing	WPGT040202L/R-S	4.3	6.35	2.38	2.8	0.2				●	▲				●	▲					▲
	WPGT040204L/R-S	4.3	6.35	2.38	2.8	0.4				●	▲				●	▲					▲
	WPGT060304L/R-S	6.5	9.525	3.18	4.4	0.4				●	▲				●	▲					▲
	WPGT060308L/R-S	6.5	9.525	3.18	4.4	0.8				●	▲				●	▲					▲

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

2R

控制排屑、可低阻力切削

S

低进给条件下即使切深变化也能切实控制切屑，使低阻力切削成为可能

螺纹刀片型号命名规则

Threading Inserts Naming Rules

FONHAE 方瀚

螺纹车削 Threading Inserts

系列名称 Series Name
螺纹刀 Threading Inserts

刀片尺寸 Insert size	
22	表示刀片内切圆直径为Φ12.7 I.C=12.7mm indicated by 22
16	表示刀片内切圆直径为Φ9.525 I.C=9.525mm indicated by 16
11	表示刀片内切圆直径为Φ6.35 I.C=6.35mm indicated by 11

切削类型 Cutting style	
I	内螺纹 Internal cutting insert
E	外螺纹 External cutting insert

切削方向 Cutting direction	
R	右刀 Right
L	左刀 Left

YT	I6	E	R	M	I I	WPB
1	2	3	4	5	6	7

公差 Tolerance	
M	压制刀片
G	磨制刀片

螺距 Screw pitch		
定螺距Omni-pitch（数据表示 range of pitch indicated in numerals） 0.35–5.0 mm 72-2 TPI		
泛螺距 Generic-pitch		
	mm	TPI
A	0.5–1.5	48–16
AG	1.0–3.0	26–10
G	1.75–3.0	14–8
N	3.5–5.0	7–5
Q	5.5–6.0	4.5–4

螺纹牙型 Thread profile	
GM	ISO公制60°螺纹 Metric 60° pitch thread
AG60	60°泛螺距螺纹 60°general pitch thread
AG55	55°泛螺距螺纹 55°general pitch thread
WPB	惠氏螺纹 Whitworth thread
UN	美制螺纹 American standard thread
NPT	美制锥管螺纹 American Aviation standard taper pipe thread
BSPT	英制锥管螺纹 British standard taper piper thread

公制ISO螺纹 有顶切

ISO Metric Thread With End

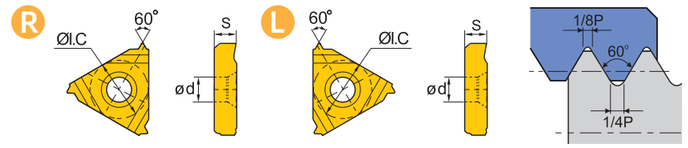
FONHAE 方瀚

螺纹车削 Threading Inserts

ISO 965-1980 DIN 13

GB/T 197-2003

公差等级： 6g/6H

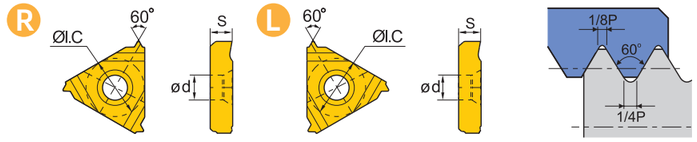


产品 Inserts Shape		型号 Type 右手型 Right	型号 Type 左手型 Left	尺寸 Dimensions (mm) 螺距 Screw pitch	ØI.C	S	Φd	PVD涂层 FT8204	FT8284	FT8295	FT8298	FT8294	FT6109	金陶 FC5280
外螺纹 External cutting insert		YT16ERM0.5ISO	YT16ELM0.5ISO	0.5	9.525	3.52	4.0			•	•	▲	▲	
		YT16ERM0.75ISO	YT16ELM0.75ISO	0.75	9.525	3.52	4.0			•	•	▲	▲	
		YT16ERM1.0ISO	YT16ELM1.0ISO	1	9.525	3.52	4.0			•	•	▲	▲	
		YT16ERM1.25ISO	YT16ELM1.25ISO	1.25	9.525	3.52	4.0			•	•	▲	▲	
		YT16ERM1.5ISO	YT16ELM1.5ISO	1.5	9.525	3.52	4.0			•	•	▲	▲	
		YT16ERM1.75ISO	YT16ELM1.75ISO	1.75	9.525	3.52	4.0			•	•	▲	▲	
		YT16ERM2.0ISO	YT16ELM2.0ISO	2	9.525	3.52	4.0			•	•	▲	▲	
		YT16ERM2.5ISO	YT16ELM2.5ISO	2.5	9.525	3.52	4.0			•	•	▲	▲	
		YT16ERM3.0ISO	YT16ELM3.0ISO	3	9.525	3.52	4.0			•	•	▲	▲	
		YT22ERM3.5ISO	YT22ELM3.5ISO	3.5	12.7	4.65	5.0			•	•	▲	▲	
		YT22ERM4.0ISO	YT22ELM4.0ISO	4	12.7	4.65	5.0			•	•	▲	▲	
		YT22ERM4.5ISO	YT22ELM4.5ISO	4.5	12.7	4.65	5.0			•	•	▲	▲	
		YT22ERM5.0ISO	YT22ELM5.0ISO	5	12.7	4.65	5.0			•	•	▲	▲	
		YT22ERM5.5ISO	YT22ELM5.5ISO	5.5	12.7	4.65	5.0			•	•	▲	▲	
		YT22ERM6.0ISO	YT22ELM6.0ISO	6	12.7	4.65	5.0			•	•	▲	▲	

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

螺纹车削 Threading Inserts

ISO 965-1980 DIN 13
GB/T 197-2003
公差等级： 6g/6H

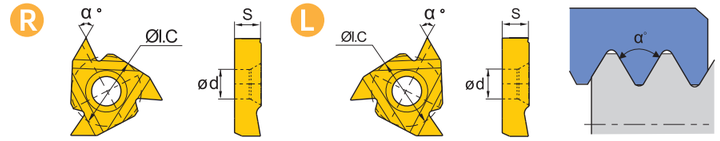


产品 Inserts Shape		型号 Type 右手型 Right	左手型 Left	尺寸 Dimensions (mm) 螺距 Screw pitch	ØI.C	S	Φd	PVD涂层 FT8204	FT8284	FT8295	FT8298	FT8294	FT6109	金陶 FC5280
内螺纹 Internal cutting insert		YT11IRM0.5ISO	YT11ILM0.5ISO	0.50	6.35	3.05	3.2			•	•	▲	▲	
		YT11IRM0.75ISO	YT11ILM0.75ISO	0.75	6.35	3.05	3.2			•	•	▲	▲	
		YT11IRM1.0ISO	YT11ILM1.0ISO	1.00	6.35	3.05	3.2			•	•	▲	▲	
		YT11IRM1.25ISO	YT11ILM1.25ISO	1.25	6.35	3.05	3.2			•	•	▲	▲	
		YT11IRM1.5ISO	YT11ILM1.5ISO	1.5	6.35	3.05	3.2			•	•	▲	▲	
		YT11IRM1.75ISO	YT11ILM1.75ISO	1.75	6.35	3.05	3.2			•	•	▲	▲	
		YT11IRM2.0ISO	YT11ILM2.0ISO	2	6.35	3.05	3.2			•	•	▲	▲	
		YT16IRM0.5ISO	YT16ILM0.5ISO	0.50	9.525	3.52	4.0			•	•	▲	▲	
		YT16IRM0.75ISO	YT16ILM0.75ISO	0.75	9.525	3.52	4.0			•	•	▲	▲	
		YT16IRM1.0ISO	YT16ILM1.0ISO	1.00	9.525	3.52	4.0			•	•	▲	▲	
		YT16IRM1.25ISO	YT16ILM1.25ISO	1.25	9.525	3.52	4.0			•	•	▲	▲	
		YT16IRM1.5ISO	YT16ILM1.5ISO	1.50	9.525	3.52	4.0			•	•	▲	▲	
		YT16IRM1.75ISO	YT16ILM1.75ISO	1.75	9.525	3.52	4.0			•	•	▲	▲	
		YT16IRM2.0ISO	YT16ILM2.0ISO	2.00	9.525	3.52	4.0			•	•	▲	▲	
		YT16IRM2.5ISO	YT16ILM2.5ISO	2.50	9.525	3.52	4.0			•	•	▲	▲	
		YT16IRM3.0ISO	YT16ILM3.0ISO	3.00	9.525	3.52	4.0			•	•	▲	▲	
		YT22IRM3.5ISO	YT22ILM3.5ISO	3.50	12.70	4.65	5.0			•	•	▲	▲	
		YT22IRM4.0ISO	YT22ILM4.0ISO	4.00	12.70	4.65	5.0			•	•	▲	▲	
		YT22IRM4.5ISO	YT22ILM4.5ISO	4.50	12.70	4.65	5.0			•	•	▲	▲	
		YT22IRM5.0ISO	YT22ILM5.0ISO	5.00	12.70	4.65	5.0			•	•	▲	▲	
		YT22IRM5.5ISO	YT22ILM5.5ISO	5.50	12.70	4.65	5.0			•	•	▲	▲	
		YT22IRM6.0ISO	YT22ILM6.0ISO	6.00	12.70	4.65	5.0			•	•	▲	▲	

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

螺纹车削 Threading Inserts

ISO 965-1980 DIN 13
GB/T 197-2003
公差等级： 6g/6H



产品 Inserts Shape			型号 Type 右手型 Right	左手型 Left	尺寸 Dimensions (mm) 螺距 Screw pitch	ØI.C	S	Φd	PVD涂层 FT8204	FT8284	FT8295	FT8298	FT8294	FT6109	金陶 FC5280
外螺纹 External cutting insert	55°		YT16ERMA55	YT16ELMA55	0.5-1.5	9.525	3.52	4			•	•	▲	▲	
			YT16ERMG55	YT16ELMG55	1.75-3.0	9.525	3.52	4							
			YT16ERMAG55	YT16ELMAG55	0.5-3.0	9.525	3.52	4							
			YT22ERMN55	YT22ELMN55	3.5-5.0	12.7	4.65	5							
	60°		YT11ERMAG60		0.5-1.5	6.35	3.05	3.2			•	•	▲	▲	
			YT16ERMA60	YT16ELMA60	0.5-1.5	9.525	3.52	4							
			YT16ERMG60	YT16ELMG60	1.75-3.0	9.525	3.52	4							
			YT16ERMAG60	YT16ELMAG60	0.5-3.0	9.525	3.52	4							
			YT22ERMN60	YT22ELMN60	3.5-5.0	12.7	4.65	5							

产品 Inserts Shape			型号 Type 右手型 Right	左手型 Left	尺寸 Dimensions (mm) 螺距 Screw pitch	ØI.C	S	Φd	PVD涂层 FT8204	FT8284	FT8295	FT8298	FT8294	FT6109	金陶 FC5280
内螺纹 Internal cutting insert	55°		YT11IRMA55	YT11ILMA55	0.5-1.5	6.350	3.05	3.2			•	•	▲	▲	
			YT16IRMA55	YT16ILMA55	0.5-1.5	9.525	3.52	4.0			•	•	▲	▲	
			YT16IRMG55	YT16ILMG55	1.75-3.0	9.525	3.52	4.0			•	•	▲	▲	
			YT16IRMAG55	YT16ILMAG55	0.5-3.0	9.525	3.52	4.0			•	•	▲	▲	
			YT22IRMN55	YT22ILMN55	3.5-5.0	22.000	4.65	5.0			•	•	▲	▲	
	60°		YT11IRMA60	YT11ILMA60	0.5-1.5	6.350	3.05	3.2			•	•	▲	▲	
			YT16IRMA60	YT16ILMA60	0.5-1.5	9.525	3.52	4.0			•	•	▲	▲	
			YT16IRMG60	YT16ILMG60	1.75-3.0	9.525	3.52	4.0			•	•	▲	▲	
			YT16IRMAG60	YT16ILMAG60	0.5-3.0	9.525	3.52	4.0			•	•	▲	▲	
			YT22IRMN60	YT22ILMN60	3.5-5.0	22.000	4.65	5.0			•	•	▲	▲	

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

惠氏螺纹 无顶切

Whitworth Thread Without End

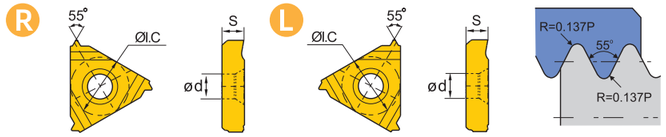
FONHAE 方瀚

螺纹车削 Threading Inserts

ISO 228/1:1982

DIN 259,B.S.84:1956

公差等级：Medium classA



产品 Inserts Shape		型号 Type 右手型 Right	左手型 Left	尺寸 Dimensions (mm) 螺距 Screw pitch	ØI.C	S	Φd	PVD涂层 FT8204	FT8284	FT8295	FT8298	FT8294	FT6109	金陶 FC5280
外螺纹 External cutting insert		YT16ERM8WPB	YT16ELM8WPB	8	9.525	3.52	4			•	•	▲	▲	
		YT16ERM9WPB	YT16ELM9WPB	9	9.525	3.52	4			•	•	▲	▲	
		YT16ERM10WPB	YT16ELM10WPB	10	9.525	3.52	4			•	•	▲	▲	
		YT16ERM11WPB	YT16ELM11WPB	11	9.525	3.52	4			•	•	▲	▲	
		YT16ERM12WPB	YT16ELM12WPB	12	9.525	3.52	4			•	•	▲	▲	
		YT16ERM14WPB	YT16ELM14WPB	14	9.525	3.52	4			•	•	▲	▲	
		YT16ERM16WPB	YT16ELM16WPB	16	9.525	3.52	4			•	•	▲	▲	
		YT16ERM18WPB	YT16ELM18WPB	18	9.525	3.52	4			•	•	▲	▲	
		YT16ERM19WPB	YT16ELM19WPB	19	9.525	3.52	4			•	•	▲	▲	

产品 Inserts Shape		型号 Type 右手型 Right	左手型 Left	尺寸 Dimensions (mm) 螺距 Screw pitch	ØI.C	S	Φd	PVD涂层 FT8204	FT8284	FT8295	FT8298	FT8294	FT6109	金陶 FC5280
内螺纹 Internal cutting insert		YT16IRM8WPB	YT16ILM8WPB	8	9.525	3.52	4			•	•	▲	▲	
		YT16IRM9WPB	YT16ILM9WPB	9	9.525	3.52	4			•	•	▲	▲	
		YT16IRM10WPB	YT16ILM10WPB	10	9.525	3.52	4			•	•	▲	▲	
		YT16IRM11WPB	YT16ILM11WPB	11	9.525	3.52	4			•	•	▲	▲	
		YT16IRM12WPB	YT16ILM12WPB	12	9.525	3.52	4			•	•	▲	▲	
		YT16IRM14WPB	YT16ILM14WPB	14	9.525	3.52	4			•	•	▲	▲	
		YT16IRM16WPB	YT16ILM16WPB	16	9.525	3.52	4			•	•	▲	▲	
		YT16IRM18WPB	YT16ILM18WPB	18	9.525	3.52	4			•	•	▲	▲	
		YT16IRM19WPB	YT16ILM19WPB	19	9.525	3.52	4			•	•	▲	▲	

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

UN统一协定螺纹 有顶切

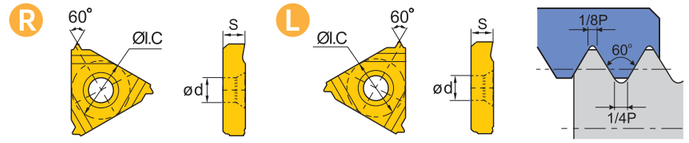
American Standard Thread With End

FONHAE 方瀚

螺纹车削 Threading Inserts

ASME B1.1-1989

公差等级：2A/2B



产品 Inserts Shape		型号 Type 右手型 Right	左手型 Left	尺寸 Dimensions (mm) 螺距 Screw pitch	ØI.C	S	Φd	PVD涂层 FT8204	FT8284	FT8295	FT8298	FT8294	FT6109	金陶 FC5280
外螺纹 External cutting insert		YT16ERM8UN	YT16ELM8UN	8	9.525	3.52	4.0			•	•	▲	▲	
		YT16ERM10UN	YT16ELM10UN	10	9.525	3.52	4.0			•	•	▲	▲	
		YT16ERM12UN	YT16ELM12UN	12	9.525	3.52	4.0			•	•	▲	▲	
		YT16ERM14UN	YT16ELM14UN	14	9.525	3.52	4.0			•	•	▲	▲	
		YT16ERM16UN	YT16ELM16UN	16	9.525	3.52	4.0			•	•	▲	▲	
		YT16ERM18UN	YT16ELM18UN	18	9.525	3.52	4.0			•	•	▲	▲	
		YT16ERM20UN	YT16ELM20UN	20	9.525	3.52	4.0			•	•	▲	▲	
		YT16ERM24UN	YT16ELM24UN	24	9.525	3.52	4.0			•	•	▲	▲	

产品 Inserts Shape		型号 Type 右手型 Right	左手型 Left	尺寸 Dimensions (mm) 螺距 Screw pitch	ØI.C	S	Φd	PVD涂层 FT8204	FT8284	FT8295	FT8298	FT8294	FT6109	金陶 FC5280
内螺纹 Internal cutting insert		YT16IRM8UN	YT16ILM8UN	8	9.525	3.52	4.0			•	•	▲	▲	
		YT16IRM10UN	YT16ILM10UN	10	9.525	3.52	4.0			•	•	▲	▲	
		YT16IRM12UN	YT16ILM12UN	12	9.525	3.52	4.0			•	•	▲	▲	
		YT16IRM14UN	YT16ILM14UN	14	9.525	3.52	4.0			•	•	▲	▲	
		YT16IRM16UN	YT16ILM16UN	16	9.525	3.52	4.0			•	•	▲	▲	
		YT16IRM18UN	YT16ILM18UN	18	9.525	3.52	4.0			•	•	▲	▲	
		YT16IRM20UN	YT16ILM20UN	20	9.525	3.52	4.0			•	•	▲	▲	
		YT16IRM24UN	YT16ILM24UN	24	9.525	3.52	4.0			•	•	▲	▲	

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

BSPT英国标准锥管螺纹 有顶切

British Standard Taper Pipe Thread With End

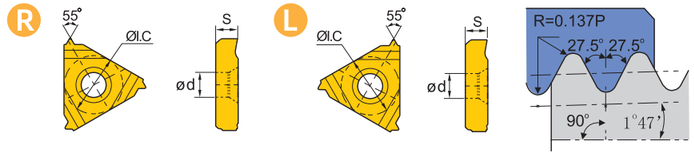
FONHAE 方瀚

螺纹车削 Threading Inserts

ISO 7/1:1994

B.S.21:1985

Standard BSPT



产品 Inserts Shape		型号 Type 右手型 Right	型号 Type 左手型 Left	尺寸 Dimensions (mm) 螺距 Screw pitch	ØI.C	S	Φd	PVD涂层 FT8204	FT8284	FT8295	FT8298	FT8294	FT6109	金陶 FC5280
外螺纹 External cutting insert		YT16ERM11BSPT	YT16ELM11BSPT	11	9.525	3.52	4			●	●	▲	▲	
		YT16ERM14BSPT	YT16ELM14BSPT	14	9.525	3.52	4			●	●	▲	▲	
		YT16ERM19BSPT	YT16ELM19BSPT	19	9.525	3.52	4			●	●	▲	▲	
		YT16ERM28BSPT	YT16ELM28BSPT	28	9.525	3.52	4			●	●	▲	▲	

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

产品 Inserts Shape		型号 Type 右手型 Right	型号 Type 左手型 Left	尺寸 Dimensions (mm) 螺距 Screw pitch	ØI.C	S	Φd	PVD涂层 FT8204	FT8284	FT8295	FT8298	FT8294	FT6109	金陶 FC5280
内螺纹 Internal cutting insert		YT16IRM11BSPT	YT16ILM11BSPT	11	9.525	3.52	4			●	●	▲	▲	
		YT16IRM14BSPT	YT16ILM14BSPT	14	9.525	3.52	4			●	●	▲	▲	
		YT16IRM19BSPT	YT16ILM19BSPT	19	9.525	3.52	4			●	●	▲	▲	
		YT16IRM28BSPT	YT16ILM28BSPT	28	9.525	3.52	4			●	●	▲	▲	

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

NPT美国标准锥管螺纹 有顶切

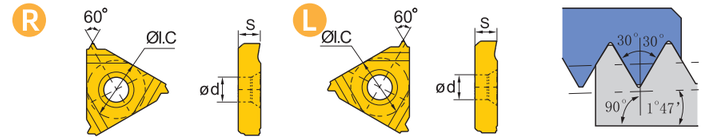
American Standard Taper Pipe Thread with End

FONHAE 方瀚

螺纹车削 Threading Inserts

ASME B1.20.1-1983

Standard NPT



产品 Inserts Shape		型号 Type 右手型 Right	型号 Type 左手型 Left	尺寸 Dimensions (mm) 螺距 Screw pitch	ØI.C	S	Φd	PVD涂层 FT8204	FT8284	FT8295	FT8298	FT8294	FT6109	金陶 FC5280
外螺纹 External cutting insert		YT16ERM8NPT	YT16ELM8NPT	8	9.525	3.52	4			●	●	▲	▲	
		YT16ERM11.5NPT	YT16ELM11.5NPT	11.5	9.525	3.52	4			●	●	▲	▲	
		YT16ERM14NPT	YT16ELM14NPT	14	9.525	3.52	4			●	●	▲	▲	
		YT16ERM18NPT	YT16ELM18NPT	18	9.525	3.52	4			●	●	▲	▲	
		YT16ERM27NPT	YT16ELM27NPT	27	9.525	3.52	4			●	●	▲	▲	

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

产品 Inserts Shape		型号 Type 右手型 Right	型号 Type 左手型 Left	尺寸 Dimensions (mm) 螺距 Screw pitch	ØI.C	S	Φd	PVD涂层 FT8204	FT8284	FT8295	FT8298	FT8294	FT6109	金陶 FC5280
内螺纹 Internal cutting insert		YT16IRM8NPT	YT16ILM8NPT	8	9.525	3.52	4			●	●	▲	▲	
		YT16IRM11.5NPT	YT16ILM11.5NPT	11.5	9.525	3.52	4			●	●	▲	▲	
		YT16IRM14NPT	YT16ILM14NPT	14	9.525	3.52	4			●	●	▲	▲	
		YT16IRM18NPT	YT16ILM18NPT	18	9.525	3.52	4			●	●	▲	▲	
		YT16IRM27NPT	YT16ILM27NPT	27	9.525	3.52	4			●	●	▲	▲	

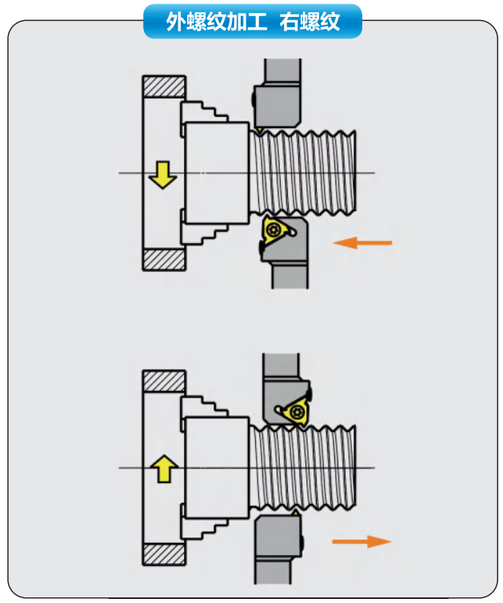
▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

螺纹加工应用资料　为获得最好的螺纹加工效果，请按照以下步骤：

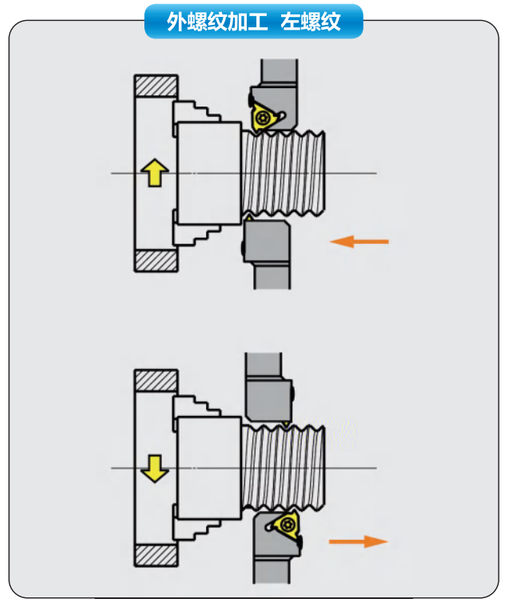
1. 选择恰当的螺纹加工方式
2. 决定螺旋升角，选择刀垫
3. 选择合适的刀片和刀杆尺寸
4. 参照标准螺纹的加工程序编制用参数表，选择合适的螺纹切削走刀数据
5. 选择进刀方法

螺纹刀具加工方式

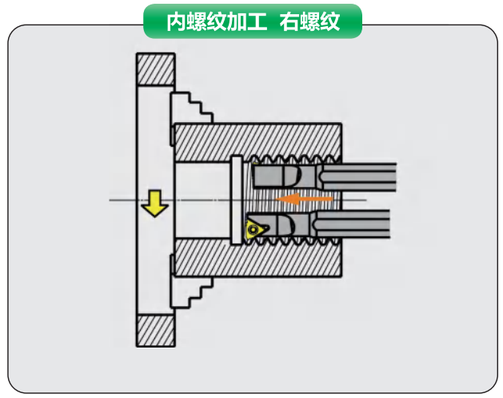
外螺纹加工 右螺纹



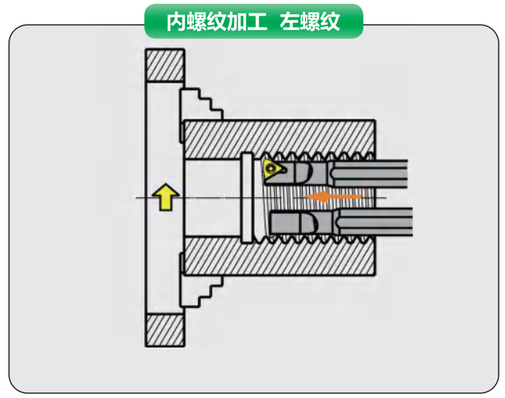
外螺纹加工 左螺纹



内螺纹加工 右螺纹



内螺纹加工 左螺纹



决定螺旋升角，选择刀垫

螺纹车削刃后角基本上是顺着刀边（后刀面）。这将对散热、刀具磨损扩展以及后续的刀具寿命、生产安全性和切削的螺纹质量产生显著影响。刀片螺纹牙型后刀面的后角取决于螺纹的螺旋升角。因为两者有些相似。如果刀片的刃倾角与螺旋升角不一样，则刀片的后角亦会不同。

螺纹的螺旋升角必须与刀片的刃倾角一致，以尽可能地避免在一个后刀面上过多的磨损而导致刀具寿命缩短。螺旋升角按照下式计算：

$$e = \arctan \frac{P}{d_2 \times \pi}$$

P=螺距

d_2=螺纹中径

最常用的刃倾角为1°，MT标准刀垫其倾角也为1°。

后角的计算：

刀具的后角β按照下式计算：

$$\beta = \arctan (\tan\theta \times \tan\alpha)$$

2θ=螺纹牙型角

α=刀具的前角，标准刀具外螺纹为10°，内螺纹为15°

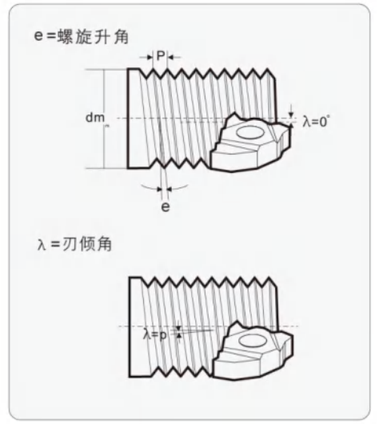
当螺纹的螺旋升角≤刀具后角时，刀片侧面会产生干涉，必须更换刀垫。

请通过更换刀垫将螺纹螺旋升角与刀垫刃倾角差值调整至2°~0°之内。

例如：对于P=1.5、d_2=24mm

螺旋升角1.14°-(2°~0°)=刃倾角(-0.86°~1.14°)

使用标准刀垫1°即可切削。



具体值参考下表：

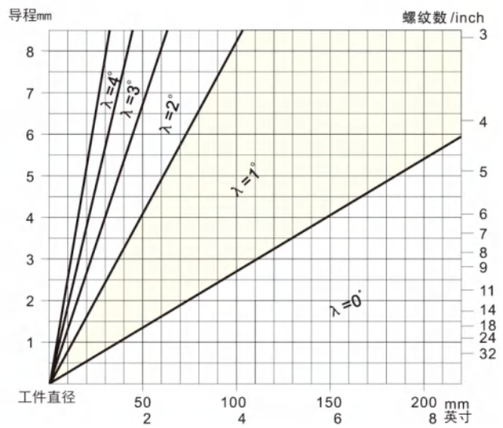
螺纹牙形角2θ	β	
	外螺纹	内螺纹
60°	5.8°	8.79°
55°	5.24°	7.94°
30°	2.7°	4.1°
29°	2.6°	3.96°

刀垫规格表如下：

螺距范围	刀片尺寸	倾斜角	刀垫
0.5-3.0	16	0	MT16-00MN
		1	MT16-01MN
		2	MT16-02MN
		3	MT16-03MN
3.5-6.0	22	0	MT22-00MN
		1	MT22-01MN
		2	MT22-02MN
		3	MT22-03MN

注：我公司螺纹刀具刀垫标准配置为1度。(MT16-01MN或MT22-01MN)

选择刀垫：



螺纹车削 Threading Inserts

ISO	材料		单位切削力 Kc0.4 N/mm²	硬度 HB	牌号 YBG202 YBG203 YBG205 切削速度m/min
P	碳素钢	C=0.15%	1900	125	150-175
		C=0.35%	2100	150	140-155
		C=0.60%	2250	200	130-145
	合金钢	退火	2100	180	110-130
		淬硬	2600	275	80-100
		淬硬	2700	300	70-90
		淬硬	2850	350	60-80
	高合金钢	退火	2600	200	90-115
		淬硬	3900	325	70-90
	铸钢	非合金	2000	180	180-210
		低合金	2500	200	90-115
		高合金	2700	225	90-115
		马氏体钢12%Mn	3600	250	40-50
M	不锈钢	奥氏体	2450	180	110-130
		马素体 / 铁素体	2300	200	130-170
K	可锻铸铁	铁素体	1100	130	110-140
		珠光体	1100	230	85-105
	灰口铸铁	低拉伸强度	1100	180	110-140
		高拉伸强度	1500	260	90-115
	球墨铸铁	铁素体	1100	160	110-130
		珠光体	1800	250	80-100
N	铝合金	未时效处理	500	60	1300-1450
		时效处理	800	100	450-500
	铸铝合金	未时效处理	750	75	430-470
		时效处理	900	90	250-290
S	耐热合金	镍基 退火	3000	200	35-50
		镍基 时效	3050	280	25-35
		镍基或钴基 退火	3500	250	15-25
		镍基或钴基 时效	4150	350	10-20
		镍基或钴基 铸造	4150	320	10-15
H	淬火钢	淬火钢	4500	HRC55	40-50

◆上表为范围值，实际切削时，可适当取高值，当试用新切削速度时，应仔细查看切削刃的状况。
◆进行不锈钢螺纹切削时，应使用足够高的切削速度，以避免“积屑瘤”的形成。
◆当切削小螺距螺纹和使用小刀尖半径刀具时，应适当减小切削参数。

切断切槽刀片 Parting and Grooving Inserts

R	仿形加工 Copying
T	切断加工 Parting
P	切槽加工 Grooving

系列代号 Series code

M	压制
G	磨制

公差 Tolerance

N	无方向 No Direction
R	右手 Right
L	左手 Left
I	内圆 Inner Circle

切削方向 Cutting Direction

KP	M	N	20	02	GS
1	2	3	4	5	6

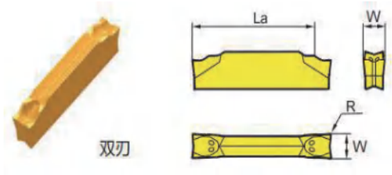
刃 宽 （mm） Edge Width	
20	2.0mm
25	2.5mm
30	3.0mm
40	4.0mm
50	5.0mm

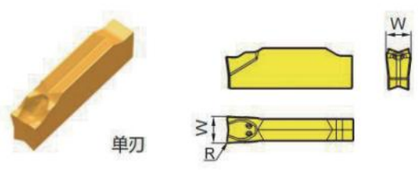
刀尖圆角 Round corner of blade tip	
02	0.2mm
04	0.4mm
08	0.8mm

槽型代号 Groove code
M
G
F

双刃 Double-edged 单刃 single-edged
S
D

切断切槽刀片 Parting and Grooving Inserts

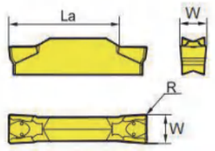


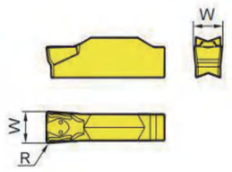


型号 Type		尺寸 Dimensions（mm）			CVD涂层	PVD涂层														金陶 Cermet
		La max	W	R	FT3262	FT6109	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
双刃 Double-edged	KPMN1502-GD	12	1.5	0.2	•	•													▲			•
	KPMN2002-GD	14	2	0.2	•	•													▲			•
	KPMN2502-GD	17	2.5	0.2	•	•													▲			•
	KPMN3002-GD	17	3	0.2	•	•													▲			•
	KPMN4002-GD	22	4	0.2	•	•													▲			•
	KPMN5003-GD	22	5	0.3	•	•													▲			•
	KPMN6004-GD	22	6	0.4	•	•													▲			•
单刃 single-edged	KPMN2502-GS		2.5	0.2	•	•													▲			•
	KPMN3002-GS		3	0.2	•	•													▲			•
	KPMN4002-GS		4	0.2	•	•													▲			•
	KPMN5003-GS		5	0.3	•	•													▲			•
	KPMN6004-GS		6	0.4	•	•													▲			•

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

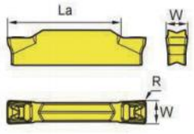
切断切槽刀片 Parting and Grooving Inserts





型号 Type		尺寸 Dimensions（mm）			CVD涂层	PVD涂层															金陶 Cermet
		La max	W	R	FT3262	FT6109	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
双刃 Double-edged	KTMN2503-GD	17	2.5	0.3	•	•													▲			•
	KTMN3003-GD	17	3	0.3	•	•													▲			•
	KTMN4004-GD	22	4	0.4	•	•													▲			•
	KTMN5004-GD	22	5	0.4	•	•													▲			•
	KTMN6008-GD	22	6	0.8	•	•													▲			•
单刃 single-edged	KTMN5004-GS		5	0.4	•	•													▲			•
	KTMN6008-GS		6	0.8	•	•													▲			•

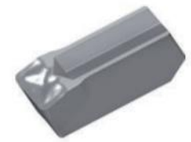
▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

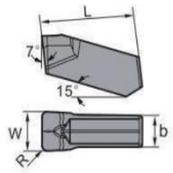


型号 Type		尺寸 Dimensions（mm）			CVD涂层	PVD涂层															金陶 Cermet
		La max	W	R	FT3262	FT6109	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
双刃 Double-edged	KTMN1502-MD	12	1.5	0.2	•	•													▲			•
	KTMN2002-MD	14	2	0.2	•	•													▲			•
	KTMN2503-MD	17	2.5	0.3	•	•													▲			•
	KTMN3003-MD	17	3	0.3	•	•													▲			•
	KTMN4004-MD	22	4	0.4	•	•													▲			•
	KTMN5004-MD	22	5	0.4	•	•													▲			•
	KTMN6008-MD	22	6	0.8	•	•													▲			•
	KTMN8008-MD	28	8	0.8	•	•													▲			•

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

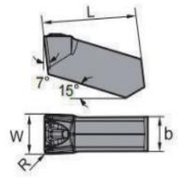
切断切槽刀片 Parting and Grooving Inserts





型号 Type	尺寸 Dimensions（mm）				CVD涂层	PVD涂层															金陶 Cermet
	b	W	R	L	FT3262	FT6109	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
KTMN3004-MM	2.4	3	0.4	15.3	•	•													▲			•
KTMN4006-MM	3.2	4	0.6	15.3	•	•													▲			•
KTMN5006-MM	4	5	0.6	15.3	•	•													▲			•
KTMN6008-MM	4	6	0.8	15.3	•	•													▲			•
																						•

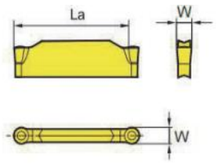
▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order



型号 Type	尺寸 Dimensions（mm）				CVD涂层	PVD涂层															金陶 Cermet
	b	W	R	L	FT3262	FT6109	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
KTMN3004-SM	2.4	3	0.4	15.3	•	•													▲			•
KTMN4006-SM	3.2	4	0.4	15.3	•	•													▲			•
KTMN5006-SM	4	5	0.4	15.3	•	•													▲			•
KTMN6008-SM	5.1	6	0.4	15.3	•	•													▲			•

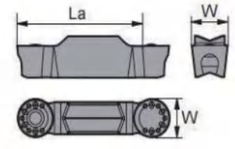
▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

切断切槽刀片 Parting and Grooving Inserts



型号 Type		尺寸 Dimensions（mm）			CVD涂层	PVD涂层															金陶 Cermet
		La max	W		FT3262	FT6109	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
双刃 Double-edged	KRMN25-GD	17.5	2.5		•	•													▲			•
	KRMN30-GD	17	3		•	•													▲			•
	KRMN40-GD	21	4		•	•													▲			•
	KRMN50-GD	20	5		•	•													▲			•
	KRMN60-GD	19	6		•	•													▲			•

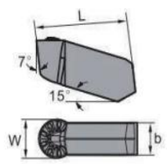
▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order



型号 Type		尺寸 Dimensions（mm）			CVD涂层	PVD涂层															金陶 Cermet
		La max	W		FT3262	FT6109	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
双刃 Double-edged	KRMN30-MM	17	3		•	•													▲			•
	KRMN40-MM	21	4		•	•													▲			•
	KRMN50-MM	20	5		•	•	▲			•												
	KRMN60-MM	19	6		•	•	▲			•												

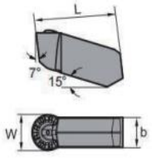
▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

仿形车削刀片 Copying Turning Inserts



型号 Type	尺寸 Dimensions（mm）			CVD涂层	PVD涂层																金陶 Cermet
	b	W	L	FT3262	FT6109	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
KTMN30-MM	2.4	3	15.3	•	•													▲			•
KTMN40-MM	3.2	4	15.3	•	•													▲			•
KTMN50-MM	4	5	15.3	•	•	▲			•												
KTMN60-MM	5	6	15.3	•	•	▲			•												

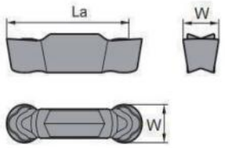
▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order



型号 Type	尺寸 Dimensions（mm）			CVD涂层	PVD涂层																金陶 Cermet
	b	W	L	FT3262	FT6109	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
KTMN30-MF	2.4	3	15.3	•	•													▲			•
KTMN40-MF	3.2	4	15.3	•	•													▲			•
KTMN50-MF	4	5	15.3	•	•	▲			•												
KTMN60-MF	5	6	15.3	•	•	▲			•												

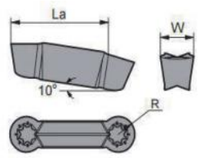
▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

难加工材料单头仿形车削刀片 Difficult-to-cut Single end Copying Inserts



型号 Type	尺寸 Dimensions（mm）			CVD涂层	PVD涂层														金陶 Cermet
	Lamax	W		FT3262	FT6109	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
KRMN60-AU	19	6		●	●													▲			●
KRMN80-AU	22	8		●	●													▲			●

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order



型号 Type	尺寸 Dimensions（mm）			CVD涂层	PVD涂层														金陶 Cermet
	Lamax	W	R	FT3262	FT6109	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298	FC5280
KTMN80-AU	22	8	4	●	●													▲			●

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

铣削刀片/Milling Inserts

FONHAE 方瀚

铣削刀片型号命名规则 Milling Insert Naming Rules

铣削刀片牌号介绍 Milling Inserts Grade Informations

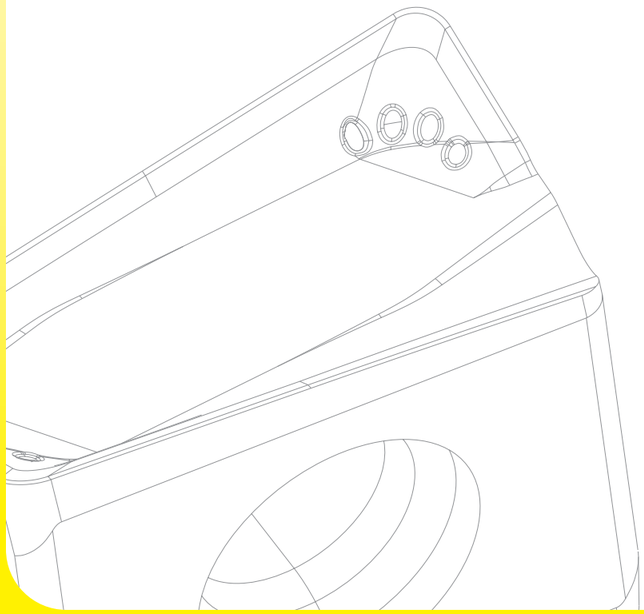
铣削产品牌号一览表 Milling Inserts Recommend Grade Table

方肩铣削刀片 Square Shoulder Milling Inserts

平面铣削刀片 Face Milling Inserts

快进给铣削刀片 High Feed Milling Inserts

重力切削刀片 Heavy Duty Inserts



铣削刀片型号命名规则

Milling Insert Naming Rules

FONHAE 方瀚

形状代号 Shape

A	P	M	T	11	35	PD	E	R	—	GM

A	B	C
85°	82°	80°
D	E	H
55°	75°	108°
K	L	M
55°	90°	86°
O	P	R
135°	108°	360°
S	T	T
90°	60°	75°
W		
35°	80°	其 它

断屑槽及夹固形式代号 Chip Breaker and Hole

A	P	M	T	11	35	PD	E	R	—	GM

代号 Symbol	有无孔 Center Hole	有无断屑槽 Chip Breaker	刀片剖面 Insert Profile	代号 Symbol	有无孔 Center Hole	有无断屑槽 Chip Breaker	刀片剖面 Insert Profile
B	有(Y)	无(N)	>65°	N	无(N)	无（N）	
H	有(Y)	单面(S)	>65°	R	无(N)	单面（S）	
C	有(Y)	无(N)	>65°	F	无(N)	双面（D）	
J	有(Y)	双面(D)	>65°	A	有(Y)	无（N）	
W	有(Y)	无(N)	≤65°	M	有(Y)	单面（S）	
T	有(Y)	单面(S)	≤65°	G	有(Y)	双面（D）	
Q	有(Y)	无(N)	≤65°	X			
U	有(Y)	双面(D)	≤65°				

后角代号 Clearance Angle

A	P	M	T	11	35	PD	E	R	—	GM

A	B
3°	5°
C	D
7°	15°
E	F
20°	25°
G	N
30°	0°
P	O
11°	其它后角 Others

精度代号 Tolerance

A	P	M	T	11	35	PD	E	R	—	GM

代号 Symbol	刀尖高度m 公差（mm） m(mm)	内接圆ΦI.C 公差（mm） d=I.C. (mm)	厚度S 公差（mm） s (mm)	（参考）M级精度详细情况（按形状、大小分）●刀尖高度公差(mm) (reference)M grade tolerance detail(according to shape, size.) Tolerance of insert nose height						
				内切圆 Inscribed Circle	正三角形 Regular Triangle	正方形 Square	80° 菱形 80° Rhombus	55° 菱形 55° Rhombus	35° 菱形 35° Rhombus	圆形 Round
				6.35	±0.08	±0.08	±0.08	±0.11	±0.16	···
				9.525	±0.08	±0.08	±0.08	±0.11	±0.16	···
				12.7	±0.13	±0.13	±0.13	±0.15	···	···
A	±0.005	±0.025	±0.025	15.875	±0.15	±0.15	±0.15	±0.18	···	···
F	±0.005	±0.013	±0.025	19.05	±0.15	±0.15	±0.15	±0.18	···	···
C	±0.013	±0.025	±0.025	25.4	···	±0.18	···	···	···	···
H	±0.013	±0.013	±0.013	●内接圆ΦI.C公差（mm）●Tolerance of Inscribed Circle						
E	±0.025	±0.025	±0.025	内切圆 Inscribed Circle	正三角形 Regular triangle	正方形 Square	80° 菱形 80° Rhombus	55° 菱形 55° Rhombus	35° 菱形 35° Rhombus	圆形 Round
G	±0.025	±0.025	±0.13							
J	±0.005	±0.05–±0.13	±0.025	6.35	±0.05	±0.05	±0.05	±0.05	±0.05	
K	±0.013	±0.05–±0.13	±0.025	9.525	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
L	±0.025	±0.05–±0.13	±0.025	12.7	±0.08	±0.08	±0.08	±0.08	···	±0.08
M	±0.08–±0.18	±0.05–±0.13	±0.13	15.875	±0.1	±0.1	±0.10	±0.10	···	±0.1
N	±0.08–±0.18	±0.05–±0.13	±0.025	19.05	±0.1	±0.1	±0.10	±0.10	···	±0.1
U	±0.13–±0.38	±0.08–±0.25	±0.13	25.4	···	···	±0.13	···	···	±0.13

铣削刀片型号命名规则

Milling Insert Naming Rules

FONHAE 方瀚

切削刃长度代号 Cutting Edge Length

A	P	M	T	11	35	PD	E	R	—	GM

内切圆直径 Inscribed Circle diameter(mm)	刀片外形 Insert Shape							
	C	D	R	S	T	V	W	K
3.97					06			
5			05					
5.56					09			
6			06					
6.35	06	07			11	11		
8			08					
9.525	09	11	09	09	16	16	06	16
10			10					
12			12					
12.7	12	15	12	12	22	22	08	
15.875	16		15	15	27			
16			16	16				
19.05	19		19	19	33			
20			20					
25	25	25	25					
25.4			25	25				
31.75			31					
32			32					

刀片厚度代号 Thickness

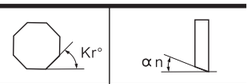
A	P	M	T	11	35	PD	E	R	—	GM

代号 Symbol	刀片厚度 Thickness(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	12.7

厚度指刀片底面与切削刃最高部分之间的高度
The Height Between Insert Bottom And Nose

修光刃代号 Wiper Code

A	P	M	T	11	35	PD	E	R	—	GM



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

切削刃倒棱代号 Cutting Edge Chamfering

A	P	M	T	11	35	PD	E	R	—	GM

F							K
E		0	5°	0	0.1		P
		1	10°	1	0.15		
T		2	15°	2	0.2		W
		3	20°	3	0.25		
		4	25°	4	0.3		
S		5	30°	5	0.35		不标
				6	0.4		
				7	0.45		

切削方向代号 Cutting Direction

A	P	M	T	11	35	PD	E	R	—	GM

R	右 Right
L	左 Left
N	双向 Neutral

断屑槽型代号 Chip Breaker Code

A	P	M	T	11	35	PD	E	R	—	GM

GM	KM	SM
GH	K	GL

铣削刀片牌号介绍

Milling Insert Grade Informations

FONHAE 方瀚

产品牌号 Grade	ISO	涂层类型 Types of Coating	涂层组成 Coating Composition	特点及应用 Features And Applications
FT1311	P15~P35	CVD 黄色 Yellow	MT-TiCN+Al_2O_3+TiN	1.采用高强度和高韧性的硬质合金基体，结合薄的氧化铝CVD涂层，具有优异耐磨性和抗冲击性能。 2.适用于钢件材料的半精铣削加工。 1. Using high strength and toughness cemented carbide substrate, combined with thin Al_2O_3 CVD coating, it has excellent performance of wear resistance and impact resistance. 2. It is suitable for semi-finish proceesing of steel milling.
FT2252	P15~P35 M10~M30	CVD 黑色 Black	MT-TiCN+Al_2O_3	1.采用中钴成分的高韧性梯度合金基体，搭配细晶柱状TiCN和超细的薄的Al_2O_3涂层，具有优异的抗崩缺能力和高温强度。 2.适用于合金钢、碳素钢、不锈钢材料的半精铣和粗铣加工。 1. Using high toughness gradient cemented carbide substrate with medium Cobalt content, matched with fine crystalline columnar TiCN and ultra-fine Al2O3 coating, it has excellent performance of chipping resistance and high temperature resistance. 2. It is suitable for semi-finishing and roughing processing of alloy steel, carbon steel and stainless steel milling.
FT2302	P25~P40 M20~M35	CVD 黑色 Black	MT-TiCN+Al_2O_3	1.高韧性的硬质合金基体与TiCN、薄Al2O3涂层的结合，最大强度保证刃口强度和抗冲击性能。 2.适用于钢件、不锈钢材料的粗铣加工。 1. The combination of high toughness carbide substrate with TiCN and thin Al_2O_3 coating highly ensures the edge strength and performance of impact resistance. 2. It is suitable for roughing processing of steel and stainless steel milling.
FT3262	K15~K35	CVD 黑色 Black	MT-TiCN+Al_2O_3	1.中等晶粒的强韧性基体，结合MT-TiCN和厚的Al2O3涂层工艺，具备良好的刃口强度和优异的耐磨性能。 2.适用于铸铁的粗铣及半精铣削加工。 1. Using strong toughness substrate of medium crystal grain, combined with MT-TiCN and thick Al2O3 coating process, it has excellent edge strength and performance of wear resistance. 2. It is suitable for roughing and semi-finishing processing of cast iron milling.
FT8206	P10~P25 M05~M25 S05~S25	PVD 灰黑色 Gray-black	TiAlN	1. 采用亚微晶粒的中钴基体，结合纳米结晶TiAlN涂层，具有良好的强韧性和通用性能。 2. 适用于合金钢、不锈钢、高温合金等材料的半精、精铣加工。 1. Using sub-micro crystalline substrate with medium Cobalt content, combined with nano-crystalline TiAlN coating, it has good strong toughness and general processing performance. 2. It is suitable for semi-finishing and finishing processing of alloy steel, stainless steel, high temperature alloy and other materials milling.
FT8296	P15~P30 M15~M30 S15~S30	PVD 灰黑色 Gray-black	TiAlN	1. 较高耐磨性的细晶粒中钴基体，搭配通用性好的TiAlN涂层，具有良好的膜基结合力、耐磨性和抗氧化性能。 2. 适用于合金钢、不锈钢、高温合金等材料的半精铣削加工，为钢件、不锈钢铣削首选牌号。 1.The fine-grain medium cobalt substrat with high wear resistance is match with high universality of TiAlN coating, it has good film-based adhesion, wear resistance and oxidation resistance. 2. It is suitable for semi-finishing milling of alloy steel, stainless steel, superalloy and other materials, and is the preferred brand for steel and stainless steel milling.
FT8298	P10~P30 M10~M30 S10~S25	PVD 紫红色 Purple	TiAlN	1. 采用中钴含量的高耐磨性细晶硬质合金基体，搭配超细TiAlN纳米涂层，具有高的涂层硬度、优良的耐高温性能，为切削刃提供有效保护。 2. 适用于合金钢、不锈钢、高温合金等材料的半精铣削加工。 1. Using the fine-grain medium cobalt cemented carbide substrat, combined with high wear resistance ultrafine TiAlN nanometer coating, providing effective protection for cutting edge. it has good film-based adhesion, wear resistance and oxidation resistance. 2. It is applicable to semi-finishing milling of alloy steel, stainless steel, superalloy and other materials.
FT8326	P20~P35 M20~M35	PVD 灰黑色 Gray-black	TiAlN	1. 在韧性和耐磨性较高的硬质合金基体上，沉积纳米TiAlN涂层，具有优异的抗崩刃性，加工稳定性好，可获得了较好的刀具寿命。 2. 适用于钢件、不锈钢的半精、粗铣加工，亦可用于不稳定工况下的铣削加工。 1. Both high toughness and wear resistance of cemented carbide substrat is match with the deposition of nano-TiAlN coating, it has excellent edge collapse resistance, good processing stability and good tool life. 2. It is suitable for semi-finishing and rough milling of steel and stainless steel, and also for milling under unstable working conditions.

铣削刀片牌号介绍

Milling Insert Grade Informations

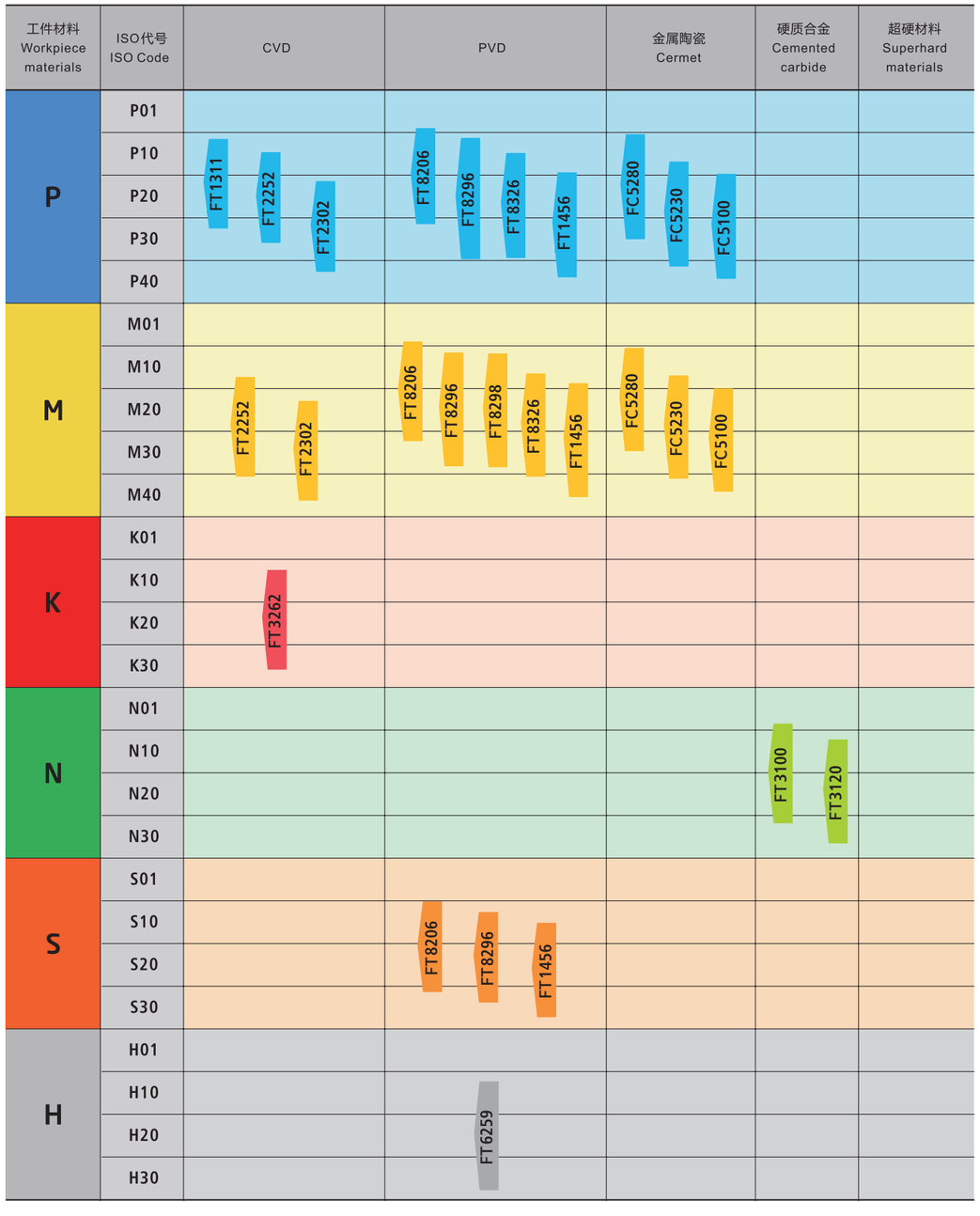
FONHAE 方瀚

产品牌号 Grade	ISO	涂层类型 Types of Coating	涂层组成 Coating Composition	特点及应用 Features And Applications
FT1456	P25~P40 M25~M40 S10~S25	PVD 灰黑色 Gray-black	TiAlN	1.采用高韧性的硬质合金基体，结合纳米结构TiAlN涂层，具有优异的抗崩刃性和热稳定性能。 2.适用于钢和不锈钢的半精、粗铣加工，以及耐热合金的低速、半精铣削加工。 1. The high toughness cemented carbide substrat is match with nanometer TiAlN coating, it has excellent edge collapse resistance and thermal stability. 2. It is applicable to semi-finishing and rough milling of steel and stainless steel, and low-speed and semi-finish milling of heat-resistant alloy.
FT6259	P20~P35 M20~M35	PVD 七彩色 Multiple-Color	AlTiCrSiN	1.采用低钴含量的细晶粒硬质合金基体，结合优异性能的纳米结构PVD涂层，具有优异的耐磨性和耐高温性能。 2. 适用于淬硬钢的半精和精铣削加工。 1. Using the fine-grained cemented carbide substrat with low cobalt content, combined with high excellent performance of PVD nano-coating, it has excellent wear resistance and high temperature resistance. 2.It is suitable for semi-finish and finish milling of hardened steel.
FC5100	P15~P30 M15~M30 K15~K30	无涂层 Uncoated	\	1.TiCN基金属陶瓷牌号，具有较高的韧性、热导率和抗热震性能。 2.适用于钢件、不锈钢、铸铁材料的精铣、半精铣削加工。 1. TiCN-based cermet grade, with high toughness, thermal conductivity and thermal shock resistance. 2. It is suitable for finishing milling and semi-finishing milling of steel, stainless steel and cast iron materials.
FC5280	P10~P25 M15~M25 K10~K25	无涂层 Uncoated	\	1.TiCN基金属陶瓷牌号，细小弥散的硬质相颗粒、粘结相强化和环形相结构控制三者结合，使之表现出优异的耐磨性、红硬性和抗月牙洼磨损性能。 2.适用于钢件、不锈钢、铸铁等材料的精、半精加工。 1.TiCN-based cermet grade, fine dispersion hard phase particles, bonded phase reinforcement and annular phase structure control are combined to show excellent wear resistance, red hardness and crescent hole wear resistance. 2.It is suitable for finishing and semi-finishing of steel, stainless steel, cast iron etc.
FC5230	P10~P25 M10~M25 K10~K25	无涂层 Uncoated	\	1.TiCN基金属陶瓷牌号，具有均匀、晶粒细化组织，环形相结构，提高了材料的强度和耐磨性。 2.适用于钢件、不锈钢、铸铁材料的精铣、半精铣削加工。 1. TiCN-based cermet grade, with uniform, grain refinement structure, annular phase structure, improve the strength and wear resistance of the material. 2. It is suitable for finishing milling and semi-finishing milling of steel, stainless steel and cast iron materials.
FT3100	N05~N20	无涂层 Uncoated	\	1. 低钴的亚微晶粒硬质合金材质，结合特殊的后处理工艺，具有优异的耐磨性和抗黏结性。 2. 适用于有色金属的精铣加工。 1.Low Co submicro grain cemented carbide grade, combined with a special post-treatment process, it has excellent wear resistance and adhesion resistance. 2.It is suitable for finishing milling processing of non-ferrous metals.
FT3120	N10-N30	无涂层 Uncoated	\	1. 低钴含量的细晶粒硬质合金材质，结合特殊的后处理工艺，具有优异的耐磨性和抗黏结性。 2. 适用于有色金属的精铣、半精铣削加工。 1. The fine grain carbide grade with low cobalt content, combined with a special post-treatment process, it has excellent wear resistance and adhesion resistance. 2.It is suitable for finishing milling and semi-finishing milling processing of non-ferrous metals.

铣削产品牌号一览表

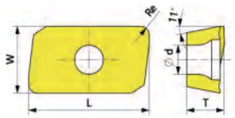
Milling Inserts Recommend Grade Table

FONHAE 方瀚



Square Shoulder Milling Inserts

APKT 方肩铣削刀片



√良好工况Good working conditions ○ 一般工况 General working conditions ×不稳定工况 Unstable working conditions

工件材料 Workpiece Material																		
P	钢							○		○				×	×			
M	不锈钢	○	×	√	√	√	√	○	○	○	×	×	×	×	×			
K	铸铁													×	×			
N	有色金属																	
S	耐热合金、钛合金													×	×			
H	淬硬钢																	

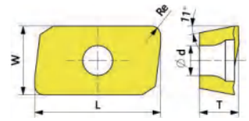
产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层		PVD涂层									金陶 Cermet
		L	W	T	Φd	Re	FT3262	FT2252	FT8204	FT8205	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	APKT1003PDER-GL	11.6	6.76	3.5	2.8	0.8	▲			●	▲						●	▲		
	APKT1003PDER-GM	11.6	6.76	3.5	2.8	0.8	▲			●	▲						●	▲		
	APKT1003PDER-GH	11.6	6.76	3.5	2.8	0.8	▲			●	▲						●	▲		
	APKT100304PDER-GM	11.6	6.76	3.5	2.8	0.4	▲			●	▲						●	▲		
	APKT1003012PDER-GM	11.6	6.76	3.5	2.8	1.2	▲			●	▲						●	▲		
	APKT100316PDER-GM	11.6	6.76	3.5	2.8	1.6	▲			●	▲						●	▲		
	APKT100325PDER-GM	11.6	6.76	3.5	2.8	2.5	▲			●	▲						●	▲		
	APKT100330PDER-GM	11.6	6.76	3.5	2.8	3	▲			●	▲						●	▲		

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

被加工材料		硬度HB	刀片牌号	切削用量				
				V(m/min)	f(mm/z)			ae
					GL	GM	GH	
P	低碳钢、软钢	≤180	FT8206	320(240-400)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8295	320(200-400)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
			FT8296	300(320-350)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
	高碳钢、合金钢	180-280	FT8206	280(210-380)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8295	280(180-350)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
			FT8296	260(150-380)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
	合金工具钢	280-350	FT8206	260(150-350)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8295	260(160-330)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
			FT8296	220(150-280)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
M	不锈钢	≤270	FT8206	200(110-300)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8296	180(150-300)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
K	铸铁	180-250	FT3262	180(150-250)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8296	200(150-250)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
S	难加工材料	≤400	FT8296	100(60-120)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
				100(60-120)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	

Square Shoulder Milling Inserts

APMT 方肩铣削刀片



√良好工况Good working conditions ○ 一般工况 General working conditions ×不稳定工况 Unstable working conditions

工件材料 Workpiece Material																		
P	钢							○		○				×	×			
M	不锈钢	○	×	√	√	√	√	○	○	○	×	×	×	×	×			
K	铸铁													×	×			
N	有色金属																	
S	耐热合金、钛合金													×	×			
H	淬硬钢																	

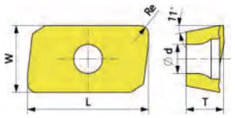
产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层		PVD涂层									金陶 Cermet
		L	W	T	Φd	Re	FT3262	FT2252	FT8204	FT8205	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	APMT113504PDER-GL	11.25	6.2	3.5	2.8	0.4	▲			●	▲						●	▲		
	APMT113508PDER-GL	11.25	6.2	3.5	2.8	0.8	▲			●	▲						●	▲		
	APMT113512PDER-GL	11.25	6.2	3.5	2.8	1.2	▲			●	▲						●	▲		
	APMT113516PDER-GL	11.25	6.2	3.5	2.8	1.6	▲			●	▲						●	▲		
	APMT113504PDER-GM	11.25	6.2	3.5	2.8	0.4	▲			●	▲						●	▲		
	APMT113508PDER-GM	11.25	6.2	3.5	2.8	0.8	▲			●	▲						●	▲		
	APMT113512PDER-GM	11.25	6.2	3.5	2.8	1.2	▲			●	▲						●	▲		
	APMT113516PDER-GM	11.25	6.2	3.5	2.8	1.6	▲			●	▲						●	▲		
	APMT113504PDER-GH	11.25	6.2	3.5	2.8	0.4	▲			●	▲						●	▲		
	APMT113508PDER-GH	11.25	6.2	3.5	2.8	0.8	▲			●	▲						●	▲		
	APMT113512PDER-GH	11.25	6.2	3.5	2.8	1.2	▲			●	▲						●	▲		
	APMT113516PDER-GH	11.25	6.2	3.5	2.8	1.6	▲			●	▲						●	▲		

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

被加工材料		硬度HB	刀片牌号	切削用量				
				V(m/min)	f(mm/z)			ae
					GL	GM	GH	
P	低碳钢、软钢	≤180	FT8206	320(240-400)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8295	320(200-400)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
			FT8296	300(320-350)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
	高碳钢、合金钢	180-280	FT8206	280(210-380)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8295	280(180-350)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
			FT8296	260(150-380)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
	合金工具钢	280-350	FT8206	260(150-350)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8295	260(160-330)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
			FT8296	220(150-280)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
M	不锈钢	≤270	FT8206	200(110-300)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8296	180(150-300)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
K	铸铁	180-250	FT3262	180(150-250)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8296	200(150-250)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
S	难加工材料	≤400	FT8296	100(60-120)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
				100(60-120)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	

Square Shoulder Milling Inserts

APMT 方肩铣削刀片



√良好工况Good working conditions ○ 一般工况 General working conditions ×不稳定工况 Unstable working conditions

工件材料 Workpiece Material																		
P	钢							○		○				×	×			
M	不锈钢	○	×	√	√	√	√	○	○	○	×	×	×	×				
K	铸铁													×	×			
N	有色金属																	
S	耐热合金、钛合金													×	×			
H	淬硬钢																	

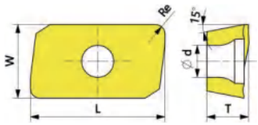
产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层		PVD涂层									金陶 Cermet
		L	W	T	Φd	Re	FT3262	FT2252	FT8204	FT8205	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	APMT160404PDER-GL	17.8	9.3	4.76	4.4	0.4	▲			●	▲						●	▲		
	APMT160408PDER-GL	17.8	9.3	4.76	4.4	0.8	▲			●	▲						●	▲		
	APMT160412PDER-GL	17.8	9.3	4.76	4.4	1.2	▲			●	▲						●	▲		
	APMT160416PDER-GL	17.8	9.3	4.76	4.4	1.6	▲			●	▲						●	▲		
	APMT160404PDER-GM	17.8	9.3	4.76	4.4	0.4	▲			●	▲						●	▲		
	APMT160408PDER-GM	17.8	9.3	4.76	4.4	0.8	▲			●	▲						●	▲		
	APMT160412PDER-GM	17.8	9.3	4.76	4.4	1.2	▲			●	▲						●	▲		
	APMT160416PDER-GM	17.8	9.3	4.76	4.4	1.6	▲			●	▲						●	▲		
	APMT160404PDER-GH	17.8	9.3	4.76	4.4	0.4	▲			●	▲						●	▲		
	APMT160408PDER-GH	17.8	9.3	4.76	4.4	0.8	▲			●	▲						●	▲		
	APMT160412PDER-GH	17.8	9.3	4.76	4.4	1.2	▲			●	▲						●	▲		
	APMT160416PDER-GH	17.8	9.3	4.76	4.4	1.6	▲			●	▲						●	▲		

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

被加工材料		硬度HB	刀片牌号	切削用量				
				V(m/min)	f(mm/z)			ae
					GL	GM	GH	
P	低碳钢、软钢	≤180	FT8206	320(240-400)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8295	320(200-400)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
			FT8296	300(320-350)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
	高碳钢、合金钢	180-280	FT8206	280(210-380)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8295	280(180-350)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
			FT8296	260(150-380)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
	合金工具钢	280-350	FT8206	260(150-350)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8295	260(160-330)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
			FT8296	220(150-280)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
M	不锈钢	≤270	FT8206	200(110-300)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8296	180(150-300)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
K	铸铁	180-250	FT3262	180(150-250)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8296	200(150-250)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
S	难加工材料	≤400	FT8296	100(60-120)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
				100(60-120)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	

Square Shoulder Milling Inserts

ADMT 方肩铣削刀片



√良好工况Good working conditions ○ 一般工况 General working conditions ×不稳定工况 Unstable working conditions

工件材料 Workpiece Material																		
P	钢							○		○				×	×			
M	不锈钢	○	×	√	√	√	√	○	○	○	×	×	×	×				
K	铸铁													×	×			
N	有色金属																	
S	耐热合金、钛合金													×	×			
H	淬硬钢																	

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)				CVD涂层		PVD涂层									金陶 Cermet
		L	T	Φd	Re	FT3262	FT2252	FT8204	FT8205	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	ADMT080302R-GL	9.52	3.35	2.8	0.2	▲			●	▲						●	▲		
	ADMT080304R-GL	9.52	3.35	2.8	0.4	▲			●	▲						●	▲		
	ADMT080308R-GL	9.52	3.35	2.8	0.8	▲			●	▲						●	▲		
	ADMT080312R-GL	9.52	3.35	2.8	1.2	▲			●	▲						●	▲		
	ADMT080316R-GL	9.52	3.35	2.8	1.6	▲			●	▲						●	▲		
	ADMT080320R-GL	9.52	3.35	2.8	2	▲			●	▲						●	▲		
	ADMT10T304R-GL	11.3	3.8	2.8	0.4	▲			●	▲						●	▲		
	ADMT10T308R-GL	11.3	3.8	2.8	0.8	▲			●	▲						●	▲		
	ADMT10T312R-GL	11.3	3.8	2.8	1.2	▲			●	▲						●	▲		
	ADMT080304R-GM	9.52	3.35	2.8	0.4	▲			●	▲						●	▲		
	ADMT10T308R-GM	11.3	3.8	2.8	0.8	▲			●	▲						●	▲		
	ADMT080304R-GH	9.52	3.35	2.8	0.4	▲			●	▲						●	▲		

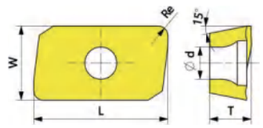
▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

被加工材料		硬度HB	刀片牌号	切削用量				
				V(m/min)	f(mm/z)			ae
					GL	GM	GH	
P	低碳钢、软钢	≤180	FT8206	320(240-400)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8295	320(200-400)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
			FT8296	300(320-350)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
	高碳钢、合金钢	180-280	FT8206	280(210-380)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8295	280(180-350)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
			FT8296	260(150-380)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
	合金工具钢	280-350	FT8206	260(150-350)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8295	260(160-330)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
			FT8296	220(150-280)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
M	不锈钢	≤270	FT8206	200(110-300)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8296	180(150-300)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
K	铸铁	180-250	FT3262	180(150-250)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8296	200(150-250)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
S	难加工材料	≤400	FT8296	100(60-120)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
				100(60-120)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	

Square Shoulder Milling Inserts

ADMT

方肩铣削刀片



√良好工况Good working conditions ○ 一般工况 General working conditions ×不稳定工况 Unstable working conditions

工件材料 Workpiece Material																	
P	钢							○		○				×	×		
M	不锈钢	○	×	√	√	√	√	○	○	○	×	×		×	×		
K	铸铁													×	×		
N	有色金属																
S	耐热合金、钛合金													×	×		
H	淬硬钢																

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)				CVD涂层		PVD涂层										金陶 Cermet
		L	T	Φd	Re	FT3262	FT2252	FT8204	FT8205	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	ADMT120408R-GL	13.6	4.76	2.8	0.8	▲			●	▲						●	▲		
	ADMT120412R-GL	13.6	4.76	2.8	1.2	▲			●	▲						●	▲		
	ADMT120416R-GL	13.6	4.76	2.8	1.6	▲			●	▲						●	▲		
	ADMT120420R-GL	13.6	4.76	2.8	2	▲			●	▲						●	▲		
	ADMT120425R-GL	13.6	4.76	2.8	2.5	▲			●	▲						●	▲		
	ADMT120430R-GL	13.6	4.76	2.8	3	▲			●	▲						●	▲		
	ADMT120432R-GL	13.6	4.76	2.8	3.2	▲			●	▲						●	▲		
	ADMT120440R-GL	13.6	4.76	2.8	4	▲			●	▲						●	▲		
	ADMT120408R-GM	13.6	4.76	2.8	0.8	▲			●	▲						●	▲		
	ADMT120408R-GH	13.6	4.76	2.8	0.8	▲			●	▲						●	▲		

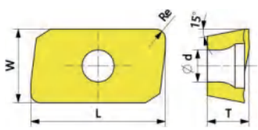
▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

被加工材料		硬度HB	刀片牌号	切削用量				
				V(m/min)	f(mm/z)			ae
					GL	GM	GH	
P	低碳钢、软钢	≤180	FT8206	320(240-400)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8295	320(200-400)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
			FT8296	300(320-350)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
	高碳钢、合金钢	180-280	FT8206	280(210-380)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8295	280(180-350)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
			FT8296	260(150-380)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
	合金工具钢	280-350	FT8206	260(150-350)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8295	260(160-330)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
			FT8296	220(150-280)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
M	不锈钢	≤270	FT8206	200(110-300)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8296	180(150-300)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
K	铸铁	180-250	FT3262	180(150-250)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8296	200(150-250)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
S	难加工材料	≤400	FT8296	100(60-120)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
				100(60-120)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	

Square Shoulder Milling Inserts

ADMT

方肩铣削刀片



√良好工况Good working conditions ○ 一般工况 General working conditions ×不稳定工况 Unstable working conditions

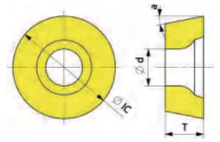
工件材料 Workpiece Material																	
P	钢							○		○				×	×		
M	不锈钢	○	×	√	√	√	√	○	○	○	×	×	×	×			
K	铸铁													×	×		
N	有色金属																
S	耐热合金、钛合金													×	×		
H	淬硬钢																

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)				CVD涂层		PVD涂层										金陶 Cermet
		L	T	Φd	Re	FT3262	FT2252	FT8204	FT8205	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	ADMT160608R-GL	17.5	6.15	4.4	0.8	▲			●	▲						●	▲		
	ADMT160612R-GL	17.5	6.15	4.4	1.2	▲			●	▲						●	▲		
	ADMT160616R-GL	17.5	6.15	4.4	1.6	▲			●	▲						●	▲		
	ADMT160620R-GL	17.5	6.15	4.4	2	▲			●	▲						●	▲		
	ADMT160625R-GL	17.5	6.15	4.4	2.5	▲			●	▲						●	▲		
	ADMT160630R-GL	17.5	6.15	4.4	3	▲			●	▲						●	▲		
	ADMT160632R-GL	17.5	6.15	4.4	3.2	▲			●	▲						●	▲		
	ADMT160640R-GL	17.5	6.15	4.4	4	▲			●	▲						●	▲		
	ADMT160650R-GL	17.5	6.15	4.4	5	▲			●	▲						●	▲		
	ADMT160660R-GL	17.5	6.15	4.4	6	▲			●	▲						●	▲		
	ADMT180712R-GL	19	7.04	4.4	1.2	▲			●	▲						●	▲		
	ADMT160608R-GM	17.5	6.15	4.4	0.8	▲			●	▲						●	▲		
	ADMT180712R-GH	19	7.04	4.4	1.2	▲			●	▲						●	▲		

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

被加工材料		硬度HB	刀片牌号	切削用量				
				V(m/min)	f(mm/z)			ae
					GL	GM	GH	
P	低碳钢、软钢	≤180	FT8206	320(240-400)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8295	320(200-400)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
			FT8296	300(320-350)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
	高碳钢、合金钢	180-280	FT8206	280(210-380)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8295	280(180-350)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
			FT8296	260(150-380)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
	合金工具钢	280-350	FT8206	260(150-350)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8295	260(160-330)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
			FT8296	220(150-280)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
M	不锈钢	≤270	FT8206	200(110-300)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8296	180(150-300)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
K	铸铁	180-250	FT3262	180(150-250)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
			FT8296	200(150-250)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	
S	难加工材料	≤400	FT8296	100(60-120)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	≤0.5D
				100(60-120)	0.1(0.08-0.15)	0.2(0.1-0.25)	0.25(0.12-0.3)	

Face Milling Inserts
RPMW/RDKW
平面铣削刀片



√良好工况Good working conditions ○ 一般工况 General working conditions ×不稳定工况 Unstable working conditions

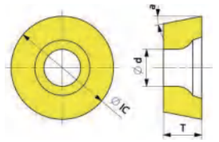
工件材料 Workpiece Material																	
P	钢							○		○			×	×			
M	不锈钢	○	×	√	√	√	√	○	○	○	×	×	×	×			
K	铸铁												×	×			
N	有色金属																
S	耐热合金、钛合金												×	×			
H	淬硬钢																

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)				CVD涂层		PVD涂层										金陶 Cermet
		ØI.C	T	Φd	a	FT3262	FT2252	FT8204	FT8205	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	RPMW08T2MOT	8	2.58	3.35	11°	▲			●	▲						●	▲		
	RPMW10T3MOT	10	3.97	4.4	11°	▲			●	▲						●	▲		
	RPMW1204MOT	12	4.76	4.4	11°	▲			●	▲						●	▲		
	RPMW1606MOT	16	6.35	5.5	11°	▲			●	▲						●	▲		
	RPMW10T3MOE	10	3.97	4.4	11°	▲			●	▲						●	▲		
	RPMW1204MOE	12	4.76	4.4	11°	▲			●	▲						●	▲		
	RPMW1606MOE	16	6.35	5.5	11°	▲			●	▲						●	▲		
	RDKW0702MOE	7	2.38	3.35	15°	▲			●	▲						●	▲		
	RDKW0803MOE	8	3.18	3.35	15°	▲			●	▲						●	▲		
	RDKW10T3MOE	10	3.97	4.4	15°	▲			●	▲						●	▲		

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

被加工材料		硬度HB	刀片牌号	切削用量			
				V(m/min)	f(mm/z)		
					RPMW	RDMT	RDKT
P	低碳钢、软钢	≤180	FT8206	270(220-350)	0.2(0.1-0.5)	0.3(0.2-0.8)	0.2(0.1-0.5)
			FT8295	220(180-350)	0.25(0.1-0.5)		
			FT8296	270(200-360)	0.2(0.1-0.5)		
	高碳钢、台金钢	180-280	FT8206	240(200-320)	0.2(0.1-0.5)	0.3(0.2-0.8)	0.2(0.1-0.5)
			FT8295	200(160-280)	0.25(0.1-0.5)		
			FT8296	240(180-350)	0.2(0.1-0.5)		
	合金工具钢	280-350	FT8206	220(180-300)	0.2(0.1-0.4)	0.3(0.2-0.6)	0.2(0.1-0.4)
			FT8295	180(150-250)	0.2(0.1-0.5)		
			FT8296	220(170-340)	0.2(0.1-0.4)		
M	不锈钢	≤270	FT8206	150(120-240)	0.2(0.1-0.4)	0.3(0.2-0.6)	0.2(0.1-0.4)
			FT8296	150(100-220)	0.2(0.1-0.4)		
K	铸铁	180-250	FT3262	210(120-300)	0.2(0.1-0.5)	0.3(0.2-0.8)	0.2(0.1-0.5)
			FT8296	240(180-300)	0.2(0.1-0.3)		

Face Milling Inserts
RDKW
平面铣削刀片



√良好工况Good working conditions ○ 一般工况 General working conditions ×不稳定工况 Unstable working conditions

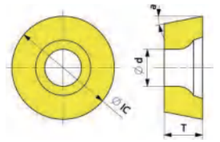
工件材料 Workpiece Material																	
P	钢							○		○			×	×			
M	不锈钢	○	×	√	√	√	√	○	○	○	×	×	×	×			
K	铸铁												×	×			
N	有色金属																
S	耐热合金、钛合金												×	×			
H	淬硬钢																

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)				CVD涂层		PVD涂层										金陶 Cermet
		ØI.C	T	Φd	a	FT3262	FT2252	FT8204	FT8205	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	RDKW1204MOE	12	4.76	4.4	15°	▲			●	▲						●	▲		
	RDKW1605MOE	16	5.56	5.5	15°	▲			●	▲						●	▲		
	RDKW2006MOE	20	6.35	5.5	15°	▲			●	▲						●	▲		
	RDKW0702MOT	7	2.38	3.35	15°	▲			●	▲						●	▲		
	RDKW0803MOT	8	3.18	3.35	15°	▲			●	▲						●	▲		
	RDKW10T3MOT	10	3.97	4.4	15°	▲			●	▲						●	▲		
	RDKW1204MOT	12	4.76	4.4	15°	▲			●	▲						●	▲		
	RDKW1605MOT	16	5.56	5.5	15°	▲			●	▲						●	▲		
	RDKW2006MOT	20	6.35	5.5	15°	▲			●	▲						●	▲		

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

被加工材料		硬度HB	刀片牌号	切削用量			
				V(m/min)	f(mm/z)		
					RPMW	RDMT	RDKT
P	低碳钢、软钢	≤180	FT8206	270(220-350)	0.2(0.1-0.5)	0.3(0.2-0.8)	0.2(0.1-0.5)
			FT8295	220(180-350)	0.25(0.1-0.5)		
			FT8296	270(200-360)	0.2(0.1-0.5)		
	高碳钢、台金钢	180-280	FT8206	240(200-320)	0.2(0.1-0.5)	0.3(0.2-0.8)	0.2(0.1-0.5)
			FT8295	200(160-280)	0.25(0.1-0.5)		
			FT8296	240(180-350)	0.2(0.1-0.5)		
	合金工具钢	280-350	FT8206	220(180-300)	0.2(0.1-0.4)	0.3(0.2-0.6)	0.2(0.1-0.4)
			FT8295	180(150-250)	0.2(0.1-0.5)		
			FT8296	220(170-340)	0.2(0.1-0.4)		
M	不锈钢	≤270	FT8206	150(120-240)	0.2(0.1-0.4)	0.3(0.2-0.6)	0.2(0.1-0.4)
			FT8296	150(100-220)	0.2(0.1-0.4)		
K	铸铁	180-250	FT3262	210(120-300)	0.2(0.1-0.5)	0.3(0.2-0.8)	0.2(0.1-0.5)
			FT8296	240(180-300)	0.2(0.1-0.3)		

Face Milling Inserts
RPMT
平面铣削刀片



√良好工况Good working conditions ○ 一般工况 General working conditions ×不稳定工况 Unstable working conditions

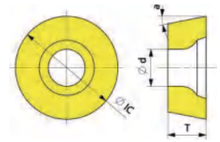
工件材料 Workpiece Material																		
P	钢							○		○			×	×				
M	不锈钢	○	×	√	√	√	√	○	○	○	×	×	×	×				
K	铸铁												×	×				
N	有色金属																	
S	耐热合金、钛合金												×	×				
H	淬硬钢																	

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)				CVD涂层		PVD涂层										金陶 Cermet
		ØI.C	T	Φd	a	FT3262	FT2252	FT8204	FT8205	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	RPMT0803MO-GL	8	3.18	3.35	11°	▲			●	▲						●	▲		
	RPMT10T3MO-GL	10	3.97	4.4	11°	▲			●	▲						●	▲		
	RPMT1204MO-GL	12	4.76	4.4	11°	▲			●	▲						●	▲		
	RPMT1604MO-GL	16	4.76	5.5	11°	▲			●	▲						●	▲		
	RPMT0803MO-GM	8	3.18	3.35	11°	▲			●	▲						●	▲		
	RPMT10T3MO-GM	10	3.97	4.4	11°	▲			●	▲						●	▲		
	RPMT1204MO-GM	12	4.76	4.4	11°	▲			●	▲						●	▲		
	RPMT1604MO-GM	16	4.76	5.5	11°	▲			●	▲						●	▲		

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

被加工材料		硬度HB	刀片牌号	切削用量			
				V(m/min)	f(mm/z)		
					RPMW	RDMT	RDKT
P	低碳钢、软钢	≤180	FT8206	270(220-350)	0.2(0.1-0.5)	0.3(0.2-0.8)	0.2(0.1-0.5)
			FT8295	220(180-350)	0.25(0.1-0.5)		
			FT8296	270(200-360)	0.2(0.1-0.5)		
	高碳钢、台金钢	180-280	FT8206	240(200-320)	0.2(0.1-0.5)	0.3(0.2-0.8)	0.2(0.1-0.5)
			FT8295	200(160-280)	0.25(0.1-0.5)		
			FT8296	240(180-350)	0.2(0.1-0.5)		
	合金工具钢	280-350	FT8206	220(180-300)	0.2(0.1-0.4)	0.3(0.2-0.6)	0.2(0.1-0.4)
			FT8295	180(150-250)	0.2(0.1-0.5)		
			FT8296	220(170-340)	0.2(0.1-0.4)		
M	不锈钢	≤270	FT8206	150(120-240)	0.2(0.1-0.4)	0.3(0.2-0.6)	0.2(0.1-0.4)
			FT8296	150(100-220)	0.2(0.1-0.4)		
K	铸铁	180-250	FT3262	210(120-300)	0.2(0.1-0.5)	0.3(0.2-0.8)	0.2(0.1-0.5)
			FT8296	240(180-300)	0.2(0.1-0.3)		

Face Milling Inserts
RPMT
平面铣削刀片



√良好工况Good working conditions ○ 一般工况 General working conditions ×不稳定工况 Unstable working conditions

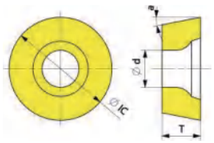
工件材料 Workpiece Material																		
P	钢							○		○			×	×				
M	不锈钢	○	×	√	√	√	√	○	○	○	×	×	×	×				
K	铸铁												×	×				
N	有色金属																	
S	耐热合金、钛合金												×	×				
H	淬硬钢																	

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)				CVD涂层		PVD涂层										金陶 Cermet
		ØI.C	T	Φd	a	FT3262	FT2252	FT8204	FT8205	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	RPMT0803MO-GH	8	3.18	3.35	11°	▲			●	▲						●	▲		
	RPMT10T3MO-GH	10	3.97	4.4	11°	▲			●	▲						●	▲		
	RPMT1204MO-GH	12	4.76	4.4	11°	▲			●	▲						●	▲		
	RPMT1604MO-GH	16	4.76	5.5	11°	▲			●	▲						●	▲		
	RPMW1003MO-K	10	3.18	4.4	11°	▲			●	▲						●	▲		
	RPMW1204MO-K	12	4.76	4.4	11°	▲			●	▲						●	▲		
	RPMW10T3MO-K	10	3.97	4.4	11°	▲			●	▲						●	▲		
	RPMW1204MO-K	12	4.76	4.4	11°	▲			●	▲						●	▲		

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

被加工材料		硬度HB	刀片牌号	切削用量			
				V(m/min)	f(mm/z)		
					RPMW	RDMT	RDKT
P	低碳钢、软钢	≤180	FT8206	270(220-350)	0.2(0.1-0.5)	0.3(0.2-0.8)	0.2(0.1-0.5)
			FT8295	220(180-350)	0.25(0.1-0.5)		
			FT8296	270(200-360)	0.2(0.1-0.5)		
	高碳钢、台金钢	180-280	FT8206	240(200-320)	0.2(0.1-0.5)	0.3(0.2-0.8)	0.2(0.1-0.5)
			FT8295	200(160-280)	0.25(0.1-0.5)		
			FT8296	240(180-350)	0.2(0.1-0.5)		
	合金工具钢	280-350	FT8206	220(180-300)	0.2(0.1-0.4)	0.3(0.2-0.6)	0.2(0.1-0.4)
			FT8295	180(150-250)	0.2(0.1-0.5)		
			FT8296	220(170-340)	0.2(0.1-0.4)		
M	不锈钢	≤270	FT8206	150(120-240)	0.2(0.1-0.4)	0.3(0.2-0.6)	0.2(0.1-0.4)
			FT8296	150(100-220)	0.2(0.1-0.4)		
K	铸铁	180-250	FT3262	210(120-300)	0.2(0.1-0.5)	0.3(0.2-0.8)	0.2(0.1-0.5)
			FT8296	240(180-300)	0.2(0.1-0.3)		

Face Milling Inserts
RDMT/RDKT
平面铣削刀片



√良好工况Good working conditions ○ 一般工况 General working conditions ×不稳定工况 Unstable working conditions

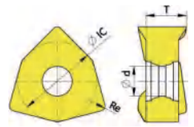
工件材料 Workpiece Material																	
P	钢							○		○			×	×			
M	不锈钢	○	×	√	√	√	√	○	○	○	×	×	×	×			
K	铸铁												×	×			
N	有色金属																
S	耐热合金、钛合金												×	×			
H	淬硬钢																

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)				CVD涂层		PVD涂层										金陶 Cermet
		ØI.C	T	Φd	a	FT3262	FT2252	FT8204	FT8205	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	RDMT0602MOTN	6	2.38	3.35	15°	▲			●	▲						●	▲		
	RDMT0803MOTN	6	3.18	3.35	15°	▲			●	▲						●	▲		
	RDMT1003MOTN	10	3.18	4.4	15°	▲			●	▲						●	▲		
	RDMT10T3MOTN	10	3.97	4.4	15°	▲			●	▲						●	▲		
	RDMT1204MOTN	12	4.76	4.4	15°	▲			●	▲						●	▲		
	RDMT1604MOTN	16	4.76	5.5	15°	▲			●	▲						●	▲		
	RDKT0803MO-K	8	3.18	3.35	15°	▲			●	▲						●	▲		
	RDKT10T3MO-K	10	3.97	4.4	15°	▲			●	▲						●	▲		
	RDKT1204MO-K	12	4.76	4.4	15°	▲			●	▲						●	▲		
	RDKT1605MO-K	16	5.56	5.5	15°	▲			●	▲						●	▲		
	RDKT2006MO-K	20	6.35	5.5	15°	▲			●	▲						●	▲		

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

被加工材料		硬度HB	刀片牌号	切削用量		
				V(m/min)	f(mm/z)	
					RPMW	RDMT	RDKT
P	低碳钢、软钢	≤180	FT8206	270(220-350)	0.2(0.1-0.5)	0.3(0.2-0.8)	0.2(0.1-0.5)
			FT8295	220(180-350)	0.25(0.1-0.5)		
			FT8296	270(200-360)	0.2(0.1-0.5)		
	高碳钢、台金钢	180-280	FT8206	240(200-320)	0.2(0.1-0.5)	0.3(0.2-0.8)	0.2(0.1-0.5)
			FT8295	200(160-280)	0.25(0.1-0.5)		
			FT8296	240(180-350)	0.2(0.1-0.5)		
	合金工具钢	280-350	FT8206	220(180-300)	0.2(0.1-0.4)	0.3(0.2-0.6)	0.2(0.1-0.4)
			FT8295	180(150-250)	0.2(0.1-0.5)		
			FT8296	220(170-340)	0.2(0.1-0.4)		
M	不锈钢	≤270	FT8206	150(120-240)	0.2(0.1-0.4)	0.3(0.2-0.6)	0.2(0.1-0.4)
			FT8296	150(100-220)	0.2(0.1-0.4)		
K	铸铁	180-250	FT3262	210(120-300)	0.2(0.1-0.5)	0.3(0.2-0.8)	0.2(0.1-0.5)
			FT8296	240(180-300)	0.2(0.1-0.3)		

Face Milling Inserts
WNMU
平面铣削刀片



√良好工况Good working conditions ○ 一般工况 General working conditions ×不稳定工况 Unstable working conditions

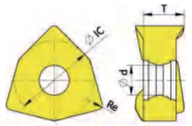
工件材料 Workpiece Material																	
P	钢							○		○			×	×			
M	不锈钢	○	×	√	√	√	√	○	○	○	×	×	×	×			
K	铸铁												×	×			
N	有色金属																
S	耐热合金、钛合金												×	×			
H	淬硬钢																

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)				CVD涂层		PVD涂层									
		ØI.C	T	Φd	Re	FT3262	FT2252	FT8204	FT8205	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298
	WNMU040304EN-GM	6.25	3.1	3.3	0.4	▲			●	▲						●	▲	
	WNMU050408EN-GM	8.8	4.2	3.4	0.8	▲			●	▲						●	▲	
	WNMU060408EN-GM	9.525	4	3.5	0.8	▲			●	▲						●	▲	
	WNMU080608EN-GM	14.02	6.65	6.2	0.8	▲			●	▲						●	▲	
	WNMU040304EN-GH	6.25	3.1	3.3	0.4	▲			●	▲						●	▲	
	WNMU050408EN-GH	8.8	4.2	3.4	0.8	▲			●	▲						●	▲	
	WNMU060408EN-GH	9.525	4	3.5	0.8	▲			●	▲						●	▲	
	WNMU080608EN-GH	14.02	6.65	6.2	0.8	▲			●	▲						●	▲	
	WNMU040304EN-SM	6.25	3.1	3.3	0.4	▲			●	▲						●	▲	
	WNMU050408EN-SM	8.8	4.2	3.4	0.8	▲			●	▲						●	▲	
	WNMU060408EN-SM	9.525	4	3.5	0.8	▲			●	▲						●	▲	
	WNMU080608EN-SM	14.02	6.65	6.2	0.8	▲			●	▲						●	▲	

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

被加工材料		硬度HB	刀片牌号	切削用量					
				V(m/min)	f(mm/z)				
					GL	GM	GH	SM	AK
P	低碳钢、软钢	≤180	FT8206	270(220-350)	0.15 (0.1-0.2)	0.2 (0.1-0.3)	0.3 (0.1-0.3)	0.2 (0.1-0.3)	0.2 (0.1-0.3)
			FT8295						
			FT8296						
	高碳钢、合金钢	180-280	FT8206	260(200-320)	0.15 (0.1-0.2)	0.2 (0.1-0.3)	0.3 (0.1-0.3)	0.2 (0.1-0.3)	0.2 (0.1-0.3)
			FT8295						
			FT8296						
	合金工具钢	280-350	FT8206	240(180-300)	0.15 (0.1-0.2)	0.2 (0.1-0.3)	0.3 (0.1-0.3)	0.2 (0.1-0.3)	0.2 (0.1-0.3)
			FT8295						
			FT8296						
M	不锈钢	≤270	FT8206	230(180-300)	0.15 (0.1-0.2)	0.2 (0.1-0.3)	0.3 (0.1-0.3)	0.2 (0.1-0.3)	0.2 (0.1-0.3)
			FT8296						
K	铸铁	180-250	FT3262	270(150-300)	0.15 (0.1-0.2)	0.2 (0.1-0.3)	0.3 (0.1-0.3)	0.2 (0.1-0.3)	0.2 (0.1-0.3)
			FT8296						

Face Milling Inserts
WNMU
平面铣削刀片



√良好工况Good working conditions ○ 一般工况 General working conditions ×不稳定工况 Unstable working conditions

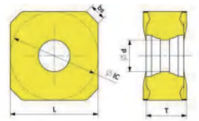
工件材料 Workpiece Material																		
P	钢							○		○					×	×		
M	不锈钢	○	×	√	√	√	√	○	○	○	×	×	×	×				
K	铸铁														×	×		
N	有色金属																	
S	耐热合金、钛合金														×	×		
H	淬硬钢																	

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)				CVD涂层		PVD涂层										
		ØI.C	T	Φd	Re	FT3262	FT2252	FT8204	FT8205	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298
	WNMU040304EN-GL	6.25	3.1	3.3	0.4	▲			●	▲						●	▲	
	WNMU050408EN-GL	8.8	4.2	3.4	0.8	▲			●	▲						●	▲	
	WNMU060408EN-GL	9.525	4	3.5	0.8	▲			●	▲						●	▲	
	WNMU080608EN-GL	14.02	6.65	6.2	0.8	▲			●	▲						●	▲	
	WNMU040304EN-AK	6.25	3.1	3.3	0.4	▲			●	▲						●	▲	
	WNMU050408EN-AK	8.8	4.2	3.4	0.8	▲			●	▲						●	▲	
	WNMU060408EN-AK	9.525	4	3.5	0.8	▲			●	▲						●	▲	
	WNMU080608EN-AK	14.02	6.65	6.2	0.8	▲			●	▲						●	▲	
	WNMU080508	14.02	5.56	6.2	0.8	▲			●	▲						●	▲	

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

被加工材料		硬度HB	刀片牌号	切削用量				
				V(m/min)	f(mm/z)			
					GL	GM	GH	SM	AK
P	低碳钢、软钢	≤180	FT8206	270(220-350)	0.15 (0.1-0.2)	0.2 (0.1-0.3)	0.3 (0.1-0.3)	0.2 (0.1-0.3)	0.2 (0.1-0.3)
			FT8295						
			FT8296						
	高碳钢、合金钢	180-280	FT8206	260(200-320)	0.15 (0.1-0.2)	0.2 (0.1-0.3)	0.3 (0.1-0.3)	0.2 (0.1-0.3)	0.2 (0.1-0.3)
			FT8295						
			FT8296						
	合金工具钢	280-350	FT8206	240(180-300)	0.15 (0.1-0.2)	0.2 (0.1-0.3)	0.3 (0.1-0.3)	0.2 (0.1-0.3)	0.2 (0.1-0.3)
			FT8295						
			FT8296						
M	不锈钢	≤270	FT8206	230(180-300)	0.15 (0.1-0.2)	0.2 (0.1-0.3)	0.3 (0.1-0.3)	0.2 (0.1-0.3)	0.2 (0.1-0.3)
			FT8296						
K	铸铁	180-250	FT3262	270(150-300)	0.15 (0.1-0.2)	0.2 (0.1-0.3)	0.3 (0.1-0.3)	0.2 (0.1-0.3)	0.2 (0.1-0.3)
			FT8296						

Face Milling Inserts
SNMX
平面铣削刀片



√良好工况Good working conditions ○ 一般工况 General working conditions ×不稳定工况 Unstable working conditions

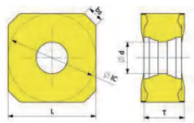
工件材料 Workpiece Material																		
P	钢							○		○			×	×				
M	不锈钢	○	×	√	√	√	√	○	○	○	×	×	×	×				
K	铸铁												×	×				
N	有色金属																	
S	耐热合金、钛合金												×	×				
H	淬硬钢																	

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层		PVD涂层										金陶 Cermet
		L	ØI.C	T	r	bs	FT3262	FT2252	FT8204	FT8205	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	SNMX1205ANN-GM	12.7	12.7	5.59		1.5	▲			●	▲						●	▲		
	SNMX120512-GM	12.7	12.7	5.54	1.2		▲			●	▲						●	▲		
	SNMX120520-GM	12.7	12.7	5.54	2		▲			●	▲						●	▲		
	SNMX160620-GM	16	16	6.38	2		▲			●	▲						●	▲		
	SNMX160640-GM	16	16	6.38	4		▲			●	▲						●	▲		
	SNMX1205ANN-GH	12.7	12.7	5.59		1.5	▲			●	▲						●	▲		
	SNMX120512-GH	12.7	12.7	5.54	1.2		▲			●	▲						●	▲		
	SNMX120520-GH	12.7	12.7	5.54	2		▲			●	▲						●	▲		
	SNMX160620-GH	16	16	6.38	2		▲			●	▲						●	▲		
	SNMX160640-GH	16	16	6.38	4		▲			●	▲						●	▲		

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

被加工材料		硬度HB	刀片牌号	切削用量				
				V(m/min)	f(mm/z)			
					GL	GM	GH	SM	AK
P	低碳钢、软钢	≤180	FT8206	270(220-350)	0.15 (0.1-0.2)	0.2 (0.1-0.3)	0.3 (0.1-0.3)	0.2 (0.1-0.3)	0.2 (0.1-0.3)
			FT8295						
			FT8296						
	高碳钢、合金钢	180-280	FT8206	260(200-320)	0.15 (0.1-0.2)	0.2 (0.1-0.3)	0.3 (0.1-0.3)	0.2 (0.1-0.3)	0.2 (0.1-0.3)
			FT8295						
			FT8296						
	合金工具钢	280-350	FT8206	240(180-300)	0.15 (0.1-0.2)	0.2 (0.1-0.3)	0.3 (0.1-0.3)	0.2 (0.1-0.3)	0.2 (0.1-0.3)
			FT8295						
			FT8296						
M	不锈钢	≤270	FT8206	230(180-300)	0.15 (0.1-0.2)	0.2 (0.1-0.3)	0.3 (0.1-0.3)	0.2 (0.1-0.3)	0.2 (0.1-0.3)
			FT8296						
K	铸铁	180-250	FT3262	270(150-300)	0.15 (0.1-0.2)	0.2 (0.1-0.3)	0.3 (0.1-0.3)	0.2 (0.1-0.3)	0.2 (0.1-0.3)
			FT8296						

Face Milling Inserts
SNMX
平面铣削刀片



√良好工况Good working conditions ○ 一般工况 General working conditions ×不稳定工况 Unstable working conditions

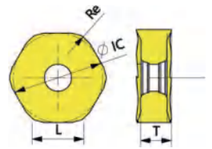
工件材料 Workpiece Material																		
P	钢							○		○			×	×				
M	不锈钢	○	×	√	√	√	√	○	○	○	×	×	×	×				
K	铸铁												×	×				
N	有色金属																	
S	耐热合金、钛合金												×	×				
H	淬硬钢																	

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层		PVD涂层										金陶 Cermet
		L	ØI.C	T	r	bs	FT3262	FT2252	FT8204	FT8205	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	SNMX1205ANN-SM	12.7	12.7	5.59		1.5	▲			●	▲						●	▲		
	SNMX120512-SM	12.7	12.7	5.54	1.2		▲			●	▲						●	▲		
	SNMX120520-SM	12.7	12.7	5.54	2		▲			●	▲						●	▲		
	SNMX160620-SM	16	16	6.38	2		▲			●	▲						●	▲		
	SNMX160640-SM	16	16	6.38	4		▲			●	▲						●	▲		
	SNMX1205ANN-GL	12.7	12.7	5.59		1.5	▲			●	▲						●	▲		
	SNMX120512-GL	12.7	12.7	5.54	1.2		▲			●	▲						●	▲		
	SNMX120520-GL	12.7	12.7	5.54	2		▲			●	▲						●	▲		
	SNMX160620-GL	16	16	6.38	2		▲			●	▲						●	▲		
	SNMX160640-GL	16	16	6.38	4		▲			●	▲						●	▲		

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

被加工材料		硬度HB	刀片牌号	切削用量					
				V(m/min)	f(mm/z)				
					GL	GM	GH	SM	AK
P	低碳钢、软钢	≤180	FT8206	270(220-350)	0.15 (0.1-0.2)	0.2 (0.1-0.3)	0.3 (0.1-0.3)	0.2 (0.1-0.3)	0.2 (0.1-0.3)
			FT8295						
			FT8296						
	高碳钢、合金钢	180-280	FT8206	260(200-320)	0.15 (0.1-0.2)	0.2 (0.1-0.3)	0.3 (0.1-0.3)	0.2 (0.1-0.3)	0.2 (0.1-0.3)
			FT8295						
			FT8296						
	合金工具钢	280-350	FT8206	240(180-300)	0.15 (0.1-0.2)	0.2 (0.1-0.3)	0.3 (0.1-0.3)	0.2 (0.1-0.3)	0.2 (0.1-0.3)
			FT8295						
			FT8296						
M	不锈钢	≤270	FT8206	230(180-300)	0.15 (0.1-0.2)	0.2 (0.1-0.3)	0.3 (0.1-0.3)	0.2 (0.1-0.3)	0.2 (0.1-0.3)
			FT8296						
K	铸铁	180-250	FT3262	270(150-300)	0.15 (0.1-0.2)	0.2 (0.1-0.3)	0.3 (0.1-0.3)	0.2 (0.1-0.3)	0.2 (0.1-0.3)
			FT8296						

Face Milling Inserts
HNGX
平面铣削刀片



√良好工况Good working conditions ○ 一般工况 General working conditions ×不稳定工况 Unstable working conditions

工件材料 Workpiece Material																		
P	钢							○		○			×	×				
M	不锈钢	○	×	√	√	√	√	○	○	○	×	×	×	×				
K	铸铁												×	×				
N	有色金属																	
S	耐热合金、钛合金												×	×				
H	淬硬钢																	

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)				CVD涂层		PVD涂层										金陶 Cermet
		L	ØI.C	T	Re	FT3262	FT2252	FT8204	FT8205	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	HNGX0604-GH	6.44	12	4.45	1	▲			●	▲						●	▲		
	HNGX0604-GH	6.44	12	4.45	1.6	▲			●	▲						●	▲		
	HNGX0604-GH	6.44	12	4.45	3.2	▲			●	▲						●	▲		
	HNGX0905-GH	9	15.88	5.56	1.2	▲			●	▲						●	▲		
	HNGX0905-GH	9	15.88	5.56	2	▲			●	▲						●	▲		
	HNGX0905-GH	9	15.88	5.56	3.5	▲			●	▲						●	▲		
	HNGX1307-GH	12.83	22.23	7.41	1.2	▲			●	▲						●	▲		
	HNGX1307-GH	12.83	22.23	7.41	2	▲			●	▲						●	▲		
	HNGX1307-GH	12.83	22.23	7.41	3.5	▲			●	▲						●	▲		
	HNGX0604-GL	6.44	12	4.45	1	▲			●	▲						●	▲		
	HNGX0604-GL	6.44	12	4.45	1.6	▲			●	▲						●	▲		
	HNGX0604-GL	6.44	12	4.45	3.2	▲			●	▲						●	▲		
	HNGX0905-GL	9	15.88	5.56	1.2	▲			●	▲						●	▲		
	HNGX0905-GL	9	15.88	5.56	2	▲			●	▲						●	▲		
	HNGX0905-GL	9	15.88	5.56	3.5	▲			●	▲						●	▲		

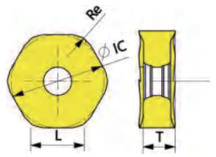
▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

被加工材料		硬度HB	刀片牌号	切削用量	
				V(m/min)	f(mm/z)
P	低碳钢、软钢	≤180	FT8206	270(220-350)	0.2(0.1-0.4)
			FT8295	220(180-300)	0.2(0.08-0.3)
			FT8296	270(200-360)	0.2(0.1-0.3)
	高碳钢、合金钢	180-280	FT8206	240(200-320)	0.2(0.1-0.4)
			FT8295	200(160-280)	0.2(0.08-0.3)
			FT8296	240(180-350)	0.2(0.1-0.3)
	合金工具钢	280-350	FT8206	220(180-300)	0.2(0.1-0.4)
			FT8295	180(150-250)	0.2(0.08-0.3)
			FT8296	220(170-340)	0.2(0.1-0.3)
M	不锈钢	≤270	FT8206	140(100-240)	0.2(0.08-0.3)
			FT8296	140(100-250)	0.2(0.1-0.3)
K	铸铁	180-250	FT3262	210(120-300)	0.2(0.1-0.3)
			FT8296	160(120-200)	0.35(0.1-0.4)

Face Milling Inserts

HNGX

平面铣削刀片



√良好工况Good working conditions ○ 一般工况 General working conditions ×不稳定工况 Unstable working conditions

工件材料 Workpiece Material																
P	钢							○		○			×	×		
M	不锈钢	○	×	√	√	√	√	○	○	○	×	×	×	×		
K	铸铁												×	×		
N	有色金属															
S	耐热合金、钛合金												×	×		
H	淬硬钢															

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)				CVD涂层		PVD涂层										金陶 Cermet
		L	ØI.C	T	Re	FT3262	FT2252	FT8204	FT8205	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	HNGX0604-GM	6.44	12	4.45	1	▲			●	▲						●	▲		
	HNGX0604-GM	6.44	12	4.45	1.6	▲			●	▲						●	▲		
	HNGX0604-GM	6.44	12	4.45	3.2	▲			●	▲						●	▲		
	HNGX0905-GM	9	15.88	5.56	1.2	▲			●	▲						●	▲		
	HNGX0905-GM	9	15.88	5.56	2	▲			●	▲						●	▲		
	HNGX0905-GM	9	15.88	5.56	3.5	▲			●	▲						●	▲		
	HNGX1307-GM	12.83	22.23	7.41	1.2	▲			●	▲						●	▲		
	HNGX1307-GM	12.83	22.23	7.41	2	▲			●	▲						●	▲		
	HNGX1307-GM	12.83	22.23	7.41	3.5	▲			●	▲						●	▲		
	HNGX0604-AK	6.44	12	4.45	1	▲			●	▲						●	▲		
	HNGX0604-AK	6.44	12	4.45	1.6	▲			●	▲						●	▲		
	HNGX0604-AK	6.44	12	4.45	3.2	▲			●	▲						●	▲		
	HNGX0905-SM	9	15.88	5.56	1.2	▲			●	▲						●	▲		
	HNGX0905-SM	9	15.88	5.56	2	▲			●	▲						●	▲		
	HNGX0905-SM	9	15.88	5.56	3.5	▲			●	▲						●	▲		

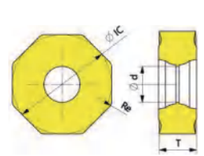
▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

被加工材料		硬度HB	刀片牌号	切削用量	
				V(m/min)	f(mm/z)
P	低碳钢、软钢	≤180	FT8206	270(220-350)	0.2(0.1-0.4)
			FT8295	220(180-300)	0.2(0.08-0.3)
			FT8296	270(200-360)	0.2(0.1-0.3)
	高碳钢 、合金钢	180-280	FT8206	240(200-320)	0.2(0.1-0.4)
			FT8295	200(160-280)	0.2(0.08-0.3)
			FT8296	240(180-350)	0.2(0.1-0.3)
	合金工具钢	280-350	FT8206	220(180-300)	0.2(0.1-0.4)
			FT8295	180(150-250)	0.2(0.08-0.3)
			FT8296	220(170-340)	0.2(0.1-0.3)
M	不锈钢	≤270	FT8206	140(100-240)	0.2(0.08-0.3)
			FT8296	140(100-250)	0.2(0.1-0.3)
K	铸铁	180-250	FT3262	210(120-300)	0.2(0.1-0.3)
			FT8296	160(120-200)	0.35(0.1-0.4)

Face Milling Inserts

ONHU

平面铣削刀片



√良好工况Good working conditions ○ 一般工况 General working conditions ×不稳定工况 Unstable working conditions

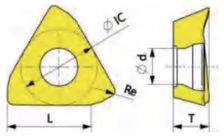
工件材料 Workpiece Material																
P	钢							○		○			×	×		
M	不锈钢	○	×	√	√	√	√	○	○	○	×	×	×	×		
K	铸铁												×	×		
N	有色金属															
S	耐热合金、钛合金												×	×		
H	淬硬钢															

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)				CVD涂层		PVD涂层										金陶 Cermet
		ØI.C	T	Φd	Re	FT3262	FT2252	FT8204	FT8205	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	ONHU050408-GM	12.7	4.76	4.4	0.8	▲			●	▲						●	▲		
	ONHU060408-GM	15.88	4.76	4.4	0.8	▲			●	▲						●	▲		
	ONHU08T508-GM	20.2	5.95	5.4	0.8	▲			●	▲						●	▲		
	ONHU050408-GH	12.7	4.76	4.4	0.8	▲			●	▲						●	▲		
	ONHU060408-GH	15.88	4.76	4.4	0.8	▲			●	▲						●	▲		
	ONHU08T508-GH	20.2	5.95	5.4	0.8	▲			●	▲						●	▲		
	ONHU050408-GL	12.7	4.76	4.4	0.8	▲			●	▲						●	▲		
	ONHU060408-GL	15.88	4.76	4.4	0.8	▲			●	▲						●	▲		
	ONHU08T508-GL	20.2	5.95	5.4	0.8	▲			●	▲						●	▲		
	ONHU050408-SM	12.7	4.76	4.4	0.8	▲			●	▲						●	▲		
	ONHU060408-SM	15.88	4.76	4.4	0.8	▲			●	▲						●	▲		
	ONHU08T508-SM	20.2	5.95	5.4	0.8	▲			●	▲						●	▲		

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

被加工材料		硬度HB	刀片牌号	切削用量			
				V(m/min)	f(mm/z	apmad(mm)	
						ONHU06	ONHU08
P	低碳钢、软钢	≤180	FT8206	270(220-350)	0.2(0.1-0.4)	4	5
			FT8295				
			FT8296				
	高碳钢 、台金钢	180-280	FT8206	260(200-320)	0.2(0.1-0.4)	4	5
			FT8295				
			FT8296				
	台金工具钢	280-350	FT8206	240(180-300)	0.2(0.1-0.4)	4	5
			FT8295				
			FT8296				
M	不锈钢	≤270	FT8206	230(180-300)	0.2(0.1-0.3)	4	5
			FT8296				
K	铸铁	180-250	FT3262	270(150-300)	0.4(0.1-0.5)	4	5
			FT8296				

Face Milling Inserts
XPKT
平面铣削刀片



√良好工况Good working conditions ○ 一般工况 General working conditions ×不稳定工况 Unstable working conditions

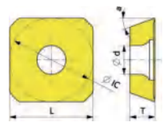
工件材料 Workpiece Material																		
P	钢							○		○			×	×				
M	不锈钢	○	×	√	√	√	√	○	○	○	×	×	×	×				
K	铸铁												×	×				
N	有色金属																	
S	耐热合金、钛合金												×	×				
H	淬硬钢																	

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层		PVD涂层									金陶 Cermet
		L	ØI.C	T	Φd	Re	FT3262	FT2252	FT8204	FT8205	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	XPKT100404R-GM	7	6.9	4	3.8	0.4	▲			●	▲						●	▲		
	XPKT150508R-GM	11	10.7	5	4.4	0.8	▲			●	▲						●	▲		
	XPKT190608R-GM	15	13.5	6	5.1	0.8	▲			●	▲						●	▲		
	XPKT100404R-GH	7	6.9	4	3.8	0.4	▲			●	▲						●	▲		
	XPKT150508R-GH	11	10.7	5	4.4	0.8	▲			●	▲						●	▲		
	XPKT190608R-GH	15	13.5	6	5.1	0.8	▲			●	▲						●	▲		
	XPKT100404R-GL	7	6.9	4	3.8	0.4	▲			●	▲						●	▲		
	XPKT150508R-GL	11	10.7	5	4.4	0.8	▲			●	▲						●	▲		
	XPKT190608R-GL	15	13.5	6	5.1	0.8	▲			●	▲						●	▲		
	XPKT100404R-SM	7	6.9	4	3.8	0.4	▲			●	▲						●	▲		
	XPKT150508R-SM	11	10.7	5	4.4	0.8	▲			●	▲						●	▲		
	XPKT190608R-SM	15	13.5	6	5.1	0.8	▲			●	▲						●	▲		

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

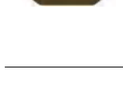
被加工材料		硬度HB	刀片牌号	切削用量	
				V(m/min)	f(mm/z)
P	低碳钢、软钢	≤180	FT8206	270(220-350)	0.2(0.1-0.4)
			FT8295	220(180-300)	0.2(0.08-0.3)
			FT8296	270(200-360)	0.2(0.1-0.3)
	高碳钢、合金钢	180 -280	FT8206	240(200-320)	0.2(0.1-0.4)
			FT8295	200(160-280)	0.2(0.08-0.3)
			FT8296	240(180-350)	0.2(0.1-0.3)
	合金工具钢	280 -350	FT8206	220(180-300)	0.2(0.1-0.4)
			FT8295	180(150-250)	0.2(0.08-0.3)
			FT8296	220(170-340)	0.2(0.1-0.3)
M	不锈钢	≤270	FT8206	140(100-240)	0.2(0.08-0.3)
			FT8296	140(100-250)	0.2(0.1-0.3)
K	铸铁	180 -250	FT3262	210(120-300)	0.2(0.1-0.3)
			FT8296	160(120-200)	0.35(0.1-0.4)

Face Milling Inserts
SEKT/SEKR
平面铣削刀片



√良好工况Good working conditions ○ 一般工况 General working conditions ×不稳定工况 Unstable working conditions

工件材料 Workpiece Material																		
P	钢							○		○			×	×				
M	不锈钢	○	×	√	√	√	√	○	○	○	×	×	×	×				
K	铸铁												×	×				
N	有色金属																	
S	耐热合金、钛合金												×	×				
H	淬硬钢																	

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层		PVD涂层									金陶 Cermet
		L	ØI.C	T	Φd	a	FT3262	FT2252	FT8204	FT8205	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	SEKT1204AFTN	12.7	12.7	4.76	5.5	20°	▲			●	▲						●	▲		
	SPKR1504EDR-K	15.875	15.875	4.76	/	11°	▲			●	▲						●	▲		
	SEKR1203AFEN	12.7	12.7	3.18	/	20°	▲			●	▲						●	▲		

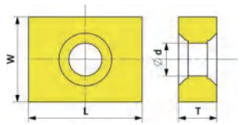
▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

被加工材料		硬度HB	刀片牌号	切削用量	
				V(m/min)	f(mm/z)
P	低碳钢、软钢	≤180	FT8206	270(220-350)	0.2(0.1-0.4)
			FT8295	220(180-300)	0.25(0.15-0.3)
			FT8296	270(200-360)	0.2(0.1-0.3)
	高碳钢、合金钢	180-280	FT8206	240(200-320)	0.2(0.1-0.4)
			FT8295	200(160-280)	0.25(0.15-0.3)
			FT8296	240(180-350)	0.2(0.1-0.3)
	合金工具钢	280-350	FT8206	220(180-300)	0.2(0.1-0.4)
			FT8295	180(150-250)	0.25(0.15-0.3)
			FT8296	220(170-340)	0.2(0.1-0.3)
M	不锈钢	≤270	FT8206	130(100-220)	0.2(0.1-0.4)
			FT8296	140(100-240)	0.25(0.15-0.3)
K	铸铁	180-250	FT3262	210(120-300)	0.2(0.1-0.3)
			FT8296	200(150-250)	0.2(0.1-0.4)

Face Milling Inserts

LSE/SNE/SNC

平面铣削刀片



√良好工况Good working conditions ○一般工况 General working conditions ×不稳定工况 Unstable working conditions

工件材料 Workpiece Material																
P	钢							○		○			×	×		
M	不锈钢	○	×	√	√	√	√	○	○	○	×	×	×	×		
K	铸铁												×	×		
N	有色金属															
S	耐热合金、钛合金												×	×		
H	淬硬钢															

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)				CVD涂层		PVD涂层									金陶 Cermet
		L	W	T	Ød	FT3262	FT2252	FT8204	FT8205	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	LSE323R02	15.9	9.5	4.8	5.4	▲			●	▲						●	▲		
	LSE323L02	15.9	9.5	4.8	5.4	▲			●	▲						●	▲		
	LSE434R01	19.0	14.3	6.35	5.4	▲			●	▲						●	▲		
	LSE434L01	19.0	14.3	6.35	5.4	▲			●	▲						●	▲		
	LSE435R10	19	13	5.5	5.4	▲			●	▲						●	▲		
	LSE446R01	28.6	14.3	9.5	5.4	▲			●	▲						●	▲		
	LSE446L01	28.6	14.3	9.5	5.4	▲			●	▲						●	▲		
	SNE33-01	9.525	9.525	4.76	5.4	▲			●	▲						●	▲		
	SNC44-60	12.7	12.7	6.35	5.4	▲			●	▲						●	▲		
	SNC55	15.875	15.875	7.9	5.4	▲			●	▲						●	▲		
	SNC55K08PH10X6	15.875	15.875	7.9	5.4	▲			●	▲						●	▲		

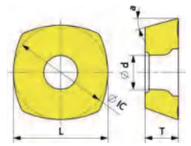
▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

被加工材料		硬度HB	刀片牌号	切削用量	
				V(m/min)	f(mm/z)
P	低碳钢、软钢	≤180	FT8206	270(220-350)	0.2(0.1-0.4)
			FT8295	220(180-300)	0.25(0.15-0.3)
			FT8296	270(200-360)	0.2(0.1-0.3)
	高碳钢、合金钢	180-280	FT8206	240(200-320)	0.2(0.1-0.4)
			FT8295	200(160-280)	0.25(0.15-0.3)
			FT8296	240(180-350)	0.2(0.1-0.3)
	合金工具钢	280-350	FT8206	220(180-300)	0.2(0.1-0.4)
			FT8295	180(150-250)	0.25(0.15-0.3)
			FT8296	220(170-340)	0.2(0.1-0.3)
M	不锈钢	≤270	FT8206	130(100-220)	0.2(0.1-0.4)
			FT8296	140(100-240)	0.25(0.15-0.3)
K	铸铁	180-250	FT3262	210(120-300)	0.2(0.1-0.3)
			FT8296	200(150-250)	0.2(0.1-0.4)

High Feed Milling Inserts

SDMW/SDMT

快进给铣削刀片



√良好工况Good working conditions ○一般工况 General working conditions ×不稳定工况 Unstable working conditions

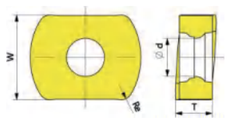
工件材料 Workpiece Material																
P	钢							○		○			×	×		
M	不锈钢	○	×	√	√	√	√	○	○	○	×	×	×	×		
K	铸铁												×	×		
N	有色金属															
S	耐热合金、钛合金												×	×		
H	淬硬钢															

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层		PVD涂层									金陶 Cermet
		L	ØI.C	T	Φd	a	FT3262	FT2252	FT8204	FT8205	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	SDMW150512-GM	15.88	15.88	5.55	5.5	15°	▲			●	▲						●	▲		
	SDMT150512-GL	15.88	15.88	5.55	5.5	15°	▲			●	▲						●	▲		

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

被加工材料		硬度HB	刀片牌号	切削用量					
				V(m/min)	中40/中50		中63/中80		中100/φ125/中160	
					轴向切深	每齿进给量	轴向切深	每齿进给量	轴向切深	每齿进给量
P	碳素钢、软钢	≤180 180-280	FT8206	170(120-220) 150(100-200)	0.6 -1.5	0.8 -1.5	0.6 -1.5	0.8 -1.5	0.6 -1.5	0.5 -1.5
			FT8295							
			FT8296							
	合金工具钢	280-350	FT8206	130(80-180)	0.4 -1.2	0.6 -1.5	0.4 -1.3	0.6 -1.5	0.4 -1.3	0.5 -1.5
			FT8295							
			FT8296							
	预硬钢	<HRC35	FT8206	120(80-160)	0.4-1.0	0.5 -1.0	0.4 -1.3	0.5 -1.0	0.4 -1.3	0.5 -1.0
			FT8295							
			FT8296							
M	不锈钢	≤270	FT8206	120(80-160)	0.8 -1.2	0.8 -1.2	1.1-1.5	0.9 -1.2	1.0 -1.5	0.8-1.3
			FT8296	120(80-190)						
K	普通铸铁	张力强度	FT3262	150(100-200)	0.6 -1.5	0.8 -1.6	0.6 -1.5	0.8 -1.7	0.6 -1.5	0.6 -1.7
	球墨铸铁	张力强度	FT8296	120(80-160)	0.4 -1.2	0.6 -1.4	0.6 -1.3	0.6 -1.5	0.4 -1.3	0.5 -1.5

High Feed Milling Inserts
XNMP
快进给铣削刀片



√良好工况Good working conditions ○一般工况 General working conditions ×不稳定工况 Unstable working conditions

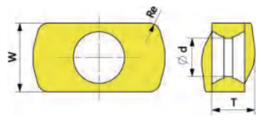
工件材料 Workpiece Material																		
P	钢							○		○			×	×				
M	不锈钢	○	×	√	√	√	√	○	○	○	×	×	×	×				
K	铸铁												×	×				
N	有色金属																	
S	耐热合金、钛合金												×	×				
H	淬硬钢																	

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)				CVD涂层		PVD涂层										金陶 Cermet
		W	T	Φd	Re	FT3262	FT2252	FT8204	FT8205	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	XNMP0603R-GM	6.4	3.75	3.2	\	▲			●	▲						●	▲		
	XNMP0904R-GM	9.18	4.8	4.5	\	▲			●	▲						●	▲		
	XNMP1205R-GM	12	5.16	4.6	1.2	▲			●	▲						●	▲		
	XNMP1306R-GM	12.3	6.14	5.5	1.2	▲			●	▲						●	▲		
	XNMP0603R-GL	6.4	3.75	3.2	\	▲			●	▲						●	▲		
	XNMP0904R-GL	9.18	4.8	4.5	\	▲			●	▲						●	▲		
	XNMP1205R-GL	12	5.16	4.6	1.2	▲			●	▲						●	▲		
	XNMP1306R-GL	12.3	6.14	5.5	1.2	▲			●	▲						●	▲		

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

被加工材料		硬度 HB	刀片牌号	切削用量		
				V(m/min)	f(mm/z)	
					刀具直径	刀具直径
P	低碳钢、软钢	≤180	FT8206	200(100-300)	0.5-0.7	0.5-1.0
			FT8295		0.5-1.2	0.5-1.5
			FT8296			
	高碳钢、合金钢	180-280	FT8206		0.5-0.7	0.5-1.0
			FT8295		0.5-1.2	0.5-1.5
			FT8296			
	合金工具钢	280-350	FT8206	150(100-200)	0.5-0.7	0.5-1.0
			FT8295		0.5-1.2	0.5-1.5
			FT8296			
M	不锈钢	≤270	FT8206	120(100-150)	0.3-0.5	0.3-0.7
			FT8296		0.3-0.8	0.3-0.8
K	铸铁	180-250	FT3262	150(100-300)	0.5-1.2	0.5-1.5
			FT8296	120(80-200)	0.5-1.2	0.5-1.5

High Feed Milling Inserts
LNMU
快进给铣削刀片



√良好工况Good working conditions ○一般工况 General working conditions ×不稳定工况 Unstable working conditions

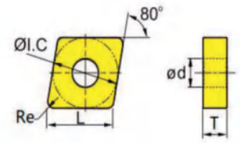
工件材料 Workpiece Material																		
P	钢							○		○			×	×				
M	不锈钢	○	×	√	√	√	√	○	○	○	×	×	×	×				
K	铸铁												×	×				
N	有色金属																	
S	耐热合金、钛合金												×	×				
H	淬硬钢																	

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)				CVD涂层		PVD涂层										金陶 Cermet
		W	T	Φd	Re	FT3262	FT2252	FT8204	FT8205	FT8206	FT8208	FT8284	FT8286	FT8288	FT8294	FT8295	FT8296	FT8298	FC5280
	LNMU030312ER-GM	6	4.3	2.9	1.2	▲			●	▲						●	▲		
	LNMU030312ER-GL	6	4.3	2.9	1.2	▲			●	▲						●	▲		
	LNMU030312ER-GY	6	4.3	2.9	1.2	▲			●	▲						●	▲		
	LOGU030310ER-GM	6.2	4.8	3.4	1	▲			●	▲						●	▲		
	LOGU030310ER-GL	6.2	4.8	3.4	1	▲			●	▲						●	▲		
	LOGU030310ER-GY	6.2	4.8	3.4	1	▲			●	▲						●	▲		

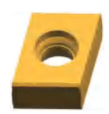
▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

被加工材料		硬度 HB	刀片牌号	切削用量		
				V(m/min)	f(mm/z)	
					刀具直径	刀具直径
P	低碳钢、软钢	≤180	FT8206	200(100-300)	0.5-0.7	0.5-1.0
			FT8295		0.5-1.2	0.5-1.5
			FT8296			
	高碳钢、合金钢	180-280	FT8206		0.5-0.7	0.5-1.0
			FT8295		0.5-1.2	0.5-1.5
			FT8296			
	合金工具钢	280-350	FT8206	150(100-200)	0.5-0.7	0.5-1.0
			FT8295		0.5-1.2	0.5-1.5
			FT8296			
M	不锈钢	≤270	FT8206	120(100-150)	0.3-0.5	0.3-0.7
			FT8296		0.3-0.8	0.3-0.8
K	铸铁	180-250	FT3262	150(100-300)	0.5-1.2	0.5-1.5
			FT8296	120(80-200)	0.5-1.2	0.5-1.5

CNHX　　重力切削刀片



√ 良好工况Good working conditions　一般工况General working conditions　× 不稳定工况Unstable working conditions

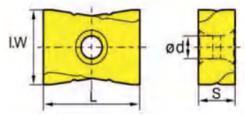
工件材料 Workpiece Material			产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层				PVD涂层											
					L	W	S	Φd	r	FT3122	FT3123A	FT3262	FT3263A	FT3124	FT3126	FT3266	FT8204	FT8205	FT8206	FT8207	FT8208	FT8294	FT8295	FT8296	FT8297	FT8298
P	钢			CNHX 100508 K-M	10	5.4	10	4.4	0.8			▲											▲	●		
M	不锈钢	√		CNHX 131108 K-M	12.7	5.4	11	4.5	0.8			▲											▲	●		
K	铸铁	√		CNHX 160608K-M	22	12	12	6.1	0.8			▲											▲	●		
N	有色金属																									
S	耐热合金、钛合金																									
H	淬硬钢																									

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

被加工材料		硬度	刀片牌号	切削用量	
				V (m/min)	f(mm/z)
P	低碳钢、软钢	≤180	FT8295	260(160-300)	0.3(0.1-0.35)
			FT8296	260(160-300)	0.3(0.1-0.35)
	高碳钢、合金钢	180-280	FT8295	240(160-240)	0.25(0.1-0.35)
			FT8296	240(160-240)	0.25(0.1-0.35)
	合金工具钢	280-350	FT8295	200(120-240)	0.2(0.1-0.35)
			FT8296	200(120-240)	0.2(0.1-0.35)
M	不锈钢	270	FT8295	180(100-230)	0.15(0.1-0.3)
			FT8296	180(100-230)	0.15(0.1-0.3)
K	铸铁	180-250	FT3262	220(140-250)	0.2(0.1-0.3)
			FT8295	220(140-250)	0.2(0.1-0.3)
			FT8296	220(140-250)	0.2(0.1-0.3)

LNKT/LNKX

重力切削刀片



工件材料 Workpiece Material		√ 良好工况Good working conditions　一般工况General working conditions　× 不稳定工况Unstable working conditions																				
P	钢															√		×		×		
M	不锈钢	√	√		×	√	√		√	√		√	×		×	×	×	×				
K	铸铁																×	×		×		
N	有色金属																					
S	耐热合金、钛合金																					
H	淬硬钢																					

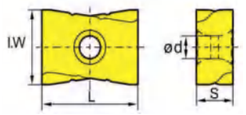
产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层				PVD涂层												
		L	W	S	Φd	r	FT3122	FT3123A	FT3262	FT3263A	FT3124	FT3126	FT3136	FT8204	FT8205	FT8206	FT8207	FT8208	FT8294	FT8295	FT8296	FT8297	FT8298
	LNKT1206-R0.8	12.7	6.35	12	4.4	0.8							•		▲								
	LNKT1206-R3.5	12.7	6.35	12	4.4	0.35							•		▲								
	LNKT1507	15	7.6	16.3	5.8	0.8							•		▲								
	LNKX 1005 K-M	10	5.2	9.52	3.4	0.8							•		▲								
	LNKX 1206 K-M	12.7	6	12.2	4.4	0.8							•		▲								
	LNKX 1506 K-M	15	6	13.9	4.6	0.8							•		▲								

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

被加工材料		硬度	刀片牌号	切削用量	
				V (m/min)	f(mm/z)
P	低碳钢、软钢	≤180	FT8205	260(160-300)	0.3(0.1-0.35)
			FT3136	260(160-300)	0.3(0.1-0.35)
	高碳钢、合金钢	180-280	FT8205	240(160-240)	0.25(0.1-0.35)
			FT3136	240(160-240)	0.25(0.1-0.35)
	合金工具钢	280-350	FT8205	200(120-240)	0.2(0.1-0.35)
			FT3136	200(120-240)	0.2(0.1-0.35)
M	不锈钢	270	FT8205	180(100-230)	0.15(0.1-0.3)
			FT3136	180(100-230)	0.15(0.1-0.3)
K	铸铁	180-250	FT8205	220(140-250)	0.2(0.1-0.3)
			FT3136	220(140-250)	0.2(0.1-0.3)

LNGX

重力切削刀片



工件材料 Workpiece Material		√ 良好工况Good working conditions　一般工况General working conditions　× 不稳定工况Unstable working conditions																				
P	钢															√		×		×		
M	不锈钢	√	√		×	√	√		√	√		√	×		×	×	×	×				
K	铸铁																×	×		×		
N	有色金属																					
S	耐热合金、钛合金																					
H	淬硬钢																					

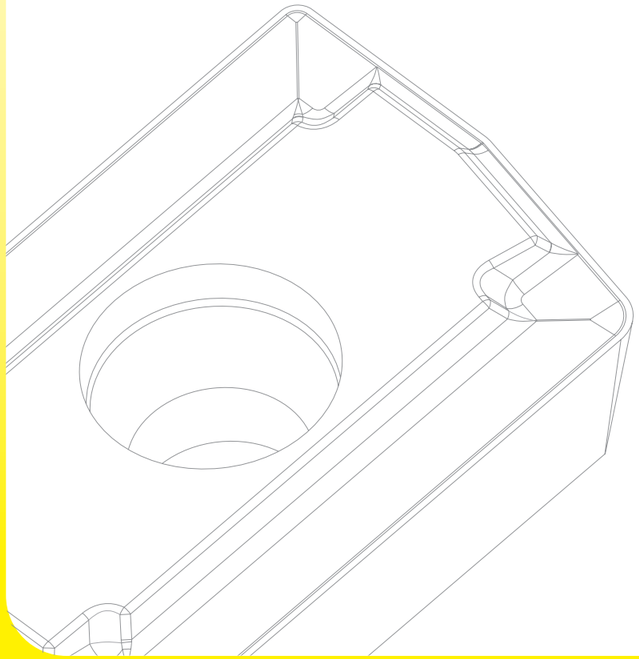
产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层				PVD涂层												
		L	W	S	Φd	r	FT3122	FT3123A	FT3262	FT3263A	FT3124	FT3126	FT3136	FT8204	FT8205	FT8206	FT8207	FT8208	FT8294	FT8295	FT8296	FT8297	FT8298
	LNGX 1505 K-M	15.9	5.5	9.65	4.4	0.8							•		▲								
	LNGX 1905 K-M	19.1	6.35	14.3	5.8	0.8							•		▲								
	LNGX 2008 K-M	20	8	14	5.8	0.8							•		▲								

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

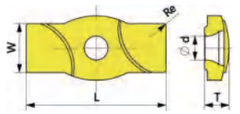
被加工材料		硬度	刀片牌号	切削用量	
				V (m/min)	f(mm/z)
P	低碳钢、软钢	≤180	FT8205	260(160-300)	0.3(0.1-0.35)
			FT3136	260(160-300)	0.3(0.1-0.35)
	高碳钢、合金钢	180-280	FT8205	240(160-240)	0.25(0.1-0.35)
			FT3136	240(160-240)	0.25(0.1-0.35)
	合金工具钢	280-350	FT8205	200(120-240)	0.2(0.1-0.35)
			FT3136	200(120-240)	0.2(0.1-0.35)
M	不锈钢	270	FT8205	180(100-230)	0.15(0.1-0.3)
			FT3136	180(100-230)	0.15(0.1-0.3)
K	铸铁	180-250	FT8205	220(140-250)	0.2(0.1-0.3)
			FT3136	220(140-250)	0.2(0.1-0.3)

孔加工刀片/Hole Machining Inserts

深孔钻刀片 Deep-hole Drilling Inserts
浅孔钻刀片 Shallow Hole Drilling Inserts
浅孔钻推荐切削参数表 Table of Recommended Cutting for Shallow Hole Drilling



LNMT 孔加工刀片



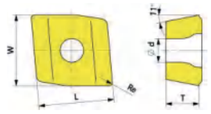
√ 良好工况Good working conditions ○ 一般工况General working conditions × 不稳定工况Unstable working conditions

工件材料 Workpiece Material																							
P	钢								○					○	×		×		×			
M	不锈钢	○	×	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×					
K	铸铁																×		×				
N	有色金属																						
S	耐热合金、钛合金																						
H	淬硬钢																						

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					CVD涂层		PVD涂层														
		W	S	L	a	r	FT1253	FT8322	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298
	LNMT2506	6	3	4.30	0°	\	▲														×		
	LNMT2507	7	3.5	4.30	0°	\	▲														×		
	LNMT2508	8	4.5	4.30	0°	\	▲														×		
	LNMT2510	10	4.5	4.30	0°	\	▲														×		
	LNMT2512	12	5.5	4.30	0°	\	▲														×		

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

EOMT/MOGT 孔加工刀片



√ 良好工况Good working conditions ○ 一般工况General working conditions × 不稳定工况Unstable working conditions

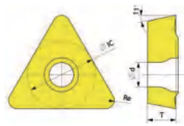
工件材料 Workpiece Material																							
P	钢								○					○	×		×		×			
M	不锈钢	○	×	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×					
K	铸铁																×		×				
N	有色金属																						
S	耐热合金、钛合金																						
H	淬硬钢																						

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）					CVD涂层		PVD涂层														
		ØI.C	T	Φd	a	r	FT1253	FT8322	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298
	EOMT08T308-MC		3.97	2.90	15°	0.8														▲			
	EOMT09T308-MC		4.31	2.80	15°	0.8														▲			
	EOMT10T308-MC		4.31	2.80	15	0.8														▲			
	EOMT12T308-MC		4.31	2.80	15°	0.8														▲			
	EOMT08T308-MI		3.97	2.90	15°	0.8														▲			
	EOMT09T308-MI		4.31	2.80	15°	0.8														▲			
	EOMT10T308-MI		4.31	2.80	15°	0.8														▲			
	EOMT12T308-MI		4.31	2.80	15°	0.8														▲			
	MOGT08T308-HP		3.97	2.90	11°	0.8														▲			
	MOGT09T308-HP		4.31	2.80	11°	0.8														▲			
	MOGT10T308-HP		4.31	2.80	11°	0.8														▲			
	MOGT12T308-HP		4.31	2.80	11°	0.8														▲			

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

TPMT/TPMX

孔加工刀片



√ 良好工况Good working conditions ○ 一般工况General working conditions × 不稳定工况Unstable working conditions

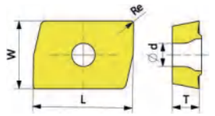
工件材料 Workpiece Material																				
P	钢								○				○	×		×		×		
M	不锈钢	○	×	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×		
K	铸铁															×		×		
N	有色金属																			
S	耐热合金、钛合金																			
H	淬硬钢																			

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）				CVD涂层		PVD涂层													
		ØI.C	T	Φd	Re	FT3262	FT8322	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298
	TPMT16T312R-GM	9.53	3.97	3.40	1.2														▲			
	TPMT220612R-GM	12.70	6.35	4.40	1.2														▲			
	TPMT16T312R-GF	9.53	3.97	3.40	1.2														▲			
	TPMT220612R-GF	12.70	6.35	4.40	1.2														▲			
	TPMX1403-RG	8.50	3.53	2.85	0.8														▲			
	TPMX1704-RG	10.30	3.97	3.97	0.8														▲			
	TPMX2405-RG	14.20	5.50	4.40	0.8														▲			
	TPMX2807-RG	17.00	7.50	5.65	0.8														▲			

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

XPMT

孔加工刀片



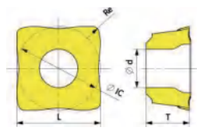
√ 良好工况Good working conditions ○ 一般工况General working conditions × 不稳定工况Unstable working conditions

工件材料 Workpiece Material																				
P	钢								○				○	×		×		×		
M	不锈钢	○	×	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×		
K	铸铁															×		×		
N	有色金属																			
S	耐热合金、钛合金																			
H	淬硬钢																			

产品 Inserts Shape	型号 Type	尺寸 Dimensions（mm）				CVD涂层		PVD涂层													
		ØI.C	S	Φd	r	FT3262	FT8322	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8298
	XPMT13T308-GM	10.00	3.97	3.40	0.8														▲			
	XPMT180608-GM	11.55	6.35	4.40	0.8														▲			
	XPMT13T308-GF	10.00	3.97	3.40	0.8														▲			
	XPMT180608-GF	11.55	6.35	4.40	0.8														▲			

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

SOMT 孔加工刀片



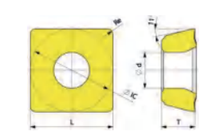
√ 良好工况Good working conditions ○ 一般工况General working conditions × 不稳定工况Unstable working conditions

工件材料 Workpiece Material																		
P	钢						○				○	×		×		×		
M	不锈钢	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×		
K	铸铁													×		×		
N	有色金属																	
S	耐热合金、钛合金																	
H	淬硬钢																	

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					PVD涂层														
		L	ØI.C	T	Φd	Re	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8456
	SOMT 050204-KP	4.90	4.90	2.38	2.25	0.4			●					●					▲		●
	SOMT 060204-KP	5.70	5.70	2.38	2.60	0.4			●					●					▲		●
	SOMT 070306-KP	6.80	6.80	2.80	2.60	0.6			●					●					▲		●
	SOMT 08T306-KP	7.90	7.90	3.97	2.85	0.6			●					●					▲		●
	SOMT 09T308-KP	9.20	9.20	3.97	3.80	0.8			●					●					▲		●
	SOMT 11T308-KP	11.00	11.00	3.97	3.80	0.8			●					●					▲		●
	SOMT 130408-KP	12.80	12.80	4.40	4.40	0.8			●					●					▲		●
	SOMT 150510-KP	15.00	15.00	4.80	5.40	1			●					●					▲		●

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

SPMG 孔加工刀片



√ 良好工况Good working conditions ○ 一般工况General working conditions × 不稳定工况Unstable working conditions

工件材料 Workpiece Material																		
P	钢					○				○	×		×		×			
M	不锈钢	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×		
K	铸铁													×		×		
N	有色金属																	
S	耐热合金、钛合金																	
H	淬硬钢																	

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					PVD涂层														
		L	ØI.C	T	Φd	Re	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8456
	SPMG 050204K-MD	5.00	5.00	2.38	2.25	0.4			●					●					▲		●
	SPMG 060204K-MD	6.00	6.00	2.38	2.61	0.4			●					●					▲		●
	SPMG 07T308K-MD	7.94	7.94	3.97	2.85	0.8			●					●					▲		●
	SPMG 090408K-MD	9.80	9.80	4.30	4.05	0.8			●					●					▲		●
	SPMG 110408K-MD	11.50	11.50	4.80	4.45	0.8			●					●					▲		●
	SPMG 120408K-MD	12.70	12.70	4.76	4.37	0.8			●					●					▲		●
	SPMG 140512K-MD	14.30	14.30	5.20	5.75	1.2			●					●					▲		●

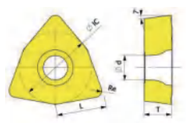
▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

浅孔钻刀片

Shallow hole drilling Inserts

FONHAE 方瀚

WCMX　　孔加工刀片



		√ 良好工况Good working conditions ○ 一般工况General working conditions × 不稳定工况Unstable working conditions																
工件材料 Workpiece Material	P	钢							○				○	×		×		×
	M	不锈钢	√	√	√	√	√	○	○	○	○	○	×	×	×	×	×	×
	K	铸铁													×		×	
	N	有色金属																
	S	耐热合金、钛合金																
	H	淬硬钢																

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					PVD涂层													
		L	ØI.C	T	Φd	Re	FT8204	FT8205	FT8206	FT8207	FT8208	FT8284	FT8285	FT8286	FT8287	FT8288	FT8294	FT8295	FT8296	FT8297	FT8456
	WCMX 030208R-LM	3.8	5.56	2.38	2.80	0.8			●					●					▲		●
	WCMX 040208R-LM	4.3	6.35	2.38	3.10	0.8			●					●					▲		●
	WCMX 050308R-LM	5.4	7.94	3.18	3.20	0.8			●					●					▲		●
	WCMX 06T308R-LM	6.5	9.53	3.97	3.70	0.8			●					●					▲		●
	WCMX 080412R-LM	8.7	12.70	4.76	4.30	1.2			●					●					▲		●

▲为主推荐牌号　Recommended grade (Always stock available)　●按订单生产可选牌号　Make-to-order

浅孔钻推荐切削参数表

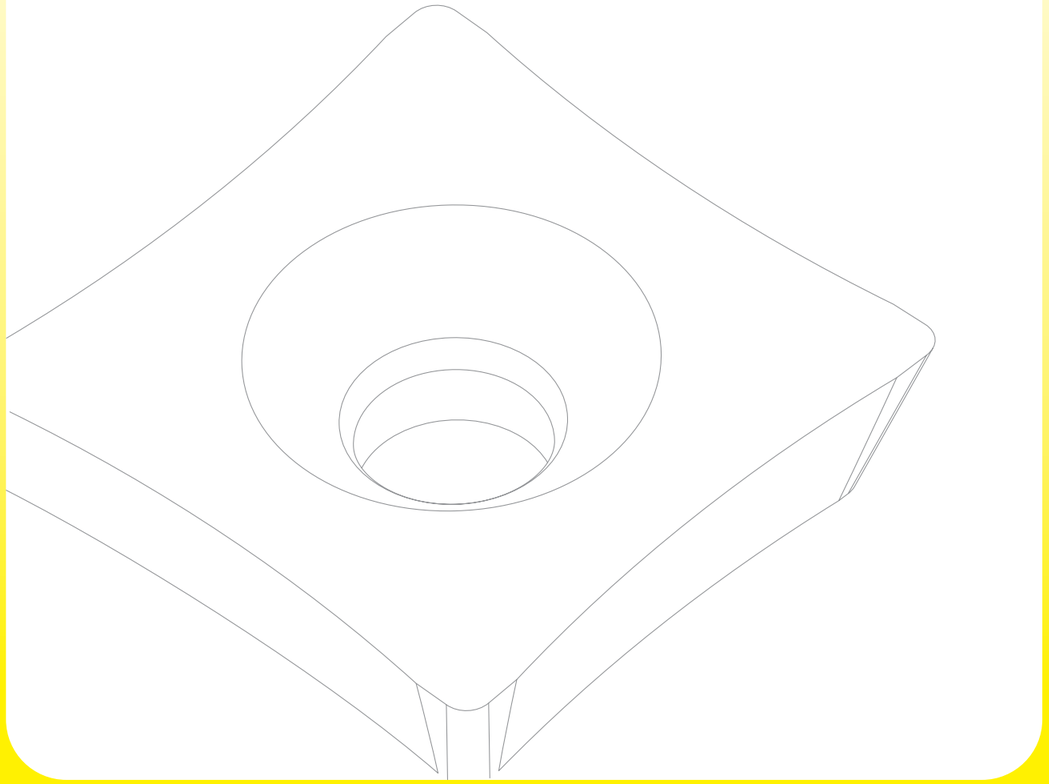
Table of Recommended Cutting for Shallow Hole Drilling

FONHAE 方瀚

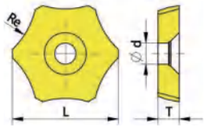
孔加工刀片　　Hole Machining Inserts

ISO	材料 Material	硬度HB	直径Dc mm	进给量fn mm/r	切削速度 Vc m/min
P	碳钢 Carbon steel	80–200	16.0–23.0 24.0–30.0 31.0–38.0 39.0–46.0 47.0–58.0	0.05–0.09 0.05–0.09 0.06–0.10 0.07–0.11 0.08–0.12	200(170–240)
	低合金钢 Low alloy steel	150–260	16.0–23.0 24.0–30.0 31.0–38.0 39.0–46.0 47.0–58.0	0.05–0.09 0.05–0.12 0.06–0.14 0.08–0.16 0.10–0.20	170(140–220)
	高合金钢 High alloy steel	150–320	16.0–23.0 24.0–30.0 31.0–38.0 39.0–46.0 47.0–58.0	0.05–0.09 0.05–0.12 0.06–0.16 0.08–0.18 0.10–0.22	150(120–180)
	铸钢 Cast steel	180–250	16.0–23.0 24.0–30.0 31.0–38.0 39.0–46.0 47.0–58.0	0.05–0.08 0.05–0.08 0.06–0.10 0.07–0.11 0.07–0.12	140(120–170)
M	不锈钢 Stainless steel 铁素体 Ferritic stainless steel 马氏体 Martensitic stainless steel	150–270	16.0–23.0 24.0–30.0 31.0–38.0 39.0–46.0 47.0–58.0	0.05–0.09 0.05–0.12 0.06–0.16 0.08–0.18 0.10–0.22	160(110–230)
	奥氏体 Austenitic stainless steel	150–275	16.0–23.0 24.0–30.0 31.0–38.0 39.0–46.0 47.0–58.0	0.05–0.09 0.05–0.11 0.06–0.13 0.08–0.14 0.10–0.16	140(110–220)
K	可锻铸铁 Malleable cast iron	150–230	16.0–23.0 24.0–30.0 31.0–38.0 39.0–46.0 47.0–58.0	0.05–0.10 0.05–0.14 0.08–0.16 0.10–0.20 0.12–0.24	160(120–220)
	灰口铸铁 Grey cast iron	150–220	16.0–23.0 24.0–30.0 31.0–38.0 39.0–46.0 47.0–58.0	0.05–0.10 0.05–0.14 0.08–0.16 0.10–0.20 0.12–0.24	200(170–240)
	球墨铸铁 Nodular cast iron	160–250	16.0–23.0 24.0–30.0 31.0–38.0 39.0–46.0 47.0–58.0	0.05–0.09 0.05–0.12 0.06–0.14 0.08–0.16 0.10–0.20	160(130–200)
N	铝合金 Aluminium alloy	60–110	16.0–23.0 24.0–30.0 31.0–38.0 39.0–46.0 47.0–58.0	0.05–0.10 0.05–0.14 0.08–0.16 0.10–0.20 0.12–0.24	300(250–350)

刮管刀片/Tube Scraper Inserts
FONHAE 方瀚

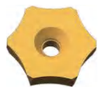


HDMB 刮管刀片



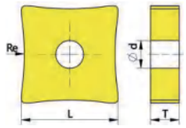
√ 良好工况Good working conditions ○ 一般工况General working conditions × 不稳定工况Unstable working conditions

工件材料 Workpiece Material																		
P	钢	√	√	√	○	○	○	×	×	×	○	○	○				√
M	不锈钢																√
K	铸铁													√	√	√	
N	有色金属																
S	耐热合金、钛合金																
H	淬硬钢																

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)				CVD涂层													金陶 Cermet
		L	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT1331	FT1332	FT1335	FT3221	FT3222	FT3223	FC5280
	HDMB 20K-R12	20.7	4.76	5.2	12				●						▲						
	HDMB 20K-R15	20.7	4.76	5.2	15				●						▲						
	HDMB 20K-R20	20.7	4.76	5.2	20				●						▲						
	HDMB 20K-R25	20.7	4.76	5.2	25				●						▲						
	HDMB 20K-R40	20.7	4.76	5.2	40				●						▲						
	HDMB 20K-R50	20.7	4.76	5.2	50				●						▲						

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

SDUB/SPUB 刮管刀片



√ 良好工况Good working conditions ○ 一般工况General working conditions × 不稳定工况Unstable working conditions

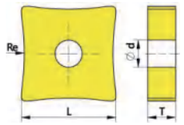
工件材料 Workpiece Material																		
P	钢	√	√	√	○	○	○	×	×	×	○	○	○				√
M	不锈钢																√
K	铸铁													√	√	√	
N	有色金属																
S	耐热合金、钛合金																
H	淬硬钢																

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)				CVD涂层													金陶 Cermet
		L	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT1331	FT1332	FT1335	FT3221	FT3222	FT3223	FC5280
	SDUB 20K-R50	22	6	6.35	50	▲			●						●						
	SDUB 20K-R75	22	6	6.35	75	▲			●						●						
	SDUB 20K-R100	22	6	6.35	100	▲			●						●						
	SPUB 1904K-R12	19.05	4.76	5.2	12	▲			●						●						
	SPUB 1904K-R15	19.05	4.76	5.2	15	▲			●						●						
	SPUB 1904K-R18	19.05	4.76	5.2	18	▲			●						●						
	SPUB 1904K-R20	19.05	4.76	5.2	20	▲			●						●						
	SPUB 1904K-R23	19.05	4.76	5.2	23	▲			●						●						
	SPUB 1904K-R25	19.05	4.76	5.2	25	▲			●						●						
	SPUB 1904K-R30	19.05	4.76	5.2	30	▲			●						●						

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

SNGN

刮管刀片



√ 良好工况Good working conditions ○ 一般工况General working conditions × 不稳定工况Unstable working conditions

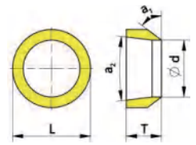
工件材料 Workpiece Material																			
P	钢	√	√	√	○	○	○	×	×	×	○	○	○				√
M	不锈钢																√
K	铸铁													√	√	√	
N	有色金属																
S	耐热合金、钛合金																
H	淬硬钢																

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)				CVD涂层													金陶 Cermet
		L	T	Φd	r	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT1331	FT1332	FT1335	FT3221	FT3222	FT3223	FC5280
	SNGN 12K-R10	12.70	8.00		10.00				•									▲			
	SNGN 12K-R16	12.70	8.00		16.00				•									▲			
	SNGN 12K-R20	12.70	8.00		20.00				•									▲			
	SNGN 12K-R25	12.70	8.00		25.00				•									▲			
	SNGN 12K-R30	12.70	8.00		30.00				•									▲			
	SNGN 12K-R40	12.70	8.00		40.00				•									▲			
	SNGN 12K-R50	12.70	8.00		50.00				•									▲			
	SNGN 12K-R60	12.70	8.00		60.00				•									▲			
	SNGN 12K-R70	12.70	8.00		70.00				•									▲			
	SNGN 12K-R80	12.70	8.00		80.00				•									▲			
	SNGN 12K-R90	12.70	8.00		90.00				•									▲			
	SNGN 12K-R12.5	12.70	8.00		12.50				•									▲			
	SNGN 12K-R14.5	12.70	8.00		14.50				•									▲			
	SNGN 12K-R18	12.70	8.00		18.00				•									▲			
	SNGN 12K-R23	12.70	8.00		23.00				•									▲			
	SNGN 12K-R28	12.70	8.00		28.00				•									▲			

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

RNGX

刮管刀片



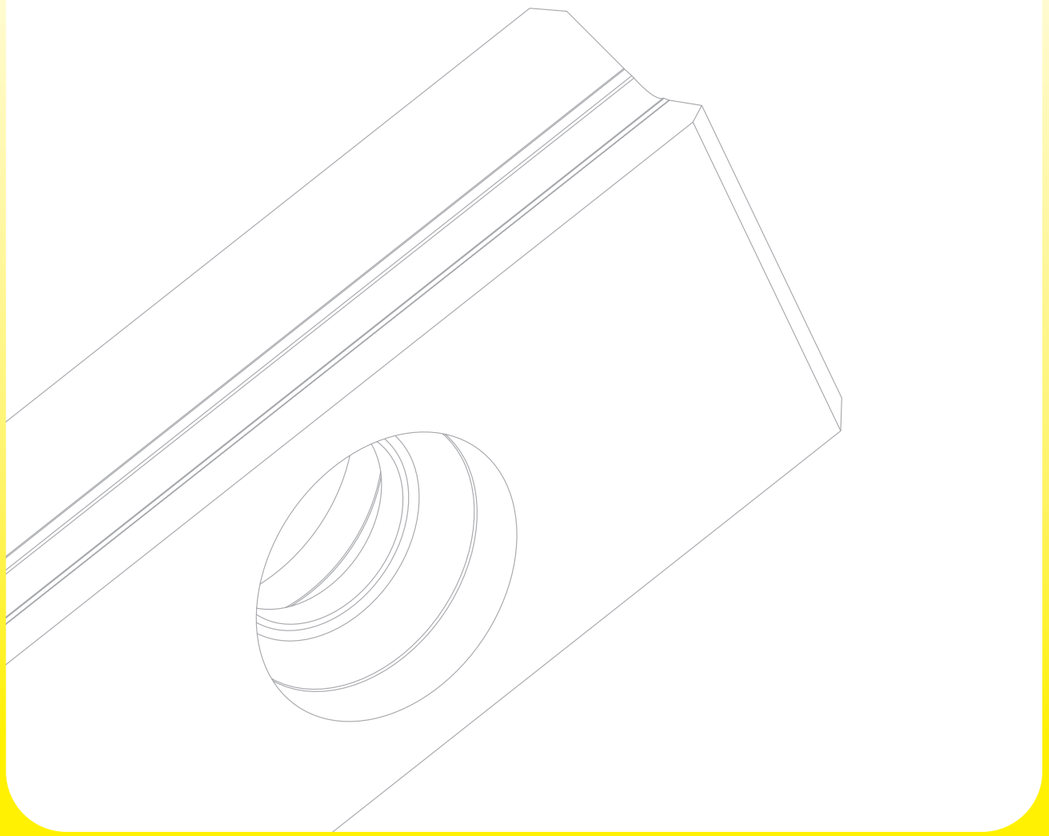
√ 良好工况Good working conditions ○ 一般工况General working conditions × 不稳定工况Unstable working conditions

工件材料 Workpiece Material																			
P	钢		√	√	√	○	○	○	×	×	×	○	○	○					
M	不锈钢																		
K	铸铁														√	√	√		
N	有色金属																		
S	耐热合金、钛合金																		
H	淬硬钢																		

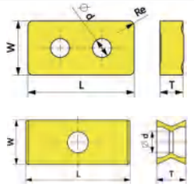
产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD涂层														
		L	T	Φd	α1	α2	FT1151	FT1152	FT1153	FT1251	FT1252	FT1253	FT1371	FT1372	FT1373	FT1331	FT1332	FT1335	FT3221	FT3222	FT3223
	RNGX1004N06-AR6.5	10	4.5	6	24	48										▲		•			
	RNGX1910N09-AR10	19	10	9	17	42										▲		•			
	RNGX2212N12-AR14	22	12	12	35	36										▲		•			
	RNGX3512N20-AR23	35	12	20	50.6	36										▲		•			

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

非标异形刀片/Special Design Inserts



Special Design Inserts 非标异形刀片



√ 良好工况 Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

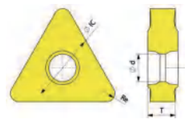
工件材料 Workpiece Material															
P	钢	○	○	○											
M	不锈钢							√	√	○	√	×			
K	铸铁				√	√	√								
N	有色金属														
S	耐热合金、钛合金														
H	淬硬钢														

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)					CVD 涂层						PVD 涂层				
		L	W	Φd	T	r	FT1331	FT1332	FT1333	FT3221	FT3222	FT3223	FT8204	FT8205	FT8206	FT8207	FT8208
	LNMT402514K-SK	40	25.4	9.2	11.2	1.4	▲			●							
	LNMT502514K-SK	50	25.4	9.2	11.2	1.4	▲			●							
	LNKX0912 -V	12	9	4.4	6									▲			
	LNKX0921 -V	21	9	4.4	6									▲			

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

非标异形刀片
Special Design Inserts
FONHAE 方瀚

Special Design Inserts 非标异形刀片



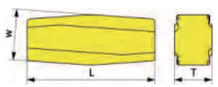
√ 良好工况 Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material															
P	钢	○	○	○											
M	不锈钢							√	√	○	√	×			
K	铸铁				√	√	√								
N	有色金属														
S	耐热合金、钛合金														
H	淬硬钢														

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)				CVD 涂层						PVD 涂层				
		ΦI.C	Φd	T	r	FT1331	FT1332	FT1333	FT3221	FT3222	FT3223	FT8204	FT8205	FT8206	FT8207	FT8208
	TNMX1106K-Z	15.875	6.35	6.35	1.6	▲			●							
	TNMX1509K-Z	22.225	7.94	9.52	1.6	▲			●							
	TNMX1509K-C	22.225	7.94	9.72	1.6	▲			●							
	TNMX1108-YP	22	7	8	1.6	▲			●							

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

Special Design Inserts 非标异形刀片



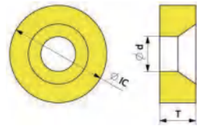
√ 良好工况 Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material													
P	钢	○	○	○									
M	不锈钢							√	√	○	√	×	
K	铸铁				√	√	√						
N	有色金属												
S	耐热合金、钛合金												
H	淬硬钢												

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)			CVD 涂层						PVD 涂层				
		L	W	T	FT1331	FT1332	FT1333	FT3221	FT3222	FT3223	FT8204	FT8205	FT8206	FT8207	FT8208
	LNMG2006K-E	20.5	8	6	▲			●							
	TNMX1106K-Z	31	12	7.5	▲			▲							
	TNMX1509K-Z	37	17.8	12	▲			▲							
	TNMX1509K-C	37	17.8	12	▲			▲							

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order

Special Design Inserts 非标异形刀片

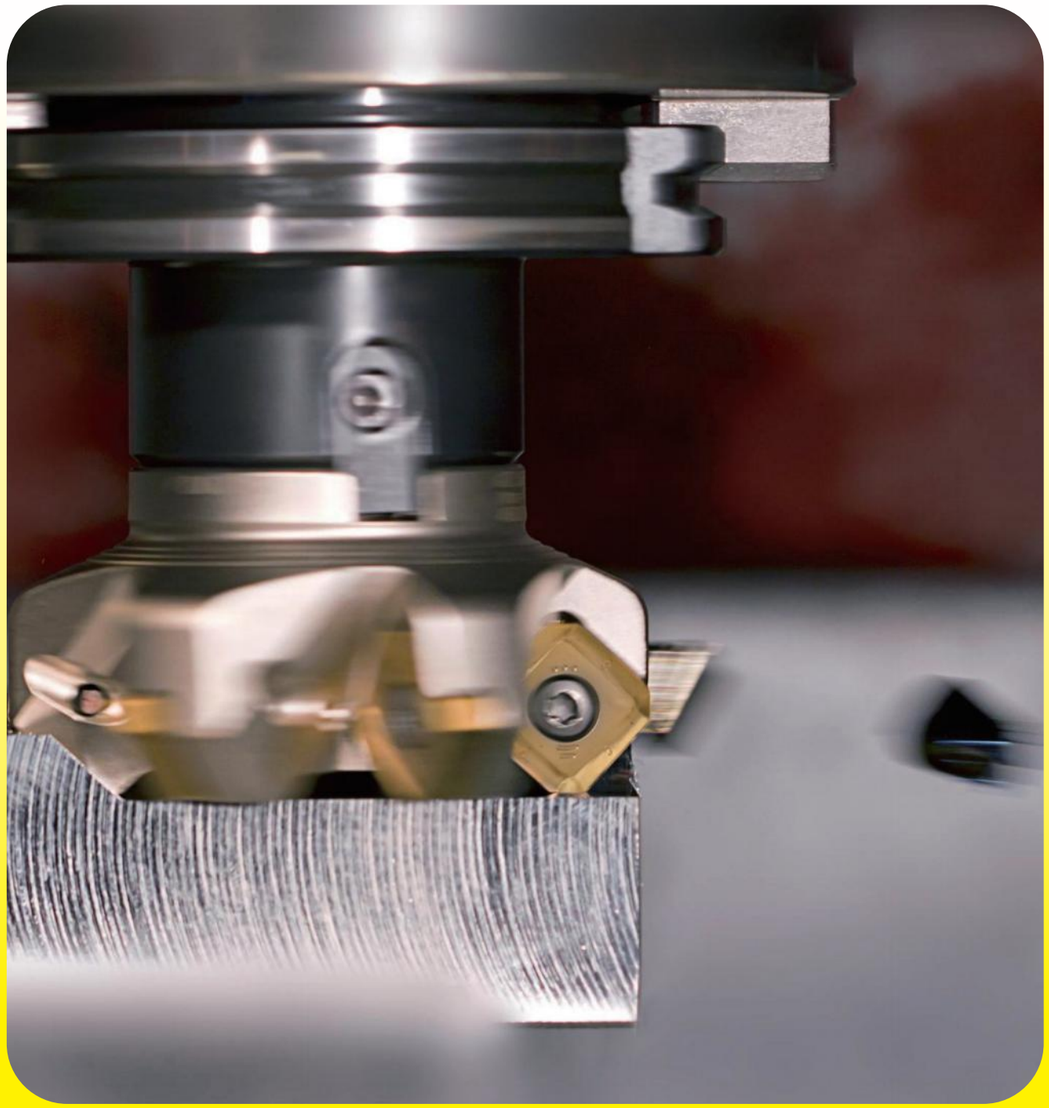


√ 良好工况 Good working conditions ○ 一般工况 General working conditions × 不稳定工况 Unstable working conditions

工件材料 Workpiece Material													
P	钢	○	○	○									
M	不锈钢							√	√	○	√	×	
K	铸铁				√	√	√						
N	有色金属												
S	耐热合金、钛合金												
H	淬硬钢												

产品 Inserts Shape	型号 Type	尺寸 Dimensions (mm)				CVD 涂层						PVD 涂层				
		ΦI.C	Φd	T	r	FT1331	FT1332	FT1333	FT3221	FT3222	FT3223	FT8204	FT8205	FT8206	FT8207	FT8208
	RNMH2509KRR	25.4	9.12	9.5		▲			●							
	RNGH3812KRR	38.1	12.8	12.7		▲			●							

▲为主推荐牌号 Recommended grade (Always stock available) ●按订单生产可选牌号 Make-to-order



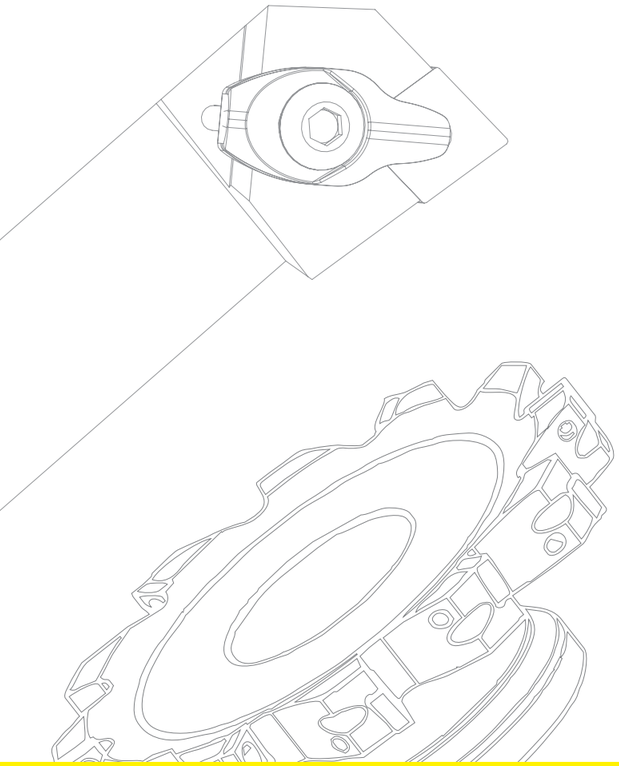
钢件加工案例 Steel Processing Application Cases

不锈钢加工案例 Stainless Steel Processing Application Cases

铸铁加工案例 Cast Iron Processing Application Cases

铣削加工案例 Milling Processing Application Cases

耐热合金加工案例 Heat-resistant Alloy Processing Cases

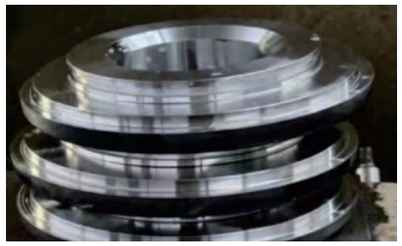


钢件加工案例

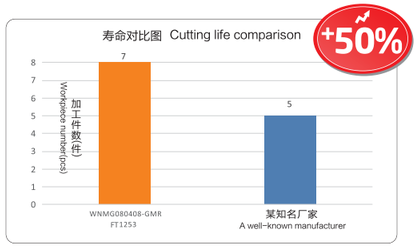
Steel Processing Application Cases

FONHAE 方瀚

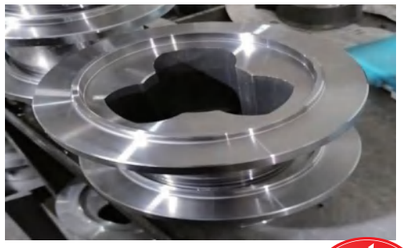
加工案例 Application Cases



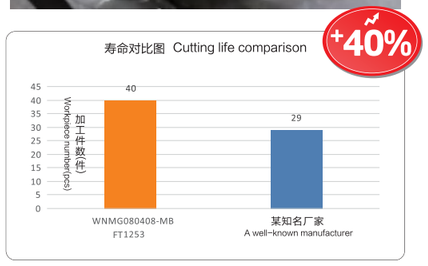
客户名称：****机械制造有限公司
工件名称：端盖
被加工材料：42CrMo
加工设备：数控车床
使用刀片：WNMG080408-GMR/FT1253
对比刀片：国外某知名厂家
冷却方式：冷却液
加工内容：粗车外圆
加工参数：Vc=200m/min，Fn=0.24mm/r，Ap=1.3mm



Customer: ****Machinery Manufacturing Co., Ltd
Work piece: End bracket
Work piece material: 42CrMo
Lathe type: CNC lathe
Kerno insert: WNMG080408-GMR/FT1253
Compare insert: Well-known foreign brand
Cooling type: Liquid cooling
Processing content: External roughing turning
Cutting parameters: Vc=200m/min，Fn=0.24mm/r，Ap=1.3mm



客户名称：****制造有限公司
工件名称：球笼
被加工材料：钢件
加工设备：数控车床
使用刀片：WNMG080408-MB/FT1253
对比刀片：国内某知名厂家
冷却方式：冷却液
加工内容：粗车(断续)
加工参数：Vc=120m/min，Fn=0.14mm/r，Ap=1.2mm



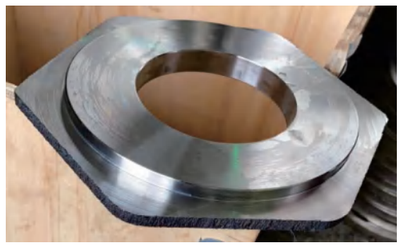
Customer: ****Machinery Manufacturing Co., Ltd
Work piece: Ball cage
Work piece material: Steel
Lathe type: CNC lathe
Kerno insert: WNMG080408-MB/FT1253
Compare insert: Well-known domestic brand
Cooling type: Liquid cooling
Processing content: Roughing turning (interrupted cutting)
Cutting parameters: Vc=120m/min，Fn=0.14mm/r，Ap=1.2mm

不锈钢加工案例

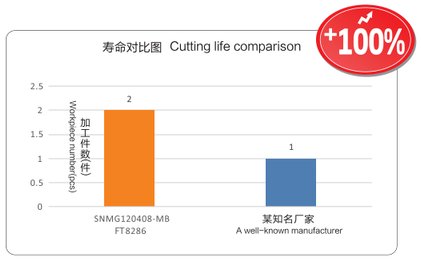
Stainless Steel Processing Application Cases

FONHAE 方瀚

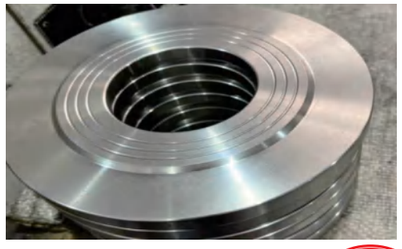
加工案例 Application Cases



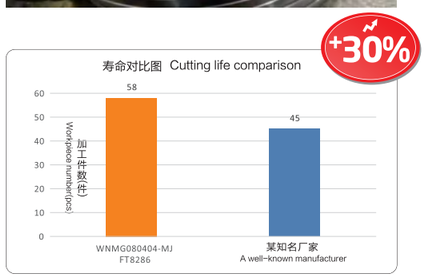
客户名称：****法兰制造有限公司
工件名称：法兰
被加工材料：不锈钢304
加工设备：数控车床
使用刀片：SNMG120408-MB/FT8286
对比刀片：国内某知名厂家
冷却方式：冷却液
加工内容：粗车(断续)
加工参数：Vc=135m/min，Fn=0.12mm/r，Ap=1.5mm



Customer: **** Flange Manufacturing Co., Ltd
Work piece: Flange
Work piece material: Stainless steel 304
Lathe type: CNC lathe
Kerno insert: SNMG120408-MB/FT8286
Compare insert: Well-known domestic brand
Cooling type: Liquid cooling
Processing content: Roughing turning (interrupted cutting)
Cutting parameters: Vc=135m/min，Fn=0.12mm/r，Ap=1.5mm

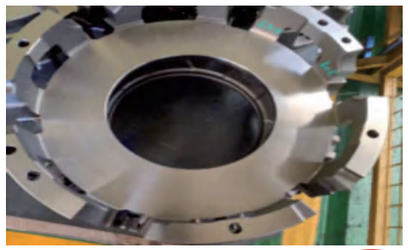


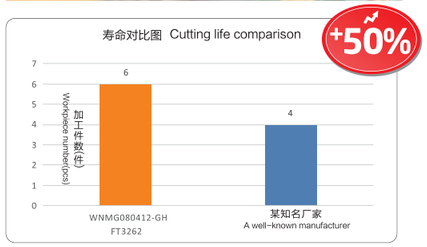
客户名称：****法兰制造有限公司
工件名称：法兰
被加工材料：不锈钢304
加工设备：数控车床
使用刀片：WNMG080404-MJ/FT8286
对比刀片：国内某知名厂家
冷却方式：冷却液
加工内容：精车
加工参数：Vc=185m/min，Fn=0.1mm/r，Ap=0.5mm



Customer: **** Flange Manufacturing Co., Ltd
Work piece: Flange
Work piece material: Stainless steel 304
Lathe type: CNC lathe
Kerno insert: WNMG080404-MJ/FT8286
Compare insert: Well-known domestic brand
Cooling type: Liquid cooling
Processing content: Finishing turning
Cutting parameters: Vc=185m/min，Fn=0.1mm/r，Ap=0.5mm

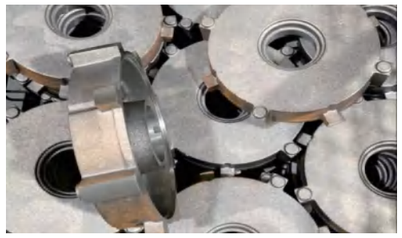
加工案例 Application Cases

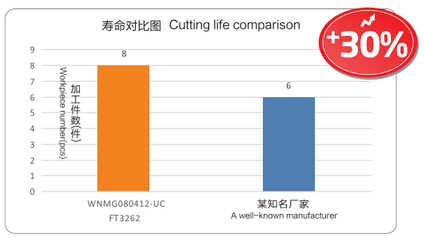




客户名称：苏州****制造有限公司
工件名称：离合器壳体
被加工材料：HT250
加工设备：数控车床
使用刀片：WNMG080412-GH/FT3262
对比刀片：国外某知名厂家
冷却方式：冷却液
加工内容：粗车
加工参数：Vc=320m/min，Fn=0.25mm/r，Ap=1.5mm

Customer: Suzhou * * ** Manufacturing Co., Ltd
Work piece: Clutch housing
Work piece material: HT250
Lathe type: CNC lathe
Kerno insert: WNMG080412-GH/FT3262
Compare insert: Well-known foreign brand
Cooling type: Liquid cooling
Processing content: Roughing turning
Cutting parameters:
Vc=320m/min，Fn=0.25mm/r，Ap=1.5mm

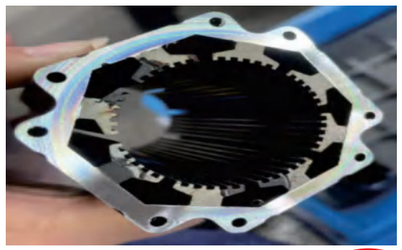


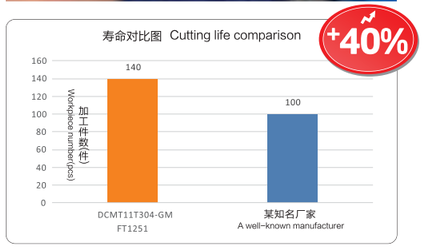


客户名称：昆山**机械有限公司
工件名称：飞轮壳
被加工材料：QT700
加工设备：数控车床
使用刀片：WNMG080412-UC/FT3262
对比刀片：国内某知名厂家
冷却方式：冷却液
加工内容：粗车
加工参数：Vc=216m/min，Fn=0.35mm/r，Ap=2-3mm

Customer: Kunshan * * Machinery Co., Ltd
Work piece: Flywheel housing
Work piece material: QT700
Lathe type: CNC lathe
Kerno insert: WNMG080412-UC/FT3262
Compare insert: Well-known domestic brand
Cooling type: Liquid cooling
Processing content: Roughing turning
Cutting parameters:
Vc=216m/min，Fn=0.35mm/r，Ap=2-3mm

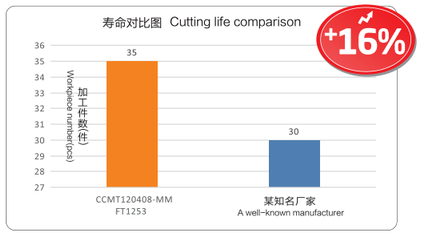
加工案例 Application Cases





客户名称：常州**电机有限公司
工件名称：电机壳
被加工材料：夕钢片
加工设备：数控车床
使用刀片：DCMT11T304-GM/FT1521
对比刀片：国外某知名厂家
冷却方式：冷却液
加工内容：精车
加工参数：Vc=320m/min，Fn=0.1mm/r，Ap=0.3mm

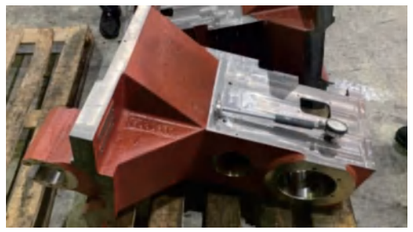
Customer: Changzhou * * Motor Co., Ltd
Work piece: Motor housing
Work piece material: Silicon steel sheet
Lathe type: CNC lathe
Kerno insert：DCMT11T304-GM/FT1521
Compare insert: Well-known foreign brand
Cooling type: Liquid cooling
Processing content: Finishing turning
Cutting parameters:
Vc=320m/min，Fn=0.1mm/r，Ap=0.3mm



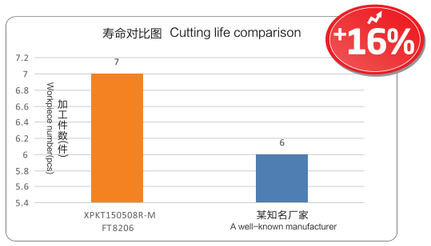
客户名称：**重工有限公司
工件名称：箱体
被加工材料：Q345
加工设备：数控车床
使用刀片：CCMT120408-MM/FT1521
对比刀片：国外某知名厂家
冷却方式：冷却液
加工内容：粗镗
加工参数：Vc=100m/min，Fn=0.2mm/r，Ap=2.5mm

Customer: **Heavy Industry Co., Ltd
Work piece: Box
Work piece material: Q345
Lathe type: CNC lathe
Kerno insert: CCMT120408-MM/FT1521
Compare insert: Well-known foreign brand
Cooling type:Liquid cooling
Processing content: Roughing boring
Cutting parameters:
Vc=100m/min，Fn=0.2mm/r，Ap=2.5mm

加工案例 Application Cases

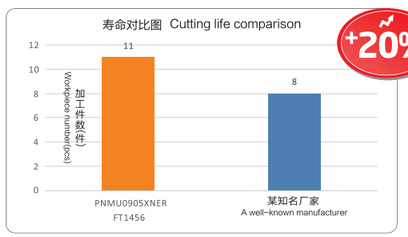


客户名称：昆山**机械有限公司
工件名称：头部
被加工材料：FC30
加工设备：加工中心
使用刀片：XPEX150508R-M/FT8206
对比刀片：国外某知名厂家
冷却方式：冷却液
加工内容：粗铣端面
加工参数：Vc=125m/min，Fz=0.15mm/r，Ap=2.5mm



Customer: Kunshan * * Machinery Co., Ltd
Work piece: The head
Work piece material: FC30
Lathe type: CNC Machining center
Kerno insert: XPEX150508R-M/FT8206
Compare insert: Well-known foreign brand
Cooling type: Liquid cooling
Processing content: Roughing end face milling
Cutting parameters:
Vc=125m/min，Fz=0.15mm/r，Ap=2.5mm

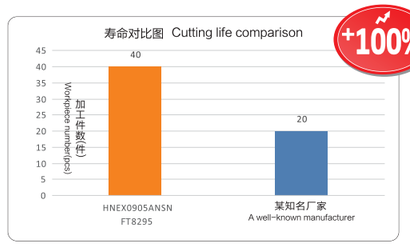
客户名称：江苏**制造有限公司
工件名称：涡轮壳
被加工材料：钢1.4837
加工设备：加工中心
使用刀片：PNMU0905XNER/FT1456
对比刀片：国外某知名厂家
冷却方式：冷却液
加工内容：粗铣端面
加工参数：Vc=85m/min，Fz=0.18mm/r，Ap=2.5-3mm



Customer: Jiangsu * * Manufacturing Co., Ltd
Work piece: Turbine housing
Work piece material: Steel 1.4837
Lathe type: CNC machining center
Kerno insert: PNMU0905XNER/FT1456
Compare insert: Well-known foreign brand
Cooling type: Liquid cooling
Processing content: Roughing end face milling
Cutting parameters:
Vc=85m/min，Fz=0.18mm/r，Ap=2.5-3mm

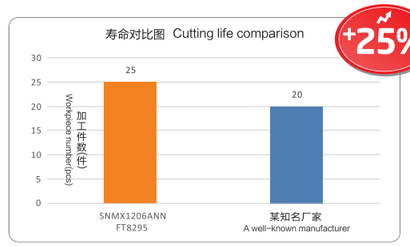
加工案例 Application Cases

客户名称：常州**机械有限公司
工件名称：电梯板
被加工材料：Q345B
加工设备：加工中心
使用刀片：HNEX0905ANSN/FT8295
对比刀片：国外某知名厂家
冷却方式：冷却液
加工内容：粗铣端面
加工参数：Vc=300m/min，Fz=0.42mm/r，Ap=0.7mm



Customer: Changzhou * * Machinery Co., Ltd
Work piece: Elevator board
Work piece material: Q345B
Lathe type: CNC machining center
Kerno insert: HNEX0905ANSN/FT8295
Compare insert: Well-known foreign brand
Cooling type: Liquid cooling
Processing content: Roughing end face milling
Cutting parameters:
Vc=300m/min，Fz=0.42mm/r，Ap=0.7mm

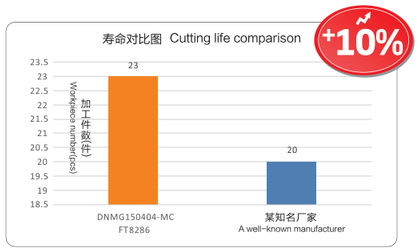
客户名称：杭州**有限公司
工件名称：电磁铁
被加工材料：A3
加工设备：加工中心
使用刀片：HNEX0905ANSN/FT8295
对比刀片：国内某知名厂家
冷却方式：冷却液
加工内容：铣面
加工参数：Vc=180m/min，Fz=0.0.15mm/r，Ap=0.3mm



Customer: Hangzhou * * Co., Ltd
Work piece: Electromagnet
Work piece material: A3
Lathe type: CNC machining center
Kerno insert: HNEX0905ANSN/FT8295
Compare insert: Well-known domestic brand
Cooling type: Liquid cooling
Processing content: Face milling
Cutting parameters:
Vc=180m/min，Fz=0.0.15mm/r，Ap=0.3mm

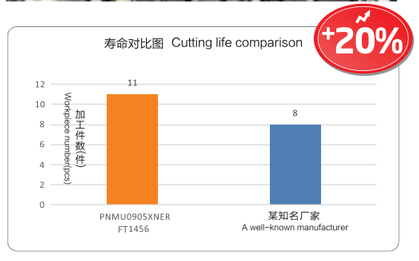
加工案例 Application Cases

客户名称：江苏**制造有限公司
工件名称：涡轮壳
被加工材料：钢1.4837
加工设备：加工中心
使用刀片：DNMG150404/FT8206
对比刀片：国外某知名厂家
冷却方式：冷却液
加工内容：精铣内孔
加工参数：Vc=86m/min，Fz=0.12mm/r，Ap=0.5mm



Customer: Jiangsu * * Manufacturing Co., Ltd
Work piece: Turbine housing
Work piece material: Steel 1.4837
Lathe type: CNC machining center
Kerno insert: DNMG150404/FT8206
Compare insert: Well-known foreign brand
Cooling type: Liquid cooling
Processing content: Inner finishing milling
Cutting parameters:
Vc=86m/min，Fz=0.12mm/r，Ap=0.5mm

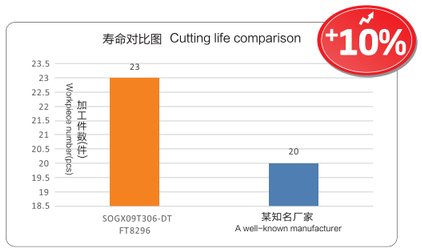
客户名称：江苏**制造有限公司
工件名称：涡轮壳
被加工材料：钢1.4837
加工设备：加工中心
使用刀片：PNMU0905XNER/FT1456
对比刀片：国外某知名厂家
冷却方式：冷却液
加工内容：粗铣端面
加工参数：Vc=85m/min，Fz=0.18mm/r，Ap=2.5-3mm



Customer: Jiangsu * * Manufacturing Co., Ltd
Work piece: Turbine housing
Work piece material: Steel 1.4837
Lathe type: CNC machining center
Kerno insert: PNMU0905XNER/FT1456
Compare insert: Well-known foreign brand
Cooling type: Liquid cooling
Processing content: Roughing end face milling
Cutting parameters:
Vc=85m/min，Fz=0.18mm/r，Ap=2.5-3mm

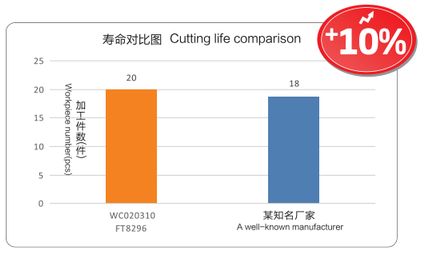
加工案例 Application Cases

客户名称：江苏**制造有限公司
工件名称：涡轮壳
被加工材料：钢1.4837
加工设备：加工中心
使用刀片：SOGX09T306-DT/FT8296
对比刀片：国外某知名厂家
冷却方式：冷却液
加工内容：粗铣内孔
加工参数：Vc=40m/min，Fz=0.08mm/r，Ap=1.5mm



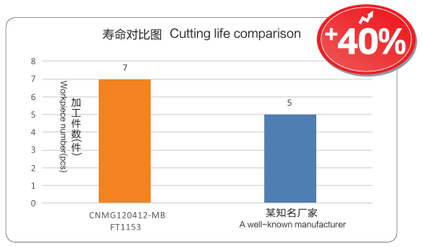
Customer: Jiangsu * * Manufacturing Co., Ltd
Work piece: Turbine housing
Work piece material: Steel 1.4837
Lathe type: CNC machining center
Kerno insert: SOGX09T306-DT/FT8296
Compare insert: Well-known foreign brand
Cooling type: Liquid cooling
Processing content: Inner roughing milling
Cutting parameters:
Vc=40m/min，Fz=0.08mm/r，Ap=1.5mm

客户名称：江苏**制造有限公司
工件名称：涡轮壳
被加工材料：钢1.4837
加工设备：加工中心
使用刀片：WC020310/FT8296
对比刀片：国外某知名厂家
冷却方式：冷却液
加工内容：精铣内孔
加工参数：Vc=219m/min，Fz=0.05mm/r，Ap=0.2mm



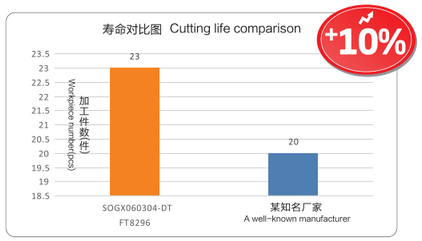
Customer: Jiangsu * * Manufacturing Co., Ltd
Work piece: Turbine housing
Work piece material: Steel 1.4837
Lathe type: CNC machining center
Kerno insert: WC020310/FT8296
Compare insert: Well-known foreign brand
Cooling type：Liquid cooling
Processing content: Inner finishing milling
Cutting parameters:
Vc=219m/min，Fz=0.05mm/r，Ap=0.2mm

加工案例 Application Cases



客户名称：江苏**制造有限公司
工件名称：涡轮壳
被加工材料：钢1.4837
加工设备：加工中心
使用刀片：CNMG120412-MB/FT1153
对比刀片：国外某知名厂家
冷却方式：冷却液
加工内容：粗铣内孔
加工参数：Vc=68m/min，Fz=0.2mm/r，Ap=1.3mm

Customer: Jiangsu * * Manufacturing Co., Ltd
Work piece: Turbine housing
Work piece material: Steel 1.4837
Lathe type: CNC machining center
Kerno insert: CNMG120412-MB/FT1153
Compare insert: Well-known foreign brand
Cooling type: Liquid cooling
Processing content: Inner roughing milling
Cutting parameters:
Vc=68m/min，Fz=0.2mm/r，Ap=1.3mm



客户名称：江苏**制造有限公司
工件名称：涡轮壳
被加工材料：钢1.4837
加工设备：加工中心
使用刀片：SOGX060304-DT/FT8296
对比刀片：国外某知名厂家
冷却方式：冷却液
加工内容：精铣内孔
加工参数：Vc=81m/min，Fz=0.05mm/r，Ap=0.2mm

Customer: Jiangsu * * Manufacturing Co., Ltd
Work piece: Turbine housing
Work piece material: Steel 1.4837
Lathe type: CNC machining center
Kerno insert: SOGX060304-DT/FT8296
Compare insert: Well-known foreign brand
Cooling type: Liquid cooling
Processing content: Inner finishing milling
Cutting parameters:
Vc=81m/min，Fz=0.05mm/r，Ap=0.2mm

通用技术信息/General Technical Informations

FONHAE 方瀚

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内孔车削加工切削用量修正表Correction Table of Cutting for Internal Hole Turning Machining

刀具磨损与各类损伤 Inserts Wear and All Kinds of Damage

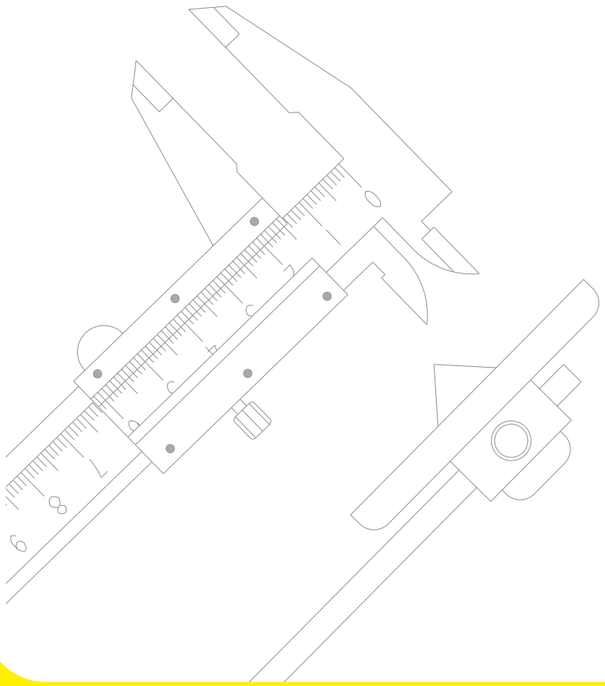
车削三要素对加工的影响 Turning Three Elements Effects on Machining

孔加工孔常见问题及解决办法 Common Problems and Solutions for Drilling

材料硬度与切削速度的修正系数表The Correction Coefficient Table of Hardness and Cutting Speed

材料对照表 Material Comparison

硬度对照表 Hardness Comparison



牌号对照表

Grade Comparison Table

FONHAE 方瀚

CVD 涂层材料 CVD Coating

APPLICATION	ISO CODE		FONHAE	ZCC. CT	SANDVIK	WALTER	KENNAMETAL	SECO	ISCAR	MITSUBISHI	KYOCERA	TUNGALOY	TAEGUTEC	KORLOY
Turning	P	P10	FT1153	YBC151 YBC152	GC4015 GC4215	WAP10	KC9110	TP1000	IC9150 IC9015	UE6105 MC6015	CA510 CA5505	T9105 T9005	TT1300	NC3010
		P20	FT1253	YBC251 YBC252 YBC201	GC4025 GC4225	WAP20	KC9125	TP2000	IC9250 IC9025	MC6015 UE6110	CA515 CA5515	T9115 T9125	TT8125 TT1500	NC3215 NC3225
		P30	FT1373	YBC351 YBC352 YBC301	GC4035 GC4235 GC4030	WAP30	KC8050	TP3000	IC9350 IC656	MC6025 UE6020	CA525 CA5525	T9035 T9135	TT3500 TT5100	NC3030
		P40	FT1401	YBC401	GC4035 GC235		KC9140 KC9040	TP400 TP3000	IC635	UE6035 UH6400	CA5535	T9035	TT450	
	M	M10		YBM151	GC2015	WAM10	KU10 K313	TM2000	IC9250 IC6015	MC7015 US7020	CA6515	T9015		
		M20	FT2252	YBM251 YBM253	GC5025	WAM20	KC9225	TM2000	IC9250 IC9025	MC7015 US7025	CA6515 CA6525	T9125 T6020	TT2500	NC9020
		M30	FT2302	YBM351 YBM353	GC2035 GC235	WAM30	KC8050	TM4000	IC9350 IC6025	MC7025	CA6525	T6030	TT3500	NC9025
		M40	FT3221	YBM40			KC9240	TM4000	IC6025 IC9350	US735			TT5100	
	K	K01	FT3122	YBD051 YBD052	GC3205 GC3210		KCK05	TH1500 TK1000	IC5005 IC9007	UC5105 MC5005	CA4505 CA4010	T5105		NC6205
		K10	FT3262	YBD151 YBD152	GC3205 GC3215	WAK10	KCK15 KCK20	TK1001 TK2000	IC5005 IC9150	MC5015 UC5115	CA4515 CA4115	T5115	TT1300	NC6210 NC6215
		K20	FT3263	YBD252	GC3215	WAK20	KCK20 KC9325	TK2000 TK2001	IC5010 IC8150	UC5115 UR6110	CA4515 CA4120	T5115 T5125	TT1500	NC6210 NC6215
Milling	P	P10						MP1500	IC9080					
		P20	FT2252	YBM253	GC4220	WAP25		MP1500 MP2500	IC5100	F7030		T3130		NC5340
		P30	FT2302	YBM353	GC4230	WAP35	KCPK30	MP2500	IC4050	F7030		T3030	TT7300	NC5350 NC5340
		P40			GC4240		KC935M							
	M	M10					TN25M		IC9250					NC5330
		M20	FT2252	YBM253	GC2040		KC925M	MP2500	IC9350	F7030	CA6535	T3130		NC5340 NC5350
		M30	FT2302	YBM353		WTP35	KC930M	MP2500	IC9350	F7030	CA6535	T3130		
	K	K10	FT3262	YBD152		WAK15				MC5020		T1115		NC5330
		K20	FT3262	YBD252	GC3220	WAK25	KC915M	MK2000	IC5100	MC5020		T1115		NC5340 NC5350
		K30			GC3330		KC920M	MK3000	IC4050					

牌号对照表

Grade Comparison Table

FONHAE 方瀚

CVD 涂层材料 CVD Coating

APPLICATION	ISO CODE		FONHAE	ZCC. CT	SANDVIK	WALTER	KENNAMETAL	SECO	ISCAR	MITSUBISHI	KYOCERA	TUNGALOY	TAEGUTEC	KORLOY
Turning	P	P10	FT3126	YBG102			KC5010 KC5510	CP200	IC507	VP10MF	PR915 PR930	AH710		
		P20	FT8206	YBG201 YBG202 YBG205	GC1020 GC1025		KC5025	CP250	IC908	VP15TF VP20MF	PR630 PR915	AH710 AH330	TT9030 TT9080	PC8110
		P30	FT8286	YBG201 YBG202 YBG205	GC1025 GC4125		K7010	CP500	IC928	VP15TF VP20MF	PR630 PR660	AH330 AH740	TT9030 TT9080	PC5300 PC8115
		P40	FT8326	YBG302	GC1020 GC2145		K7030	CP500	IC928 IC1008	VP15TF VP20MF	PR660	AH120		
	M	M10	FT3126	YBG102			KC5010 KC5510	CP200	IC507	VP10MF	PR915 PR930	AH710		
		M20	FT8206	YBG201 YBG205	GC1020 GC1025		KC5025 KC5525	CP250	IC908	VP15TF VP20MF	PR630 PR915	AH710 AH330	TT9030 TT9080	PC8115 PC9030
		M30	FT8326	YBG302	GC1020 GC2145		KC5025 KC5525	CP500	IC928 IC1008	VP15TF VP20MF	PR630 PR660	AH120	TT9080	PC9030 PC5400
		M40			GC2145						PR660			
	K	K10	FT3126	YBG102			KC5010 KC5510	CP200	IC507	VP10MF	PR915	AH110		
		K20	FT8286	YBG201 YBG205	GC1020		KC7015	CP250	IC908	VP15TF	PR915	AH120	TT9030 TT9080	PC5300 PC9030
		K30			GC4125		KC7225	CP500		VP15TF				
	S	S10	FT3126				KC5010 KC5510	CP200				GH110 AH110		PC8105
		S20	FT8296		GC1020		KC7015	CP250	IC928 IC1008	VP15TF		AH120	TT9080	PC8115 PC5400
		S30	FT1456		GC4125		KC7225	CP500	IC928 IC908	VP15TF				
Milling	P	P10			GC1025	WXH15 WXM15	KC715M		IC903 IC950		PR830 PR730			PC2025 PC2010
		P20	FT8296 FT8298	YBG202 YBG205	GC1025	WXM25	KC522M KC525M	F25M	IC928 IC900	VP15TF	PR630 PR730	GH330	TT7080 TT9030	PC3500
		P30	FT8326	YBG302	GC1030	WXM35	KC725M KC735M	F25M F30M	IC928	VP30RT VP15TF	PR630 PR730	AH330 AH120	TT7080 TT9030	PC3500 PC5300
	M	M10	FT8206		GC1025	WXM15	KC715M				PR630 PR730			
		M20	FT8296 FT8298	YBG202 YBG205	GC2030		KC522M KC525M	F25M	IC928 IC908	VP20RT VP15TF	PR630 PR730	GH330	TT7030 TT9030	PC3530
		M30	FT8326	YBG302	GC2030	WXM35	KC725M KC735M	F25M F30M	IC928	VP30RT VP15TF	PR630 PR730	AH330 AH120	TT7030 TT9030	PC5400 PC3530
	K	K10	FT3262	YBG102		WXH15 WXM15	KC510M		IC900 IC910	VP10MF	PR510 PR905	AH110	TT6080	PC8110
		K20	FT3262	YBG201 YBG205		WXM15	KC520M KC525M		IC910 IC950	VP15TF VP20RT	PR510 PR905	AH120	TT9030 TT9080	PC6510 PC5300
		K30	FT8296				KC725M KC735M		IC908 IC928	VP15TF VP20RT				
	S	K10	FT8206				KC510M		IC908	VP15TF	PR660	AH120	TT6030	PC5300
		K20	FT8296		GC1025	WXM35	KC522M KC525M		IC908	VP15TF	PR660		TT8020	PC5400 PC9030
		K30	FT1456		GC2030		KC725M	F40M	IC328 IC928		PR660		TT8030 TT9080	

牌号对照表

Grade Comparison Table

FONHAE 方瀚

非涂层硬质合金 Uncoated carbide inserts

APPLICATION	ISO CODE		FONHAE	ZCC. CT	SANDVIK	WALTER	KENNAMETAL	SECO	ISCAR	MITSUBISHI	KYOCERA	TUNGALOY	TAEGUTEC	KORLOY
Turning	P	P10			S1P		P10		IC70				P10	ST10
		P20	FT3220	YC20	SMA		K125M TTM		IC70 IC50M	UTi20T		TX10S	P20	ST20
		P30	FT1330	YC40S	SM30		GK K600 TTR		IC50M IC54	UTi20T	PW30	TX20 TX25	P30	ST30A
		P40	FT1330	YC40	S6		G13		IC54			TX30 UX30		
	M	M10		YW1	H10A		K313	890				TU10	M10	U10
		M20	FT2250	YW2	H13A		K68 KMF	HX 883	IC08	UTi20T		TU20 UX30	M20	U20
		M30	FT2300		H10F SM30		K600 TTR		IC08 IC28	UTi20T		UX30		ST30A
		M40			S5		G13					TU40	M40	U40
	K	K01		YD051	H1P		K605			UTi05T		TH03 KS05F		H02
		K10	FT3120	YD101	H1P H10		K313 K110M	890	IC20	HTi10	KW10	G1F TH10	K10	H01
		K20	FT3260	YD201	H13A		K715 KMF	890 HX	IC20 IC10	UTi20T	GW10	G2F KS15F	K20	G10
	N	N01					K605					KS05F		
		N10	FT3120	YD101		WK10	K313 K110M	890 H15		HTi10		TH10 H10T	K10	K10
		N20	FT3260	YD201			K715 KMF	HX 883				KS15F		K20
Milling	P	P10			S1P								P10	S1P
		P20	FT3220	YC20			K125		IC50M	UTi20T		TX25	P20	
		P30	FT1330	YC40S			GX K600		IC50M IC28	UTi20T	PW30	UX30	P30	
		P40	FT1330	YC40					IC28		PW30			
	M	M10		YW1			K110M						M10	
		M20	FT2250	YW2			K313			UTi20T			M20	
		M30	FT2300				KFM K600		IC28	UTi20T		UX30		
		M40							IC28			TU40	M40	
	K	K01		YD051						KTi05T				
		K10	FT3120	YD101	H1P	WK10	K110M		IC20	HTi10	KW10	TH10	K10	H1P
		K20	FT3260	YD201			KFM	HX	IC20 IC10	UTi20T			K20	

牌号对照表

Grade Comparison Table

FONHAE 方瀚

金属陶瓷 Cermet

APPLICATION	ISO CODE		FONHAE	ZCC. CT	SANDVIK	WALTER	KENNAMETAL	SECO	ISCAR	MITSUBISHI	KYOCERA	TUNGALOY	TAEGUTEC	KORLOY
Turning	P	P10		YNG151 YNG151C			KT315 TT125	CM CMP	IC20N IC520N	AP25N NX2525	TN60 TN6020	NS520 AT520	PV3010	CC105 CN1000
		P20		YNG151 YNG151C	CT5015 GC1525		KT325	TP1030	IC20N IC520N	AP25N NX2525	TN10 TN6020	NS520 AT530	CT3000	CN1500 CN2000
		P30		YNG151 YNG151C	GC1525			C15M	IC75T IC30N	VP45N		NS530 NS730	CT7000	CN20
		P40												
	M	M10		YNG151 YNG151C	GC1525		KT315	CM CMP		AP25N NX2525	TN60 TN6020	NS520 AT530	PV3010 PV3030	CC105 CN1000
		M20		YNG151 YNG151C	GC1525		KT5020 KT125	TP1030 CMP		NX3035 AP25N NX2525	TN90 TN6020	NS530 GT730	CT3000	CN2000
		M30		YNG151 YNG151C			KT1120 KT175	TP1020 C15M		NX2525			CT7000	CN20
		M40												
	K	K01					KT315			AP25N NX2525	TN30		PV3030	CN1000
		K10		YNG151 YNG151C	CT5015		TT125 KT325			AP25N NX2525	TN60	NS520 AT520	CT3000	CN2000
		K20		YNG151 YNG151C						AP25N NX2525		NS530 GT730		
Milling	P	P10		YNG151 YNG151C				C15M	IC30N	NX2525	TN60		CT3000	
		P20		YNG151 YNG151C	CT530		KT530M HT7	C15M	IC30N	NX2525	TN100M	NS530	CT3000	
		P30		YNG151 YNG151C					IC30N	NX4545		NS530 NS540		
	M	M10		YNG151 YNG151C					IC30N	NX2525	TN60		CT3000	
		M20		YNG151 YNG151C	CT530		KT530M HT7	C15M	IC30N	NX2525	TN100M	NS530	CT3000	
		M30		YNG151 YNG151C						NX4545		NS540		
	K	K10		YNG151 YNG151C						NX2525	TN60	NS530	CT3000	
		K20		YNG151 YNG151C			KT530M HT7			NX2525			CT3000	
		K30		YNG151 YNG151C										

切削参数一览表

Cutting Parameters Table

FONHAE 方瀚

车削钢件类 TurningInserts For Steel

ISO代号 ISO Code	工件材质 Workpiece Material	硬度 Hardness	应用范围 Application Range	槽型 Chip Breaker	牌号 Grade	切削速度 Cutting Speed (m/min)	进给 Feed (mm/rev)	切深 Depth of Cutting (mm)
P	软钢 Soft Steel	≤180HB	半精-精加工 For Semi-finishing and finishing	MB	FT1153/FT1253/FT1373	275-345	0.25-0.4	1~3
					FT1153/FT1253/FT1373	235-345	0.25-0.4	1~3
					FT1153/FT1253/FT1373	205-285	0.25-0.4	1~3
	碳钢、合金钢 Carbon steel,Alloy Steel	180 - 280HB			FT1153/FT1253/FT1373	255-325	0.25-0.4	1~3
					FT1153/FT1253/FT1373	205-325	0.25-0.4	1~3
		280-350HB			FT1153/FT1253/FT1373	185-265	0.25-0.4	1~3
					FT1153/FT1253/FT1373	205-285	0.25-0.4	1~3
					FT1153/FT1253/FT1373	175-285	0.25-0.4	1~3
	软钢 Soft Steel	≤180HB	半精加工 /粗加工 For Semi- finish and Rough Machining	GMR	FT1153/FT1253/FT1373	275-345	0.25-0.4	1~3
					FT1153/FT1253/FT1373	235-345	0.25-0.4	1~3
					FT1153/FT1253/FT1373	205-285	0.25-0.4	1~3
	碳钢、合金钢 Carbon steel,Alloy Steel	180 - 280HB			FT1153/FT1253/FT1373	255-325	0.25-0.4	1~3
					FT1153/FT1253/FT1373	205-325	0.25-0.4	1~3
		280-350HB			FT1153/FT1253/FT1373	185-265	0.25-0.4	1~3
					FT1153/FT1253/FT1373	205-285	0.25-0.4	1~3
					FT1153/FT1253/FT1373	175-285	0.25-0.4	1~3
	软钢 Soft Steel	≤180HB	半精加工 /粗加工 For Semi- finish and Rough Machining	PMK	FT1253	275-345	0.25-0.4	1~3
					FT1253	235-345	0.25-0.4	1~3
					FT1253	205-285	0.25-0.4	1~3
	碳钢、合金钢 Carbon steel,Alloy Steel	180 - 280HB			FT1253	255-325	0.25-0.4	1~3
					FT1253	205-325	0.25-0.4	1~3
		280-350HB			FT1253	185-265	0.25-0.4	1~3
					FT1253	205-285	0.25-0.4	1~3
					FT1253	175-285	0.25-0.4	1~3
	软钢 Soft Steel	≤180HB	中等加工 For Semi-finish Machining	PR	FT1153/FT1253	275-345	0.25-0.4	1~3
					FT1153/FT1253	235-345	0.25-0.4	1~3
					FT1153/FT1253	205-285	0.25-0.4	1~3
	碳钢、合金钢 Carbon steel,Alloy Steel	180 - 280HB			FT1153/FT1253	255-325	0.25-0.4	1~3
					FT1153/FT1253	205-325	0.25-0.4	1~3
		280-350HB			FT1153/FT1253	185-265	0.25-0.4	1~3
					FT1153/FT1253	205-285	0.25-0.4	1~3
					FT1153/FT1253	175-285	0.25-0.4	1~3
	软钢 Soft Steel	≤180HB	中等加工 For Semi-finish Machining	通槽 No chipbreaker	FT1153/FT1253	275-345	0.25-0.4	1~3
					FT1153/FT1253	235-345	0.25-0.4	1~3
					FT1153/FT1253	205-285	0.25-0.4	1~3
	碳钢、合金钢 Carbon steel,Alloy Steel	180 - 280HB			FT1153/FT1253	255-325	0.25-0.4	1~3
					FT1153/FT1253	205-325	0.25-0.4	1~3
		280-350HB			FT1153/FT1253	185-265	0.25-0.4	1~3
					FT1153/FT1253	205-285	0.25-0.4	1~3
					FT1153/FT1253	175-285	0.25-0.4	1~3
	软钢 Soft Steel	≤180HB	中等加工 For Semi-finish Machining	L/R-X	FT1153/FT1253	275-345	0.25-0.4	1~3
					FT1153/FT1253	235-345	0.25-0.4	1~3
					FT1153/FT1253	205-285	0.25-0.4	1~3
	碳钢、合金钢 Carbon steel,Alloy Steel	180 - 280HB			FT1153/FT1253	255-325	0.25-0.4	1~3
					FT1153/FT1253	205-325	0.25-0.4	1~3
		280-350HB			FT1153/FT1253	185-265	0.25-0.4	1~3
					FT1153/FT1253	205-285	0.25-0.4	1~3
					FT1153/FT1253	175-285	0.25-0.4	1~3

切削参数一览表

Cutting Parameters Table

FONHAE 方瀚

车削不锈钢类 TurningInserts For Stainless Steel

ISO代号 ISO Code	工件材质 Workpiece Material	硬度 Hardness	应用范围 Application Range	槽型 Chip Breaker	牌号 Grade	切削速度 Cutting Speed (m/min)	进给 Feed (mm/rev)	切深 Depth of Cutting (mm)
M	奥氏体不锈钢 Austenitic Stainless Steel	≤200HB	半精-精加工 For Semi-finishing and finishing	MF	FT8206	165-260	0.15-0.6	1~4
					FT8206	100-250	0.15-0.6	1~4
					FT8206	90-170	0.15-0.6	1~4
		>200HB			FT8206	150-240	0.15-0.6	1~4
	双相不锈钢 Duplex Stainless Steel	≤280HB			FT8206	90-230	0.15-0.6	1~4
	马氏体类不锈钢 Martensite Stainless Steel	≤200HB			FT8206	165-260	0.15-0.6	1~4
					FT8206	100-250	0.15-0.6	1~4
					FT8206	90-170	0.15-0.6	1~4
		>200HB			FT8206	150-240	0.15-0.6	1~4
	奥氏体不锈钢 Austenitic Stainless Steel	≤200HB	半精-精加工 For Semi-finishing and finishing	MJ	FT8206	165-260	0.15-0.6	1~4
					FT8206	100-250	0.15-0.6	1~4
					FT8206	90-170	0.15-0.6	1~4
		>200HB			FT8206	150-240	0.15-0.6	1~4
	双相不锈钢 Duplex Stainless Steel	≤280HB			FT8206	90-230	0.15-0.6	1~4
	马氏体类不锈钢 Martensite Stainless Steel	≤200HB			FT8206	165-260	0.15-0.6	1~4
					FT8206	100-250	0.15-0.6	1~4
					FT8206	90-170	0.15-0.6	1~4
		>200HB			FT8206	150-240	0.15-0.6	1~4
	奥氏体不锈钢 Austenitic Stainless Steel	≤200HB	半精-精加工 For Semi-finishing and finishing	MM-B	FT8206	165-260	0.15-0.6	1~4
					FT8206	100-250	0.15-0.6	1~4
					FT8206	90-170	0.15-0.6	1~4
		>200HB			FT8206	150-240	0.15-0.6	1~4
	双相不锈钢 Duplex Stainless Steel	≤280HB			FT8206	90-230	0.15-0.6	1~4
	马氏体类不锈钢 Martensite Stainless Steel	≤200HB			FT8206	165-260	0.15-0.6	1~4
					FT8206	100-250	0.15-0.6	1~4
					FT8206	90-170	0.15-0.6	1~4
		>200HB			FT8206	150-240	0.15-0.6	1~4

切削参数一览表

Cutting Parameters Table

FONHAE 方瀚

车削不锈钢类 TurningInserts For Stainless Steel

ISO代号 ISO Code	工件材质 Workpiece Material	硬度 Hardness	应用范围 Application Range	槽型 Chip Breaker	牌号 Grade	切削速度 Cutting Speed (m/min)	进给 Feed (mm/rev)	切深 Depth of Cutting (mm)
M	奥氏体不锈钢 Austenitic Stainless Steel	≤200HB	半精加工 /粗加工 For Semi- finish and Rough Machining	MB	FT8286	165-260	0.15-0.6	1~4
					FT8286	100-250	0.15-0.6	1~4
					FT8286	90-170	0.15-0.6	1~4
		>200HB			FT8286	150-240	0.15-0.6	1~4
	双相不锈钢 Duplex Stainless Steel	≤280HB			FT8286	90-230	0.15-0.6	1~4
	马氏体类不锈钢 Martensite Stainless Steel	≤200HB			FT8286	165-260	0.15-0.6	1~4
					FT8286	100-250	0.15-0.6	1~4
					FT8286	90-170	0.15-0.6	1~4
		>200HB			FT8286	150-240	0.15-0.6	1~4
	奥氏体不锈钢 Austenitic Stainless Steel	≤200HB	中等加工 For semi-finish Machining	L/R-M	FT8286	165-260	0.15-0.6	1~4
					FT8286	100-250	0.15-0.6	1~4
					FT8286	90-170	0.15-0.6	1~4
		>200HB			FT8286	150-240	0.15-0.6	1~4
	双相不锈钢 Duplex Stainless Steel	≤280HB			FT8286	90-230	0.15-0.6	1~4
	马氏体类不锈钢 Martensite Stainless Steel	≤200HB			FT8286	165-260	0.15-0.6	1~4
					FT8286	100-250	0.15-0.6	1~4
					FT8286	90-170	0.15-0.6	1~4
		>200HB			FT8286	150-240	0.15-0.6	1~4

车削铸铁类 Turning Inserts For Castlron

ISO代号 ISO Code	工件材质 Workpiece Material	硬度 Hardness	应用范围 Application Range	槽型 Chip Breaker	牌号 Grade	切削速度 Cutting Speed (m/min)	进给 Feed (mm/rev)	切深 Depth of Cutting (mm)
K	灰铸铁 Grey Cast Iron	≤350Pa	中等加工 For semi-finish Machining	ZT	FT3262	160-290	0.2-0.6	1.5~4
					FT3262	170-310	0.2-0.6	1.5~4
					FT3262	210-335	0.2-0.6	1.5~4
	球墨铸铁 Nodular Cast Iron	≤450MPa			FT3262	155-260	0.2-0.6	1.5~4
					FT3262	195-305	0.2-0.6	1.5~4
		≤800MPa			FT3262	145-255	0.2-0.6	1.5~4
					FT3262	185-285	0.2-0.6	1.5~4
	灰铸铁 Grey Cast Iron	≤350Pa	中等加工 For semi-finish Machining	GH	FT3262/FT3263A	160-290	0.2-0.6	1.5~4
					FT3262/FT3263A	170-310	0.2-0.6	1.5~4
					FT3262/FT3263A	210-335	0.2-0.6	1.5~4
	球墨铸铁 Nodular Cast Iron	≤450MPa			FT3262/FT3263A	155-260	0.2-0.6	1.5~4
					FT3262/FT3263A	195-305	0.2-0.6	1.5~4
		≤800MPa			FT3262/FT3263A	145-255	0.2-0.6	1.5~4
					FT3262/FT3263A	185-285	0.2-0.6	1.5~4
	灰铸铁 Grey Cast Iron	≤350Pa	中等加工 For semi-finish Machining	UC	FT3262	160-290	0.2-0.6	1.5~5
					FT3262	170-310	0.2-0.6	1.5~5
					FT3262	210-335	0.2-0.6	1.5~5
	球墨铸铁 Nodular Cast Iron	≤450MPa			FT3262	155-260	0.2-0.6	1.5~5
					FT3262	195-305	0.2-0.6	1.5~5
		≤800MPa			FT3262	145-255	0.2-0.6	1.5~5
					FT3262	185-285	0.2-0.6	1.5~5
	灰铸铁 Grey Cast Iron	≤350Pa	准重加工 For Heavy Duty Machining	平板 Flat	FT3262	160-290	0.2-0.6	2.5~6
					FT3262	170-310	0.2-0.6	2.5~6
					FT3262	210-335	0.2-0.6	2.5~6
	球墨铸铁 Nodular Cast Iron	≤450MPa			FT3262	155-260	0.2-0.6	2.5~6
					FT3262	195-305	0.2-0.6	2.5~6
		≤800MPa			FT3262	145-255	0.2-0.6	2.5~6
					FT3262	185-285	0.2-0.6	2.5~6

车削淬硬钢类 Turning Hardened Steel

ISO代号 ISO Code	工件材质 Workpiece Material	硬度 Hardness	应用范围 Application Range	槽型 Chip Breaker	牌号 Grade	切削速度 Cutting Speed (m/min)	进给 Feed (mm/rev)	切深 Depth of Cutting (mm)
H	淬硬钢 Hardened Steel	≤450HB	精加工 Finishing	HJ	FT6109/FT6259	90-145	0.2-0.6	0.3~1
					FT6109/FT6259	115-160	0.2-0.6	0.3~1

切削参数一览表
Cutting Parameters Table
FONHAE 方瀚

小零件加工 Small Parts Processing

ISO代号 ISO Code	工件材质 Workpiece Material	硬度 Hardness	应用范围 Application Range	槽型 Chip Breaker	牌号 Grade	切削速度 Cutting Speed (m/min)	进给 Feed (mm/rev)	切深 Depth of Cutting (mm)
P	软钢 Soft Steel	≤180HB	精加工 For Finish Machining	L/R L-B R-B L-S R-H L-2R	FC5280	270-385	0.09-0.22	0.15~0.7
					FT8208	260-410	0.09-0.22	0.15~0.7
					FT3000	255-385	0.08-0.2	0.2~1
					FT3005	260-400	0.09-0.2	0.2~1
	碳钢、合金钢 Carbon Steel, Alloy Steel	180 - 280HB			FC5280	190- 275	0.1-0.22	0.15~0.7
					FT8208	200-375	0.1-0.2	0.15~0.7
					FT3000	195-355	0.08-0.2	0.2~1
					FT3005	200-365	0.09-0.2	0.2~1
		280-350HB			FC5280	175-255	0.1-0.2	0.15~0.7
					FT8208	180-290	0.1-0.2	0.15~0.7
					FT3000	175-255	0.08-0.2	0.2~1
					FT3005	180-280	0.09-0.2	0.2~1

浅孔加工 Shallow Hole Machining

ISO	Application Range	Chip Breaker	Grade	Cutting Speed (m/min)	Feed (mm/rev)
通用（钢件，不锈钢） Common (Steel ,Stainless Steel)	半精加工 For Semi -finish	KP MD LM	FT1456	120-180	0.04-0.22
				120-180	0.04-0.22
				120-180	0.04-0.22

深孔加工 Deep HoleMachining

ISO	Application Range	Chip Breaker	Grade	Cutting Speed (m/min)	Feed (mm/rev)	Depth of Cutting (mm)
通用（钢件，不锈钢） Common (Steel ,Stainless Steel)	半精加工 For Semi -finish	GM RG GF GM	FT8206	110-190	0.05-0.25	0.5~2
			FT8286	90-170	0.05-0.25	0.5~2
			FT8295	70-135	0.05-0.25	0.5~2

切削参数一览表
Cutting Parameters Table

FONHAE 方瀚

车削7°正角刀片 7°Positive Angle Turning Inserts

ISO代号 ISO Code	工件材料 Workpiece Material	硬度 Hardness	应用范围 Application Range	槽型 Chip Breaker	牌号 Grade	切削速度 Cutting Speed (m/min)	进给 Feed (mm/rev)	切深 Depth of Cutting (mm)
P	软钢 Soft Steel	≤180HB	M	MM	FT1153/FT1253/FT1373	210-355	0.08~0.4	0.3-2
					FT1153/FT1253/FT1373	210-355	0.08~0.4	0.3-2
					FT1153/FT1253/FT1373	210-355	0.08~0.4	0.3-2
	碳钢、合金钢 Carbon Steel,Alloy Steel	180 - 280HB	M	GM	FT1253	155-260	0.08~0.4	0.3-2
			M		FT1253	155-260	0.08~0.4	0.3-2
			M		FT1253	155-260	0.08~0.4	0.3-2
	碳钢、合金钢 Carbon Steel,Alloy Steel	280-350HB	M		FT1253	110-185	0.08~0.4	0.3-2
			M		FT1253	110-185	0.08~0.4	0.3-2
M	奥氏体不锈钢 Austenitic Stainless Steel	≤200HB	M	GM	FT8206	60-105	0.08-0.30	0.30-2.00
	奥氏体不锈钢 Austenitic Stainless Steel	>200HB	M		FT8286	50-90	0.08-0.30	0.30-2.00
	双相不锈钢 Duplex Stainless Steel	≤280HB	M		FT8206	40-70	0.08-0.30	0.30-2.00
	马氏体类不锈钢 Martensitic Stainless Steel	≤200HB	M		FT8206	60-105	0.08-0.30	0.30-2.00
	马氏体类不锈钢 Martensitic Stainless Steel	>200HB	M		FT8286	50-90	0.08-0.30	0.30-2.00
	析出硬化系不锈钢 Precipitation Hardening System	<450HB	M		FT8286	35-60	0.08-0.30	0.30-2.00
H	淬硬钢 Quenched Steel		弱断续 Weak Intermittent	MF	FT6109/FT6259	70-220	0.03-0.15	0.05-0.2
			连续 Continuous		FT6109/FT6259	150-350	0.03-0.15	0.05-0.2

切削参数一览表
Cutting Parameters Table

FONHAE 方瀚

车削5°正角刀片 5°Positive Angle Turning Inserts

ISO代号 ISO Code	工件材料 Workpiece Material	硬度 Hardness	应用范围 Application Range	槽型 Chip Breaker	牌号 Grade	切削速度 Cutting Speed (m/min)	进给 Feed (mm/rev)	切深 Depth of Cutting (mm)
P	软钢 Soft steel	≤180HB	M	GM	FT1153/FT1253/FT1373	210-355	0.08~0.4	0.3-2
					FT1153/FT1253/FT1373	210-355	0.08~0.4	0.3-2
					FT1153/FT1253/FT1373	210-355	0.08~0.4	0.3-2
	碳钢、合金钢 Carbon steel , Alloy Steel	180 - 280HB	M		FT1253	155-260	0.08~0.4	0.3-2
			M		FT1253	155-260	0.08~0.4	0.3-2
			M		FT1253	155-260	0.08~0.4	0.3-2
	碳钢、合金钢 Carbon steel , Alloy Steel	280-350HB	M		FT1352	110-185	0.08~0.4	0.3-2
			M		FT1352	110-185	0.08~0.4	0.3-2

负角铣削刀片 Negative Angle Milling Inserts

ISO代号 ISO Code	工件材料 Workpiece Material	硬度 Hardness	应用范围 Application Range	槽型 Chip Breaker	牌号 Grade	切削速度 Cutting Speed (m/min)	进给 Feed (mm/rev)	切深 Depth of Cutting (mm)
P	软钢 Soft steel	≤180HB	M	GM	FT8295/FT8296	200-300	0.15-0.25	0.3-2
	碳钢、合金钢 Carbon steel，Alloy Steel	180-350 HB			FT8295/FT8296	190-290	0.15-0.25	0.3-2
M	奥氏体类不锈钢 Austenitic Stainless Steel	≤200HB	M	GM	FT8295/FT8296	150-250	0.15-0.25	0.3-2
	奥氏体类不锈钢 Austenitic Stainless Steel	>200HB			FT8295/FT8296	120-220	0.15-0.25	0.3-2
	双相不锈钢 Duplex Stainless Steel	≤280HB			FT8295/FT8296	110-210	0.15-0.25	0.3-2
	析出硬化系不锈钢 Precipitation Hardening System	≤450			FT8295/FT8296	100-200	0.15-0.25	0.3-2
K	灰铸铁 Grey Cast Irom	≤350MPa	M	GM	FT8295/FT8296/FT3262	130-250	0.15-0.25	0.3-2
	球墨铸铁 Nodular Cast Irom	≤450MPa			FT8295/FT8296/FT3262	110-240	0.15-0.25	0.3-2
	球墨铸铁 Nodular Cast Irom	≤800MPa			FT8295/FT8296/FT3262	100-200	0.15-0.25	0.3-2

负角铣削刀片 Negative Angle Milling Inserts

ISO代号 ISO Code	工件材料 Workpiece Material	硬度 Hardness	应用范围 Application Range	槽型 Chip Breaker	牌号 Grade	切削速度 Cutting Speed (m/min)	进给 Feed (mm/rev)	切深 Depth of Cutting (mm)
P	软钢 Soft steel	≤180HB	L	GL	FT8295/FT8296	200-300	0.1-0.2	0.1-1
	碳钢、合金钢 Carbon steel，Alloy Steel	180-350 HB			FT8295/FT8296	190-290	0.1-0.2	0.1-1
M	奥氏体类不锈钢 Austenitic Stainless Steel	≤200HB	L	GL	FT8295/FT8296	150-250	0.1-0.2	0.1-1
	奥氏体类不锈钢 Austenitic Stainless Steel	>200HB			FT8295/FT8296	120-220	0.1-0.2	0.1-1
	双相不锈钢 Duplex Stainless Steel	≤280HB			FT8295/FT8296	110-210	0.1-0.2	0.1-1
	析出硬化系不锈钢 Precipitation Hardening System	≤450			FT8295/FT8296	100-200	0.1-0.2	0.1-1
K	灰铸铁 Grey Cast Irom	≤350MPa	L	GL	FT8295/FT8296/FT3262	130-250	0.1-0.2	0.3-2
	球墨铸铁 Nodular Cast Irom	≤450MPa			FT8295/FT8296/FT3262	110-240	0.1-0.2	0.3-2
	球墨铸铁 Nodular Cast Irom	≤800MPa			FT8295/FT8296/FT3262	100-200	0.1-0.2	0.3-2

1°正角铣削刀片11Positive Angle Milling Inserts

ISO代号 ISO Code	工件材料 Workpiece Material	硬度 Hardness	应用范围 Application Range	槽型 Chip Breaker	牌号 Grade	切削速度 Cutting Speed (m/min)	进给 Feed (mm/rev)	切深 Depth of Cutting (mm)
P	软钢 Soft steel	≤180HB	M	GM	FT8295/FT8296	100-200	0.15-0.2	0.1-1
	碳钢、合金钢 Carbon steel，Alloy Steel	180-350 HB			FT8295/FT8296	100-200	0.15-0.2	0.1-1
M	奥氏体类不锈钢 Austenitic Stainless Steel	≤200HB	M	GM	FT8295/FT8296	80-180	0.15-0.2	0.1-1
	奥氏体类不锈钢 Austenitic Stainless Steel	>200HB			FT8295/FT8296	80-180	0.15-0.2	0.1-1
	双相不锈钢 Duplex Stainless Steel	≤280HB			FT8295/FT8296	80-150	0.15-0.2	0.1-1
	析出硬化系不锈钢 Precipitation Hardening System	≤450			FT8295/FT8296	80-150	0.15-0.2	0.1-1
K	灰铸铁 Grey Cast Irom	≤350MPa	M	GM	FT8295/FT8296/FT3262	160-200	0.15-0.2	0.1-1
	球墨铸铁 Nodular Cast Irom	≤450MPa			FT8295/FT8296/FT3262	100-160	0.15-0.2	0.1-1
	球墨铸铁 Nodular Cast Irom	≤800MPa			FT8295/FT8296/FT3262	80-140	0.15-0.2	0.1-1
P	软钢 Soft steel	≤180HB	L	GL	FT8295/FT8296	100-200	0.15-0.2	0.1-1
	碳钢、合金钢 Carbon steel，Alloy Steel	180-350 HB			FT8295/FT8296	100-200	0.15-0.2	0.1-1
M	奥氏体类不锈钢 Austenitic Stainless Steel	≤200HB	L	GL	FT8295/FT8296	80-180	0.15-0.2	0.1-1
	奥氏体类不锈钢 Austenitic Stainless Steel	>200HB			FT8295/FT8296	80-180	0.15-0.2	0.1-1
	双相不锈钢 Duplex Stainless Steel	≤280HB			FT8295/FT8296	80-150	0.15-0.2	0.1-1
	析出硬化系不锈钢 Precipitation Hardening System	≤450			FT8295/FT8296	80-150	0.15-0.2	0.1-1
K	灰铸铁 Grey Cast Irom	≤350MPa	L	GL	FT8295/FT8296/FT3262	160-200	0.15-0.2	0.1-1
	球墨铸铁 Nodular Cast Irom	≤450MPa			FT8295/FT8296/FT3262	100-160	0.15-0.2	0.1-1
	球墨铸铁 Nodular Cast Irom	≤800MPa			FT8295/FT8296/FT3262	80-140	0.15-0.2	0.1-1
P	软钢 Soft steel	≤180HB	H	GH	FT8295/FT8296	200-300	0.1-0.2	0.1-1
	碳钢、合金钢 Carbon steel，Alloy Steel	180-350 HB	H	GH	FT8295/FT8296	190-290	0.1-0.2	0.1-1
M	奥氏体类不锈钢 Austenitic Stainless Steel	≤200HB	H	GH	FT8295/FT8296	150-250	0.1-0.2	0.1-1
	奥氏体类不锈钢 Austenitic Stainless Steel	>200HB			FT8295/FT8296	120-220	0.1-0.2	0.1-1
	双相不锈钢 Duplex Stainless Steel	≤280HB			FT8295/FT8296	110-210	0.1-0.2	0.1-1
	析出硬化系不锈钢 Precipitation Hardening System	≤450			FT8295/FT8296	100-200	0.1-0.2	0.1-1

15°铣削刀片15°Milling Inserts

ISO代号 ISO Code	工件材料 Workpiece Material	硬度 Hardness	应用范围 Application Range	槽型 Chip Breaker	牌号 Grade	切削速度 Cutting Speed (m/min)	进给 Feed (mm/rev)	切深 Depth of Cutting (mm)
P	软钢 Soft steel	≤180HB	M	GM	FT8295/FT8296	100-200	0.15-0.2	0.1-1
	碳钢、合金钢 Carbon steel，Alloy Steel	180-350 HB			FT8295/FT8296	100-200	0.15-0.2	0.1-1
M	奥氏体类不锈钢 Austenitic Stainless Steel	≤200HB	M	GM	FT8295/FT8296	80-180	0.15-0.2	0.1-1
	奥氏体类不锈钢 Austenitic Stainless Steel	>200HB			FT8295/FT8296	80-180	0.15-0.2	0.1-1
	双相不锈钢 Duplex Stainless Steel	≤280HB			FT8295/FT8296	80-150	0.15-0.2	0.1-1
	析出硬化系不锈钢 Precipitation Hardening System	≤450			FT8295/FT8296	80-150	0.15-0.2	0.1-1
K	灰铸铁 Grey Cast Irom	≤350MPa	M	GM	FT8295/FT8296/FT3262	160-200	0.15-0.2	0.1-1
	球墨铸铁 Nodular Cast Irom	≤450MPa			FT8295/FT8296/FT3262	100-160	0.15-0.2	0.1-1
	球墨铸铁 Nodular Cast Irom	≤800MPa			FT8295/FT8296/FT3262	80-140	0.15-0.2	0.1-1
P	软钢 Soft steel	≤180HB	H	GL	FT8295/FT8296	100-200	0.15-0.2	0.1-1
	碳钢、合金钢 Carbon steel，Alloy Steel	180-350 HB			FT8295/FT8296	100-200	0.15-0.2	0.1-1
M	奥氏体类不锈钢 Austenitic Stainless Steel	≤200HB	H	GL	FT8295/FT8296	80-180	0.15-0.2	0.1-1
	奥氏体类不锈钢 Austenitic Stainless Steel	>200HB			FT8295/FT8296	80-180	0.15-0.2	0.1-1
	双相不锈钢 Duplex Stainless Steel	≤280HB			FT8295/FT8296	80-150	0.15-0.2	0.1-1
	析出硬化系不锈钢 Precipitation Hardening System	≤450			FT8295/FT8296	80-150	0.15-0.2	0.1-1
K	灰铸铁 Grey Cast Irom	≤350MPa	H	GL	FT8295/FT8296/FT3262	160-200	0.15-0.2	0.1-1
	球墨铸铁 Nodular Cast Irom	≤450MPa			FT8295/FT8296/FT3262	100-160	0.15-0.2	0.1-1
	球墨铸铁 Nodular Cast Irom	≤800MPa			FT8295/FT8296/FT3262	80-140	0.15-0.2	0.1-1

负角刮管刀片Negative Angle Tube ScraperInserts

ISO代号 ISO Code	工件材料 WorkpieceMaterial	硬度 Hardness	应用范围 Application Range	槽型 Chip Breaker	牌号 Grade	切削速度 Cutting Speed (m/min)	进给 Feed (mm/rev)	切深 Depth of Cutting (mm)
P	软钢 Soft steel	≤180HB	L	R	FTT3221	100-200	0.15-0.2	0.1-1
	碳钢、合金钢 Carbon steel，Alloy Steel	180-350 HB	L	R	FTT3221	100-200	0.15-0.2	0.1-1
M	奥氏体类不锈钢 Austenitic Stainless Steel	≤200HB	L	R	FTT3221	80-180	0.15-0.2	0.1-1
	奥氏体类不锈钢 Austenitic Stainless Steel	>200HB			FTT3221	80-180	0.15-0.2	0.1-1
	双相不锈钢 Duplex Stainless Steel	≤280HB			FTT3221	80-150	0.15-0.2	0.1-1
	析出硬化系不锈钢 Precipitation Hardening System	≤450			FTT3221	80-150	0.15-0.2	0.1-1
K	灰铸铁 Grey Cast Irom	≤350MPa	L	R	FTT3221	160-200	0.15-0.2	0.1-1
	球墨铸铁 Nodular Cast Irom	≤450MPa	L	R	FTT3221	100-160	0.15-0.2	0.1-1
	球墨铸铁 Nodular Cast Irom	≤800MPa	L	R	FTT3221	80-140	0.15-0.2	0.1-1

15°刮管刀片15°Tube Scraper Inserts

ISO代号 ISO Code	工件材料 Workpiece Material	硬度 Hardness	应用范围 Application Range	槽型 Chip Breaker	牌号 Grade	切削速度 Cutting Speed (m/min)	进给 Feed (mm/rev)	切深 Depth of Cutting (mm)
P	软钢 Soft steel	≤180HB	L	AR	FT1332	100-200	0.15-0.2	0.1-1
	碳钢、合金钢 Carbon steel，Alloy Steel	180-350 HB	L	AR	FT1332	100-200	0.15-0.2	0.1-1
M	奥氏体类不锈钢 Austenitic Stainless Steel	≤200HB	L	AR	FT1332	80-180	0.15-0.2	0.1-1
	奥氏体类不锈钢 Austenitic Stainless Steel	>200HB			FT1332	80-180	0.15-0.2	0.1-1
	双相不锈钢 Duplex Stainless Steel	≤280HB			FT1332	80-150	0.15-0.2	0.1-1
	析出硬化系不锈钢 Precipitation Hardening System	≤450			FT1332	80-150	0.15-0.2	0.1-1
K	灰铸铁 Grey Cast Irom	≤350MPa	L	AR	FT1332	160-200	0.15-0.2	0.1-1
	球墨铸铁 Nodular Cast Irom	≤450MPa	L	AR	FT1332	100-160	0.15-0.2	0.1-1
	球墨铸铁 Nodular Cast Irom	≤800MPa	L	AR	FT1332	80-140	0.15-0.2	0.1-1

切削参数一览表

Cutting Parameters Table

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负角重力切削刀片刃边10-15 Negative Heavy Duty Inserts Cutting Edge 10-15

ISO代号 ISO Code	工件材料 Workpiece Material	硬度 Hardness	应用范围 Application Range	槽型 Chip Breaker	牌号 Grade	切削速度 Cutting Speed (m/min)	进给 Feed (mm/rev)	切深 Depth of Cutting (mm)
P	软钢 Soft steel	≤180HB	R	K-M	FT1151/FT1152/FT1153	150-300	0.2-0.8	1-5
	碳钢、合金钢 Carbon steel，Alloy Steel	180-350 HB	R	K-M	FT1151/FT1152/FT1153	120-280	0.2-0.8	1-5
M	奥氏体类不锈钢 Austenitic Stainless Steel	≤200HB	R	K-M	FT8206	80-200	0.2-0.6	1-5
	奥氏体类不锈钢 Austenitic Stainless Steel	>200HB			FT8206	80-200	0.2-0.6	1-5
	双相不锈钢 Duplex Stainless Steel	≤280HB			FT8206	80-200	0.2-0.6	1-5
K	灰铸铁 Grey Cast Irom	≤350MPa	R	K-M	FT3262	150-300	0.2-0.8	1-5

负角重力切削刀片刃边15-20 Negative Heavy Duty Inserts Cutting Edge 15-20

ISO代号 ISO Code	工件材料 Workpiece Material	硬度 Hardness	应用范围 Application Range	槽型 Chip Breaker	牌号 Grade	切削速度 Cutting Speed (m/min)	进给 Feed (mm/rev)	切深 Depth of Cutting (mm)
P	软钢 Soft steel	≤180HB	R	K-M	FT8295/FT8296/FT3262	150-300	0.2-0.8	2-6
	碳钢、合金钢 Carbon steel，Alloy Steel	180-350 HB	R	K-M	FT1151/FT1152/FT1153	120-280	0.2-0.8	2-6
M	奥氏体类不锈钢 Austenitic Stainless Steel	≤200HB	R	K-M	FT8206	80-200	0.2-0.6	2-6
	奥氏体类不锈钢 Austenitic Stainless Steel	>200HB			FT8206	80-200	0.2-0.6	2-6
	双相不锈钢 Duplex Stainless Steel	≤280HB			FT8206	80-200	0.2-0.6	2-6
K	灰铸铁 Grey Cast Irom	≤350MPa	R	K-M	FT3262	150-300	0.2-0.8	2-6

内孔车削加工切削用量修正表

Correction Table of Cutting for Internal Hole Turning Machining

FONHAE 方瀚

P类夹紧内孔车刀 PTypeInternalTurning Tool Holders

材料 Material		硬度 Hardness Brinell(HB)	加工形态 Processing Form	L/D≤3		L/D=3-4(刀柄直径≥Φ16mm)	
				进给量 Feed/tooth (mm/rev)	切深 Cut depth (mm)	进给量 Feed/tooth (mm/rev)	切深 Depth of Cutting (mm)
P	碳钢 Carbon steel 合金钢 Alloy steel 45#、42CrMo	HB180-280	半精加工 semi-finishing	0.1-0.25-0.4	<5.0	0.1-0.2-0.3	<4.0
M	不锈钢 Stainless steel 1Cr18Ni9Ti 0Cr18Ni9	≤HB220	半精加工 semi-finishing	0.1-0.2-0.3	<4.0	0.1-0.15-0.25	<3.0
K	铸铁 Cast iron HT250	HB170-230	半精加工 semi-finishing	0.1-0.25-0.4	<5.0	0.1-0.2-0.3	<4.0

S类夹紧内孔车刀 STypeInternal Turning Tool Holders

材料 Material		硬度 Hardness Brinell(HB)	加工形态 Processing Form	L/D≤3		L/D=4		L/D=5		L/D=6	
				进给量 Feed/tooth (mm/rev)	切深 Cut depth (mm)	进给量 Feed/tooth (mm/rev)	切深 Cut depth (mm)	进给量 Feed/tooth (mm/rev)	切深 Cut depth (mm)	进给量 Feed/tooth (mm/rev)	切深 Depth of Cutting (mm)
P	碳钢 Carbon steel 合金钢 Alloy steel 45#、42CrMo	HB180-280	精加工finishing	0.05-0.1-0.15	<0.2	0.05-0.1-0.15	<0.2				
			半精加工 semi-finishing	0.15-0.25-0.35	<3.0	0.1-0.15-0.2	<1.5				
M	不锈钢 Stainless steel 1Cr18Ni9Ti 0Cr18Ni9	≤HB220	精加工finishing	0.05-0.1-0.15	<0.2	0.05-0.1-0.15	<0.2				
			半精加工 semi-finishing	0.15-0.2-0.25	<2.0	0.1-0.15-0.2	<1.0				
N	铝合金 Aluminum Alloy	——	精加工finishing	0.05-0.1-0.15	<0.2	0.05-0.1-0.15	<0.2	0.05-0.1-0.15	-0.15	0.05-0.1-0.15	<0.1
			半精加工 semi-finishing	0.05-0.1-0.15	<2.0	0.05-0.1-0.15	<1.5	0.05-0.1-0.15	-1.0	0.05-0.1-0.15	<1.0

刀具磨损与各类损伤

Inserts Wear and All Kinds of Damage

FONHAE 方瀚

刀具损伤类型	现象	原因	对策
后刀面磨损 Flank wear	切削阻力增加 Increase cutting resistance 在后刀面逐渐形成沟槽磨损 Form groove abrasive	刀具材料过软 Workpiece material too soft 切削速度过高 Cutting speed too high 后角过小 Clearance angle too small 进给量太小 Feed rate too low	◆选用高耐磨性刀具材料 Select a more wear resistant grade ◆降低切削速度 Reduce cutting speed ◆增大后角 Increase clearance angle ◆加大进给量 Increase feed rate
前刀面磨损 （月牙洼磨损） Crater wear	精加工表面恶化 Cause poor surface finish	刀具材料过软 Workpiece material too hard 切削速度过高 Cutting speed too high 进给量太大 Feed rate too high	◆选用高耐磨性刀具材料 Select a more wear resistant grade ◆降低切削速度 Reduce cutting speed ◆降低进给量 Reduce feed rate
崩刀 Mechanical fracture	突发性崩刀 Cause insert breakage	刀具材料过硬 Workpiece material too hard 进给量大 Feed rate too high 切削强度不足 Insufficiency of cutting edge strength 刀杆、刀柄刚性不足 tool holders too thin	◆选用韧性好的刀具材料 Select tougher grade ◆降低进给量 Reduce feed rate ◆加大刃口修磨量（若是倒圆改为倒棱） Increase edge grinding(If fillet is changed to chamfer) ◆加大刀杆尺寸 Increase the tool holders' diameter
破损 Insert breakage	切削阻力增大 Increase cutting resistance 表面粗糙度恶化 Causes poor surface finish	刀具材料过硬 Workpiece material too hard 进给量大 Feed rate too high 切削刃强度不足 Insufficiency of cutting edge strength 刀杆、刀柄刚性不足 Tool holders too thin	◆选用韧性好的刀具材料 Select tougher grade ◆降低进给量 Reduce feed rate ◆加大刃口修磨量（若是倒圆改为倒棱） Increase edge grinding(If fillet is changed to chamfer) ◆加大刀杆尺寸 Increase the tool holders' diameter
塑性变形 （刀刃塌下） Plastic deformation	工件尺寸变化 Change the size of workpiece 刀尖磨损 Cutting edge abrasion	刀具材料过软 workpiece material too soft 切削速度过高 Cutting speed too fast 切削深度、进给量太大 Cutting depth、Feed rate too high 切削刃温度过高 Too high cutting temperature on the rake face	◆选用高耐磨性刀具材料 Select a more wear resistant grade ◆降低切削速度 Reduce cutting speed ◆减小切削深度 进给量 Reduce cutting depth 、feed speed
积屑瘤 （粘连） Built-up edge	精加工表面恶化 Cause poor surface finish 切削阻力增加 Increase cutting resistance	切削速度低 cutting speed too low 切削刃不锋利 Cutting edge not sharp 刀具材料不合适 Workpiece material unsuitable	◆提高切削速度 Increase cutting speed ◆增大前角 Select a shaper edge geometry ◆选用亲和力小的刀具材料（涂层、金属陶瓷等 Select workpiece material with better adhesion resistance
热龟裂 Thermomechanical failure	由于热循环而崩损 Cause breakage due to thermal cycling 多出现在断续加工中 Appear in intermittent machining	切削热引起的膨胀与收缩 Thermal expansion and contraction caused by cutting heat 刀具材料过硬 Workpiece material too hard	◆干式切削 Dry cutting ◆选用韧性好的刀具材料 Select a tougher grade with better resistance to thermal shocks
边界磨损 Notch wear	工件加工表面恶化 Cause poor surface finish 切削阻力增加 Increase cutting resistance	进给量过大 切削速度过高 Feed rate too high、cutting speed too fast	◆选用高耐磨性刀具材料 Select a more wear resistant grade ◆增大前角使切削刃锋利 Select a sharper edge geometry ◆降低切削速度 Reduce cutting speed

车削三要素对加工的影响

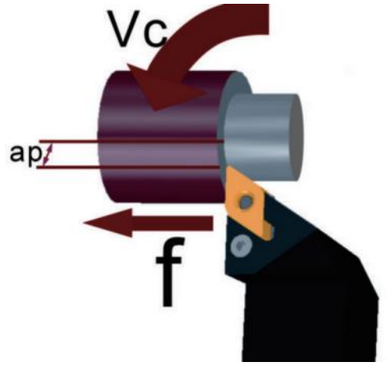
Turning Three Elements Effects on Machining

FONHAE 方瀚

三要素的影响 Effects of Three Main Parameters

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

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



切削速度（Vc）Cutting Speed(Vc)

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

When the workpiece is rotating on the machine,the number of its rotation per minute is defined as Rotating speed of main axle(n).Because of its rotation,the cutting speed measured on the contacting point of diameter is defined as linear speed.m/min.Normally,linear,linear speed is considered to measure the effect of cutting speed on machining

切削速度的影响 Effect of Cutting Speed

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

Cutting speed has significant effect in tool life.When the cutting speed is increased,cutting temperature will increase and tool life will be shortened.Cutting speed varies according to the different types and hardness of work-piece.The below conclusion are reached after many cutting experiments:

（1）在通常情况下，切削速度提高20%，刀具耐用度降低1/2；切削速度提高50%，刀具耐用度将降至原来的1/5。

(1)Normally tool life would be reduced to half when the cutting speed is increased by 20%. Tool life would be 20% of the original life if the cutting speed is raised by 50%。

（2）低速（20-40m/min）切削易产生振动，使刀具寿命缩短。

(2)Low speed(20-40m/min)cutting could easily cause vibration and shorten tool life.

车削三要素对加工的影响

Turning Three Elements Effects on Machining

进给量（fn） Feed Rate(fn)

进给量是指工件每旋转一周，刀具的移动量，单位为毫米/转。

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

进给量的影响 Feed Rate(fn)

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

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

Feed rate is a key factor that determines surface quality. Meanwhtile it also affect the range of chip forming and the thickness of chips during machining.

In term of the effect on tool life,small feed rate leads to serious abrasion on clearance face,reducing tool life.

切削深度（ap） Cutting Depth(ap)

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

Cutting depth is defined as the difference between machined surface and unmachined surface.Measured by mm.It is half the difference value between the original diameter and machined diameter.

切削深度的影响 Effect of Cutting Depth

切削深度应根据工件的加工余量、形状、机床功率、刚性及刀具的刚性来确定。

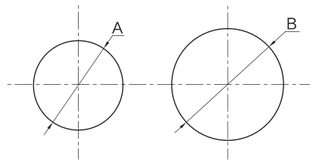
切削深度变化对刀具寿命影响不大。切削深度过小时，会造成刮擦，只切削刀工件表面的硬化层，缩短刀具寿命。当工件表面具有硬化的氧化层时，应在机床功率允许范围内选择尽可能大的切削深度，以避免刀尖只切削工件的表面硬化层，造成刀尖的异常磨损甚至破损。

Cutting depth should be determined by the machining alllowance and shape of workpiece,power and rigidity of machine, and tool rigidity.

The change of cutting depth has little effect on tool life.If the cutting depth is too low. The cutting nose only scrapes the hardened layer on the workpiece surface.reducing tool life.When there is hardened oxide layer on workpiece surface,higher cutting depth should be adopted within the possible range of machine's power to avoid cutting nose just cutting the hardened layer of workpiece.

孔加工孔常见问题及解决办法

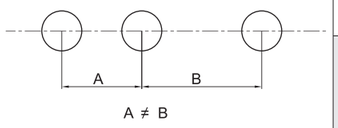
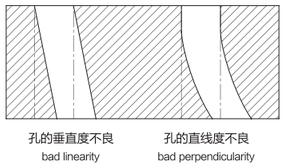
Common Problems and Solutions for Drilling

现象 Problem	原因 Cause	解决方法 Solution
孔径扩大Oversize holes 	钻头装夹不好 主轴本身跳动量过大 Poor clamping Large run-out around spindle	选择精度高的刀柄及夹具 校正主轴 每次装夹钻头时，仔细测量与调整 Select the holder and chuch with high Precisioncalibrating spindle Check and adjust after clamping drill
	顶角不对称 钻头跳动过大 横刃偏心 Non-symmetric point angle Large run-out Chisel edge is off center	修磨刀具 修磨后检查精度 Regrind drill Check the precision after clamping drill
孔径的一致性较差 Irregular hole size  A ≠ B	顶角不对称 钻头跳动过大 横刃偏心 刃带棱面磨损过大 Non-symmetric point angle Large run-out Chisel edge is off center Excessive margin abrasion	选择精度高的刀柄及夹具 校正主轴 每次装夹钻头时，仔细测量与调整 Select the holder and chuch with high Precision Calibrating spindle Check and adjust after clamping drill
	钻头装夹不好 主轴本身跳动量大 工件装夹不牢固 Poor clamping Large run-out around spindle Workpiece is not firmly held	选择精度高的刀柄及夹具 校正主轴 每次装夹钻头时，仔细测量与调整 Select the holder and chuch with high Precision Calibrating spindle Check and adjust after clamping drill
	进给量过大 Feed rate is too high	降低进给速度 Reduce the feed speed
	切削液供给不足 Coolant provide is not enough	改变切削液供给方法，增加流量 Change the coolant supply method, Or increase coolant volume

孔加工孔常见问题及解决办法

Common Problems and Solutions for Drilling

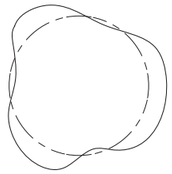
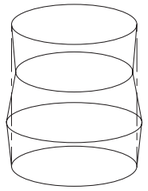
FONHAE 方瀚

现象 Problem	原因 Cause	解决方法 Solution
孔的位置精度较差 Low position accuracy 	机床主轴重复定位精度低 钻头装夹不好 主轴本身跳动量大 Poor re-positioning of spindle Poor clamping Large run-out around spindle	提高机床重复定位精度 选择精度高的刀柄及夹具 校正主轴 每次装夹钻头时，仔细测量与调整 Improve the re-positioning precision of Machine select the holder and chuch With high precision Calibrating spindle Check and adjust after clamping drill
	被加工表面进给方向不垂直 The feed direction is not Vertical to the workpiece Surface	将被加工表面调整成与进给方向垂直 Adjust the feed direction vertical to The workpiece
	顶尖与轴心不重合(车床) Top center not align with the Spindle center	加工前仔细调整 Check and adjust alignment carefully Before drilling
直线度不良 垂直度不良 Bad linearity bad perpendicularity 	刀具磨损过大 Excessive margin abrasion	重新修磨 Regrind
	中心孔精度不好 Poor center hole accuracy	提高中心孔位置精度 Increase the position accuracy of hole
	顶角不对称 钻头跳动过大 横刃偏心 Non-symmetric point angle Large run-out Chisel edge is off center	修磨刀具 修磨后检查精度 Regrind drill Chech the precision after regrinding
	钻头刚性不足 Insufficient drill rigidity	提高钻头刚性 Increase drill rigidity
	被切削平面不平 顶尖与轴心不重合(车床) Uneven workpiece rigidity Top center not align with the Spindle center (lathe)	调整为水平面或预加工为水平面 预钻中心孔 The workpiece must be horizontal or Premachined to horizontal before drilling Pre-drill a center hole

孔加工孔常见问题及解决办法

Common Problems and Solutions for Drilling

FONHAE 方瀚

现象 Problem	原因 Cause	解决方法 Solution
圆度较差 Poor roundness 	顶角不对称 钻头跳动过大 横刃偏心 Non-symmetric point angle Large run-out Chisel edge is off center	修磨刀具 修磨后检查精度 Regrind drill Check the precision after regrinding
	钻头装夹不好 主轴本身跳动量大 工件装夹不牢固 Poor clamping Large run-out around spindle Workpiece is not firmly held	选择精度高的刀柄及夹具 校正主轴 每次装夹钻头时，仔细测量与调整 Select the holder and chuch with high Precision calibrating spindle check run Out and adjust after clamping drill
	后角过大 Clearance angle is too large	重新修磨切削刃 Regrind drill
	钻头刚性不足 Insufficient drill rigidity	提高钻头刚性 Increase drill rigidity
被加工工件表面质量差 Poor workpiece surface quality	修磨不当 Incorrect regriding	重新修磨校正 Regrind calibration
	切削液供给不足或型号不匹配 Insufficient coolant or Unsuitable coolant type	改变切削液供给方法，增加流量 采用润滑性好的切削油 Change the coolant supply method, Or increase coolant volume
	钻头装夹不好 主轴本身跳动量大 Poor clamping Large run-out around spindle	选择精度高的刀柄及夹具 校正主轴 Select the holder and chuch with high Precisioncalibrating spindle
	进给速度过大 Feed rate is too high	降低进给速度 Decrease the feed rate
	切削刃磨损过大，刃带棱面粘结严重。 Excessive abrasion on Cutting edge Excessive build-up on margin	重新修磨切削刃，使用涂层钻头 Regrind drill Select a coated drill
	切削阻塞 Chip jamming	重选钻头(容屑槽型、螺旋角等) 重选加工方法 (进给速度的调整，采用分步阶梯方式等) Select a suitable drill(considering flute Geometry, helical angle etc)change the Cutting method (adjust feed rate, use Step feed etc.)
圆柱度较差 Poor cylindricity 	顶角不对称 钻头跳动量过大 横刃偏心 刃带棱面磨损过大 Non-symmetric point angle Large run-out Chisel edge is off center Excessive margin abrasion	重修磨刀具 修磨后检查精度 Regrind drill Chech the precision after regrinding
	进给速度过低 Feed rate is too low	提高进给速度 Increase the feed speed

材料硬度与切削速度的修正系数表

The Correction Coefficient Table Of Hardness And Cutting Speed

FONHAE 方瀚

工件材料 Material		理论硬度 Theoretical Hardness	材料硬度与切削速度的修正系数 The Correction Coefficient Table Of Hardness and Cutting Speed								
			硬度降低 Hardness Decrease ← 硬度差值（实测值—理论值） Hardness Difference(Measured Difference − Theoretical Difference) → 硬度增大 Hardness Increase								
			−60	−40	−20	0	20	40	60	80	100
P		HB180	1.42	1.24	1.11	1.00	0.91	0.84	0.77	0.72	0.67
M		HB180	1.44	1.25	1.11	1.00	0.91	0.84	0.78	0.73	0.68
K	灰口铸铁 Grey Cast Iron	HB220	1.21	1.13	1.06	1.00	0.95	0.9	0.86	0.82	0.79
	球墨铸铁 Nodular Cast Iron	HB250	1.33	1.21	1.09	1.00	0.91	0.84	0.75	0.7	0.65
N		HB75			1.05	1.00	0.95				
S		HB350			1.12	1.00	0.89				
HRC				−6	−3	0.00	3	6	9		
H		HRC60		1.10	1.02	1.00	0.96	0.93	0.9		

实际加工速度=推荐加工速度X切削速度修正系数

Actual Processing Speed=Recommended Processing Speed*Correction Factor Of Cutting Speed

推荐的切削参数见刀片包装盒 Recommended Cutting Parameters See Packaging

表格使用举例：当您要加工的材料为普通的合金钢，理论硬度为HB180，选择的刀片为CNMG120404−MM时，推荐切削速度：V=250m/min。如果实测硬度值为HB220，则硬度差值为220−180=40，对照上表查到速度修正系数0.84，则实际加工速度Vc=250x0.84=210m/min。

i.e. Cutting general alloy steel, hardness HB180, CNMG120404−MM , the recommended cutting speed is V=250m/min. When measured hardness is HB220, the hardness difference is 40(220−180). Find The corresponding speed correction coefficient is 0.84 on above table, and then the actual processing speed Vc=250*0.84=210mm/min

材料对照表

Material Comparison

FONHAE 方瀚

钢 Steel

ISO	国家和标准Nations And Standard										
	中国	德国		美国	英国		意大利	西班牙	瑞典	法国	日本
	GB（P类）	W−nr	DIN	AISI/SAE	BS	EN	UNI	UNE	SS	AFNOR	JIS
碳素钢材 Carbon Steel	15	1.0401	C15	1015	080M15		C15C16	F.111	1350	CC12	
	20	1.0402	C22	1020	050A20	2C	C20C21	F.112	1450	CC20	
	35	1.0501	C35	1035	060A35		C35	F.113	1550	CC35	
	45	1.0503	C45	1045	080M40		C45	F.114	1650	CC45	
	55	1.0535	C55	1055	070M55		C55		1655		
	60	1.0601	C60	1060	080A62	43D	C60			CC55	
	Y15	1.7015	9SMN28	1213	230M07		CF9SMn28	11SMn28	1912	S250	SUM22
锰钢钢材 Manganese Steel	40Mn	1.1157	40Mn4	1039	150M36	15				35M5	
	25	1.1158	Ck25	1025							S25C
	35Mn2	1.1167	36Mn5	1335				36Mn5	2120	40Mn5	SMn438(H)
	30Mn	1.117	28Mn6	1330	150M28	14A	C28Mn			20M5	SCMn1
	35Mn	1.1183	Cf35	1035	060A35		C36		1572	XS38TS	S35C
		1.0718	9SMnPb28	12L13			CF9MnPb28	11SMnPb28	1914	S250Pb	SUM22L
		1.0722	10SPb20				CF10Pb20	10SPb		10PbF2	
		1.0726	35S20	1140	212M36	8M		F210G	1957	35MF4	
	Y13	1.0736	9SMn36	1215	240M07	1B	CF9SMn36	12SMn35		S300	
		1.0737	9SMnPb36	12L14			CF9SMnPb36	12SMnPb35	1926	S300Pb	
	55Si2Mn	1.0904	55Si9	9255	250A53	45	55Si8	56Si7	2085	55S7	
		1.0961	60SiCr7	9262			60SiCr8	60SiCr8		60SC7	
	15	1.1141	Ck15	1015	080M15	32C	C16	C15K	1370	XC12	S15C
	Ck45	1.1191	45	1045	080M46		C45	C45K	1672	XC42	S45C
	55	1.1203	Ck55	1055	070M55		C50	C55K		XC45	S55C
	50	1.1213	Cf53	1050	060A52		C53		1674	XC48TS	S50C
	60Mn	1.1221	Ck60	1060	080A62	43D	C60		1678	XC60	S68C
		1.1274	Ck101	1095	060A96				1870		SUP4
		1.3401	X120Mn12		Z120M12		XG120Mn12	X120Mn12		X120M12	SCMnH/1
	Gr15,45Gr	1.3505	100Cr6	52100	534A99	31	100Cr6	F.131	2258	100C6	SUJ2
		1.5415	15Mo3	ASTMA204Gr,A	1501−240		16Mo3KW	16Mo3	2912	15D3	
		1.5426	16Mo5	4520	1503−245−420		16Mo5	16Mo5			
		1.5622	14Ni6	ASTMA350LF5			14Ni6	15Ni6		16N6	
		1.5662	X8Ni9	ASTM A353	1501−509:510		X10Ni9	XBNi09			

材料对照表

Material Comparison

FONHAE 方瀚

钢 Steel

ISO	国家和标准Nations And Standard										
	中国	德国		美国	英国		意大利	西班牙	瑞典	法国	日本
	GB（P类）	W-nr	DIN	AISI/SAE	BS	EN	UNI	UNE	SS	AFNOR	JIS
镍铬钢钢材 Nickel Chromium Steel		1.5680	12Ni19	2515						Z18N5	
		1.5710	36NiCr6	3135	640A35	111A				35NC6	SNC236
		1.5732	14NiCr10	3415			16NiCr11	15NiCr11		14NC11	SNC415(H)
		1.5752	14NiCr14	3415，3310	655M13 655A12	36A				12NC15	SNC815(H)
镍铬钼钢钢材 Nickel Chromium Molybdenum Steel		1.6511	36CrNiMo4	9840	816M40	110	38CrNiMo4(KB)	35CrNiMo4		40NCD3	
		1.6523	21NiCrMo2	8620	850M20	362	20NiCrMo2	20NiCrMo2	2503	20NCD2	SNCCM220(H)
		1.6546	40NiCrMo2	8740	311-Type7		40NiCrMo2(KB)	40NiCrMo2			SNC240
	40CrNiMoA	1.6582	34CrNiMo6	4340	817M40	24	35CrNiMo6(KB)		2541	35NCD6	
		1.6587	17CrNiMo6		820A16			14CrNiMo13		18NCD6	
铬钢钢材 Chromium Steel	15Cr	1.7015	15Cr3	5015	523M15					12C3	SCr415(H)
	35Cr	1.7033	34Cr4	5132	530A32	18B	34Cr4(KB)	35Cr4		32C4	SCr430(H)
	40Cr	1.7035	41Cr4	5140	530M40	18	41Cr4	42Cr4		42C4	SCr440(H)
	40Cr	1.7045	42Cr4	5140				42Cr4	2245		SCr440
锰铬钢钢材 Manganese Chromium Steel	18CrMn	1.7131	16MnCr15	5115	527M20		16MnCr15	16MnCr15	2511	16MC5	
	20CrMn	1.7176	55Cr3	5155	527A60	48				55C3	SUP9(A)
	30CrMn	1.7218	25CrMo4	4130	1717CDS110		25CrMo4(KB)	55Cr3	2225	25CD4	SCM420; SCM430
	35CrMo	1.722	34CrMo4	4137，4135	708A37	19B	35CrMo4	34CrMo4	2234	35CD4	SCM432 SCRRM3
	40CrMoA	1.7223	41CrMo4	4140，4142	708M40	19A	41CrMo4	41CrMo4	2244	42CD4TS	SCM440
	42CrMo，42CrMnMo	1.7225	42CrMo4	4140	708M40	19A	42CrMo4	42CrMo4	2244	42CD4	SCM440(H)
铬钼钢钢材 Chromium Molybdenum Steel		1.7262	15CrMo5					12CrMo4	2216	12CD4	SCM415(H)
		1.7335	13CrMo44	ASTM A182 F11 F12	1501-620Cr. 27		14CrMo44	14CrMo45	15CD3.5;15CD4.5		
		1.7361	32CrMo12		722M24	40B	32CrMo12	F.124.A	2240	30CD12	
		1.738	10CrMo910	ASTM A182 F22	1501-622Cr.31;45		12CrMo9,10	TU.H	2218	12CD9;10	
		1.7715	14MoV63		1503-660-440			13MoCrV6			
	50CrVA	1.8159	50CrV4	6150	735A50	47	50CrV4	51CrV4	2230	50CV4	SUP10
		1.8509	41CrAlMo7		905M39	41B	41CrAlMo7	41CrAlMo7	2940	40CAD6,12	
		1.8523	39CrMoV139		897M39	40C	36CrMoV12				

材料对照表

Material Comparison

FONHAE 方瀚

钢 Steel

ISO	国家和标准Nations And Standard										
	中国	德国		美国	英国		意大利	西班牙	瑞典	法国	日本
	GB（P类）	W-nr	DIN	AISI/SAE	BS	EN	UNI	UNE	SS	AFNOR	JIS
钢类Steel	T10	1.1545	C105W1	W.110			C98KU C100KU	F.515 F.516	1880	Y1105	
	T12A	1.1663	C125W	W.112			C120KU	(C120)		Y2120	SK2
	CrV,9SiCr	1.2067	100Cr6	L3	BL3			100Cr6		Y100C6	
	Cr12	1.208	X210Cr12	D3	BD3		X210Cr13KU X250Cr12KU	X210Cr12		Z200Cr12	SKD1
	4Cr5MoVSi	1.2344	X40CrMoV51	H13	BH13			X40CrMoV5	2242	Z40CDV5	SKD61
	Cr6WV	1.2363	X100CrMoV51	A2	BA2		X35CrMoV05KU X40CrMoV51KU	X100CrMoV5	2260	Z100CDV5	SKD12
	CrWMo	1.2419	105WCr6				X100CrMoV51KU	105WCr5	2140	105WC13	SKS31 SKS2 SKS3
	Cr12W	1.2436	X210CrW12				10WCr6 107WCr5KU	X210CrW12	2312		SKD2
	5CrNiMo	1.2542	45WCrV7	S1	BS1		X215CrW121KU	45WCrSi8	2710		
	3Cr2W8V	1.2581	X30WCrV93 X30WCrV93KU	H21	BH21		45WCrV8KU	X30WCrV9		Z30WCV9	SKD5
	Cr12MoV	1.2601	X165CrMoV12				X28W09KU X30WCrV93KU	X160CrMoV12	2310		SKD11
	5CrNiMo	1.2731	55NiCrMoV6	L6			X165CrMoW12KU	F.250.S		55NCDV7	SKT4
	V	1.2833	100V1	W210	BW2					Y1105V	SKS43
	W6Mo5Cr4V2Co5	1.3243	S6-5-2-5					HS6-5-2-5	2723	Z85WDKCV	SKH55
	W18Cr4VCo5	1.3255	S18-1-2-5	T4	BT4		HS6-5-2-5	HS18-1-1-5		Z80WKCV 10-05-04-1	SKH3
	W6Mo5Cr4V2	1.3343	S6-5-2S	M2	BM2		X78WCo1805KU	HS6-5-2	2722	Z85WDCV 06-05-04-02	SKH9
		1.3348	S2-9-2	M7		Z	X82WMo0605KU	HS-2-9-2	2782	Z100WCWV 09-02-04-02	
	W18Cr4V	1.3355	S18-0-1	T1	BT1		HS2-9-2	HS18-0-1		Z80WCV 18-04-01	SKH2
	W6Mo5Cr4V3		S6-5-3	M3			X75W18KU				SKH52
				M42	BM42						SKH59

材料对照表

Material Comparison

FONHAE 方瀚

钢 Steel

ISO	国家和标准Nations And Standard					
	中国	德国		日本	大同(日本)	美国
	GB（P类）	W-nr	DIN	JIS	DAIDO	AISI/SAE
模型钢类 Die Steel	塑料模具钢					
					PX5N	P20mod
					NAK55	
					NAK80	
	3Cr13			SUS420J2mod	S-STAR	420mod
	冷作模具钢					
				SKS93	YK30	2
	9CrWMn			SKS3mod	GOA	01mod
	Cr12MoV	X165CrMoV12		SKD11	DC11	D2
				SKD11mod	DC53	D2mod
	热作模具钢					
	4Cr5MoSiV1	X40CrMoV51		SKD61	DHA1	H13
					DH21	
					DH31-S	
					DH2F	

材料对照表

Material Comparison

FONHAE 方瀚

不锈钢 Stainless Steel

ISO	国家和标准Nations And Standard										
	中国	德国		美国	英国		意大利	西班牙	瑞典	法国	日本
	GB（P类）	W-nr	DIN	AISI/SAE	BS	EN	UNI	UNE	SS	AFNOR	JIS
不锈钢 Stainless Steel	0Cr13;1Cr12	1.4000	X6Cr13	403	403S17		X6Cr13	F.3110	2301	Z6C13	SUS403
		1.4001	X7Cr14					F.8401			
	1Cr13	1.4006	X10Cr13	410	410S21	56A	X12Cr13	F.3401	2302	Z10C14	SUS410
	1Cr17	1.4016	X6Cr17	430	430S15	60	X8Cr17	F.3113	220	Z8C17	SUS430
	2Cr13	1.4021	X20Cr13	410	S62	56B; 56C	X20C13	F.3401		Z20C13	SUS410
		1.4027	G-X20Cr14		420C29	56B				Z20C13M	SCS2
	4Cr13	1.4034	X46Cr13		420S45	56D	X40Cr14	F.3405	2304	Z40CM;Z38C13M	SUS420J2
	1Cr17Ni2	1.4057	X20CrNi172	431	431S29	57	X16CNi16	F.3427	2321	Z15CNi6.02	SUS431
	Y1Cr17	1.4104	X12CrMoS17	430F			X10CrS17	F.3117	2383	Z10CF17	SUS430F
	1Cr17Mo	1.4113	X6CrMo171	434	434S17		x8CrMo17		2325	Z8CD17.01	SUS434
		1.4313	X5CrNi134		425C11					Z4CND13.4M	SCS5
		1.4408	G-X6CrNiMo1810		316C16			F.8414			SCS14
	4Cr9Si2	1.4718	X45CrSi93	HW3	401S45	52	X45CrSi8	F.322		Z45CS9	SUH1
	0Cr13Al	1.4724	X10CrAl13	405	403S17		X10CrAl12	F.311		Z10C13	SUS405
	Cr17	1.4742	X10CrAl18	430	430S15	60	X8Cr17	F.3113		Z10CAS18	SUS430
	8Cr2OSi2Ni	1.4757	X80CrNiSi20	HNV6	443S65	59	X80CrSiNi20	F.320V		Z80CSN20.02	SUH4
	2Cr25N	1.4762	X10CrAl24	446			X16Cr26		2322	Z10CAS24	SUH446
	0Cr18Ni9	1.4301	X5CrNi1810	304	304S15	58E	X5CrNi1810	F.3551 F.354 F.3504	2332	Z6CN18.09	SUS304
	1Cr18Ni9MoZr	1.4305	X10CrNiS189	303	303S21	58M	X10CrNiS18.09	F.3508	2346	Z10CNF18.09	SUS303
	0Cr19Ni10	1.4306	X2CrNi1911	304L	304S12		X2CrNi18.11	F.3503	2352	Z2CN18.10	SCS19
		1.4308	G-X6CrNi189		304C15					Z6CN18.10M	SCS13
	Cr17Ni7	1.4310	X12CrNi177	301			X12CrNi1707	F.3517	2331	Z12CN17.07	SUS301
		1.4311	X2CrNiN1810	304LN	304S62				2371	Z2CN18.10	SUS304LN
	0Cr19Ni9	1.4350	X5CrNi189	304	304S31	58E	X5CrNi1810			Z6CN18.09	SUS304
	0Cr17Ni11Mo2	1.4401	X5CrNiMo1712	316	316S16	Z6CND17.11	X5CrNiMo1712	F.3543	2347	1.4401	SUS316
	00Cr17Ni13Mo2	1.4429	X2CrNiMoN17133	316LN					2375	Z2CND17.13	SUS316LN
	0Cr27Ni12Mo3	1.4435	X2CrNiMo18143	316L	316S12		X2CrNiMo1713		2353	Z2CDN17.13	SCS16
	00Cr19Ni13Mo3	1.4438	X2CrNiMo17133	317L	317S12		X2CrNiMo18.16		2367	Z2CND19.15	SUS317L
		1.4460	X8CrNiMo275	329L					2324		SUS329L; SCH11 SCS11
	1Cr18Ni9Ti	1.4541	X6CrNiTi1810	321	2337	321S12	X6CrNiTi1811	F.3553	58B	Z6CNT18.10	SUS321
	1Cr18Ni11Nb	1.4550	X6CrNiNb1810	347	347S17	58F	X6CrNiTi1811	F.3552	2338	Z6CNNb18.1	SUS347
	Cr18Ni12Mo2Ti	1.4571	X6CrNiMoTi17122	316Ti	320S17	58J	X6CrNiMoTi17	F.3535	2350	Z6NDT17.12	
不锈钢 Stainless Steel		1.4581	G-X5CrNiMoNb1810		318C7		XG8CrNiMo18			Z4CNDNb1812M	SCS22
	Cr17Ni12Mo3Nb	1.4583	X10CrNiMoNb1812	318			X6CrNiMoTiNb17			Z6CNDNb1713B	
	1Cr23Ni13	1.4828	X15CrNiSi2012	309	309S24					Z15CNS20.1	SUH309
	0Cr25Ni20	1.4845	X12CrNi2521	310S	310S24		X6CrNi2520	F.331	2361	Z12CN2520	SUH310
	Cr15Ni36W3Ti	1.4864	X12NiCrSi3616	330						Z12CN35.1	SUH330
		1.4865	G-X40NiCrSi3818		330C11		XG50NiCr3919				SCH15
	5Cr2Mn9Ni4N	1.4871	X53CrMnNiN219	EV8	349S54;321S12	58B	X53CrMnNiN219			Z52CMN21.0	SUH35
	1Cr18Ni9Ti	1.4878	X12CrNiTi189	321	321S320	58C	X6CrNiTi1811	F.3523		Z6CNT18.12	Su321

材料对照表

Material Comparison

FONHAE 方瀚

铸铁 Cast Iron

ISO	国家和标准Nations And Standard									
	中国	德国		美国	英国		意大利	西班牙	瑞典	法国	日本
	GB（P类）	W-nr	DIN	AISI/SAE	BS	EN	UNI	UNE	SS	AFNOR	JIS
球墨铸铁 Nodular Iron	QT400-18	GGG40		60-40-18	400/17		GS370-17	FGE38-17	0717-02	FGS370-17	FCD400
	QT450-10			65-45-12	420/12		GS400-13	FGE42-12		FGS400-12	FCD450
	QT500-7	GGG50		70-50-05	500/7		GS500-7	FGE50-7	0727-02	FGS500-7	FCD500
	QT600-3	GGG60		80-60-03	600/7		GS600-2	FGE60-2	0732-03	FGS600-2	FCD600
	QT700-2	GGG70		100-70-03	700/2		GS700-2	FGE70-2	0737-01	FGS700-2	FCD700
	QT800-2	GGG80		120-90-02	800/2		GS800-2	FGE80-2	0864-03	FGS800-2	FCD800
	QT900-2				900/2						
灰口铸铁 Grey Cast Iron		GG40		NO.60					0140	FGL400	FC350
	HT350	GG35		NO.50	350		G35	FG35	0135	FGL350	FC300
	HT300	GG30		NO.45	300		G30	FG30	0130	FGL300	FC250
	HT250	GG25		NO.35	250		G25	FG25	0125	FGL250	FC200
	HT200	GG20		NO.30	200		G20	FG20	0120	FGL200	FC150
	HT150	GG15		NO.20	150		G15	FG15	0115	FGL150	FC100
	Ht100				100		G10		0110		

硬度对照表

Hardness Comparison

FONHAE 方瀚

硬度 Hardness				抗拉强度 Tensile Strength
洛氏 Rockwell Hardness(RH)		维氏 Vickers Hardness(VH)	布氏 Brinell Hardness(BH)	
HRC	HRA	HV	HB	
70.0	86.6	1037		
69.5	86.3	1017		
69.0	86.1	997		
68.5	85.8	978		
68.0	85.5	959		
67.5	85.2	941		
67.0	85.0	923		
66.5	84.7	906		
66.0	84.4	889		
65.5	84.1	872		
65.0	83.9	856		
64.5	83.6	840		
64.0	83.3	825		
63.5	83.1	810		
63.0	82.8	795		
62.5	82.5	780		
62.0	82.2	766		
61.5	82.0	752		
61.0	81.7	739		
60.5	81.4	726		
60.0	81.2	713		2555
59.5	80.9	700		2500
59.0	80.6	688		2450
58.5	80.3	676		2395
58.0	80.1	664		2345
57.5	79.8	653		2295
57.0	79.5	642		2250
56.5	79.3	631		2205
56.0	79.0	620		2160
55.5	78.7	609		2115
55.0	78.5	599		2075
54.5	78.2	589		2035
54.0	77.9	579		1995
53.5	77.7	570		1955
53.0	77.4	561		1920
52.5	77.1	551		1885
52.0	76.9	543		1850
51.5	76.6	534		1815

硬度 Hardness				抗拉强度 Tensile Strength
洛氏 Rockwell Hardness(RH)		维氏 Vickers Hardness(VH)	布氏 Brinell Hardness(BH)	
HRC	HRA	HV	HB	
51.0	76.3	501		1780
50.5	76.1	494		1750
50.0	75.8	488		1720
49.5	75.5	481		1690
49.0	75.3	474		1660
48.5	75.0	468		1630
48.0	74.7	461		1605
47.5	74.5	455		1575
47.0	74.2	449		1550
46.5	73.9	442		1525
46.0	73.7	436		1500
45.5	73.4	430		1475
45.0	73.2	424		1450
44.5	72.9	418		1430
44.0	72.6	413		1405
43.5	72.4	407		1385
43.0	72.1	401		1360
42.5	71.8	396		1340
42.0	71.6	391		1320
41.5	71.3	385		1300
41.0	71.1	380		1280
40.5	70.8	375		1260
40.0	70.5	370		1245
39.5	70.3	365		1225
39.0	70.0	360		1210
38.5		355		1190
38.0		350		1175
37.5		345		1160
37.0		341		1140
36.5		336		1125
36.0		332		1110
35.5		327		1095
35.0		323		1080
34.5		318		1065
34.0		314		1050
33.5		310		1035
33.0		306		1020
32.5		302		1010

硬度对照表

Hardness Comparison

硬度 Hardness				抗拉强度 Tensile Strength
洛氏 Rockwell Hardness(RH)		维氏 Vickers Hardness(VH)	布氏 Brinell Hardness(BH)	
HRC	HRA	HV	HB	
32.0		304	298	995
31.5		300	294	980
31.0		296	291	970
30.5		292	287	960
30.0		289	283	950
29.5		285	280	935
29.0		281	276	920
28.5		278	273	910
28.0		274	269	900
27.5		271	266	890
27.0		268	263	880
26.5		264	260	870
26.0		261	257	860
25.5		258	254	850
25.0		255	251	835
24.5		252	248	830

硬度 Hardness				抗拉强度 Tensile Strength
洛氏 Rockwell Hardness(RH)		维氏 Vickers Hardness(VH)	布氏 Brinell Hardness(BH)	
HRC	HRA	HV	HB	
24.0		249	245	820
23.5		246	242	810
23.0		243	240	800
22.5		240	237	790
22.0		237	234	785
21.5		234	232	775
21.0		231	229	765
20.5		229	227	760
20.0		226	225	750
19.5		223	222	745
19.0		221	220	735
18.5		218	218	730
18.0		216	216	725
17.5		214	214	715
17.0		211	211	710

应用技术是检验刀具性能的关键一步，设计制造的刀具是否可以满足客户要求，是否可以提升客户的加工效率，降低成本，都需要应用技术的支持。同样一把刀具，不同的加工参数和策略，结果可能会差异巨大。
如有任何需要请联系我们，期待与您合作!

Application technology is a key step to test tool performance. Whether the tool designed and manufactured can meet customer requirements, whether it can improve customer processing efficiency and reduce costs, all need the support of application technology. The same tool, different processing parameters and strategies, the results may be very different.
If you have any needs, please contact us and look forward to cooperating with you.