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RUIAN

台州市锐安硬质合金工具有限公司

GENERAL CATALOGUE FOR CUTTING TOOLS

切削刀具产品型录

台州市锐安硬质合金工具有限公司
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CONTENT

目录

A 数控刀片 Indexable inserts

- a 硬质合金材料 / 002
Cemented carbide material
- b 车削刀片 / 011
Turning inserts
- c 切断切槽刀片 / 047
Parting and grooving inserts
- d 螺纹车削刀片 / 070
Threading inserts
- e 可转位铣削刀片 / 096
Indexable milling inserts
- f 可转位浅孔钻刀片 / 109
Indexable shallow drilling inserts
- g 通用技术资料 / 114
General technical data

B 整体硬质合金立铣刀 Solid carbide end mills

- a 通用加工 HM450 系列 / 157
HM450 series for general machining
- b 大进给加工 HP500 系列 / 160
HP500 series for machining with high feed rate
- c 淬火钢超硬加工 HR700 系列 / 163
HR700 series for machining hardened steel superhard
- d 高硬材料加工 HMM 系列 / 168
HMM series for machining high hardness materials
- e 难切削材料加工 HMS 系列 / 187
HMS series for machining hard-to-cut materials
- f 钛合金材料加工 HT400 系列 / 201
HT400 series for machining titanium alloy materials
- g 铝合金材料加工 HMA 系列 / 204
HMA series for machining aluminium alloy materials
- h 切削参数 / 215
Cutting parameter

C 整体硬质合金钻头 Solid carbide drills

- a 通用加工 HDG 系列麻花钻 / 234
HDG series twist drills for general machining
- b 不锈钢加工 HDS 系列麻花钻 / 269
HDS series twist drills for machining stainless steel
- c 铸铁加工 HDK 系列麻花钻 / 280
HDK series twist drills for machining cast iron
- d 硬材料加工 HDH 系列麻花钻 / 285
HDH series twist drills for machining hardness materials
- e 铸铁加工 HDKZ 系列直槽钻 / 286
HDKZ series straight flute drills for machining cast iron
- f 深孔加工 HDL 系列麻花钻 / 288
HDL series twist drills for deep-hole machining
- g HDP 系列定心钻 / 300
HDP series pilot drills
- h 切削参数 / 301
Cutting parameter

硬质合金材料

CEMENTED CARBIDE MATERIAL

CVD 涂层硬质合金

CVD Coated Cemented Carbide

钢件牌号 Steel Grade

牌号 Grade	ISO	颜色 Colour	应用特点 Application Feature
RC6205	P05-P10	黑色 Black	<p>高立方相含量梯度硬质合金基体，具有很好的抗塑性变形能力和优异的高温性能，搭配超厚 $\alpha\text{-Al}_2\text{O}_3$ 和超细晶粒 MT-TiCN 涂层。</p> <p>适用于钢件材料的精加工到半精加工。</p> <p>High cubic phase content gradient cemented carbide matrix is equipped with fine plastic deformation resistance ability and extraordinary high temperature performance, combined with ultra-thick $\alpha\text{-Al}_2\text{O}_3$ and superfine grain MT-TiCN coating.</p> <p>Suitable for finishing and semi-finishing of materials of steel members.</p>
RC6205D	P05-P10	双色 Dichromatic	<p>高立方相含量梯度硬质合金基体，具有很好的抗塑性变形能力和优异的高温性能，搭配优化的具有特定织构的 $\alpha\text{-Al}_2\text{O}_3$ 层和超细耐磨 MT-TiCN 涂层，经过特殊的后处理工艺。</p> <p>适用于钢件材料的精加工到半精加工。</p> <p>High cubic phase content gradient cemented carbide matrix is equipped with fine plastic deformation resistance ability and extraordinary high temperature performance, combined with $\alpha\text{-Al}_2\text{O}_3$ layer with special texture and superfine wear proofing MT-TiCN coating, with special after treatment process.</p> <p>Suitable for finishing and semi-finishing of materials of steel members.</p>
RC6215	P10-P20	黑色 Black	<p>较高立方相含量梯度硬质合金基体，具有高强度和良好的抗冲击性能，搭配较厚 $\alpha\text{-Al}_2\text{O}_3$/MT-TiCN 涂层，具有良好耐磨性和抗高温塑性变形能力。</p> <p>推荐用于钢件材料的半精加工到粗加工。</p> <p>The gradient hard alloy substrate with high cubic phase content has high strength and good impact resistance, and is thick $\alpha\text{-Al}_2\text{O}_3$ / MT-TiCN coatings, with good abrasion resistance and high temperature plastic deformation resistance.</p> <p>Recommended for semi-finishing and roughing of steel materials.</p>
RC6215D	P10-P20	双色 Dichromatic	<p>较高立方相含量梯度硬质合金基体，具有高强度和良好的抗冲击性能，搭配优化的具有特定织构的 $\alpha\text{-Al}_2\text{O}_3$ 层和超细耐磨 MT-TiCN 涂层，经过特殊的后处理工艺，具有良好耐磨性和抗高温塑性变形能力。</p> <p>推荐用于钢件材料的高速半精加工。</p> <p>The gradient hard alloy substrate with high cubic phase content has high strength and good impact resistance, and is matched with the optimized cemented carbide matrix with specific texture $\alpha\text{-Al}_2\text{O}_3$ layer and ultra-fine wear-resistant MT TiCN coatings, after special post-treatment process, have good wear resistance and high temperature plastic deformation resistance.</p> <p>Recommended for high-speed semi-finishing of steel materials.</p>
RC6315	P10-P20	黑色 Black	<p>采用功能梯度硬质合金基体，涂覆超耐磨 $\alpha\text{-Al}_2\text{O}_3$ 涂层。</p> <p>推荐用于正角刀片的精加工。</p> <p>Adopt functional gradient hard alloy substrate, coated with super wear-resistant $\alpha\text{-Al}_2\text{O}_3$ Coatings.</p> <p>Recommended for finishing of positive angle insert.</p>



CVD 涂层硬质合金

CVD Coated Cemented Carbide

钢件牌号 Steel Grade

牌号 Grade	ISO	颜色 Colour	应用特点 Application Feature
RC6120	P10-P20	黄色 Yellow	<p>采用赋予表层和芯部不同特性的双结构合金基体，基体再经韧性增强，配合厚的纤维晶 TiCN 加上厚的 κ-Al_2O_3 涂层。 推荐用于一般工况碳素钢和低合金钢的精加工和半精加工。</p> <p>Use dual structure carbide matrix allowing for different characteristics of the surface and the core, the matrix is provided with toughness strengthening, and thick fiber grain TiCN plus thick κ-Al_2O_3 coating are combined. Recommend to be used in finishing and semi-finishing of carbon steel and low alloy steel in general working conditions.</p>
RC6220	P10-P20	黑色 Black	<p>采用赋予表层和芯部不同特性的双结构合金基体，基体再经韧性增强，配合厚的纤维晶 TiCN 加上厚的 α-Al_2O_3 涂层。 推荐用于一般工况碳素钢和低合金钢的精加工和半精加工。</p> <p>Use dual structure carbide matrix allowing for different characteristics of the surface and the core, the matrix is provided with toughness strengthening, and thick fiber grain TiCN plus thick α-Al_2O_3 coating are combined. Recommend to be used in finishing and semi-finishing of carbon steel and low alloy steel in general working conditions.</p>
RC6125	P15-P25	黄色 Yellow	<p>较高立方相和粘结相含量的高韧性梯度硬质合金基体，具有高强度和良好的抗冲击性能，搭配混合型 Al_2O_3/MT-TiCN 涂层，具有很好的可靠性。 推荐用于钢件材料的半精加工到粗加工。</p> <p>The high toughness gradient hard alloy substrate with high content of cubic phase and bonding phase has high strength and good impact resistance. It has good reliability when combined with the mixed Al_2O_3/MT-TiCN coatings. Recommended for semi-finishing and roughing of steel materials.</p>
RC6125A	P15-P25	黄色 Yellow	<p>采用韧性更好的双结构合金基体，涂覆中厚 MT-TiCN 和 α-Al_2O_3 涂层。 推荐用于一般断续切削加工碳素钢和低合金钢等材料。</p> <p>It applies double structure alloy substrate with better tenacity and covers moderate thickness MT-TiCN and α-Al_2O_3 coating. Recommend to be used for general intermittent cutting and machining of carbon steel and lower alloy steel etc. materials.</p>
RC6225	P15-P30	黑色 Black	<p>较高立方相和粘结相含量的高韧性梯度硬质合金基体，具有高强度和良好的抗冲击性能，搭配中等厚度的 α-Al_2O_3/MT-TiCN 涂层，具有杰出的可靠性和耐磨性。 推荐用于钢件材料的半精加工到粗加工。</p> <p>High toughness gradient hard alloy substrate with high content of cubic phase and bonding phase, high strength and good impact resistance, matched with medium thickness α-Al_2O_3/MT-TiCN coatings, with excellent reliability and wear resistance. Recommended for semi-finishing and roughing of steel materials.</p>

CVD 涂层硬质合金

CVD Coated Cemented Carbide

钢件牌号 Steel Grade

牌号 Grade	ISO	颜色 Colour	应用特点 Application Feature
RC6225D	P15-P30	双色 Dichromatic	<p>较高立方相和粘结相含量的高韧性梯度硬质合金基体，具有高强度和良好的抗冲击性能，搭配优化的具有特定织构的 α-Al_2O_3 层和超细耐磨 MT-TiCN 涂层，经过特殊的后处理工艺，具有杰出的可靠性和耐磨性。 推荐用于钢件材料的高速半精加工到粗加工。</p> <p>High toughness gradient hard alloy substrate with high content of cubic phase and bonding phase, high strength and good impact resistance, and optimized α-Al_2O_3 layer and ultra-fine wear-resistant MT-TiCN coatings, after special post-treatment process, have outstanding reliability and wear resistance. It is recommended for high-speed semi-finishing to roughing of steel materials.</p>
RC6135	P25-P40	黄色 Yellow	<p>高立方相含量和高粘结相含量的超高韧性梯度硬质合金基体，搭配较厚的混合型 α-Al_2O_3 和高韧性 MT-TiCN 涂层，具有极高的刃口强度和抗冲击性能。 用于钢件材料粗加工。</p> <p>The ultra-high toughness gradient hard alloy substrate with high cubic phase content and high binder phase content, together with thicker mixed type α-Al_2O_3 and high toughness MT-TiCN coatings, has extremely high cutting edge strength and impact resistance. It is used for roughing of steel materials.</p>
RC6235	P25-P40	黑色 Black	<p>高立方相含量和高粘结相含量的超高韧性梯度硬质合金基体，搭配较薄厚度的 α-Al_2O_3 和高韧性 MT-TiCN 涂层，具有极高的刃口强度和抗冲击性能。 用于钢件材料粗加工。</p> <p>Super high toughness gradient hard alloy substrate with high cubic phase content and high binder phase content, matched with thin α-Al_2O_3 and high toughness MT-TiCN coatings, with extremely high edge strength and impact resistance. It is used for roughing of steel materials.</p>

CVD 涂层硬质合金

CVD Coated Cemented Carbide

不锈钢牌号 Stainless Steel Grade

牌号 Grade	ISO	颜色 Colour	应用特点 Application Feature
RC7115	M10-M20	黄色 Yellow	<p>较低 Co 含量和高立方相含量的梯度结构合金基体，涂覆薄 MT-TiCN 和超薄 κ-Al₂O₃ 涂层，具有优良的耐磨性和抗塑性变形能力，独特的后处理工艺使刀片前刀面和刃线表面具有极低的粗糙度，有效阻止积屑瘤的产生。</p> <p>适用于不锈钢的高速连续加工。</p> <p>Gradient structure alloy substrate with lower Co content and higher cubic phase content, covers thinner MT-TiCN and super thinner κ-Al₂O₃ coating. It owns good abrasion resistance and capability of resistance to plastic. The unique post-processing technique makes the rake face of the insert and the edge line own the lowest roughness, which can prevent the production of welding.</p> <p>Suitable for high speed and continuous machining of stainless steel.</p>
RC7125	M15-M30	黄色 Yellow	<p>较高 Co 含量和适中立方相含量的梯度结构合金基体，涂覆薄 MT-TiCN 和超薄 κ-Al₂O₃ 涂层，具有优良抗冲击性和抗塑性变形能力，独特的后处理工艺使刀片前刀面和刃线表面具有极低的粗糙度，有效阻止积屑瘤的产生。</p> <p>适用于不锈钢的高速断续 / 连续加工。</p> <p>Gradient structure alloy substrate with higher Co content and appropriately cubic phase content, covers thinner MT-TiCN and super thinner κ-Al₂O₃ coating. It owns good impact resistance and capability of resistance to plastic. The unique post-processing technique makes the rake face of the insert and the edge line own the lowest roughness, which can prevent the production of welding.</p> <p>Suitable for high speed intermittent and continuous machining of stainless steel.</p>

CVD 涂层硬质合金

CVD Coated Cemented Carbide

铸铁牌号 Cast Iron Grade

牌号 Grade	ISO	颜色 Colour	应用特点 Application Feature
RC8305A	K05-K10	黑色 Black	<p>超细晶 WC-Co 合金基体搭配厚的 α-Al₂O₃/MT-TiCN 涂层，赋予刀片超强的耐磨性。用于稳定工况铸铁高速精加工。</p> <p>Superfine grained WC-Co alloy with thick substrate α-Al₂O₃/MT-TiCN coating endows the insert with super abrasion resistance.</p> <p>It is used for high-speed finishing of cast iron under stable working conditions.</p>
RC8215A	K10-K20	黑色 Black	<p>中等粒度的 WC-Co 合金基体搭配中等厚度 α-Al₂O₃ 和低内应力 MT-TiCN 涂层，具有优良的抗冲击性能。</p> <p>WC-Co alloy substrate matching with medium particle size, medium thickness α-Al₂O₃ and low internal stress MT-TiCN coating has excellent impact resistance.</p>
RC8315A	K10-K20	黑色 Black	<p>中等粒度的 WC-Co 合金基体搭配中等厚度 α-Al₂O₃/MT-TiCN 涂层，兼顾耐磨性和韧性。适用于铸铁的通用加工。</p> <p>Medium grained WC-Co alloy substrate matching with medium thickness α-Al₂O₃/MT-TiCN coating gives consideration to abrasion resistance and toughness.</p> <p>Suitable for general machining of cast iron.</p>
RC8315H	K10-K25	黑色 Black	<p>中等粒度的 WC-Co 合金基体，搭配优化的具有特定织构的 α-Al₂O₃ 层和超细耐磨 MT-TiCN 涂层，经过特殊的后处理工艺，使刀片具有极佳耐磨性和稳定性。</p> <p>适用于铸铁的高速通用加工。</p> <p>Medium grained WC-Co alloy substrate matching with optimized α-Al₂O₃ layer and ultra-fine wear-resistant MT-TiCN coating, through special post-treatment process, makes the insert have excellent abrasion resistance and stability.</p> <p>Suitable for high-speed general machining of cast iron.</p>

PVD 涂层硬质合金

PVD Coated Cemented Carbide

牌号 Grade	颜色 Colour	应用特点 Application Feature
RP1225	紫黑色 Purple black	<p>TiAlN/TiAlSiN 纳米多层梯度结构涂层, Si 含量适中, 摩擦系数低、纳米硬度高、抗剥落性能好, 搭配高 Co 超细晶硬质合金基体, 具有摩擦系数小, 抗氧化温度高, 突出的耐磨性和通用性等优点。</p> <p>适合不锈钢粗加工 / 半精加工 / 精加工。</p> <p>In TiAlN/TiAlSiN nanometer multi-layer gradient structure coating, Si content is moderate, friction coefficient is low, nano-indentation hardness is high, and antistrip performance is good, and is combined with high Co ultra-fine grain cemented carbide matrix, equipped with the advantages of low friction coefficient, high anti-oxidation temperature and outstanding wear resistance and generality.</p> <p>Suitable for roughing/semi-finishing/finishing of stainless steel.</p>
RP9025	黑灰色 Black grey	<p>耐磨性与韧性优化匹配的微晶硬质合金, 结合高粘结性的纳米晶 TiAlN 涂层, 耐磨性极佳。</p> <p>模具铣削加工首选牌号。</p> <p>Microcrystal carbide owns optimized and matched abrasion resistance and tenacity. To realize the excellent abrasion resistance by combing with nanometer TiAlN coating with higher cohesiveness.</p> <p>It is the preferred plate No. For mould milling machine.</p>
RP9125B	棕黄色 Brown yellow	<p>TiAlN/TiAlSiN 复合多层结构涂层, 高 Si 含量的表层使涂层具有极高的耐热和抗氧化性能, 搭配高 Co 超细晶高硬度硬质合金基体。</p> <p>适合不锈钢精加工。</p> <p>TiAlN/TiAlSiN composite multi-layer structure coating, surface with high Si content is equipped with extremely high heat resisting and anti-oxidation performance, and is combined with high Co ultra-fine grain highly cemented carbide matrix.</p> <p>Suitable for finishing of stainless steel.</p>
RP9125C	棕黄色 Brown yellow	<p>TiAlN/TiAlSiN 纳米多层梯度结构涂层, Si 含量适中, 摩擦系数低、纳米硬度高、耐热抗氧化性能强, 搭配高 Co 超细晶硬质合金基体, 保持良好耐磨性的同时提高抗冲击性。</p> <p>适合不锈钢半精 / 精加工。</p> <p>TiAlN/TiAlSiN nanometer multi-level gradient structure coating, Si content is moderate, friction coefficient is low, nano-indentation hardness is high, and heat resisting and anti-oxidation performance are robust, combined with high Co ultra-fine grain cemented carbide matrix, it improves anti-impact performance along with maintaining good wear resistance.</p> <p>Suitable for semi-finishing/finishing of stainless steel.</p>
RP9225B	古铜色 Bronze	<p>TiAlN/TiAlSiN 复合多层结构涂层, Si 含量适中, 纳米硬度高、耐热抗氧化性能强, 搭配高 Co 超细晶硬质合金基体, 保持良好耐磨性的同时提高抗冲击性。</p> <p>适合不锈钢粗加工 / 半精加工。</p> <p>In TiAlN/TiAlSiN composite multi-level structure coating, Si content is moderate, nano-indentation hardness is high, and heat resisting and anti-oxidation performance are robust; combined with high Co ultra-fine grain cemented carbide matrix, it improves anti-impact performance along with maintaining good wear resistance.</p> <p>Suitable for roughing/semi-finishing of stainless steel.</p>

PVD 涂层硬质合金

PVD Coated Cemented Carbide

牌号 Grade	颜色 Colour	应用特点 Application Feature
RP1020	黑灰色 Black grey	<p>超细微晶合金基体与多层纳米 TiAlN 涂层结合, 具有高耐磨性和适中的抗崩刃。适用于钢、不锈钢等材料的断续、连续加工。</p> <p>Ultra-fine microcrystal alloy substrate combines with multiple nanometer TiAlN coating, it owns higher abrasion resistance and middle anti-collapse edge.</p> <p>Suitable for intermittent and continuous machining of steel and stainless steel etc. Materials.</p>
RP1120A	黄色 Yellow	<p>TiAlN/TiAlSiN 复合多层结构涂层, 高 Si 含量的表层使涂层具有极高的耐热和抗氧化性能, 搭配高 Co 超细晶高硬度硬质合金基体。</p> <p>适合不锈钢精加工。</p> <p>TiAlN/TiAlSiN composite multi-level structure coating, surface with high Si content is equipped with extremely high heat resistance and anti-oxidation performance, and is combined with high Co ultra-fine grain highly cemented carbide matrix.</p> <p>Suitable for finishing of stainless steel.</p>

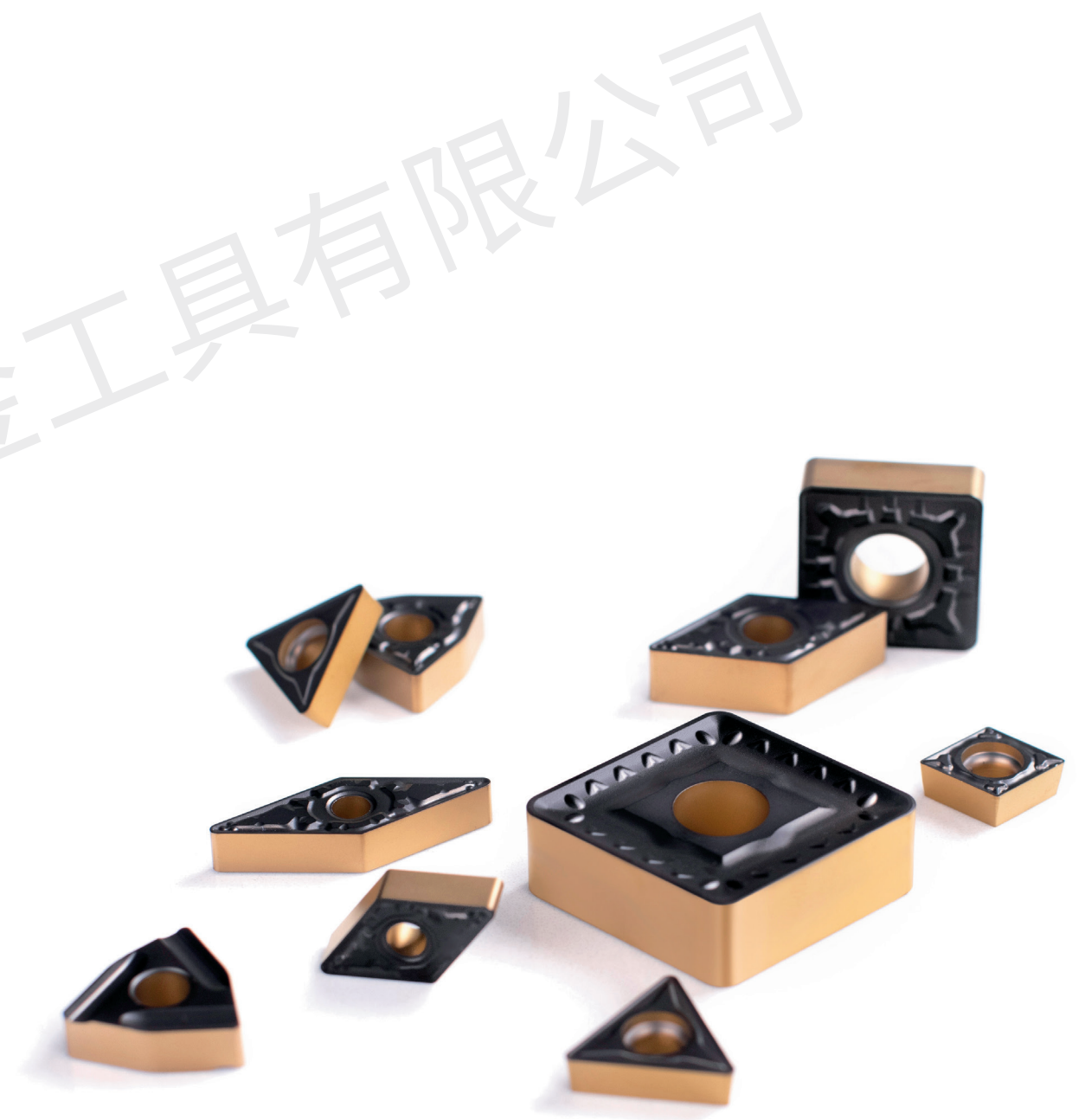
涂层牌号应用一览表

Coating Grade Overview

车削刀片

TURNING INSERTS

加工材料 Workpiece material	P 钢 Steel	M 不锈钢 Stainless Steel	K 铸铁 Cast Iron
加工类型 Machining type			
负型车削 Negative turning			
正型车削 Positive turning			
切断切槽 Parting and grooving			
螺纹加工 Threading			
铣削加工 Milling			



车削刀片命名

Turning Inserts Code Key

形状代号 Shape

T N M G 16 04 08 - GM

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

公差代号 Tolerance

T N M G 16 04 08 - GM

代号 Symbol	刀尖高度 m 公差 (mm) m (mm)	内接圆 ϕ L.C 公差 (mm) d=L.C (mm)	厚度 S 公差 (mm) S (mm)	刀尖高度公差 m (mm) Nose height tolerance (mm)								内接圆 ϕ L.C 公差 (mm) Tolerance of inscribed circle ϕ L.C (mm)							
				内接圆 Inscribed circle	正三角形 Regular triangle	正方形 Square	80°菱形 Diamond with 80°	55°菱形 Diamond with 55°	35°菱形 Diamond with 35°	内接圆 Inscribed circle	正三角形 Regular triangle	正方形 Square	80°菱形 Diamond with 80°	55°菱形 Diamond with 55°	35°菱形 Diamond with 35°	圆形 Round			
A	±0.005	±0.025	±0.025	内接圆	正三角形	正方形	80°菱形	55°菱形	35°菱形	内接圆	正三角形	正方形	80°菱形	55°菱形	35°菱形	圆形			
F	±0.005	±0.013	±0.025	6.35	±0.08	±0.08	±0.08	±0.11	±0.16	6.35	±0.05	±0.05	±0.05	±0.05	±0.05	-			
C	±0.013	±0.025	±0.025	9.525	±0.08	±0.08	±0.08	±0.11	±0.16	9.525	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05			
H	±0.013	±0.013	±0.025	12.7	±0.13	±0.13	±0.13	±0.15	-	12.7	±0.08	±0.08	±0.08	±0.08	-	±0.08			
E	±0.025	±0.025	±0.025	15.875	±0.15	±0.15	±0.15	±0.18	-	15.875	±0.10	±0.10	±0.10	±0.10	-	±0.10			
G	±0.025	±0.025	±0.13	19.05	±0.15	±0.15	±0.15	±0.18	-	19.05	±0.10	±0.10	±0.10	±0.10	-	±0.10			
J	±0.005	±0.05-±0.13	±0.025	25.4	-	±0.18	-	-	-	25.4	-	±0.13	-	-	-	±0.13			
*K	±0.013	±0.05-±0.13	±0.025																
*L	±0.025	±0.05-±0.13	±0.025																
*M	±0.08-±0.18	±0.05-±0.13	±0.13																
*N	±0.08-±0.18	±0.05-±0.13	±0.025																
U	±0.13-±0.38	±0.08-±0.25	±0.13																

*表示侧面不研磨的刀片 Indicates the inserts that is not grinded on the side

断屑槽及孔型代号 Chipbreaker and hole

T N M G 16 04 08 - GM

B		W		N		H		T		R	
C		Q		F		J		U		A	
M		G		X	特殊 Special						

车削刀片命名

Turning Inserts Code Key

切削刃长度代号 Length of cutting edge

T N M G 16 04 08 - GM

内接圆 Inscribed circle (mm)	C	D	R	S	T	V	W
	3.97	03	04		03	06	
5.00			05				
5.56	05	06		05	09	09	03
6.00			06				
6.35	06	07		06	11	11	04
8.00			08				
9.525	09	11	09	09	16	16	06
10.00			10				
12.00			12				
12.70	12	15	12	12	22	22	08
15.875	16	19	15	15	27		10
16.00			16				
19.05	19		19	19	33		13
20.00			20				
25.00	25		25				
25.40			25	25	44		
31.75	32		31	31	54		
32.00			32				

刀片厚度代号 Insert thickness

T N M G 16 04 08 - GM

代号 Symbol	刀片厚度 (mm) Insert thickness (mm)
01	1.59
T1	1.98
02	2.38
T2	2.78
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

厚度指刀片底面与切削刃最高部分之间的高度
Thickness is defined as the height from the bottom of insert to the highest part of cutting edge

刀尖圆弧代号 Nose radius

T N M G 16 04 08 - GM

代号 Symbol	刀尖圆弧半径 (mm) Nose radius (mm)
00	无圆角 No radius
02	0.20
04	0.40
08	0.80
12	1.20
16	1.60
20	2.00
24	2.40
32	3.20
X	其他 Other

断屑槽型代号 Chipbreaker

T N M G 16 04 08 - GM

PF	GS	GM	GR
TS	TG	TM	TR
KG	KM	PF	无代号 (NO CODE)

车削刀片槽型规格

Chipbreaker Specification of Turning Inserts





钢（车削刀片 - 负型） Steel (Turning inserts - negative)

断屑槽 Chipbreaker	特点 Feature
<p>PF</p>  <p>精加工 Finishing</p>	<p>刀片刃口锋利，切削阻力低，工件表面精度高。 三维凸点断屑结构，在小切深、小进给条件下具备出色的断屑控制性能。 The cutting edge is sharp; the cutting resistance is low; and the workpiece surface precision is high. The 3D bump chipbreaker has excellent control performance under the conditions of small cutting depth and small feed.</p> 
<p>GS</p>  <p>精-半精加工 Finishing/Semi-finishing</p>	<p>曲线刃设计，锋利变前角结构，切屑流畅。 特殊的刃口处理工艺，获得较好的加工表面光洁度。 Curved cutting edge design; sharp variable front angle structure; smooth chip. Special cutting edge treatment machine to obtain better surface finish.</p> 
<p>GM</p>  <p>半精加工 Semi-finishing</p>	<p>刀片刃口强度高，正前角结构，切削阻力低。 独特的断屑槽结构，排屑范围宽，槽型通用性高。 High cutting edge strength; positive rake angle structure; low cutting resistance. Unique chipbreaker structure; wide chip removal range; high universality of chipbreaker.</p> 
<p>R/L-S</p>  <p>半精加工 Semi-finishing</p>	<p>有切削方向，能有效控制切屑排除。 切削锋利性好，前刀面耐磨损性强的槽型结构。 With cutting direction, it can effectively control chip removal. The chipbreaker with good cutting sharpness and strong wear resistance of the rake face.</p> 
<p>GR</p>  <p>粗加工 Roughing</p>	<p>切削刃强度高，用于断续切削，锻造表皮或氧化皮材料的加工。 大切深和高进给条件下切屑控制性能出色。 High cutting edge strength. It is used for intermittent cutting, forging skin or oxide skin material machining. The chip control performance is excellent under the conditions of large cutting depth and high feed rate.</p> 
<p>HR</p>  <p>重载加工 Heavy-load machining</p>	<p>切削刃坚固，可用于高切削负荷的粗加工应用，金属切除率高。 曲线形切削刃使切削力降低，配合独特的断屑台设计，切屑排出性能良好。 The cutting edge is solid, which can be used for roughing applications with high cutting load, and the metal removal rate is high. The curved cutting edge reduces the cutting force. With the unique chip breaker design, the chip discharge performance is good.</p> 

车削刀片槽型规格

Chipbreaker Specification of Turning Inserts

钢（车削刀片 - 正型） Steel (Turning inserts - positive)

断屑槽 Chipbreaker	特点 Feature
<p>PF</p>  <p>精加工 Finishing</p>	<p>大前角结合直棱边刃口，切削锋利性高。 小切深、低进给工况下，断屑性能优异，可获得良好的加工表面质量。 Large rake angle combined with straight cutting edge, high cutting sharpness. Under the working conditions of small cutting depth and low feed rate, the chip breaking performance is excellent, and good machining surface quality can be obtained.</p> 
<p>无代号 NO CODE</p>  <p>半精加工 Semi-finishing</p>	<p>扁平棱边与大前角组合，刀片同时兼备优良的刀刃强度与切削锋利性。 刀尖部位凸点断屑槽结合大容屑槽设计，实现广泛领域的稳定切削。 The combination of flat edge and large rake angle makes the inserts have excellent cutting edge strength and cutting sharpness at the same time. The convex chipbreaker at the tool tip is combined with the design of large chip pocket to achieve stable cutting in a wide range of fields.</p> 

车削刀片槽型规格

Chipbreaker Specification of Turning Inserts

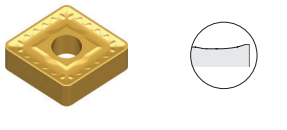

不锈钢（车削刀片 - 负型） Stainless steel (Turning inserts - negative)

断屑槽 Chipbreaker	特点 Feature
TS  精加工 Finishing	小切深，实现卷曲切屑。 刃口锋利，切削阻力低，获得良好的工作表面质量。 Small cutting depth to realize curling chips cutting. Cutting edge is sharp with lower cutting resistance to acquire good working appearance quality. 
TF  精-半精加工 Finishing/Semi-finishing	大前角设计，小切深加工亦能获得较好的卷屑效果。 正前角刃口结构，兼具强度与锋利性，实现较广泛的切削范围。 Large rake angle design and smaller cutting depth machine also can acquire better chip curling effect. The structure of positive rake angle cutting edge both owns strength and sharpness to realize more widely cutting range. 
TG  精-半精加工 Finishing/Semi-finishing	切削刃锋利，切削轻快，低阻力，切屑处理能力优异。 独特的刃口处理技术，获得优秀的加工光洁度。 The cutting edge is sharp with rapid cutting, lower resistance. Its cutting layer treatment capability is excellent. The unique edge treatment technique can acquire excellent machine smoothness. 
TM  半精加工 Semi-finishing	低阻力耐磨损的刃形，切削锋利性高，加工表面精度良好。 断屑范围宽，具备优良的断屑性能及加工性能，适用于从轻切削到中切削的广泛领域。 The cutting edge shape owns lower resistance and abrasion resistance. Its cutting sharpness is higher with better machine surface precision. Its chip breaking range is wide and owns excellent chip breaking performance and machine performance. It is suitable for a wide area ranging from light cutting to middle cutting. 
AMP  半精加工 Semi-finishing	高强度的刃口结构，适用于不稳定工况加工。 较大的前角设计，获得较低的切削阻力。 The cutting edge structure with high strength is suitable for machining of unstable working condition. Larger rake angle design can acquire lower cutting resistance. 
TR  粗加工 Roughing	刃口优化设计，兼具锋利性与强度。 推荐用于不锈钢断续加工及轻载粗加工。 The cutting edge applies optimization design and owns both sharpness and strength. It is promoted to use for intermittent machining and light load roughing of stainless steel. 

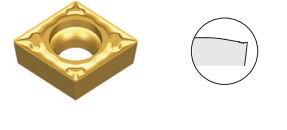

车削刀片槽型规格

Chipbreaker Specification of Turning Inserts

不锈钢（车削刀片 - 负型） Stainless steel (Turning inserts - negative)

断屑槽 Chipbreaker	特点 Feature
MR  重载加工 Heavy-load machining	特殊的槽型设计，兼顾刃口强度与锋利性，抗冲击力强。 大前角结合大容屑槽更好的适应不锈钢加工中切削热大、粘刀的特性。 Special chipbreaker design, taking into account the cutting edge strength and sharpness, and strong impact resistance. Large rake angle combined with large chip pocket can better adapt to the characteristics of high cutting heat and tool sticking in stainless steel machining. 

不锈钢（车削刀片 - 正型） Stainless steel (Turning inserts - positive)

断屑槽 Chipbreaker	特点 Feature
PF  精加工 Finishing	大前角结合直棱边刃口，切削锋利性高。 小切深、低进给工况下，断屑性能优异，可获得良好的加工表面质量。 Large rake angle combined with straight cutting edge, high cutting sharpness. Under the working conditions of small cutting depth and low feed rate, the chip breaking performance is excellent, and good machining surface quality can be obtained. 

车削刀片槽型规格

Chipbreaker Specification of Turning Inserts



铸铁（车削刀片 - 负型） Cast iron (Turning inserts - negative)

断屑槽 Chipbreaker	特点 Feature
<p>KG</p>  <p>半精-粗加工 Semi-finishing/Roughing</p>	<p>高强度刃口结构，大容屑槽设计，适用于大余量切削。 With high strength cutting edge structure and large chip pocket design, it is suitable for large margin cutting.</p> 
<p>KM</p>  <p>半精-粗加工 Semi-finishing/Roughing</p>	<p>扁平棱边刃形结构，刃口强度高，切削通用性好。 Flat cutting edge structure; high cutting edge strength; good cutting versatility.</p> 
<p>平板 WITHOUT CHIPBREAKER</p>  <p>粗-重载加工 Roughing/Heavy-load machining</p>	<p>高强度结构，装配刀杆稳固，适合脆硬材料不稳定切削。 With high strength structure and stable assembly tool holder, it is suitable for unstable cutting of brittle hard materials.</p> 

车削刀片槽型规格

Chipbreaker Specification of Turning Inserts

铸铁（车削刀片 - 正型） Cast iron (Turning inserts - positive)

断屑槽 Chipbreaker	特点 Feature
<p>无代号 NO CODE</p>  <p>半精加工 Semi-finishing</p>	<p>扁平棱边与大前角组合，刀片同时兼备优良的刃刃强度与切削锋利性。 刀尖部位凸点断屑槽结合大容屑槽设计，实现广泛领域的稳定切削。 The combination of flat edge and large rake angle makes the inserts have excellent edge strength and cutting sharpness at the same time. The convex chipbreaker at the tool tip is combined with the design of large chip pocket to achieve stable cutting in a wide range of fields.</p> 

车削刀片

Turning Inserts



刀片形状 Insert shape	刀片型号 Insert type	CVD 涂层 CVD Coating										PVD 涂层 PVD Coating													
		RC6205	RC6205D	RC6215	RC6215D	RC6120	RC6220	RC6125	RC6225	RC6225D	RC6135	RC6235	RC7115	RC7125	RC8305A	RC8215A	RC8315A	RC8315H	RP9125B	RP9125C	RP9225B	RP1020	RP1120A	RP1225	
	CNMG090304-PF																								
	CNMG090308-PF																								
	CNMG120404-PF			●																					
	CNMG120408-PF			●																					
	CNMG120404-TS																								
	CNMG120408-TS																								
	CNMG120404-TG																								
	CNMG120408-TG																								
	CNMG120404-TF																								
	CNMG120408-TF																								
	CNMG120404-GS																								
	CNMG120408-GS																								
	CNMG090304-TM																								
	CNMG090308-TM																								
	CNMG120404-TM																								
	CNMG120408-TM																								
	CNMG120412-TM																								
	CNMG160608-TM																								
	CNMG160612-TM																								
	CNMG160616-TM																								
	CNMG090304-AMP																								
	CNMG090308-AMP																								
	CNMG120404-AMP																								
	CNMG120408-AMP																								
	CNMG120412-AMP																								
	CNMG160608-AMP																								
	CNMG160612-AMP																								
	CNMG160616-AMP																								

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

车削刀片

Turning Inserts



刀片形状 Insert shape	刀片型号 Insert type	CVD 涂层 CVD Coating										PVD 涂层 PVD Coating													
		RC6205	RC6205D	RC6215	RC6215D	RC6120	RC6220	RC6125	RC6225	RC6225D	RC6135	RC6235	RC7115	RC7125	RC8305A	RC8215A	RC8315A	RC8315H	RP9125B	RP9125C	RP9225B	RP1020	RP1120A	RP1225	
	CNMG090304-GM																								
	CNMG090308-GM																								
	CNMG120404-GM																								
	CNMG120408-GM																								
	CNMG120412-GM																								
	CNMG120416-GM																								
	CNMG160608-GM																								
	CNMG160612-GM																								
	CNMG160616-GM																								
	CNMG190608-GM																								
	CNMG190612-GM																								
	CNMG190616-GM																								
	CNMG120404R-S																								
	CNMG120404L-S																								
	CNMG120408R-S																								
	CNMG120408L-S																								
	CNMG120404-KG																								
	CNMG120408-KG																								
	CNMG120412-KG																								
	CNMG120416-KG																								
	CNMG160608-KG																								
	CNMG160612-KG																								
	CNMG160616-KG																								
	CNMG120404-KM																								
	CNMG120408-KM																								
	CNMG120412-KM																								
	CNMG120416-KM																								
	CNMG160608-KM																								
	CNMG160612-KM																								
	CNMG160616-KM																								
	CNMG190608-KM																								
	CNMG190612-KM																								
	CNMG190616-KM																								
	CNMG120408-TR																								
	CNMG120412-TR																								
	CNMG160612-TR																								
	CNMG160616-TR																								
	CNMG160616-TR																								

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

车削刀片

Turning Inserts



刀片形状 Insert shape	刀片型号 Insert type	CVD 涂层 CVD Coating										PVD 涂层 PVD Coating														
		RC6205	RC6205D	RC6215	RC6215D	RC6120	RC6220	RC6125	RC6225	RC6225D	RC6135	RC6235	RC7115	RC7125	RC805A	RC815A	RC815A	RC815H	RP9125B	RP9125C	RP9225B	RP1020	RP1120A	RP1225		
	CNMG120408-GR							●																		
	CNMG120412-GR							●																		
	CNMG120416-GR							●																		
	CNMG160608-GR																									
	CNMG160612-GR																									
	CNMG160616-GR																									
	CNMG190608-GR																									
	CNMG190612-GR																									
	CNMG190616-GR																									
CNMG190624-GR																										
	CNMM120408-HR																									
	CNMM120412-HR																									
	CNMM120416-HR																									
	CNMM160608-HR																									
	CNMM160612-HR																									
	CNMM160616-HR																									
	CNMM160624-HR																									
	CNMM190612-HR																									
	CNMM190616-HR																									
CNMM190624-HR																										
	CNMM250924-HR																									
	CNMM250724-MR																									
	CNMM250732-MR																									
	CNMM250924-MR																									
CNMM250932-MR																										
	CNMA120404																									
	CNMA120408																									
	CNMA120412																									
	CNMA120416																									
	CNMA160608																									
	CNMA160612																									
	CNMA160616																									
	CNMA190612																									
	CNMA190616																									

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

车削刀片

Turning Inserts



刀片形状 Insert shape	刀片型号 Insert type	CVD 涂层 CVD Coating										PVD 涂层 PVD Coating														
		RC6205	RC6205D	RC6215	RC6215D	RC6120	RC6220	RC6125	RC6225	RC6225D	RC6135	RC6235	RC7115	RC7125	RC805A	RC815A	RC815A	RC815H	RP9125B	RP9125C	RP9225B	RP1020	RP1120A	RP1225		
	DNMG110404-PF																									
	DNMG110408-PF																									
	DNMG150404-PF																									
	DNMG150408-PF																									
	DNMG150412-PF																									
	DNMG150604-PF																									
	DNMG150608-PF																									
	DNMG150612-PF																									
	DNMG150404-TS																									
DNMG150408-TS																										
	DNMG150404-TG																									
	DNMG150408-TG																									
	DNMG150404-TF																									
	DNMG150408-TF																									
	DNMG150404-GS																									
	DNMG150408-GS																									
	DNMG150604-GS																									
	DNMG150608-GS																									
	DNMG110404-TM																									
	DNMG110408-TM																									
	DNMG110412-TM																									
	DNMG150404-TM																									
	DNMG150408-TM																									
	DNMG150412-TM																									
	DNMG150416-TM																									
	DNMG150604-TM																									
	DNMG150608-TM																									
	DNMG150612-TM																									
	DNMG150616-TM																									

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

车削刀片

Turning Inserts



刀片形状 Insert shape	刀片型号 Insert type	CVD 涂层 CVD Coating										PVD 涂层 PVD Coating													
		RC6205	RC6205D	RC6215	RC6215D	RC6120	RC6220	RC6125	RC6225	RC6225D	RC6135	RC6235	RC7115	RC7125	RC8305A	RC8215A	RC8315A	RC8315H	RP9125B	RP9125C	RP9225B	RP1020	RP1120A	RP1225	
	DNMG110404-AMP																								
	DNMG110408-AMP																								
	DNMG110412-AMP																								
	DNMG150404-AMP																							○	
	DNMG150408-AMP																							●	
	DNMG150412-AMP																							●	
	DNMG150604-AMP																								
	DNMG150608-AMP																								
半精加工 Semi-finishing	DNMG150612-AMP																								
	DNMG110404-GM																								
	DNMG110408-GM																								
	DNMG110412-GM																								
	DNMG150404-GM																							● ○	
	DNMG150408-GM																							● ○	
	DNMG150412-GM																							● ○	
	DNMG150416-GM																								
	DNMG150604-GM																								
	DNMG150608-GM																								
	半精加工 Semi-finishing	DNMG150612-GM																							
DNMG150616-GM																									
	DNMG150404R-S																								
	DNMG150404L-S																								
	DNMG150408R-S																							● ○	
	DNMG150408L-S																							● ○	
	DNMG150604R-S																								
	DNMG150604L-S																								
	DNMG150608R-S																								
半精加工 Semi-finishing	DNMG150608L-S																								
	DNMG150404-KG																								
	DNMG150408-KG																							● ○	
	DNMG150412-KG																							● ○	
	DNMG150604-KG																								
	DNMG150608-KG																								
	半精/粗加工 Semi-finishing/Roughing	DNMG150612-KG																							
DNMG150616-KG																									

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

车削刀片

Turning Inserts



刀片形状 Insert shape	刀片型号 Insert type	CVD 涂层 CVD Coating										PVD 涂层 PVD Coating													
		RC6205	RC6205D	RC6215	RC6215D	RC6120	RC6220	RC6125	RC6225	RC6225D	RC6135	RC6235	RC7115	RC7125	RC8305A	RC8215A	RC8315A	RC8315H	RP9125B	RP9125C	RP9225B	RP1020	RP1120A	RP1225	
	DNMG150404-KM																								
	DNMG150408-KM																								
	DNMG150412-KM																								
	DNMG150416-KM																								
	DNMG150604-KM																								
	DNMG150608-KM																								
	DNMG150612-KM																								
	半精/粗加工 Semi-finishing/Roughing	DNMG150616-KM																							
	DNMG150408-TR																							○	
	DNMG150412-TR																							○	
	DNMG150608-TR																								
	粗加工 Roughing	DNMG150612-TR																							
	DNMG150408-GR																								
	DNMG150412-GR																								
	DNMG150416-GR																								
	DNMG150608-GR																								
	DNMG150612-GR																								
	粗加工 Roughing	DNMG150616-GR																							
	DNMM150608-HR																								
	DNMM150612-HR																								
重载加工 Heavy-load machining	DNMM150616-HR																								
	DNMA150404																								
	DNMA150408																								
	DNMA150412																								
	DNMA150604																								
	DNMA150608																								
	粗/重载加工 Roughing/Heavy-load machining	DNMA150612																							
DNMA150616																									

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

车削刀片

Turning Inserts



刀片形状 Insert shape	刀片型号 Insert type	CVD 涂层 CVD Coating										PVD 涂层 PVD Coating													
		RC6205	RC6205D	RC6215	RC6215D	RC6120	RC6220	RC6125	RC6225	RC6225D	RC6135	RC6235	RC7115	RC7125	RC8305A	RC8215A	RC8315A	RC8315H	RP9125B	RP9125C	RP9225B	RP1020	RP1120A	RP1225	
 精加工 Finishing	SNMG090304-PF																								
	SNMG090308-PF																								
	SNMG120404-PF			●																					
	SNMG120408-PF			●																					
	SNMG120412-PF																								
 精加工 Finishing	SNMG120404-TS																			○					
	SNMG120408-TS																			○					
 精/半精加工 Finishing/Semi-finishing	SNMG120404-TG																		○	●					
	SNMG120408-TG																		○	●					
 精/半精加工 Finishing/Semi-finishing	SNMG120404-TF																		○	●					
	SNMG120408-TF																		○	●					
 精/半精加工 Finishing/Semi-finishing	SNMG120404-GS			●																					
	SNMG120408-GS			●																					
 半精加工 Semi-finishing	SNMG090304-TM																								
	SNMG090308-TM																								
	SNMG120404-TM																						○		
	SNMG120408-TM																						●		
	SNMG120412-TM																						●		
	SNMG120416-TM																								
	SNMG150608-TM																								
	SNMG150612-TM																								
	SNMG150616-TM																								

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

车削刀片

Turning Inserts







刀片形状 Insert shape	刀片型号 Insert type	CVD 涂层 CVD Coating										PVD 涂层 PVD Coating													
		RC6205	RC6205D	RC6215	RC6215D	RC6120	RC6220	RC6125	RC6225	RC6225D	RC6135	RC6235	RC7115	RC7125	RC8305A	RC8215A	RC8315A	RC8315H	RP9125B	RP9125C	RP9225B	RP1020	RP1120A	RP1225	
 半精加工 Semi-finishing	SNMG090304-AMP																								
	SNMG090308-AMP																								
	SNMG120404-AMP																							○	
	SNMG120408-AMP																							●	
	SNMG120412-AMP																							●	
 半精加工 Semi-finishing	SNMG150608-AMP																								
	SNMG150612-AMP																								
	SNMG150616-AMP																								
	SNMG090304-GM																								
	SNMG090308-GM																								
	SNMG090312-GM																								
	SNMG120404-GM																						●	○	
	SNMG120408-GM																						●	○	
	SNMG120412-GM																						●	○	
	SNMG120416-GM																								
 半精加工 Semi-finishing	SNMG150608-GM																								
	SNMG150612-GM																								
	SNMG150616-GM																								
	SNMG190616-GM																								
 半精加工 Semi-finishing	SNMG120404R-S																								
	SNMG120404L-S																								
	SNMG120408R-S																						●	○	
	SNMG120408L-S																						●	○	
	SNMG120412R-S																								
 半精/粗加工 Semi-finishing/Roughing	SNMG120412L-S																								
	SNMG120408-KG																								
	SNMG120412-KG																						●	○	
	SNMG150612-KG																						●	○	
 半精/粗加工 Semi-finishing/Roughing	SNMG150616-KG																								

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

车削刀片

Turning Inserts





刀片形状 Insert shape	刀片型号 Insert type	CVD 涂层 CVD Coating										PVD 涂层 PVD Coating													
		RC6205	RC6205D	RC6215	RC6215D	RC6120	RC6220	RC6125	RC6225	RC6225D	RC6135	RC6235	RC7115	RC7125	RC8305A	RC8215A	RC8315A	RC8315H	RP9125B	RP9125C	RP9225B	RP1020	RP1120A	RP1225	
 半精/粗加工 Semi-finishing/Roughing	SNMG120404-KM																								
	SNMG120408-KM																								
	SNMG120412-KM																								
	SNMG120416-KM																								
	SNMG150608-KM																								
	SNMG150612-KM																								
	SNMG150616-KM																								
 粗加工 Roughing	SNMG120408-TR																								
	SNMG120412-TR																								
	SNMG150608-TR																								
	SNMG150612-TR																								
 粗加工 Roughing	SNMG120408-GR																								
	SNMG120412-GR																								
	SNMG120416-GR																								
	SNMG150608-GR																								
	SNMG150612-GR																								
	SNMG150616-GR																								
	SNMG150624-GR																								
	SNMG190612-GR																								
	SNMG190616-GR																								
 重载加工 Heavy-load machining	SNMM120408-HR																								
	SNMM120412-HR																								
	SNMM120416-HR																								
	SNMM150612-HR																								
	SNMM150616-HR																								
	SNMM190612-HR																								
	SNMM190616-HR																								

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

车削刀片

Turning Inserts



刀片形状 Insert shape	刀片型号 Insert type	CVD 涂层 CVD Coating										PVD 涂层 PVD Coating												
		RC6205	RC6205D	RC6215	RC6215D	RC6120	RC6220	RC6125	RC6225	RC6225D	RC6135	RC6235	RC7115	RC7125	RC8305A	RC8215A	RC8315A	RC8315H	RP9125B	RP9125C	RP9225B	RP1020	RP1120A	RP1225
 重载加工 Heavy-load machining	SNMM250724-MR																							
	SNMM250732-MR																							
	SNMM250924-MR																							
	SNMM250932-MR																							
 粗/重载加工 Roughing/Heavy-load machining	SNMA120404																							
	SNMA120408																							
	SNMA120412																							
	SNMA120416																							
	SNMA150608																							
	SNMA150612																							
	SNMA190612																							

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

车削刀片

Turning Inserts



刀片形状 Insert shape	刀片型号 Insert type	CVD 涂层 CVD Coating										PVD 涂层 PVD Coating													
		RC6205	RC6205D	RC6215	RC6215D	RC6120	RC6220	RC6125	RC6225	RC6225D	RC6135	RC6235	RC7115	RC7125	RC6305A	RC6215A	RC6315A	RC6315H	RP9125B	RP9125C	RP9225B	RP1020	RP1120A	RP1225	
	TNMG110304-PF																								
	TNMG110308-PF																								
	TNMG160404-PF			●																					
	TNMG160408-PF			●																					
	TNMG160412-PF																								
	TNMG220408-PF																								
TNMG220412-PF																									
	TNMG160404-TS																							○	
	TNMG160408-TS																							○	
	TNMG160404-TG																							○ ●	
	TNMG160408-TG																							○ ●	
	TNMG160404-TF																							○ ●	
	TNMG160408-TF																							○ ●	
	TNMG160404-GS			●																					
	TNMG160408-GS			●																					
	TNMG110304-TM																								
	TNMG110308-TM																								
	TNMG160404-TM																							○	
	TNMG160408-TM																							●	
	TNMG160412-TM																							●	
	TNMG160416-TM																								
	TNMG220408-TM																								
	TNMG220412-TM																								
TNMG220416-TM																									

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

车削刀片

Turning Inserts



刀片形状 Insert shape	刀片型号 Insert type	CVD 涂层 CVD Coating										PVD 涂层 PVD Coating												
		RC6205	RC6205D	RC6215	RC6215D	RC6120	RC6220	RC6125	RC6225	RC6225D	RC6135	RC6235	RC7115	RC7125	RC6305A	RC6215A	RC6315A	RC6315H	RP9125B	RP9125C	RP9225B	RP1020	RP1120A	RP1225
	TNMG110304-AMP																							
	TNMG110308-AMP																							
	TNMG160404-AMP																							○
	TNMG160408-AMP																							●
	TNMG160412-AMP																							●
	TNMG220408-AMP																							
	TNMG220412-AMP																							
	TNMG220416-AMP																							
	TNMG110304-GM																							
	TNMG110308-GM																							
	TNMG160404-GM																							● ○
	TNMG160408-GM																							● ○
	TNMG160412-GM																							● ○
	TNMG220408-GM																							
	TNMG220412-GM																							
	TNMG220416-GM																							
	TNMG160404R-S																							
	TNMG160404L-S																							
	TNMG160408R-S																							● ○
	TNMG160408L-S																							● ○
	TNMG220404R-S																							
	TNMG220404L-S																							
	TNMG220408R-S																							
	TNMG220408L-S																							
	TNMG160404-KG																							
	TNMG160408-KG																							
	TNMG160412-KG																							● ○
	TNMG160416-KG																							● ○
	TNMG220408-KG																							
	TNMG220412-KG																							
TNMG220416-KG																								

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

车削刀片

Turning Inserts



刀片形状 Insert shape	刀片型号 Insert type	CVD 涂层 CVD Coating										PVD 涂层 PVD Coating														
		RC6205	RC6205D	RC6215	RC6215D	RC6120	RC6220	RC6125	RC6225	RC6225D	RC6135	RC6235	RC7115	RC7125	RC8305A	RC8215A	RC8315A	RC8315H	RP9125B	RP9125C	RP9225B	RP1020	RP1120A	RP1225		
 半精/粗加工 Semi-finishing/Roughing	TNMG160404-KM																									
	TNMG160408-KM																									
	TNMG160412-KM																									
	TNMG220408-KM																									
	TNMG220412-KM																									
	TNMG220416-KM																									
 粗加工 Roughing	TNMG160408-TR																									
	TNMG160412-TR																									
	TNMG220408-TR																									
 粗加工 Roughing	TNMG220412-TR																									
	TNMG160408-GR																									
	TNMG160412-GR																									
	TNMG220408-GR																									
	TNMG220412-GR																									
	TNMG220416-GR																									
	TNMG270608-GR																									
	TNMG270612-GR																									
TNMG270616-GR																										
 重载加工 Heavy-load machining	TNMM160408-HR																									
	TNMM160412-HR																									
	TNMM220408-HR																									
	TNMM220412-HR																									
	TNMM220416-HR																									
 粗/重载加工 Roughing/Heavy-load machining	TNMA160404																									
	TNMA160408																									
	TNMA160412																									
	TNMA160416																									
	TNMA220408																									
	TNMA220412																									
TNMA220416																										

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

车削刀片

Turning Inserts



刀片形状 Insert shape	刀片型号 Insert type	CVD 涂层 CVD Coating										PVD 涂层 PVD Coating														
		RC6205	RC6205D	RC6215	RC6215D	RC6120	RC6220	RC6125	RC6225	RC6225D	RC6135	RC6235	RC7115	RC7125	RC8305A	RC8215A	RC8315A	RC8315H	RP9125B	RP9125C	RP9225B	RP1020	RP1120A	RP1225		
 精加工 Finishing	VNMG110404-PF																									
	VNMG110408-PF																									
 精加工 Finishing	VNMG160404-PF																									
	VNMG160408-PF																									
 精加工 Finishing	VNMG160412-PF																									
	VNMG160404-TS																									
 精加工 Finishing	VNMG160408-TS																									
	VNMG160404-TG																									
 精/半精加工 Finishing/Semi-finishing	VNMG160408-TG																									
	VNMG160404-TF																									
 精/半精加工 Finishing/Semi-finishing	VNMG160408-TF																									
	VNMG160404-GS																									
 精/半精加工 Finishing/Semi-finishing	VNMG160408-GS																									
	VNMG110404-TM																									
 半精加工 Semi-finishing	VNMG110408-TM																									
	VNMG160404-TM																									
	VNMG160408-TM																									
 半精加工 Semi-finishing	VNMG160412-TM																									
	VNMG160404-AMP																									
	VNMG160408-AMP																									
 半精加工 Semi-finishing	VNMG160412-AMP																									

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

车削刀片

Turning Inserts



刀片形状 Insert shape	刀片型号 Insert type	CVD 涂层 CVD Coating										PVD 涂层 PVD Coating														
		RC6205	RC6205D	RC6215	RC6215D	RC6120	RC6220	RC6125	RC6225	RC6225D	RC6135	RC6235	RC7115	RC7125	RC8305A	RC8215A	RC8315A	RC8315H	RP9125B	RP9125C	RP9225B	RP1020	RP1120A	RP1225		
半精加工 Semi-finishing	VNMG110404-GM																									
	VNMG110408-GM																									
	VNMG160404-GM							●	○																	
	VNMG160408-GM							●	○																	
	VNMG160412-GM							●	○																	
半精/粗加工 Semi-finishing/Roughing	VNMG160404-KG																									
	VNMG160408-KG															●	○									
	VNMG160412-KG															●	○									
半精/粗加工 Semi-finishing/Roughing	VNMG160404-KM																									
	VNMG160408-KM															●										
	VNMG160412-KM															●										
粗/重载加工 Roughing/Heavy-load machining	VNMA160404																									
	VNMA160408															○										
	VNMA160412															○										

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

车削刀片

Turning Inserts



刀片形状 Insert shape	刀片型号 Insert type	CVD 涂层 CVD Coating										PVD 涂层 PVD Coating													
		RC6205	RC6205D	RC6215	RC6215D	RC6120	RC6220	RC6125	RC6225	RC6225D	RC6135	RC6235	RC7115	RC7125	RC8305A	RC8215A	RC8315A	RC8315H	RP9125B	RP9125C	RP9225B	RP1020	RP1120A	RP1225	
精加工 Finishing	WNMG060404-PF																								
	WNMG060408-PF																								
	WNMG080404-PF								●																
	WNMG080408-PF								●																
	WNMG080412-PF																								
精加工 Finishing	WNMG080404-TS																				○				
	WNMG080408-TS																				○				
精/半精加工 Finishing/Semi-finishing	WNMG080404-TG																				○	●			
	WNMG080408-TG																				○	●			
精/半精加工 Finishing/Semi-finishing	WNMG080404-TF																				○	●			
	WNMG080408-TF																				○	●			
精/半精加工 Finishing/Semi-finishing	WNMG080404-GS								●																
	WNMG080408-GS								●																
半精加工 Semi-finishing	WNMG060404-TM																								
	WNMG060408-TM																								
	WNMG080404-TM																							○	
	WNMG080408-TM																							●	
	WNMG080412-TM																							●	
半精加工 Semi-finishing	WNMG060404-AMP																								
	WNMG060408-AMP																								
	WNMG080404-AMP																							○	
	WNMG080408-AMP																							●	
	WNMG080412-AMP																							●	
	WNMG080416-AMP																								

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

车削刀片

Turning Inserts



刀片形状 Insert shape	刀片型号 Insert type	CVD 涂层 CVD Coating										PVD 涂层 PVD Coating													
		RC6205	RC6205D	RC6215	RC6215D	RC6120	RC6220	RC6125	RC6225	RC6225D	RC6135	RC6235	RC7115	RC7125	RC8305A	RC8215A	RC8315A	RC8315H	RP9125B	RP9125C	RP9225B	RP1020	RP1120A	RP1225	
 半精加工 Semi-finishing	WNMG060404-GM																								
	WNMG060408-GM																								
	WNMG080404-GM							●	○																
	WNMG080408-GM							●	○																
	WNMG080412-GM							●	○																
	WNMG080416-GM																								
 半精加工 Semi-finishing	WNMG080404R-S																								
	WNMG080404L-S																								
	WNMG080408R-S							●	○																
	WNMG080408L-S							●	○																
 半精/粗加工 Semi-finishing/Roughing	WNMG080404-KG																								
	WNMG080408-KG															●	○								
	WNMG080412-KG															●	○								
 半精/粗加工 Semi-finishing/Roughing	WNMG080404-KM																								
	WNMG080408-KM															●									
	WNMG080412-KM															●									
	WNMG080416-KM																								
 粗加工 Roughing	WNMG080408-TR																		○						●
	WNMG080412-TR																		○						●
 粗加工 Roughing	WNMG060408-GR																								
	WNMG060412-GR																								
	WNMG080408-GR							●	○																
	WNMG080412-GR							●	○																
 粗/重载加工 Roughing/Heavy-load machining	WNMA080404																								
	WNMA080408															●									
	WNMA080412															●									
WNMA080416																									

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

车削刀片

Turning Inserts




刀片形状 Insert shape	刀片型号 Insert type	CVD 涂层 CVD Coating										PVD 涂层 PVD Coating													
		RC6205	RC6205D	RC6215	RC6215D	RC6120	RC6220	RC6125	RC6225	RC6225D	RC6135	RC6235	RC7115	RC7125	RC8305A	RC8215A	RC8315A	RC8315H	RP9125B	RP9125C	RP9225B	RP1020	RP1120A	RP1225	
 半精加工 Semi-finishing	RNMG120400																								

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

车削刀片

Turning Inserts






刀片形状 Insert shape	刀片型号 Insert type	CVD 涂层 CVD Coating										PVD 涂层 PVD Coating												
		RC6205	RC6205D	RC6215	RC6215D	RC6120	RC6220	RC6125	RC6225	RC6225D	RC6135	RC6235	RC7115	RC7125	RC805A	RC815A	RC815A	RC815H	RP9125B	RP9125C	RP9225B	RP1020	RP1120A	RP1225
	KNUX160405R11*																							
	KNUX160405L11																							
	KNUX160410R11																							
	KNUX160410L11																							
	KNUX160405R12*																							
	KNUX160405L12																							
	KNUX160410R12																							
	KNUX160410L12																							
	KNUX160415R12																							
	KNUX160415L12																							

*11- 斜槽 Declining chipbreaker *12- 直槽 Straight chipbreaker ● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

车削刀片

Turning Inserts



刀片形状 Insert shape	刀片型号 Insert type	CVD 涂层 CVD Coating										PVD 涂层 PVD Coating												
		RC6205	RC6205D	RC6215	RC6215D	RC6120	RC6220	RC6125	RC6225	RC6225D	RC6135	RC6235	RC7115	RC7125	RC805A	RC815A	RC815A	RC815H	RP9125B	RP9125C	RP9225B	RP1020	RP1120A	RP1225
	175.32-191940-22																							
	175.32-191940-27																							
	175.32-191940-24																							
	175.32-301940-24																							
	175.32-191940-25																							

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

台州市锐安硬质合金

车削刀片

Turning Inserts



重力车削刀片 / 负型带孔
Heavy Turning Inserts / Negative With hole

刀片形状 Insert shape	刀片型号 Insert type	CVD 涂层 CVD Coating										PVD 涂层 PVD Coating													
		RC6205	RC6205D	RC6215	RC6215D	RC6120	RC6220	RC6125	RC6225	RC625D	RC6135	RC6235	RC7115	RC7125	RC6305A	RC6215A	RC6315A	RC6315H	RP9125B	RP9125C	RP9225B	RP1020	RP1120A	RP1225	
 扒皮车削 Skin turning	TNMG3807-KSL																								
 扒皮车削 Skin turning	TNMX180812L-SG																								
 扒皮车削 Skin turning	TNMX1106																								
	TNMX1509																								
	TNMX15T9																								
	TNMX2113																								

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

车削刀片

Turning Inserts



80° 正型带孔
Positive With hole

刀片形状 Insert shape	刀片型号 Insert type	CVD 涂层 CVD Coating										PVD 涂层 PVD Coating													
		RC6205	RC6205D	RC6215	RC6215D	RC6120	RC6220	RC6125	RC6225	RC625D	RC6315	RC6235	RC7115	RC7125	RC6305A	RC6215A	RC6315A	RC6315H	RP9125B	RP9125C	RP9225B	RP1020	RP1120A	RP1225	
 精加工 Finishing	CCMT060204-PF																								
	CCMT060208-PF																								
	CCMT09T304-PF																								
	CCMT09T308-PF																								
	CCMT120404-PF																								
	CCMT120408-PF																								
 半精加工 Semi-finishing	CCMT060204																								
	CCMT060208																								
	CCMT09T304																								
	CCMT09T308																								
	CCMT120404																								
	CCMT120408																								
CCMT120412																									



● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

台州市锐安硬质合金有限公司

车削刀片

Turning Inserts




刀片形状 Insert shape	刀片型号 Insert type	CVD 涂层 CVD Coating										PVD 涂层 PVD Coating														
		RC6205	RC6205D	RC6215	RC6215D	RC6120	RC6220	RC6125	RC6225	RC6225D	RC6315	RC6235	RC7115	RC7125	RC805A	RC815A	RC815A	RC815H	RP9125B	RP9125C	RP9225B	RP1020	RP1120A	RP1225		
 精加工 Finishing	DCMT070204-PF																									
	DCMT070208-PF																									
	DCMT11T304-PF									●										●						
	DCMT11T308-PF									●										●						
	DCMT11T312-PF																									
 半精加工 Semi-finishing	DCMT070204																									
	DCMT070208								●											●						
	DCMT11T304								●											●						
	DCMT11T308								●											●						
	DCMT11T312																									

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

车削刀片

Turning Inserts



刀片形状 Insert shape	刀片型号 Insert type	CVD 涂层 CVD Coating										PVD 涂层 PVD Coating															
		RC6205	RC6205D	RC6215	RC6215D	RC6120	RC6220	RC6125	RC6225	RC6225D	RC6315	RC6235	RC7115	RC7125	RC805A	RC815A	RC815A	RC815H	RP9125B	RP9125C	RP9225B	RP1020	RP1120A	RP1225			
 半精加工 Semi-finishing	RCMX0803MO																										
	RCMX1003MO																										
	RCMX1204MO																										
	RCMX1606MO																										
	RCMX2006MO																										
	RCMX2507MO																										
	RCMX3209MO																										
	RCMT0803MO																										
	RCMT10T3MO																										
	RCMT1204MO																										
RCMT1606MO																											



● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

台州市锐安硬质合金有限公司

车削刀片

Turning Inserts





刀片形状 Insert shape	刀片型号 Insert type	CVD 涂层 CVD Coating										PVD 涂层 PVD Coating												
		RC6205	RC6205D	RC6215	RC6215D	RC6120	RC6220	RC6125	RC6225	RC6225D	RC6315	RC6235	RC7115	RC7125	RC805A	RC815A	RC815A	RC815H	RP9125B	RP9125C	RP9225B	RP1020	RP1120A	RP1225
 精加工 Finishing	SCMT09T304-PF																							
	SCMT09T308-PF																							
	SCMT120404-PF																							
	SCMT120408-PF																							
	SCMT120412-PF																							
 半精加工 Semi-finishing	SCMT09T304																							
	SCMT09T308																							
	SCMT120404																							
	SCMT120408																							
	SCMT120412																							

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

车削刀片

Turning Inserts



刀片形状 Insert shape	刀片型号 Insert type	CVD 涂层 CVD Coating										PVD 涂层 PVD Coating												
		RC6205	RC6205D	RC6215	RC6215D	RC6120	RC6220	RC6125	RC6225	RC6225D	RC6315	RC6235	RC7115	RC7125	RC805A	RC815A	RC815A	RC815H	RP9125B	RP9125C	RP9225B	RP1020	RP1120A	RP1225
 精加工 Finishing	TCMT090204-PF																							
	TCMT090208-PF																							
	TCMT110204-PF																							
	TCMT110208-PF																							
	TCMT16T304-PF																							
	TCMT16T308-PF																							
 半精加工 Semi-finishing	TCMT16T312-PF																							
	TCMT090204																							
	TCMT090208																							
	TCMT110204																							
	TCMT110208																							
	TCMT16T304																							
	TCMT16T308																							
TCMT16T312																								

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

台州市锐安硬质合金有限公司



车削刀片

Turning Inserts



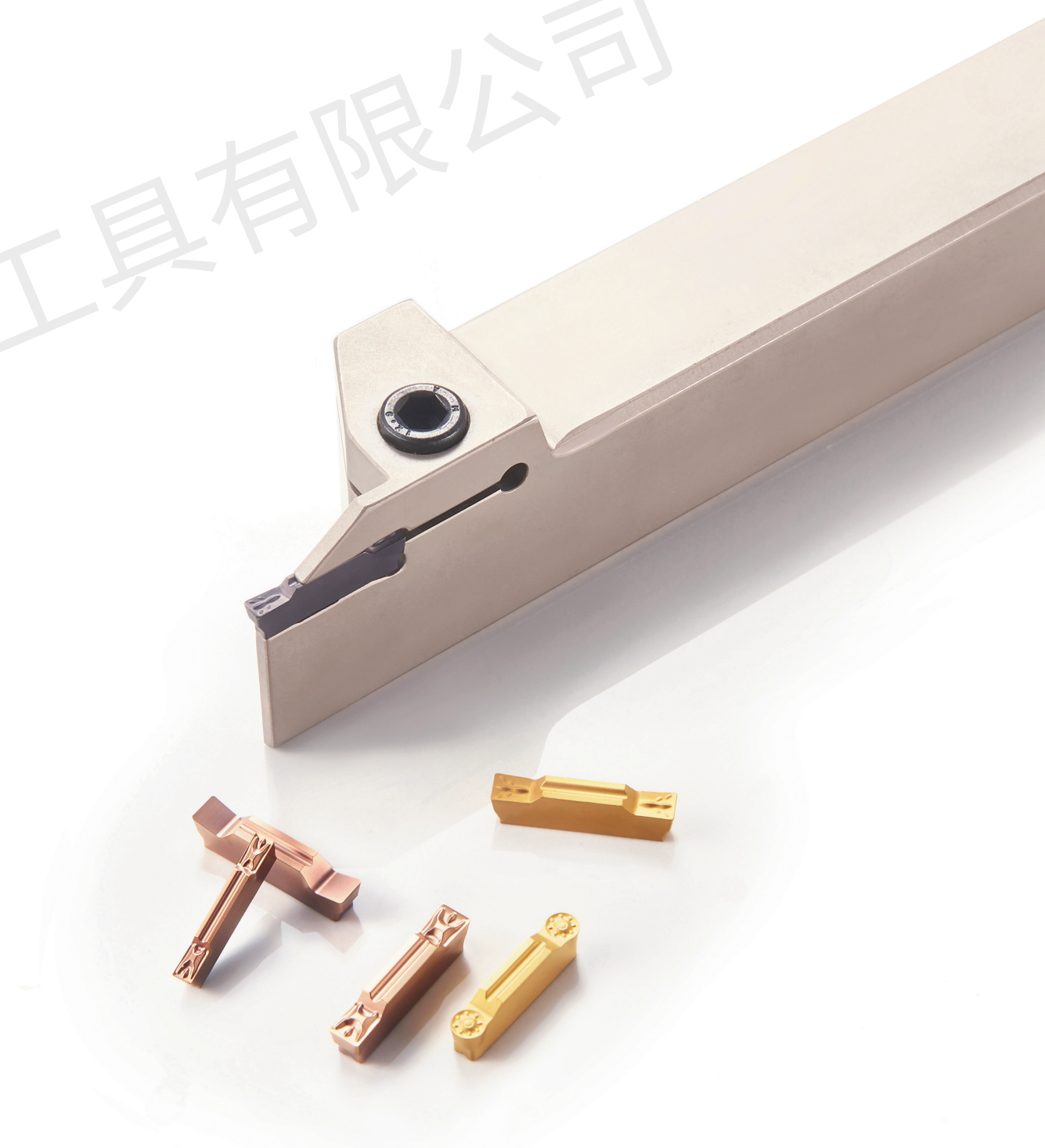
切断切槽刀片

PARTING AND GROOVING INSERTS

刀片形状 Insert shape	刀片型号 Insert type	CVD 涂层 CVD Coating										PVD 涂层 PVD Coating												
		RC6205	RC6205D	RC6215	RC6215D	RC6120	RC6220	RC6125	RC6225	RC6225D	RC6315	RC6235	RC7115	RC7125	RC805A	RC815A	RC815A	RC815H	RP9125B	RP9125C	RP9225B	RP1020	RP1120A	RP1225
 精加工 Finishing	VBMT110304-PF																							
	VBMT110308-PF																							
	VBMT160404-PF																							
	VBMT160408-PF																							
	VBMT160412-PF																							
 半精加工 Semi-finishing	VBMT110304																							
	VBMT110308																							
	VBMT160404																							
	VBMT160408																							
	VBMT160412																							

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

台州市锐安硬质合金工具有限公司



切断切槽刀片命名

Parting and Grooving Inserts Code Key

系列名称 Series

MG M N 400 - M

代号 Symbol	系列名称 Series
MG	方头槽刀系列 Square head grooving insert
MR	圆头槽刀系列 Round head grooving insert
MQ	多功能切断刀系列 Multifunctional parting insert

切削方向 Cutting direction

MG M **N** 400 - M

代号 Symbol	切削方向 Cutting direction
R	右方向 Right direction
L	左方向 Left direction
N	无方向 Neutral

槽型代号 Chipbreaker code

MG M N 400 - **M**

代号 Symbol	槽型 Chipbreaker
M	M 槽型 "M" Chipbreaker

精度等级 Tolerance class

MG **M** N 400 - M

代号 Symbol	精度等级 Tolerance class
M	M 级 M-level tolerance
G	G 级 G-level tolerance

切削刃宽度 Cutting edge width

MG M N **400** - M

代号 Symbol	切削刃宽度 Cutting edge width
150	1.5mm
200	2.0mm
250	2.5mm
300	3.0mm
400	4.0mm
500	5.0mm
600	6.0mm

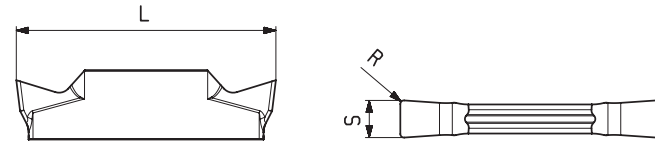
切断切槽刀槽型特点

Chipbreaker Feature of Parting and Grooving Inserts

切断切槽刀片 Parting and grooving insert	特点 Feature
MGGN  车削/切槽/切断加工 Turning / grooving / parting	研磨断屑槽，刃口锋利，切屑流畅，加工阻力低，不易产生积屑瘤。 高精密级，可获得较高的槽底质量。 推荐不锈钢、有色金属。 Grinding chipbreaker with sharpen cutting edge, smooth cutting, lower machining resistance. It is not easy to build-up edge. High precision grade which can acquire a higher notch base quality. Promoting stainless steel, nonferrous metal.
MGMN-TM  车削/切槽/切断加工 Turning / grooving / parting	锋利的刃口设计，适用于不锈钢、难加工材料切槽、车削加工。 多级三维断屑槽设计，获得良好的卷屑、断屑能力。 推荐不锈钢、低碳钢。 Sharpen cutting edge design, which is suitable for stainless steel, grooving of hard-to-cut materials and turning. Multiple three-dimensional chipbreaker design which can acquire a good chip curling and chip breaking capability. Promoting to use stainless steel and low-carbon steel.
MGMN-M  车削/切槽/切断加工 Turning / grooving / parting	正前角的刃口结构可减小切削力，切削过程轻快、流畅。 特别设计的槽型结构在横向车削加工中具有更好的切屑控制性能。 可实现切断、切槽、车削等各种加工。 The cutting edge structure at the positive rake angle can reduce cutting force with rapid and smooth cutting process. The chipbreaker structure specially designed owns better cutting control performance in transversal turning. It can achieve parting, grooving, turning etc. various kinds of machining.
MGMN-GM  车削/切槽/切断加工 Turning / grooving / parting	通用型槽型，刀片强度高，适用于广泛的加工材料和加工工况。 成 V 字型内凹刃口结合 3D 断屑槽设计具备良好的断屑功能。 The general chipbreaker with strong insert strength, which is widely suitable for a working condition of machining material and machining condition. It owns good chip breaking function because of shaping a "V" type inward concave cutting edge combining with 3D chipbreaker design.
MRMN-M  仿形/越程槽加工 Profiling / grinding undercut	优化的刃口结构及断屑槽结构，使得刀片兼具低切削抗力及良好的刀尖强度，同时刀片切削处理性能更优异。 适合于轴类、环类零件仿形加工，也适用于车削、切槽和越程槽加工。 Optimized cutting edge structure and chipbreaker structure, which make the inserts resisted to cutting resistance and good tool nose strength, simultaneously, the insert owns more excellent cutting treatment performance. It is suitable for profiling and machining of axis category, ring category parts, turning, grooving and grinding undercut machining.
MQMN  切断加工 Parting	采用特殊的槽型，可获得较窄切屑，断屑效果更佳。 刀片负前角面设计，确保切削刃更加坚固，刀具寿命得到显著提高。 推荐用于合金钢、铸铁、不锈钢等材料切断加工。 It applies special groove profile which can acquire narrower cutting. Its chip breaking effect is better. The insert presents negative rake angle face design to ensure its cutting edge is more firmer. The tool lifespan gets obvious improvement. It is promoted to be uses for cutting machine of alloy steel, cast iron, stainless steel etc. materials.

MGGN 系列

MGGN Series

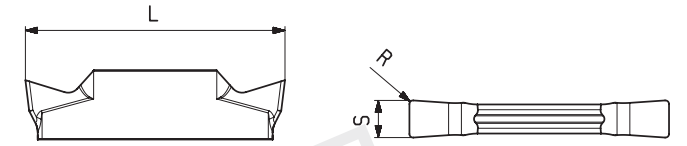


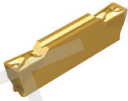

刀片形状 Insert shape	刀片型号 Insert type	基础尺寸 Basic dimension (mm)			PVD 涂层 PVD Coating			CVD 涂层 CVD Coating
		S	R	L	RP9125B	RP9125C	RP1020	RC6125A
 低阻力-精密研磨 Lower resistance-precision grinding	MGGN200	2.0	0.2	16		●		
	MGGN250	2.5	0.2	18.5		●		
	MGGN300	3.0	0.3	21		●		
	MGGN400	4.0	0.4	21		●		
	MGGN500	5.0	0.8	26		●		
 低阻力-精密模压 Lower resistance-precision pressing	MGGN200-M	2.0	0.2	16		●		
	MGGN250-M	2.5	0.2	18.5		●		
	MGGN300-M	3.0	0.3	21		●		
	MGGN400-M	4.0	0.4	21		●		
	MGGN500-M	5.0	0.8	26		●		
 切断 Parting	MGGN200-06R/L	2.0	0.2	16		●		
	MGGN250-06R/L	2.5	0.2	18.5		●		
	MGGN300-06R/L	3.0	0.3	21		●		
	MGGN400-06R/L	4.0	0.4	21		●		
	MGGN500-06R/L	5.0	0.8	26		●		

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

MGMN 系列

MGMN Series

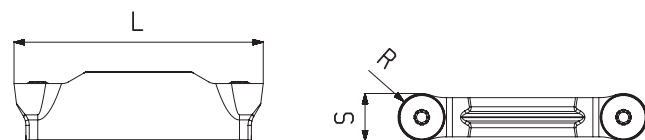



刀片形状 Insert shape	刀片型号 Insert type	基础尺寸 Basic dimension (mm)			PVD 涂层 PVD Coating			CVD 涂层 CVD Coating
		S	R	L	RP9125B	RP9125C	RP1020	RC6125A
 低进给型 Low feed rate	MGMN150-TM	1.5	0.15	16		○		
	MGMN200-TM	2.0	0.2	16		●		
	MGMN250-TM	2.5	0.2	18.5		●		
	MGMN300-TM	3.0	0.4	21		●		
	MGMN400-TM	4.0	0.4	21		●		
	MGMN500-TM	5.0	0.8	26		○		
 通用型 General	MGMN600-TM	6.0	0.8	26		○		
	MGMN150-M	1.5	0.15	16		○		
	MGMN200-M	2.0	0.2	16		●		
	MGMN250-M	2.5	0.2	18.5		●		
	MGMN300-M	3.0	0.4	21		●		
	MGMN400-M	4.0	0.4	21		●		
	MGMN500-M	5.0	0.8	26		●		
	MGMN600-M	6.0	0.8	26		○		
	MGMN800-M	8.0	0.8	31		○		
	MGMN150-GM	1.5	0.15	16		○		
 中进给型 Medium feed rate	MGMN200-GM	2.0	0.2	16		●		
	MGMN250-GM	2.5	0.2	18.5		●		
	MGMN300-GM	3.0	0.3	21		●		
	MGMN400-GM	4.0	0.4	21		●		
	MGMN500-GM	5.0	0.5	26		●		
	MGMN600-GM	6.0	0.8	26		○		

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

MRMN 系列

MRMN Series

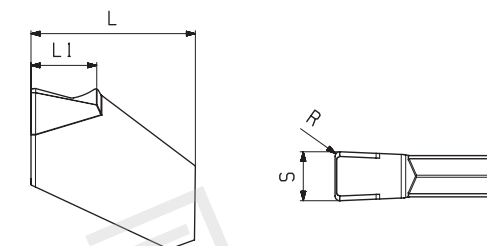



刀片形状 Insert shape	刀片型号 Insert type	基础尺寸 Basic dimension (mm)			PVD 涂层 PVD Coating			CVD 涂层 CVD Coating
		S	R	L	RP9125B	RP9125C	RP1020	RC6125A
	MRMN200-M	2.0	1.0	16				
	MRMN250-M	2.5	1.25	18.5		○		
	MRMN300-M	3.0	1.5	21		●		
	MRMN400-M	4.0	2.0	21		●		
	MRMN500-M	5.0	2.5	26		○		
	仿形加工 Profiling	MRMN600-M	6.0	3.0	26			

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

MQMN 系列

MQMN Series



刀片形状 Insert shape	刀片型号 Insert type	基础尺寸 Basic dimension (mm)				PVD 涂层 PVD Coating			CVD 涂层 CVD Coating
		L1	S	R	L	RP9125B	RP9125C	RP1020	RC6125A
	MQMN300	4.40	3.125	0.3	11		○		
	MQMN400	4.95	4.125	0.3	11		○		
	MQMN500	5.00	5.125	0.3	11		○		
	MQMN600	5.28	6.400	0.3	11				
	切断 Parting								

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

台州市锐安硬质合金

浅槽刀片

SHALLOW GROOVING INSERTS

TGF 浅槽刀片命名规则

TGF Shallow Grooving Inserts Code Key

系列名称 Series

TGF 32 R 100 -010 R

代号 Symbol	名称 Series
TGF	系列名称 Series

刀片尺寸 Insert dimension

TGF **32** R 100 -010 R

代号 Symbol	刀片尺寸 Insert dimension
32	9.525

刀片方向 Insert direction

TGF 32 **R** 100 -010 R

代号 Symbol	刀片方向 Insert direction
R	右手 Right hand
L	左手 Left hand

切削刃宽度 Cutting edge width

TGF 32 R **100** -010 R

代号 Symbol	切削刃宽度 Cutting edge width
050	0.5mm
100	1.0mm

刀尖圆弧 Nose radius

TGF 32 R 100 **-010** R

代号 Symbol	刀尖圆弧 Nose radius
005	R0.05
010	R0.10

刀尖形状 Nose shape

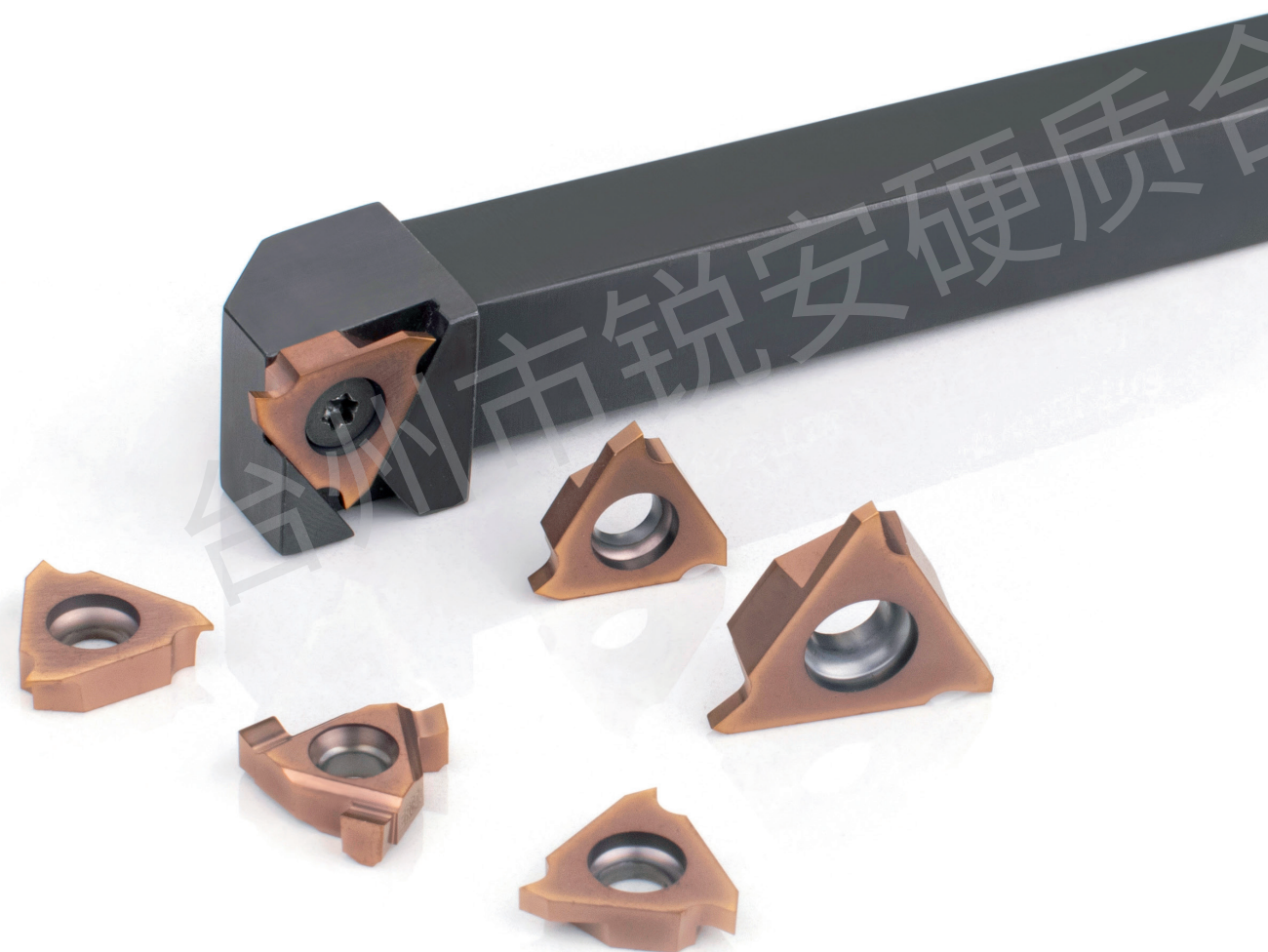
TGF 32 R 100 -010 **R**

代号 Symbol	刀尖形状 Nose shape
R	圆头 Round head

TGF 浅槽刀片特点

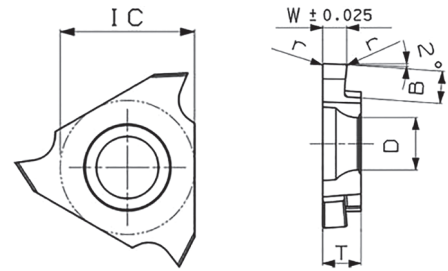
Feature of TGF Shallow Grooving Inserts

切断切槽刀片 Parting and grooving insert	特点 Feature
<p>TGF</p> 	<p>立装浅槽刀片。 刃口锋利，切削轻快流畅。 三个精磨的切削刃，经济性好。 刃宽公差控制 $\pm 0.025\text{mm}$。 槽宽范围 0.5 ~ 3.0mm。 Vertical installed shallow grooving insert. The cutting edge is sharpen with rapid and smooth cutting. Three finishing grinded cutting edges are economical. The cutting edge width tolerance shall be controlled within $\pm 0.025\text{mm}$. The groove width range is from 0.5 to 3.0mm.</p>



TGF 浅槽刀片

TGF Shallow Grooving Inserts



尺寸 (mm) Dimension

IC	T	D
9.525	3.18	4.4

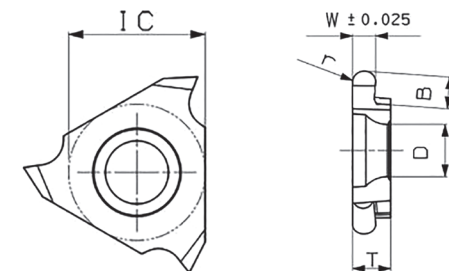
刀片型号 Insert type	基础尺寸 Basic dimension (mm)			PVD 涂层 PVD Coating						CVD 涂层 CVD Coating	
	W	B	r	RP9125B		RP9125C		RP1020		RC6125A	
				R	L	R	L	R	L	R	L
TGF32R/L050-005	0.5	1.0	0.05			○	○				
TGF32R/L060-005	0.6	1.0	0.05								
TGF32R/L065-005	0.65	1.4	0.05								
TGF32R/L070-005	0.7	1.4	0.05								
TGF32R/L075-010	0.75	2.0	0.10			○	○				
TGF32R/L080-010	0.8	2.0	0.10								
TGF32R/L085-010	0.85	2.0	0.10								
TGF32R/L090-010	0.9	2.0	0.10								
TGF32R/L095-010	0.95	2.0	0.10			○					
TGF32R/L100-010	1.0	2.2	0.10			●	○				
TGF32R/L110-010	1.1	2.2	0.10			○					
TGF32R/L115-010	1.15	2.2	0.10			○					
TGF32R/L120-010	1.2	2.2	0.10			○					
TGF32R/L125-010	1.25	2.2	0.10			●	○				
TGF32R/L130-010	1.3	2.2	0.10			○					
TGF32R/L135-010	1.35	2.2	0.10			○					
TGF32R/L140-010	1.4	2.2	0.10			○					
TGF32R/L145-010	1.45	2.2	0.10			○					
TGF32R/L150-010	1.5	2.4	0.10			●	○				
TGF32R/L155-010	1.55	2.4	0.10			○					
TGF32R/L160-010	1.6	2.4	0.10			○					
TGF32R/L165-010	1.65	2.4	0.10			○					
TGF32R/L170-010	1.7	2.4	0.10			○					
TGF32R/L175-010	1.75	2.4	0.10			●	○				
TGF32R/L180-010	1.8	2.4	0.10			○					
TGF32R/L185-010	1.85	2.4	0.10			○					
TGF32R/L190-010	1.9	2.4	0.10			○					
TGF32R/L195-010	1.95	2.4	0.10			○					
TGF32R/L200-015	2.0	2.7	0.15			●	○				
TGF32R/L210-015	2.1	2.7	0.15			○					
TGF32R/L215-015	2.15	2.7	0.15			○					
TGF32R/L220-015	2.2	2.7	0.15			○					
TGF32R/L225-015	2.25	2.7	0.15			○					
TGF32R/L230-015	2.3	2.7	0.15			○					
TGF32R/L240-015	2.4	2.7	0.15			○					
TGF32R/L250-015	2.5	3.0	0.15			●	○				
TGF32R/L260-015	2.6	3.0	0.15			○					
TGF32R/L265-015	2.65	3.0	0.15			○					
TGF32R/L270-015	2.7	3.0	0.15			○					
TGF32R/L275-015	2.75	3.0	0.15			●					
TGF32R/L280-015	2.8	3.0	0.15			○					
TGF32R/L300-020	3.0	3.0	0.20			●					

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

★ 可定制特殊宽度, 以及特殊圆弧角
★ Special cutting edge width and special nose radius can be customized

TGF 浅槽刀片

TGF Shallow Grooving Inserts



尺寸 (mm) Dimension

IC	T	D
9.525	3.18	4.4

刀片型号 Insert type	基础尺寸 Basic dimension (mm)			PVD 涂层 PVD Coating						CVD 涂层 CVD Coating	
	W	B	r	RP9125B		RP9125C		RP1020		RC6125A	
				R	L	R	L	R	L	R	L
TGF32R/L100-050R	1.0	2.2	0.5			●					
TGF32R/L120-060R	1.2	2.2	0.6								
TGF32R/L150-075R	1.5	2.2	0.75			●					
TGF32R/L180-090R	1.8	2.2	0.9								
TGF32R/L200-100R	2.0	2.7	1.0			●					
TGF32R/L250-125R	2.5	3.0	1.25			●					
TGF32R/L300-150R	3.0	3.2	1.5			●					

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

★ 可定制特殊宽度, 以及特殊圆弧角
★ Special cutting edge width and special nose radius can be customized

GBA 浅槽刀片命名规则

GBA Shallow Grooving Inserts Code Key

系列名称 Series

GBA 43 R 150 -020 (S) R

代号 Symbol	名称 Series
GBA	系列名称 Series

刀片方向 Insert direction

GBA 43 **R** 150 -020 (S) R

代号 Symbol	刀片方向 Insert direction
R	右手 Right hand
L	左手 Left hand

刀尖圆弧 Nose radius

GBA 43 R 150 **-020** (S) R

代号 Symbol	刀尖圆弧 Nose radius
020	R0.2
030	R0.3

刀片尺寸 Insert dimension

GBA **43** R 150 -020 (S) R

代号 Symbol	刀片尺寸 Insert dimension
43	12.7

切削刃宽度 Cutting edge width

GBA 43 R **150** -020 (S) R

代号 Symbol	切削刃宽度 Cutting edge width
150	1.5mm
300	3.0mm

切深 Cutting depth

GBA 43 R 150 -020 **(S)** R

代号 Symbol	切深 Cutting depth
S	4.0

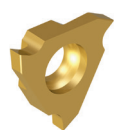
刀尖形状 Nose shape

GBA 43 R 150 -020 (S) **R**

代号 Symbol	刀尖形状 Nose shape
R	圆头 Round head

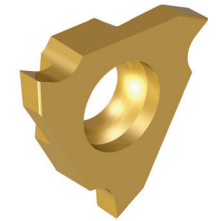
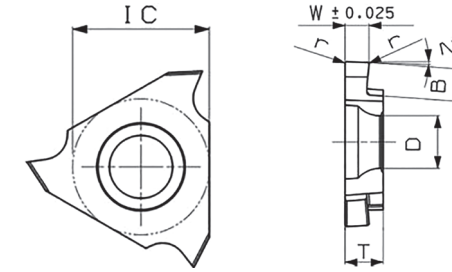
GBA 浅槽刀片特点

Feature of GBA Shallow Grooving Inserts

切断切槽刀片 Parting and grooving insert	特点 Feature
<p>GBA</p> 	<p>高精研磨刀片，槽底加工精度高。 适用于大切深，高强度加工。 大U型排屑槽，排屑流畅。 刃宽公差控制 ±0.025mm。 槽宽范围 1.25~4.5mm。</p> <p>High precision grinding insert with higher groove bottom machining precision. It is suitable for machining with large cutting depth and high strength. Large "U" shape flute with smooth chip removal. The cutting edge width tolerance is controlled within ±0.025mm. The groove width range 1.25-4.5mm.</p>

GBA 浅槽刀片

GBA Shallow Grooving Inserts



尺寸 (mm) Dimension

IC	T	D
12.7	4.76	5.5

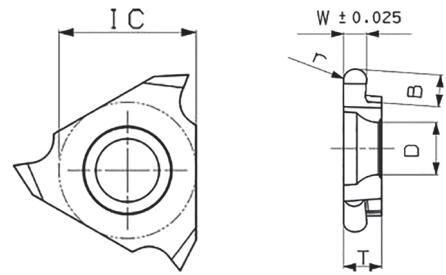
刀片型号 Insert type	基础尺寸 Basic dimension (mm)			PVD 涂层 PVD Coating						CVD 涂层 CVD Coating	
	W	B	r	RP9125B		RP9125C		RP1020		RC6125A	
				R	L	R	L	R	L	R	L
GBA43R/L125-020	1.25	2.0	0.2			●	○				
GBA43R/L140-020	1.4	3.5	0.2			○					
GBA43R/L145-020	1.45	3.5	0.2			○					
GBA43R/L150-020	1.5	3.5	0.2			●	○				
GBA43R/L170-020	1.7	3.5	0.2								
GBA43R/L175-020	1.75	3.5	0.2			●	○				
GBA43R/L185-020	1.85	3.5	0.2			○					
GBA43R/L195-020	1.95	3.5	0.2			○					
GBA43R/L200-020	2.0	3.5	0.2			●	○				
GBA43R/L225-020	2.25	3.5	0.2			○					
GBA43R/L230-020	2.3	3.5	0.2			○					
GBA43R/L250-030S	2.5	4.0	0.3								
GBA43R/L250-030	2.5	5.0	0.3			○	○				
GBA43R/L265-030S	2.65	4.0	0.3								
GBA43R/L265-030	2.65	5.0	0.3			○					
GBA43R/L280-030S	2.8	4.0	0.3								
GBA43R/L280-030	2.8	5.0	0.3			○					
GBA43R/L300-030S	3.0	4.0	0.3								
GBA43R/L300-030	3.0	5.0	0.3			●	○				
GBA43R/L325-030S	3.25	4.0	0.3								
GBA43R/L325-030	3.25	5.0	0.3			○					
GBA43R/L330-030S	3.3	4.0	0.3								
GBA43R/L330-030	3.3	5.0	0.3			●					
GBA43R/L350-030	3.5	5.0	0.3			●	○				
GBA43R/L400-040	4.0	5.0	0.4			●	○				
GBA43R/L430-040	4.3	5.0	0.4			○					
GBA43R/L450-040	4.5	5.0	0.4			○					

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

★ 可定制特殊宽度，以及特殊圆弧角
★ Special cutting edge width and special nose radius can be customized

GBA 浅槽刀片

GBA Shallow Grooving Inserts



尺寸 (mm) Dimension

IC	T	D
12.7	4.76	5.5

刀片型号 Insert type	基础尺寸 Basic dimension (mm)			PVD 涂层 PVD Coating						CVD 涂层 CVD Coating	
	W	B	r	RP9125B		RP9125C		RP1020		RC6125A	
				R	L	R	L	R	L	R	L
GBA43R/L100-050R	1.0	2.0	0.5			●					
GBA43R/L150-075R	1.5	3.5	0.75			●					
GBA43R/L200-100R	2.0	3.5	1.0			●					
GBA43R/L250-125R	2.5	4.0	1.25			●					
GBA43R/L300-150R	3.0	4.0	1.5			○					
GBA43R/L400-200R	4.0	5.0	2.0								

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

★ 可定制特殊宽度, 以及特殊圆弧角
★ Special cutting edge width and special nose radius can be customized

GE 浅槽刀片命名规则

GE Shallow Grooving Inserts Code Key

系列名称 Series

GE R 100 -005 C

代号 Symbol	名称 Series
GE	系列名称 Series

刀片方向 Insert direction

GE R 100 -005 C

代号 Symbol	刀片方向 Insert direction
R	右手 Right hand
L	左手 Left hand

切削刃宽度 Cutting edge width

GE R 100 -005 C

代号 Symbol	切削刃宽度 Cutting edge width
100	1.0mm
150	1.5mm

刀尖圆弧 Nose radius

GE R 100 -005 C

代号 Symbol	刀尖圆弧 Nose radius
005	R0.05
010	R0.10

刀片类型 Insert type

GE R 100 -005 C

代号 Symbol	刀片类型 Insert type
C	C 类型 Type C

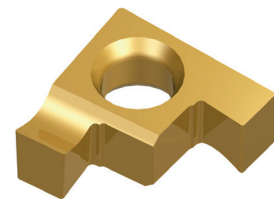
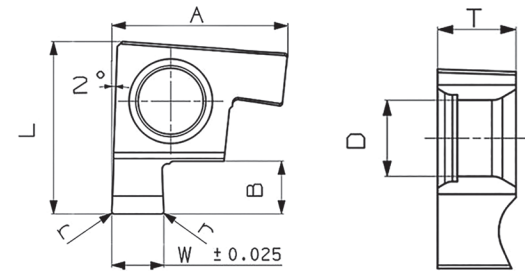
GE 浅槽刀片特点

Feature of GE Shallow Grooving Inserts

切断切槽刀片 Parting and grooving insert	特点 Feature
<p>GE</p>	<p>精密研磨, 可获得较高的尺寸精度。 锋利前角, 切削轻快。 刃宽公差控制 ±0.025mm。 槽宽 0.5 ~ 5.0mm。 主要用于内孔、小孔切槽加工。</p> <p>Precision grinding which can acquire higher dimensional precision. Sharpen rake angle with rapid and smooth cutting. Cutting edge width tolerance controlled within ±0.025mm. The groove width range is from 0.5 to 5.0mm. Mainly used for machining of inner hole and small hole grooving.</p>

GE 浅槽刀片

GE Shallow Grooving Inserts



尺寸 (mm) Dimension

A	L	T	D
6.69	6.5	2.58	2.5

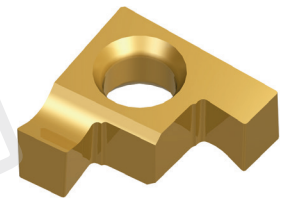
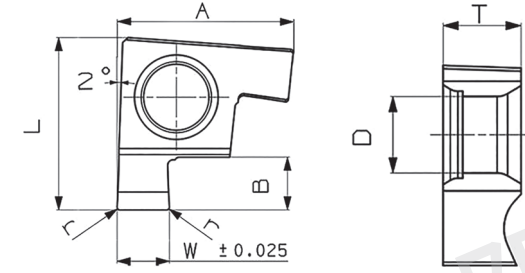
刀片型号 Insert type	基础尺寸 Basic dimension (mm)			PVD 涂层 PVD Coating						CVD 涂层 CVD Coating	
	W	B	r	RP9125B		RP9125C		RP1020		RC6125A	
				R	L	R	L	R	L	R	L
GER/L050-005A	0.5	1.2	0.05			●	○				
GER/L060-005A	0.6	1.2	0.05			○					
GER/L070-005A	0.7	1.2	0.05			○					
GER/L080-005A	0.8	1.2	0.05			○					
GER/L100-005A	1.0	1.5	0.05			●	○				
GER/L120-005A	1.2	1.5	0.05			○					
GER/L125-005A	1.25	1.5	0.05			●					
GER/L140-010A	1.4	1.5	0.1			○					
GER/L150-010A	1.5	1.5	0.1			●	○				
GER/L180-010A	1.8	1.5	0.1			○					
GER/L200-010A	2.0	1.5	0.1			●	○				

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

★ 可定制特殊宽度, 以及特殊圆弧角
★ Special cutting edge width and special nose radius can be customized

GE 浅槽刀片

GE Shallow Grooving Inserts



尺寸 (mm) Dimension

A	L	T	D
8.46	8.2	3.18	2.7

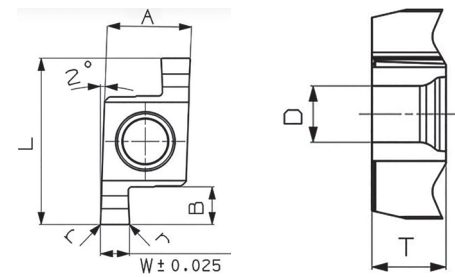
刀片型号 Insert type	基础尺寸 Basic dimension (mm)			PVD 涂层 PVD Coating						CVD 涂层 CVD Coating	
	W	B	r	RP9125B		RP9125C		RP1020		RC6125A	
				R	L	R	L	R	L	R	L
GER/L080-005B	0.8	1.8	0.05			○					
GER/L100-005B	1.0	2.2	0.05			●	○				
GER/L120-005B	1.2	2.2	0.05			○					
GER/L125-005B	1.25	2.2	0.05			●					
GER/L130-010B	1.3	2.2	0.1			○					
GER/L145-010B	1.45	2.2	0.1			○					
GER/L150-010B	1.5	2.2	0.1			●	○				
GER/L180-010B	1.8	2.2	0.1			○					
GER/L200-010B	2.0	2.2	0.1			●	○				
GER/L225-010B	2.25	2.2	0.1			○					
GER/L250-010B	2.5	2.2	0.1			●	○				
GER/L280-020B	2.8	2.2	0.2			○					
GER/L300-020B	3.0	2.2	0.2			●					

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

★ 可定制特殊宽度, 以及特殊圆弧角
★ Special cutting edge width and special nose radius can be customized

GE 浅槽刀片

GE Shallow Grooving Inserts



尺寸 (mm) Dimension

A	L	T	D
5.8	11.48	4.05	2.8

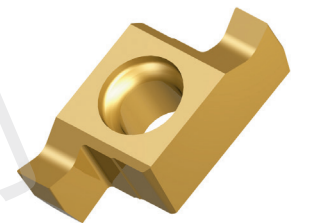
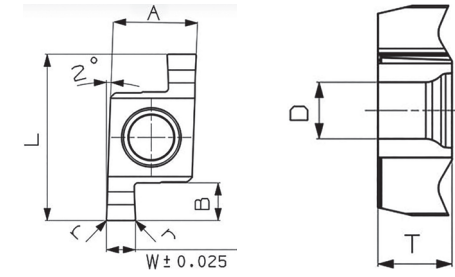
刀片型号 Insert type	基础尺寸 Basic dimension (mm)			PVD 涂层 PVD Coating						CVD 涂层 CVD Coating	
	W	B	r	RP9125B		RP9125C		RP1020		RC6125A	
				R	L	R	L	R	L	R	L
GER/L100-005C	1.0	2.5	0.05			●	○				
GER/L120-005C	1.2	2.5	0.05			○					
GER/L125-005C	1.25	2.5	0.05			●					
GER/L140-010C	1.4	2.5	0.1			○					
GER/L145-010C	1.45	2.5	0.1			○					
GER/L150-010C	1.5	2.5	0.1			●	○				
GER/L160-010C	1.6	2.5	0.1			○					
GER/L170-010C	1.7	2.5	0.1			○					
GER/L185-010C	1.85	2.5	0.1			○					
GER/L195-010C	1.95	2.5	0.1			○					
GER/L200-010C	2.0	2.5	0.1			●	○				
GER/L225-010C	2.25	2.5	0.1			○					
GER/L250-020C	2.5	2.5	0.2			●	○				
GER/L275-020C	2.75	2.5	0.2			●					
GER/L280-020C	2.8	2.5	0.2			○					
GER/L300-020C	3.0	2.5	0.2			●					
GER/L320-020C	3.2	2.5	0.2			○					
GER/L350-020C	3.5	2.5	0.2			○					

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

★ 可定制特殊宽度, 以及特殊圆弧角
★ Special cutting edge width and special nose radius can be customized

GE 浅槽刀片

GE Shallow Grooving Inserts



尺寸 (mm) Dimension

A	L	T	D
6.8	16.44	5.05	3.4

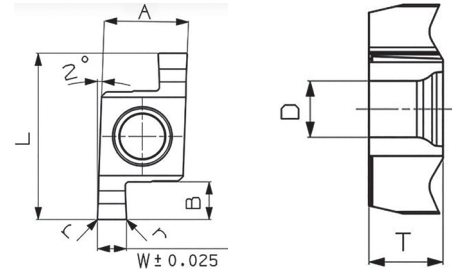
刀片型号 Insert type	基础尺寸 Basic dimension (mm)			PVD 涂层 PVD Coating						CVD 涂层 CVD Coating	
	W	B	r	RP9125B		RP9125C		RP1020		RC6125A	
				R	L	R	L	R	L	R	L
GER/L100-005D	1.0	2.5	0.05			●	○				
GER/L120-005D	1.2	2.5	0.05			○					
GER/L125-005D	1.25	2.5	0.05			○					
GER/L140-005D	1.4	2.5	0.05			○					
GER/L145-010D	1.45	2.5	0.1			○					
GER/L150-010D	1.5	3.0	0.1			●	○				
GER/L170-010D	1.7	3.0	0.1			○					
GER/L185-010D	1.85	3.0	0.1			○					
GER/L195-010D	1.95	3.0	0.1			○					
GER/L200-010D	2.0	3.6	0.1			●	○				
GER/L225-010D	2.25	3.6	0.1			○					
GER/L230-020D	2.3	3.6	0.2			○					
GER/L250-020D	2.5	3.6	0.2			●	○				
GER/L275-020D	2.75	3.6	0.2			○					
GER/L280-020D	2.8	4.5	0.2			○					
GER/L300-020D	3.0	4.5	0.2			●	○				
GER/L320-020D	3.2	4.5	0.2			○					
GER/L350-020D	3.5	4.5	0.2			●					
GER/L400-020D	4.0	4.5	0.2			○					

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

★ 可定制特殊宽度, 以及特殊圆弧角
★ Special cutting edge width and special nose radius can be customized

GE 浅槽刀片

GE Shallow Grooving Inserts



尺寸 (mm) Dimension

A	L	T	D
9.54	21.66	5.55	4.4

刀片型号 Insert type	基础尺寸 Basic dimension (mm)			PVD 涂层 PVD Coating						CVD 涂层 CVD Coating	
	W	B	r	RP9125B		RP9125C		RP1020		RC6125A	
				R	L	R	L	R	L	R	L
GER/L100-005E	1.0	3.0	0.05			●	○				
GER/L150-010E	1.5	3.5	0.1			●					
GER/L170-010E	1.7	3.5	0.1			○					
GER/L185-010E	1.85	3.5	0.1			○					
GER/L195-010E	1.95	3.5	0.1			○					
GER/L200-010E	2.0	3.8	0.1			●	○				
GER/L225-010E	2.25	3.8	0.1			○					
GER/L230-020E	2.3	3.8	0.2			○					
GER/L250-020E	2.5	4.5	0.2			●					
GER/L275-020E	2.75	4.5	0.2			○					
GER/L280-020E	2.8	4.5	0.2			○					
GER/L300-020E	3.0	4.5	0.2			●	○				
GER/L330-020E	3.3	4.5	0.2			○					
GER/L350-020E	3.5	5.5	0.2			●					
GER/L400-020E	4.0	5.5	0.2			●					
GER/L430-020E	4.3	5.5	0.2			○					
GER/L450-020E	4.5	6.5	0.2			○					
GER/L460-020E	4.6	6.5	0.2			○					
GER/L500-020E	5.0	6.5	0.2			●					

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

★ 可定制特殊宽度, 以及特殊圆弧角
★ Special cutting edge width and special nose radius can be customized

GT 浅槽刀片命名规则

GT Shallow Grooving Inserts Code Key

系列名称 Series

GT 16 I R 100 -010

代号 Symbol	名称 Series
GT	系列名称 Series

刀片尺寸 Insert dimension

GT 16 I R 100 -010

代号 Symbol	刀片尺寸 Insert dimension
11	6.35
16	9.525

刀片类型 Insert type

GT 16 I R 100 -010

代号 Symbol	刀片类型 Insert type
I	内切槽 Internal
E	外切槽 External

刀片方向 Insert direction

GT 16 I R 100-010

代号 Symbol	刀片方向 Insert direction
R	右手 Right hand

切削刃宽度 Cutting edge width

GT 16 I R 100 -010

代号 Symbol	切削刃宽度 Cutting edge width
050	0.5mm
100	1.0mm

刀尖圆弧 Nose radius

GT 16 I R 100 -010

代号 Symbol	刀尖圆弧 Nose radius
005	R0.05
010	R0.10

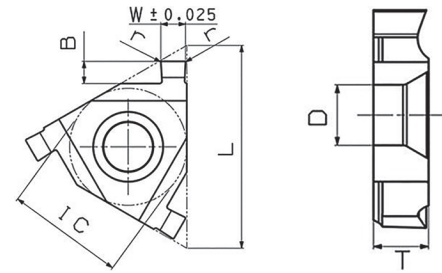
GT 浅槽刀片特点

Feature of GT Shallow Grooving Inserts

切断切槽刀片 Parting and grooving insert	特点 Feature
GT 	<p>平装浅槽刀片, 与螺纹刀杆通装。 刃口锋利, 搭配耐磨性极佳 PVD 涂层, 实现长寿命, 高效加工。 刃宽公差控制 ±0.025mm。 槽宽范围 0.5 ~ 3.0mm。</p> <p>Flatten stitching shallow grooving insert, which is with external threading tool holder. Sharpen cutting edge which matches with PVD coating owns excellent abrasion resistance to realize long lifespan and efficient machining. The cutting edge width tolerance is controlled within ±0.025mm. The groove width range is 0.5~3.0mm.</p>

GT 浅槽刀片

GT Shallow Grooving Inserts



尺寸 (mm) Dimension

L	IC	T	D
11	6.35	3.18	3.1

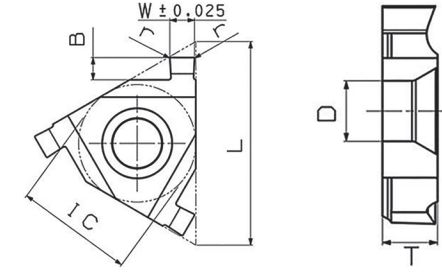
刀片型号 Insert type	基础尺寸 Basic dimension (mm)			PVD 涂层 PVD Coating						CVD 涂层 CVD Coating	
	W	B	r	RP9125B		RP9125C		RP1020		RC6125A	
				R	L	R	L	R	L	R	L
GT11/ER050-005	0.5	1.0	0.05			●	○				
GT11/ER060-005	0.6	1.0	0.05			○					
GT11/ER070-005	0.7	1.2	0.05			○					
GT11/ER080-005	0.8	1.2	0.05			○					
GT11/ER090-005	0.9	1.2	0.05			○					
GT11/ER100-010	1.0	1.5	0.1			●	○				
GT11/ER110-010	1.1	1.5	0.1			○					
GT11/ER120-010	1.2	1.5	0.1			○					
GT11/ER130-010	1.3	1.5	0.1			○					
GT11/ER140-010	1.4	1.5	0.1			○					
GT11/ER150-010	1.5	1.5	0.1			●	○				
GT11/ER160-010	1.6	1.4	0.1			○					
GT11/ER170-010	1.7	1.4	0.1			○					
GT11/ER180-010	1.8	1.3	0.1			○					
GT11/ER200-010	2.0	1.2	0.1			●	○				

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

★ 可定制特殊宽度, 以及特殊圆弧角
★ Special cutting edge width and special nose radius can be customized

GT 浅槽刀片

GT Shallow Grooving Inserts



尺寸 (mm) Dimension

L	IC	T	D
16	9.525	3.65	4

刀片型号 Insert type	基础尺寸 Basic dimension (mm)			PVD 涂层 PVD Coating						CVD 涂层 CVD Coating	
	W	B	r	RP9125B		RP9125C		RP1020		RC6125A	
				R	L	R	L	R	L	R	L
GT16/ER050-005	0.5	1.6	0.05			○					
GT16/ER060-005	0.6	1.6	0.05			○					
GT16/ER070-005	0.7	1.6	0.05			○					
GT16/ER075-005	0.75	1.6	0.05			○					
GT16/ER080-005	0.8	1.6	0.05			○					
GT16/ER095-005	0.95	1.6	0.05			○					
GT16/ER100-010	1.0	1.8	0.1			●	○				
GT16/ER110-010	1.1	1.8	0.1			○					
GT16/ER115-010	1.15	1.8	0.1			○					
GT16/ER120-010	1.2	1.8	0.1			○					
GT16/ER130-010	1.3	1.8	0.1			○					
GT16/ER140-010	1.4	1.8	0.1			○					
GT16/ER145-010	1.45	1.8	0.1			○					
GT16/ER150-010	1.5	1.8	0.1			●	○				
GT16/ER160-010	1.6	1.8	0.1			○					
GT16/ER175-010	1.75	1.8	0.1			○					
GT16/ER180-010	1.8	1.8	0.1			○					
GT16/ER200-010	2.0	1.8	0.1			●	○				
GT16/ER215-020	2.15	2.0	0.2			○					
GT16/ER225-020	2.25	2.0	0.2			○					
GT16/ER230-020	2.3	2.0	0.2			○					
GT16/ER250-020	2.5	2.0	0.2			●	○				
GT16/ER265-020	2.65	2.0	0.2			○					
GT16/ER300-020	3.0	2.0	0.2			●	○				

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

★ 可定制特殊宽度, 以及特殊圆弧角
★ Special cutting edge width and special nose radius can be customized

螺纹车削刀片

THREADING INSERTS



螺纹车削刀片命名规则

Threading Inserts Code Key

刀片尺寸 Insert dimension

16 E R 1.50 ISO A

代号 Symbol	刀片尺寸 Insert dimension	
11	IC6.35mm	
16	IC9.525mm	
22	IC12.7mm	

刀片方向 Insert direction

16 E R 1.50 ISO A

代号 Symbol	刀片方向 Insert direction
R	右手刀片 Right hand
L	左手刀片 Left hand

螺纹标准 Thread standard

16 E R 1.50 ISO A

代号 Symbol	螺纹标准 Thread standard
ISO	公制 ISO 螺纹 ISO metric thread
55	55°范围牙型螺纹 55°general pitch thread
60	60°范围牙型螺纹 60°general pitch thread
W	惠氏螺纹 Whitworth thread
BSPT	英制锥管螺纹 British taper pipe thread
UN	统一协定螺纹 Unified thread
NPT	美制锥管螺纹 American taper pipe thread
RD30	圆螺纹 Round thread
TR	梯形螺纹 Trapezoidal thread
ACME	美制 ACME 螺纹 American ACME thread
STACME	美制短齿 ACME 螺纹 American short toothed ACME thread

刀具类别 Tool category

16 E R 1.50 ISO A

代号 Symbol	刀具类型 Tool category
E	外螺纹刀片 External threading
I	内螺纹刀片 Internal threading

螺距 Screw pitch

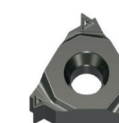
16 E R 1.50 ISO A

螺距 Screw pitch(mm)	牙数 profile(tp)
全牙型 - 螺距范围 (带修光刃) Full profile-range of screw pitch (with wiper)	
0.5-6.0	48-4
范围牙型 - 螺距范围 (不带修光刃) Range profile-range of screw pitch (without wiper)	
A 0.5-1.5	48-16
AG 0.5-3.0	48-8
G 1.75-3.0	14-8
N 3.5-5.0	7-5

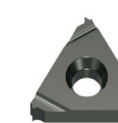
刀片类型 Insert type

16 E R 1.50 ISO A

A	
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三维断屑槽型
3-Dimensional chip-breaking



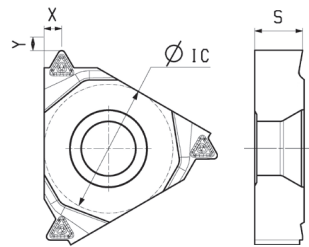
不标注为全磨型
Fully ground edge

螺纹车削刀片

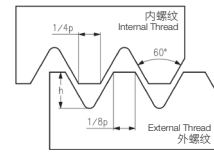
Threading Inserts

ISO 公制螺纹 (外螺纹)

ISO Metric Thread (External Thread)



★ 带修光刃 with wiper



标准 Standard: R262(DIN13)
公差等级 Tolerance class: 6g/6H

刀片形状 Insert shape	刀片型号 Insert type	螺距范围 Pitch range		刀片尺寸 Insert dimension				涂层牌号 Coating grade				
		mm	TPI	IC	S	X	Y	RP9125B	RP1020	RP1120A	RP1225	
	16E ^R / _L 1.00ISOA	1.00		9.525	3.52	0.7	0.7	●			●	
	16E ^R / _L 1.25ISOA	1.25		9.525	3.52	0.9	0.8	●			●	
	16E ^R / _L 1.50ISOA	1.50		9.525	3.52	1.0	0.8	●			●	
	16E ^R / _L 1.75ISOA	1.75		9.525	3.52	1.2	0.9	●			●	
	16E ^R / _L 2.00ISOA	2.00		9.525	3.52	1.3	1.0	●			●	
	16E ^R / _L 2.50ISOA	2.50		9.525	3.52	1.5	1.1	●			●	
	16E ^R / _L 3.00ISOA	3.00		9.525	3.52	1.6	1.2	●			●	
	22ER3.50ISOA	3.50		12.7	4.65	2.3	1.6	●			●	
	22ER4.00ISOA	4.00		12.7	4.65	2.3	1.6	●			●	
	22ER4.50ISOA	4.50		12.7	4.65	2.4	1.7	●			●	
	22ER5.00ISOA	5.00		12.7	4.65	2.5	1.7	●			●	
	22ER5.50ISOA	5.50		12.7	4.65	2.5	1.7	●			●	
	22ER6.00ISOA	6.00		12.7	4.65	2.7	1.8	●			●	
		16ER0.50ISO	0.50		9.525	3.52	0.4	0.6	●			●
		16ER1.00ISO	1.00		9.525	3.52	0.7	0.7	●			●
16ER1.25ISO		1.25		9.525	3.52	0.9	0.8	●			●	
16ER1.50ISO		1.50		9.525	3.52	1.0	0.8	●			●	
16ER2.00ISO		2.00		9.525	3.52	1.3	1.0	●			●	
16ER2.50ISO		2.50		9.525	3.52	1.5	1.1	●			●	
16ER3.00ISO		3.00		9.525	3.52	1.6	1.2	●			●	
22ER3.50ISO		3.50		12.7	4.65	2.3	1.6	●			●	
22ER4.00ISO		4.00		12.7	4.65	2.3	1.6	●			●	
22ER4.50ISO		4.50		12.7	4.65	2.4	1.7	●			●	
22ER5.00ISO		5.00		12.7	4.65	2.5	1.7	●			●	

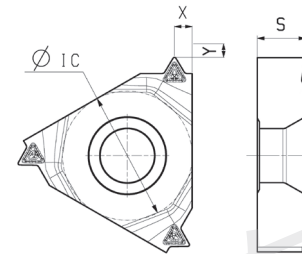
● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

螺纹车削刀片

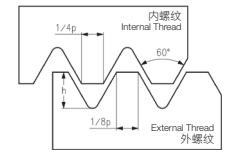
Threading Inserts

ISO 公制螺纹 (内螺纹)

ISO Metric Thread (Internal Thread)



★ 带修光刃 with wiper



标准 Standard: R262(DIN13)
公差等级 Tolerance class: 6g/6H

刀片形状 Insert shape	刀片型号 Insert type	螺距范围 Pitch range		刀片尺寸 Insert dimension				涂层牌号 Coating grade				
		mm	TPI	IC	S	X	Y	RP9125B	RP1020	RP1120A	RP1225	
	16I ^R / _L 1.00ISOA	1.00		9.525	3.52	0.7	0.6	●			●	
	16I ^R / _L 1.25ISOA	1.25		9.525	3.52	0.9	0.8	●			●	
	16I ^R / _L 1.50ISOA	1.50		9.525	3.52	1.0	0.8	●			●	
	16I ^R / _L 1.75ISOA	1.75		9.525	3.52	1.2	0.9	●			●	
	16I ^R / _L 2.00ISOA	2.00		9.525	3.52	1.3	1.0	●			●	
	16I ^R / _L 2.50ISOA	2.50		9.525	3.52	1.5	1.1	●			●	
	16I ^R / _L 3.00ISOA	3.00		9.525	3.52	1.5	1.1	●			●	
	22IR3.50ISOA	3.50		12.7	4.65	2.3	1.6	●			●	
	22IR4.00ISOA	4.00		12.7	4.65	2.3	1.6	●			●	
	22IR4.50ISOA	4.50		12.7	4.65	2.4	1.6	●			●	
	22IR5.00ISOA	5.00		12.7	4.65	2.3	1.6	●			●	
	22IR5.50ISOA	5.50		12.7	4.65	2.3	1.6	●			●	
	22IR6.00ISOA	6.00		12.7	4.65	2.5	1.8	●			●	
		11IR1.00ISO	1.00		6.35	3.05	0.7	0.6	●			●
		11IR1.25ISO	1.25		6.35	3.05	0.9	0.8	●			●
11IR1.50ISO		1.50		6.35	3.05	1.0	0.8	●			●	
11IR1.75ISO		1.75		6.35	3.05	1.1	0.9	●			●	
11IR2.00ISO		2.00		6.35	3.05	1.1	0.9	●			●	
16IR0.50ISO		0.50		9.525	3.52	0.4	0.6	●			●	
16IR1.00ISO		1.00		9.525	3.52	0.7	0.6	●			●	
16IR1.25ISO		1.25		9.525	3.52	0.9	0.8	●			●	
16IR1.50ISO		1.50		9.525	3.52	1.0	0.8	●			●	
16IR2.00ISO		2.00		9.525	3.52	1.3	1.0	●			●	
16IR2.50ISO		2.50		9.525	3.52	1.5	1.1	●			●	
16IR3.00ISO		3.00		9.525	3.52	1.5	1.1	●			●	
22IR3.50ISO		3.50		12.7	4.65	2.3	1.6	●			●	
22IR4.00ISO		4.00		12.7	4.65	2.3	1.6	●			●	
22IR4.50ISO		4.50		12.7	4.65	2.4	1.6	●			●	
22IR5.00ISO	5.00		12.7	4.65	2.3	1.6	●			●		

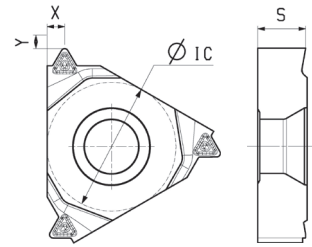
● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

螺纹车削刀片

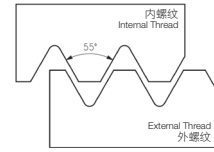
Threading Inserts

55°通用螺纹 (外螺纹)

55°General Pitch Thread (External Thread)



★ 无修光刃 without wiper



刀片形状 Insert shape	刀片型号 Insert type	螺距范围 Pitch range		刀片尺寸 Insert dimension				涂层牌号 Coating grade			
		mm	TPI	IC	S	X	Y	RP9125B	RP1020	RP1120A	RP1225
	16ERA55A	0.5-1.5	48-16	9.525	3.52	0.9	0.8	●			●
	16ERAG55A	0.5-3.0	48-8	9.525	3.52	1.7	1.2	●			●
	16ERG55A	1.75-3.0	14-8	9.525	3.52	1.7	1.2	●			●
	22ERN55A	3.5-5.0	7-5	12.7	4.65	2.5	1.7	●			●
	16ERA55	0.5-1.5	48-16	9.525	3.52	0.9	0.8	●			●
	16ERAG55	0.5-3.0	48-8	9.525	3.52	1.7	1.2	●			●
	16ERG55	1.75-3.0	14-8	9.525	3.52	1.7	1.2	●			●
	22ERN55	3.5-5.0	7-5	12.7	4.65	2.5	1.7	●			●

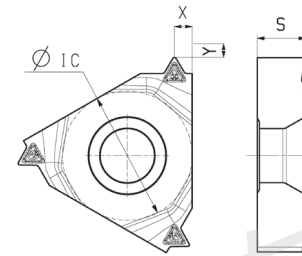
● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

螺纹车削刀片

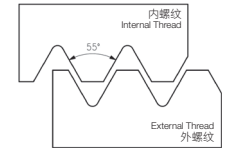
Threading Inserts

55°通用螺纹 (内螺纹)

55°General Pitch Thread (Internal Thread)



★ 无修光刃 without wiper



刀片形状 Insert shape	刀片型号 Insert type	螺距范围 Pitch range		刀片尺寸 Insert dimension				涂层牌号 Coating grade			
		mm	TPI	IC	S	X	Y	RP9125B	RP1020	RP1120A	RP1225
	11IRA55A	0.5-1.5	48-16	6.35	3.05	0.9	0.8	●			●
	16IRA55A	0.5-1.5	48-16	9.525	3.52	0.9	0.8	●			●
	16IRAG55A	0.5-3.0	48-8	9.525	3.52	1.7	1.2	●			●
	16IRG55A	1.75-3.0	14-8	9.525	3.52	1.7	1.2	●			●
	22IRN55A	3.5-5.0	7-5	12.7	4.65	2.5	1.7	●			●
	11IRA55	0.5-1.5	48-16	6.35	3.05	0.9	0.8	●			●
	16IRA55	0.5-1.5	48-16	9.525	3.52	0.9	0.8	●			●
	16IRAG55	0.5-3.0	48-8	9.525	3.52	1.7	1.2	●			●
	16IRG55	1.75-3.0	14-8	9.525	3.52	1.7	1.2	●			●
	22IRN55	3.5-5.0	7-5	12.7	4.65	2.5	1.7	●			●

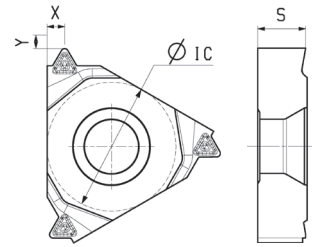
● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

螺纹车削刀片

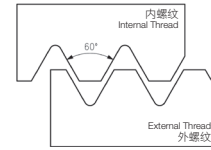
Threading Inserts

60°通用螺纹 (外螺纹)

60°General Pitch Thread (External Thread)



★ 无修光刃 without wiper



刀片形状 Insert shape	刀片型号 Insert type	螺距范围 Pitch range		刀片尺寸 Insert dimension				涂层牌号 Coating grade			
		mm	TPI	IC	S	X	Y	RP9125B	RP1020	RP1120A	RP1225
	16ERA60A	0.5-1.5	48-16	9.525	3.52	0.9	0.8	●			●
	16ERAG60A	0.5-3.0	48-8	9.525	3.52	1.7	1.2	●			●
	16ERG60A	1.75-3.0	14-8	9.525	3.52	1.7	1.2	●			●
	22ERN60A	3.5-5.0	7-5	12.7	4.65	2.5	1.7	●			●
	16ERA60	0.5-1.5	48-16	9.525	3.52	0.9	0.8	●			●
	16ERAG60	0.5-3.0	48-8	9.525	3.52	1.7	1.2	●			●
	16ERG60	1.75-3.0	14-8	9.525	3.52	1.7	1.2	●			●
	22ERN60	3.5-5.0	7-5	12.7	4.65	2.5	1.7	●			●

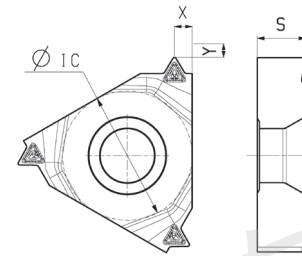
● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

螺纹车削刀片

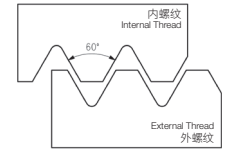
Threading Inserts

60°通用螺纹 (内螺纹)

60°General Pitch Thread (Internal Thread)



★ 无修光刃 without wiper



刀片形状 Insert shape	刀片型号 Insert type	螺距范围 Pitch range		刀片尺寸 Insert dimension				涂层牌号 Coating grade			
		mm	TPI	IC	S	X	Y	RP9125B	RP1020	RP1120A	RP1225
	11IRA60A	0.5-1.5	48-16	6.35	3.05	0.9	0.8	●			●
	16IRA60A	0.5-1.5	48-16	9.525	3.52	0.9	0.8	●			●
	16IRAG60A	0.5-3.0	48-8	9.525	3.52	1.7	1.2	●			●
	16IRG60A	1.75-3.0	14-8	9.525	3.52	1.7	1.2	●			●
	22IRN60A	3.5-5.0	7-5	12.7	4.65	2.5	1.7	●			●
	11IRA60	0.5-1.5	48-16	6.35	3.05	0.9	0.8	●			●
	16IRA60	0.5-1.5	48-16	9.525	3.52	0.9	0.8	●			●
	16IRAG60	0.5-3.0	48-8	9.525	3.52	1.7	1.2	●			●
	16IRG60	1.75-3.0	14-8	9.525	3.52	1.7	1.2	●			●
	22IRN60	3.5-5.0	7-5	12.7	4.65	2.5	1.7	●			●

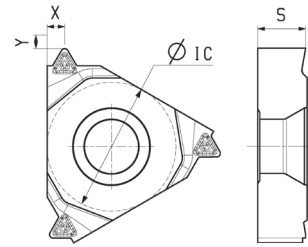
● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

螺纹车削刀片

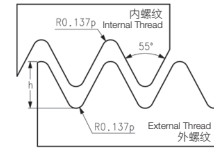
Threading Inserts

惠氏螺纹 [W] (外螺纹)

Whitworth Thread [W] (External Thread)



★ 带修光刃 with wiper



标准 Standard: B.S.84:1956, DIN259, ISO288/1:1982
公差等级 Tolerance class: 中等 级别等级A Medium classA

刀片形状 Insert shape	刀片型号 Insert type	螺距范围 Pitch range		刀片尺寸 Insert dimension				涂层牌号 Coating grade		
		mm	TPI	IC	S	X	Y	RP9125B	RP1020	RP1120A
	16ER8WA	8	9.525	3.52	1.5	1.2	●	●	●	●
	16ER9WA	9	9.525	3.52	1.7	1.2	●	●	●	●
	16ER10WA	10	9.525	3.52	1.5	1.1	●	●	●	●
	16ER11WA	11	9.525	3.52	1.5	1.1	●	●	●	●
	16ER12WA	12	9.525	3.52	1.4	1.1	●	●	●	●
	16ER14WA	14	9.525	3.52	1.2	1.0	●	●	●	●
	16ER16WA	16	9.525	3.52	1.1	0.9	●	●	●	●
	16ER18WA	18	9.525	3.52	1.0	0.8	●	●	●	●
	16ER19WA	19	9.525	3.52	1.0	0.8	●	●	●	●
	16ER8W	8	9.525	3.52	1.5	1.2	●	●	●	●
	16ER9W	9	9.525	3.52	1.7	1.2	●	●	●	●
	16ER10W	10	9.525	3.52	1.5	1.1	●	●	●	●
	16ER11W	11	9.525	3.52	1.5	1.1	●	●	●	●
	16ER12W	12	9.525	3.52	1.4	1.1	●	●	●	●
	16ER14W	14	9.525	3.52	1.2	1.0	●	●	●	●
	16ER16W	16	9.525	3.52	1.1	0.9	●	●	●	●
	16ER18W	18	9.525	3.52	1.0	0.8	●	●	●	●
	16ER19W	19	9.525	3.52	1.0	0.8	●	●	●	●

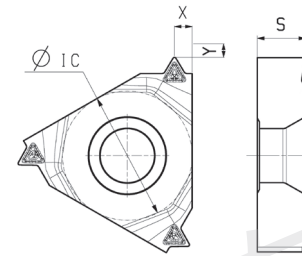
● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

螺纹车削刀片

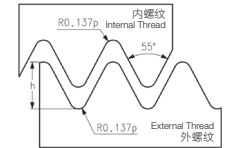
Threading Inserts

惠氏螺纹 [W] (内螺纹)

Whitworth Thread [W] (Internal Thread)



★ 带修光刃 with wiper



标准 Standard: B.S.84:1956, DIN259, ISO288/1:1982
公差等级 Tolerance class: 中等 级别等级A Medium classA

刀片形状 Insert shape	刀片型号 Insert type	螺距范围 Pitch range		刀片尺寸 Insert dimension				涂层牌号 Coating grade		
		mm	TPI	IC	S	X	Y	RP9125B	RP1020	RP1120A
	16IR8WA	8	9.525	3.52	1.5	1.2	●	●	●	●
	16IR9WA	9	9.525	3.52	1.7	1.2	●	●	●	●
	16IR10WA	10	9.525	3.52	1.5	1.1	●	●	●	●
	16IR11WA	11	9.525	3.52	1.5	1.1	●	●	●	●
	16IR12WA	12	9.525	3.52	1.4	1.1	●	●	●	●
	16IR14WA	14	9.525	3.52	1.2	1.0	●	●	●	●
	16IR16WA	16	9.525	3.52	1.1	0.9	●	●	●	●
	16IR18WA	18	9.525	3.52	1.0	0.8	●	●	●	●
	16IR19WA	19	9.525	3.52	1.0	0.8	●	●	●	●
	16IR8W	8	9.525	3.52	1.5	1.2	●	●	●	●
	16IR9W	9	9.525	3.52	1.7	1.2	●	●	●	●
	16IR10W	10	9.525	3.52	1.5	1.1	●	●	●	●
	16IR11W	11	9.525	3.52	1.5	1.1	●	●	●	●
	16IR12W	12	9.525	3.52	1.4	1.1	●	●	●	●
	16IR14W	14	9.525	3.52	1.2	1.0	●	●	●	●
	16IR16W	16	9.525	3.52	1.1	0.9	●	●	●	●
	16IR18W	18	9.525	3.52	1.0	0.8	●	●	●	●
	16IR19W	19	9.525	3.52	1.0	0.8	●	●	●	●

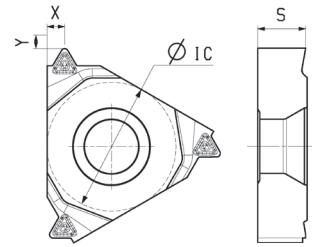
● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

螺纹车削刀片

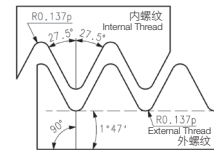
Threading Inserts

惠氏锥管螺纹 [BSPT] (外螺纹)

Whitworth Taper Piper [BSPT] (External Thread)



★ 带修光刃 with wiper



标准 Standard B.S.21:1985
公差等级 Tolerance class 英制BSPT螺纹 British BSPT thread

刀片形状 Insert shape	刀片型号 Insert type	螺距范围 Pitch range		刀片尺寸 Insert dimension				涂层牌号 Coating grade		
		mm	TPI	IC	S	X	Y	RP9125B	RP1020	RP1120A
	16ER11BSPTA	11	9.525	3.52	1.5	1.1	●	●	●	●
	16ER14BSPTA	14	9.525	3.52	1.2	1.0	●	●	●	●
	16ER19BSPTA	19	9.525	3.52	0.9	0.8	●	●	●	●
	16ER28BSPTA	28	9.525	3.52	0.6	0.6	●	●	●	●
	16ER11BSPT	11	9.525	3.52	1.5	1.1	●	●	●	●
	16ER14BSPT	14	9.525	3.52	1.2	1.0	●	●	●	●
	16ER19BSPT	19	9.525	3.52	0.9	0.8	●	●	●	●
	16ER28BSPT	28	9.525	3.52	0.6	0.6	●	●	●	●

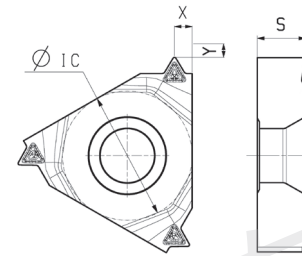
● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

螺纹车削刀片

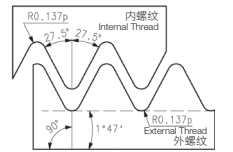
Threading Inserts

惠氏锥管螺纹 [BSPT] (内螺纹)

Whitworth Taper Piper [BSPT] (Internal Thread)



★ 带修光刃 with wiper



标准 Standard B.S.21:1985
公差等级 Tolerance class 英制BSPT螺纹 British BSPT thread

刀片形状 Insert shape	刀片型号 Insert type	螺距范围 Pitch range		刀片尺寸 Insert dimension				涂层牌号 Coating grade		
		mm	TPI	IC	S	X	Y	RP9125B	RP1020	RP1120A
	16IR11BSPTA	11	9.525	3.52	1.5	1.1	●	●	●	●
	16IR14BSPTA	14	9.525	3.52	1.2	1.0	●	●	●	●
	16IR19BSPTA	19	9.525	3.52	0.9	0.8	●	●	●	●
	16IR28BSPTA	28	9.525	3.52	0.6	0.6	●	●	●	●
	16IR11BSPT	11	9.525	3.52	1.5	1.1	●	●	●	●
	16IR14BSPT	14	9.525	3.52	1.2	1.0	●	●	●	●
	16IR19BSPT	19	9.525	3.52	0.9	0.8	●	●	●	●
	16IR28BSPT	28	9.525	3.52	0.6	0.6	●	●	●	●

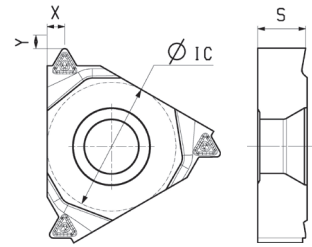
● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

螺纹车削刀片

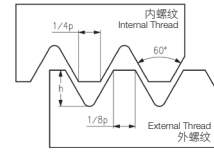
Threading Inserts

统一协定螺纹 [UN] (外螺纹)

Unified Thread [UN] (External Thread)



★ 带修光刃 with wiper



标准 Standard: ANSI B1.1:74
公差等级 Tolerance class: 2A / 2B

刀片形状 Insert shape	刀片型号 Insert type	螺距范围 Pitch range		刀片尺寸 Insert dimension				涂层牌号 Coating grade		
		mm	TPI	IC	S	X	Y	RP9125B	RP1020	RP1120A
	16ER8UNA	8	9.525	3.52	1.6	1.2	●	●	●	●
	16ER10UNA	10	9.525	3.52	1.5	1.1	●	●	●	●
	16ER12UNA	12	9.525	3.52	1.4	1.1	●	●	●	●
	16ER14UNA	14	9.525	3.52	1.2	1.0	●	●	●	●
	16ER16UNA	16	9.525	3.52	1.1	0.9	●	●	●	●
	16ER18UNA	18	9.525	3.52	1.0	0.8	●	●	●	●
	16ER20UNA	20	9.525	3.52	0.9	0.8	●	●	●	●
	16ER24UNA	24	9.525	3.52	0.8	0.7	●	●	●	●
	16ER8UN	8	9.525	3.52	1.6	1.2	●	●	●	●
	16ER10UN	10	9.525	3.52	1.5	1.1	●	●	●	●
	16ER12UN	12	9.525	3.52	1.4	1.1	●	●	●	●
	16ER14UN	14	9.525	3.52	1.2	1.0	●	●	●	●
	16ER16UN	16	9.525	3.52	1.1	0.9	●	●	●	●
	16ER18UN	18	9.525	3.52	1.0	0.8	●	●	●	●
	16ER20UN	20	9.525	3.52	0.9	0.8	●	●	●	●
	16ER24UN	24	9.525	3.52	0.8	0.7	●	●	●	●

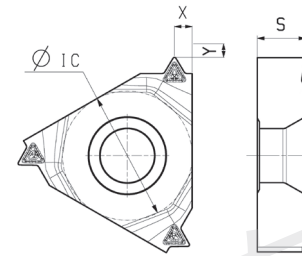
● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

螺纹车削刀片

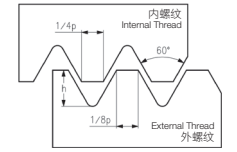
Threading Inserts

统一协定螺纹 [UN] (内螺纹)

Unified Thread [UN] (Internal Thread)



★ 带修光刃 with wiper



标准 Standard: ANSI B1.1:74
公差等级 Tolerance class: 2A / 2B

刀片形状 Insert shape	刀片型号 Insert type	螺距范围 Pitch range		刀片尺寸 Insert dimension				涂层牌号 Coating grade		
		mm	TPI	IC	S	X	Y	RP9125B	RP1020	RP1120A
	16IR8UNA	8	9.525	3.52	1.5	1.1	●	●	●	●
	16IR10UNA	10	9.525	3.52	1.5	1.1	●	●	●	●
	16IR12UNA	12	9.525	3.52	1.4	1.1	●	●	●	●
	16IR14UNA	14	9.525	3.52	1.2	0.9	●	●	●	●
	16IR16UNA	16	9.525	3.52	1.1	0.9	●	●	●	●
	16IR18UNA	18	9.525	3.52	1.0	0.8	●	●	●	●
	16IR20UNA	20	9.525	3.52	0.9	0.8	●	●	●	●
	16IR24UNA	24	9.525	3.52	0.8	0.7	●	●	●	●
	16IR8UN	8	9.525	3.52	1.5	1.1	●	●	●	●
	16IR10UN	10	9.525	3.52	1.5	1.1	●	●	●	●
	16IR12UN	12	9.525	3.52	1.4	1.1	●	●	●	●
	16IR14UN	14	9.525	3.52	1.2	0.9	●	●	●	●
	16IR16UN	16	9.525	3.52	1.1	0.9	●	●	●	●
	16IR18UN	18	9.525	3.52	1.0	0.8	●	●	●	●
	16IR20UN	20	9.525	3.52	0.9	0.8	●	●	●	●
	16IR24UN	24	9.525	3.52	0.8	0.7	●	●	●	●

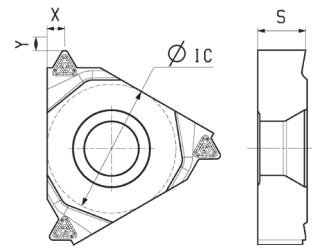
● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

螺纹车削刀片

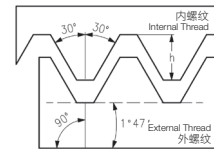
Threading Inserts

美制锥管螺纹 [NPT] (外螺纹)

American Taper Piper Thread [NPT] (External Thread)



★ 带修光刃 with wiper



标准
Standard
USUA B.21:1968

公差等级
Tolerance class
美制NPT螺纹
American NPT thread

刀片形状 Insert shape	刀片型号 Insert type	螺距范围 Pitch range		刀片尺寸 Insert dimension				涂层牌号 Coating grade		
		mm	TPI	IC	S	X	Y	RP9125B	RP1020	RP1120A
	16ER8NPTA	8	9.525	3.52	1.8	1.3	●	●	●	●
	16ER11.5NPTA	11.5	9.525	3.52	1.5	1.1	●	●	●	●
	16ER14NPTA	14	9.525	3.52	1.2	0.9	●	●	●	●
	16ER18NPTA	18	9.525	3.52	1.0	0.8	●	●	●	●
	16ER27NPTA	27	9.525	3.52	0.8	0.7	●	●	●	●
	16ER8NPT	8	9.525	3.52	1.8	1.3	●	●	●	●
	16ER11.5NPT	11.5	9.525	3.52	1.5	1.1	●	●	●	●
	16ER14NPT	14	9.525	3.52	1.2	0.9	●	●	●	●
	16ER18NPT	18	9.525	3.52	1.0	0.8	●	●	●	●
	16ER27NPT	27	9.525	3.52	0.8	0.7	●	●	●	●

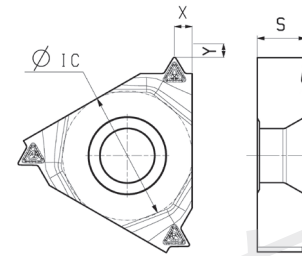
● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

螺纹车削刀片

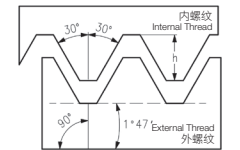
Threading Inserts

美制锥管螺纹 [NPT] (内螺纹)

American Taper Piper Thread [NPT] (Internal Thread)



★ 带修光刃 with wiper



标准
Standard
USUA B.21:1968

公差等级
Tolerance class
美制NPT螺纹
American NPT thread

刀片形状 Insert shape	刀片型号 Insert type	螺距范围 Pitch range		刀片尺寸 Insert dimension				涂层牌号 Coating grade		
		mm	TPI	IC	S	X	Y	RP9125B	RP1020	RP1120A
	16IR8NPTA	8	9.525	3.52	1.8	1.3	●	●	●	●
	16IR11.5NPTA	11.5	9.525	3.52	1.5	1.1	●	●	●	●
	16IR14NPTA	14	9.525	3.52	1.2	0.9	●	●	●	●
	16IR18NPTA	18	9.525	3.52	1.0	0.8	●	●	●	●
	16IR27NPTA	27	9.525	3.52	0.8	0.7	●	●	●	●
	16IR8NPT	8	9.525	3.52	1.8	1.3	●	●	●	●
	16IR11.5NPT	11.5	9.525	3.52	1.5	1.1	●	●	●	●
	16IR14NPT	14	9.525	3.52	1.2	0.9	●	●	●	●
	16IR18NPT	18	9.525	3.52	1.0	0.8	●	●	●	●
	16IR27NPT	27	9.525	3.52	0.8	0.7	●	●	●	●

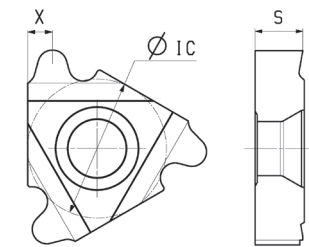
● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

螺纹车削刀片

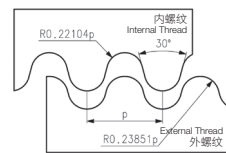
Threading Inserts

30°圆螺纹 [RD] (外螺纹)

30°Round Thread [RD] (External Thread)



★ 带修光刃 with wiper



刀片形状 Insert shape	刀片型号 Insert type	螺距范围 Pitch range		刀片尺寸 Insert dimension				涂层牌号 Coating grade			
		mm	TPI	IC	S	X	Y	RP9125B	RP1020	RP1120A	RP1225
	16ER/L10RD	10		9.525	3.52	1.2	0.61	●			●
	16ER/L8RD	8		9.525	3.52	1.3	0.76	●			●
	16ER/L6RD	6		9.525	3.52	1.7	1.01	●			●
	22ER/L6RD	6		12.7	4.65	2.0	1.01	●			●
	22ER/L5RD	5		12.7	4.65	2.0	1.21	●			●
	22ER/L4RD	4		12.7	4.65	2.3	1.51	●			●

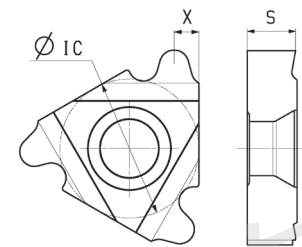
● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

螺纹车削刀片

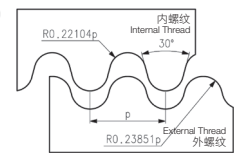
Threading Inserts

30°圆螺纹 [RD] (内螺纹)

30°Round Thread [RD] (Internal Thread)



★ 带修光刃 with wiper



刀片形状 Insert shape	刀片型号 Insert type	螺距范围 Pitch range		刀片尺寸 Insert dimension				涂层牌号 Coating grade			
		mm	TPI	IC	S	X	Y	RP9125B	RP1020	RP1120A	RP1225
	16IR10RD	10		9.525	3.52	1.2	0.56	●			●
	16IR8RD	8		9.525	3.52	1.3	0.7	●			●
	16IR6RD	6		9.525	3.52	1.7	0.94	●			●
	22IR6RD	6		12.7	4.65	2.0	0.94	●			●
	22IR5RD	5		12.7	4.65	2.0	1.12	●			●
	22IR4RD	4		12.7	4.65	2.3	1.4	●			●

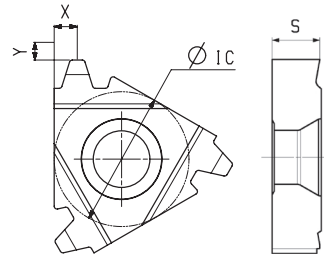
● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

螺纹车削刀片

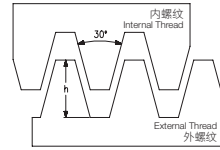
Threading Inserts

30°梯形螺纹（外螺纹）

30°Trapezoidal Thread (External Thread)



★ 带修光刃 with wiper



刀片形状 Insert shape	刀片型号 Insert type	螺距范围 Pitch range		刀片尺寸 Insert dimension				涂层牌号 Coating grade			
		mm	TPI	IC	S	X	Y	RP9125B	RP1020	RP1120A	RP1225
	11ER/L1.5TR	1.5		6.35	3.05	0.8	0.9				
	16ER/L1.5TR	1.5		9.525	3.52	1.0	1.1	●			●
	16ER/L2.0TR	2.0		9.525	3.52	1.1	1.3	●			●
	16ER/L2.5TR	2.5		9.525	3.52	1.2	1.4	●			●
	16ER/L3.0TR	3.0		9.525	3.52	1.3	1.5	●			●
	22ER/L4.0TR	4.0		12.7	4.65	1.7	1.9				
	22ER/L5.0TR	5.0		12.7	4.65	2.1	2.5				
	22ER/L6.0TR	6.0		12.7	4.65	2.3	2.7				
	27ER/L6.0TR	6.0		15.875	6.15	2.3	2.7				

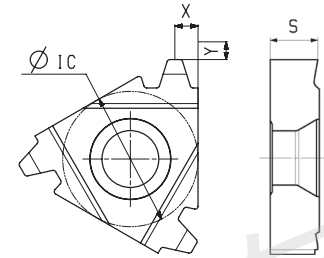
● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

螺纹车削刀片

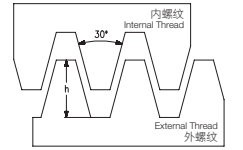
Threading Inserts

30°梯形螺纹（内螺纹）

30°Trapezoidal Thread (Internal Thread)



★ 带修光刃 with wiper



刀片形状 Insert shape	刀片型号 Insert type	螺距范围 Pitch range		刀片尺寸 Insert dimension				涂层牌号 Coating grade			
		mm	TPI	IC	S	X	Y	RP9125B	RP1020	RP1120A	RP1225
	11IR/L1.5TR	1.5		6.35	3.05	0.8	0.9				
	16IR/L1.5TR	1.5		9.525	3.52	1.0	1.1	●			●
	16IR/L2.0TR	2.0		9.525	3.52	1.1	1.3	●			●
	16IR/L2.5TR	2.5		9.525	3.52	1.2	1.4	●			●
	16IR/L3.0TR	3.0		9.525	3.52	1.3	1.5	●			●
	22IR/L4.0TR	4.0		12.7	4.65	1.7	1.9				
	22IR/L5.0TR	5.0		12.7	4.65	2.1	2.5				
	22IR/L6.0TR	6.0		12.7	4.65	2.3	2.7				
	27IR/L6.0TR	6.0		15.875	6.15	2.3	2.7				

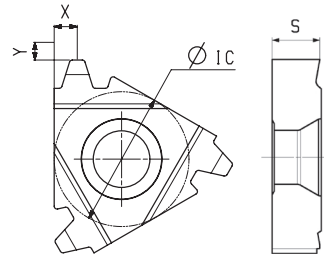
● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

螺纹车削刀片

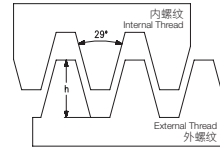
Threading Inserts

美制 ACME 梯形螺纹 (外螺纹)

American ACME Trapezoidal Thread (External Thread)



★ 带修光刃 with wiper



刀片形状 Insert shape	刀片型号 Insert type	螺距范围 Pitch range		刀片尺寸 Insert dimension				涂层牌号 Coating grade			
		mm	TPI	IC	S	X	Y	RP9125B	RP1020	RP1120A	RP1225
	11ER/L16ACME	16	6.35	3.05	1.0	1.1					
	16ER/L16ACME	16	9.525	3.52	1.0	1.1	●			●	
	16ER/L14ACME	14	9.525	3.52	1.0	1.2	●			●	
	16ER/L12ACME	12	9.525	3.52	1.1	1.2	●			●	
	16ER/L10ACME	10	9.525	3.52	1.3	1.4	●			●	
	16ER/L8ACME	8	9.525	3.52	1.4	1.5	●			●	
	16ER/L7ACME	7	9.525	3.52	1.9	2.2	●			●	
	16ER/L6ACME	6	9.525	3.52	1.7	1.9	●			●	
	22ER/L7ACME	7	12.7	4.65	1.9	2.2					
	22ER/L6ACME	6	12.7	4.65	1.8	2.1					
	22ER/L5ACME	5	12.7	4.65	2.0	2.3					
	27ER/L4ACME	4	15.875	6.15	2.4	2.7					

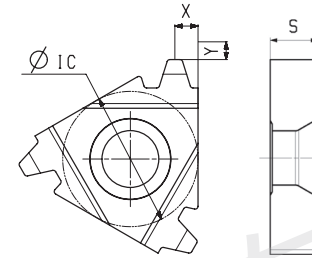
● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

螺纹车削刀片

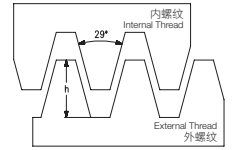
Threading Inserts

美制 ACME 梯形螺纹 (内螺纹)

American ACME Trapezoidal Thread (Internal Thread)



★ 带修光刃 with wiper



刀片形状 Insert shape	刀片型号 Insert type	螺距范围 Pitch range		刀片尺寸 Insert dimension				涂层牌号 Coating grade			
		mm	TPI	IC	S	X	Y	RP9125B	RP1020	RP1120A	RP1225
	11IR/L16ACME	16	6.35	3.05	0.9	0.9					
	16IR/L16ACME	16	9.525	3.52	1.0	1.1	●			●	
	16IR/L14ACME	14	9.525	3.52	1.1	1.2	●			●	
	16IR/L12ACME	12	9.525	3.52	1.2	1.3	●			●	
	16IR/L10ACME	10	9.525	3.52	1.2	1.3	●			●	
	16IR/L8ACME	8	9.525	3.52	1.4	1.5	●			●	
	16IR/L6ACME	6	9.525	3.52	1.7	1.9	●			●	
	22IR/L6ACME	6	12.7	4.65	1.8	2.1					
	22IR/L5ACME	5	12.7	4.65	2.0	2.3					
	27IR/L4ACME	4	15.875	6.15	2.3	2.6					

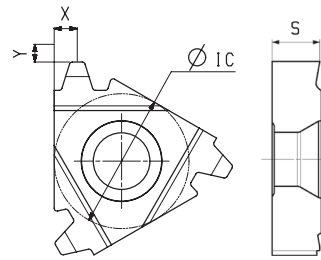
● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

螺纹车削刀片

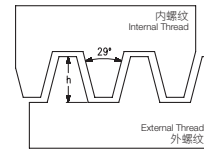
Threading Inserts

美制短齿 ACME 梯形螺纹 (外螺纹)

American Short Toothed ACME Trapezoidal Thread (External Thread)



★ 带修光刃 with wiper



刀片形状 Insert shape	刀片型号 Insert type	螺距范围 Pitch range		刀片尺寸 Insert dimension				涂层牌号 Coating grade			
		mm	TPI	IC	S	X	Y	RP9125B	RP1020	RP1120A	RP1225
	11ER/L16STACME	16	6.35	3.05	1.0	1.0					
	16ER/L16STACME	16	9.525	3.52	1.0	1.0	●			●	
	16ER/L14STACME	14	9.525	3.52	1.1	1.1	●			●	
	16ER/L12STACME	12	9.525	3.52	1.2	1.2	●			●	
	16ER/L10STACME	10	9.525	3.52	1.2	1.3	●			●	
	16ER/L8STACME	8	9.525	3.52	1.4	1.5	●			●	
	16ER/L6STACME	6	9.525	3.52	1.7	1.8	●			●	
	22ER/L6STACME	6	12.7	4.65	1.7	1.8					
	22ER/L5STACME	5	12.7	4.65	2.1	2.3					
	22ER/L4STACME	4	12.7	4.65	2.3	2.3					
	27ER/L4STACME	4	15.875	6.15	2.3	2.4					
	27ER/L3STACME	3	15.875	6.15	2.9	2.9					

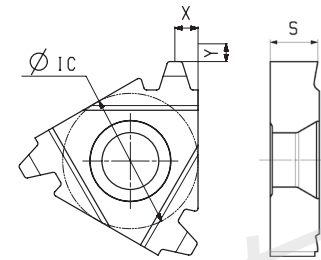
● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

螺纹车削刀片

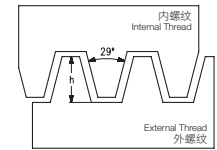
Threading Inserts

美制短齿 ACME 梯形螺纹 (内螺纹)

American Short Toothed ACME Trapezoidal Thread (Internal Thread)



★ 带修光刃 with wiper



刀片形状 Insert shape	刀片型号 Insert type	螺距范围 Pitch range		刀片尺寸 Insert dimension				涂层牌号 Coating grade			
		mm	TPI	IC	S	X	Y	RP9125B	RP1020	RP1120A	RP1225
	11IR/L16STACME	16	6.35	3.05	1.0	1.0					
	16IR/L16STACME	16	9.525	3.52	1.0	1.0	●			●	
	16IR/L14STACME	14	9.525	3.52	1.1	1.1	●			●	
	16IR/L12STACME	12	9.525	3.52	1.1	1.2	●			●	
	16IR/L10STACME	10	9.525	3.52	1.2	1.3	●			●	
	16IR/L8STACME	8	9.525	3.52	1.4	1.5	●			●	
	16IR/L6STACME	6	9.525	3.52	1.7	1.8	●			●	
	22IR/L6STACME	6	12.7	4.65	1.7	1.8					
	22IR/L5STACME	5	12.7	4.65	2.1	2.3					
	22IR/L4STACME	4	12.7	4.65	2.3	2.3					
	27IR/L4STACME	4	15.875	6.15	2.3	2.4					
	27IR/L3STACME	3	15.875	6.15	2.9	2.9					

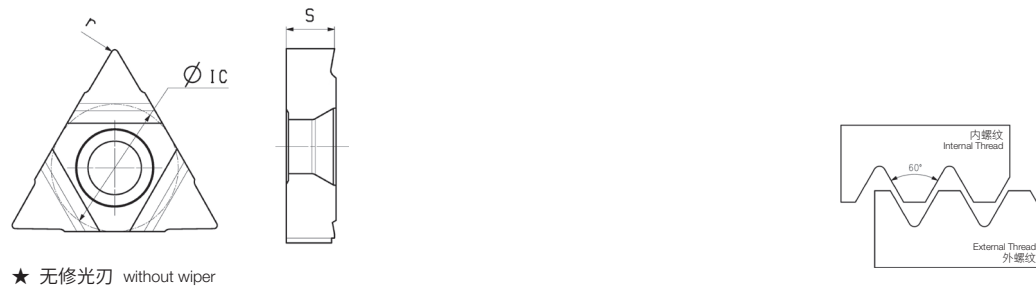
● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

螺纹加工刀片

Threading Inserts

60°深孔螺纹

60°Deep-Hole Thread



刀片形状 Insert shape	刀片型号 Insert type	螺距范围 Pitch range		刀片尺寸 Insert dimension				涂层牌号 Coating grade			
		mm	TPI	IC	S	X	Y	RP9125B	RP1020	RP1120A	RP1225
	11UIDA60	0.5-2.0	48-12	6.35	3.05		0.04	●			●
	11UIDD60	1.5-3.0	16-8	6.35	3.05		0.11	●			●
	11UIDC60	2.0-4.0	12-6	6.35	3.05		0.14	●			●
	16UIDE60	1.75-3.5	16-7	9.525	3.52		0.11	●			●
	16UIDH60	3.0-6.0	8-4	9.525	3.52		0.24	●			●
	22UIDK60	6.0-8.0	4-3	12.7	4.65						

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

螺纹加工刀片

Threading Inserts

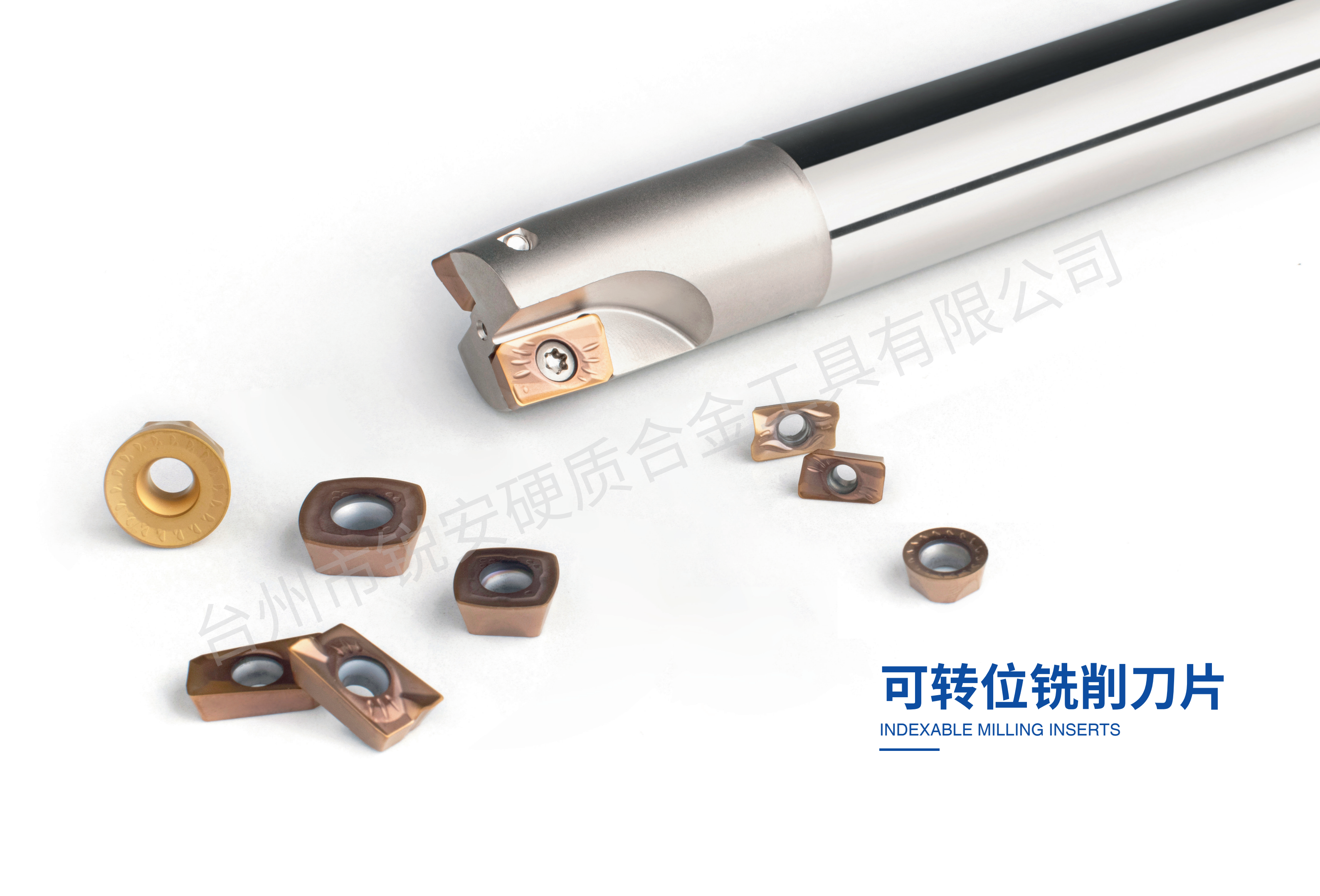
55°深孔螺纹

55°Deep-Hole Thread



刀片形状 Insert shape	刀片型号 Insert type	螺距范围 Pitch range		刀片尺寸 Insert dimension				涂层牌号 Coating grade			
		mm	TPI	IC	S	X	Y	RP9125B	RP1020	RP1120A	RP1225
	11UIDL55	1.5-3.5	28-7	6.35	3.05		0.13	●			●
	16UIDH55	3.5-6.0	14-4.5	9.525	3.52		0.25	●			●
	22UIDK55	6.0-8.5	5-3	12.7	4.65						

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock



台州市锐安硬质合金工具有限公司

可转位铣削刀片

INDEXABLE MILLING INSERTS

可转位铣削刀片命名

Indexable Milling Inserts Code Key

形状代号 Shape

A P M T 11 35 P D E R - PM

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

公差代号 Tolerance

A P **M** T 11 35 P D E R - PM

代号 Symbol	刀尖圆弧 m 公差 (mm) m (mm)	内接圆 ϕ L.C 公差 (mm) d=L.C (mm)	厚度 S 公差 (mm) S (mm)	刀尖高度公差 m (mm) Nose height tolerance (mm)							内接圆 ϕ L.C 公差 (mm) Tolerance of inscribed circle ϕ L.C (mm)						
				内接圆 Inscribed circle	正三角形 Regular triangle	正方形 Square	80°菱形 Diamond with 80°	55°菱形 Diamond with 55°	35°菱形 Diamond with 35°	内接圆 Inscribed circle	正三角形 Regular triangle	正方形 Square	80°菱形 Diamond with 80°	55°菱形 Diamond with 55°	35°菱形 Diamond with 35°	圆形 Round	
A	±0.005	±0.025	±0.025	内接圆	正三角形	正方形	80°菱形	55°菱形	35°菱形	内接圆	正三角形	正方形	80°菱形	55°菱形	35°菱形	圆形	
F	±0.005	±0.013	±0.025	6.35	±0.08	±0.08	±0.08	±0.11	±0.16	6.35	±0.05	±0.05	±0.05	±0.05	±0.05	—	
C	±0.013	±0.025	±0.025	9.525	±0.08	±0.08	±0.08	±0.11	±0.16	9.525	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05	
H	±0.013	±0.013	±0.025	12.7	±0.13	±0.13	±0.13	±0.15	—	12.7	±0.08	±0.08	±0.08	±0.08	—	±0.08	
E	±0.025	±0.025	±0.025	15.875	±0.15	±0.15	±0.15	±0.18	—	15.875	±0.10	±0.10	±0.10	±0.10	—	±0.10	
G	±0.025	±0.025	±0.13	19.05	±0.15	±0.15	±0.15	±0.18	—	19.05	±0.10	±0.10	±0.10	±0.10	—	±0.10	
J	±0.005	±0.05~±0.13	±0.025	25.4	—	±0.18	—	—	—	25.4	—	±0.13	—	—	—	±0.13	
* K	±0.013	±0.05~±0.13	±0.025														
* L	±0.025	±0.05~±0.13	±0.025														
* M	±0.08~±0.18	±0.05~±0.13	±0.13														
* N	±0.08~±0.18	±0.05~±0.13	±0.025														
U	±0.13~±0.38	±0.08~±0.25	±0.13														

*表示侧面不研磨的刀片 Indicates the inserts that is not grinded on the side

断屑槽及孔型代号 Chipbreaker and hole

A P M **T** 11 35 P D E R - PM

B	W	N	H	T	R
C	Q	F	J	U	A
M	G	X			

可转位铣削刀片命名

Indexable Milling Inserts Code Key

切削刃长度代号 Length of cutting edge

A P M T **11** 35 P D E R - PM

内接圆 Inscribed circle (mm)	C	D	R	S	T	V	W
3.97	03	04		03	06		02
5.00			05				
5.56	05	06		05	09	09	03
6.00			06				
6.35	06	07		06	11	11	04
8.00			10				
9.525	09	11	09	09	16	16	06
10.00			10				
12.00			12				
12.70	12	15	12	12	22	22	08
15.875	16	19	15	15	27		10
16.00			16				
19.05	19		19	19	33		13
20.00			20				
25.00	25	25	25				
25.40			25	25	44		
31.75	32		31	31	54		
32.00			32				

刀片厚度代号 Insert thickness

A P M T 11 **35** P D E R - PM

代号 Symbol	刀片厚度 (mm) Insert thickness (mm)
01	1.59
T1	1.98
02	2.38
T2	2.78
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

厚度指刀片底面与切削刃最高部分之间的高度
Thickness is defined as the height from the bottom of insert to the highest part of cutting edge

主偏角代号 Approach angle

A P M T 11 35 **P** D E R - PM

代号 Symbol	主偏角 Approach angle
A	45°
D	60°
E	75°
F	85°
P	90°
Z	其他 Other

修光刃后角代号 Wiper clearance angle

A P M T 11 35 P **D** E R - PM

代号 Symbol	后角 Clearance angle
A	3°
B	5°
C	7°
D	15°
E	20°
F	25°
G	30°
N	0°
P	11°
Z	其他 Other

刃口类型代号 Cutting edge type

A P M T 11 35 P D **E** R - PM

代号 Symbol	刃口类型 Cutting edge type
E	倒圆 Fillet
F	锋利 Sharp
T	倒棱 Chamfer
S	复合型 Composite

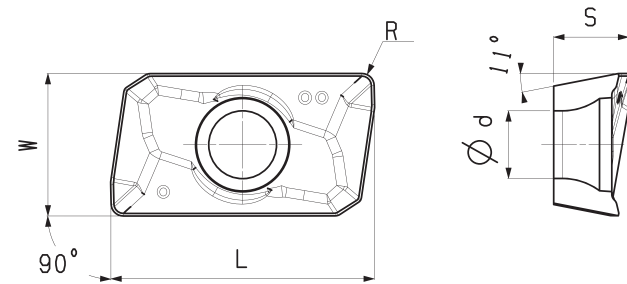
切削方向代号 Cutting direction


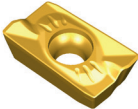

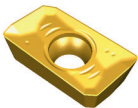
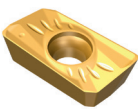
A P M T 11 35 P D E **R** - PM

代号 Symbol	方向 Cutting direction
L	左手 Left hand
R	右手 Right hand
N	双向 Neutral

可转位铣削刀片

Indexable Milling Inserts

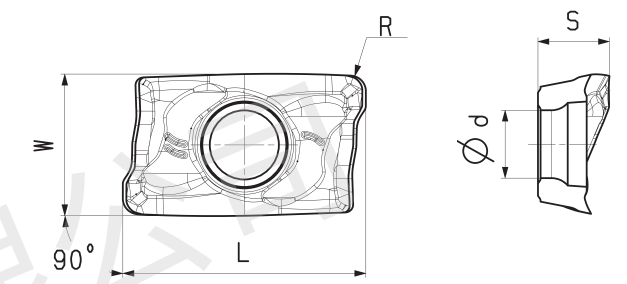


刀片形状 Insert shape	刀片型号 Insert type	基础尺寸 Basic dimension (mm)					涂层牌号 Coating grade				
		L	W	S	φ d	R	RP9025	RP9125B	RP1020	RP1120A	RP1225
 半精铣 Semi-finish milling	APKT100304-PM	12.24	6.5	3.6	2.8	0.4					
	APKT100308-PM	12.24	6.5	3.6	2.8	0.8	●			●	
	APKT160408-PM	17.877	9.33	5.76	4.4	0.8	●			●	
 半精铣 Semi-finish milling	APMT1135PDER-KA	11.35	6.2	3.5	2.8	0.8	●			●	
	APMT1604PDER-KA	17.35	9.3	5.26	4.4	0.8	●			●	
 半精铣 Semi-finish milling	APMT 1135PDER-QM	11.3	6.2	3.5	2.8	0.8	●			●	
	APMT 1604PDER-QM	17.2	9.3	4.76	4.4	0.8	●			●	
	APMT 1605PDER-QM	17.35	9.3	5.26	4.4	0.8	●			●	
 半精铣 Semi-finish milling	APMT1135PDER-PM	11.25	6.2	3.5	2.8	0.8	●			●	
	APMT160408PDER-PM	17.25	9.2	4.76	4.4	0.8	●			●	
 粗硬铣 Rough hard milling	APMT1135PDER-PR	11.25	6.2	3.5	2.8	0.8	●			●	
	APMT160408PDER-PR	17.25	9.2	4.76	4.4	0.8	●			●	

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

可转位铣削刀片

Indexable Milling Inserts

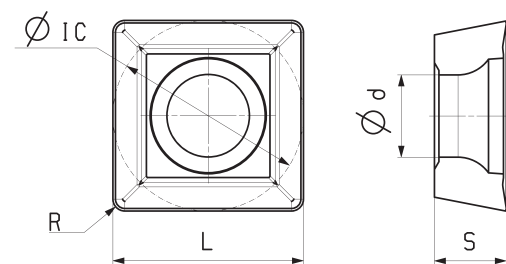



刀片形状 Insert shape	刀片型号 Insert type	基础尺寸 Basic dimension (mm)					涂层牌号 Coating grade				
		L	W	S	φ d	R	RP9025	RP9125B	RP1020	RP1120A	RP1225
 精/半精铣 Finish/Semi-finish milling	AXMT123508PEER-XM	11.96	7	3.58	3.4	0.8		●			●
 精/半精铣 Finish/Semi-finish milling	AXMT123508PEER-PM	11.96	7	3.58	3.4	0.8		●			●

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

可转位铣削刀片

Indexable Milling Inserts



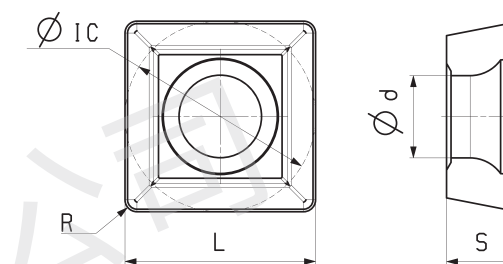
刀片形状 Insert shape	刀片型号 Insert type	基础尺寸 Basic dimension (mm)					涂层牌号 Coating grade				
		L	W	S	ø d	R	RP9025	RP9125B	RP1020	RP1120A	RP1225
	SEET12T3-GM	13.4	13.4	3.97	4.1	2.55	●				●
	SEET12T3-TM	13.4	13.4	3.97	4.1	2.55	●			●	
	SEET12T3-KM	13.4	13.4	3.97	4.1	2.55					

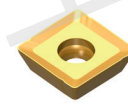
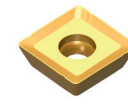
半精铣
Semi-finish milling

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

可转位铣削刀片

Indexable Milling Inserts



刀片形状 Insert shape	刀片型号 Insert type	基础尺寸 Basic dimension (mm)					涂层牌号 Coating grade				
		L	IC	S	ø d	R	RP9025	RP9125B	RP1020	RP1120A	RP1225
	SEMT09T308PER-PM	9.525	9.525	4.01	3.3	0.8					
	SEMT120308PER-PM	13.308	13.308	4.04	4.1	0.8		●			●
	SEMT09T308PDER-PR	9.525	9.525	4.01	3.3	0.8					
	SEMT120308PDER-PR	13.308	13.308	4.04	4.1	0.8		●			●

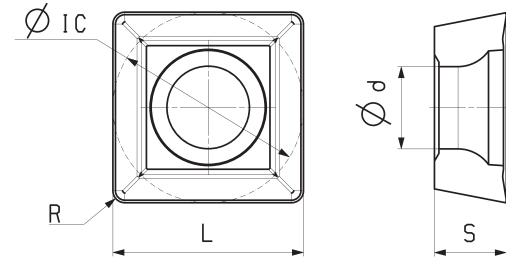
半精铣
Semi-finish milling

粗硬铣
Rough hard milling

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

可转位铣削刀片

Indexable Milling Inserts

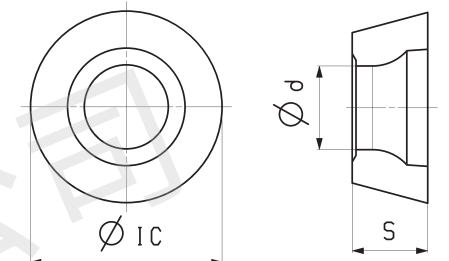







刀片形状 Insert shape	刀片型号 Insert type	基础尺寸 Basic dimension (mm)					涂层牌号 Coating grade				
		L	IC	S	φd	R	RP9025	RP9125B	RP1020	RP1120A	RP1225
 半精铣 Semi-finish milling	SPMT120408-PM	12.7	12.7	4.76	5.5	0.8		●			●
	SPMT120408-KM	12.7	12.7	4.76	5.5	0.8		●			●

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

可转位铣削刀片

Indexable Milling Inserts

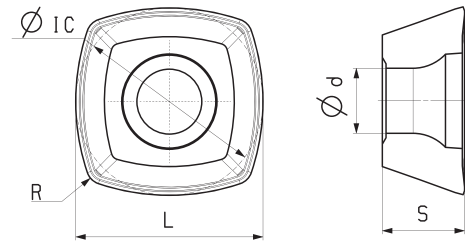


刀片形状 Insert shape	刀片型号 Insert type	基础尺寸 Basic dimension (mm)					涂层牌号 Coating grade				
		L	IC	S	φd	R	RP9025	RP9125B	RP1020	RP1120A	RP1225
 通用 General	RPMW08T2MO	8.0	2.78	3.5							
	RPMW1003MO	10.0	3.18	4.4				●			●
	RPMW1204MO	12.0	4.76	4.4				●			●
 粗/半精铣 Rough/Semi-finish milling	RPMT08T2MO-GM	8.0	2.78	3.5							
	RPMT10T3MO-GM	10.0	3.97	4.4				●			●
	RPMT1204MO-GM	12.0	4.76	4.4				●			●
 通用 General	RDKW0803MO	8.0	3.18	3.4							
	RDKW10T3MO	10.0	3.97	4.4				●			●
	RDKW1204MO	12.0	4.76	4.4				●			●
	RDKW1604MO	16.0	4.76	5.5				●			●
	RDKW1605MO	16.0	5.56	5.5				●			●
	RDKW1606MO	16.0	6.35	5.5				●			●
 半精铣 Semi-finish milling	RDKW2006MO	20.0	6.35	6.5							
	RCKT10T3MO-PM	10.0	3.97	4.4				●			●
	RCKT1204MO-PM	12.0	4.76	4.0							
 粗铣 Rough milling	RCKT1606MO-PM	16.0	6.35	5.56							
	RCKT2006MO-PR	20.0	6.35	6.55							
	RCKT1204MO-MR	12.0	4.76	4.0				●			●
 不锈钢粗铣 Stainless steel rough milling	RCKT1606MO-MR	16.0	6.35	5.56							
	RCKT2006MO-MR	20.0	6.35	6.55							

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

可转位铣削刀片

Indexable Milling Inserts

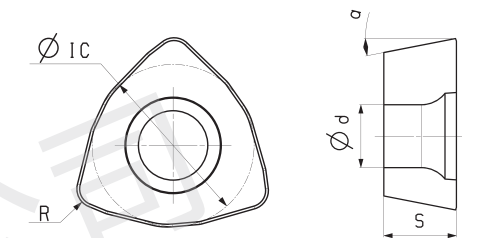


刀片形状 Insert shape	刀片型号 Insert type	基础尺寸 Basic dimension (mm)					涂层牌号 Coating grade				
		L	IC	S	φd	R	RP9025	RP9125B	RP1020	RP1120A	RP1225
	SDMT120512-HR	12.7	12.7	5.56	4.4	1.2	●				●
	SDMT150512-HR	15.875	15.875	5.56	5.5	1.2	●				●
大进给 High feed rate											
	SDMT06T208-HH	6.35	6.35	2.58	2.5	0.8					
	SDMT09T312-HH	9.525	9.525	3.97	4.0	1.2					
	SDMT120412-HH	12.7	12.7	4.76	4.4	1.2					●
	SDMT150520-HH	15.875	15.875	5.56	5.5	2.0					●

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

可转位铣削刀片

Indexable Milling Inserts

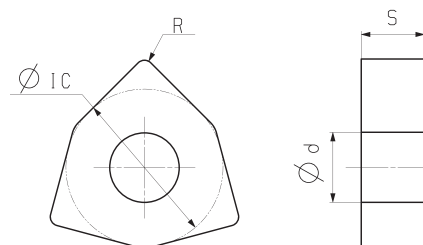


刀片形状 Insert shape	刀片型号 Insert type	基础尺寸 Basic dimension (mm)					涂层牌号 Coating grade				
		IC	S	φd	R	a	RP9025	RP9125B	RP1020	RP1120A	RP1225
	WPMT050315R-HR	7.94	3.5	4.0	1.5	11°					
	WPMT060415R-HR	9.525	4.2	4.4	1.5	11°		●			●
	WPMT080615R-HR	12.85	6.35	5.5	1.5	11°		●			●
	WPMT090725R-HR	15	7	5.5	2.5	11°					
大进给 High feed rate											
	WDMW080520ZTR-HH	13	5.5	5	2.0	15°		●			●

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock


可转位铣削刀片

Indexable Milling Inserts



可转位浅孔钻刀片

INDEXABLE SHALLOW DRILLING INSERTS

刀片形状 Insert shape	刀片型号 Insert type	基础尺寸 Basic dimension (mm)					涂层牌号 Coating grade				
		L	IC	S	ϕd	R	RP9025	RP9125B	RP1020	RP1120A	RP1225
 半精铣 Semi-finish milling	WNMU050408EN-GM	8.8	4.2	3.4	0.8		●				●
	WNMU080608EN-GM	13.85	8.35	6.2	0.8		●				●

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock



可转位浅孔钻刀片命名规则

Indexable Shallow Drilling Inserts Code Key

形状代号 Shape

S P M T 09 04 08 - TG

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

后角代号 Clearance angle

S P M T 09 04 08 - TG

A		F	
B		G	
C		N	
D		P	
E		O	其他 Other

公差代号 Tolerance

S P M T 09 04 08 - TG

代号 Symbol	刀尖高度 m 公差 (mm) m (mm)	内接圆 ϕ L.C 公差 (mm) d=L.C (mm)	厚度 S 公差 (mm) S (mm)	刀尖高度公差 m (mm) Nose height tolerance (mm)									内接圆 ϕ L.C 公差 (mm) Tolerance of inscribed circle ϕ L.C (mm)								
				内接圆 Inscribed circle	正三角形 Regular triangle	正方形 Square	80°菱形 Diamond with 80°	55°菱形 Diamond with 55°	35°菱形 Diamond with 35°	内接圆 Inscribed circle	正三角形 Regular triangle	正方形 Square	80°菱形 Diamond with 80°	55°菱形 Diamond with 55°	35°菱形 Diamond with 35°	圆形 Round					
A	±0.005	±0.025	±0.025	内接圆	正三角形	正方形	80°菱形	55°菱形	35°菱形	内接圆	正三角形	正方形	80°菱形	55°菱形	35°菱形	圆形					
F	±0.005	±0.013	±0.025	6.35	±0.08	±0.08	±0.08	±0.11	±0.16	6.35	±0.05	±0.05	±0.05	±0.05	±0.05	—					
C	±0.013	±0.025	±0.025	9.525	±0.08	±0.08	±0.08	±0.11	±0.16	9.525	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05					
H	±0.013	±0.013	±0.025	12.7	±0.13	±0.13	±0.13	±0.15	—	12.7	±0.08	±0.08	±0.08	±0.08	—	±0.08					
E	±0.025	±0.025	±0.025	15.875	±0.15	±0.15	±0.15	±0.18	—	15.875	±0.10	±0.10	±0.10	±0.10	—	±0.10					
G	±0.025	±0.025	±0.13	19.05	±0.15	±0.15	±0.15	±0.18	—	19.05	±0.10	±0.10	±0.10	±0.10	—	±0.10					
J	±0.005	±0.05-±0.13	±0.025	25.4	—	±0.18	—	—	—	25.4	—	±0.13	—	—	—	±0.13					
*K	±0.013	±0.05-±0.13	±0.025																		
*L	±0.025	±0.05-±0.13	±0.025																		
*M	±0.08-±0.18	±0.05-±0.13	±0.13																		
*N	±0.08-±0.18	±0.05-±0.13	±0.025																		
U	±0.13-±0.38	±0.08-±0.25	±0.13																		

* 表示侧面不研磨的刀片 Indicates the inserts that is not grinded on the side

断屑槽及孔型代号 Chipbreaker and hole

S P M T 09 04 08 - TG

B		W		N		H		T		R	
C		Q		F		J		U		A	
M		G		X	特殊 Special						

可转位浅孔钻刀片命名规则

Indexable Shallow Drilling Inserts Code Key

切削刃长度代号 Length of cutting edge

S P M T 09 04 08 - TG

代号 Symbol	刃长 Length of cutting edge	
	W	S
03	3.8	
04	4.3	
05	5.4	5.0
06	6.5	6.0
07		7.94
08	8.7	
09		9.8
11		11.5

刀尖圆弧半径代号 Nose radius

S P M T 09 04 08 -TG

代号 Symbol	圆弧半径 Nose radius
04	0.4mm
08	0.8mm
12	1.2mm

刀片厚度代号 Insert thickness

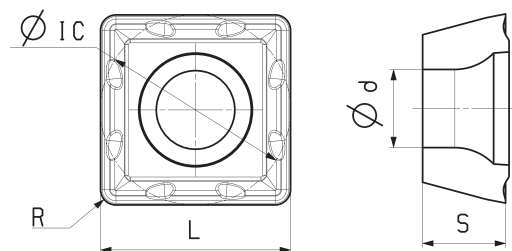
S P M T 09 04 08 - TG

代号 Symbol	刀片厚度 Insert thickness (mm)
01	1.59
T1	1.98
02	2.38
T2	2.78
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

厚度指刀片底面与切削刃最高部分之间的高度
Thickness is defined as the height from the bottom of insert to the highest part of cutting edge

可转位浅孔钻刀片

Indexable Shallow Drilling Inserts

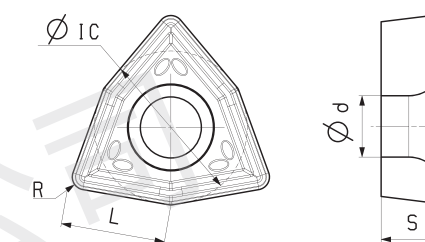


刀片形状 Insert shape	刀片型号 Insert type	基础尺寸 Basic dimension (mm)					涂层牌号 Coating grade		
		L	IC	S	ϕd	R	RP9125B	RP9125C	RP1020
	SPMT050204-TG	5	5	2.38	2.2	0.4	●		
	SPMT060204-TG	6	6	2.38	2.6	0.4	●		
	SPMT07T308-TG	7.94	7.94	3.97	2.8	0.8	●		
	SPMT090408-TG	9.8	9.8	4.3	4.1	0.8	●		
	SPMT110408-TG	11.5	11.5	4.76	4.4	0.8	●		
	SPMT120408-TG	12.7	12.7	4.76	4.4	0.8	●		
	SPMT140512-TG	14.3	14.3	5.2	5.75	1.2	●		

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

可转位浅孔钻刀片

Indexable Shallow Drilling Inserts

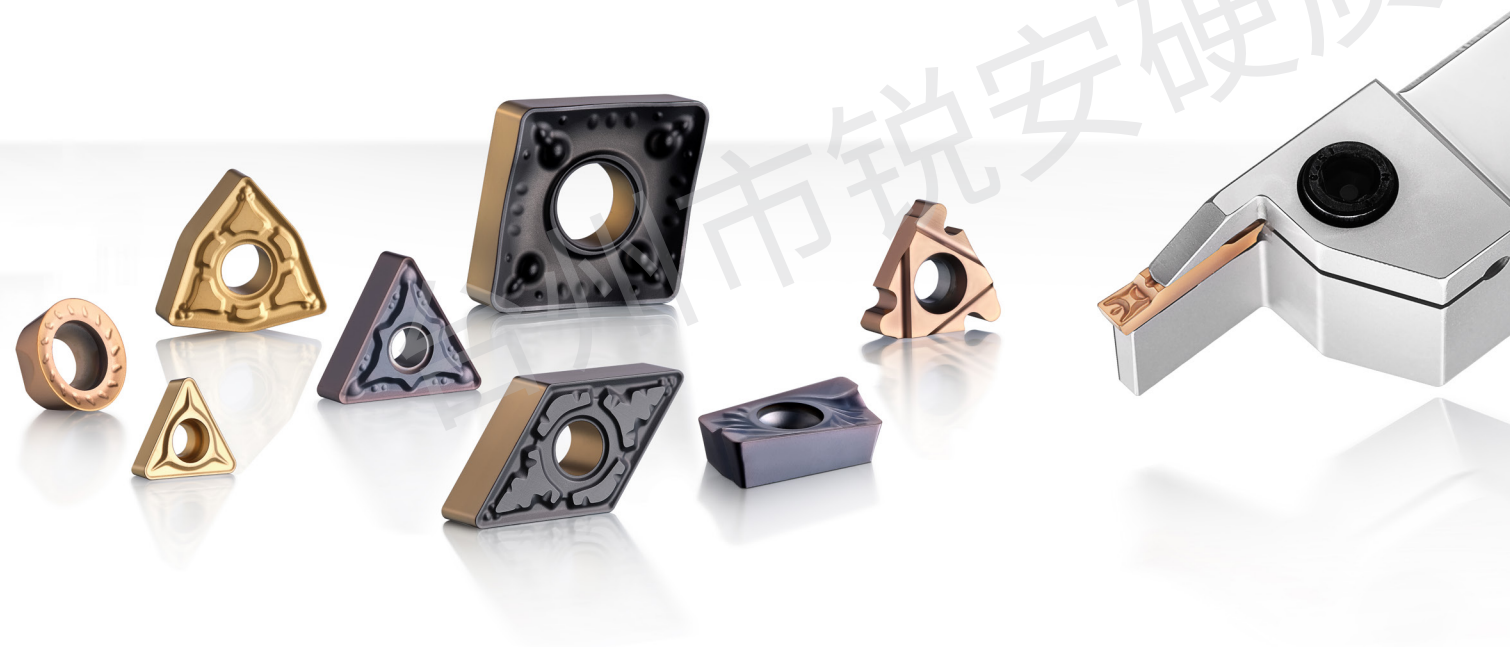


刀片形状 Insert shape	刀片型号 Insert type	基础尺寸 Basic dimension (mm)					涂层牌号 Coating grade		
		L	IC	S	ϕd	R	RP9125B	RP9125C	RP1020
	WCMT030208	3.8	5.56	2.38	2.8	0.8	●		
	WCMT040208	4.3	6.35	2.38	3.1	0.8	●		
	WCMT050308	5.4	7.94	3.18	3.2	0.8	●		
	WCMT06T308	6.5	9.525	3.97	3.7	0.8	●		
	WCMT080412	8.7	12.7	4.76	4.3	1.2	●		

● 常备库存 (主推) Standing stock (recommend) ○ 非常备库存 Extraordinary stock

通用技术资料

GENERAL TECHNICAL DATA

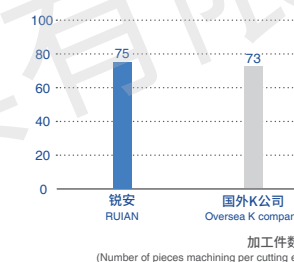
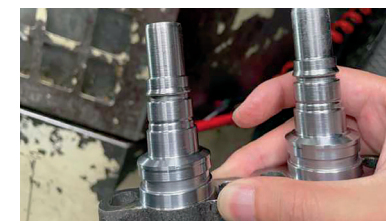


加工案例 — 钢件

Cutting Application Cases - Steel

精车外圆——细长轴

Finish turning of external —— Slender Shaft



刀片型号:
DNMG150404-PF RC6215
被加工材料:
20CrMo
加工方式:
连续加工
冷却方式:
乳化液
切削参数:
Vc=150m/min f=0.2mm/r ap=0.25mm

Insert Type:
DNMG150404-PF RC6215

Workpiece Material:
20CrMo

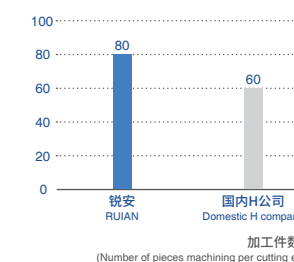
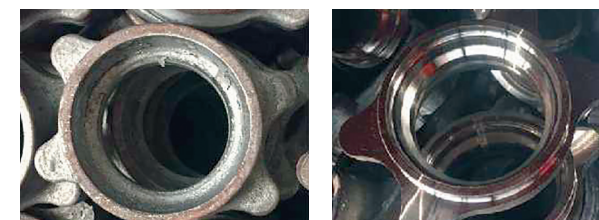
Machining Method:
Continuous machining

Cooling Method:
Emulsion

Cutting Parameter:
Vc=150m/min f=0.2mm/r ap=0.25mm

半精车外圆 / 端面——汽车轮毂轴承座

Semi-finish turning of external and end face —— Automobile Hub Bearing Seat



刀片型号:
WNMG080408-GM RC6225
被加工材料:
55#钢
加工方式:
连续、断续加工
冷却方式:
乳化液
切削参数:
Vc=220m/min f=0.25mm/r ap=1.0mm

Insert Type:
WNMG080408-GM RC6225

Workpiece Material:
Steel 55#

Machining Method:
Continuous and intermittent machining

Cooling Method:
Emulsion

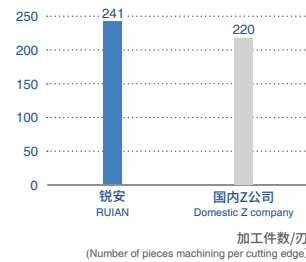
Cutting Parameter:
Vc=220m/min f=0.25mm/r ap=1.0mm

加工案例 — 钢件

Cutting Application Cases - Steel

车外圆——齿轮件

Turning of external —— Gear Parts

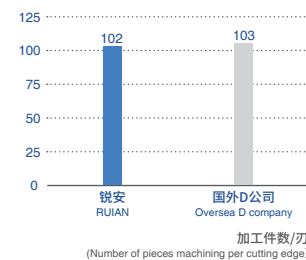


刀片型号:
TNMG160408R-S RC6125
被加工材料:
20CrMnTi
加工方式:
连续加工
冷却方式:
乳化液
切削参数:
Vc=190m/min f=0.25mm/r ap=1.5mm

Insert Type:
TNMG160408R-S RC6125
Workpiece Material:
20CrMnTi
Machining Method:
Continuous machining
Cooling Method:
Emulsion
Cutting Parameter:
Vc=190m/min f=0.25mm/r ap=1.5mm

半精车端面、外圆——托架

Semi-finish turning of end face and external —— Bracket



刀片型号:
WNMG080408-GM RC6225
被加工材料:
42CrMo
加工方式:
连续加工
冷却方式:
乳化液
切削参数:
Vc=300m/min f=0.26mm/r ap=1.5mm

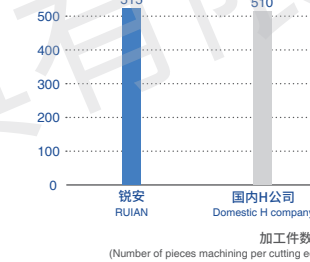
Insert Type:
WNMG080408-GM RC6225
Workpiece Material:
42CrMo
Machining Method:
Continuous machining
Cooling Method:
Emulsion
Cutting Parameter:
Vc=300m/min f=0.26mm/r ap=1.5mm

加工案例 — 不锈钢

Cutting Application Cases - Stainless Steel

半精车端面——法兰盘

Semi-finish turning of end face —— Flange Plate

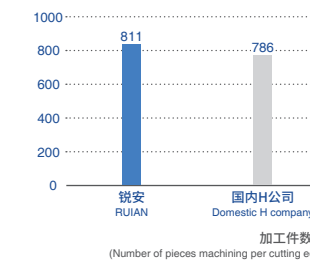


刀片型号:
WNMG080408-TF RP1225
被加工材料:
SUS316不锈钢
加工方式:
连续加工
冷却方式:
乳化液
切削参数:
Vc=176m/min f=0.11mm/r ap=0.2mm

Insert Type:
WNMG080408-TF RP1225
Workpiece Material:
SUS316 stainless steel
Machining Method:
Continuous machining
Cooling Method:
Emulsion
Cutting Parameter:
Vc=176m/min f=0.11mm/r ap=0.2mm

半精车外圆——水暖接头

Semi-finish turning of external —— Plumbing Joint



刀片型号:
TNMG160408-TG RP1020
被加工材料:
SUS304不锈钢
加工方式:
连续加工
冷却方式:
乳化液
切削参数:
Vc=131m/min f=0.15mm/r ap=0.3mm

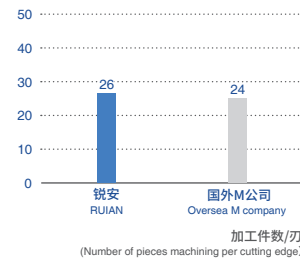
Insert Type:
TNMG160408-TG RP1020
Workpiece Material:
SUS304 stainless steel
Machining Method:
Continuous machining
Cooling Method:
Emulsion
Cutting Parameter:
Vc=131m/min f=0.15mm/r ap=0.3mm

加工案例 — 不锈钢

Cutting Application Cases - Stainless Steel

半精车端面——法兰盘

Semi-finish turning of end face —— Flange Plate

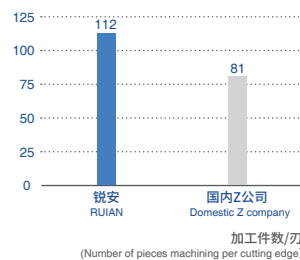
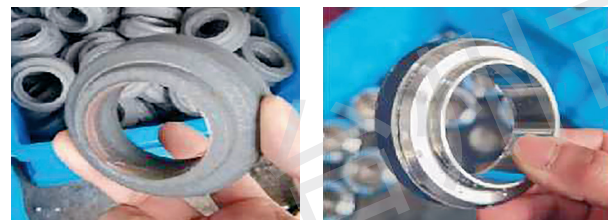


刀片型号:
WNMG080412-TM RP1225
被加工材料:
SUS201不锈钢
加工方式:
连续、断续加工
冷却方式:
乳化液
切削参数:
Vc=150m/min f=0.18mm/r ap=1.0mm

Insert Type:
WNMG080412-TM RP1225
Workpiece Material:
SUS201 stainless steel
Machining Method:
Continuous and intermittent machining
Cooling Method:
Emulsion
Cutting Parameter:
Vc=150m/min f=0.18mm/r ap=1.0mm

半精车外圆——流体接头

Semi-finish turning of external —— Fluid Joint



刀片型号:
WNMG080412-AMP RP9125B
被加工材料:
SUS304不锈钢
加工方式:
连续加工
冷却方式:
乳化液
切削参数:
Vc=180m/min f=0.2mm/r ap=1.5mm

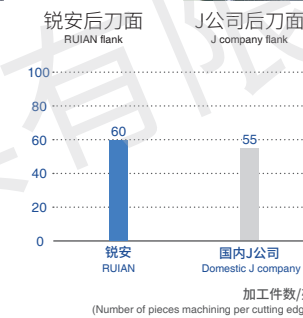
Insert Type:
WNMG080412-AMP RP9125B
Workpiece Material:
SUS304 stainless steel
Machining Method:
Continuous machining
Cooling Method:
Emulsion
Cutting Parameter:
Vc=180m/min f=0.2mm/r ap=1.5mm

加工案例 — 铸铁

Cutting Application Cases - Cast Iron

粗车外圆、端面——法兰

Rough turning of external and end face —— Flange



刀片型号:
WNMG080412 RC8315A
被加工材料:
HT450
加工方式:
连续、断续加工
冷却方式:
干式加工
切削参数:
Vc=520m/min f=0.3mm/r ap=1.5mm

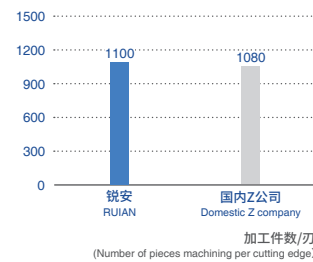
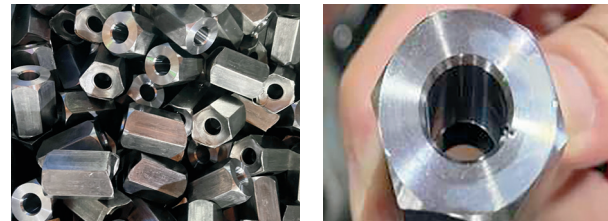
Insert Type:
WNMG080412 RC8315A
Workpiece Material:
HT450
Machining Method:
Continuous and intermittent machining
Cooling Method:
Dry machining
Cutting Parameter:
Vc=520m/min f=0.3mm/r ap=1.5mm

加工案例 — 正角刀片

Cutting Application Cases - Positive Inserts

镗孔 — 五金件

Boring — Hardware

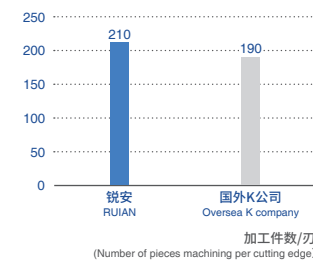


刀片型号:
CCMT060204 RC6315
被加工材料:
35#钢
加工方式:
连续加工
冷却方式:
乳化液
切削参数:
Vc=102m/min f=0.26mm/r ap=1.0mm

Insert Type:
CCMT060204 RC6315
Workpiece Material:
Steel 35#
Machining Method:
Continuous machining
Cooling Method:
Emulsion
Cutting Parameter:
Vc=102m/min f=0.26mm/r ap=1.0mm

镗孔 — 角阀

Boring — Angle Valve



刀片型号:
TCMT110204 RP9125B
被加工材料:
SUS304不锈钢
加工方式:
连续加工
冷却方式:
乳化液
切削参数:
Vc=118m/min f=0.22mm/r ap=0.8mm

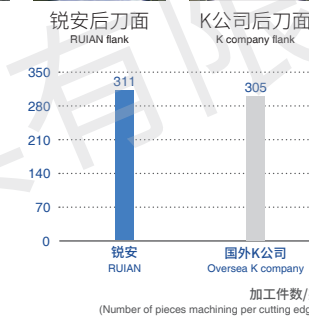
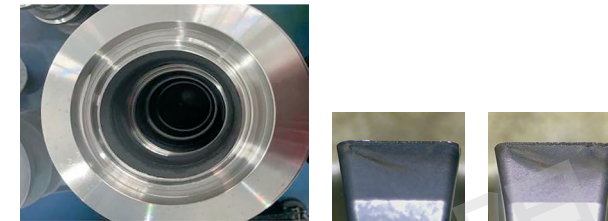
Insert Type:
TCMT110204 RP9125B
Workpiece Material:
SUS304 stainless steel
Machining Method:
Continuous machining
Cooling Method:
Emulsion
Cutting Parameter:
Vc=118m/min f=0.22mm/r ap=0.8mm

加工案例 — 槽刀

Cutting Application Cases - Grooving Inserts

端面切槽 — 法兰盘

End surface grooving — Flange Plate

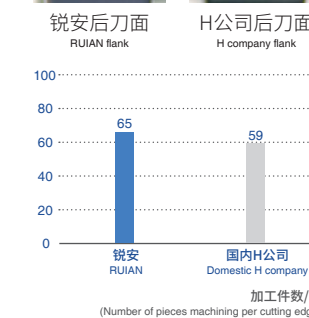


刀片型号:
MGMN300-TM RP9125C
被加工材料:
SUS316不锈钢
连续加工:
连续切槽
冷却方式:
乳化液
切削参数:
Vc=180m/min f=0.04mm/r

Insert Type:
MGMN300-TM RP9125C
Workpiece Material:
SUS316 stainless steel
Machining Method:
Continuous grooving
Cooling Method:
Emulsion
Cutting Parameter:
Vc=180m/min f=0.04mm/r

外径切槽 — 安全气囊零件

External grooving — Air Bag Components



刀片型号:
MGMN400-M RP9125C
被加工材料:
SUS304不锈钢
加工方式:
连续切槽
冷却方式:
乳化液
切削参数:
Vc=150m/min f=0.04mm/r ap=1.6mm

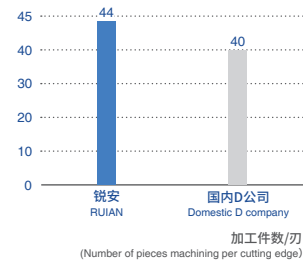
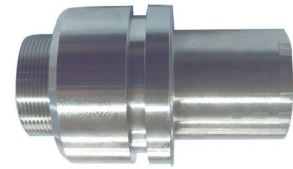
Insert Type:
MGMN400-M RP9125C
Workpiece Material:
SUS304 stainless steel
Machining Method:
Continuous grooving
Cooling Method:
Emulsion
Cutting Parameter:
Vc=150m/min f=0.04mm/r ap=1.6mm

加工案例 — 槽刀

Cutting Application Cases - Grooving Inserts

浅槽加工——液压阀体零件

Shallow groove machining — Hydraulic Valve Body Components

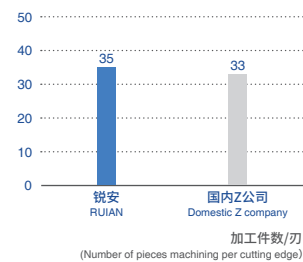


刀片型号:
TGF32R280-015 RP9125C
被加工材料:
SUS201不锈钢
加工方式:
连续切槽
冷却方式:
乳化液
切削参数:
Vc=90m/min f=0.07mm/r ap=2.5mm

Insert Type:
TGF32R280-015 RP9125C
Workpiece Material:
SUS201stainless steel
Machining Method:
Continuous grooving
Cooling Method:
Emulsion
Cutting Parameter:
Vc=90m/min f=0.07mm/r ap=2.5mm

浅槽加工——卡簧槽

Shallow groove machining — Circlip Groove



刀片型号:
GBA43R300-030 RP9125C
被加工材料:
40Cr合金结构钢
加工方式:
连续切槽
冷却方式:
乳化液
切削参数:
Vc=100m/min f=0.06mm/r ap=3mm

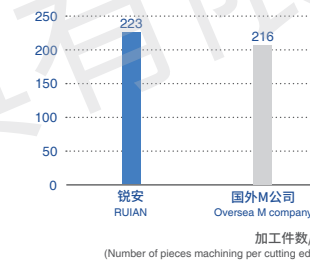
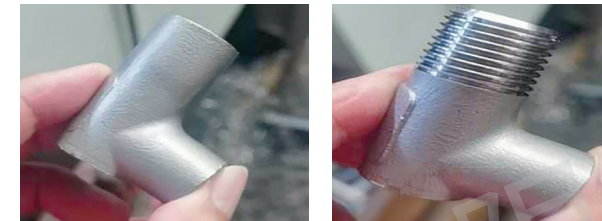
Insert Type:
GBA43R300-030 RP9125C
Workpiece Material:
40Cr alloy structure steel
Machining Method:
Continuous grooving
Cooling Method:
Emulsion
Cutting Parameter:
Vc=100m/min f=0.06mm/r ap=3mm

加工案例 — 螺纹刀

Cutting Application Cases - Threading Inserts

外螺纹车削——角阀 (浇铸件)

External threading — Angle Valve (Castings)

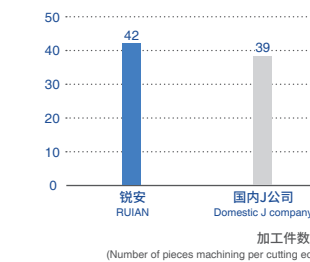


刀片型号:
16ER14WA RP1125
被加工材料:
SUS304不锈钢
切削参数:
Vc=85m/min
走刀次数:
7次

Insert Type:
16ER14WA RP1125
Workpiece Material:
SUS304 stainless steel
Cutting Parameter:
Vc=85m/min
Feeding Times:
7次

外螺纹车削——阀门件

External threading — Valve Parts



刀片型号:
16ER11BSPTA RP1020
被加工材料:
SUS316不锈钢
切削参数:
Vc=170m/min
走刀次数:
19次

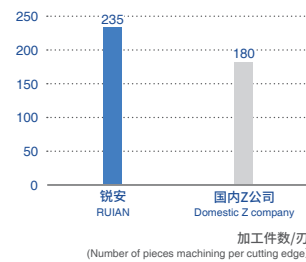
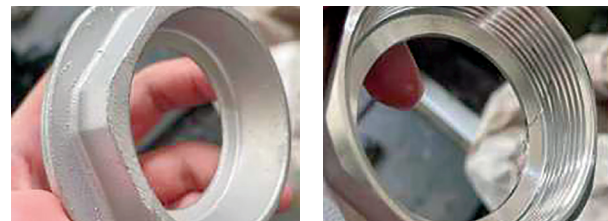
Insert Type:
16ER11BSPTA RP1020
Workpiece Material:
SUS316 stainless steel
Cutting Parameter:
Vc=170m/min
Feeding Times:
19次

加工案例 — 螺纹刀

Cutting Application Cases - Threading Inserts

内螺纹车削——接头

Internal threading —— Joint

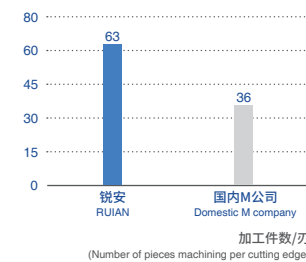
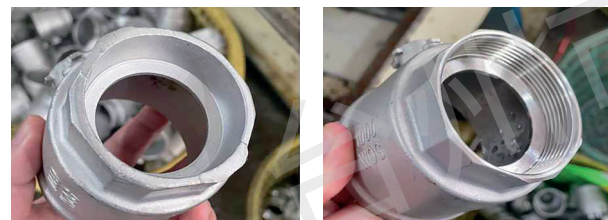


刀片型号:
16IR11WA RP1225
被加工材料:
SUS201不锈钢
切削参数:
Vc=100m/min
走刀次数:
17次

Insert Type:
16IR11WA RP1225
Workpiece Material:
SUS201 stainless steel
Cutting Parameter:
Vc=100m/min
Feeding Times:
17次

内螺纹车削——球阀

Internal threading —— Ball Valve



刀片型号:
16IR11WA RP1225
被加工材料:
SUS201不锈钢
切削参数:
Vc=115m/min
走刀次数:
17次

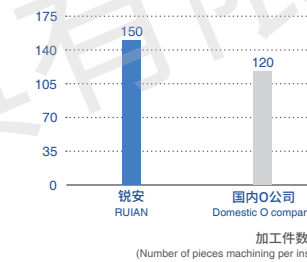
Insert Type:
16IR11WA RP1225
Workpiece Material:
SUS201 stainless steel
Cutting Parameter:
Vc=115m/min
Feeding Times:
17次

加工案例 — 铣刀

Cutting Application Cases - Milling Inserts

模具型腔铣

Mould cavity milling

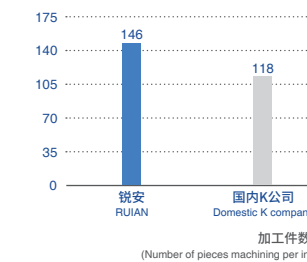


刀片型号:
RDKW1204MO RP9025
被加工材料:
P20模具钢
冷却方式:
压缩空气
切削参数:
Vc=120m/min fz=1mm/z ap=0.6mm

Insert Type:
RDKW1204MO RP9025
Workpiece Material:
P20 mould steel
Cooling Method:
Compressed air
Cutting Parameter:
Vc=120m/min fz=1mm/z ap=0.6mm

平面铣

Planar milling



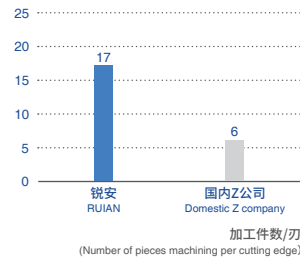
刀片型号:
APMT1135PDER-QM RP9025
被加工材料:
45#钢
冷却方式:
压缩空气
切削参数:
Vc=140m/min fz=0.4mm/z ap=0.5mm

Insert Type:
APMT1135PDER-QM RP9025
Workpiece Material:
45# steel
Cooling Method:
Compressed air
Cutting Parameter:
Vc=140m/min fz=0.4mm/z ap=0.5mm

加工案例 — 钻刀

Cutting Application Cases - Drilling Inserts

钻孔 — 液压卡盘 Drilling — Hydraulic Chuck



刀片型号:
SPMT07T308-TG RP9125C
被加工材料:
40CrMo
加工方式:
连续加工
切削参数:
Vc=120m/min fz=0.13mm/z

Insert Type:
SPMT07T308-TG RP9125C
Workpiece Material:
40CrMo
Machining Method:
Continuous machining
Cutting Parameter:
Vc=120m/min fz=0.13mm/z

钢的硬度换算表

Hardness Conversion Table of Steel

维氏硬度 Vickers Hardness HV	布氏硬度HB Brinell Hardness		洛氏硬度 Rockwell Hardness			肖氏 硬度 Shore Hardness HS	强度 Strength Mpa
	标准球 Standard Ball	碳化钨球 Tungsten Cobalt Ball	A标准 A Scale HRA	B标准 B Scale HRB	C标准 C Scale HRC		
940			85.6		68.0	97	
920			85.3		67.5	96	
900			85.0		67.0	95	
880		(767)	84.7		66.4	93	
860		(757)	84.4		65.9	92	
840		(745)	84.1		65.3	91	
820		(733)	83.8		64.7	90	
800		(722)	83.4		64.0	88	
780		(710)	83.0		63.3	87	
760		(698)	82.6		62.5	86	
740		(684)	82.2		61.8	84	
720		(670)	81.8		61.0	83	
700		(656)	81.3		60.1	81	
690		(647)	81.1		59.7		
680		(638)	80.8		59.2	80	
670		630	80.6		58.8		
660		620	80.3		58.3	79	
650		611	80.0		57.8		
640		601	79.8		57.3	77	
630		591	79.5		56.8		
620		582	79.2		56.3	75	
610		573	78.9		55.7		
600		564	78.6		55.2	74	
590		554	78.6		54.7		2055
580		545	78.0		54.1	72	2020
570		535	77.8		53.6		1985
560		525	77.4		53.0	71	1950
550	505	517	77.0		52.3		1905
540	496	507	76.7		51.7	69	1860
530	488	497	76.4		51.1		1825
520	480	488	76.1		50.5	67	1795
510	473	479	75.7		49.8		1750
500	465	471	75.3		49.1	66	1705
490	456	460	74.9		48.4		1660
480	448	425	74.5		47.7	64	1620
470	441	442	74.1		46.9		1570
460	433	433	73.6		46.1	62	1530
450	425	425	73.3		45.3		1495
440	415	415	72.8		44.5	59	1460
430	405	405	72.3		43.6		1410
420	397	397	71.8		42.7	57	1370

维氏硬度 Vickers Hardness HV	布氏硬度HB Brinell Hardness		洛氏硬度 Rockwell Hardness			肖氏 硬度 Shore Hardness HS	强度 Strength Mpa
	标准球 Standard Ball	碳化钨球 Tungsten Cobalt Ball	A标准 A Scale HRA	B标准 B Scale HRB	C标准 C Scale HRC		
410	388	388	71.4		41.8		1330
400	379	379	70.8		40.8	55	1290
390	369	369	70.3		39.8		1240
380	360	360	69.8	(110.0)	38.8	52	1205
370	350	350	69.2		37.7		1170
360	341	341	68.7	(109.0)	36.6	50	1130
350	331	331	68.1		35.5		1095
340	322	322	67.6	(108.0)	34.4	47	1070
330	313	313	67.0		33.3		1035
320	303	303	66.4	(107.0)	32.2	45	1005
310	294	294	65.8		31.0		980
300	284	284	65.2	(105.5)	29.8	42	950
295	280	280	64.8		29.2		935
290	275	275	64.5	(104.5)	28.5	41	915
285	270	270	64.2		27.8		905
280	265	265	63.8	(103.5)	27.1	40	890
275	261	261	63.5		26.4		875
270	256	256	63.1	(102.0)	25.6	38	855
265	252	252	62.7		24.8		840
260	247	247	62.4	(101.0)	24.0	37	825
255	243	243	62.0		23.1		805
250	238	238	61.6	99.5	22.2	36	795
245	233	233	61.2		21.3		780
240	228	228	60.7	98.1	20.3	34	765
230	219	219		96.7	(18.0)	33	730
220	209	209		95.0	(15.7)	32	695
210	200	200		93.4	(13.4)	30	670
200	190	190		91.5	(11.0)	29	635
190	181	181		89.5	(8.5)	28	605
180	170	170		87.1	(6.0)	26	580
170	162	162		85.0	(3.0)	25	545
160	152	152		81.7	(0.0)	24	515
150	143	143		78.7		22	490
140	133	133		75.0		21	455
130	124	124		71.2		20	425
120	114	114		66.7			390
110	105	105		62.3			
100	95	95		56.2			
95	90	90		52.0			
90	86	86		48.0			
85	81	81		41.0			

车削刀片槽型对应表

Comparison Table for Turning Inserts Chipbreaker

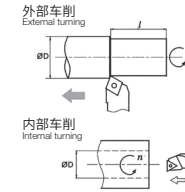
刀片类型 Insert type	切削范围 Cutting range	锐安刀具 RUIAN	株洲钻石 ZCCCT	山特维克 SANDVIK	东芝 Tungaloy	住友 SUMITOMO	三菱 MITSUBISHI	京瓷 KYOCERA	KORLOY	特固克 TaeguTec	日立 HITACHI	肯纳 KENNAMETAL	山高 SECO	伊斯卡 ISCAR
负角刀片 Negative Insert	精加工 Finishing	PF	DF SF	PF QF	TSF TF	LU SU	FY FS FH	PP GP VF XP	VL VF VG	FA FX FS	FE SE	FN FH	FF1 FF2	NF SF
	轻切削 Light cutting	GS	DM	PF LC	TS TSF AS	SE	C SA SH	HQ CQ	VQ VC HC	FG FM	BE BH CE	LF FN	MF2	NF
	半精加工 Semi-finishing	GM	PM	PM QM	TM	GU UG UX	MP MH	PS HS	VM HM GM	MM MT	AH AE AY	P MN	M3	VL GN
		R-S L-S		R-K L-K	R-S L-S	R-HM L-HM	R-ES L-ES	R-ST L-ST	R	R-FS L-FS				
	粗加工 Roughing	GR	DR (双面) (Double-side)	PR	TH THS	MU MX ME	GH RP	全周 (Through) PH	HR GR	RT	RE	RN	MR6 MR7	NR
	重载加工 Heavy-load machining	HR	LR	HR QR	TU TUS	HG MP HP	HZ HV HX	PX	GH VH VT	RH RX	TE UE	RH RM RP	RR9	NM
	精加工 Finishing	TS TF TG	EF	MF	SF	SU EF	LM FS	MQ GU	VP2	SF	PV	FP	MF1	TF VL
	半精加工 Semi-finishing	TM AMP	EM	MM	SM	GU	MA MM MS HU GM	MS MU HU	HS VP3	EM	DE	MP MR UP	MF3 MF4	PP
	粗加工 Roughing	TR	ER	MR	TH SH	EM MP MU	RM GH HL HZ		GS HM	MT	AE	UP RP	M5 MR7 RP6	
	半精加工 Semi-finishing	KG KM	TC	KM	CM	UZ	GH 全周 (Through) MK GK	全周 (Through) C	VK GR	全周 (Through) MT	V VA	KN RN	M5	GN
粗加工 Roughing	平板 无槽 (Without chip)	平板 无槽 (Without chip)	KR	CH	GZ	平板 无槽 (Without chip) GC PH	平板 无槽 (Without chip) KT RT	MA	平板 无槽 (Without chip) Y RE	UN	MR7			
正角刀片 Positive Insert	精加工 Finishing	PF	HF SF	PF UF	PSF PF	LU FC	FV FP	GP XP PP	VL VF	FA FG	JQ	UF GM	FF1 F1	PF
	半精加工 Semi-finishing	无代号 (NO code)	HM	PM UM	PM	MU	无代号 (Without code) MP MV	GQ GK	HMP C25	MT	JE	MF MP	F2	17 19

(注) 本表是根据各公司的综合样本和公开资料做成的, 未必是最新的信息。
(Note) This table is based on the comprehensive samples and public information of each company, and may not be the latest information.

车削加工参数计算方法

Tool Wear and Solution

切削速度的计算 Calculation of Cutting Speed



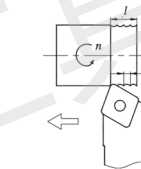
$$V_c = \frac{\pi \times D \times n}{1000} \text{ (m/min)}$$

Vc (m/min): 切削速度 Cutting speed
n (rev/min): 主轴转速 Rotating speed of main axle
D (mm): 工件直径 Diameter of workpiece

例如: 主轴转速为280rev/min, 切削直径为150mm的工件, 其切削速度为:
For example: when the rotating speed is 280 rev/min and the diameter of workpiece is 150mm, the cutting speed should be:

$$V_c = \frac{\pi \times D \times n}{1000} \text{ (m/min)} = \frac{3.14 \times 150 \times 280}{1000} = 132 \text{ (m/min)}$$

进给量的计算 Calculation of Feed Rate



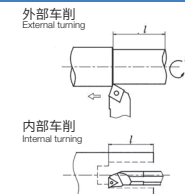
$$f = \frac{l}{n} \text{ (mm/rev)}$$

f (mm/rev): 每转进给量 Feed rate per rotation
l (mm/min): 每分钟切削长度 Cutting length per minute
n (rev/min): 主轴转速 Rotating speed of main axle

例如: 主轴转速为500rev/min, 每分钟切削长度为100mm/min, 其每转进给量为:
For example: when the rotating speed of main axle is 500rev/min, and the cutting length per minute is 100mm/min, the feed rate per rotation should be:

$$f = \frac{l}{n} \text{ (mm/rev)} = \frac{100}{500} = 0.2 \text{ (mm/rev)}$$

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



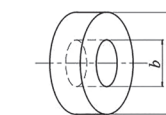
$$T = \frac{l}{f \times n} \text{ (min)}$$

T (min): 切削时间 Cutting time
l (mm): 被切削部分长度 Length of machined areas
f (mm/rev): 每转进给量 Feed rate
n (rev/min): 主轴转速 Rotating speed of main axle

例如: 求主轴转速为250rev/min, 进给量为0.2mm/rev, 切削长度为150mm的工件所用时间:
For example: when the rotating speed of main axle is 250rev/min, and the feed rate is 0.2mm/rev, the time needed for a cutting length of 150mm should be:

$$T = \frac{l}{f \times n} \text{ (min)} = \frac{150}{0.2 \times 250} = 3 \text{ (min)}$$

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

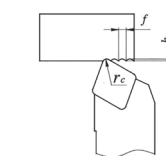


$$T = \frac{\pi \times (a^2 - b^2)}{4000 \times V_c \times f} \text{ (min)}$$

T (min): 切削时间 Cutting time
Vc (m/min): 切削速度 Cutting speed
f (mm/rev): 每转进给量 Feed rate

当所切削的端面无内孔时, b=0, 公式亦适用。
For end surface without hole, b=0, the formula is still valid.

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



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

R (μm): 已加工表面粗糙度理论值
Theoretical roughness value of machined surface
f (mm/rev): 每转进给量 Feed rate
rc (mm): 刀尖圆弧半径 Nose radius

例如: 进给量为0.2mm/rev, 刀尖圆弧半径为0.4mm时, 其已加工表面粗糙度理论值为:
For example: when the feed rate is 0.2mm/rev, and the nose radius is 0.4mm, the theoretical roughness value of machined surface should be:

$$R = \frac{f^2}{8rc} \times 1000 = \frac{0.2^2}{8 \times 0.4} \times 1000 = 12.5 \text{ (}\mu\text{m)}$$

车削加工的故障分析与对策

故障内容	主要原因	对策		刀具材料选择		切削条件			刀具形状				机床装夹					
		硬度更高的材料	韧性好的材料	耐热冲击性好的材料	耐粘结性好的材料	切削速度	进给量	切削深度	切削液	改变刀片断屑槽	前角	圆弧半径	余偏角	切削刃强度·刃口修磨	提高刀片精度	提高刀柄刚性	提高工件、刀具的安装刚性	减小动力、机床间隙
		提高↗	降低↘	提高↗	降低↘	非水溶性切削液	干式·湿式变更	增大↗	减小↘	提高↗	提高↗	提高↗	提高↗	提高↗	提高↗	提高↗	提高↗	
刀片磨损快	刀具材料不合适	●																
	切削刃形状不合适									●	↗	↗	↗	●				
	切削速度不合适					●	↗		●									
寿命下降	切削刃破损、崩刃	刀具材料不合适	●															
	切削条件不合适					●	↗											
	切削刃强度不足									●	↗	↗						
	产生热龟裂		●			●	↗	↗	↗	●				干				
	产生积屑瘤			●		●	↗	↗		●				湿				
	刚性不足														●	●	●	●
尺寸精度差	加工中尺寸的波动	刀片精度差												●				
	切削力大, 刀尖位置偏移									●	↗	↗	↗	●	●	●	●	●
	加工中精度超标, 需要随时调整	刀具材料不合适	●															
	切削条件不合适					●	↗											
表面精度恶化	表面粗糙度大	产生粘结				↗			●	●								
	切削刃形状不合适									●	↗							
	产生颤振					●	●	●						●	●	●	●	
发热	切削热大导致加工精度恶化、刀具寿命降低	切削条件不合适				●	●	●										
	切削刃形状不合适									●	↗		●					

Trouble Shooting for Turning

Trouble	Cause	Solution		Tool Grade Selection		Cutting Condition			Style and Design of the Tool				Machine, Installation of Tool					
		硬度更高的材料	韧性好的材料	耐热冲击性好的材料	耐粘结性好的材料	切削速度	进给量	切削深度	切削液	改变刀片断屑槽	前角	圆弧半径	余偏角	切削刃强度·刃口修磨	提高刀片精度	提高刀柄刚性	提高工件、刀具的安装刚性	减小动力、机床间隙
		提高↗	降低↘	提高↗	降低↘	非水溶性切削液	干式·湿式变更	增大↗	减小↘	提高↗	提高↗	提高↗	提高↗	提高↗	提高↗	提高↗	提高↗	提高↗
Insert wear quickly generated	Improper tool grade	●																
	Improper cutting edge geometry									●	↗	↗	↗	●				
	Improper cutting speed					●	↗		●									
Chipping or fracturing of cutting edge	Improper tool grade	●																
	Improper cutting conditions					●	↗											
	Lack of cutting edge strength									●	↗	↗						
	Thermal crack occurs		●			●	↗	↗	↗	●				干				
	Build-up edge occurs			●		●	↗	↗		●				湿				
	Lack of rigidity														●	●	●	●
	Dimensions are not constant	Poor insert accuracy																●
Necessary to adjust often because of over-size	Large cutting resistance and cutting edge flank									●	↗	↗	↗	●	●	●	●	●
	Improper tool grade	●																
Poor finished surface	Improper cutting conditions					●	↗											
	Welding occurs									↗				●	●			
	Improper cutting edge geometry													●	↗			
Workpiece over heating can cause poor accuracy and short life of insert	Chattering					●	●	●						●	●	●	●	
	Improper cutting conditions					●	↗											
Generation of Heat	Improper cutting edge geometry													●	↗			
	Improper cutting edge geometry																	

车削加工的故障分析与对策

故障内容	主要原因	对策		刀具材料选择		切削条件			刀具形状				机床装夹						
		硬度更高的材料	韧性好的材料	耐冲击性好的材料	耐粘性好材料	切削速度	进给量	切削深度	切削液	改变刀片断屑槽	前角	圆弧半径	余偏角	切削刃强度·刃口修磨	提高刀片精度	提高刀柄刚性	提高工件、刀具的安装刚性	减小小动力、机床间隙	减小刀柄的悬伸量
产生毛刺(钢、铝)	发生边界磨损	●																	
	切削条件不合适				●	↗	●	●	●	●									
	切削刃形状不合适									●	●	●	●						
崩碎、剥落(铸铁)	切削条件不合适				●	↗													
	切削刃形状不合适									●	↗	↗	↗	●					
	发生振动									●	●	●	●						
毛边(碳钢)	刀具材料不合适				●														
	切削条件不合适					↗	●	●	●										
	切削刃形状不合适									●	↗		↗						
	发生振动													●	●	●	●		
切屑过长	切削条件不合适					↗	↗	↗	●										
	断屑槽的切屑处理有效范围大									●									
	切削刃形状不合适									●	●								
切屑细小, 飞散	切削条件不合适					↗	↗	●											
	断屑槽的切屑处理有效范围小									●									
	切削刃形状不合适									↗	↗								

Trouble Shooting for Turning

Trouble	Cause	Solution		Tool Grade Selection		Cutting Condition			Style and Design of the Tool				Machine, Installation of Tool						
		Select a harder grade	Select a tougher grade	Select a grade with better adhesion resistance	Select a grade with better thermal shock resistance	Cutting speed	Feed rate	Cutting depth	Coolant	Select chipbreaker	Rake angle	Corner radius	Side cutting edge angle	Honing strengthens the cutting edge	Improve inserts accuracy	Improve tool holder rigidity	Decrease power and machine backlash	Decrease tool holder overhang	Increase clamping rigidity of the tool and workpiece
Burs (Steel, Aluminium)	Notch wear	●																	
	Improper cutting conditions					↗	↗	●	Wet										
	Improper cutting edge geometry									●	↗	↗	↗						
Workpiece chipping (Cast iron)	Improper cutting conditions					↗	↗												
	Improper cutting edge geometry									●	↗	↗	↗	●					
	Vibration occurs														●	●	●	●	
Burs (Mild steel)	Improper tool grade			●															
	Improper cutting conditions					↗		●	Wet										
	Improper cutting edge geometry									●	↗		↗						
	Vibration occurs														●	●	●	●	
Long chips	Improper cutting conditions					↗	↗	↗	●										
	Large chip control range									●									
	Improper cutting edge geometry										●	↗							
Chips are short and scattered	Improper cutting conditions					↗	↗	●	Dry										
	Small chip control range									●									
	Improper cutting edge geometry										↗	↗							

车削加工的切削条件的影响

Effects of Cutting Conditions for Turning

切削条件 Cutting Condition	影响 Effect
切削条件 Cutting Condition	<p>当切削加工时，最希望达到的是加工时间短，刀具寿命长，加工精度高。为此应很好地考虑工件材料的材质、硬度、形状、状态及机床的性能。由此选定刀具，选择高效率的切削条件。</p> <p>Ideal conditions for cutting are short cutting time, long tool life and high cutting accuracy. In order to obtain these conditions, a selection of efficient cutting conditions and tools, based on work material, hardness, shape and machine capability is necessary.</p>
切削速度 Cutting Speed	<p>切削速度对刀具寿命有很大的影响。提高切削速度时，切削温度上升，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，而选择适合的刀具材料是非常必要的。</p> <p>切削速度的影响：①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。②低速（20-40m/min）切削易产生振动，刀具寿命缩短。</p> <p>Cutting speed has severe impact on tool life. Increasing cutting speed increases cutting temperature and results in a shortened tool life. Cutting speed varies depending on the type and hardness of the work material. Selecting a tool grade suitable for the cutting speed is necessary.</p> <p>Effect of Cutting Speed: ① Increasing cutting speed by 20% decreases tool life by 50%. Increasing cutting speed by 50% decreases tool life by 80%. ② Cutting at low cutting speed (20-40m/min) tends to cause chattering. Thus, tool life is shortened.</p>
进给量 Feed Rate	<p>车削时，工件回转一转车刀向前的移动量即为进给量。铣削时指铣刀回转一圈机床工作台移动量除以刃数之值，即每刃进给量。加工表面粗糙度与进给量有很大关系。通常由表面粗糙度要求决定进给量。</p> <p>进给量的影响：①进给量小，后刀面磨损大，刀具寿命大幅降低。②进给量大，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。③进给量大，加工效率高。</p> <p>When cutting with a general holder, feed is the distance a holder moves per workpiece revolution. In milling, feed is the distance a machine table moves per cutter revolution divided by the number of inserts. Thus, it is indicated as feed per tooth. Feed rate relates to finished surface roughness.</p> <p>Effect of Feed Rate: ① Decreasing feed rate results in flank wear and shortens tool life. ② Increasing feed rate increases cutting temperature and flank wear. However, effects on the tool life is minimal compared to cutting speed. ③ Increasing feed rate improves machining efficiency.</p>
切削深度 Cutting Depth	<p>切削深度是由工件的加工余量、形状、机床功率、刚性及刀具的刚性而确定的。</p> <p>切削深度的影响：①切削深度变化对刀具寿命影响不大。②切削深度较小时或微小时，会造成刮擦、只切削到工件表面的硬化层，缩短刀具寿命。③切削铸铁表面和氧化皮表面层时，应在机床功率极限范围内，尽量加大切削深度。否则刀尖端只切削工件表皮硬质层及杂物，会造成刀尖破损或产生异常磨损。</p> <p>Depth of cut is determined according to the required stock removal, shape of workpiece, power and rigidity of the machine and tool rigidity.</p> <p>Effect of cutting depth: ① Changing depth of cut doesn't effect tool life greatly. ② Small depths of cut result in friction when cutting the hardened layer of a workpiece. ③ Thus tool life is shortened. When cutting uncut surfaces or cast iron surfaces, the depth of cut needs to be increased as much as the machine power allows in order to avoid cutting the impure hard surface layer with the tip of cutting edge and therefore prevent chipping and abnormal wear.</p>

切断切槽刀加工应用

Application Information of Parting and Grooving Inserts

切断加工 Parting

- 当刀片接近工件中心时，将进给速度降低30%，有利于提高刀具寿命和工件表面质量。
- 在允许的情况下，尽量减少悬伸量，以保证良好的加工稳定性。
- When the insert is approaching the center of workpiece, the cutting speed should be reduced by 30%, which can also effectively reduce vibration during machining.
- As long as conditions allow, try to shorten the overhang of tools as much as possible to ensure good stability.

外圆切槽和车削、仿形车削 External grooving, turning and profiling

图示 Illustration	应用 Application
	<p>走刀顺序如右图①：切深 > 0.5mm 时，径向进刀（最大切深可达 3/4 刀片刀宽 S）——径向退刀 0.2mm 左右——轴向走刀——斜向退刀——轴向走刀——径向加工到所需深度。如图①</p> <p>In-feed sequence, as is shown in diagram ①: When cutting depth > 0.5mm, radial in-feed (Max cutting depth can be 0.75 x insert edge with S) --- radial out-feed about 0.2mm --- axial in feed --- flank out-feed --- axial in-feed --- radial machining to required depth.</p>
	<p>在切削底径或倒角时，采用如右图②所示操作，可以减小刀具与切屑的摩擦而引起的小振动。</p> <p>When finishing, adopt the sequence shown in the diagram ②. It can reduce vibration caused by the friction between tools and chips.</p>

端面切槽和车削 End face grooving and turning

图示 Illustration	应用 Application
	<p>多槽切削建议从最大直径向中心方向切削如图③</p> <p>For multi-slot cutting, it is recommended to cut from the maximum diameter to the center as is shown in diagram ③</p>
	<p>凹槽车削：</p> <p>轴向车削深度不超过 3/4x 刀片宽度 S</p> <p>槽宽大于槽深时，建议使用凹槽车削的方案如图④</p> <p>槽深大于槽宽时，建议采用多槽切削的方案如图③</p> <p>Recess turning:</p> <p>Axial turning depth should not exceed 0.75 x cutting edge width (S)</p> <p>If slot width is larger than slot depth, it is recommended to adopt recess turning, as is shown in diagram ④</p> <p>If slot depth is larger than slot width, it is recommended to adopt multi-slot cutting, as is shown in diagram ③</p>
	<p>精加工：</p> <p>先精加工底部和外径边缘，再将内径精加工到所需尺寸，如图⑤</p> <p>Finish machining:</p> <p>First finish bottom and external diameter fringe, then finish the internal diameter to required size, as is shown in diagram ⑤</p>

切断切槽刀加工常见问题及解决方案

Common Problems in Parting and Grooving Inserts and Solutions

表面质量差 Poor surface quality
提高切削转速 Improve cutting rotate speed
增加冷却液的流速 Increase coolant velocity
采用具有良好切屑控制的槽型 Adopt chipbreaker with good chip control
检查切削参数是否合理 Check whether cutting parameters are reasonable
检查刀具设置是否正确 (悬伸量、刀柄尺寸) Check whether the tool setting is correct (overhang, tool holder size)

断屑效果差 Poor chip breaking
更换槽型 Change chipbreaker
调整进给量 (通常先提高进给量) Adjust feed rate (Improve feed rate first)
采用间歇进给 Adopt intermittent feed rate
增加冷却液的集中性 Increase the concentration of coolant

积屑瘤 Built-up edge
更换槽型 Change chipbreaker
提高切削速度 Improve cutting speed
减小进给率 Reduce feed rate
增加冷却液的集中性 Increase the concentration of coolant

刀片崩刃 Cutting edge breakage
使用韧性好的刀片材料 Select insert materials with good toughness
提高切削速度 Improve cutting speed
减小进给率 Reduce feed rate
增加刀具和整体装置的刚性 Increase the rigidity of the tool and the whole device

毛刺 Burrs
确认刀具中心高度 Verify tool center height
根据加工工件材料选择适当材质的刀片 Select the insert with appropriate material according to the material of the workpiece to be machined
改变刀具路径 Change tool path

振刀 Vibrating tool
减小刀具和工件的悬伸量 Reduce tool and workpiece overhang
调整切削速度 (通常先提高速度) Adjust cutting speed (Improve cutting speed first)
调整进给量 (通常先提高进给量) Adjust feed rate (Improve feed rate first)
确认刀具中心高度 Verify tool center height



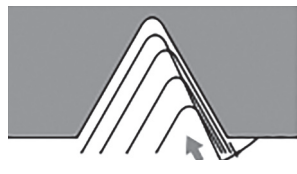

槽底为非平面 Groove bottom is non-planar
减少刀具悬伸量 (增加刚性) Reduce tool overhang (Increase rigidity)
在槽底降低进给率 Reduce the feed rate at the bottom of the groove
使用更宽更大的刀片 Use wider and larger insert
确认刀具中心高度 Verify tool center height

侧壁不直 Side wall not straight
减小工件和刀具悬伸量 Decrease tool and workpiece overhang
检查刀具和部件之间的角度是否是 90 度 Check whether the angle between tool and part is 90°

螺纹加工切削方法

Threading Method

带修光刃刀片加工使用，应在精加工量的基础上半径加 0.05-0.08mm 进行前加工；
 预防第一次过刀时发生崩刃，应在加工件上作 C0.3-C0.5 的倒角加工；
 最后精加工的切深，一般设定在 0.05-0.08mm 之间；
 推荐采用湿式切削。
 Machining and use of insert with wiper ,Max. ap is based on the value of 0.05-0.08mm;
 Prepare chamfering for C0.3-C0.5 to the workpiece to prevent the insert cracking during the 1st pass;
 Finishing ap should be 0.05-0.08mm;
 Coolant is recommended.

进刀方式 In-feed way	特点 Feature
径向垂直车螺纹 Radial in-feed 	左右切削刃的磨损平均 由于左右切屑接触长度长，容易产生振动使刀尖承受负荷大 适用于加工性好的工件材料的小螺距螺纹加工 使用最为简单，通用性高 Uniform wear of the right and left sides of the cutting edge. Because the interface of cutting chips on the right and left side is long, so it is easy to cause vibration and make the cutting edge suffer more overloading. Suitable for small screw-pitch thread machining of workpiece materials with good machinability. Easy operating, high general.
侧向单边车螺纹 Flank in-feed 	切屑处理性能好 适用于大螺距螺纹、粘性材料的加工，能有效解决振动问题 使用较简单 Good Cutting Performance. Suitable for big screw-pitch thread and viscous material machining, it can effectively solve vibration problems. Easy operating.
侧向单边修正车螺纹 Modified flank in-feed 	右侧切削刃也能一定程度切深，能抑制右侧后刀面的磨损 切屑处理性能好 适用于大螺距螺纹、粘性材料的加工，能有效解决振动问题 使用较简单 Right Cutting Edge also engage on cutting depth to a certain extent, it can reduce the abrasion on right side of clearance face. Good Cutting Performance. Suitable for big screw-pitch thread and viscous material machining, it can effectively solve vibration problems.
侧面交叉车螺纹 Alternate flank in-feed 	左右交替使用切削刃，切削刃磨损均匀，能延长刀具使用寿命 适用于大螺距螺纹、粘性材料的加工，能有效解决振动问题 切屑左右方向流出，有时会产生缠绕 Cutting edge trade off right and left when machining, uniform wear of the cutting edge, it can improve the life of tools. Suitable for big screw-pitch thread and viscous material machining, it can effectively solve vibration problems. Chips are flowing from both of right and left side, sometimes will be chip twisting.

螺纹加工故障分析与解决措施

故障内容	现象	原因	措施
螺纹精度差	螺纹牙型不正确	中心高度不正确	调整中心高
		机床上的螺距不正确	校正机床
	螺纹牙浅	切削深度设定不正确	调整切削深度
精加工面差	表面损伤	切屑卷入或接触	改为齿侧面横切
		刀片的切削刃侧面发生干涉	检查导程角, 选择合适刀垫
	表面出现挤裂	产生积屑瘤	提高切削速度
			提高切削液压力与浓度
		切削力过大	降低每步切削深度
	振动	切削参数不正确	调整切削参数
		工件或刀具的夹紧不足	调整工件与刀具夹紧状态
刀具装夹不正确		调整中心高度	
后刀面磨损过大	切削速度过快	降低切削速度	
	步数多, 发生摩擦磨损	减少步数, 减少切削刃摩擦	
	精加工步骤的切削深度小	以 0.05mm 以上为标准, 不做 0 切削	
	刀片位于中心线以上	采用正确的中心高	
左、右切削刃摩擦不均	工件与刀具的导程角不一致	确认工件的导程角, 选择合适的刀垫	
	侧向进刀方式不正确	改变侧向进刀方式	
刀具寿命短	崩刃、破损	切削速度过慢	提高切削速度
		切削力过大	增加步数, 降低每步的切削压力
		在不稳定夹紧状态下切削	检查工件是否有振摆 减小刀具的悬伸量 确认工件与刀具的夹紧状态
	咬入切屑	增加冷却液压力, 吹散切屑	
		变更刀具的行进方式, 稳妥处理切屑	
	工件没有倒角, 咬入时切削力过大	对入口和出口进行倒角	
	塑性变形	切削速度快, 发热量大	降低切削速度
切削液供给不足		增加切削液供给	
切削力过大		增加步数, 降低每步的切削力	

Trouble Shooting for Threading

Trouble	Observation	Cause	Solution
Low thread precision	Incorrect profile	Incorrect center height	Adjust center height
		Pitch on machine is not correct	Adjust machine
	Shallow thread	Incorrect cutting depth	Adjust the cutting depth
Poor surface finish	Surface damage	Chips wrap around or clog the workpieces	Change to flank in-feed
		The side of the inserts cutting edge interferes with the workpiece	Check the lead angle and select an appropriate shim
	Surface tears	Built-up edge	Increase cutting speed
			Increase coolant pressure and volume
		Cutting resistance too high	Decrease cutting depth per pass
	Vibration	Incorrect cutting parameters	Adjust cutting parameters
		Insufficient workpiece or tool clamping	Adjust workpiece and tool clamping
Incorrect tool installation		Adjust center height	
Flank wear quickly generated	Cutting speed too high	Decrease the cutting speed	
	Too many passes causes abrasive wear	Reduce the number of passes	
	Small cutting depth for the finishing pass	Do not re-cut at 0mm depth of cut, larger than 0.05mm cutting depth is recommended	
	Inserts are over the center line	Adopt correct center height	
Non-uniform wear of the right and left sides of the cutting edge	The workpiece lead angle and the tool lead angle do not match	Check the workpiece lead angle and select an appropriate shim	
	Flank in-feed is not correct.	Change the way of flank in-feed	
Short tool life	Chipping and fracture	Cutting speed too low	Increase cutting speed
		Cutting resistance too high	Increase the number of passes and decrease the cutting resistance per pass
		Unstable clamping	Check work piece deflection Shorten tool overhang Re-check workpiece and tool clamping
	Chip packing	Chip packing	Increase coolant pressure to blow away chips
		Non-chamfered workpieces causes high resistance at the start of each pass	Change the tool pass to control chips Chamfer the workpiece entry and exit faces
	Large plastic deformation	High cutting speed and large heat generation	Decrease the cutting speed
Lack of coolant supply	Lack of coolant supply	Increase coolant supply	
	Cutting resistance too high	Increase the number of passes and decrease the cutting resistance per pass	

铣削加工的故障分析与对策

故障内容	主要原因	对策		刀具材料选择		切削条件			刀具形状					机床装夹							
		硬度更高的材料	韧性好的材料	耐冲击性好的材料	耐粘性好材料	进给量	切削深度	切入角	切削液	前角	余偏角	切削刃强度·刃口修磨	铣刀直径	刃数	增大容屑槽空间	使用修光刀片	提高振摆精度	提高刀具刚性	提高工件、刀具的安装刚性	减小小动力、机床间隙	
		提高↗	降低↘	↗	↘	↗	↘	↗	↘	↗	↘	↗	↘	↗	↘	↗	↘	↗	↘	↗	↘
寿命下降	刀片磨损快	●																			
	切削刃破损、崩刃	●																			
	产生热龟裂	●																			
表面精度恶化	表面粗糙度大	●																			
	平面度、平行度恶化																				
	产生毛刺																				
切屑处理	切屑缠绕堵塞																				
	切屑排出顺畅																				
	切屑太薄																				

Trouble Shooting for Milling

Trouble	Cause	Solution		Tool Grade Selection		Cutting Condition			Style and Design of the Tool				Machine, Installation of Tool				
		Up ↗	Down ↘	Up ↗	Down ↘	Engage angle	Coolant	Flake angle	Number of teeth	Wider chip pocket	Use of a wiper insert	Improve run-out accuracy	Improve tool rigidity	Increase clamping rigidity of the tool and workpiece	Decrease power and machine backlash		
		Down ↘	Up ↗	Down ↘	Up ↗	Do not use water-soluble cutting fluid	Determine dry or wet cutting	Side cutting edge angle	Honing strengthens the cutting edge	Mills diameter	Number of teeth	Wider chip pocket	Use of a wiper insert	Improve run-out accuracy	Improve tool rigidity	Increase clamping rigidity of the tool and workpiece	Decrease power and machine backlash
Deterioration of Tool Life	Insert wear quickly generated																
	Chipping or fracturing of cutting edge																
	Poor finished surface																
Deterioration of Surface Finish	Not parallel or irregular surface																
	Burrs chipping																
	Workpiece edge chipping																
Chip Control	Poor chip dispersal, chip jamming and chip packing																
	Chip thickness is too thin																
	Poor chip disposal																

铣削通用公式

General Formula of Milling

V_c : 切削速度 cutting speed (m/min)	V_f : 工作台进给量 (进给速度) feed rate of worktable (feed speed) (mm/min)	D_c : 铣刀公称直径 nominal diameter of milling tool (mm)
f_z : 每齿进给量 feed rate per tooth (mm/z)	n : 主轴转速 spindle speed (rev/min)	π : 圆周率 circumference ratio=3.14
Z_n : 刃数 number of teeth	T_c : 加工时间 machining time (min)	Q : 金属去除率 metal removal rate (cm ³ /min)
f_n : 每转进给量 feed rate per revolution (mm/rev)	L : 实际走刀距离 actual working distance (mm)	

切削速度 Cutting speed

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

主轴转速 Spindle speed

$$n = \frac{1000 \times V_c}{\pi \times D_c} \quad (rev/min)$$

进给速度 Feed speed

$$V_f = f_z \times n \times Z_n \quad (mm/min)$$

每齿进给量 Feed rate per tooth

$$f_z = \frac{V_f}{n \times Z_n} \quad (mm/z)$$

每转进给量 Feed rate per revolution

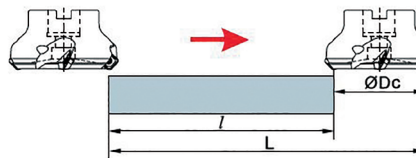
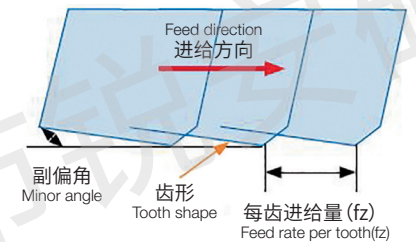
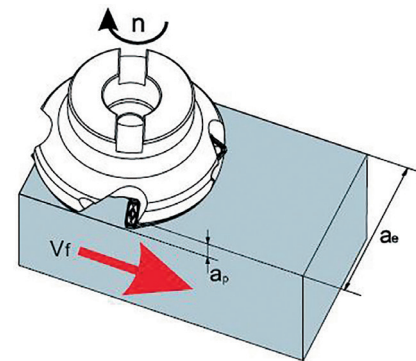
$$f_n = \frac{V_f}{n} \quad (mm/rev)$$

加工时间 Maching time

$$T_c = \frac{L}{V_f} \quad (min)$$

金属去除率 Metal removal rate

$$Q = \frac{a_p \times a_e \times V_f}{1000} \quad (cm^3/min)$$



浅孔钻加工相关参数计算公式

Calculations for Shallow Drilling

切削速度 (Vc) Cutting speed

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

V_c (m/min): 切削速度 cutting speed
 D_c (mm): 钻头直径 drill diameter
 n (rev/min): 主轴转速 spindle speed

实例: 主轴转速为1600rev/min, 钻头直径为 $\varnothing 20$ mm, 其切削速度为:
 Spindle speed is 1600rev/min, drill diameter is 20mm, thus cutting speed is:

$$V_c = \frac{D_c \times \pi \times n}{1000} = \frac{20 \times 3.14 \times 1600}{1000} = 100 (m/min)$$

进给速度 (Vf) Feed speed

$$V_f = f_r \times n \quad (mm/min)$$

V_f (mm/min): 进给速度 feed speed
 f_r (mm/rev): 每转进给量 feed rate per revolution
 n (rev/min): 主轴转速 spindle speed

实例: 主轴转速为1500rev/min, 每转进给量为0.1mm/rev, 其进给速度为:
 Spindle speed is 1500rev/min, feed rate per revolution is 0.1mm/rev, thus feed speed is:

$$V_f = f_r \times n = 0.1 \times 1500 = 150 (mm/min)$$

孔加工时间 (Tc) Machining time

$$T_c = \frac{L \times i}{n \times f_r} \quad (min)$$

T_c (min): 加工时间 machining time
 f_r (mm/rev): 每转进给量 feed rate per revolution
 i : 孔数量 number of holes L (mm): 钻孔深 drilling depth
 n (rev/min): 主轴转速 spindle speed

实例: 钻一个直径为 $\varnothing 20$ mm, 深为40mm的孔, 切削速度为100m/min, 每转进给量为0.1mm/rev, 求钻孔时间。

Drilling a hole with diameter of $\varnothing 20$ mm and a depth of 40mm, cutting speed is 100m/min and feed rate per revolution is 0.1mm/rev. Calculate the drilling time.

$$n = \frac{V_c \times 1000}{D_c \times \pi} = \frac{100 \times 1000}{20 \times 3.14} = 1600 (rev/min)$$

$$T_c = \frac{L \times i}{n \times f_r} = \frac{40 \times 1}{1600 \times 0.1} = 0.25 (min)$$

金属去除率 (Q) Metal removal rate

$$Q = \frac{V_f \times \pi \times D_c^2}{4 \times 1000} \quad (cm^3/min)$$

Q (cm³/min): 金属去除率 metal removal rate
 D_c (mm): 钻头直径 drill diameter
 V_f (mm/min): 进给速度 feed speed

实例: 一个直径为 $\varnothing 20$ mm的钻头, 加工时的进给速度为160mm/min, 其金属去除率为:

Drill diameter is $\varnothing 20$ mm, feed speed is 160mm/min, thus metal removal rate is:

$$Q = \frac{V_f \times \pi \times D_c^2}{4 \times 1000} = \frac{160 \times 3.14 \times 20^2}{4 \times 1000} = 50.24 (cm^3/min)$$

CVD 涂层牌号对应表

Comparison Table for CVD Coated Grade

刀片类型 Insert type	代号 Symbol	锐安刀具 RUIAN	特固克 TaeguTec	可乐伊 KORLOY	三菱 MITSUBISHI	住友电气 SUMITOMO	泰珂洛 Tungaloy	京瓷 KYOCERA	日立工具 HITACHI	山特维特 SANDVIK	肯纳金属 KENNAMETAL	山高工具 SECO	伊斯卡 ISCAR	株洲钻石 ZCCCT
车削 Turning	P01		TT8105		UE6105	AC8015P AC810P	T9105 T9205	CA510 CA5505	HG8010	GC4305 GC4315	KCP05B KCP05 KCPK05B KCK05 KCK15B KCK15	TP0500 TP1500	IC9150 IC8150 IC428	
	P10	RC6205 RC6205D	TT8105 TT8115	NC3215	UE6105 MC6015 UE6110 MY5105	AC8015P AC810P	T9205 T9105 T9215 T9115	CA510 CA515 CA5505 CA5515	HG8010	GC4305 GC4315 GC4325	KCP05B KCP05 KCPK05 KCP10B KCP10 KCK15B KCK15 KCK20B	TP1500 TP2500	IC9150 IC9015 IC8150 IC8250	YBC152 YBC151
	P20	RC6215 RC6215D RC6315 RC6120 RC6220	TT8125 TT5100	NC3225 NC3120	MC6015 UE6110 MC6025 UE6020 MY5015	AC8025P AC820P	T9215 T9115 T9225 T9125	CA025P CA525 CA5515 CA5525 CR9025	HG8025 IP2000 GM25	GC4315 GC4325 GC4225 GC1515	KCP10B KCP10 KCP25B KCP25 KCM15B KCM15	TP2500	IC9015 IC8250 IC9025 IC9250 IC8350	YBC251 YBC252
	P30	RC6125 RC6225 RC6225D	TT8125 TT5100	NC3030	MC6025 UE6020 MC6035 UE6035 UH6400	AC8035P AC830P AC6030M AC630M	T9225 T9125 T9235 T9135 T6130	CA025P CA525 CA5525 CA530 CA5535 CR9025	IP3000 GM8035	GC4315 GC4325 GC4335 GC2025	KCP25B KCP25 KCP30B KCP30 KCM15B	TP3500 TP3000	IC8350 IC9250 IC9350	YBC252 YBC351 YBC352
	P40	RC6135 RC6235 RC6235D	TT8135 TT7100		MC6035 UE6035 UH6400	AC8035P AC830P AC6030M AC630M		CA530 CA5535	GM8035 GX30	GC4235 GC4335	KCP30B KCP30 KCP40B KCP40 KCM25B KCM25 KCM35B KCM35	TP3500 TP3000	IC9350	YBC351 YBC352
	M10		TT9215	NC9115	US7020 MC7015	AC6020M AC610M	T9235 T9135 T6130	CA6515	IP1050S	GC2015 GC1515	KCM15B KCM15	TM2000	IC9250 IC6015 IC8250	
	M20	RC7115	TT9225	NC9115 NC9125	US7020 MC7015 MC7025	AC6020M AC6030M AC610M AC630M	T9215 T9115	CA6525	IP1050S	GC2015 GC2025 GC2020	KCP30B KCP30 KCP40B KCP40 KCM15B KCM15 KCM25B KCM25	TM2000	IC9250 IC6015 IC9025 IC656	YBM151 YBM153
	M30	RC7125	TT9235	NC9125 NC9135	US735 MC7025	AC6030M AC630M AC8035P AC830P	T6120 T9215 T9115		IP100S GX30	GC2025 GC2020	KCP40B KCP40 KCM25B KCM25 KCM35B KCM35	TM4000	IC9350 IC8025 IC635	YBM151 YBM251
	M40		TT9235	NC9135	US735	AC6030M AC630M	T6130		IP100S GX30		KCM35B KCM35	TM4000	IC8025 IC9350	YBM253
	K01	RC8205A	TT7005	NC6310	UC5105 MC5005	AC4010K AC405K	T5105		HX3505	GC3210	KCK05B KCK05	TH1500 TK1001 TK1000	IC5005 IC9007	YBD052
	K10	RC8215A RC8315A RC8315H	TT7015	NC6310 NC6315	UC5115 MC5015 MY5015	AC4010K AC4015K AC405K AC415K	T5105 T515 T5115 T9215		HX3505 HX3515 HG8010	GC3210	KCK05B KCK05 KCK15B KCK15	TK1001 TK1000 TK2000 TK2001	IC5005 IC5010 IC9150 IC428 IC4028	YBD102
	K20	RC8215A RC8315A RC8315H	TT7015 TT7025	NC6135	UC5115 MC5015 UE6110 MY5115	AC4015K AC415K AC420K AC425K AC8025P	T515 T5115 T5125 T9215		HX3515 HG8010	GC3210 GC3225	KCK15B KCK15 KCK20B KCK20	TK2001 TK2000	IC5010 IC8150 IC9150 IC9015 IC418	YBD152 YBD252
	K30				UE6110		T5125	CA320	HG8010	GC3225	KCP05B KCP05 KCPK05 KCP10B KCP10 KCP25B KCP25 KCK20B KCK20		IC9015 IC418	

CVD 涂层牌号对应表

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铣削 Milling	P10		TT7515			ACP2000 ACP100				GC4220 GC4230 GC3040	KC930M KC935P	MP1500	IC9080 IC9015	
	P20	RC6125	TT7515	NC5330	F7030 MC7020	ACP2000 ACP100	T3225			GC4220 GC4230 GC3040	SC6525 SP6519	MP1500 MP2500	IC5100 IC520M	YBC301 YBC251
	P30	RC7125	TT7800	NC5330 NC5340 NCM325	F7030 MC7020	ACP2000 ACP100	T3130 T3225			GC4230 GC3040 GC2040 M30B	MP91M SC6525 KCPK30 X500	MP2500	IC4050	YBM351
	M10					ACM200							IC9250	
	M20	RC7125		NC5330	F7030 MC7020	ACM200	T3225	CA6535	GX2160 AX2040	GC2040 GC4230	SC6525	MP2500	IC520M IC9350	YBM251 YBM253
	M30		TT7800	NC5330 NC5340 NCM325 NC5350	F7030 MC7020	ACM200	T3225 T3130			GC2040 GC4230 GC4240 M30B S40T	SC6525 X500	MP2500	IC9350 IC4050	YBM302
	K10	RC8315B	TT7515		MC5020	ACK2000 ACK100 ACK200	T1215 T1115				SC3025 KCK15			YBD151
	K20	RC8315B	TT7515	NC5330	MC5020	ACK200	T1215	CA420M	GX2120	GC3220 K20W	KCK15 SC3025 MP91M	MK1500	IC5100 IC9150	YBD252

PVD 涂层牌号对应表

Comparison Table for PVD Coated Grade

刀片类型 Insert type	代号 Symbol	锐安刀具 RUIAN	特固克 TaeguTec	可乐伊 KORLOY	三菱 MITSUBISHI	住友电气 SUMITOMO	泰珂洛 Tungaloy	京瓷 KYOCERA	日立工具 HITACHI	山特维特 SANDVIK	肯纳金属 KENNAMETAL	山高工具 SECO	伊斯卡 ISCAR	株洲钻石 ZCCCT
车削 Turning	P10	RP9125B		PC8105	VP10MF MS6015	AC1030U ACZ150 AC5025S AC520U	AH710	PR930 PR1005 PR1025 PR1115 PR1215 PR1425 RP1225		GC1125 GC1025	KCS10 KCU10 KC5010	CP200 TS2000	IC250 IC350 IC507 IC570 IC807 IC907 IC908	YBG102
	P20	RP9125C RP1225	TT9020 TT9030	PC8110 PC230	VP10RT VP20RT VP15TF VP20MF	AC1030U AC5025S AC520U AC530U	AH120 AH725 AH730 SH725 SH730 PR1225 J740	PR930 PR1025 PR1115 PR1215 PR1225 PR1625	IP2000	GC1125 GC1025	KCS10 KCU10 KC5010 KC5025	CP250 TS2500	IC228 IC250 IC308 IC328 IC350 IC354 IC507 IC528 IC570 IC807 IC808 IC907 IC908 IC928 IC1008 IC1028 IC3028	YBG202
	P30	RP1020 RP9225B	TT8020 TT8080 TT9030	PC5300 PC8115	VP10RT VP20RT VP15TF VP20MF	AC1030U AC530U	AH120 AH725 AH7025 AH730 SH725 SH730 GH730 GH330 J740	PR1025 PR1225 PR1535	IP3000 CY250	GC1125 GC1025	KCU25 KC5025	CP500	IC228 IC250 IC328 IC330 IC354 IC528 IC1008 IC1028 IC3028	YBG202
	P40		TT8020 TT8080 TT9080			AC1030U	AH120 AH725 AH645		IP3000	GC1025		CP500	IC228 IC328 IC330 IC528 IC1008 IC1028 IC3028	
	M10	RP9125B	TT5050	PC8105 PC8110	VP10MF MS6015	AC515S AC5025S AC510U AC520U ACZ150	AH8005 AH630	PR1025 PR1215 PR1225	IP050S IP100S JP9105 JP9115	GC1125 GC1115	KCS10 KCU10 KC5010	CP200 TS2000	IC330 IC354 IC507 IC520 IC570 IC807 IC907 IC908	YBG202 YBG205
	M20	RP9125C RP1225	TT5080 TT9080	PC8110 PC5300	VP10RT VP20RT VP15TF VP20MF	AC515S AC5025S AC1030U AC520U	AH8015 AH630 AH120 AH7025 AH725 SH725 SH730 PR930	PR1025 PR1125 PR1215 PR1425 PR1225 PR930	IP100S HS9115	GC1125 GC1115 GC2035	KCS10 KCU10 KC5010 KC5025	CP250 TS2500 CP500	IC250 IC330 IC354 IC808 IC908 IC1008 IC1028 IC3028	YBG202 YBG205
	M30	RP1020 RP9225B	TT8020 TT8080 TT9020 TT9080	PC9030 PC5300 PC5400	VP10RT VP20RT VP15TF VP20MF MP7035	AC5025S AC6040M AC520U AC530U	AH725 AH120 AH645 SH725 SH730 J740	PR1125 PR1535		GC1125 GC2035	KCU25 KC5025	CP500	IC228 IC250 IC328 IC330 IC1008 IC1028 IC3028	
	M40		TT8020 TT8080 TT9020 TT9080	PC5400	MP7035	AC6040M AC1030U AC530U	AH645		GX30	GC2035			IC328 IC928 IC1008 IC1028 IC3028	
	K10					AC1030U AC510U ACZ150	GH110 AH110	PR905 RP1215	HX330S HG330S K20W K20D K20M K15W	GC3330 GC3220 GC20W K20D K20M K15W	KCS10 KCU10 KC5010	CP200 TS2000	IC350 IC1008	
	K20			PC5300	VP10RT VP20RT VP15TF	AC1030U AC510U AC530U ACZ150	AH120 AH7025	PR905 PR1215		GC3330 GC3220 GC3040 K20W K20D GC4230 K20M K15W	KCS10 KCU10 KCU25 KC5010 KC5025	CP200 CP250 TS2000 TS2500	IC228 IC350 IC808 IC908 IC1008	
K30				VP10RT VP20RT VP15TF	AC1030U AC530U	AH120 GH130			GC3330 GC3040 K20W GC4240 GC4230		CP500	IC228 IC350 IC808 IC908 IC1008		

PVD 涂层牌号对应表

Comparison Table for PVD Coated Grade

刀片类型 Insert type	代号 Symbol	锐安刀具 RUIAN	特固克 TaeguTec	可乐伊 KORLOY	三菱 MITSUBISHI	住友电气 SUMITOMO	泰珂洛 Tungaloy	京瓷 KYOCERA	日立工具 HITACHI	山特维特 SANDVIK	肯纳金属 KENNAMETAL	山高工具 SECO	伊斯卡 ISCAR	株洲钻石 ZCCCT
铣削 Milling	P10	RP1120A RP9125B	TT2510 TT7080	PC2005 PC2010 PC2015		ACP2500 ACP200	AH120 AH725	PR930 PR1025 PR1225	PCA12M PN15M PN215 JP4115	GC1010 GC1025 GC1030	KC515M KC5010M		IC250 IC350 IC808 IC810 IC900 IC903 IC908 IC910 IC950	YBG252
	P20	RP1225	TT2510 TT7080 TT8020 TT9030 TT9020	PC2505 PC2510	MP6120 VP15TF	ACP3000 ACU2500 ACP200 ACP300	AH725 AH120 AH3135 AH9030 AH3225 AH9130	PR830 PR1230 PR1025 PR1225 PR1525	CY150 CY9020 JP4120	GC1025 GC1030 GC2030	KC522M KC525M KCSM30 SP6519	F25M MP3000	IC250 IC300 IC328 IC300 IC350 IC528 IC808 IC810 IC830 IC900 IC908 IC910 IC928 IC950 IC1008	YBG202 YBG205 YBG320 YBG252
	P30	RP1020 RP9025	TT8020 TT8080 TT9030 TT9080	PC3600 PC3500 PC210F PC5300	MP6120 MP6130 VP30RT	ACP3000 ACU2500 ACP200 ACP300	AH725 AH120 AH3135 AH130 AH3225 AH9130	PR1535 PR1230	JS4045 CY250 CY250V HC844	GC1010 GC1030 GC2030	KC525M KC530 KC725M KCPM40 KCSM30 X400	F25M MP3000 F30M	IC250 IC300 IC328 IC330 IC350 IC528 IC830 IC900 IC928 IC950 IC1008	YBG302
	P40		TT8020 TT8080 TT9030 TT9080	PC5400	VP30RT	ACP3000 ACU2500 ACP300	AH140		PTH30E PTH40H JS4060 GX2140	GC1030 GC2030	KC725M KCPM40	F40M T60M		YBG302
	M10	RP1120A RP9125B		PC210F		ACU2500 ACM100 ACK300 ACP300	AH725	PR1025 PR1225	PN15M PN215	GC1010 GC1030	KC515M SP4019 SP6519		IC903	YBG252
	M20	RP1225	TT9030 TT9080	PC5300	VP15TF MP7130 VP20RT MP7030	ACU2500 ACK300 ACP300	AH725 AH3135 AH130 AH8030 AH3225 AH9130	PR1025 PR1225 PR1525	JP4120	GC1030 GC1040 GC2030 S30T	KC522M KC525M SP4019 SP6519 X700	F25M MP3000	IC250 IC300 IC808 IC830 IC900 IC908 IC928 IC1008	YBG202 YBG205 YBG320 YBG252
	M30	RP1020 RP9025	TT8020 TT8080 TT9030 TT9080	PC9530 PC5400	VP15TF VP20RT MP7030 MP7140	ACM300	AH3135 AH130 AH9130	AH3135 AH130 AH9130	CY250 HC844 JX4045	GC1040 S30T GC2030	KC522M KC525M KC725M KCPM40 KCSM30 KCSM40 X700	F30M F40M MP3000	IC250 IC300 IC328 IC330 IC830 IC928 IC1008	YBG302
	M40		TT8020 TT8080 TT9030 TT9080	PC5400	MP7140 VP30RT	ACM300	AH140		PTH30E PTH40H JS4160 GX2160 AX2040	GC1010 GC2030	KC725M KCPM40 KCSM40	F40M		YBG302
	K10		TT6080	PC8110 PC6510	MP8010	ACK3000 ACU2500	AH110 GH120	PR510 PR905 PR1210	ATH10E TH315 CY100H	GC1010 GC1020	KC514M KC515M KCK20 SP4019		IC350 IC810 IC830 IC900 IC910 IC928 IC950 IC1008	YBG102 YBG252
	K20	RP1225	TT6080	PC5300	VP15TF VP20RT	ACK3000 ACU2500 ACK300	AH120 AH9030 AH9130	PR905 PR1210	CY150 CY9020 PTH13S JP4120 GX2120	GC1020	KC514M KC520M KCK20 SP6519	MK2000	IC350 IC808 IC810 IC830 IC900 IC908 IC910 IC928 IC950 IC1008	YBG152
K30				VP15TF VP20RT	ACK3000 ACU2500 ACK300	AH120		CY250 JS4045 GX2040		KC522M KC524M SP6519		IC350 IC808 IC830 IC908 IC928 IC950 IC1008		

整体硬质合金立铣刀

SOLID CARBIDE END MILLS



整体硬质合金立铣刀命名规则

Solid Carbide End Mills Code Key

刀具种类 End mills type

HM **H** - 4 R NS 120 10 - M □ □

代号 Symbol	刀具种类 End mills type
HM	整体型立铣刀 Solid carbide end mills

刀具刃数 Number of teeth

HM H - **4** R NS 120 10 - M □ □

代号 Symbol	刀具刃数 Number of teeth
4	4 刃 4 teeth

长度系列 Length category

HM H - 4 R **NS** 120 10 - M □ □

代号 Symbol	长度系列 Length category	代号 Symbol	长度系列 Length category
S	短刃型 Short cutting edge	N	长颈型 Long neck
L	长刃型 Long cutting edge	H	长柄型 Long shank
X	特长刃型 Extra long cutting edge	NS	长颈短刃型 Long neck and short cutting edge
缺省 Default	标准长度系列 Standard	HS	长柄短刃型 Long shank and short cutting edge

刀具圆弧半径 End mills radius

HM H - 4 R NS 120 **10** - M □ □

代号 Symbol	刀具圆弧半径 End mills radius
10	1.0mm

刀具系列 End mills category

HM **H** - 4 R NS 120 10 - M □ □

代号 Symbol	刀具系列 End mills category
H	高硬度材料加工 (45-55HRC) Machining high hardness materials
S	难切削材料加工 Machining hard-to-cut materials
A	铝合金材料加工 Machining aluminium alloy materials

刀具类型 End mills type

HM H - 4 **R** NS 120 10 - M □ □

代号 Symbol	刀具类型 End mills type
F	平头铣刀 Flattened end mills
B	球头铣刀 Ball nose end mills
R	圆弧铣刀 Radius end mills
W	波刃铣刀 Corrugated edge end mills

刀具直径 Tool diameter

HM H - 4 R NS **120** 10 - M □ □

代号 Symbol	刀具直径 Tool diameter
120	12mm

其他 Other

HM H - 4 R NS 120 10 - **M** □ □



















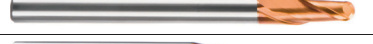
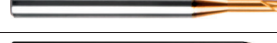

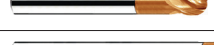





代号 Symbol	刀具系列 Tool series
D □ □	柄部直径 Shank diameter
X □ □	特殊螺旋角 Special helical angle
M □ □	颈长 Neck length
V □ □	微小径 Tiny diameter
缺省 Default	标准型 Standard

整体硬质合金铣刀系列一览表

Solid Carbide End Mills Overview

整体硬质合金铣刀系列一览表

Solid Carbide End Mills Overview

形状 Shape	刃数 Number of teeth	型号及名称 Type	铣刀外形 End mills shape	尺寸范围 Size range	碳钢、合金钢 Carbon steel Alloy steel	预硬钢 Pre-hardened steel	不锈钢 Stainless steel	铸铁 Cast iron	铜合金 Copper alloy	铝合金 Aluminium alloy	耐热合金、钛合金 Heat-resistant alloy Titanium alloy	高硬度钢 High hardness steel		规格 Specification	切削参数 Cutting parameter	
												55HRC ↓	55HRC ↑			
通用性系列HM450 (HRC<38)HM450 series for general machining																
平头型 Flattened	4	4刃平头 / HM450-4F 4-flute flattened / HM450-4F		D1.0-D20.0	●	●		●								
球头型 Ball nose	2	2刃球头 / HM450-2B 2-flute ball nose / HM450-2B		R0.5-R10.0	●	●		●								
圆弧型 Radius	4	4刃圆弧 / HM450-4R 4-flute R / HM450-4R		D1.0-D12.0	●	●		●								
大进给系列HP500 (HRC<45)HP500 series for machining with high feed rate																
平头型 Flattened	4	4刃平头 / HP500-4F 4-flute flattened / HP500-4F		D1.0-D20.0	●	●		●								
球头型 Ball nose	2	2刃球头 / HP500-2B 2-flute ball nose / HP500-2B		R0.5-R10.0	●	●		●								
圆弧型 Radius	4	4刃圆弧 / HP500-4R 4-flute R / HP500-4R		D1.0-D12.0	●	●		●								
淬火钢超硬系列HR700 (55~68HRC) HR700 series for machining hardened steel superhard																
平头型 Flattened	4	4刃平头 / HR700-4F 4-flute flattened / HR700-4F		D1.0-D20.0								●	●			
球头型 Ball nose	2	2刃球头 / HR700-2B 2-flute ball nose / HR700-2B		R0.5-R10.0								●	●			
圆弧型 Radius	4	4刃圆弧 / HR700-4R 4-flute R / HR700-4R		D3.0-D12.0								●	●			
高硬材料加工HMH (45~55HRC) HMH series for machining high hardness materials																
平头型 Flattened	2	2刃平头 / HMH-2F 2-flute flattened / HMH-2F		D1.0-D20.0								●	●			
	2	2刃长颈短刃平头 / HMH-2FNS 2-flute flattened with long neck and short cutting edge / HMH-2FNS		D6.0-D20.0								●	●			
	2	2刃微小径平头 / HMH-2F-V 2-flute flattened with tiny diameter / HMH-2F-V		D0.3-D3.0								●	●			
	4	4刃平头 / HMH-4F 4-flute flattened / HMH-4F		D1.0-D20.0								●	●			
	4	4刃长刃平头 / HMH-4FL 4-flute flattened end mills with long cutting edge / HMH-4FL		D3.0-D20.0								●	●			
	4	4刃长颈短刃平头 / HMH-4FNS 4-flute flattened with long neck and short cutting edge / HMH-4FNS		D6.0-D20.0								●	●			
	6	6刃平头 / HMH-6F 6-flute flattened / HMH-6F		D6.0-D20.0								●	●			
	6	6刃长刃平头 / HMH-6FL 6-flute flattened end mills with long cutting edge / HMH-6FL		D6.0-D20.0								●	●			
球头型 Ball nose	2	2刃球头 / HMH-2B 2-flute ball nose / HMH-2B		R0.5-R10.0								●	●			
	2	2刃长柄球头 / HMH-2BH 2-flute ball nose with long shank / HMH-2BH		R1.0-R10.0								●	●			
	2	2刃长颈短刃球头 / HMH-2BNS 2-flute ball nose with long neck and short cutting edge / HMH-2BNS		R0.25-R2.5								●	●			
	2	2刃微小径球头 / HMH-2B-V 2-flute ball nose with tiny diameter / HMH-2B-V		R0.15-R1.5								●	●			
	4	4刃球头 / HMH-4B 4-flute ball nose / HMH-4B		R1.5-R10.0								●	●			
	4	4刃长柄球头 / HMH-4BH 4-flute ball nose with long shank / HMH-4BH		R1.5-R10.0								●	●			
圆弧型 Radius	2	2刃圆弧 / HMH-2R 2-flute R / HMH-2R		D1.0-D12.0								●	●			
	4	4刃圆弧 / HMH-4R 4-flute R / HMH-4R		D2.0-D12.0								●	●			
	4	4刃短刃圆弧 / HMH-4RS 4-flute R with short cutting edge / HMH-4RS		D6.0-D12.0								●	●			
	4	4刃长颈短刃圆弧 / HMH-4RNS 4-flute R with long neck and short cutting edge / HMH-4RNS		D6.0-D16.0								●	●			

● 最合适 Very suitable ○ 合适 Suitable

整体硬质合金铣刀系列一览表

Solid Carbide End Mills Overview

整体硬质合金铣刀系列一览表

Solid Carbide End Mills Overview

形状 Shape	刃数 Number of teeth	型号及名称 Type	铣刀外形 End mills shape	尺寸范围 Size range	碳钢、合金钢	预硬钢	不锈钢	铸铁	铜合金	铝合金	耐热合金、钛合金	高硬度钢		规格 Specification	切削参数 Cutting parameter
					Carbon steel Alloy steel	Pre-hardened steel	Stainless steel	Cast iron	Copper alloy	Aluminium alloy	Heat-resistant alloy Titanium alloy	55HRC ↓	55HRC ↑		
难切削材料加工HMS HMS series for machining hard-to-cut materials															
平头型 Flattened	2	2刃平头 / HMS-2F 2-flute flattened / HMS-2F		D0.5-D20.0	●		●				●				
	3	3刃平头 / HMS-3F 3-flute flattened / HMS-3F		D3.0-D20.0	●		●				●				
	4	4刃平头 / HMS-4F 4-flute flattened / HMS-4F		D1.0-D20.0	●		●				●				
	4	4刃短刃平头 / HMS-4FS 4-flute flattened / HMS-4FS		D2.0-D20.0	●		●				●				
	4	4刃长颈短刃平头 / HMS-4FNS 4-flute flattened with long neck and short cutting edge / HMS-4FNS		D4.0-D20.0	●		●				●				
球头型 Ball nose	2	2刃球头 / HMS-2B 2-flute ball nose / HMS-2B		R0.5-R10.0	●		●				●				
	4	4刃球头 / HMS-4B 4-ball nose / HMS-4B		R0.5-R10.0	●		●				●				
圆弧型 Radius	2	2刃圆弧 / HMS-2R 2-flute R / HMS-2R		D3.0-D16.0	●		●				●				
	3	3刃圆弧 / HMS-3R 3-flute R / HMS-3R		D2.0-D20.0	●		●				●				
	4	4刃圆弧 / HMS-4R 4-flute R / HMS-4R		D2.0-D20.0	●		●				●				
难切削材料加工HMS-X HMS-X series for machining hard-to-cut materials															
平头型 Flattened	4	4刃双螺旋平头 / HMS-4F-X 4-flute flattened with double helix / HMS-4F-X		D4.0-D20.0	●		●				●				
	4	4刃长颈短刃双螺旋平头 / HMS-4FNS-X 4-flute flattened with long neck, short cutting edge and double helix / HMS-4FNS-X		D6.0-D16.0	●		●				●				
圆弧型 Radius	4	4刃双螺旋圆弧 / HMS-4R-X 4-flute R with double helix / HMS-4R-X		D6.0-D20.0	●		●				●				
	4	4刃长颈短刃双螺旋圆弧 / HMS-4RNS-X 4-flute R with long neck, short cutting edge and double helix / HMS-4RNS-X		D6.0-D16.0	●		●				●				
钛合金材料加工HT400 HT400 series for machining titanium alloy materials															
平头型 Flattened	4	4刃平头 / HT400-4F 4-flute flattened / HT400-4F		D1.0-D20.0							●				
球头型 Ball nose	2	2刃球头 / HT400-2B 2-flute ball nose / HT400-2B		R0.5-R10.0							●				
圆弧型 Radius	4	4刃圆弧 / HT400-4R 4-flute R / HT400-4R		D1.0-D12.0							●				
铝合金材料加工HMA HMA series for machining aluminium alloy materials															
平头型 Flattened	2	2刃平头 / HMA-2F 2-flute flattened / HMA-2F		D1.0-D20.0					●	●					
	2	2刃长刃平头 / HMA-2FL 2-flute flattened with long cutting edge / HMA-2FL		D3.0-D20.0					●	●					
	3	3刃平头 / HMA-3F 3-flute flattened / HMA-3F		D1.0-D20.0					●	●					
	3	3刃长刃平头 / HMA-3FL 3-flute flattened with long cutting edge / HMA-3FL		D3.0-D20.0					●	●					
球头型 Ball nose	2	2刃球头 / HMA-2B 2-flute ball nose / HMA-2B		R1.0-R6.0					●	●					
圆弧型 Radius	2	2刃圆弧 / HMA-2R 2-flute R / HMA-2R		D1.0-D16.0					●	●					
	2	2刃长柄圆弧 / HMA-2RH 2-flute R with long shank / HMA-2RH		D6.0-D12.0					●	●					
	3	3刃圆弧 / HMA-3R 3-flute R / HMA-3R		D1.0-D20.0					●	●					
	3	3刃长柄圆弧 / HMA-3RH 3-flute R with long shank / HMA-3RH		D6.0-D20.0					●	●					

● 最合适 Very suitable ○ 合适 Suitable

整体硬质合金铣刀系列介绍

Introduction of Solid Carbide End Mills Series

图示 Illustration	应用 Application
<p>通用性系列HM450 HM450 series for general machining</p> 	<p>加工硬度在 HRC<38。 双刃带的槽型设计，切削力低，排屑顺畅。 刃口稳定性高，不易磨损，大幅提高刀具耐磨损性及韧性。 变槽芯径设计，3 倍径切削时有足够稳定的刚性。 Machining hardness is HRC<38. The chipbreaker design of the double-edge belt with lower cutting force and smooth chips drainage. The cutting edge with higher stability and not easy to abrasion, greatly improves abrasion resistance and tenacity of the tool. Design of variable chipbreaker diameter, it has enough stable rigid when suffering 3 times barrel length cutting.</p>
<p>大进给系列HP500 HP500 series for machining with high feed rate</p> 	<p>加工硬度在 HRC<45。 铸铁、钢件类的侧铣 槽铣 螺旋插补铣 摆线铣等多种高效铣削。 采用不等螺旋、不等分、不等齿距、变心径设计，有效抑制高速加工时产生的高频振动，发挥超群的抗震能力，实现大切深，大切宽高效加工。 变槽深设计，保证刀具有足够的容屑空间，又能有足够的刚性。 Machining hardness is HRC<45. Side milling and groove milling of cast iron, steel parts. Spiral interpolation milling, cycloid milling etc. multiple efficient milling. It applies design of different spirals, non-uniform, unequal edge spacing, variable diameter, which restrains high frequency vibration produced when carrying out high production machine. It can exert excellent anti-seismic capability to realize efficient machining of large cutting depth and large cutting width. Design of different groove depth give the tools enough space for chip capacity and enough tenacity.</p>
<p>淬火钢超硬系列HR700 HR700 series for machining hardened steel superhard</p> 	<p>加工硬度在 HRC55~68。 适用于高速切削、高硬淬火材料精加工，半精加工设计。 高强度，超韧性的欧洲进口基体材质配合新一代超硬涂层，有效延长刀具使用寿命。 专用刀型设计，高精度品控管理，实现卓越的高硬淬火材料加工。 Machining hardness is HRC55-68. It is suitable for finishing and semi-finishing design of high-speed cutting, high hardness quenching materials. European imported substrate materials with high strength and super tenacity matched with new generation of super hardness coating effective delays the lifespan of the tool. Special tool model design and high precision quality control management realize excellent machining of high hardness quenching materials.</p>
<p>高硬材料加工HMH HMH series for machining high hardness materials</p> 	<p>加工硬度在 HRC45~55。 高强度、高耐磨性超细颗粒基体材料，有效保证刀具超高耐磨性和使用寿命。 优异的涂层硬度及耐高温氧化性能，更适合用于高硬材料的加工。 Machining hardness is HRC45-55. Ultra-fine grained substrate materials with high strength and high abrasion resistance effective guarantee the ultra high abrasion resistance and lifespan. Excellent coating hardness and high temperature oxidization resistance which is more suitable for machining of high hardness materials.</p>

整体硬质合金铣刀系列介绍

Introduction of Solid Carbide End Mills Series

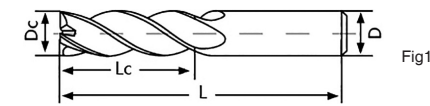
图示 Illustration	应用 Application
<p>难切削材料加工HMS HMS series for machining hard-to-cut materials</p> 	<p>加工硬度在 280HB 以下。 切削刃锋利，特殊的刃口设计，有效抑制切削热对刀尖的影响，解决刀具刃口积屑问题。 涂层耐热良好，高温环境下也能实现稳定加工。 适用于不锈钢、耐热合金等难切削材料加工。 Machining hardness is under 280HB. Its cutting edge is sharpness and special edge design can effectively restrain cutting heating's affection to tool nose. It can solve the problem of tool cutting edge weldings. The coating owns good heating resistance, it can realize stable machining under high temperature, too. It is suitable for machining of stainless steel, heating resistance alloy etc. hard-to-cut materials.</p>
<p>钛合金材料加工HT400 HT400 series for machining titanium alloy materials</p> 	<p>适用于钛合金 (TA7、TC4、TC18) 材料高性能加工。 不等分度、不等螺旋，有效抑制振动的产生，更高的加工表面质量。 前后刀面抛光处理，排屑槽和后刀面光洁度更好，减少摩擦，降低切削阻力和温度，减轻粘结磨损。 采用难加工材料专用基体，更长的刀具切削寿命。 It is suitable for high performance machining of titanium alloy(TA7、TC4、TC18) materials. Unequal division, unequal spirals can effectively restrains the vibration production to form better machining surface quality. Polish treatment to front and rear tool face. It owns better drainage groove and the rear tool face smoothness and reduces friction, cutting resistance and temperature, reduces cohesion abrasion. Its substrate specially applies materials of difficult to machine which makes the tool own more longer lifespan.</p>
<p>铝合金材料加工HMA HMA series for machining aluminium alloy materials</p> 	<p>精密镜面刃磨工艺，加工效果光滑无毛刺。 刃口采用抗振设计，能抑制加工过程中的振颤，提高加工表面质量。 适用于铝合金及铜合金的通用加工。 It applies precision mirror tool grinding technique and the machine effect is smooth without blur. Its cutting edge applies anti-seismic design, which can restrain the vibration occurred in the machining to improve machining surface quality. It is suitable for general machining of aluminium and copper alloy.</p>

通用加工 HM450 系列

HM450 Series for General Machining

四刃平头立铣刀

4-flute flattened end mills



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.02
Dc > 12	0	-0.025

型号 Type	基本尺寸 Basic dimension (mm)				刃数 Number of teeth	图号 Figure	库存 Stock
	Dc	Lc	D	L			
HM450 D1*3*50L*D4*4F	1	3	4	50	4	Fig2	●
HM450 D1.5*4*50L*D4*4F	1.5	4	4	50	4	Fig2	●
HM450 D2*6*50L*D4*4F	2	6	4	50	4	Fig2	●
HM450 D2.5*8*50L*D4*4F	2.5	8	4	50	4	Fig2	●
HM450 D3*9*50L*D4*4F	3	9	4	50	4	Fig2	●
HM450 D4*12*50L*D4*4F	4	12	4	50	4	Fig1	●
HM450 D5*15*50L*D6*4F	5	15	6	50	4	Fig2	●
HM450 D6*18*50L*D6*4F	6	18	6	50	4	Fig1	●
HM450 D8*24*60L*D8*4F	8	24	8	60	4	Fig1	●
HM450 D10*30*75L*D10*4F	10	30	10	75	4	Fig1	●
HM450 D12*36*75L*D12*4F	12	36	12	75	4	Fig1	●
HM450 D14*45*100L*D14*4F	14	45	14	100	4	Fig1	●
HM450 D16*50*100L*D16*4F	16	50	16	100	4	Fig1	●
HM450 D18*50*100L*D18*4F	18	50	18	100	4	Fig1	●
HM450 D20*50*100L*D20*4F	20	50	20	100	4	Fig1	●
HM450 D3*12*75L*D4*4F	3	12	4	75	4	Fig2	●
HM450 D3*15*100L*D4*4F	3	15	4	100	4	Fig2	●
HM450 D4*16*75L*D4*4F	4	16	4	75	4	Fig1	●
HM450 D4*20*100L*D4*4F	4	20	4	100	4	Fig1	●
HM450 D5*20*75L*D6*4F	5	20	6	75	4	Fig2	●
HM450 D5*30*100L*D6*4F	5	30	6	100	4	Fig2	●
HM450 D5*35*150L*D6*4F	5	35	6	150	4	Fig2	●
HM450 D6*30*100L*D6*4F	6	30	6	100	4	Fig1	●
HM450 D6*50*150L*D6*4F	6	50	6	150	4	Fig1	●
HM450 D8*35*100L*D8*4F	8	35	8	100	4	Fig1	●
HM450 D8*50*150L*D8*4F	8	50	8	150	4	Fig1	●
HM450 D10*40*100L*D10*4F	10	40	10	100	4	Fig1	●
HM450 D10*60*150L*D10*4F	10	60	10	150	4	Fig1	●
HM450 D12*45*100L*D12*4F	12	45	12	100	4	Fig1	●
HM450 D12*65*150L*D12*4F	12	65	12	150	4	Fig1	●
HM450 D14*70*150L*D14*4F	14	70	14	150	4	Fig1	●
HM450 D16*75*150L*D16*4F	16	75	16	150	4	Fig1	●
HM450 D20*75*150L*D20*4F	20	75	20	150	4	Fig1	●

● 标准库存 Stock available ○ 需预定 Make-to-order

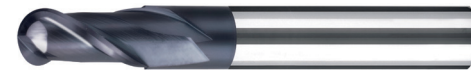
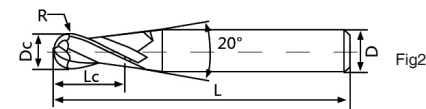
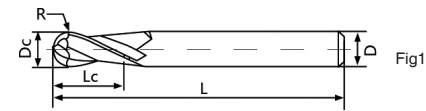


通用加工 HM450 系列

HM450 Series for General Machining

二刃球头立铣刀

2-flute ball nose end mills



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.02
Dc > 12	0	-0.025
R	±0.01	

型号 Type	基本尺寸 Basic dimension (mm)					刃数 Number of teeth	图号 Figure	库存 Stock
	Dc	R	Lc	D	L			
HM450 R0.5*2*50L*D4*2T	1	0.5	2	4	50	2	Fig2	●
HM450 R0.75*3*50L*D4*2T	1.5	0.75	3	4	50	2	Fig2	●
HM450 R1*4*50L*D4*2T	2	1	4	4	50	2	Fig2	●
HM450 R1.25*5*50L*D4*2T	2.5	1.25	5	4	50	2	Fig2	●
HM450 R1.5*6*50L*D4*2T	3	1.5	6	4	50	2	Fig2	●
HM450 R2*8*50L*D4*2T	4	2	8	4	50	2	Fig1	●
HM450 R2*8*50L*D6*2T	4	2	8	6	50	2	Fig2	●
HM450 R2.5*10*50L*D6*2T	5	2.5	10	6	50	2	Fig2	●
HM450 R3*12*50L*D6*2T	6	3	12	6	50	2	Fig1	●
HM450 R3.5*12*60L*D8*2T	7	3.5	12	8	60	2	Fig2	●
HM450 R4*16*60L*D8*2T	8	4	16	8	60	2	Fig1	●
HM450 R4.5*18*75L*D10*2T	9	4.5	18	10	75	2	Fig2	●
HM450 R5*20*75L*D10*2T	10	5	20	10	75	2	Fig1	●
HM450 R6*24*75L*D12*2T	12	6	24	12	75	2	Fig1	●
HM450 R7*28*75L*D14*2T	14	7	28	14	75	2	Fig1	●
HM450 R8*32*100L*D16*2T	16	8	32	16	100	2	Fig1	●
HM450 R9*36*100L*D18*2T	18	9	36	18	100	2	Fig1	●
HM450 R10*40*100L*D20*2T	20	10	40	20	100	2	Fig1	●

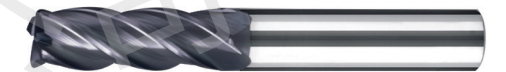
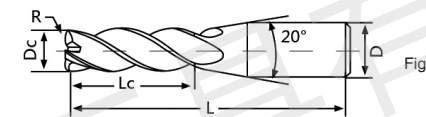
● 标准库存 Stock available ○ 需预定 Make-to-order

通用加工 HM450 系列

HM450 Series for General Machining

四刃圆弧立铣刀

4-flute R end mills



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.02
Dc > 12	0	-0.025
R	±0.01	

型号 Type	基本尺寸 Basic dimension (mm)					刃数 Number of teeth	图号 Figure	库存 Stock
	Dc	R	Lc	D	L			
HM450 D1R0.2*3*50L*D4*4F	1	0.2	3	4	50	4	Fig2	●
HM450 D1.5R0.2*4*50L*D4*4F	1.5	0.2	4	4	50	4	Fig2	●
HM450 D2R0.2*6*50L*D4*4F	2	0.2	6	4	50	4	Fig2	●
HM450 D3R0.2*9*50L*D4*4F	3	0.2	9	4	50	4	Fig2	●
HM450 D3R0.5*9*50L*D4*4F	3	0.5	9	4	50	4	Fig2	●
HM450 D4R0.2*12*50L*D4*4F	4	0.2	12	4	50	4	Fig1	●
HM450 D4R0.5*12*50L*D4*4F	4	0.5	12	4	50	4	Fig1	●
HM450 D4R1*12*50L*D4*4F	4	1	12	4	50	4	Fig1	●
HM450 D5R0.5*15*50L*D6*4F	5	0.5	15	6	50	4	Fig2	●
HM450 D5R1*15*50L*D6*4F	5	1	15	6	50	4	Fig2	●
HM450 D6R0.5*18*50L*D6*4F	6	0.5	18	6	50	4	Fig1	●
HM450 D6R1*18*50L*D6*4F	6	1	18	6	50	4	Fig1	●
HM450 D8R0.5*24*60L*D8*4F	8	0.5	24	8	60	4	Fig1	●
HM450 D8R1*24*60L*D8*4F	8	1	24	8	60	4	Fig1	●
HM450 D10R0.5*30*75L*D10*4F	10	0.5	30	10	75	4	Fig1	●
HM450 D10R1*30*75L*D10*4F	10	1	30	10	75	4	Fig1	●
HM450 D10R2*30*75L*D10*4F	10	2	30	10	75	4	Fig1	●
HM450 D10R3*30*75L*D10*4F	10	3	30	10	75	4	Fig1	●
HM450 D12R0.5*36*75L*D12*4F	12	0.5	36	12	75	4	Fig1	●
HM450 D12R1.0*36*75L*D12*4F	12	1	36	12	75	4	Fig1	●
HM450 D12R2*36*75L*D12*4F	12	2	36	12	75	4	Fig1	●
HM450 D12R3*36*75L*D12*4F	12	3	36	12	75	4	Fig1	●

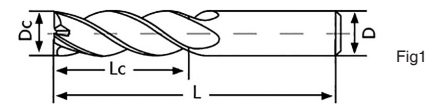
● 标准库存 Stock available ○ 需预定 Make-to-order

大进给加工 HP500 系列

HP500 Series for Machining with High Feed Rate

四刃平头立铣刀

4-flute flattened end mills



公差 (mm)
Tolerance (mm)
Dc ≤ 12 0 -0.018
Dc > 12 0 -0.02

型号 Type	基本尺寸 Basic dimension (mm)				刃数 Number of teeth	图号 Figure	库存 Stock
	Dc	Lc	D	L			
HP500 D1*3*50L*D4*4F	1	3	4	50	4	Fig2	●
HP500 D1.5*4*50L*D4*4F	1.5	4	4	50	4	Fig2	●
HP500 D2*6*50L*D4*4F	2	6	4	50	4	Fig2	●
HP500 D2.5*8*50L*D4*4F	2.5	8	4	50	4	Fig2	●
HP500 D3*9*50L*D4*4F	3	9	4	50	4	Fig2	●
HP500 D4*10*50L*D6*4F	4	10	6	50	4	Fig2	●
HP500 D5*12*50L*D5*4F	5	12	5	50	4	Fig1	●
HP500 D6*15*50L*D6*4F	6	15	6	50	4	Fig1	●
HP500 D8*20*60L*D8*4F	8	20	8	60	4	Fig1	●
HP500 D10*25*75L*D10*4F	10	25	10	75	4	Fig1	●
HP500 D12*30*75L*D12*4F	12	30	12	75	4	Fig1	●
HP500 D14*45*100L*D14*4F	14	45	14	100	4	Fig1	●
HP500 D16*45*100L*D16*4F	16	45	16	100	4	Fig1	●
HP500 D18*45*100L*D18*4F	18	45	18	100	4	Fig1	●
HP500 D20*45*100L*D20*4F	20	45	20	100	4	Fig1	●
HP500 D4*15*75L*D4*4F	4	15	4	75	4	Fig1	●
HP500 D5*20*75L*D6*4F	5	20	6	75	4	Fig2	●
HP500 D6*20*75L*D6*4F	6	20	6	75	4	Fig1	●
HP500 D8*24*75L*D8*4F	8	24	8	75	4	Fig1	●
HP500 D8*32*100L*D8*4F	8	32	8	100	4	Fig1	●
HP500 D10*40*100L*D10*4F	10	40	10	100	4	Fig1	●
HP500 D12*45*100L*D12*4F	12	45	12	100	4	Fig1	●
HP500 D16*65*150L*D16*4F	16	65	16	150	4	Fig1	●
HP500 D18*65*150L*D18*4F	18	65	18	150	4	Fig1	●
HP500 D20*65*150L*D20*4F	20	65	20	150	4	Fig1	●

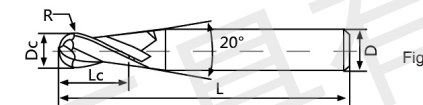
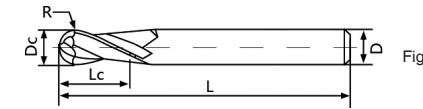
● 标准库存 Stock available ○ 需预定 Make-to-order

大进给加工 HP500 系列

HP500 Series for Machining with High Feed Rate

二刃球头立铣刀

2-flute ball nose end mills



公差 (mm)
Tolerance (mm)
Dc ≤ 12 0 -0.018
Dc > 12 0 -0.02
R ±0.01

型号 Type	基本尺寸 Basic dimension (mm)					刃数 Number of teeth	图号 Figure	库存 Stock
	Dc	R	Lc	D	L			
HP500 R0.5*2*50L*D4*2T	1	0.5	2	4	50	2	Fig2	●
HP500 R0.75*3*50L*D4*2T	1.5	0.75	3	4	50	2	Fig2	●
HP500 R1*4*50L*D4*2T	2	1	4	4	50	2	Fig2	●
HP500 R1.25*5*50L*D4*2T	2.5	1.25	5	4	50	2	Fig2	●
HP500 R1.5*6*50L*D4*2T	3	1.5	6	4	50	2	Fig2	●
HP500 R2*8*50L*D4*2T	4	2	8	4	50	2	Fig1	●
HP500 R2*8*50L*D6*2T	4	2	8	6	50	2	Fig2	●
HP500 R2.5*10*50L*D6*2T	5	2.5	10	6	50	2	Fig2	●
HP500 R3*12*50L*D6*2T	6	3	12	6	50	2	Fig1	●
HP500 R3.5*14*60L*D8*2T	7	3.5	14	8	60	2	Fig2	●
HP500 R4*16*60L*D8*2T	8	4	16	8	60	2	Fig1	●
HP500 R4*16*75L*D8*2T	8	4	16	8	75	2	Fig1	●
HP500 R4.5*18*75L*D10*2T	9	4.5	18	10	75	2	Fig2	●
HP500 R5*20*75L*D10*2T	10	5	20	10	75	2	Fig1	●
HP500 R6*24*75L*D12*2T	12	6	24	12	75	2	Fig1	●
HP500 R7*28*75L*D14*2T	14	7	28	14	75	2	Fig1	●
HP500 R8*32*100L*D16*2T	16	8	32	16	100	2	Fig1	●
HP500 R9*36*100L*D18*2T	18	9	36	18	100	2	Fig1	●
HP500 R10*40*100L*D20*2T	20	10	40	20	100	2	Fig1	●

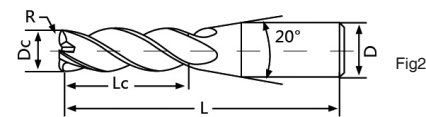
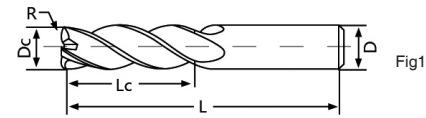
● 标准库存 Stock available ○ 需预定 Make-to-order

大进给加工 HP500 系列

HP500 Series for Machining with High Feed Rate

四刃圆弧立铣刀

4-flute R end mills



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.018
Dc > 12	0	-0.02
R	±0.01	

型号 Type	基本尺寸 Basic dimension (mm)					刃数 Number of teeth	图号 Figure	库存 Stock
	Dc	R	Lc	D	L			
HP500 D1R0.2*3*50L*D4*4T	1	0.2	3	4	50	4	Fig2	●
HP500 D1.5R0.2*4*4T*50L*D4*4T	1.5	0.2	4	4	50	4	Fig2	●
HP500 D2R0.2*6*50L*D4*4T	2	0.2	6	4	50	4	Fig2	●
HP500 D3R0.2*8*50L*D4*4T	3	0.2	8	4	50	4	Fig2	●
HP500 D3R0.5*8*50L*D4*4T	3	0.5	8	4	50	4	Fig2	●
HP500 D4R0.2*10*50L*D4*4T	4	0.2	10	4	50	4	Fig1	●
HP500 D4R0.3*10*50L*D4*4T	4	0.3	10	4	50	4	Fig1	●
HP500 D4R0.5*10*50L*D4*4T	4	0.5	10	4	50	4	Fig1	●
HP500 D4R1*10*50L*D4*4T	4	1	10	4	50	4	Fig1	●
HP500 D5R0.25*13*50L*D6*4T	5	0.25	13	6	50	4	Fig2	●
HP500 D5R0.5*13*50L*D6*4T	5	0.5	13	6	50	4	Fig2	●
HP500 D5R1*13*50L*D6*4T	5	1	13	6	50	4	Fig2	●
HP500 D6R0.3*16*50L*D6*4T	6	0.3	16	6	50	4	Fig1	●
HP500 D6R0.5*16*50L*D6*4T	6	0.5	16	6	50	4	Fig1	●
HP500 D6R1*16*50L*D6*4T	6	1	16	6	50	4	Fig1	●
HP500 D8R0.5*20*60L*D8*4T	8	0.5	20	8	60	4	Fig1	●
HP500 D8R1*20*60L*D8*4T	8	1	20	8	60	4	Fig1	●
HP500 D8R0.5*20*75L*D8*4T	8	0.5	20	8	75	4	Fig1	●
HP500 D10R0.5*25*75L*D10*4T	10	0.5	25	10	75	4	Fig1	●
HP500 D10R1*25*75L*D10*4T	10	1	25	10	75	4	Fig1	●
HP500 D10R2*25*75L*D10*4T	10	2	25	10	75	4	Fig1	●
HP500 D10R3*25*75L*D10*4T	10	3	25	10	75	4	Fig1	●
HP500 D12R0.5*30*75L*D12*4T	12	0.5	30	12	75	4	Fig1	●
HP500 D12R1*30*75L*D12*4T	12	1	30	12	75	4	Fig1	●
HP500 D12R2*30*75L*D12*4T	12	2	30	12	75	4	Fig1	●
HP500 D12R3*30*75L*D12*4T	12	3	30	12	75	4	Fig1	●

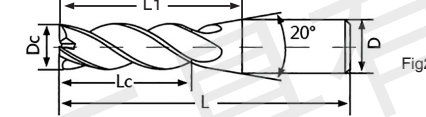
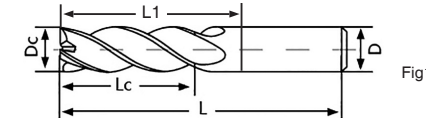
● 标准库存 Stock available ○ 需预定 Make-to-order

淬火钢超硬加工 HR700 系列

HR700 Series for Machining Hardened Steel Superhard

四刃平头立铣刀

4-flute flattened end mills



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.018
Dc > 12	0	-0.018

型号 Type	基本尺寸 Basic dimension (mm)					刃数 Number of teeth	图号 Figure	库存 Stock
	Dc	Lc	L1	D	L			
HR700 D1*3*3mm*50L*D4*4F	1	3	3	4	50	4	Fig2	●
HR700 D1.5*4.5*4.5mm*50L*D4*4F	1.5	4.5	4.5	4	50	4	Fig2	●
HR700 D2*6*6mm*50L*D4*4F	2	6	6	4	50	4	Fig2	●
HR700 D2.5*6*6mm*50L*D4*4F	2.5	6	6	4	50	4	Fig2	●
HR700 D3*8*8mm*50L*D4*4F	3	8	8	4	50	4	Fig2	●
HR700 D4*10*12mm*50L*D4*4F	4	10	12	4	50	4	Fig1	●
HR700 D5*15*18mm*50L*D6*4F	5	15	18	6	50	4	Fig2	●
HR700 D6*15*18mm*50L*D6*4F	6	15	18	6	50	4	Fig1	●
HR700 D8*20*24mm*60L*D8*4F	8	20	24	8	60	4	Fig1	●
HR700 D10*25*30mm*75L*D10*4F	10	25	30	10	75	4	Fig1	●
HR700 D12*30*36mm*75L*D12*4F	12	30	36	12	75	4	Fig1	●
HR700 D16*40*48mm*100L*D16*4F	16	40	48	16	100	4	Fig1	●
HR700 D20*50*50mm*100L*D20*4F	20	50	50	20	100	4	Fig1	●

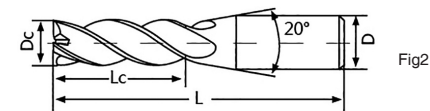
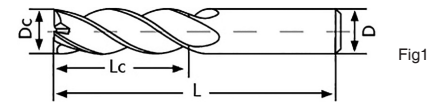
● 标准库存 Stock available ○ 需预定 Make-to-order

淬火钢超硬加工 HR700 系列

HR700 Series for Machining Hardened Steel Superhard

四刃长柄平头立铣刀

4-flute flattened end mills with long shank



公差 (mm)
Tolerance (mm)
Dc ≤ 12 0 -0.018
Dc > 12 0 -0.018

型号 Type	基本尺寸 Basic dimension (mm)				刃数 Number of teeth	图号 Figure	库存 Stock
	Dc	Lc	D	L			
HR700 D3*12*75L*D4*4F	3.0	12	4	75	4	Fig2	○
HR700 D4*16*75L*D4*4F	4.0	16	4	75	4	Fig1	○
HR700 D5*25*100L*D6*4F	5.0	25	6	100	4	Fig2	○
HR700 D6*30*100L*D6*4F	6.0	30	6	100	4	Fig1	○
HR700 D8*40*100L*D8*4F	8.0	40	8	100	4	Fig1	○
HR700 D10*45*100L*D10*4F	10.0	45	10	100	4	Fig1	○
HR700 D12*50*100L*D12*4F	12.0	50	12	100	4	Fig1	○

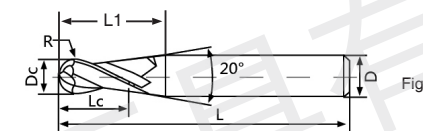
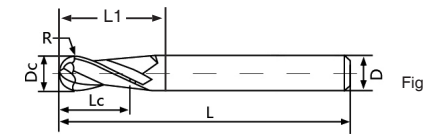
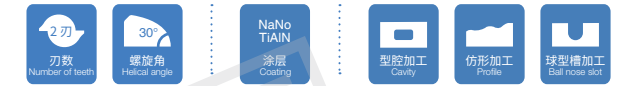
● 标准库存 Stock available ○ 需预定 Make-to-order

淬火钢超硬加工 HR700 系列

HR700 Series for Machining Hardened Steel Superhard

二刃球头立铣刀

2-flute ball nose end mills



公差 (mm)
Tolerance (mm)
Dc ≤ 12 0 -0.018
Dc > 12 0 -0.018
R ±0.01

型号 Type	基本尺寸 Basic dimension (mm)						刃数 Number of teeth	图号 Figure	库存 Stock
	Dc	R	Lc	L1	D	L			
HR700 R0.5*1.5*50L*D4*2T	1	0.5	1.5	2.5	4	50	2	Fig2	●
HR700 R0.75*2.3*50L*D4*2T	1.5	0.75	2.3	3.5	4	50	2	Fig2	●
HR700 R1*4*50L*D4*2T	2	1	4	6	4	50	2	Fig2	●
HR700 R1.25*5*50L*D4*2T	2.5	1.25	5	7	4	50	2	Fig2	●
HR700 R1.5*6*50L*D4*2T	3	1.5	6	8	4	50	2	Fig2	●
HR700 R2*8*50L*D4*2T	4	2	8	10	4	50	2	Fig1	●
HR700 R2.5*10*50L*D6*2T	5	2.5	10	13	6	50	2	Fig2	●
HR700 R3*12*50L*D6*2T	6	3	12	15	6	50	2	Fig1	●
HR700 R4*16*60L*D8*2T	8	4	16	20	8	60	2	Fig1	●
HR700 R5*20*75L*D10*2T	10	5	20	25	10	75	2	Fig1	●
HR700 R6*24*75L*D12*2T	12	6	24	30	12	75	2	Fig1	●
HR700 R8*32*100L*D16*2T	16	8	32	32	16	100	2	Fig1	●
HR700 R10*40*100L*D20*2T	20	10	40	40	20	100	2	Fig1	●

● 标准库存 Stock available ○ 需预定 Make-to-order

淬火钢超硬加工 HR700 系列

HR700 Series for Machining Hardened Steel Superhard

二刃长柄球头立铣刀

2-flute ball nose end mills with long shank



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.018
Dc > 12	0	-0.018
R	±0.01	

型号 Type	基本尺寸 Basic dimension (mm)						刃数 Number of teeth	图号 Figure	库存 Stock
	Dc	R	Lc	L1	D	L			
HR700 R1.5*6*75L*D4*2T	3	1.5	6	9	4	75	2	Fig2	○
HR700 R2*8*75L*D4*2T	4	2	8	12	4	75	2	Fig1	○
HR700 R2.5*10*75L*D6*2T	5	2.5	10	15	6	75	2	Fig2	○
HR700 R3*12*75L*D6*2T	6	3	12	18	6	75	2	Fig1	○
HR700 R4*16*100L*D8*2T	8	4	16	24	8	100	2	Fig1	○
HR700 R5*20*100L*D10*2T	10	5	20	30	10	100	2	Fig1	○
HR700 R6*25*100L*D12*2T	12	6	25	36	12	100	2	Fig1	○
HR700 R8*32*150L*D16*2T	16	8	32	48	16	150	2	Fig1	○
HR700 R10*40*150L*D20*2T	20	10	40	60	20	150	2	Fig1	○
HR700 R10*40*200L*D20*2T	20	10	40	60	20	200	2	Fig1	○

● 标准库存 Stock available ○ 需预定 Make-to-order

淬火钢超硬加工 HR700 系列

HR700 Series for Machining Hardened Steel Superhard

四刃圆弧立铣刀

4-flute R end mills



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.018
Dc > 12	0	-0.018
R	±0.01	

型号 Type	基本尺寸 Basic dimension (mm)						刃数 Number of teeth	图号 Figure	库存 Stock
	Dc	R	Lc	L1	D	L			
HR700 D3R0.2*6*9mm*50L*D4*4T	3	0.2	6	9	4	50	4	Fig2	●
HR700 D3R0.5*6*9mm*50L*D4*4T	3	0.5	6	9	4	50	4	Fig2	●
HR700 D4R0.2*8*12mm*50L*D4*4T	4	0.2	8	12	4	50	4	Fig1	●
HR700 D4R0.5*8*12mm*50L*D4*4T	4	0.5	8	12	4	50	4	Fig1	●
HR700 D4R1*8*12mm*50L*D4*4T	4	1	8	12	4	50	4	Fig1	●
HR700 D5R0.5*10*15mm*50L*D6*4T	5	0.5	10	15	6	50	4	Fig2	●
HR700 D5R1*10*15mm*50L*D6*4T	5	1	10	15	6	50	4	Fig2	●
HR700 D5R1.5*10*15mm*50L*D6*4T	5	1.5	10	15	6	50	4	Fig2	●
HR700 D6R0.5*12*18mm*50L*D6*4T	6	0.5	12	18	6	50	4	Fig1	●
HR700 D6R1*12*18mm*50L*D6*4T	6	1	12	18	6	50	4	Fig1	●
HR700 D6R1.5*12*18mm*50L*D6*4T	6	1.5	12	18	6	50	4	Fig1	●
HR700 D8R0.5*16*24mm*60L*D8*4T	8	0.5	16	24	8	60	4	Fig1	●
HR700 D8R1*16*24mm*60L*D8*4T	8	1	16	24	8	60	4	Fig1	●
HR700 D8R1.5*16*24mm*60L*D8*4T	8	1.5	16	24	8	60	4	Fig1	●
HR700 D8R2*16*24mm*60L*D8*4T	8	2	16	24	8	60	4	Fig1	●
HR700 D10R0.5*20*30mm*75L*D10*4T	10	0.5	20	30	10	75	4	Fig1	●
HR700 D10R1*20*30mm*75L*D10*4T	10	1	20	30	10	75	4	Fig1	●
HR700 D10R1.5*20*30mm*75L*D10*4T	10	1.5	20	30	10	75	4	Fig1	●
HR700 D10R2*20*30mm*75L*D10*4T	10	2	20	30	10	75	4	Fig1	●
HR700 D12R0.5*24*36mm*75L*D12*4T	12	0.5	24	36	12	75	4	Fig1	●
HR700 D12R1*24*36mm*75L*D12*4T	12	1	24	36	12	75	4	Fig1	●
HR700 D12R1.5*24*36mm*75L*D12*4T	12	1.5	24	36	12	75	4	Fig1	●
HR700 D12R2*24*36mm*75L*D12*4T	12	2	24	36	12	75	4	Fig1	●

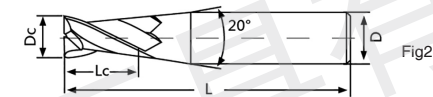
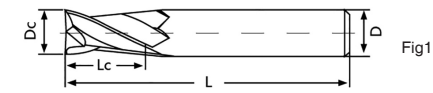
● 标准库存 Stock available ○ 需预定 Make-to-order

高硬材料加工 HMM 系列

HMM Series for Machining High Hardness Materials

二刃直柄平头立铣刀

2-flute flattened end mills with straight shank



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.02
Dc > 12	0	-0.03

型号 Type	基本尺寸 Basic dimension (mm)				刃数 Number of teeth	图号 Figure	库存 Stock
	Dc	Lc	D	L			
HMH-2F010-D04	1	3	4	50	2	Fig2	●
HMH-2F010-D06	1	3	6	50	2	Fig2	●
HMH-2F015-D04	1.5	4	4	50	2	Fig2	●
HMH-2F015-D06	1.5	4	6	50	2	Fig2	●
HMH-2F020-D04	2	6	4	50	2	Fig2	●
HMH-2F020-D06	2	6	6	50	2	Fig2	●
HMH-2F025-D04	2.5	8	4	50	2	Fig2	●
HMH-2F025-D06	2.5	8	6	50	2	Fig2	●
HMH-2F030-D04	3	9	4	50	2	Fig2	●
HMH-2F030-D06	3	9	6	50	2	Fig2	●
HMH-2F035-D06	3.5	10	6	50	2	Fig2	●
HMH-2F040	4	11	4	50	2	Fig1	●
HMH-2F040-D06	4	11	6	50	2	Fig2	●
HMH-2F045-D06	4.5	11	6	50	2	Fig2	●
HMH-2F050-D06	5	13	6	50	2	Fig2	●
HMH-2F055-D06	5.5	16	6	50	2	Fig2	●
HMH-2F060	6	16	6	50	2	Fig1	●
HMH-2F070-D08	7	20	8	60	2	Fig2	●
HMH-2F080	8	20	8	60	2	Fig1	●
HMH-2F090-D10	9	22	10	75	2	Fig2	●
HMH-2F100	10	25	10	75	2	Fig1	●
HMH-2F110-D12	11	26	12	75	2	Fig2	●
HMH-2F120	12	30	12	75	2	Fig1	●
HMH-2F140	14	32	14	100	2	Fig1	●
HMH-2F160	16	45	16	100	2	Fig1	●
HMH-2F180	18	45	18	100	2	Fig1	●
HMH-2F200	20	45	20	100	2	Fig1	●

● 标准库存 Stock available ○ 需预定 Make-to-order

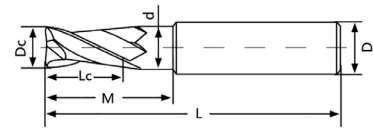


高硬材料加工 HMM 系列

HMM Series for Machining High Hardness Materials

二刃直柄长颈短刃平头立铣刀

2-flute flattened end mills with straight shank, long neck and short cutting edge



公差 (mm)
Tolerance (mm)
Dc ≤ 12 0 -0.02
Dc > 12 0 -0.03

型号 Type	基本尺寸 Basic dimension (mm)						刃数 Number of teeth	库存 Stock
	Dc	Lc	M	d	D	L		
HMH-2FNS060-M30	6	9	30	5.8	6	75	2	○
HMH-2FNS080-M40	8	12	40	7.8	8	100	2	○
HMH-2FNS100-M50	10	15	50	9.6	10	100	2	○
HMH-2FNS120-M50	12	18	50	11.5	12	100	2	○
HMH-2FNS160-M50	16	24	50	15.5	16	150	2	○
HMH-2FNS200-M60	20	30	60	19.5	20	150	2	○

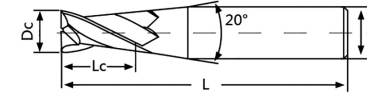
● 标准库存 Stock available ○ 需预定 Make-to-order

高硬材料加工 HMM 系列

HMM Series for Machining High Hardness Materials

二刃直柄微小径平头立铣刀

2-flute flattened end mills with straight shank and tiny diameter



公差 (mm)
Tolerance (mm)
Dc ≤ 3 0 -0.015

型号 Type	基本尺寸 Basic dimension (mm)				刃数 Number of teeth	库存 Stock
	Dc	Lc	D	L		
HMH-2F003-D04V	0.3	0.6	4	50	2	○
HMH-2F004-D04V	0.4	0.8	4	50	2	○
HMH-2F005-D04V	0.5	1	4	50	2	○
HMH-2F006-D04V	0.6	1.2	4	50	2	○
HMH-2F007-D04V	0.7	1.4	4	50	2	○
HMH-2F008-D04V	0.8	1.6	4	50	2	○
HMH-2F009-D04V	0.9	1.8	4	50	2	○
HMH-2F010-D04V	1	2	4	50	2	○
HMH-2F011-D04V	1.1	2	4	50	2	○
HMH-2F012-D04V	1.2	2.5	4	50	2	○
HMH-2F013-D04V	1.3	2.5	4	50	2	○
HMH-2F014-D04V	1.4	3	4	50	2	○
HMH-2F015-D04V	1.5	3	4	50	2	○
HMH-2F016-D04V	1.6	3.5	4	50	2	○
HMH-2F017-D04V	1.7	3.5	4	50	2	○
HMH-2F018-D04V	1.8	4	4	50	2	○
HMH-2F019-D04V	1.9	4	4	50	2	○
HMH-2F020-D04V	2	4	4	50	2	○
HMH-2F021-D04V	2.1	4	4	50	2	○
HMH-2F022-D04V	2.2	4.5	4	50	2	○
HMH-2F023-D04V	2.3	4.5	4	50	2	○
HMH-2F024-D04V	2.4	5	4	50	2	○
HMH-2F025-D04V	2.5	5	4	50	2	○
HMH-2F026-D04V	2.6	5	4	50	2	○
HMH-2F027-D04V	2.7	5.5	4	50	2	○
HMH-2F028-D04V	2.8	5.5	4	50	2	○
HMH-2F029-D04V	2.9	6	4	50	2	○
HMH-2F030-D04V	3	6	4	50	2	○

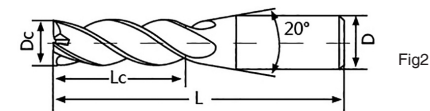
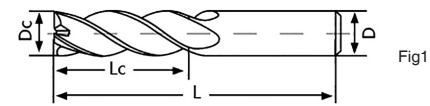
● 标准库存 Stock available ○ 需预定 Make-to-order

高硬材料加工 HMM 系列

HMM Series for Machining High Hardness Materials

四刃直柄平头立铣刀

4-flute flattened end mills with straight shank



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.02
Dc > 12	0	-0.03

型号 Type	基本尺寸 Basic dimension (mm)				刃数 Number of teeth	图号 Figure	库存 Stock
	Dc	Lc	D	L			
HMH-4F010-D04	1	3	4	50	4	Fig2	●
HMH-4F010-D06	1	3	6	50	4	Fig2	●
HMH-4F015-D04	1.5	4	4	50	4	Fig2	●
HMH-4F015-D06	1.5	4	6	50	4	Fig2	●
HMH-4F020-D04	2	6	4	50	4	Fig2	●
HMH-4F020-D06	2	6	6	50	4	Fig2	●
HMH-4F025-D04	2.5	8	4	50	4	Fig2	●
HMH-4F025-D06	2.5	8	6	50	4	Fig2	●
HMH-4F030-D04	3	8	4	50	4	Fig2	●
HMH-4F030-D06	3	8	6	50	4	Fig2	●
HMH-4F035-D06	3.5	10	6	50	4	Fig2	●
HMH-4F040	4	11	4	50	4	Fig1	●
HMH-4F040-D06	4	11	6	50	4	Fig2	●
HMH-4F045-D06	4.5	11	6	50	4	Fig2	●
HMH-4F050-D06	5	13	6	50	4	Fig2	●
HMH-4F055-D06	5.5	16	6	50	4	Fig2	●
HMH-4F060	6	16	6	50	4	Fig1	●
HMH-4F070-D08	7	20	8	60	4	Fig2	●
HMH-4F080	8	20	8	60	4	Fig1	●
HMH-4F090-D10	9	22	10	75	4	Fig2	●
HMH-4F100	10	25	10	75	4	Fig1	●
HMH-4F110-D12	11	26	12	75	4	Fig2	●
HMH-4F120	12	30	12	75	4	Fig1	●
HMH-4F140	14	32	14	75	4	Fig1	●
HMH-4F160	16	45	16	100	4	Fig1	●
HMH-4F180	18	45	18	100	4	Fig1	●
HMH-4F200	20	45	20	100	4	Fig1	●

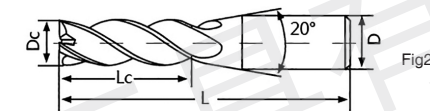
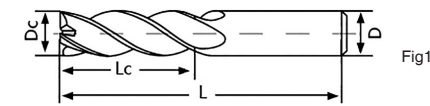
● 标准库存 Stock available ○ 需预定 Make-to-order

高硬材料加工 HMM 系列

HMM Series for Machining High Hardness Materials

四刃直柄长刃平头立铣刀

4-flute flattened end mills with straight shank and long cutting edge



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.02
Dc > 12	0	-0.03

型号 Type	基本尺寸 Basic dimension (mm)				刃数 Number of teeth	图号 Figure	库存 Stock
	Dc	Lc	D	L			
HMH-4FL030-D06	3	12	6	75	4	Fig2	○
HMH-4FL040-D06	4	15	6	75	4	Fig2	○
HMH-4FL050-D06	5	20	6	75	4	Fig2	○
HMH-4FL060	6	20	6	75	4	Fig1	○
HMH-4FL080	8	25	8	100	4	Fig1	○
HMH-4FL100	10	30	10	100	4	Fig1	○
HMH-4FL120	12	35	12	100	4	Fig1	○
HMH-4FL140	14	40	14	100	4	Fig1	○
HMH-4FL160	16	50	16	150	4	Fig1	○
HMH-4FL200	20	55	20	150	4	Fig1	○

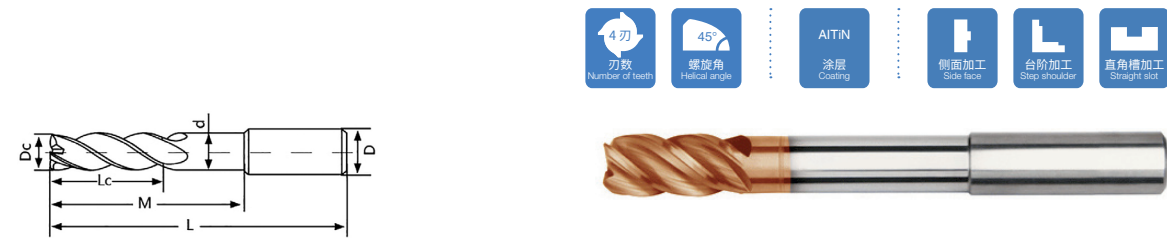
● 标准库存 Stock available ○ 需预定 Make-to-order

高硬材料加工 HMH 系列

HMH Series for Machining High Hardness Materials

四刃直柄长颈短刃平头立铣刀

4-flute flattened end mills with straight shank, long neck and short cutting edge



公差 (mm)
Tolerance (mm)
Dc ≤ 12 0 -0.02
Dc > 12 0 -0.03

型号 Type	基本尺寸 Basic dimension (mm)						刃数 Number of teeth	库存 Stock
	Dc	Lc	M	d	D	L		
HMH-4FNS060-M30	6	9	30	5.8	6	75	4	○
HMH-4FNS080-M40	8	12	40	7.8	8	100	4	○
HMH-4FNS100-M50	10	15	50	9.6	10	100	4	○
HMH-4FNS120-M50	12	18	50	11.5	12	100	4	○
HMH-4FNS160-M50	16	24	50	15.5	16	150	4	○
HMH-4FNS200-M60	20	30	60	19.5	20	150	4	○

● 标准库存 Stock available ○ 需预定 Make-to-order

高硬材料加工 HMH 系列

HMH Series for Machining High Hardness Materials

六刃直柄平头立铣刀

6-flute flattened end mills with straight shank



公差 (mm)
Tolerance (mm)
Dc ≤ 12 0 -0.02
Dc > 12 0 -0.03

型号 Type	基本尺寸 Basic dimension (mm)				刃数 Number of teeth	库存 Stock
	Dc	Lc	D	L		
HMH-6F060	6	18	6	60	6	○
HMH-6F080	8	20	8	60	6	○
HMH-6F100	10	30	10	75	6	○
HMH-6F120	12	32	12	75	6	○
HMH-6F160	16	40	16	100	6	○
HMH-6F200	20	45	20	100	6	○

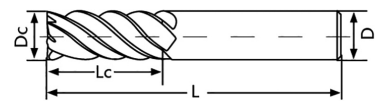
● 标准库存 Stock available ○ 需预定 Make-to-order

高硬材料加工 HMM 系列

HMM Series for Machining High Hardness Materials

六刃直柄长刃平头立铣刀

6-flute flattened end mills with straight shank and long cutting edge



公差 (mm)
Tolerance (mm)
Dc ≤ 12 0 -0.02
Dc > 12 0 -0.03

型号 Type	基本尺寸 Basic dimension (mm)				刃数 Number of teeth	库存 Stock
	Dc	Lc	D	L		
HMH-6FL060	6	24	6	75	6	○
HMH-6FL080	8	32	8	75	6	○
HMH-6FL100	10	40	10	100	6	○
HMH-6FL120	12	45	12	100	6	○
HMH-6FL160	16	64	16	150	6	○
HMH-6FL200	20	75	20	150	6	○

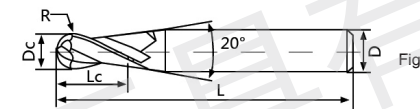
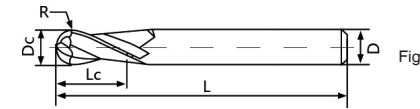
● 标准库存 Stock available ○ 需预定 Make-to-order

高硬材料加工 HMM 系列

HMM Series for Machining High Hardness Materials

二刃直柄球头立铣刀

2-flute ball nose end mills with straight shank



公差 (mm)
Tolerance (mm)
Dc ≤ 12 0 -0.02
Dc > 12 0 -0.03
R ±0.01

型号 Type	基本尺寸 Basic dimension (mm)					刃数 Number of teeth	图号 Figure	库存 Stock
	R	Dc	Lc	D	L			
HMH-2B010-D04	0.5	1	2	4	50	2	Fig2	●
HMH-2B010-D06	0.5	1	2	6	50	2	Fig2	●
HMH-2B015-D04	0.75	1.5	3	4	50	2	Fig2	●
HMH-2B015-D06	0.75	1.5	3	6	50	2	Fig2	●
HMH-2B020-D04	1	2	4	4	50	2	Fig2	●
HMH-2B020-D06	1	2	4	6	50	2	Fig2	●
HMH-2B025-D04	1.25	2.5	5	4	50	2	Fig2	●
HMH-2B025-D06	1.25	2.5	5	6	50	2	Fig2	●
HMH-2B030-D04	1.5	3	6	4	50	2	Fig2	●
HMH-2B030-D06	1.5	3	6	6	50	2	Fig2	●
HMH-2B035-D06	1.75	3.5	8	6	50	2	Fig2	●
HMH-2B040	2	4	8	4	50	2	Fig1	●
HMH-2B040-D06	2	4	8	6	50	2	Fig2	●
HMH-2B050-D06	2.5	5	10	6	50	2	Fig2	●
HMH-2B055-D06	2.75	5.5	12	6	50	2	Fig2	●
HMH-2B060	3	6	12	6	50	2	Fig1	●
HMH-2B070-D08	3.5	7	14	8	60	2	Fig2	●
HMH-2B080	4	8	16	8	60	2	Fig1	●
HMH-2B090-D10	4.5	9	18	10	75	2	Fig2	●
HMH-2B100	5	10	20	10	75	2	Fig1	●
HMH-2B120	6	12	24	12	75	2	Fig1	●
HMH-2B140	7	14	28	14	75	2	Fig1	●
HMH-2B160	8	16	32	16	100	2	Fig1	●
HMH-2B200	10	20	40	20	100	2	Fig1	●

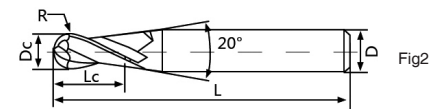
● 标准库存 Stock available ○ 需预定 Make-to-order

高硬材料加工 HMH 系列

HMH Series for Machining High Hardness Materials

二刃直柄长柄球头立铣刀

2-flute ball nose end mills with long shank



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.02
Dc > 12	0	-0.03
R	±0.01	

型号 Type	基本尺寸 Basic dimension (mm)					刃数 Number of teeth	图号 Figure	库存 Stock
	R	Dc	Lc	D	L			
HMH-2BH020-D06	1	2	4	6	75	2	Fig2	○
HMH-2BH025-D06	1.25	2.5	6	6	75	2	Fig2	○
HMH-2BH030-D06	1.5	3	6	6	75	2	Fig2	○
HMH-2BH035-D06	1.75	3.5	8	6	75	2	Fig2	○
HMH-2BH040-D06	2	4	8	6	75	2	Fig2	○
HMH-2BH050-D06	2.5	5	10	6	75	2	Fig2	○
HMH-2BH055-D06	2.75	5.5	12	6	75	2	Fig2	○
HMH-2BH060	3	6	12	6	75	2	Fig1	○
HMH-2BH070-D08	3.5	7	14	8	75	2	Fig2	○
HMH-2BH080	4	8	16	8	100	2	Fig1	○
HMH-2BH090-D10	4.5	9	18	10	100	2	Fig2	○
HMH-2BH100	5	10	20	10	100	2	Fig1	○
HMH-2BH120	6	12	24	12	100	2	Fig1	○
HMH-2BH140	7	14	28	14	100	2	Fig1	○
HMH-2BH160	8	16	32	16	150	2	Fig1	○
HMH-2BH200	10	20	40	20	150	2	Fig1	○

● 标准库存 Stock available ○ 需预定 Make-to-order

高硬材料加工 HMH 系列

HMH Series for Machining High Hardness Materials

二刃直柄长颈短刃球头立铣刀

2-flute ball nose end mills with straight shank, long neck and short cutting edge



公差 (mm)
Tolerance (mm)

Dc	0	-0.015
R < 0.5	±0.005	
R ≥ 0.5	±0.01	

型号 Type	基本尺寸 Basic dimension (mm)							刃数 Number of teeth	库存 Stock
	R	Dc	Lc	M	d	D	L		
HMH-2BNS005-D04M04	0.25	0.5	0.7	4	0.45	4	50	2	○
HMH-2BNS005-D04M06	0.25	0.5	0.7	6	0.45	4	50	2	○
HMH-2BNS006-D04M04	0.3	0.6	0.9	4	0.55	4	50	2	○
HMH-2BNS006-D04M06	0.3	0.6	0.9	6	0.55	4	50	2	○
HMH-2BNS006-D04M08	0.3	0.6	0.9	8	0.55	4	50	2	○
HMH-2BNS008-D04M04	0.4	0.8	1.2	4	0.75	4	50	2	○
HMH-2BNS008-D04M06	0.4	0.8	1.2	6	0.75	4	50	2	○
HMH-2BNS008-D04M08	0.4	0.8	1.2	8	0.75	4	50	2	○
HMH-2BNS008-D04M10	0.4	0.8	1.2	10	0.75	4	50	2	○
HMH-2BNS010-D04M04	0.5	1	1.5	4	0.95	4	50	2	○
HMH-2BNS010-D04M06	0.5	1	1.5	6	0.95	4	50	2	○
HMH-2BNS010-D04M08	0.5	1	1.5	8	0.95	4	50	2	○
HMH-2BNS010-D04M10	0.5	1	1.5	10	0.95	4	50	2	○
HMH-2BNS010-D04M12	0.5	1	1.5	12	0.95	4	50	2	○
HMH-2BNS012-D04M06	0.6	1.2	1.8	6	1.15	4	50	2	○
HMH-2BNS012-D04M08	0.6	1.2	1.8	8	1.15	4	50	2	○
HMH-2BNS012-D04M12	0.6	1.2	1.8	12	1.15	4	50	2	○
HMH-2BNS012-D04M16	0.6	1.2	1.8	16	1.15	4	50	2	○
HMH-2BNS015-D04M08	0.75	1.5	2.3	8	1.45	4	50	2	○
HMH-2BNS015-D04M12	0.75	1.5	2.3	12	1.45	4	50	2	○
HMH-2BNS015-D04M16	0.75	1.5	2.3	16	1.45	4	50	2	○
HMH-2BNS020-D04M06	1	2	3	6	1.95	4	50	2	○
HMH-2BNS020-D04M08	1	2	3	8	1.95	4	50	2	○
HMH-2BNS020-D04M10	1	2	3	10	1.95	4	50	2	○
HMH-2BNS020-D04M12	1	2	3	12	1.95	4	50	2	○
HMH-2BNS020-D04M16	1	2	3	16	1.95	4	50	2	○
HMH-2BNS020-D04M20	1	2	3	20	1.95	4	50	2	○
HMH-2BNS025-D04M08	1.25	2.5	3.7	8	2.4	4	50	2	○
HMH-2BNS025-D04M12	1.25	2.5	3.7	12	2.4	4	50	2	○
HMH-2BNS025-D04M16	1.25	2.5	3.7	16	2.4	4	50	2	○
HMH-2BNS025-D04M20	1.25	2.5	3.7	20	2.4	4	50	2	○
HMH-2BNS030-D06M08	1.5	3	4.5	8	2.85	6	50	2	○
HMH-2BNS030-D06M10	1.5	3	4.5	10	2.85	6	50	2	○
HMH-2BNS030-D06M12	1.5	3	4.5	12	2.85	6	50	2	○
HMH-2BNS030-D06M16	1.5	3	4.5	16	2.85	6	60	2	○
HMH-2BNS030-D06M20	1.5	3	4.5	20	2.85	6	60	2	○
HMH-2BNS040-D06M10	2	4	6	10	3.85	6	60	2	○
HMH-2BNS040-D06M16	2	4	6	16	3.85	6	60	2	○
HMH-2BNS040-D06M20	2	4	6	20	3.85	6	60	2	○
HMH-2BNS040-D06M25	2	4	6	25	3.85	6	60	2	○
HMH-2BNS050-D06M16	2.5	5	7.5	16	4.85	6	60	2	○
HMH-2BNS050-D06M25	2.5	5	7.5	25	4.85	6	70	2	○

● 标准库存 Stock available ○ 需预定 Make-to-order

高硬材料加工 HMM 系列

HMM Series for Machining High Hardness Materials

二刃直柄微小径球头立铣刀

2-flute ball nose end mills with straight shank and tiny diameter



公差 (mm)
Tolerance (mm)

Dc ≤ 3	0	-0.015
R < 0.5	±0.005	
R ≥ 0.5	±0.01	

型号 Type	基本尺寸 Basic dimension (mm)					刃数 Number of teeth	库存 Stock
	R	Dc	Lc	D	L		
HMH-2B003-D04V	0.15	0.3	0.5	4	50	2	○
HMH-2B004-D04V	0.2	0.4	0.6	4	50	2	○
HMH-2B005-D04V	0.25	0.5	0.8	4	50	2	○
HMH-2B006-D04V	0.3	0.6	0.9	4	50	2	○
HMH-2B007-D04V	0.35	0.7	1	4	50	2	○
HMH-2B008-D04V	0.4	0.8	1.2	4	50	2	○
HMH-2B009-D04V	0.45	0.9	1.3	4	50	2	○
HMH-2B010-D04V	0.5	1	1.5	4	50	2	○
HMH-2B012-D04V	0.6	1.2	1.8	4	50	2	○
HMH-2B014-D04V	0.7	1.4	2	4	50	2	○
HMH-2B015-D04V	0.75	1.5	2.3	4	50	2	○
HMH-2B016-D04V	0.8	1.6	2.5	4	50	2	○
HMH-2B018-D04V	0.9	1.8	2.7	4	50	2	○
HMH-2B020-D04V	1	2	3	4	50	2	○
HMH-2B025-D04V	1.25	2.5	3.7	4	50	2	○
HMH-2B030-D04V	1.5	3	4.5	4	50	2	○

● 标准库存 Stock available ○ 需预定 Make-to-order

高硬材料加工 HMM 系列

HMM Series for Machining High Hardness Materials

四刃直柄球头立铣刀

4-flute ball nose end mills with straight shank



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.02
Dc > 12	0	-0.03
R	±0.01	

型号 Type	基本尺寸 Basic dimension (mm)					刃数 Number of teeth	图号 Figure	库存 Stock
	R	Dc	Lc	D	L			
HMH-4B030-D06	1.5	3	6	6	50	4	Fig2	○
HMH-4B040-D06	2	4	8	6	50	4	Fig2	○
HMH-4B050-D06	2.5	5	10	6	50	4	Fig2	○
HMH-4B060	3	6	12	6	50	4	Fig1	○
HMH-4B080	4	8	16	8	60	4	Fig1	○
HMH-4B100	5	10	20	10	75	4	Fig1	○
HMH-4B120	6	12	24	12	75	4	Fig1	○
HMH-4B140	7	14	28	14	75	4	Fig1	○
HMH-4B160	8	16	32	16	100	4	Fig1	○
HMH-4B180	9	18	36	18	100	4	Fig1	○
HMH-4B200	10	20	40	20	100	4	Fig1	○

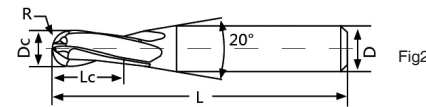
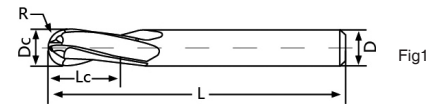
● 标准库存 Stock available ○ 需预定 Make-to-order

高硬材料加工 HMM 系列

HMM Series for Machining High Hardness Materials

四刃直柄长柄球头立铣刀

4-flute ball nose end mills with long shank



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.02
Dc > 12	0	-0.03
R	±0.01	

型号 Type	基本尺寸 Basic dimension (mm)					刃数 Number of teeth	图号 Figure	库存 Stock
	R	Dc	Lc	D	L			
HMH-4BH030-D06	1.5	3	6	6	75	4	Fig2	○
HMH-4BH040-D06	2	4	8	6	75	4	Fig2	○
HMH-4BH050-D06	2.5	5	10	6	75	4	Fig2	○
HMH-4BH060	3	6	12	6	75	4	Fig1	○
HMH-4BH080	4	8	16	8	100	4	Fig1	○
HMH-4BH100	5	10	20	10	100	4	Fig1	○
HMH-4BH120	6	12	24	12	100	4	Fig1	○
HMH-4BH140	7	14	28	14	100	4	Fig1	○
HMH-4BH160	8	16	32	16	150	4	Fig1	○
HMH-4BH180	9	18	36	18	150	4	Fig1	○
HMH-4BH200	10	20	40	20	150	4	Fig1	○

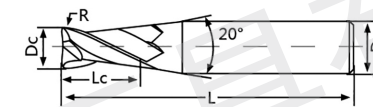
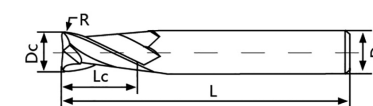
● 标准库存 Stock available ○ 需预定 Make-to-order

高硬材料加工 HMM 系列

HMM Series for Machining High Hardness Materials

二刃直柄圆弧立铣刀

2-flute R end mills with straight shank



公差 (mm)
Tolerance (mm)

Dc ≤ 8	0	-0.01
10 ≤ Dc ≤ 12	0	-0.015

型号 Type	基本尺寸 Basic dimension (mm)					刃数 Number of teeth	图号 Figure	库存 Stock
	R	Dc	Lc	D	L			
HMH-2R01001	0.1	1	2.5	4	50	2	Fig2	○
HMH-2R01002	0.2	1	2.5	4	50	2	Fig2	○
HMH-2R02001	0.1	2	5	4	50	2	Fig2	○
HMH-2R02002	0.2	2	5	4	50	2	Fig2	○
HMH-2R02003	0.3	2	5	4	50	2	Fig2	○
HMH-2R03002-D06	0.2	3	7.5	6	50	2	Fig2	○
HMH-2R03003-D06	0.3	3	7.5	6	50	2	Fig2	○
HMH-2R03005-D06	0.5	3	7.5	6	50	2	Fig2	○
HMH-2R04003	0.3	4	10	4	50	2	Fig1	○
HMH-2R04005	0.5	4	10	4	50	2	Fig1	○
HMH-2R04005-D06	0.5	4	10	6	50	2	Fig2	○
HMH-2R04010	1	4	10	4	50	2	Fig1	○
HMH-2R04010-D06	1	4	10	6	50	2	Fig2	○
HMH-2R05005	0.5	5	12.5	6	50	2	Fig2	○
HMH-2R05010	1	5	12.5	6	50	2	Fig2	○
HMH-2R06005	0.5	6	15	6	50	2	Fig1	○
HMH-2R06010	1	6	15	6	50	2	Fig1	○
HMH-2R08005	0.5	8	20	8	60	2	Fig1	○
HMH-2R08010	1	8	20	8	60	2	Fig1	○
HMH-2R10005	0.5	10	25	10	75	2	Fig1	○
HMH-2R10010	1	10	25	10	75	2	Fig1	○
HMH-2R10015	1.5	10	25	10	75	2	Fig1	○
HMH-2R10020	2	10	25	10	75	2	Fig1	○
HMH-2R12005	0.5	12	30	12	75	2	Fig1	○
HMH-2R12010	1	12	30	12	75	2	Fig1	○
HMH-2R12015	1.5	12	30	12	75	2	Fig1	○
HMH-2R12020	2	12	30	12	75	2	Fig1	○

● 标准库存 Stock available ○ 需预定 Make-to-order

高硬材料加工 HMM 系列

HMM Series for Machining High Hardness Materials

四刃直柄圆弧立铣刀

4-flute R end mills with straight shank



型号 Type	基本尺寸 Basic dimension (mm)					刃数 Number of teeth	图号 Figure	库存 Stock
	R	Dc	Lc	D	L			
HMH-4R02002-D04	0.2	2	6	4	50	4	Fig2	○
HMH-4R03002-D04	0.2	3	9	4	50	4	Fig2	○
HMH-4R03003-D04	0.3	3	9	4	50	4	Fig2	○
HMH-4R03005-D04	0.5	3	9	4	50	4	Fig2	○
HMH-4R63003-D06	0.3	3	9	6	50	4	Fig2	○
HMH-4R63005-D06	0.5	3	9	6	50	4	Fig2	○
HMH-4R04002	0.2	4	11	4	50	4	Fig1	○
HMH-4R04003	0.3	4	11	4	50	4	Fig1	○
HMH-4R04005	0.5	4	11	4	50	4	Fig1	○
HMH-4R04010	1	4	11	4	50	4	Fig1	○
HMH-4R64002-D06	0.2	4	11	6	50	4	Fig2	○
HMH-4R64003-D06	0.3	4	11	6	50	4	Fig2	○
HMH-4R64005-D06	0.5	4	11	6	50	4	Fig2	○
HMH-4R64010-D06	1	4	11	6	50	4	Fig2	○
HMH-4R05005-D06	0.5	5	13	6	50	4	Fig2	○
HMH-4R05010-D06	1	5	13	6	50	4	Fig2	○
HMH-4R06002	0.2	6	15	6	50	4	Fig1	○
HMH-4R06005	0.5	6	16	6	50	4	Fig1	○
HMH-4R06010	1	6	16	6	50	4	Fig1	○
HMH-4R08002	0.2	8	20	8	60	4	Fig1	○
HMH-4R08003	0.3	8	20	8	60	4	Fig1	○
HMH-4R08005	0.5	8	20	8	60	4	Fig1	○
HMH-4R08010	1	8	20	8	60	4	Fig1	○
HMH-4R10005	0.5	10	25	10	75	4	Fig1	○
HMH-4R10010	1	10	25	10	75	4	Fig1	○
HMH-4R10015	1.5	10	25	10	75	4	Fig1	○
HMH-4R10020	2	10	25	10	75	4	Fig1	○
HMH-4R10030	3	10	25	10	75	4	Fig1	○
HMH-4R12005	0.5	12	30	12	75	4	Fig1	○
HMH-4R12010	1	12	30	12	75	4	Fig1	○
HMH-4R12015	1.5	12	30	12	75	4	Fig1	○
HMH-4R12020	2	12	30	12	75	4	Fig1	○
HMH-4R12030	3	12	30	12	75	4	Fig1	○

● 标准库存 Stock available ○ 需预定 Make-to-order

高硬材料加工 HMM 系列

HMM Series for Machining High Hardness Materials

四刃直柄短刃圆弧立铣刀

4-flute R end mills with straight shank and short cutting edge



型号 Type	基本尺寸 Basic dimension (mm)					刃数 Number of teeth	库存 Stock
	R	Dc	Lc	D	L		
HMH-4RS06005	0.5	6	6	6	50	4	○
HMH-4RS06010	1	6	6	6	50	4	○
HMH-4RS08005	0.5	8	8	8	60	4	○
HMH-4RS08010	1	8	8	8	60	4	○
HMH-4RS10005	0.5	10	10	10	75	4	○
HMH-4RS10010	1	10	10	10	75	4	○
HMH-4RS10020	2	10	10	10	75	4	○
HMH-4RS12005	0.5	12	12	12	75	4	○
HMH-4RS12010	1	12	12	12	75	4	○
HMH-4RS12020	2	12	12	12	75	4	○

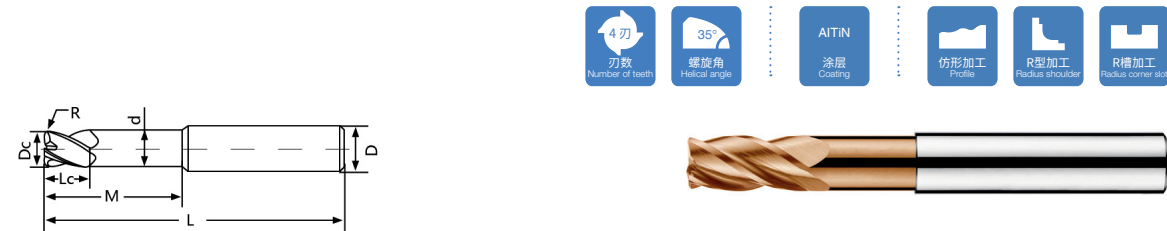
● 标准库存 Stock available ○ 需预定 Make-to-order

高硬材料加工 HMH 系列

HMH Series for Machining High Hardness Materials

四刃直柄长颈短刃圆弧立铣刀

4-flute R end mills straight shank ,long neck and short cutting sdge



公差 (mm)
Tolerance (mm)
Dc ≤ 12 0 -0.02
Dc > 12 0 -0.03

型号 Type	基本尺寸 Basic dimension (mm)							刃数 Number of teeth	库存 Stock
	R	Dc	Lc	M	d	D	L		
HMH-4RNS06005-M18	0.5	6	6	18	5.8	6	75	4	○
HMH-4NRS06010-M18	1	6	6	18	5.8	6	75	4	○
HMH-4RNS08005-M24	0.5	8	8	24	7.8	8	100	4	○
HMH-4RNS08010-M24	1	8	8	24	7.8	8	100	4	○
HMH-4RNS10005-M30	0.5	10	10	30	9.6	10	100	4	○
HMH-4RNS10010-M30	1	10	10	30	9.6	10	100	4	○
HMH-4RNS10020-M30	2	10	10	30	9.6	10	100	4	○
HMH-4RNS12005-M36	0.5	12	12	36	11.5	12	100	4	○
HMH-4RNS12010-M36	1	12	12	36	11.5	12	100	4	○
HMH-4RNS12020-M36	2	12	12	36	11.5	12	100	4	○
HMH-4RNS16010-M40	1	16	16	40	15.5	16	150	4	○
HMH-4RNS16020-M40	2	16	16	40	15.5	16	150	4	○

● 标准库存 Stock available ○ 需预定 Make-to-order

难切削材料加工 HMS 系列

HMS Series for Machining Hard-to-Cut Materials

二刃直柄平头立铣刀

2-flute flattened end mills with straight shank



公差 (mm)
Tolerance (mm)
Dc ≤ 12 0 -0.02
Dc > 12 0 -0.03

型号 Type	基本尺寸 Basic dimension (mm)				刃数 Number of teeth	图号 Figure	库存 Stock
	Dc	Lc	D	L			
HMS-2F005-D04	0.5	1	4	50	2	Fig2	●
HMS-2F008-D04	0.8	2	4	50	2	Fig2	●
HMS-2F010-D04	1	3	4	50	2	Fig2	●
HMS-2F015-D04	1.5	4	4	50	2	Fig2	●
HMS-2F020-D04	2	6	4	50	2	Fig2	●
HMS-2F025-D04	2.5	8	4	50	2	Fig2	●
HMS-2F030-D04	3	9	4	50	2	Fig2	●
HMS-2F030-D06	3	8	6	50	2	Fig2	●
HMS-2F035-D04	3.5	10	4	50	2	Fig2	●
HMS-2F040	4	11	4	50	2	Fig1	●
HMS-2F040-D06	4	11	6	50	2	Fig2	●
HMS-2F050-D06	5	13	6	50	2	Fig2	●
HMS-2F060	6	16	6	50	2	Fig1	●
HMS-2F080	8	20	8	60	2	Fig1	●
HMS-2F100	10	25	10	75	2	Fig1	●
HMS-2F120	12	30	12	75	2	Fig1	●
HMS-2F160	16	36	16	100	2	Fig1	●
HMS-2F200	20	45	20	100	2	Fig1	●

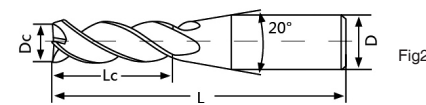
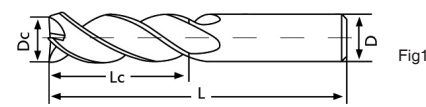
● 标准库存 Stock available ○ 需预定 Make-to-order

难切削材料加工 HMS 系列

HMS Series for Machining Hard-to-Cut Materials

三刃直柄平头立铣刀

3-flute flattened end mills with straight shank



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.02
Dc > 12	0	-0.03

型号 Type	基本尺寸 Basic dimension (mm)				刃数 Number of teeth	图号 Figure	库存 Stock
	Dc	Lc	D	L			
HMS-3F030-D06	3	8	6	50	3	Fig2	●
HMS-3F040-D06	4	11	6	50	3	Fig2	●
HMS-3F050-D06	5	13	6	50	3	Fig2	●
HMS-3F060	6	16	6	50	3	Fig1	●
HMS-3F070-D08	7	20	8	60	3	Fig2	●
HMS-3F080	8	20	8	60	3	Fig1	●
HMS-3F090-D10	9	22	10	75	3	Fig2	●
HMS-3F100	10	25	10	75	3	Fig1	●
HMS-3F110-D12	11	26	12	75	3	Fig2	●
HMS-3F120	12	30	12	75	3	Fig1	●
HMS-3F160	16	45	16	100	3	Fig1	●
HMS-3F200	20	45	20	100	3	Fig1	●

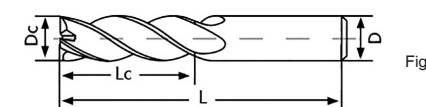
● 标准库存 Stock available ○ 需预定 Make-to-order

难切削材料加工 HMS 系列

HMS Series for Machining Hard-to-Cut Materials

四刃直柄平头立铣刀

4-flute flattened end mills with straight shank



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.02
Dc > 12	0	-0.03

型号 Type	基本尺寸 Basic dimension (mm)				刃数 Number of teeth	图号 Figure	库存 Stock
	Dc	Lc	D	L			
HMS-4F010-D04	1	3	4	50	4	Fig2	●
HMS-4F015-D04	1.5	4	4	50	4	Fig2	●
HMS-4F020-D04	2	6	4	50	4	Fig2	●
HMS-4F025-D04	2.5	8	4	50	4	Fig2	●
HMS-4F030-D04	3	9	4	50	4	Fig2	●
HMS-4F030-D06	3	8	6	50	4	Fig2	●
HMS-4F035-D04	3.5	10	4	50	4	Fig2	●
HMS-4F040	4	11	4	50	4	Fig1	●
HMS-4F040-D06	4	11	6	50	4	Fig2	●
HMS-4F050-D06	5	13	6	50	4	Fig2	●
HMS-4F060	6	16	6	50	4	Fig1	●
HMS-4F080	8	20	8	60	4	Fig1	●
HMS-4F100	10	25	10	75	4	Fig1	●
HMS-4F120	12	30	12	75	4	Fig1	●
HMS-4F160	16	36	16	100	4	Fig1	●
HMS-4F200	20	45	20	100	4	Fig1	●

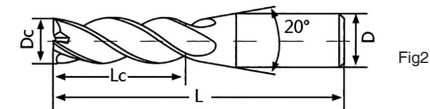
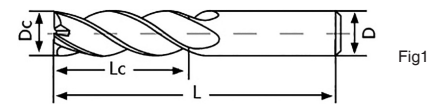
● 标准库存 Stock available ○ 需预定 Make-to-order

难切削材料加工 HMS 系列

HMS Series for Machining Hard-to-Cut Materials

四刃直柄短刃平头立铣刀

4-flute flattened end mills with straight shank and short cutting edge



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.02
Dc > 12	0	-0.03

型号 Type	基本尺寸 Basic dimension (mm)				刃数 Number of teeth	图号 Figure	库存 Stock
	Dc	Lc	D	L			
HMS-4FS020-D04	2	4	4	50	4	Fig2	○
HMS-4FS030-D04	3	4	4	50	4	Fig2	○
HMS-4FS040	4	6	4	50	4	Fig1	○
HMS-4FS050-D06	5	8	6	50	4	Fig2	○
HMS-4FS060	6	9	6	50	4	Fig1	○
HMS-4FS080	8	10	8	60	4	Fig1	○
HMS-4FS100	10	12	10	75	4	Fig1	○
HMS-4FS120	12	16	12	75	4	Fig1	○
HMS-4FS140	14	20	14	75	4	Fig1	○
HMS-4FS160	16	24	16	100	4	Fig1	○
HMS-4FS180	18	27	18	100	4	Fig1	○
HMS-4FS200	20	30	20	100	4	Fig1	○

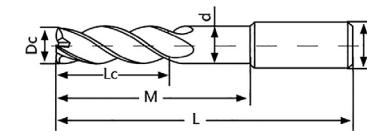
● 标准库存 Stock available ○ 需预定 Make-to-order

难切削材料加工 HMS 系列

HMS Series for Machining Hard-to-Cut Materials

四刃直柄长颈短刃平头立铣刀

4-flute flattened end mills with straight shank, long neck and short cutting edge



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.02
Dc > 12	0	-0.03

型号 Type	基本尺寸 Basic dimension (mm)						刃数 Number of teeth	库存 Stock
	Dc	Lc	M	d	D	L		
HMS-4FNS040-M12	4	8	12	3.8	4	50	4	○
HMS-4FNS060-M18	6	13	18	5.8	6	50	4	○
HMS-4FNS080-M25	8	19	25	7.5	8	60	4	○
HMS-4FNS100-M32	10	22	32	9.5	10	75	4	○
HMS-4FNS120-M34	12	24	34	11	12	75	4	○
HMS-4FNS160-M36	16	26	36	15	16	100	4	○
HMS-4FNS200-M40	20	28	40	19	20	100	4	○

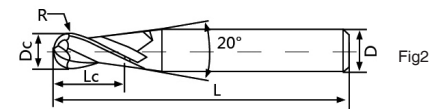
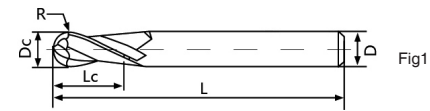
● 标准库存 Stock available ○ 需预定 Make-to-order

难切削材料加工 HMS 系列

HMS Series for Machining Hard-to-Cut Materials

二刃直柄球头立铣刀

2-flute ball nose end mills with straight shank



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.02
Dc > 12	0	-0.03
R	±0.01	

型号 Type	基本尺寸 Basic dimension (mm)					刃数 Number of teeth	图号 Figure	库存 Stock
	R	Dc	Lc	D	L			
HMS-2B010-D04	0.5	1	2	4	50	2	Fig2	●
HMS-2B015-D04	0.75	1.5	3	4	50	2	Fig2	●
HMS-2B020-D04	1	2	4	4	50	2	Fig2	●
HMS-2B030-D04	1.5	3	6	4	50	2	Fig2	●
HMS-2B030-D06	1.5	3	6	6	50	2	Fig2	●
HMS-2B040	2	4	8	4	50	2	Fig1	●
HMS-2B040-D06	2	4	8	6	50	2	Fig2	●
HMS-2B050-D06	2.5	5	10	6	50	2	Fig2	●
HMS-2B060	3	6	12	6	50	2	Fig1	●
HMS-2B080	4	8	14	8	60	2	Fig1	●
HMS-2B100	5	10	18	10	75	2	Fig1	●
HMS-2B120	6	12	22	12	75	2	Fig1	●
HMS-2B160	8	16	26	16	100	2	Fig1	●
HMS-2B200	10	20	38	20	100	2	Fig1	●

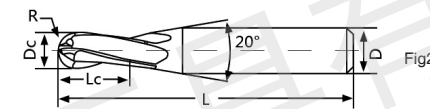
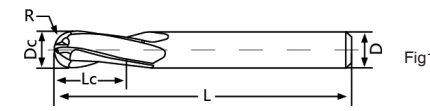
● 标准库存 Stock available ○ 需预定 Make-to-order

难切削材料加工 HMS 系列

HMS Series for Machining Hard-to-Cut Materials

四刃直柄球头立铣刀

4-flute ball nose end mills with straight shank



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.02
Dc > 12	0	-0.03
R	±0.01	

型号 Type	基本尺寸 Basic dimension (mm)					刃数 Number of teeth	图号 Figure	库存 Stock
	R	Dc	Lc	D	L			
HMS-4B010-D04	0.5	1	2	4	50	4	Fig2	○
HMS-4B015-D04	0.75	1.5	3	4	50	4	Fig2	○
HMS-4B020-D04	1	2	4	4	50	4	Fig2	○
HMS-4B030-D04	1.5	3	6	4	50	4	Fig2	○
HMS-4B030-D06	1.5	3	6	6	50	4	Fig2	○
HMS-4B040	2	4	8	4	50	4	Fig1	○
HMS-4B040-D06	2	4	8	6	50	4	Fig2	○
HMS-4B050-D06	2.5	5	10	6	50	4	Fig2	○
HMS-4B060	3	6	12	6	50	4	Fig1	○
HMS-4B080	4	8	14	8	60	4	Fig1	○
HMS-4B100	5	10	18	10	75	4	Fig1	○
HMS-4B120	6	12	22	12	75	4	Fig1	○
HMS-4B160	8	16	26	16	100	4	Fig1	○
HMS-4B200	10	20	38	20	100	4	Fig1	○

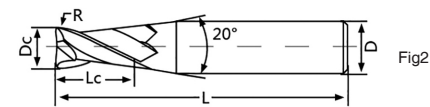
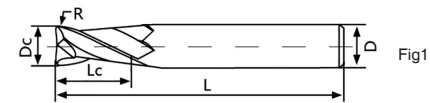
● 标准库存 Stock available ○ 需预定 Make-to-order

难切削材料加工 HMS 系列

HMS Series for Machining Hard-to-Cut Materials

二刃直柄圆弧立铣刀

2-flute R end mills with straight shank



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.02
Dc > 12	0	-0.03

型号 Type	基本尺寸 Basic dimension (mm)					刃数 Number of teeth	图号 Figure	库存 Stock
	R	Dc	Lc	D	L			
HMS-2R03003-D04	0.3	3	9	4	50	2	Fig2	●
HMS-2R03005-D04	0.5	3	9	4	50	2	Fig2	●
HMS-2R04002-D04	0.2	4	11	4	50	2	Fig1	●
HMS-2R04002-D06	0.2	4	11	6	50	2	Fig2	●
HMS-2R04003-D04	0.3	4	11	4	50	2	Fig1	●
HMS-2R04003-D06	0.3	4	11	6	50	2	Fig2	●
HMS-2R04005-D06	0.5	4	11	6	50	2	Fig2	●
HMS-2R05002-D06	0.2	5	13	6	50	2	Fig2	●
HMS-2R05003-D06	0.3	5	13	6	50	2	Fig2	●
HMS-2R05005-D06	0.5	5	13	6	50	2	Fig2	●
HMS-2R06002	0.2	6	16	6	50	2	Fig1	●
HMS-2R06003	0.3	6	16	6	50	2	Fig1	●
HMS-2R06005	0.5	6	16	6	50	2	Fig1	●
HMS-2R08005	0.5	8	20	8	60	2	Fig1	●
HMS-2R08010	1	8	20	8	60	2	Fig1	●
HMS-2R10005	0.5	10	25	10	75	2	Fig1	●
HMS-2R10010	1	10	25	10	75	2	Fig1	●
HMS-2R10015	1.5	10	25	10	75	2	Fig1	●
HMS-2R12005	0.5	12	30	12	75	2	Fig1	●
HMS-2R12010	1	12	30	12	75	2	Fig1	●
HMS-2R12015	1.5	12	30	12	75	2	Fig1	●
HMS-2R16005	0.5	16	36	16	100	2	Fig1	●
HMS-2R16010	1	16	36	16	100	2	Fig1	●
HMS-2R16020	2	16	36	16	100	2	Fig1	●
HMS-2R16030	3	16	36	16	100	2	Fig1	●

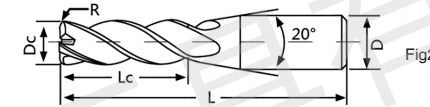
● 标准库存 Stock available ○ 需预定 Make-to-order

难切削材料加工 HMS 系列

HMS Series for Machining Hard-to-Cut Materials

三刃直柄圆弧立铣刀

3-flute R end mills with straight shank



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.02
Dc > 12	0	-0.03

型号 Type	基本尺寸 Basic dimension (mm)					刃数 Number of teeth	图号 Figure	库存 Stock
	R	Dc	Lc	D	L			
HMS-3R02001-D04	0.1	2	6	4	50	3	Fig2	○
HMS-3R02002-D04	0.2	2	6	4	50	3	Fig2	○
HMS-3R04002	0.2	4	11	4	50	3	Fig1	○
HMS-3R04005	0.5	4	11	4	50	3	Fig1	○
HMS-3R06002	0.2	6	16	6	50	3	Fig1	○
HMS-3R06005	0.5	6	16	6	50	3	Fig1	○
HMS-3R08005	0.5	8	20	8	60	3	Fig1	○
HMS-3R08010	1	8	20	8	60	3	Fig1	○
HMS-3R10005	0.5	10	25	10	75	3	Fig1	○
HMS-3R10010	1	10	25	10	75	3	Fig1	○
HMS-3R10015	1.5	10	25	10	75	3	Fig1	○
HMS-3R10020	2	10	25	10	75	3	Fig1	○
HMS-3R12005	0.5	12	30	12	75	3	Fig1	○
HMS-3R12010	1	12	30	12	75	2	Fig1	○
HMS-3R12015	1.5	12	30	12	75	3	Fig1	○
HMS-3R16005	0.5	16	36	16	100	3	Fig1	○
HMS-3R16010	1	16	36	16	100	3	Fig1	○
HMS-3R16020	2	16	36	16	100	3	Fig1	○
HMS-3R16030	3	16	36	16	100	3	Fig1	○
HMS-3R20005	0.5	20	45	20	100	3	Fig1	○
HMS-3R20010	1	20	45	20	100	3	Fig1	○
HMS-3R20020	2	20	45	20	100	3	Fig1	○
HMS-3R20040	4	20	45	20	100	3	Fig1	○

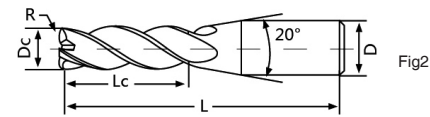
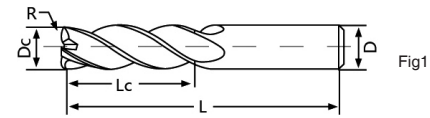
● 标准库存 Stock available ○ 需预定 Make-to-order

难切削材料加工 HMS 系列

HMS Series for Machining Hard-to-Cut Materials

四刃直柄圆弧立铣刀

4-flute R end mills with straight shank



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.02
Dc > 12	0	-0.03

型号 Type	基本尺寸 Basic dimension (mm)					刃数 Number of teeth	图号 Figure	库存 Stock
	R	Dc	Lc	D	L			
HMS-4R02002-D04	0.2	2	6	4	50	4	Fig2	●
HMS-4R03003-D04	0.3	3	9	4	50	4	Fig2	●
HMS-4R03005-D04	0.5	3	9	4	50	4	Fig2	●
HMS-4R04003	0.3	4	11	4	50	4	Fig1	●
HMS-4R04005	0.5	4	11	4	50	4	Fig1	●
HMS-4R04002-D06	0.2	4	11	6	50	4	Fig2	●
HMS-4R04003-D06	0.3	4	11	6	50	4	Fig2	●
HMS-4R05005-D06	0.5	5	13	6	50	4	Fig2	●
HMS-4R06005	0.5	6	16	6	50	4	Fig1	●
HMS-4R06010	1	6	16	6	50	4	Fig1	●
HMS-4R08005	0.5	8	20	8	60	4	Fig1	●
HMS-4R08010	1	8	20	8	60	4	Fig1	●
HMS-4R10005	0.5	10	25	10	75	4	Fig1	●
HMS-4R10010	1	10	25	10	75	4	Fig1	●
HMS-4R12005	0.5	12	30	12	75	4	Fig1	●
HMS-4R12010	1	12	30	12	100	4	Fig1	●
HMS-4R16010	1	16	36	16	100	4	Fig1	●
HMS-4R20010	1	20	45	20	100	4	Fig1	●

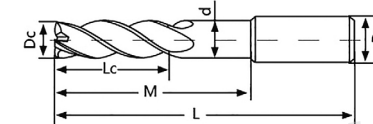
● 标准库存 Stock available ○ 需预定 Make-to-order

难切削材料加工 HMS 系列

HMS Series for Machining Hard-to-Cut Materials

四刃直柄长颈短刃双螺旋平头立铣刀

4-flute flattened end mills with straight shank, long neck, short cutting edge and double helix



公差 (mm)
Tolerance (mm)

Dc ≤ 6	-0.02	-0.038
6 < Dc ≤ 10	-0.025	-0.047
10 < Dc ≤ 18	-0.032	-0.059
Dc > 18	-0.04	-0.073

型号 Type	基本尺寸 Basic dimension (mm)						刃数 Number of teeth	库存 Stock
	Dc	Lc	M	d	D	L		
HMS-4FNS060-M27	6	9	27	5.7	6	75	4	○
HMS-4FNS080-M32	8	12	32	7.7	8	100	4	○
HMS-4FNS100-M42	10	14	42	9.5	10	100	4	○
HMS-4FNS120-M48	12	16	48	11.5	12	100	4	○
HMS-4FNS160-M60	16	20	60	15.5	16	150	4	○

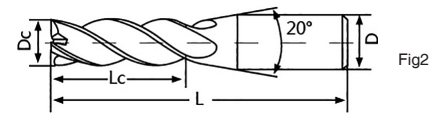
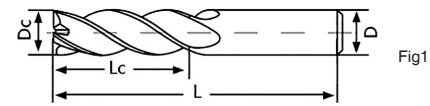
● 标准库存 Stock available ○ 需预定 Make-to-order

难切削材料加工 HMS 系列

HMS Series for Machining Hard-to-Cut Materials

四刃直柄双螺旋平头立铣刀

4-flute flattened end mills with straight shank and double helix



公差 (mm)
Tolerance (mm)

Dc ≤ 6	-0.02	-0.038
6 < Dc ≤ 10	-0.025	-0.047
10 < Dc ≤ 18	-0.032	-0.059
Dc > 18	-0.04	-0.073

型号 Type	基本尺寸 Basic dimension (mm)				刃数 Number of teeth	图号 Figure	库存 Stock
	Dc	Lc	D	L			
HMS-4F040-D06-X	4	11	6	50	4	Fig2	○
HMS-4F050-D06-X	5	13	6	50	4	Fig2	○
HMS-4F060-X	6	16	6	50	4	Fig1	○
HMS-4F080-X	8	20	8	60	4	Fig1	○
HMS-4F100-X	10	25	10	75	4	Fig1	○
HMS-4F120-X	12	30	12	75	4	Fig1	○
HMS-4F160-X	16	45	16	100	4	Fig1	○
HMS-4F200-X	20	45	20	100	4	Fig1	○

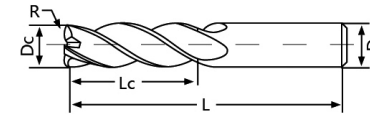
● 标准库存 Stock available ○ 需预定 Make-to-order

难切削材料加工 HMS 系列

HMS Series for Machining Hard-to-Cut Materials

四刃直柄双螺旋圆弧立铣刀

4-flute R end mills with straight shank and double helix



公差 (mm)
Tolerance (mm)

Dc ≤ 6	-0.02	-0.038
6 < Dc ≤ 10	-0.025	-0.047
10 < Dc ≤ 18	-0.032	-0.059
Dc > 18	-0.04	-0.073

型号 Type	基本尺寸 Basic dimension (mm)					刃数 Number of teeth	库存 Stock
	R	Dc	Lc	D	L		
HMS-4R06005-X	0.5	6	16	6	50	4	○
HMS-4R06010-X	1	6	16	6	50	4	○
HMS-4R08005-X	0.5	8	20	8	60	4	○
HMS-4R08010-X	1	8	20	8	60	4	○
HMS-4R10005-X	0.5	10	25	10	75	4	○
HMS-4R10010-X	1	10	25	10	75	4	○
HMS-4R10020-X	2	10	25	10	75	4	○
HMS-4R12005-X	0.5	12	30	12	75	4	○
HMS-4R12010-X	1	12	30	12	75	4	○
HMS-4R12020-X	2	12	30	12	75	4	○
HMS-4R16010-X	1	16	45	16	100	4	○
HMS-4R16020-X	2	16	45	16	100	4	○
HMS-4R16030-X	3	16	45	16	100	4	○
HMS-4R20010-X	1	20	45	20	100	4	○
HMS-4R20020-X	2	20	45	20	100	4	○
HMS-4R20030-X	3	20	45	20	100	4	○

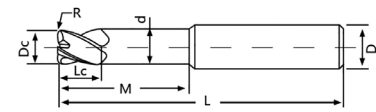
● 标准库存 Stock available ○ 需预定 Make-to-order

难切削材料加工 HMS 系列

HMS Series for Machining Hard-to-Cut Materials

四刃直柄长颈短刃双螺旋圆弧立铣刀

4-flute R end mills with straight shank, long neck, short cutting edge and double helix



公差 (mm)
Tolerance (mm)

Dc ≤ 6	-0.02	-0.038
6 < Dc ≤ 10	-0.025	-0.047
10 < Dc ≤ 18	-0.032	-0.059

型号 Type	基本尺寸 Basic dimension (mm)							刃数 Number of teeth	库存 Stock
	R	Dc	Lc	M	d	D	L		
HMS-4RNS06005-M27X	0.5	6	9	27	5.7	6	75	4	○
HMS-4RNS06010-M27X	1	6	9	27	5.7	6	75	4	○
HMS-4RNS08005-M36X	0.5	8	12	36	7.7	8	100	4	○
HMS-4RNS08010-M36X	1	8	12	36	7.7	8	100	4	○
HMS-4RNS10005-M42X	0.5	10	14	42	9.5	10	100	4	○
HMS-4RNS10010-M42X	1	10	14	42	9.5	10	100	4	○
HMS-4RNS10020-M42X	2	10	14	42	9.5	10	100	4	○
HMS-4RNS12005-M48X	0.5	12	16	48	11.5	12	100	4	○
HMS-4RNS12010-M48X	1	12	16	48	11.5	12	100	4	○
HMS-4RNS12020-M48X	2	12	16	48	11.5	12	100	4	○
HMS-4RNS16010-M60X	1	16	20	60	15.5	16	150	4	○
HMS-4RNS16020-M60X	2	16	20	60	15.5	16	150	4	○

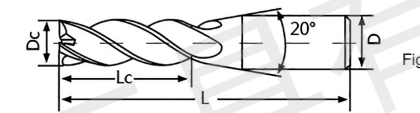
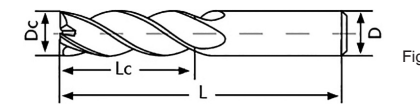
● 标准库存 Stock available ○ 需预定 Make-to-order

钛合金材料加工 HT400 系列

HT400 Series for Machining Titanium Alloy Materials

四刃平头立铣刀

4-flute flattened end mills



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.018
Dc > 12	0	-0.02

型号 Type	基本尺寸 Basic dimension (mm)				刃数 Number of teeth	图号 Figure	库存 Stock
	Dc	Lc	D	L			
HT400 D1*3*50L*D4*4F	1	3	4	50	4	Fig2	●
HT400 D1.5*4*50L*D4*4F	1.5	4	4	50	4	Fig2	●
HT400 D2*6*50L*D4*4F	2	6	4	50	4	Fig2	●
HT400 D2.5*8*50L*D4*4F	2.5	8	4	50	4	Fig2	●
HT400 D3*9*50L*D4*4F	3	9	4	50	4	Fig2	●
HT400 D4*10*50L*D6*4F	4	10	6	50	4	Fig2	●
HT400 D5*12*50L*D5*4F	5	12	5	50	4	Fig2	●
HT400 D6*15*50L*D6*4F	6	15	6	50	4	Fig1	●
HT400 D8*20*60L*D8*4F	8	20	8	60	4	Fig1	●
HT400 D10*25*75L*D10*4F	10	25	10	75	4	Fig1	●
HT400 D12*30*75L*D12*4F	12	30	12	75	4	Fig1	●
HT400 D14*45*100L*D14*4F	14	45	14	100	4	Fig1	●
HT400 D16*45*100L*D16*4F	16	45	16	100	4	Fig1	●
HT400 D18*45*100L*D18*4F	18	45	18	100	4	Fig1	●
HT400 D20*45*100L*D20*4F	20	45	20	100	4	Fig1	●
HT400 D4*15*75L*D4*4F	4	15	4	75	4	Fig1	●
HT400 D5*20*75L*D6*4F	5	20	6	75	4	Fig2	●
HT400 D6*20*75L*D6*4F	6	20	6	75	4	Fig1	●
HT400 D8*24*75L*D8*4F	8	24	8	75	4	Fig1	●
HT400 D8*32*100L*D8*4F	8	32	8	100	4	Fig1	●
HT400 D10*40*100L*D10*4F	10	40	10	100	4	Fig1	●
HT400 D12*45*100L*D12*4F	12	45	12	100	4	Fig1	●
HT400 D16*65*150L*D16*4F	16	65	16	150	4	Fig1	●
HT400 D18*65*150L*D18*4F	18	65	18	150	4	Fig1	●
HT400 D20*65*150L*D20*4F	20	65	20	150	4	Fig1	●

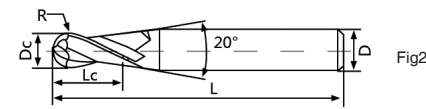
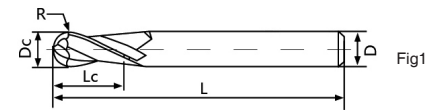
● 标准库存 Stock available ○ 需预定 Make-to-order

钛合金材料加工 HT400 系列

HT400 Series for Machining Titanium Alloy Materials

二刃球头立铣刀

2-flute ball nose end mills



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.018
Dc > 12	0	-0.02
R	±0.01	

型号 Type	基本尺寸 Basic dimension (mm)					刃数 Number of teeth	图号 Figure	库存 Stock
	Dc	R	Lc	D	L			
HT400 R0.5*2*50L*D4*2T	1	0.5	2	4	50	2	Fig2	●
HT400 R0.75*3*50L*D4*2T	1.5	0.75	3	4	50	2	Fig2	●
HT400 R1*4*50L*D4*2T	2	1	4	4	50	2	Fig2	●
HT400 R1.25*5*50L*D4*2T	2.5	1.25	5	4	50	2	Fig2	●
HT400 R1.5*6*50L*D4*2T	3	1.5	6	4	50	2	Fig2	●
HT400 R2*8*50L*D4*2T	4	2	8	4	50	2	Fig1	●
HT400 R2*8*50L*D6*2T	4	2	8	6	50	2	Fig2	●
HT400 R2.5*10*50L*D6*2T	5	2.5	10	6	50	2	Fig2	●
HT400 R3*12*50L*D6*2T	6	3	12	6	50	2	Fig1	●
HT400 R3.5*14*60L*D8*2T	7	3.5	14	8	60	2	Fig2	●
HT400 R4*16*60L*D8*2T	8	4	16	8	60	2	Fig1	●
HT400 R4*16*75L*D8*2T	8	4	16	8	75	2	Fig1	●
HT400 R4.5*18*75L*D10*2T	9	4.5	18	10	75	2	Fig2	●
HT400 R5*20*75L*D10*2T	10	5	20	10	75	2	Fig1	●
HT400 R6*24*75L*D12*2T	12	6	24	12	75	2	Fig1	●
HT400 R7*28*75L*D14*2T	14	7	28	14	75	2	Fig1	●
HT400 R8*32*100L*D16*2T	16	8	32	16	100	2	Fig1	●
HT400 R9*36*100L*D18*2T	18	9	36	18	100	2	Fig1	●
HT400 R10*40*100L*D20*2T	20	10	40	20	100	2	Fig1	●

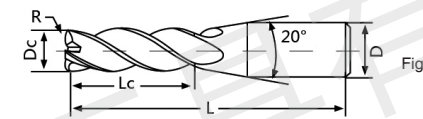
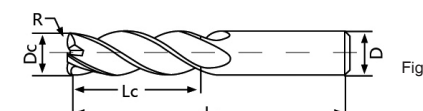
● 标准库存 Stock available ○ 需预定 Make-to-order

钛合金材料加工 HT400 系列

HT400 Series for Machining Titanium Alloy Materials

四刃圆弧立铣刀

4-flute R end mills



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.018
Dc > 12	0	-0.02
R	±0.01	

型号 Type	基本尺寸 Basic dimension (mm)					刃数 Number of teeth	图号 Figure	库存 Stock
	Dc	R	Lc	D	L			
HT400 D1R0.2*3*50L*D4*4T	1	0.2	3	4	50	4	Fig2	●
HT400 D1.5R0.2*4*4T*50L*D4*4T	1.5	0.2	4	4	50	4	Fig2	●
HT400 D2R0.2*6*50L*D4*4T	2	0.2	6	4	50	4	Fig2	●
HT400 D3R0.2*8*50L*D4*4T	3	0.2	8	4	50	4	Fig2	●
HT400 D3R0.5*8*50L*D4*4T	3	0.5	8	4	50	4	Fig2	●
HT400 D4R0.2*10*50L*D4*4T	4	0.2	10	4	50	4	Fig1	●
HT400 D4R0.3*10*50L*D4*4T	4	0.3	10	4	50	4	Fig1	●
HT400 D4R0.5*10*50L*D4*4T	4	0.5	10	4	50	4	Fig1	●
HT400 D4R1*10*50L*D4*4T	4	1	10	4	50	4	Fig1	●
HT400 D5R0.25*13*50L*D6*4T	5	0.25	13	6	50	4	Fig2	●
HT400 D5R0.5*13*50L*D6*4T	5	0.5	13	6	50	4	Fig2	●
HT400 D5R1*13*50L*D6*4T	5	1	13	6	50	4	Fig2	●
HT400 D6R0.3*16*50L*D6*4T	6	0.3	16	6	50	4	Fig1	●
HT400 D6R0.5*16*50L*D6*4T	6	0.5	16	6	50	4	Fig1	●
HT400 D6R1*16*50L*D6*4T	6	1	16	6	50	4	Fig1	●
HT400 D8R0.5*20*60L*D8*4T	8	0.5	20	8	60	4	Fig1	●
HT400 D8R1*20*60L*D8*4T	8	1	20	8	60	4	Fig1	●
HT400 D8R0.5*20*75L*D8*4T	8	0.5	20	8	75	4	Fig1	●
HT400 D10R0.5*25*75L*D10*4T	10	0.5	25	10	75	4	Fig1	●
HT400 D10R1*25*75L*D10*4T	10	1	25	10	75	4	Fig1	●
HT400 D10R2*25*75L*D10*4T	10	2	25	10	75	4	Fig1	●
HT400 D10R3*25*75L*D10*4T	10	3	25	10	75	4	Fig1	●
HT400 D12R0.5*30*75L*D12*4T	12	0.5	30	12	75	4	Fig1	●
HT400 D12R1*30*75L*D12*4T	12	1	30	12	75	4	Fig1	●
HT400 D12R2*30*75L*D12*4T	12	2	30	12	75	4	Fig1	●
HT400 D12R3*30*75L*D12*4T	12	3	30	12	75	4	Fig1	●

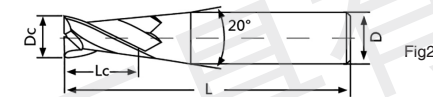
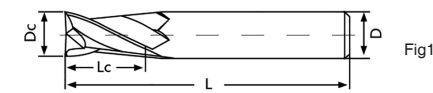
● 标准库存 Stock available ○ 需预定 Make-to-order

铝合金材料加工 HMA 系列

HMA Series for Machining Aluminium Alloy Materials

二刃直柄平头立铣刀

2-flute flattened end mills with straight shank



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.02
Dc > 12	0	-0.03

型号 Type	基本尺寸 Basic dimension (mm)				刃数 Number of teeth	图号 Figure	库存 Stock
	Dc	Lc	D	L			
HMA-2F010-D04	1	3	4	50	2	Fig2	○
HMA-2F015-D04	1.5	4	4	50	2	Fig2	○
HMA-2F020-D04	2	6	4	50	2	Fig2	○
HMA-2F025-D04	2.5	8	4	50	2	Fig2	○
HMA-2F030-D06	3	9	6	50	2	Fig2	○
HMA-2F040-D06	4	12	6	50	2	Fig2	○
HMA-2F050-D06	5	15	6	50	2	Fig2	○
HMA-2F060	6	18	6	60	2	Fig1	○
HMA-2F080	8	20	8	60	2	Fig1	○
HMA-2F100	10	30	10	75	2	Fig1	○
HMA-2F120	12	32	12	75	2	Fig1	○
HMA-2F160	16	45	16	100	2	Fig1	○
HMA-2F200	20	45	20	100	2	Fig1	○

● 标准库存 Stock available ○ 需预定 Make-to-order

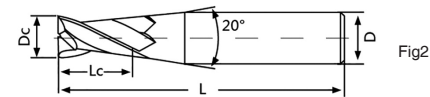
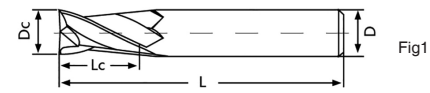


铝合金材料加工 HMA 系列

HMA Series for Machining Aluminium Alloy Materials

二刃直柄长刃平头立铣刀

2-flute flattened end mills with straight shank and long cutting edge



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.02
Dc > 12	0	-0.03

型号 Type	基本尺寸 Basic dimension (mm)				刃数 Number of teeth	图号 Figure	库存 Stock
	Dc	Lc	D	L			
HMA-2FL030-D06	3	12	6	60	2	Fig2	○
HMA-2FL040-D06	4	16	6	60	2	Fig2	○
HMA-2FL050-D06	5	20	6	60	2	Fig2	○
HMA-2FL060	6	25	6	75	2	Fig1	○
HMA-2FL080	8	32	8	75	2	Fig1	○
HMA-2FL100	10	45	10	100	2	Fig1	○
HMA-2FL120	12	45	12	100	2	Fig1	○
HMA-2FL160	16	65	16	150	2	Fig1	○
HMA-2FL200	20	75	20	150	2	Fig1	○

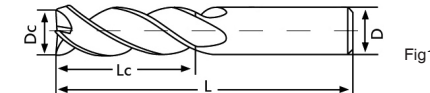
● 标准库存 Stock available ○ 需预定 Make-to-order

铝合金材料加工 HMA 系列

HMA Series for Machining Aluminium Alloy Materials

三刃直柄平头立铣刀

3-flute flattened end mills with straight shank



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.02
Dc > 12	0	-0.03

型号 Type	基本尺寸 Basic dimension (mm)				刃数 Number of teeth	图号 Figure	库存 Stock
	Dc	Lc	D	L			
HMA-3F010-D04	1	3	4	50	3	Fig2	●
HMA-3F015-D04	1.5	4	4	50	3	Fig2	●
HMA-3F020-D04	2	6	4	50	3	Fig2	●
HMA-3F025-D04	2.5	8	4	50	3	Fig2	●
HMA-3F030-D06	3	9	6	50	3	Fig2	●
HMA-3F040-D06	4	12	6	50	3	Fig2	●
HMA-3F050-D06	5	15	6	50	3	Fig2	●
HMA-3F060	6	18	6	60	3	Fig1	●
HMA-3F080	8	20	8	60	3	Fig1	●
HMA-3F100	10	30	10	75	3	Fig1	●
HMA-3F120	12	32	12	75	3	Fig1	●
HMA-3F160	16	45	16	100	3	Fig1	●
HMA-3F200	20	45	20	100	3	Fig1	●

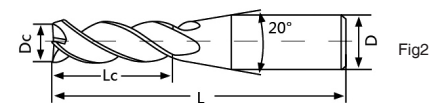
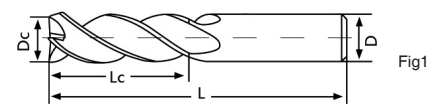
● 标准库存 Stock available ○ 需预定 Make-to-order

铝合金材料加工 HMA 系列

HMA Series for Machining Aluminium Alloy Materials

三刃直柄长刃平头立铣刀

3-flute flattened end mills with straight shank and long cutting edge



公差 (mm)
Tolerance (mm)
Dc ≤ 12 0 -0.02
Dc > 12 0 -0.03

型号 Type	基本尺寸 Basic dimension (mm)				刃数 Number of teeth	图号 Figure	库存 Stock
	Dc	Lc	D	L			
HMA-3FL030-D06	3	12	6	60	3	Fig2	○
HMA-3FL040-D06	4	16	6	60	3	Fig2	○
HMA-3FL050-D06	5	20	6	60	3	Fig2	○
HMA-3FL060	6	25	6	75	3	Fig1	○
HMA-3FL080	8	32	8	75	3	Fig1	○
HMA-3FL100	10	45	10	100	3	Fig1	○
HMA-3FL120	12	45	12	100	3	Fig1	○
HMA-3FL160	16	65	16	150	3	Fig1	○
HMA-3FL200	20	75	20	150	3	Fig1	○

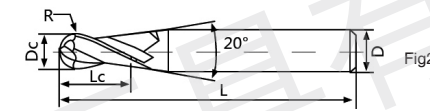
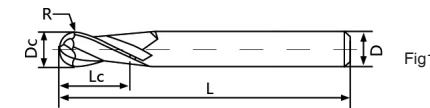
● 标准库存 Stock available ○ 需预定 Make-to-order

铝合金材料加工 HMA 系列

HMA Series for Machining Aluminium Alloy Materials

二刃直柄球头立铣刀

2-flute ball nose end mills with straight shank



公差 (mm)
Tolerance (mm)
Dc ≤ 12 0 -0.02
R ±0.01

型号 Type	基本尺寸 Basic dimension (mm)					刃数 Number of teeth	图号 Figure	库存 Stock
	R	Dc	Lc	D	L			
HMA-2B020-D06	1	2	4	6	60	2	Fig2	●
HMA-2B030-D06	1.5	3	6	6	60	2	Fig2	●
HMA-2B040-D06	2	4	8	6	60	2	Fig2	●
HMA-2B050-D06	2.5	5	10	6	60	2	Fig2	●
HMA-2B060	3	6	12	6	60	2	Fig1	●
HMA-2B080	4	8	16	8	75	2	Fig1	●
HMA-2B100	5	10	20	10	75	2	Fig1	●
HMA-2B120	6	12	24	12	75	2	Fig1	●

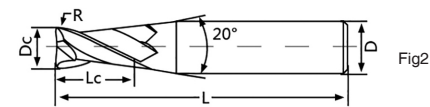
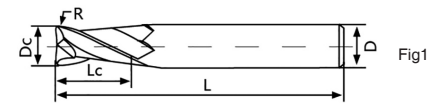
● 标准库存 Stock available ○ 需预定 Make-to-order

铝合金材料加工 HMA 系列

HMA Series for Machining Aluminium Alloy Materials

二刃直柄圆弧立铣刀

2-flute R end mills with straight shank



公差 (mm)
Tolerance (mm)
Dc ≤ 12 0 -0.02
Dc > 12 0 -0.03

型号 Type	基本尺寸 Basic dimension (mm)					刃数 Number of teeth	图号 Figure	库存 Stock
	R	Dc	Lc	D	L			
HMA-2R01001-D04	0.1	1	3	4	50	2	Fig2	○
HMA-2R02002-D04	0.2	2	6	4	50	2	Fig2	○
HMA-3R03002-D04	0.2	3	9	4	50	2	Fig2	○
HMA-3R03002-D06	0.2	3	9	6	50	2	Fig2	○
HMA-2R03003-D04	0.3	3	9	4	50	2	Fig2	○
HMA-2R03003-D06	0.3	3	9	6	50	2	Fig2	○
HMA-2R03005-D04	0.5	3	9	4	50	2	Fig2	○
HMA-2R03005-D06	0.5	3	9	6	50	2	Fig2	○
HMA-2R04002	0.2	4	11	4	50	2	Fig1	○
HMA-2R04002-D06	0.2	4	11	6	50	2	Fig2	○
HMA-2R04005	0.5	4	11	4	50	2	Fig1	○
HMA-2R04005-D06	0.5	4	11	6	50	2	Fig2	○
HMA-2R04010	1	4	11	4	50	2	Fig1	○
HMA-2R05002-D06	0.2	5	13	6	50	2	Fig2	○
HMA-2R05003-D06	0.3	5	13	6	50	2	Fig2	○
HMA-2R05005-D06	0.5	5	13	6	50	2	Fig2	○
HMA-2R05010-D06	1	5	13	6	50	2	Fig2	○
HMA-2R05015-D06	1.5	5	13	6	50	2	Fig2	○

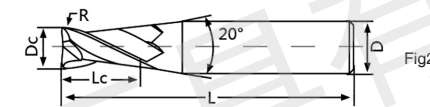
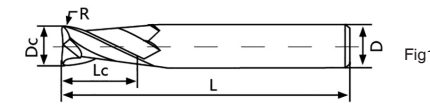
● 标准库存 Stock available ○ 需预定 Make-to-order

铝合金材料加工 HMA 系列

HMA Series for Machining Aluminium Alloy Materials

二刃直柄圆弧立铣刀

2-flute R end mills with straight shank



公差 (mm)
Tolerance (mm)
Dc ≤ 12 0 -0.02
Dc > 12 0 -0.03

型号 Type	基本尺寸 Basic dimension (mm)					刃数 Number of teeth	图号 Figure	库存 Stock
	R	Dc	Lc	D	L			
HMA-2R06005	0.5	6	16	6	50	2	Fig1	○
HMA-2R06010	1	6	16	6	50	2	Fig1	○
HMA-2R06015	1.5	6	16	6	50	2	Fig1	○
HMA-2R06020	2	6	16	6	50	2	Fig1	○
HMA-2R08003	0.3	8	20	8	60	2	Fig1	○
HMA-2R08005	0.5	8	20	8	60	2	Fig1	○
HMA-2R08010	1	8	20	8	60	2	Fig1	○
HMA-2R10015	1.5	10	25	10	75	2	Fig1	○
HMA-2R10020	2	10	25	10	75	2	Fig1	○
HMA-2R10030	3	10	25	10	75	2	Fig1	○
HMA-2R12005	0.5	12	30	12	75	2	Fig1	○
HMA-2R12010	1	12	30	12	75	2	Fig1	○
HMA-2R12015	1.5	12	30	12	75	2	Fig1	○
HMA-2R12020	2	12	30	12	75	2	Fig1	○
HMA-2R12030	3	12	30	12	75	2	Fig1	○
HMA-2R16010	1	16	36	16	100	2	Fig1	○
HMA-2R16020	2	16	36	16	100	2	Fig1	○
HMA-2R16030	3	16	36	16	100	2	Fig1	○

● 标准库存 Stock available ○ 需预定 Make-to-order

铝合金材料加工 HMA 系列

HMA Series for Machining Aluminium Alloy Materials

二刃直柄长柄圆弧立铣刀

2-flute R end mills with long shank



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.02
Dc > 12	0	-0.03

型号 Type	基本尺寸 Basic dimension (mm)					刃数 Number of teeth	库存 Stock
	R	Dc	Lc	D	L		
HMA-2RH06005	0.5	6	16	6	75	2	○
HMA-2RH06010	1	6	16	6	75	2	○
HMA-2RH06015	1.5	6	16	6	75	2	○
HMA-2RH08005	0.5	8	20	8	100	2	○
HMA-2RH08010	1	8	20	8	100	2	○
HMA-2RH08015	1.5	8	20	8	100	2	○
HMA-2RH10005	0.5	10	25	10	100	2	○
HMA-2RH10010	1	10	25	10	100	2	○
HMA-2RH10015	1.5	10	25	10	100	2	○
HMA-2RH10020	2	10	25	10	100	2	○
HMA-2RH12005	0.5	12	30	12	100	2	○
HMA-2RH12010	1	12	30	12	100	2	○
HMA-2RH12015	1.5	12	30	12	100	2	○
HMA-2RH12020	2	12	30	12	100	2	○
HMA-2RH16005	0.5	16	36	16	100	2	○
HMA-2RH16010	1	16	36	16	100	2	○
HMA-2RH16015	1.5	16	36	16	100	2	○
HMA-2RH16020	2	16	36	16	100	2	○

● 标准库存 Stock available ○ 需预定 Make-to-order

铝合金材料加工 HMA 系列

HMA Series for Machining Aluminium Alloy Materials

三刃直柄圆弧立铣刀

3-flute R end mills with straight shank



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.02
Dc > 12	0	-0.03

型号 Type	基本尺寸 Basic dimension (mm)					刃数 Number of teeth	图号 Figure	库存 Stock
	R	Dc	Lc	D	L			
HMA-3R01001-D04	0.1	1	3	4	50	3	Fig2	○
HMA-3R02002-D04	0.2	2	6	4	50	3	Fig2	○
HMA-3R03002-D04	0.2	3	9	4	50	3	Fig2	○
HMA-3R03003-D04	0.3	3	9	4	50	3	Fig2	○
HMA-3R03005-D04	0.5	3	9	4	50	3	Fig2	○
HMA-3R04002	0.2	4	11	4	50	3	Fig1	○
HMA-3R04003	0.3	4	11	4	50	3	Fig1	○
HMA-3R04005	0.5	4	11	4	50	3	Fig1	○
HMA-3R04010	1	4	11	4	50	3	Fig1	○
HMA-3R05002-D06	0.2	5	13	6	50	3	Fig2	○
HMA-3R05003-D06	0.3	5	13	6	50	3	Fig2	○
HMA-3R05005-D06	0.5	5	13	6	50	3	Fig2	○
HMA-3R05010-D06	1	5	13	6	50	3	Fig2	○
HMA-3R06005	0.5	6	16	6	50	2	Fig1	○
HMA-3R06010	1	6	16	6	50	3	Fig1	○
HMA-3R06015	1.5	6	16	6	50	3	Fig1	○
HMA-3R06020	2	6	16	6	50	3	Fig1	○
HMA-3R08005	0.5	8	20	8	60	3	Fig1	○
HMA-3R08010	1	8	20	8	60	3	Fig1	○
HMA-3R08015	1.5	8	20	8	60	3	Fig1	○
HMA-3R08020	2	8	20	8	60	3	Fig1	○
HMA-3R10005	0.5	10	25	10	75	3	Fig1	○
HMA-3R10010	1	10	25	10	75	3	Fig1	○
HMA-3R10015	1.5	10	25	10	75	3	Fig1	○
HMA-3R10020	2	10	25	10	75	3	Fig1	○
HMA-3R10025	2.5	10	25	10	75	3	Fig1	○
HMA-3R12005	0.5	12	30	12	75	3	Fig1	○
HMA-3R12010	1	12	30	12	75	3	Fig1	○
HMA-3R12015	1.5	12	30	12	75	3	Fig1	○
HMA-3R12020	2	12	30	12	75	3	Fig1	○
HMA-3R12025	2.5	12	30	12	75	3	Fig1	○
HMA-3R16005	0.5	16	36	16	100	3	Fig1	○
HMA-3R16010	1	16	36	16	100	3	Fig1	○
HMA-3R16015	1.5	16	36	16	100	3	Fig1	○
HMA-3R16020	2	16	36	16	100	3	Fig1	○
HMA-3R16025	2.5	16	36	16	100	3	Fig1	○
HMA-3R20005	0.5	20	45	20	100	3	Fig1	○
HMA-3R20010	1	20	45	20	100	3	Fig1	○
HMA-3R20015	1.5	20	45	20	100	3	Fig1	○
HMA-3R20020	2	20	45	20	100	3	Fig1	○
HMA-3R20030	3	20	45	20	100	3	Fig1	○

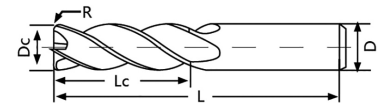
● 标准库存 Stock available ○ 需预定 Make-to-order

铝合金材料加工 HMA 系列

HMA Series for Machining Aluminium Alloy Materials

三刃直柄长柄圆弧立铣刀

3-flute R end mills with long shank



公差 (mm)
Tolerance (mm)

Dc ≤ 12	0	-0.02
Dc > 12	0	-0.03

型号 Type	基本尺寸 Basic dimension (mm)					刃数 Number of teeth	库存 Stock
	R	Dc	Lc	D	L		
HMA-3RH06005	0.5	6	16	6	75	2	○
HMA-3RH06010	1	6	16	6	75	3	○
HMA-3RH06015	1.5	6	16	6	75	3	○
HMA-3RH06020	2	6	16	6	75	3	○
HMA-3RH08005	0.5	8	20	8	100	3	○
HMA-3RH08010	1	8	20	8	100	3	○
HMA-3RH08015	1.5	8	20	8	100	3	○
HMA-3RH08020	2	8	20	8	100	3	○
HMA-3RH10005	0.5	10	25	10	100	3	○
HMA-3RH10010	1	10	25	10	100	3	○
HMA-3RH10015	1.5	10	25	10	100	3	○
HMA-3RH10020	2	10	25	10	100	3	○
HMA-3RH10025	2.5	10	25	10	100	3	○
HMA-3RH12005	0.5	12	30	12	100	3	○
HMA-3RH12010	1	12	30	12	100	3	○
HMA-3RH12015	1.5	12	30	12	100	3	○
HMA-3RH12020	2	12	30	12	100	3	○
HMA-3RH12025	2.5	12	30	12	100	3	○
HMA-3RH16005	0.5	16	36	16	150	3	○
HMA-3RH16010	1	16	36	16	150	3	○
HMA-3RH16015	1.5	16	36	16	150	3	○
HMA-3RH16020	2	16	36	16	150	3	○
HMA-3RH16025	2.5	16	36	16	150	3	○
HMA-3RH20005	0.5	20	45	20	150	3	○
HMA-3RH20010	1	20	45	20	150	3	○
HMA-3RH20015	1.5	20	45	20	150	3	○
HMA-3RH20020	2	20	45	20	150	3	○
HMA-3RH20030	3	20	45	20	150	3	○

● 标准库存 Stock available ○ 需预定 Make-to-order



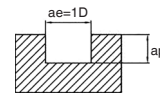
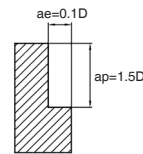
通用加工 HM450 系列切削参数

HM450 Series Cutting Parameters For General Machining

HM450 四刃平刀 / 圆鼻刀 4-flute flattened / 4-flute R end mills

工件材料 Workpiece material	铸铁、球墨铸铁 Cast iron, Ductile cast iron		碳素钢、合金钢 ~30HRC Carbon steel Alloy steel		预硬钢、调质钢 ~40HRC Pre-hardened steel Quenched and tempered steel	
	Dc (mm)	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)	Vf (mm/min)
1	20000	225	20000	180	20000	180
2	15000	360	15000	325	15000	315
3	14000	610	13000	570	10600	470
4	10800	630	10000	575	8000	480
5	8200	660	7600	600	6400	505
6	7000	675	6400	620	5300	515
8	5200	665	4800	610	4000	510
10	4200	660	3800	600	3200	505
12	3500	660	3200	600	2650	505
14	3000	610	2700	570	2300	470
16	2600	610	2400	570	2000	470

切削量
Cutting depth



刀具直径 D Diameter	切深 ap Cutting depth
$\Phi 1 \leq D < \Phi 3$	0.15D
$\Phi 3 \leq D$	0.3D

- 请使用高精度、高刚性的机床和刀柄。
 - 侧铣推荐顺铣加工。
 - 机床与工件安装刚性较差的情况下，会产生振动和异常声音，此时应将上表的转速与进给速度同比降低。
 - 在不干涉的条件下尽可能使刀具悬长最短。
 - 上表为侧铣加工标准，刀具切槽时，调整转速以上表的50%-70%，调整进给速度为以上的40%-60%。
 - 切削深度较小时，进给速度可同比提升。
- Please select high-precision, high-rigidity machine and tool holder.
 - Down milling is recommended in the case of side milling.
 - When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed speed stated above correspondingly.
 - Make overhang of tool as short as possible in conditions of non-interference.
 - The above table shows the standard value of side milling. When milling slot, 50%-70% of rotating speed and 40%-60% of feed speed stated above are recommended as standard.
 - Raise feed speed correspondingly when cutting depth is low.

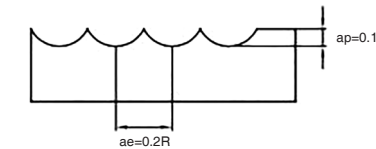
通用加工 HM450 系列切削参数

HM450 Series Cutting Parameters For General Machining

HM450 两刃球刀 2-ball nose end mills

工件材料 Workpiece material	铸铁、球墨铸铁 Cast iron, Ductile cast iron		碳素钢、合金钢 ~30HRC Carbon steel Alloy steel		预硬钢、调质钢 ~40HRC Pre-hardened steel Quenched and tempered steel	
	Dc (mm)	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)	Vf (mm/min)
0.5	40000	800	38000	700	32000	320
1.0	24000	900	19000	760	16000	400
1.5	15500	950	12750	760	10600	450
2.0	11500	950	9550	760	8000	550
2.5	9500	1050	7650	800	6400	550
3.0	8000	1050	6400	800	5300	580
4.0	6000	1300	4800	950	4000	700
5.0	4800	1200	3800	900	3200	650
6.0	4000	1100	3200	840	2650	610
8.0	3000	1050	2400	800	2000	600

切削量
Cutting depth



- 请使用高精度机床和刀柄。
 - 机床与工件安装刚性较差的情况下，会产生振动和异常声音，此时应将上表的转速与进给速度同比降低。
 - 在不干涉的条件下尽可能使刀具悬长最短。
 - 切削深度较小时，进给速度可同比提升。
- Please select high-precision machine and tool holder.
 - When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed speed stated above correspondingly.
 - Make overhang of tool as short as possible in conditions of non-interference.
 - Raise feed speed correspondingly when cutting depth is low.

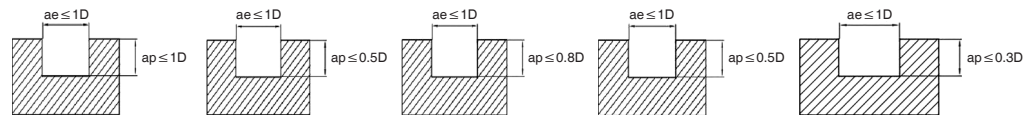
大进给加工 HP500 系列切削参数

HP500 Series Cutting Parameters for Machining with High Feed Rate

HP500 四刃平刀 / 圆鼻刀 (侧铣) 4-flute flattened/4-flute R end mills (side milling)

工件材料 Workpiece material	碳钢 / 合金钢 Carbon steel/Alloy steel ≤35HRC		合金钢 Alloy steel ≤35-45HRC		灰铸铁 / 球墨铸铁 Gray cast iron/Nodular cast iron ≤32HRC		高合金铸铁 High alloy cast iron ≤35-45HRC		不锈钢 Stainless steel	
	Dc (mm)	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)	n (rev/min)
3	8490	790	6370	500	5840	420	5310	330	5840	420
4	6370	920	4780	550	4380	450	3980	350	4380	420
6	4250	730	3190	450	2920	420	2650	360	2920	470
8	3190	640	2390	370	2190	360	1990	300	2190	450
10	2550	590	1910	360	1750	340	1590	290	1750	430
12	2120	570	1590	360	1460	340	1330	290	1460	430
16	1590	640	1190	370	1100	310	1000	260	1100	380
20	1270	650	960	370	880	280	800	240	880	350

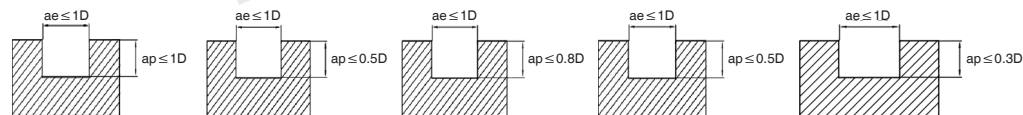
切削量
Cutting depth



HP500 四刃平刀 / 圆鼻刀 (槽铣) 4-flute flattened/4-flute R end mills (groove milling)

工件材料 Workpiece material	碳钢 / 合金钢 Carbon steel/Alloy steel ≤35HRC		合金钢 Alloy steel ≤35-45HRC		灰铸铁 / 球墨铸铁 Gray cast iron/Nodular cast iron ≤32HRC		高合金铸铁 High alloy cast iron ≤35-45HRC		不锈钢 Stainless steel	
	Dc (mm)	Vf (mm/min)	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)	Vf (mm/min)	n (rev/min)
3	8490	790	6370	500	5840	420	5310	330	5840	420
4	6370	920	4780	550	4380	450	3980	350	4380	420
6	4250	730	3190	450	2920	420	2650	360	2920	470
8	3190	640	2390	370	2190	360	1990	300	2190	450
10	2550	590	1910	360	1750	340	1590	290	1750	430
12	2120	570	1590	360	1460	340	1330	290	1460	430
16	1590	640	1190	370	1100	310	1000	260	1100	380
20	1270	650	960	370	880	280	800	240	880	350

切削量
Cutting depth



- 请使用高强度的刀柄和机床。
- 机床与工件安装刚性较差的情况下，会产生振动和异常声音，此时应将上表的转速与进给速度同比降低。
- 刀具悬长大于直径4倍以上时，请适当调整刀具切削量。

- Please select high-precision machine and tool holder.
- When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed speed stated above correspondingly.
- when the tool overhang is more than 4 times the diameter, please adjust the cutting amount of the tool appropriately.

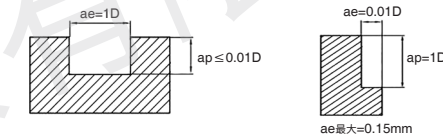
淬火钢超硬加工 HR700 系列切削参数

HR700 Series Cutting Parameters for Machining Hardened Steel Superhard

HR700 四刃平刀 / 圆鼻刀 4-flute flattened/4-flute R end mills

Dc (mm)	材料硬度 Material hardness-60HRC			
	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)
3	6680	350	6680	210
4	5010	375	5010	250
5	4010	400	4010	275
6	3340	480	3340	285
8	2500	500	2500	300
10	2000	500	2000	300
12	1670	460	1670	320
16	1250	350	1250	245

切削量
Cutting depth



- 请使用高精度、高刚性的机床和刀柄。
- 侧铣推荐顺铣加工。
- 机床与工件安装刚性较差的情况下，会产生振动和异常声音，此时应将上表的转速与进给速度同比降低。
- 在不干涉的条件下尽可能使刀具悬长最短。
- 切削深度较小时，转速和进给速度可以同比提高。
- 建议使用油雾冷却或切削油冷却。

- Please select high-precision, high-rigidity machine and tool holder.
- Down milling is recommended in the case of side milling.
- When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed speed stated above correspondingly.
- Make overhang of tool as short as possible in conditions of non-inference.
- Raise feed speed correspondingly when cutting depth is low.
- It is recommended to use oil mist cooling or cutting oil cooling.

HR700 两刃球刀 2-flute ball nose

材料硬度 Material hardness	切削量 Cutting depth	切削式 Cutting method	切削条件 Cutting condition	R (mm)							
				R1	R2	R3	R4	R5	R6	R8	
< 60HRC	Ap=0.05~0.1 Aes0.02D	通用加工 General machine	n (rev/min)	15900	8000	5300	4000	3200	2600	1950	
			Vf (mm/min)	1200	1300	1300	1350	1350	1400	1400	
		高速加工 High speed machine	n (rev/min)	28600	14300	9500	7200	5700	4500	3380	
			Vf (mm/min)	2200	2300	2300	2350	2350	2400	2400	
> 60HRC		通用加工 General machine	n (rev/min)	12000	6000	4000	2900	2400	2100	1600	
			Vf (mm/min)	900	960	960	920	920	900	900	
		高速加工 High speed machine	n (rev/min)	25400	12700	8500	6400	5000	1900	1450	
			Vf (mm/min)	1800	1800	1800	1500	1500	1500	1500	

- 请使用高精度、高刚性的机床和刀柄。
- 在不干涉的条件下尽可能使刀具悬长最短。
- 建议使用油雾冷却或切削油冷却。
- 上表是基于L/D≤4倍时的推荐值，当L/D≥4倍时，请将转速和进给速度同比降低并减小切削量。

- Please select high-precision, high-rigidity machine and tool holder.
- Make overhang of tool as short as possible in conditions of non-inference.
- It is recommended to use oil mist cooling or cutting oil cooling.
- The above table is based on the recommended values when L/D ≤ 4 times. When L/D ≥ 4 times, please reduce the number of revolutions and feed speed year-on-year and reduce the cutting amount.

高硬材料加工 HMH 系列切削参数

HMH Series Cutting Parameters for Machining High Hardness Materials

HMH-2F / HMH-2FNS (侧铣) (Side milling)

工件材料 Workpiece material	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel 40-50HRC		淬硬钢 Hardened steel 50-60HRC		淬硬钢 Hardened steel 60-68HRC	
	切削量 Cutting depth(mm)	ap≤1D ae≤0.02D		ap≤1D ae≤0.02D		ap≤1D ae≤0.01D
切削速度 Cutting speed (m/min)	100		80		60	
刃径 Diameter(mm)	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)
1	25400	500	19100	280	16000	160
2	15900	570	12700	300	9550	190
4	7960	560	6370	320	4780	200
6	5300	530	4250	290	3180	200
8	3980	480	3180	280	2390	180
10	3180	480	2550	260	1910	160
12	2650	430	2120	260	1590	160

HMH-2F-V (槽铣) (Groove milling)

工件材料 Workpiece material	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel 40-50HRC		淬硬钢 Hardened steel 50-60HRC	
	切削量 Cutting depth(mm)	ap≤0.05D ae=1D		ap≤0.02D ae=1D
切削速度 Cutting speed (m/min)	25		15	
刃径 Diameter(mm)	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)
0.3	23000	30	16500	25
0.4	17500	30	12500	25
0.5	14000	30	10000	25
0.6	11500	30	8450	25
0.7	10000	30	7500	25
0.8	8750	30	6350	25
0.9	8000	30	5500	25
1	7000	30	5050	25
1.5	5050	40	3550	25
2	3950	40	2750	25
2.5	3500	45	2500	30
3	2750	45	2000	30

- 请使用高精度的机床和刀柄。
- 请使用空气冷却或不易产生烟雾的切削液。
- 侧面铣削推荐顺铣加工。
- 机床与工件安装刚性较差的情况下，会产生振动和异常声音，此时应将上表的转速与进给速度同比降低。
- 在不干涉的条件下尽可能使刀具悬长最短。

- Please select high-precision machine and tool holder.
- Please use air blow or cutting liquid with high mist retardant property.
- Down milling is recommended in the case of side milling.
- When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed speed stated above correspondingly.
- Make overhang of tool as short as possible in conditions of non-interference.

高硬材料加工 HMH 系列切削参数

HMH Series Cutting Parameters for Machining High Hardness Materials

HMH-4F / HMH-4FL / HMH-4FNS / HMH-4R / HMH-4RNS (侧铣) (Side milling)

工件材料 Workpiece material	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel 40-50HRC		淬硬钢 Hardened steel 50-60HRC		淬硬钢 Hardened steel 60-68HRC	
	切削量 Cutting depth(mm)	ap≤1D ae≤0.02D		ap≤1D ae≤0.015D		ap≤1D ae≤0.01D
切削速度 Cutting speed (m/min)	150		120		100	
刃径 Diameter(mm)	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)
1	40000	1350	30000	1000	20000	800
2	24000	1440	18000	1080	14000	840
4	12000	2400	10350	2070	7960	1592
6	8000	1760	6900	1518	5300	1166
8	6000	1440	5175	1242	4000	960
10	4800	1248	4140	1076.4	3280	852.8
12	4000	1200	3450	1035	2600	780
14	3400	1088	3000	960	2300	736
16	3000	1080	2500	900	2000	720
20	2400	960	2000	800	1600	640

HMH-6F / HMH-6FL (侧铣) (Side milling)

工件材料 Workpiece material	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel 40-50HRC		淬硬钢 Hardened steel 50-60HRC		淬硬钢 Hardened steel 60-68HRC	
	切削量 Cutting depth(mm)	ap≤1.5D ae≤0.03D		ap≤1.5D ae≤0.025D		ap≤1.5D ae≤0.02D
切削速度 Cutting speed (m/min)	120		100		70	
刃径 Diameter(mm)	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)
6	6200	1674	4500	1215	3100	744
8	4800	1584	3600	1188	2400	720
10	4000	1560	3000	1170	2000	720
12	3200	1440	2400	1080	1600	627
14	2800	1344	2100	1020	1400	600
16	2400	1296	1800	972	1200	576
20	1600	960	1200	720	800	432

- 请使用高精度的机床和刀柄。
- 请使用空气冷却或不易产生烟雾的切削液。
- 侧面铣削推荐顺铣加工。
- 机床与工件安装刚性较差的情况下，会产生振动和异常声音，此时应将上表的转速与进给速度同比降低。
- 在不干涉的条件下尽可能使刀具悬长最短。

- Please select high-precision machine and tool holder.
- Please use air blow or cutting liquid with high mist retardant property.
- Down milling is recommended in the case of side milling.
- When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed speed stated above correspondingly.
- Make overhang of tool as short as possible in conditions of non-interference.

高硬材料加工 HMH 系列切削参数

HMH Series Cutting Parameters for Machining High Hardness Materials

HMH-2B / HMH-2BH / HMH-2BNS (仿形铣) (Profile milling)

工件材料 Workpiece material	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel 40-50HRC		淬硬钢 Hardened steel 50-60HRC		淬硬钢 Hardened steel 60-68HRC	
	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)
切削量 Cutting depth(mm)	ap≤0.01D ae≤0.02D		ap≤0.015D ae≤0.015D		ap≤0.01D ae≤0.01D	
切削速度 Cutting speed (m/min)	150		120		90	
刃径 Diameter(mm)						
0.6	44000	1100	41000	1000	40000	700
1	23000	1200	21000	1200	20000	800
2	16000	1770	14000	1480	13000	1300
4	10000	1680	9500	1390	7000	1100
6	7400	1500	5100	1300	5100	960
8	5700	1300	4100	1170	3900	800
10	4500	1100	3500	1000	3100	700
12	3800	1000	2600	800	2600	600

HMH-2B-V (仿形铣) (Profile milling)

工件材料 Workpiece material	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel 40-50HRC		淬硬钢 Hardened steel 50-60HRC	
	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)
切削量 Cutting depth(mm)	ap=0.05D ae=0.1D			
切削速度 Cutting speed (m/min)	50		40	
刃径 Diameter(mm)				
0.3	25000	135	25000	115
0.4	25000	140	25000	120
0.5	25000	150	25000	130
0.6	25000	175	24000	150
0.7	25000	190	24000	150
0.8	24000	210	18000	140
0.9	21000	210	15000	140
1	19000	210	14000	140
2	9500	210	7200	140
3	6400	210	4800	140

- 请使用高精度的机床和刀柄。
- 请使用空气冷却或不易产生烟雾的切削液。
- 侧面铣削推荐顺铣加工。
- 机床与工件安装刚性较差的情况下，会产生振动和异常声音，此时应将上表的转速与进给速度同比降低。
- 在不干涉的条件下尽可能使刀具悬长最短。

- Please select high-precision machine and tool holder.
- Please use air blow or cutting liquid with high mist retardant property.
- Down milling is recommended in the case of side milling.
- When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed speed stated above correspondingly.
- Make overhang of tool as short as possible in conditions of non-interference.

高硬材料加工 HMH 系列切削参数

HMH Series Cutting Parameters for Machining High Hardness Materials

HMH-4B / HMH-4BH (仿形铣 粗加工) (Profile milling Roughing)

工件材料 Workpiece material	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel 40-50HRC		淬硬钢 Hardened steel 50-60HRC		淬硬钢 Hardened steel 60-68HRC	
	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)
切削量 Cutting depth(mm)	ap≤0.08D ae≤0.18D		ap≤0.06D ae≤0.13D		ap≤0.04D ae≤0.08D	
切削速度 Cutting speed (m/min)	130		100		80	
刃径 Diameter(mm)						
2	21000	2520	15120	1210	12740	920
4	10350	2484	7560	1210	6370	1020
6	6900	2484	5040	1310	4250	980
8	5175	2270	3780	1280	3180	890
10	4140	2150	3020	1200	2550	920
12	3450	2070	2520	1210	2120	850

HMH-4B / HMH-4BH (仿形铣 精加工) (Profile milling Finishing)

工件材料 Workpiece material	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel 40-50HRC		淬硬钢 Hardened steel 50-60HRC		淬硬钢 Hardened steel 60-68HRC	
	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)
切削量 Cutting depth(mm)	ap≤0.03D ae≤0.02D		ap≤0.02D ae≤0.02D		ap≤0.01D ae≤0.01D	
切削速度 Cutting speed (m/min)	180		150		130	
刃径 Diameter(mm)						
2	29460	2360	23880	1720	20700	1160
4	14700	2640	11940	1760	10350	1240
6	9800	2660	7960	1850	6900	1240
8	7360	2650	5970	1860	5180	1300
10	5890	2590	4780	1870	4140	1320
12	4900	2700	3980	1910	3450	1240

- 请使用高精度的机床和刀柄。
- 请使用空气冷却或不易产生烟雾的切削液。
- 侧面铣削推荐顺铣加工。
- 机床与工件安装刚性较差的情况下，会产生振动和异常声音，此时应将上表的转速与进给速度同比降低。
- 在不干涉的条件下尽可能使刀具悬长最短。

- Please select high-precision machine and tool holder.
- Please use air blow or cutting liquid with high mist retardant property.
- Down milling is recommended in the case of side milling.
- When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed speed stated above correspondingly.
- Make overhang of tool as short as possible in conditions of non-interference.

难切削材料加工 HMS 系列切削参数

HMS Series Cutting Parameters for Machining Hard-to-Cut Materials

HMS-2F / HMS-2R (侧铣) (Side milling)

工件材料 Workpiece material	不锈钢 Stainless steel	
切削量 Cutting depth(mm)	ap≤1D ae≤0.1D	
切削速度 Cutting speed (m/min)	100	
刃径 Diameter(mm)	n (rev/min)	Vf (mm/min)
1	25000	220
2	15900	254
4	7960	340
6	5300	340
8	3980	365
10	3180	330
12	2650	300
16	1990	245
20	1590	230

HMS-2F / HMS-2R (槽铣) (Groove milling)

工件材料 Workpiece material	不锈钢 Stainless steel	
切削量 Cutting depth(mm)	ap≤0.1D ae≤1D	
切削速度 Cutting speed (m/min)	45	
刃径 Diameter(mm)	n (rev/min)	Vf (mm/min)
1	14330	200
2	7165	140
4	3580	120
6	2390	155
8	1790	155
10	1430	155
12	1195	155
16	895	135
20	715	120

- 请使用高精度的机床和刀柄。
- 请使用空气冷却或不易产生烟雾的切削液。
- 侧面铣削推荐顺铣加工。
- 机床与工件安装刚性较差的情况下，会产生振动和异常声音，此时应将上表的转速与进给速度同比降低。
- 在不干涉的条件下尽可能使刀具悬长最短。

- Please select high-precision machine and tool holder.
- Please use air blow or cutting liquid with high mist retardant property.
- Down milling is recommended in the case of side milling.
- When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed speed stated above correspondingly.
- Make overhang of tool as short as possible in conditions of non-interference.

难切削材料加工 HMS 系列切削参数

HMS Series Cutting Parameters for Machining Hard-to-Cut Materials

HMS-3F / HMS-3R (侧铣) (Side milling)

工件材料 Workpiece material	不锈钢 Stainless steel	
切削量 Cutting depth(mm)	ap≤1D ae≤0.1D	
切削速度 Cutting speed (m/min)	100	
刃径 Diameter(mm)	n (rev/min)	Vf (mm/min)
1	25000	525
2	15900	480
4	7960	525
6	5300	510
8	3980	550
10	3180	500
12	2650	450
16	1990	370
20	1590	340

HMS-3F / HMS-3R (槽铣) (Groove milling)

工件材料 Workpiece material	不锈钢 Stainless steel	
切削量 Cutting depth(mm)	ap≤0.1D ae≤1D	
切削速度 Cutting speed (m/min)	45	
刃径 Diameter(mm)	n (rev/min)	Vf (mm/min)
1	14330	300
2	7165	215
4	3580	180
6	2390	235
8	1790	235
10	1430	230
12	1195	230
16	895	200
20	715	180

- 请使用高精度的机床和刀柄。
- 请使用空气冷却或不易产生烟雾的切削液。
- 侧面铣削推荐顺铣加工。
- 机床与工件安装刚性较差的情况下，会产生振动和异常声音，此时应将上表的转速与进给速度同比降低。
- 在不干涉的条件下尽可能使刀具悬长最短。

- Please select high-precision machine and tool holder.
- Please use air blow or cutting liquid with high mist retardant property.
- Down milling is recommended in the case of side milling.
- When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed speed stated above correspondingly.
- Make overhang of tool as short as possible in conditions of non-interference.

难切削材料加工 HMS 系列切削参数

HMS Series Cutting Parameters for Machining Hard-to-Cut Materials

HMS-4F / HMS-4FS / HMS-4FNS / HMS-4R (侧铣) (Side milling)

工件材料 Workpiece material	不锈钢 Stainless steel	
切削量 Cutting depth(mm)	ap≤1D ae≤0.1D	
切削速度 Cutting speed (m/min)	100	
刃径 Diameter(mm)	n (rev/min)	Vf (mm/min)
1	25000	700
2	15900	635
4	7960	700
6	5300	680
8	3980	730
10	3180	660
12	2650	600
16	1990	490
20	1590	460

HMS-4R (槽铣) (Groove milling)

工件材料 Workpiece material	不锈钢 Stainless steel	
切削量 Cutting depth(mm)	ap≤0.1D ae≤1D	
切削速度 Cutting speed (m/min)	45	
刃径 Diameter(mm)	n (rev/min)	Vf (mm/min)
1	14330	400
2	7165	280
4	3580	240
6	2390	310
8	1790	310
10	1430	310
12	1195	310
16	895	270
20	715	240

- 请使用高精度的机床和刀柄。
- 请使用空气冷却或不易产生烟雾的切削液。
- 侧面铣削推荐顺铣加工。
- 机床与工件安装刚性较差的情况下，会产生振动和异常声音，此时应将上表的转速与进给速度同比降低。
- 在不干涉的条件下尽可能使刀具悬长最短。

- Please select high-precision, high-rigidity machine and tool holder.
- Please use air blow or cutting liquid with high mist retardant property.
- Down milling is recommended in the case of side milling.
- When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed speed stated above correspondingly.
- Make overhang of tool as short as possible in conditions of non-interference.

难切削材料加工 HMS 系列切削参数

HMS Series Cutting Parameters for Machining Hard-to-Cut Materials

HMS-2B (仿形铣) (Profile milling)

工件材料 Workpiece material	不锈钢 Stainless steel	
切削量 Cutting depth(mm)	ap≤0.2D ae≤0.2D	
切削速度 Cutting speed (m/min)	100	
刃径 Diameter(mm)	n (rev/min)	Vf (mm/min)
1	25000	525
2	15900	480
4	7960	510
6	5300	550
8	3980	560
10	3180	540
12	2650	560
16	1990	520
20	1590	510

HMS-4B (仿形铣) (Profile milling)

工件材料 Workpiece material	不锈钢 Stainless steel	
切削量 Cutting depth(mm)	ap≤0.2D ae≤0.2D	
切削速度 Cutting speed (m/min)	100	
刃径 Diameter(mm)	n (rev/min)	Vf (mm/min)
1	25000	560
2	15900	955
4	7960	1020
6	5300	1100
8	3980	1110
10	3180	1080
12	2650	1115
16	1990	1030
20	1590	1020

- 请使用高精度的机床和刀柄。
- 请使用空气冷却或不易产生烟雾的切削液。
- 侧面铣削推荐顺铣加工。
- 机床与工件安装刚性较差的情况下，会产生振动和异常声音，此时应将上表的转速与进给速度同比降低。
- 在不干涉的条件下尽可能使刀具悬长最短。

- Please select high-precision machine and tool holder.
- Please use air blow or cutting liquid with high mist retardant property.
- Down milling is recommended in the case of side milling.
- When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed speed stated above correspondingly.
- Make overhang of tool as short as possible in conditions of non-interference.

难切削材料加工 HMS 系列切削参数

HMS Series Cutting Parameters for Machining Hard-to-Cut Materials

HMS-4F-X / HMS-4FNS-X / HMS-4R-X / HMS-4RNS-X (侧铣) (Side milling)

工件材料 Workpiece material	不锈钢 Stainless steel	
切削量 Cutting depth(mm)	ap≤1D ae≤0.5D	
切削速度 Cutting speed (m/min)	80	
刃径 Diameter(mm)	n (rev/min)	Vf (mm/min)
2	15900	600
4	7960	480
6	5300	500
8	3980	510
10	3180	490
12	2650	480

HMS-4F-X / HMS-4FNS-X / HMS-4R-X / HMS-4RNS-X (槽铣) (Groove milling)

工件材料 Workpiece material	不锈钢 Stainless steel	
切削量 Cutting depth(mm)	ap≤1D ae≤1D	
切削速度 Cutting speed (m/min)	60	
刃径 Diameter(mm)	n (rev/min)	Vf (mm/min)
2	9550	500
4	4780	350
6	3180	350
8	2390	380
10	1900	350
12	1590	350

- 请使用高精度的机床和刀柄。
- 请使用空气冷却或不易产生烟雾的切削液。
- 侧面铣削推荐顺铣加工。
- 机床与工件安装刚性较差的情况下，会产生振动和异常声音，此时应将上表的转速与进给速度同比降低。
- 在不干涉的条件下尽可能使刀具悬长最短。

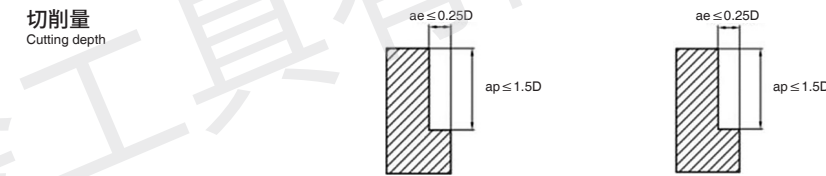
- Please select high-precision machine and tool holder.
- Please use air blow or cutting liquid with high mist retardant property.
- Down milling is recommended in the case of side milling.
- When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed speed stated above correspondingly.
- Make overhang of tool as short as possible in conditions of non-interference.

钛合金材料加工 HT400 系列切削参数

HT400 Series Cutting Parameters for Machining Titanium Alloy Materials

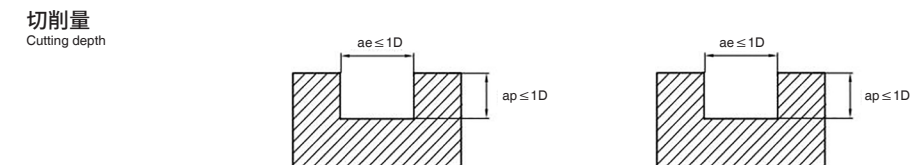
HT400 四刃平刀 / 圆鼻刀 (侧铣) 4-flute flattened/4-flute R end mills (Side milling)

工件材料 Workpiece material	钛合金 Titanium alloy		不锈钢 Stainless steel	
Dc (mm)	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)
2	9555	380	12739	760
3	6369	305	8490	575
4	4778	285	6370	510
6	3185	320	4245	510
8	2389	335	3185	510
10	1911	345	2545	510
12	1592	350	2020	485
16	1194	310	1590	445



HT400 四刃平刀 / 圆鼻刀 (槽铣) 4-flute flattened/4-flute R end mills (Groove milling)

工件材料 Workpiece material	钛合金 Titanium alloy		不锈钢 Stainless steel	
Dc (mm)	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)
2	6370	255	9555	380
3	4245	200	6369	305
4	3185	190	4775	285
6	2120	170	3185	320
8	1590	190	2390	335
10	1270	200	1910	345
12	1060	210	1590	350
16	795	190	1195	310



- 请使用高精度的机床和刀柄。
- 请使用空气冷却或不易产生烟雾的切削液。
- 侧面铣削推荐顺铣加工。
- 机床与工件安装刚性较差的情况下，会产生振动和异常声音，此时应将上表的转速与进给速度同比降低。
- 在不干涉的条件下尽可能使刀具悬长最短。

- Please select high-precision machine and tool holder.
- Please use air blow or cutting liquid with high mist retardant property.
- Down milling is recommended in the case of side milling.
- When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed speed stated above correspondingly.
- Make overhang of tool as short as possible in conditions of non-interference.

铝合金材料加工 HMA 系列切削参数

HMA Series Cutting Parameters for Machining Aluminium Alloy Materials

HMA-2F / HMA-2R / HMA-2RH (侧铣) (Side milling)

工件材料 Workpiece material	硅 + 铝合金 Silicon + aluminum alloy Si≤10%		铜合金 Alloy of copper	
切削量 Cutting depth(mm)	ap≤1.5D ae≤0.2D		ap≤1.5D ae≤0.2D	
切削速度 Cutting speed (m/min)	150			
刃径 Diameter(mm)	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)
1	16000	580	16000	520
2	12700	710	12700	650
4	12000	1200	12000	1070
6	10600	1280	10600	1150
8	10000	1390	10000	1250
10	9500	1720	9500	1550
12	9280	2400	9280	2170
16	7000	2500	7000	2250
20	5600	2450	5600	2200

HMA-2F / HMA-2R / HMA-2RH (槽铣) (Groove milling)

工件材料 Workpiece material	硅 + 铝合金 Silicon + aluminum alloy Si≤10%		铜合金 Alloy of copper	
切削量 Cutting depth(mm)	ap≤0.5D ae=1D		ap≤0.5D ae=1D	
切削速度 Cutting speed (m/min)	150			
刃径 Diameter(mm)	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)
1	16000	400	16000	380
2	10000	500	10000	450
4	9000	810	9000	800
6	8000	920	8000	830
8	7800	1100	7800	1000
10	8000	1280	8000	1150
12	6800	1300	6800	1130
16	5000	1310	5000	1000
20	4000	1200	4000	1080

- 请使用高精度的机床和刀柄。
- 请使用空气冷却或不易产生烟雾的切削液。
- 侧面铣削推荐顺铣加工。
- 机床与工件安装刚性较差的情况下，会产生振动和异常声音，此时应将上表的转速与进给速度同比降低。
- 在不干涉的条件下尽可能使刀具悬长最短。

- Please select high-precision machine and tool holder.
- Please use air blow or cutting liquid with high mist retardant property.
- Down milling is recommended in the case of side milling.
- When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed speed stated above correspondingly.
- Make overhang of tool as short as possible in conditions of non-interference.

铝合金材料加工 HMA 系列切削参数

HMA Series Cutting Parameters for Machining Aluminium Alloy Materials

HMA-2FL (侧铣) (Side milling)

工件材料 Workpiece material	硅 + 铝合金 Silicon + aluminum alloy Si≤10%		铜合金 Alloy of copper	
切削量 Cutting depth(mm)	ap≤2.5D ae≤0.15D		ap≤2.5D ae≤0.15D	
切削速度 Cutting speed (m/min)	150			
刃径 Diameter(mm)	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)
1	16000	400	16000	380
2	10000	500	10000	450
4	9000	810	9000	800
6	8000	920	8000	830
8	7800	1100	7800	1000
10	8000	1280	8000	1150
12	6800	1300	6800	1130
16	5000	1310	5000	1000
20	4000	1200	4000	1080

HMA-3F / HMA-3R / HMA-3RH (侧铣) (Side milling)

工件材料 Workpiece material	硅 + 铝合金 Silicon + aluminum alloy Si≤10%		铜合金 Alloy of copper	
切削量 Cutting depth(mm)	ap≤1.5D ae≤0.2D		ap≤1.5D ae≤0.2D	
切削速度 Cutting speed (m/min)	150			
刃径 Diameter(mm)	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)
1	16000	650	16000	720
2	13000	850	13000	900
4	12000	1430	12000	1200
6	10600	1530	10600	1200
8	10000	1670	10000	1500
10	9500	2050	9500	1800
12	9280	2800	9280	2225
16	7000	3000	7000	2500
20	5600	3150	5600	3000

- 请使用高精度的机床和刀柄。
- 请使用空气冷却或不易产生烟雾的切削液。
- 侧面铣削推荐顺铣加工。
- 机床与工件安装刚性较差的情况下，会产生振动和异常声音，此时应将上表的转速与进给速度同比降低。
- 在不干涉的条件下尽可能使刀具悬长最短。

- Please select high-precision machine and tool holder.
- Please use air blow or cutting liquid with high mist retardant property.
- Down milling is recommended in the case of side milling.
- When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed speed stated above correspondingly.
- Make overhang of tool as short as possible in conditions of non-interference.

铝合金材料加工 HMA 系列切削参数

HMA Series Cutting Parameters for Machining Aluminium Alloy Materials

HMA-3F / HMA-3R / HMA-3RH (槽铣) (Groove milling)

工件材料 Workpiece material	硅 + 铝合金 Silicon + aluminum alloy Si≤10%		铜合金 Alloy of copper	
切削量 Cutting depth(mm)	ap≤1.5D ae=1D		ap≤1.5D ae=1D	
切削速度 Cutting speed (m/min)	150		150	
刃径 Diameter(mm)	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)
1	16000	450	16000	450
2	10000	570	10000	520
4	9000	960	9000	860
6	8000	1050	8000	830
8	7800	1300	7800	960
10	8000	1500	8000	1240
12	6800	1620	6800	1500
16	5000	1680	5000	1550
20	4000	1800	4000	1510

HMA-3FL (侧铣) (Side milling)

工件材料 Workpiece material	硅 + 铝合金 Silicon + aluminum alloy Si≤10%		铜合金 Alloy of copper	
切削量 Cutting depth(mm)	ap≤2.5D ae≤0.15D		ap≤2.5D ae≤0.15D	
切削速度 Cutting speed (m/min)	150		150	
刃径 Diameter(mm)	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)
1	16000	450	16000	450
2	10000	570	10000	520
4	9000	960	9000	860
6	8000	1050	8000	830
8	7800	1300	7800	960
10	8000	1500	8000	1240
12	6800	1620	6800	1500
16	5000	1680	5000	1550
20	4000	1800	4000	1510

- 请使用高精度的机床和刀柄。
- 请使用空气冷却或不易产生烟雾的切削液。
- 侧面铣削推荐顺铣加工。
- 机床与工件安装刚性较差的情况下，会产生振动和异常声音，此时应将上表的转速与进给速度同比降低。
- 在不干涉的条件下尽可能使刀具悬长最短。

- Please select high-precision machine and tool holder.
- Please use air blow or cutting liquid with high mist retardant property.
- Down milling is recommended in the case of side milling.
- When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed speed stated above correspondingly.
- Make overhang of tool as short as possible in conditions of non-interference.

铝合金材料加工 HMA 系列切削参数

HMA Series Cutting Parameters for Machining Aluminium Alloy Materials

HMA-2B (仿形铣) (Profile milling)

工件材料 Workpiece material	硅 + 铝合金 Silicon + aluminum alloy Si≤10%		铜合金 Alloy of copper	
切削量 Cutting depth(mm)	ap≤0.3D ae≤0.3D		ap≤0.3D ae≤0.3D	
切削速度 Cutting speed (m/min)	150		150	
刃径 Diameter(mm)	n (rev/min)	Vf (mm/min)	n (rev/min)	Vf (mm/min)
1	19000	950	19000	860
2	15900	1600	15900	1430
4	11900	1900	11900	1720
6	10600	2500	10600	2300
8	8000	2550	8000	2300
10	7950	3200	7950	2850
12	7950	3800	7950	3450
16	7000	4450	7000	4010

- 请使用高精度的机床和刀柄。
- 请使用空气冷却或不易产生烟雾的切削液。
- 侧面铣削推荐顺铣加工。
- 机床与工件安装刚性较差的情况下，会产生振动和异常声音，此时应将上表的转速与进给速度同比降低。
- 在不干涉的条件下尽可能使刀具悬长最短。

- Please select high-precision, high-rigidity machine and tool holder.
- Please use air blow or cutting liquid with high mist retardant property.
- Down milling is recommended in the case of side milling.
- When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed speed stated above correspondingly.
- Make overhang of tool as short as possible in conditions of non-interference.

整体硬质合金钻头

SOLID CARBIDE DRILLS



整体硬质合金钻头命名规则

Solid Carbide Drills Code Key

刀具种类 Drills type

HD G - 05 C 0600 A

代号 Symbol	刀具种类 Drills type
HD	整体型钻头 Solid carbide drills

刀具系列 Drills category

HD **G** - 05 C 0600 A

代号 Symbol	刀具系列 Drills category
G	通用加工麻花钻 Twist drills for general machining
S	不锈钢加工麻花钻 Twist drills for machining stainless steel
K	铸铁加工麻花钻 Twist drills for machining cast iron
H	硬材料加工麻花钻 Twist drills for machining hardness material
KZ	铸铁加工直槽钻 Straight flute drills for machining cast iron
L	深孔加工麻花钻 Twist drills for deep-hole machining
P	定心钻 Pilot drills

钻孔深度 / 顶角 Drilling depth/Point angle

HD G - **05** C 0600 A

代号 Symbol	钻孔深度 / 顶角 Drilling depth/Point angle
03	钻深 ≤ 3D Drilling depth ≤ 3D
05	钻深 ≤ 5D Drilling depth ≤ 5D
08	钻深 ≤ 8D Drilling depth ≤ 8D
12	钻深 12D Drilling depth 12D
15	钻深 15D Drilling depth 15D
20	钻深 20D Drilling depth 20D
30	钻深 30D Drilling depth 30D
M	90°顶角 90°point angle
N	120°顶角 120°point angle
Q	145°顶角 145°point angle

冷却方式 Mode of cooling

HD G - 05 **C** 0600 A

代号 Symbol	冷却方式 Mode of cooling
C	内冷 Internal cooling
N	外冷 External cooling

柄部类型 Type of shank

HD G - 05 C 0600 **A**

代号 Symbol	柄部类型 Type of shank
A	圆柱直柄 DIN6535HA Cylindrical straight handle
E	斜削柄 DIN6535HE Whistle notch shank
B	削平柄 DIN6535HB Flat notch shank
Y	普通圆柱直柄 General cylindrical straight handle
M	莫氏锥柄 Morse taper shank

刃部直径 Drilling diameter

HD G - 05 C **0600** A

代号 Symbol	刃部直径 Drilling diameter
0600	刃径为 6.0 Drilling diameter 6.0
0850	刃径为 8.5 Drilling diameter 8.5



整体硬质合金钻头系列介绍

Introduction of Solid Carbide Drills Series

图示 Illustration	应用 Application
<p>通用加工HDG系列麻花钻 HDG series twist drills for general machining</p> 	<p>广泛的适用范围，对钢件、铸铁、不锈钢等材料进行高效加工。 自定心能力强，具有稳定的尺寸精度和优异的表面质量。 新沟槽结构，使切屑处理和排屑更加顺畅，有效提高加工效率。</p> <p>Broad scope of application, providing highly efficient machining for machining such as steel members, cast iron and stainless steel. Powerful self-centering capacity, and is equipped with stable size accuracy and extraordinary quality of the surface. New trench structure which enables chip processing and chip discharge to be more unimpeded, effectively improving machining efficiency.</p>
<p>不锈钢加工HDS系列麻花钻 HDS series twist drills for machining stainless steel</p> 	<p>适用于不锈钢加工。 增强的钻尖结构，能实现更高出色的切削效果。 独特的槽型结构和刃口，增大容屑空间，提升切屑形成。</p> <p>Suitable for stainless steel machining. Strengthened drill point structure which is able to realize more outstanding chip cutting effect. Unique groove profile structure and cutting edge, enlarging space for holding chip and improving formation of chip.</p>
<p>铸铁加工HDK系列麻花钻 HDK series twist drills for machining cast iron</p> 	<p>适用于铸铁加工。 自定心能力出色，可高效加工且提升加工精度。 独特刃带设计，加工的孔能达到较高位置度、表面光洁度。</p> <p>Suitable for machining of cast iron. Extraordinary self-centering capacity, enable highly efficient machining and improvement in machining accuracy. Unique edge-line design, machined bores are able to achieve relatively high tolerance of position and finish of the surface.</p>
<p>硬材料加工HDH系列麻花钻 HDH series twist drills for machining hardness material</p> 	<p>适用于高硬钢加工。 高刚性、高刃尖强度，硬度与韧性优秀结合。 可进行各种钻孔加工，自定心能力强。</p> <p>Suitable for machining of high hardness steel. High rigidity, high drill point strength, excellent combination of hardness and toughness. It's able to perform various types of machining of bore drill, and self-centering capacity is robust.</p>





















整体硬质合金钻头系列介绍

Introduction of Solid Carbide Drills Series

图示 Illustration	应用 Application
<p>铸铁加工HDKZ系列直槽钻 HDKZ series straight flute drills for machining cast iron</p> 	<p>适用于铸铁加工。 兼具降低切削阻力和提高钻头强度的特点。 断屑、排屑性能大，切削速度更快，钻孔质量高，高效加工时也表现稳定。</p> <p>Suitable for machining of cast iron. Combined with the features of lowering cutting resistance and improving drill strength. Chip breaking and chip discharge performance is strong, cutting speed is faster, quality of bore drilled is high, and the performance is stable during high-efficiency machining.</p>
<p>深孔加工HDL系列麻花钻 HDL series twist drills for deep-hole machining</p> 	<p>适用于钢、铸铁等材料的深孔钻削。 优化的导向刃带使切削过程、加工精度更稳定切削速度更快。 具有优良的耐磨性，排屑顺畅，断屑效果更强。</p> <p>Suitable for deep bore drilling for materials such as steel and cast iron. Optimized guiding edge-line makes cutting process and machining accuracy more stable, and cutting speed faster. It's equipped with fine wear resistance, chip discharge is unimpeded, and chip breaking effect is more robust.</p>
<p>HDP系列定心钻 HDP series pilot drills</p> 	<p>适用于钢、铸铁、铝合金等材料的加工。 特殊设计的槽型使排屑更加顺畅。 能完成精准的中心定位和倒角加工。</p> <p>Suitable for machining of materials such as steel, cast iron and aluminum alloy. Groove profile with special design drives chip discharge to be more unimpeded. It's able to complete accurate center localization and chamfering.</p>

整体硬质合金钻头系列一览表

Solid Carbide Drills Overview

适用加工材料 Workpiece material	钻孔深度 Drilling depth	冷却方式 Coolant mode	刀具名称及外形 Shape of drills	柄部类型 Type of shank	涂层 Coating	尺寸范围 Diameter range	尺寸表页码 Page	切削参数 Cutting parameter	钢 Steel	不锈钢 Stainless steel	铸铁 Cast iron	铝合金 Aluminium alloy	高温合金 Heat resistant alloy	高硬铁 High hardness iron	
HDG 系列麻花钻 HDG series twist drills															
通用 General	3D	外冷 External coolant	HDG-03N****A		圆柱直柄 Cylindrical straight handle DIN6535HA	TiAlN	D2.0~D25.0	B001	I001	●	○				
	5D	外冷 External coolant	HDG-05N****A				D2.0~D25.0	B001	I001	●	○				
	3D	内冷 Internal coolant	HDG-03C****A				D3.0~D25.0	B015	I001	●	○	○	○		
	5D	内冷 Internal coolant	HDG-05C****A				D3.0~D25.0	B015	I001	●	○	○	○		
	8D	内冷 Internal coolant	HDG-08C****A				D3.0~D18.0	B015	I001	●	○	○	○		
HDS 系列麻花钻 HDS series twist drills															
不锈钢 Stainless steel	3D	内冷 Internal coolant	HDS-03C****A		圆柱直柄 Cylindrical straight handle DIN6535HA	NaNo TiAlN	D3.0~D20.0	C001	I001	○	●			○	
	5D	内冷 Internal coolant	HDS-05C****A				D3.0~D20.0	C001	I001	○	●			○	
HDK 系列麻花钻 HDK series twist drills															
铸铁 Cast iron	3D	外冷 External coolant	HDK-03N****A		圆柱直柄 Cylindrical straight handle DIN6535HA	TiAlN	D3.0~D20.0	D001	I002	○		●			
	5D	外冷 External coolant	HDK-05N****A				D3.0~D20.0	D001	I002	○		●			
	3D	内冷 Internal coolant	HDK-03C****A				D5.0~D20.0	D003	I002	○		●	○		
	5D	内冷 Internal coolant	HDK-05C****A				D5.0~D20.0	D003	I002	○		●	○		
HDH 系列麻花钻 HDH series twist drills															
硬材质 Hardness material	3D	外冷 External coolant	HDH-03N****Y		普通圆柱直柄 Ordinary cylindrical straight handle	NaNo TiAlN	D4.0~D16.0	E002	I002					●	
HDKZ 系列直槽钻 HDKZ series straight flute drills															
铸铁 Cast iron	3D	外冷 External coolant	HDKZ-05N****A		圆柱直柄 Cylindrical straight handle DIN6535HA	TiAlN	D4.0~D20.0	F001	I003			●	●		
	3D	内冷 Internal coolant	HDKZ-05C****A				D4.0~D20.0	F002	I003			●	●		
HDL 系列麻花钻 HDL series twist drills															
深孔加工 Deep-hole	12D	内冷 Internal coolant	HDL-12C****A		圆柱直柄 Cylindrical straight handle DIN6535HA	NaNo TiAlN	D3.0~D20.0	G001	I003	●	○	●	○		
	20D	内冷 Internal coolant	HDL-20C****A				D3.0~D14.0	G001	I003	●	○	●	○		
	30D	内冷 Internal coolant	HDL-30C****A				D3.0~D10.0	G001	I003	●	○	●	○		
HDP 系列定心钻 HDP series pilot drills															
钢 Steel 铸铁 Cast iron 非铁材料 Nonferrous materials	90°定心钻 90° pilot drills		HDP-M****Y		普通圆柱直柄 Ordinary cylindrical straight handle	TiAlN	D5.0~D20.0	H001	I004	○		●	●		
	120°定心钻 120° pilot drills		HDP-N****Y				D5.0~D20.0	H001	I004	○		●	●		
	145°定心钻 145° pilot drills		HDP-Q****Y				D5.0~D20.0	H001	I004	○		●	●		

● 最合适 Very suitable ○ 合适 Suitable

通用加工 HDG 系列麻花钻 (外冷却型)

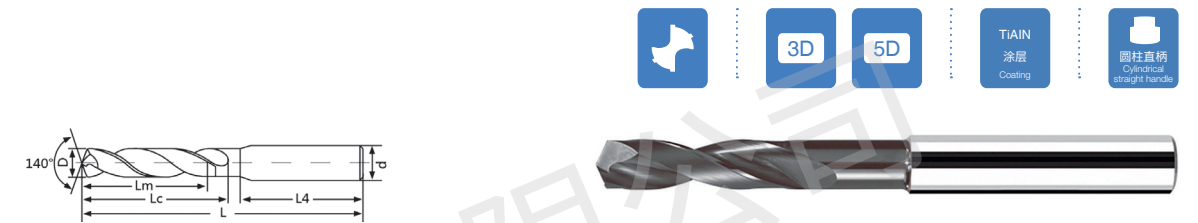
HDG Series Twist Drills for General Machining (External coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
2.00	3	HDG-03N0200A	4	58	13	9	28
2.00	5	HDG-05N0200A	4	58	18	14	28
2.10	3	HDG-03N0210A	4	58	13	9	28
2.10	5	HDG-05N0210A	4	58	18	14	28
2.15	3	HDG-03N0215A	4	58	13	9	28
2.15	5	HDG-05N0215A	4	58	18	14	28
2.20	3	HDG-03N0220A	4	58	13	9	28
2.20	5	HDG-05N0220A	4	58	18	14	28
2.30	3	HDG-03N0230A	4	58	13	9	28
2.30	5	HDG-05N0230A	4	58	18	14	28
2.35	3	HDG-03N0235A	4	58	17	12	28
2.35	5	HDG-05N0235A	4	58	22	17	28
2.40	3	HDG-03N0240A	4	58	17	12	28
2.40	5	HDG-05N0240A	4	58	22	17	28
2.50	3	HDG-03N0250A	4	58	17	12	28
2.50	5	HDG-05N0250A	4	58	22	17	28
2.55	3	HDG-03N0255A	4	58	17	12	28
2.55	5	HDG-05N0255A	4	58	22	17	28
2.60	3	HDG-03N0260A	4	58	17	12	28
2.60	5	HDG-05N0260A	4	58	22	17	28
2.65	3	HDG-03N0265A	4	58	17	12	28
2.65	5	HDG-05N0265A	4	58	22	17	28
2.70	3	HDG-03N0270A	4	58	17	12	28
2.70	5	HDG-05N0270A	4	58	22	17	28
2.80	3	HDG-03N0280A	4	58	17	12	28
2.80	5	HDG-05N0280A	4	58	22	17	28
2.85	3	HDG-03N0285A	4	58	17	12	28
2.85	5	HDG-05N0285A	4	58	22	17	28

通用加工 HDG 系列麻花钻 (外冷却型)

HDG Series Twist Drills for General Machining (External coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
2.90	3	HDG-03N0290A	4	58	17	12	28
2.90	5	HDG-05N0290A	4	58	22	17	28
2.95	3	HDG-03N0295A	4	58	17	12	28
2.95	5	HDG-05N0295A	4	58	22	17	28
3.00	3	HDG-03N0300A	6	62	20	14	36
3.00	5	HDG-05N0300A	6	66	28	23	36
3.10	3	HDG-03N0310A	6	62	20	14	36
3.10	5	HDG-05N0310A	6	66	28	23	36
3.15	3	HDG-03N0315A	6	62	20	14	36
3.15	5	HDG-05N0315A	6	66	28	23	36
3.20	3	HDG-03N0320A	6	62	20	14	36
3.20	5	HDG-05N0320A	6	66	28	23	36
3.25	3	HDG-03N0325A	6	62	20	14	36
3.25	5	HDG-05N0325A	6	66	28	23	36
3.30	3	HDG-03N0330A	6	62	20	14	36
3.30	5	HDG-05N0330A	6	66	28	23	36
3.40	3	HDG-03N0340A	6	62	20	14	36
3.40	5	HDG-05N0340A	6	66	28	23	36
3.50	3	HDG-03N0350A	6	62	20	14	36
3.50	5	HDG-05N0350A	6	66	28	23	36
3.60	3	HDG-03N0360A	6	62	20	14	36
3.60	5	HDG-05N0360A	6	66	28	23	36
3.70	3	HDG-03N0370A	6	62	20	14	36
3.70	5	HDG-05N0370A	6	66	28	23	36
3.80	3	HDG-03N0380A	6	66	24	17	36
3.80	5	HDG-05N0380A	6	74	36	29	36
3.85	3	HDG-03N0385A	6	66	24	17	36
3.85	5	HDG-05N0385A	6	74	36	29	36

通用加工 HDG 系列麻花钻 (外冷却型)

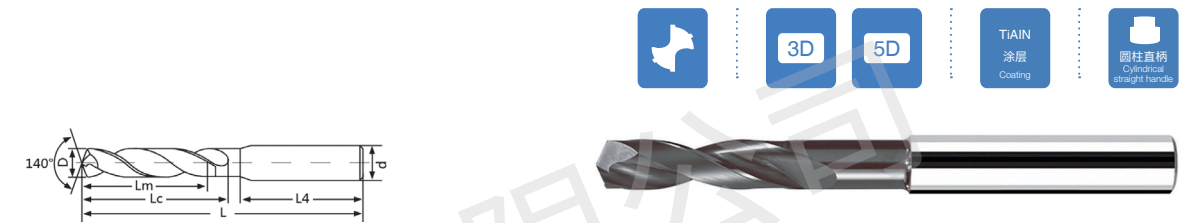
HDG Series Twist Drills for General Machining (External coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
3.90	3	HDG-03N0390A	6	66	24	17	36
3.90	5	HDG-05N0390A	6	74	36	29	36
4.00	3	HDG-03N0400A	6	66	24	17	36
4.00	5	HDG-05N0400A	6	74	36	29	36
4.10	3	HDG-03N0410A	6	66	24	17	36
4.10	5	HDG-05N0410A	6	74	36	29	36
4.20	3	HDG-03N0420A	6	66	24	17	36
4.20	5	HDG-05N0420A	6	74	36	29	36
4.30	3	HDG-03N0430A	6	66	24	17	36
4.30	5	HDG-05N0430A	6	74	36	29	36
4.35	3	HDG-03N0435A	6	66	24	17	36
4.35	5	HDG-05N0435A	6	74	36	29	36
4.40	3	HDG-03N0440A	6	66	24	17	36
4.40	5	HDG-05N0440A	6	74	36	29	36
4.45	3	HDG-03N0445A	6	66	24	17	36
4.45	5	HDG-05N0445A	6	74	36	29	36
4.50	3	HDG-03N0450A	6	66	24	17	36
4.50	5	HDG-05N0450A	6	74	36	29	36
4.60	3	HDG-03N0460A	6	66	24	17	36
4.60	5	HDG-05N0460A	6	74	36	29	36
4.65	3	HDG-03N0465A	6	66	24	17	36
4.65	5	HDG-05N0465A	6	74	36	29	36
4.70	3	HDG-03N0470A	6	66	24	17	36
4.70	5	HDG-05N0470A	6	74	36	29	36
4.80	3	HDG-03N0480A	6	66	28	20	36
4.80	5	HDG-05N0480A	6	82	44	35	36
4.90	3	HDG-03N0490A	6	66	28	20	36
4.90	5	HDG-05N0490A	6	82	44	35	36

通用加工 HDG 系列麻花钻 (外冷却型)

HDG Series Twist Drills for General Machining (External coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
5.00	3	HDG-03N0500A	6	66	28	20	36
5.00	5	HDG-05N0500A	6	82	44	35	36
5.10	3	HDG-03N0510A	6	66	28	20	36
5.10	5	HDG-05N0510A	6	82	44	35	36
5.20	3	HDG-03N0520A	6	66	28	20	36
5.20	5	HDG-05N0520A	6	82	44	35	36
5.25	3	HDG-03N0525A	6	66	28	20	36
5.25	5	HDG-05N0525A	6	82	44	35	36
5.30	3	HDG-03N0530A	6	66	28	20	36
5.30	5	HDG-05N0530A	6	82	44	35	36
5.40	3	HDG-03N0540A	6	66	28	20	36
5.40	5	HDG-05N0540A	6	82	44	35	36
5.50	3	HDG-03N0550A	6	66	28	20	36
5.50	5	HDG-05N0550A	6	82	44	35	36
5.55	3	HDG-03N0555A	6	66	28	20	36
5.55	5	HDG-05N0555A	6	82	44	35	36
5.60	3	HDG-03N0560A	6	66	28	20	36
5.60	5	HDG-05N0560A	6	82	44	35	36
5.70	3	HDG-03N0570A	6	66	28	20	36
5.70	5	HDG-05N0570A	6	82	44	35	36
5.75	3	HDG-03N0575A	6	66	28	20	36
5.75	5	HDG-05N0575A	6	82	44	35	36
5.80	3	HDG-03N0580A	6	66	28	20	36
5.80	5	HDG-05N0580A	6	82	44	35	36
5.90	3	HDG-03N0590A	6	66	28	20	36
5.90	5	HDG-05N0590A	6	82	44	35	36
5.95	3	HDG-03N0595A	6	66	28	20	36
5.95	5	HDG-05N0595A	6	82	44	35	36

通用加工 HDG 系列麻花钻 (外冷却型)

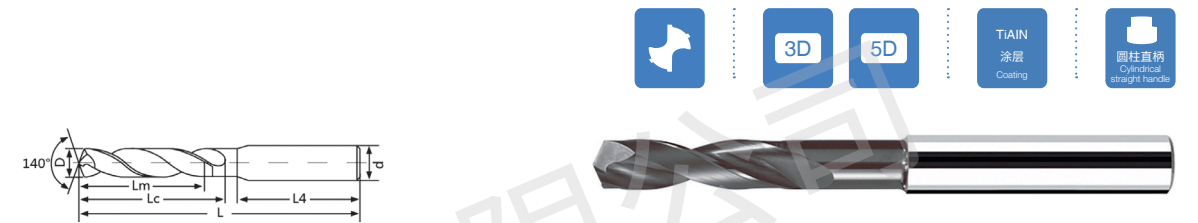
HDG Series Twist Drills for General Machining (External coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
6.00	3	HDG-03N0600A	6	66	28	20	36
6.00	5	HDG-05N0600A	6	82	44	35	36
6.10	3	HDG-03N0610A	8	79	34	24	36
6.10	5	HDG-05N0610A	8	91	53	43	36
6.20	3	HDG-03N0620A	8	79	34	24	36
6.20	5	HDG-05N0620A	8	91	53	43	36
6.30	3	HDG-03N0630A	8	79	34	24	36
6.30	5	HDG-05N0630A	8	91	53	43	36
6.40	3	HDG-03N0640A	8	79	34	24	36
6.40	5	HDG-05N0640A	8	91	53	43	36
6.50	3	HDG-03N0650A	8	79	34	24	36
6.50	5	HDG-05N0650A	8	91	53	43	36
6.60	3	HDG-03N0660A	8	79	34	24	36
6.60	5	HDG-05N0660A	8	91	53	43	36
6.70	3	HDG-03N0670A	8	79	34	24	36
6.70	5	HDG-05N0670A	8	91	53	43	36
6.75	3	HDG-03N0675A	8	79	34	24	36
6.75	5	HDG-05N0675A	8	91	53	43	36
6.80	3	HDG-03N0680A	8	79	34	24	36
6.80	5	HDG-05N0680A	8	91	53	43	36
6.90	3	HDG-03N0690A	8	79	34	24	36
6.90	5	HDG-05N0690A	8	91	53	43	36
7.00	3	HDG-03N0700A	8	79	34	24	36
7.00	5	HDG-05N0700A	8	91	53	43	36
7.10	3	HDG-03N0710A	8	79	34	24	36
7.10	5	HDG-05N0710A	8	91	53	43	36
7.20	3	HDG-03N0720A	8	79	34	24	36
7.20	5	HDG-05N0720A	8	91	53	43	36

通用加工 HDG 系列麻花钻 (外冷却型)

HDG Series Twist Drills for General Machining (External coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
7.30	3	HDG-03N0730A	8	79	41	29	36
7.30	5	HDG-05N0730A	8	91	53	43	36
7.40	3	HDG-03N0740A	8	79	41	29	36
7.40	5	HDG-05N0740A	8	91	53	43	36
7.45	3	HDG-03N0745A	8	79	41	29	36
7.45	5	HDG-05N0745A	8	91	53	43	36
7.50	3	HDG-03N0750A	8	79	41	29	36
7.50	5	HDG-05N0750A	8	91	53	43	36
7.60	3	HDG-03N0760A	8	79	41	29	36
7.60	5	HDG-05N0760A	8	91	53	43	36
7.70	3	HDG-03N0770A	8	79	41	29	36
7.70	5	HDG-05N0770A	8	91	53	43	36
7.80	3	HDG-03N0780A	8	79	41	29	36
7.80	5	HDG-05N0780A	8	91	53	43	36
7.90	3	HDG-03N0790A	8	79	41	29	36
7.90	5	HDG-05N0790A	8	91	53	43	36
8.00	3	HDG-03N0800A	8	79	41	29	40
8.00	5	HDG-05N0800A	8	91	53	43	40
8.10	3	HDG-03N0810A	10	89	47	35	40
8.10	5	HDG-05N0810A	10	103	61	49	40
8.20	3	HDG-03N0820A	10	89	47	35	40
8.20	5	HDG-05N0820A	10	103	61	49	40
8.30	3	HDG-03N0830A	10	89	47	35	40
8.30	5	HDG-05N0830A	10	103	61	49	40
8.40	3	HDG-03N0840A	10	89	47	35	40
8.40	5	HDG-05N0840A	10	103	61	49	40
8.50	3	HDG-03N0850A	10	89	47	35	40
8.50	5	HDG-05N0850A	10	103	61	49	40

通用加工 HDG 系列麻花钻 (外冷却型)

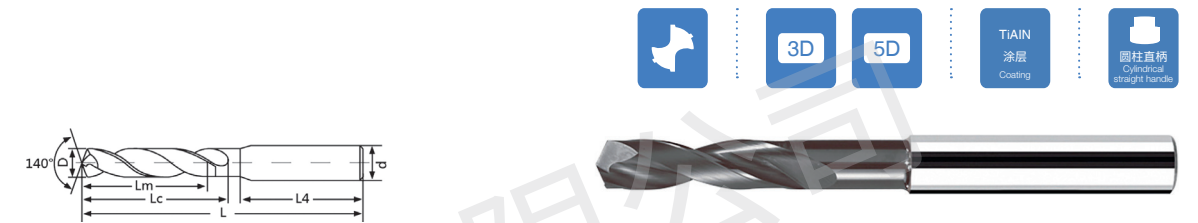
HDG Series Twist Drills for General Machining (External coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
8.60	3	HDG-03N0860A	10	89	47	35	40
8.60	5	HDG-05N0860A	10	103	61	49	40
8.70	3	HDG-03N0870A	10	89	47	35	40
8.70	5	HDG-05N0870A	10	103	61	49	40
8.75	3	HDG-03N0875A	10	89	47	35	40
8.75	5	HDG-05N0875A	10	103	61	49	40
8.80	3	HDG-03N0880A	10	89	47	35	40
8.80	5	HDG-05N0880A	10	103	61	49	40
8.90	3	HDG-03N0890A	10	89	47	35	40
8.90	5	HDG-05N0890A	10	103	61	49	40
9.00	3	HDG-03N0900A	10	89	47	35	40
9.00	5	HDG-05N0900A	10	103	61	49	40
9.10	3	HDG-03N0910A	10	89	47	35	40
9.10	5	HDG-05N0910A	10	103	61	49	40
9.20	3	HDG-03N0920A	10	89	47	35	40
9.20	5	HDG-05N0920A	10	103	61	49	40
9.30	3	HDG-03N0930A	10	89	47	35	40
9.30	5	HDG-05N0930A	10	103	61	49	40
9.35	3	HDG-03N0935A	10	89	47	35	40
9.35	5	HDG-05N0935A	10	103	61	49	40
9.40	3	HDG-03N0940A	10	89	47	35	40
9.40	5	HDG-05N0940A	10	103	61	49	40
9.45	3	HDG-03N0945A	10	89	47	35	40
9.45	5	HDG-05N0945A	10	103	61	49	40
9.50	3	HDG-03N0950A	10	89	47	35	40
9.50	5	HDG-05N0950A	10	103	61	49	40
9.60	3	HDG-03N0960A	10	89	47	35	40
9.60	5	HDG-05N0960A	10	103	61	49	40

通用加工 HDG 系列麻花钻 (外冷却型)

HDG Series Twist Drills for General Machining (External coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
9.70	3	HDG-03N0970A	10	89	47	35	40
9.70	5	HDG-05N0970A	10	103	61	49	40
9.80	3	HDG-03N0980A	10	89	47	35	40
9.80	5	HDG-05N0980A	10	103	61	49	40
9.90	3	HDG-03N0990A	10	89	47	35	40
9.90	5	HDG-05N0990A	10	103	61	49	40
10.00	3	HDG-03N1000A	10	89	47	35	40
10.00	5	HDG-05N1000A	10	103	61	49	40
10.10	8	HDG-03N1010A	11	102	55	40	45
10.10	3	HDG-05N1010A	11	118	71	56	45
10.20	5	HDG-03N1020A	12	102	55	40	45
10.20	3	HDG-05N1020A	12	118	71	56	45
10.25	5	HDG-03N1025A	12	102	55	40	45
10.25	3	HDG-05N1025A	12	118	71	56	45
10.30	5	HDG-03N1030A	12	102	55	40	45
10.30	3	HDG-05N1030A	12	118	71	56	45
10.40	5	HDG-03N1040A	12	102	55	40	45
10.40	8	HDG-05N1040A	12	118	71	56	45
10.50	3	HDG-03N1050A	12	102	55	40	45
10.50	5	HDG-05N1050A	12	118	71	56	45
10.60	3	HDG-03N1060A	12	102	55	40	45
10.60	5	HDG-05N1060A	12	118	71	56	45
10.70	3	HDG-03N1070A	12	102	55	40	45
10.70	5	HDG-05N1070A	12	118	71	56	45
10.75	3	HDG-03N1075A	12	102	55	40	45
10.75	5	HDG-05N1075A	12	118	71	56	45
10.80	3	HDG-03N1080A	12	102	55	40	45
10.80	5	HDG-05N1080A	12	118	71	56	45

通用加工 HDG 系列麻花钻 (外冷却型)

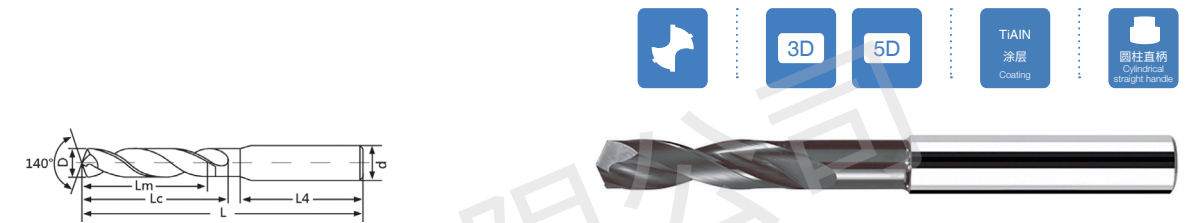
HDG Series Twist Drills for General Machining (External coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
10.90	3	HDG-03N1090A	12	102	55	40	45
10.90	5	HDG-05N1090A	12	118	71	56	45
11.00	3	HDG-03N1100A	12	102	55	40	45
11.00	5	HDG-05N1100A	12	118	71	56	45
11.10	3	HDG-03N1110A	12	102	55	40	45
11.10	5	HDG-05N1110A	12	118	71	56	45
11.20	3	HDG-03N1120A	12	102	55	40	45
11.20	5	HDG-05N1120A	12	118	71	56	45
11.25	3	HDG-03N1125A	12	102	55	40	45
11.25	5	HDG-05N1125A	12	118	71	56	45
11.30	3	HDG-03N1130A	12	102	55	40	45
11.30	5	HDG-05N1130A	12	118	71	56	45
11.35	3	HDG-03N1135A	12	102	55	40	45
11.35	5	HDG-05N1135A	12	118	71	56	45
11.40	3	HDG-03N1140A	12	102	55	40	45
11.40	5	HDG-05N1140A	12	118	71	56	45
11.45	3	HDG-03N1145A	12	102	55	40	45
11.45	5	HDG-05N1145A	12	118	71	56	45
11.50	3	HDG-03N1150A	12	102	55	40	45
11.50	5	HDG-05N1150A	12	118	71	56	45
11.60	3	HDG-03N1160A	12	102	55	40	45
11.60	5	HDG-05N1160A	12	118	71	56	45
11.70	3	HDG-03N1170A	12	102	55	40	45
11.70	5	HDG-05N1170A	12	118	71	56	45
11.80	3	HDG-03N1180A	12	102	55	40	45
11.80	5	HDG-05N1180A	12	118	71	56	45
11.90	3	HDG-03N1190A	12	102	55	40	45
11.90	5	HDG-05N1190A	12	118	71	56	45

通用加工 HDG 系列麻花钻 (外冷却型)

HDG Series Twist Drills for General Machining (External coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
12.00	3	HDG-03N1200A	12	102	55	40	45
12.00	5	HDG-05N1200A	12	118	71	56	45
12.10	3	HDG-03N1210A	14	107	60	43	45
12.10	5	HDG-05N1210A	14	124	77	60	45
12.20	3	HDG-03N1220A	14	107	60	43	45
12.20	5	HDG-05N1220A	14	124	77	60	45
12.25	3	HDG-03N1225A	14	107	60	43	45
12.25	5	HDG-05N1225A	14	124	77	60	45
12.30	3	HDG-03N1230A	14	107	60	43	45
12.30	5	HDG-05N1230A	14	124	77	60	45
12.50	3	HDG-03N1250A	14	107	60	43	45
12.50	5	HDG-05N1250A	14	124	77	60	45
12.70	3	HDG-03N1270A	14	107	60	43	45
12.70	5	HDG-05N1270A	14	124	77	60	45
12.75	3	HDG-03N1275A	14	107	60	43	45
12.75	5	HDG-05N1275A	14	124	77	60	45
12.80	3	HDG-03N1280A	14	107	60	43	45
12.80	5	HDG-05N1280A	14	124	77	60	45
12.90	3	HDG-03N1290A	14	107	60	43	45
12.90	5	HDG-05N1290A	14	124	77	60	45
13.00	3	HDG-03N1300A	14	107	60	43	45
13.00	5	HDG-05N1300A	14	124	77	60	45
13.10	3	HDG-03N1310A	14	107	60	43	45
13.10	5	HDG-05N1310A	14	124	77	60	45
13.35	3	HDG-03N1335A	14	107	60	43	45
13.35	5	HDG-05N1335A	14	124	77	60	45
13.50	3	HDG-03N1350A	14	107	60	43	45
13.50	5	HDG-05N1350A	14	124	77	60	45

通用加工 HDG 系列麻花钻 (外冷却型)

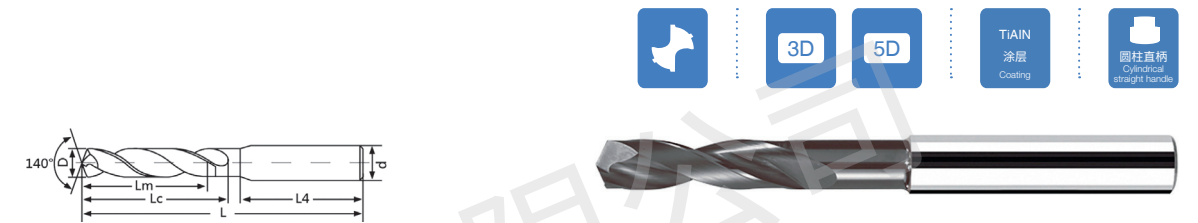
HDG Series Twist Drills for General Machining (External coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
13.65	3	HDG-03N1365A	14	107	60	43	45
13.65	5	HDG-05N1365A	14	124	77	60	45
13.80	3	HDG-03N1380A	14	107	60	43	45
13.80	5	HDG-05N1380A	14	124	77	60	45
14.00	3	HDG-03N1400A	14	107	60	43	45
14.00	5	HDG-05N1400A	14	124	77	60	45
14.25	3	HDG-03N1425A	16	115	65	45	48
14.25	5	HDG-05N1425A	16	133	83	63	48
14.30	3	HDG-03N1430A	16	115	65	45	48
14.30	5	HDG-05N1430A	16	133	83	63	48
14.50	3	HDG-03N1450A	16	115	65	45	48
14.50	5	HDG-05N1450A	16	133	83	63	48
14.75	3	HDG-03N1475A	16	115	65	45	48
14.75	5	HDG-05N1475A	16	133	83	63	48
14.80	3	HDG-03N1480A	16	115	65	45	48
14.80	5	HDG-05N1480A	16	133	83	63	48
15.00	3	HDG-03N1500A	16	115	65	45	48
15.00	5	HDG-05N1500A	16	133	83	63	48
15.10	3	HDG-03N1510A	16	115	65	45	48
15.10	5	HDG-05N1510A	16	133	83	63	48
15.25	3	HDG-03N1525A	16	115	65	45	48
15.25	5	HDG-05N1525A	16	133	83	63	48
15.35	3	HDG-03N1535A	16	115	65	45	48
15.35	5	HDG-05N1535A	16	133	83	63	48
15.50	3	HDG-03N1550A	16	115	65	45	48
15.50	5	HDG-05N1550A	16	133	83	63	48
15.80	3	HDG-03N1580A	16	115	65	45	48
15.80	5	HDG-05N1580A	16	133	83	63	48

通用加工 HDG 系列麻花钻 (外冷却型)

HDG Series Twist Drills for General Machining (External coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
16.00	3	HDG-03N1600A	16	115	65	45	48
16.00	5	HDG-05N1600A	16	133	83	63	48
16.50	3	HDG-03N1650A	18	123	73	51	48
16.50	5	HDG-05N1650A	18	143	93	71	48
16.75	3	HDG-03N1675A	18	123	73	51	48
16.75	5	HDG-05N1675A	18	143	93	71	48
16.80	3	HDG-03N1680A	18	123	73	51	48
16.80	5	HDG-05N1680A	18	143	93	71	48
17.00	3	HDG-03N1700A	18	123	73	51	48
17.00	5	HDG-05N1700A	18	143	93	71	48
17.50	3	HDG-03N1750A	18	123	73	51	48
17.50	5	HDG-05N1750A	18	143	93	71	48
17.80	3	HDG-03N1780A	18	123	73	51	48
17.80	5	HDG-05N1780A	18	143	93	71	48
17.90	3	HDG-03N1790A	18	123	73	51	48
17.90	5	HDG-05N1790A	18	143	93	71	48
18.00	3	HDG-03N1800A	18	123	73	51	48
18.00	5	HDG-05N1800A	18	143	93	71	48
18.30	3	HDG-03N1830A	20	131	79	55	50
18.30	5	HDG-05N1830A	20	153	101	77	50
18.50	3	HDG-03N1850A	20	131	79	55	50
18.50	5	HDG-05N1850A	20	153	101	77	50
18.80	3	HDG-03N1880A	20	131	79	55	50
18.80	5	HDG-05N1880A	20	153	101	77	50
19.00	3	HDG-03N1900A	20	131	79	55	50
19.00	5	HDG-05N1900A	20	153	101	77	50
19.50	3	HDG-03N1950A	20	131	79	55	50
19.50	5	HDG-05N1950A	20	153	101	77	50

通用加工 HDG 系列麻花钻 (外冷却型)

HDG Series Twist Drills for General Machining (External coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
19.80	3	HDG-03N1980A	20	131	79	55	50
19.80	5	HDG-05N1980A	20	153	101	77	50
20.00	3	HDG-03N2000A	20	131	79	55	50
20.00	5	HDG-05N2000A	20	153	101	77	50
20.40	3	HDG-03N2040A	20	141	86	60	50
20.40	5	HDG-05N2040A	20	167	112	85	50
20.50	3	HDG-03N2050A	20	141	86	60	50
20.50	5	HDG-05N2050A	20	167	112	85	50
21.00	3	HDG-03N2100A	20	141	86	60	50
21.00	5	HDG-05N2100A	20	167	112	85	50
21.40	3	HDG-03N2140A	20	141	86	60	50
21.40	5	HDG-05N2140A	20	167	112	85	50
21.50	3	HDG-03N2150A	20	141	86	60	50
21.50	5	HDG-05N2150A	20	167	112	85	50
22.00	3	HDG-03N2200A	20	141	86	60	50
22.00	5	HDG-05N2200A	20	167	112	85	50
22.25	3	HDG-03N2225A	25	153	95	65	56
22.25	5	HDG-05N2225A	25	184	126	98	56
22.50	3	HDG-03N2250A	25	153	95	65	56
22.50	5	HDG-05N2250A	25	184	126	98	56
23.00	3	HDG-03N2300A	25	153	95	65	56
23.00	5	HDG-05N2300A	25	184	126	98	56
23.25	3	HDG-03N2325A	25	153	95	65	56
23.25	5	HDG-05N2325A	25	184	126	98	56
23.50	3	HDG-03N2350A	25	153	95	65	56
23.50	5	HDG-05N2350A	25	184	126	98	56
24.00	3	HDG-03N2400A	25	153	95	65	56
24.00	5	HDG-05N2400A	25	184	126	98	56
25.00	3	HDG-03N2500A	25	153	95	65	56
25.00	5	HDG-05N2500A	25	184	126	98	56

通用加工 HDG 系列麻花钻 (内冷却型)

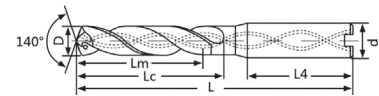
HDG Series Twist Drills for General Machining (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
3.00	3	HDG-03C0300A	6	62	20	14	36
3.00	5	HDG-05C0300A	6	66	28	23	36
3.00	8	HDG-08C0300A	6	72	34	29	36
3.10	3	HDG-03C0310A	6	62	20	14	36
3.10	5	HDG-05C0310A	6	66	28	23	36
3.10	8	HDG-08C0310A	6	72	34	29	36
3.15	3	HDG-03C0315A	6	62	20	14	36
3.15	5	HDG-05C0315A	6	66	28	23	36
3.20	3	HDG-03C0320A	6	62	20	14	36
3.20	5	HDG-05C0320A	6	66	28	23	36
3.20	8	HDG-08C0320A	6	72	34	29	36
3.25	3	HDG-03C0325A	6	62	20	14	36
3.25	5	HDG-05C0325A	6	66	28	23	36
3.30	3	HDG-03C0330A	6	62	20	14	36
3.30	5	HDG-05C0330A	6	66	28	23	36
3.30	8	HDG-08C0330A	6	72	34	29	36
3.40	3	HDG-03C0340A	6	62	20	14	36
3.40	5	HDG-05C0340A	6	66	28	23	36
3.40	8	HDG-08C0340A	6	72	34	29	36
3.50	3	HDG-03C0350A	6	62	20	14	36
3.50	5	HDG-05C0350A	6	66	28	23	36
3.50	8	HDG-08C0350A	6	72	34	29	36
3.60	3	HDG-03C0360A	6	62	20	14	36
3.60	5	HDG-05C0360A	6	66	28	23	36
3.60	8	HDG-08C0360A	6	72	34	29	36
3.70	3	HDG-03C0370A	6	62	20	14	36
3.70	5	HDG-05C0370A	6	66	28	23	36
3.70	8	HDG-08C0370A	6	72	34	29	36

通用加工 HDG 系列麻花钻 (内冷却型)

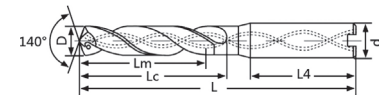
HDG Series Twist Drills for General Machining (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
3.80	3	HDG-03C0380A	6	66	24	17	36
3.80	5	HDG-05C0380A	6	74	36	29	36
3.80	8	HDG-08C0380A	6	81	43	36	36
3.85	3	HDG-03C0385A	6	66	24	17	36
3.85	5	HDG-05C0385A	6	74	36	29	36
3.90	3	HDG-03C0390A	6	66	24	17	36
3.90	5	HDG-05C0390A	6	74	36	29	36
3.90	8	HDG-08C0390A	6	81	43	36	36
4.00	3	HDG-03C0400A	6	66	24	17	36
4.00	5	HDG-05C0400A	6	74	36	29	36
4.00	8	HDG-08C0400A	6	81	43	36	36
4.10	3	HDG-03C0410A	6	66	24	17	36
4.10	5	HDG-05C0410A	6	74	36	29	36
4.10	8	HDG-08C0410A	6	81	43	36	36
4.20	3	HDG-03C0420A	6	66	24	17	36
4.20	5	HDG-05C0420A	6	74	36	29	36
4.20	8	HDG-08C0420A	6	81	43	36	36
4.30	3	HDG-03C0430A	6	66	24	17	36
4.30	5	HDG-05C0430A	6	74	36	29	36
4.30	8	HDG-08C0430A	6	81	43	36	36
4.35	3	HDG-03C0435A	6	66	24	17	36
4.35	5	HDG-05C0435A	6	74	36	29	36
4.40	3	HDG-03C0440A	6	66	24	17	36
4.40	5	HDG-05C0440A	6	74	36	29	36
4.40	8	HDG-08C0440A	6	81	43	36	36
4.45	3	HDG-03C0445A	6	66	24	17	36
4.45	5	HDG-05C0445A	6	74	36	29	36

通用加工 HDG 系列麻花钻 (内冷却型)

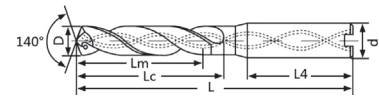
HDG Series Twist Drills for General Machining (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
4.50	3	HDG-03C0450A	6	66	24	17	36
4.50	5	HDG-05C0450A	6	74	36	29	36
4.50	8	HDG-08C0450A	6	81	43	36	36
4.60	3	HDG-03C0460A	6	66	24	17	36
4.60	5	HDG-05C0460A	6	74	36	29	36
4.60	8	HDG-08C0460A	6	81	43	36	36
4.65	3	HDG-03C0465A	6	66	24	17	36
4.65	5	HDG-05C0465A	6	74	36	29	36
4.70	3	HDG-03C0470A	6	66	24	17	36
4.70	5	HDG-05C0470A	6	74	36	29	36
4.70	8	HDG-08C0470A	6	81	43	36	36
4.80	3	HDG-03C0480A	6	66	28	20	36
4.80	5	HDG-05C0480A	6	82	44	35	36
4.80	8	HDG-08C0480A	6	95	57	48	36
4.90	3	HDG-03C0490A	6	66	28	20	36
4.90	5	HDG-05C0490A	6	82	44	35	36
4.90	8	HDG-08C0490A	6	95	57	48	36
5.00	3	HDG-03C0500A	6	66	28	20	36
5.00	5	HDG-05C0500A	6	82	44	35	36
5.00	8	HDG-08C0500A	6	95	57	48	36
5.10	3	HDG-03C0510A	6	66	28	20	36
5.10	5	HDG-05C0510A	6	82	44	35	36
5.10	8	HDG-08C0510A	6	95	57	48	36
5.20	3	HDG-03C0520A	6	66	28	20	36
5.20	5	HDG-05C0520A	6	82	44	35	36
5.20	8	HDG-08C0520A	6	95	57	48	36
5.25	3	HDG-03C0525A	6	66	28	20	36
5.25	5	HDG-05C0525A	6	82	44	35	36

通用加工 HDG 系列麻花钻 (内冷却型)

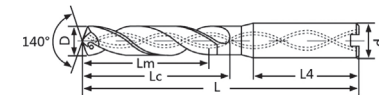
HDG Series Twist Drills for General Machining (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
5.30	3	HDG-03C0530A	6	66	28	20	36
5.30	5	HDG-05C0530A	6	82	44	35	36
5.30	8	HDG-08C0530A	6	95	57	48	36
5.40	3	HDG-03C0540A	6	66	28	20	36
5.40	5	HDG-05C0540A	6	82	44	35	36
5.40	8	HDG-08C0540A	6	95	57	48	36
5.50	3	HDG-03C0550A	6	66	28	20	36
5.50	5	HDG-05C0550A	6	82	44	35	36
5.50	8	HDG-08C0550A	6	95	57	48	36
5.55	3	HDG-03C0555A	6	66	28	20	36
5.55	5	HDG-05C0555A	6	82	44	35	36
5.60	3	HDG-03C0560A	6	66	28	20	36
5.60	5	HDG-05C0560A	6	82	44	35	36
5.60	8	HDG-08C0560A	6	95	57	48	36
5.70	3	HDG-03C0570A	6	66	28	20	36
5.70	5	HDG-05C0570A	6	82	44	35	36
5.70	8	HDG-08C0570A	6	95	57	48	36
5.75	3	HDG-03C0575A	6	66	28	20	36
5.75	5	HDG-05C0575A	6	82	44	35	36
5.80	3	HDG-03C0580A	6	66	28	20	36
5.80	5	HDG-05C0580A	6	82	44	35	36
5.80	8	HDG-08C0580A	6	95	57	48	36
5.90	3	HDG-03C0590A	6	66	28	20	36
5.90	5	HDG-05C0590A	6	82	44	35	36
5.90	8	HDG-08C0590A	6	95	57	48	36
5.95	3	HDG-03C0595A	6	66	28	20	36
5.95	5	HDG-05C0595A	6	82	44	35	36

通用加工 HDG 系列麻花钻 (内冷却型)

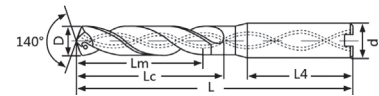
HDG Series Twist Drills for General Machining (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
6.00	3	HDG-03C0600A	6	66	28	20	36
6.00	5	HDG-05C0600A	6	82	44	35	36
6.00	8	HDG-08C0600A	6	95	57	48	36
6.10	3	HDG-03C0610A	8	79	34	24	36
6.10	5	HDG-05C0610A	8	91	53	43	36
6.10	8	HDG-08C0610A	8	114	76	66	36
6.20	3	HDG-03C0620A	8	79	34	24	36
6.20	5	HDG-05C0620A	8	91	53	43	36
6.20	8	HDG-08C0620A	8	114	76	66	36
6.30	3	HDG-03C0630A	8	79	34	24	36
6.30	5	HDG-05C0630A	8	91	53	43	36
6.30	8	HDG-08C0630A	8	114	76	66	36
6.40	3	HDG-03C0640A	8	79	34	24	36
6.40	5	HDG-05C0640A	8	91	53	43	36
6.40	8	HDG-08C0640A	8	114	76	66	36
6.50	3	HDG-03C0650A	8	79	34	24	36
6.50	5	HDG-05C0650A	8	91	53	43	36
6.50	8	HDG-08C0650A	8	114	76	66	36
6.60	3	HDG-03C0660A	8	79	34	24	36
6.60	5	HDG-05C0660A	8	91	53	43	36
6.60	8	HDG-08C0660A	8	114	76	66	36
6.70	3	HDG-03C0670A	8	79	34	24	36
6.70	5	HDG-05C0670A	8	91	53	43	36
6.70	8	HDG-08C0670A	8	114	76	66	36
6.75	3	HDG-03C0675A	8	79	34	24	36
6.75	5	HDG-05C0675A	8	91	53	43	36
6.80	3	HDG-03C0680A	8	79	34	24	36
6.80	5	HDG-05C0680A	8	91	53	43	36
6.80	8	HDG-08C0680A	8	114	76	66	36

通用加工 HDG 系列麻花钻 (内冷却型)

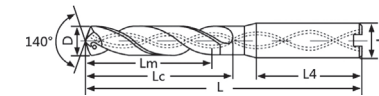
HDG Series Twist Drills for General Machining (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
6.90	3	HDG-03C0690A	8	79	34	24	36
6.90	5	HDG-05C0690A	8	91	53	43	36
6.90	8	HDG-08C0690A	8	114	76	66	36
7.00	3	HDG-03C0700A	8	79	34	24	36
7.00	5	HDG-05C0700A	8	91	53	43	36
7.00	8	HDG-08C0700A	8	116	76	66	36
7.10	3	HDG-03C0710A	8	79	34	24	36
7.10	5	HDG-05C0710A	8	91	53	43	36
7.10	8	HDG-08C0710A	8	116	76	66	36
7.20	3	HDG-03C0720A	8	79	34	24	36
7.20	5	HDG-05C0720A	8	91	53	43	36
7.20	8	HDG-08C0720A	8	116	76	66	36
7.30	3	HDG-03C0730A	8	79	34	24	36
7.30	5	HDG-05C0730A	8	91	53	43	36
7.30	8	HDG-08C0730A	8	116	76	66	36
7.40	3	HDG-03C0740A	8	79	34	24	36
7.40	5	HDG-05C0740A	8	91	53	43	36
7.40	8	HDG-08C0740A	8	116	76	66	36
7.45	3	HDG-03C0745A	8	79	34	24	36
7.45	5	HDG-05C0745A	8	91	53	43	36
7.50	3	HDG-03C0750A	8	79	34	24	36
7.50	5	HDG-05C0750A	8	91	53	43	36
7.50	8	HDG-08C0750A	8	116	76	66	36
7.60	3	HDG-03C0760A	8	79	34	24	36
7.60	5	HDG-05C0760A	8	91	53	43	36
7.60	8	HDG-08C0760A	8	116	76	66	36
7.70	3	HDG-03C0770A	8	79	34	24	36
7.70	5	HDG-05C0770A	8	91	53	43	36
7.70	8	HDG-08C0770A	8	116	76	66	36

通用加工 HDG 系列麻花钻 (内冷却型)

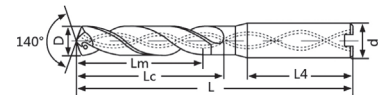
HDG Series Twist Drills for General Machining (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
7.80	3	HDG-03C0780A	8	79	34	24	36
7.80	5	HDG-05C0780A	8	91	53	43	36
7.80	8	HDG-08C0780A	8	116	76	66	36
7.90	3	HDG-03C0790A	8	79	34	24	36
7.90	5	HDG-05C0790A	8	91	53	43	36
7.90	8	HDG-08C0790A	8	116	76	66	36
8.00	3	HDG-03C0800A	8	79	34	24	36
8.00	5	HDG-05C0800A	8	91	53	43	36
8.00	8	HDG-08C0800A	8	116	76	66	36
8.10	3	HDG-03C0810A	10	89	47	35	40
8.10	5	HDG-05C0810A	10	103	61	49	40
8.10	8	HDG-08C0810A	10	142	95	83	40
8.20	3	HDG-03C0820A	10	89	47	35	40
8.20	5	HDG-05C0820A	10	103	61	49	40
8.20	8	HDG-08C0820A	10	142	95	83	40
8.30	3	HDG-03C0830A	10	89	47	35	40
8.30	5	HDG-05C0830A	10	103	61	49	40
8.30	8	HDG-08C0830A	10	142	95	83	40
8.40	3	HDG-03C0840A	10	89	47	35	40
8.40	5	HDG-05C0840A	10	103	61	49	40
8.40	8	HDG-08C0840A	10	142	95	83	40
8.50	3	HDG-03C0850A	10	89	47	35	40
8.50	5	HDG-05C0850A	10	103	61	49	40
8.50	8	HDG-08C0850A	10	142	95	83	40
8.60	3	HDG-03C0860A	10	89	47	35	40
8.60	5	HDG-05C0860A	10	103	61	49	40
8.60	8	HDG-08C0860A	10	142	95	83	40

通用加工 HDG 系列麻花钻 (内冷却型)

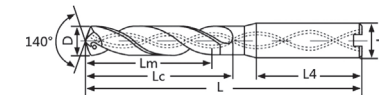
HDG Series Twist Drills for General Machining (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
8.70	3	HDG-03C0870A	10	89	47	35	40
8.70	5	HDG-05C0870A	10	103	61	49	40
8.70	8	HDG-08C0870A	10	142	95	83	40
8.75	3	HDG-03C0875A	10	89	47	35	40
8.75	5	HDG-05C0875A	10	103	61	49	40
8.80	3	HDG-03C0880A	10	89	47	35	40
8.80	5	HDG-05C0880A	10	103	61	49	40
8.80	8	HDG-08C0880A	10	142	95	83	40
8.90	3	HDG-03C0890A	10	89	47	35	40
8.90	5	HDG-05C0890A	10	103	61	49	40
8.90	8	HDG-08C0890A	10	142	95	83	40
9.00	3	HDG-03C0900A	10	89	47	35	40
9.00	5	HDG-05C0900A	10	103	61	49	40
9.00	8	HDG-08C0900A	10	142	95	83	40
9.10	3	HDG-03C0910A	10	89	47	35	40
9.10	5	HDG-05C0910A	10	103	61	49	40
9.10	8	HDG-08C0910A	10	142	95	83	40
9.20	3	HDG-03C0920A	10	89	47	35	40
9.20	5	HDG-05C0920A	10	103	61	49	40
9.20	8	HDG-08C0920A	10	142	95	83	40
9.30	3	HDG-03C0930A	10	89	47	35	40
9.30	5	HDG-05C0930A	10	103	61	49	40
9.30	8	HDG-08C0930A	10	142	95	83	40
9.35	3	HDG-03C0935A	10	89	47	35	40
9.35	5	HDG-05C0935A	10	103	61	49	40
9.40	3	HDG-03C0940A	10	89	47	35	40
9.40	5	HDG-05C0940A	10	103	61	49	40
9.40	8	HDG-08C0940A	10	142	95	83	40

通用加工 HDG 系列麻花钻 (内冷却型)

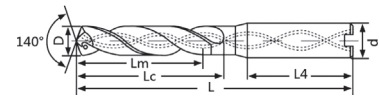
HDG Series Twist Drills for General Machining (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
9.45	3	HDG-03C0945A	10	89	47	35	40
9.45	5	HDG-05C0945A	10	103	61	49	40
9.50	3	HDG-03C0950A	10	89	47	35	40
9.50	5	HDG-05C0950A	10	103	61	49	40
9.50	8	HDG-08C0950A	10	142	95	83	40
9.60	3	HDG-03C0960A	10	89	47	35	40
9.60	5	HDG-05C0960A	10	103	61	49	40
9.60	8	HDG-08C0960A	10	142	95	83	40
9.70	3	HDG-03C0970A	10	89	47	35	40
9.70	5	HDG-05C0970A	10	103	61	49	40
9.70	8	HDG-08C0970A	10	142	95	83	40
9.80	3	HDG-03C0980A	10	89	47	35	40
9.80	5	HDG-05C0980A	10	103	61	49	40
9.80	8	HDG-08C0980A	10	142	95	83	40
9.90	3	HDG-03C0990A	10	89	47	35	40
9.90	5	HDG-05C0990A	10	103	61	49	40
9.90	8	HDG-08C0990A	10	142	95	83	40
10.00	3	HDG-03C1000A	10	89	47	35	40
10.00	5	HDG-05C1000A	10	103	61	49	40
10.00	8	HDG-08C1000A	10	142	95	83	40
10.10	3	HDG-03C1010A	12	102	55	40	45
10.10	5	HDG-05C1010A	12	118	71	56	45
10.10	8	HDG-08C1010A	12	162	114	99	45
10.20	3	HDG-03C1020A	12	102	55	40	45
10.20	5	HDG-05C1020A	12	118	71	56	45
10.20	8	HDG-08C1020A	12	162	114	99	45

通用加工 HDG 系列麻花钻 (内冷却型)

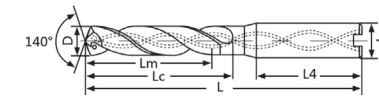
HDG Series Twist Drills for General Machining (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
10.25	3	HDG-03C1025A	12	102	55	40	45
10.25	5	HDG-05C1025A	12	118	71	56	45
10.30	3	HDG-03C1030A	12	102	55	40	45
10.30	5	HDG-05C1030A	12	118	71	56	45
10.30	8	HDG-08C1030A	12	162	114	99	45
10.40	3	HDG-03C1040A	12	102	55	40	45
10.40	5	HDG-05C1040A	12	118	71	56	45
10.40	8	HDG-08C1040A	12	162	114	99	45
10.50	3	HDG-03C1050A	12	102	55	40	45
10.50	5	HDG-05C1050A	12	118	71	56	45
10.50	8	HDG-08C1050A	12	162	114	99	45
10.60	3	HDG-03C1060A	12	102	55	40	45
10.60	5	HDG-05C1060A	12	118	71	56	45
10.60	8	HDG-08C1060A	12	162	114	99	45
10.70	3	HDG-03C1070A	12	102	55	40	45
10.70	5	HDG-05C1070A	12	118	71	56	45
10.70	8	HDG-08C1070A	12	162	114	99	45
10.75	3	HDG-03C1075A	12	102	55	40	45
10.75	5	HDG-05C1075A	12	118	71	56	45
10.80	3	HDG-03C1080A	12	102	55	40	45
10.80	5	HDG-05C1080A	12	118	71	56	45
10.80	8	HDG-08C1080A	12	162	114	99	45
10.90	3	HDG-03C1090A	12	102	55	40	45
10.90	5	HDG-05C1090A	12	118	71	56	45
10.90	8	HDG-08C1090A	12	162	114	99	45
11.00	3	HDG-03C1100A	12	102	55	40	45
11.00	5	HDG-05C1100A	12	118	71	56	45
11.00	8	HDG-08C1100A	12	162	114	99	45

通用加工 HDG 系列麻花钻 (内冷却型)

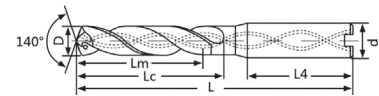
HDG Series Twist Drills for General Machining (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
11.10	3	HDG-03C1110A	12	102	55	40	45
11.10	5	HDG-05C1110A	12	118	71	56	45
11.10	8	HDG-08C1110A	12	162	114	99	45
11.20	3	HDG-03C1120A	12	102	55	40	45
11.20	5	HDG-05C1120A	12	118	71	56	45
11.20	8	HDG-08C1120A	12	162	114	99	45
11.25	3	HDG-03C1125A	12	102	55	40	45
11.25	5	HDG-05C1125A	12	118	71	56	45
11.30	3	HDG-03C1130A	12	102	55	40	45
11.30	5	HDG-05C1130A	12	118	71	56	45
11.30	8	HDG-08C1130A	12	162	114	99	45
11.35	3	HDG-03C1135A	12	102	55	40	45
11.35	5	HDG-05C1135A	12	118	71	56	45
11.40	3	HDG-03C1140A	12	102	55	40	45
11.40	5	HDG-05C1140A	12	118	71	56	45
11.40	8	HDG-08C1140A	12	162	114	99	45
11.45	3	HDG-03C1145A	12	102	55	40	45
11.45	5	HDG-05C1145A	12	118	71	56	45
11.50	3	HDG-03C1150A	12	102	55	40	45
11.50	5	HDG-05C1150A	12	118	71	56	45
11.50	8	HDG-08C1150A	12	162	114	99	45
11.60	3	HDG-03C1160A	12	102	55	40	45
11.60	5	HDG-05C1160A	12	118	71	56	45
11.60	8	HDG-08C1160A	12	162	114	99	45
11.70	3	HDG-03C1170A	12	102	55	40	45
11.70	5	HDG-05C1170A	12	118	71	56	45
11.70	8	HDG-08C1170A	12	162	114	99	45

通用加工 HDG 系列麻花钻 (内冷却型)

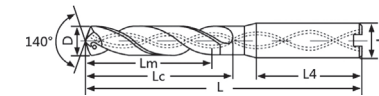
HDG Series Twist Drills for General Machining (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
11.80	3	HDG-03C1180A	12	102	55	40	45
11.80	5	HDG-05C1180A	12	118	71	56	45
11.80	8	HDG-08C1180A	12	162	114	99	45
11.90	3	HDG-03C1190A	12	102	55	40	45
11.90	5	HDG-05C1190A	12	118	71	56	45
11.90	8	HDG-08C1190A	12	162	114	99	45
12.00	3	HDG-03C1200A	12	102	55	40	45
12.00	5	HDG-05C1200A	12	118	71	56	45
12.00	8	HDG-08C1200A	12	162	114	99	45
12.10	3	HDG-03C1210A	14	107	60	43	45
12.10	5	HDG-05C1210A	14	124	77	60	45
12.20	3	HDG-03C1220A	14	107	60	43	45
12.20	5	HDG-05C1220A	14	124	77	60	45
12.25	3	HDG-03C1225A	14	107	60	43	45
12.25	5	HDG-05C1225A	14	124	77	60	45
12.30	3	HDG-03C1230A	14	107	60	43	45
12.30	5	HDG-05C1230A	14	124	77	60	45
12.50	3	HDG-03C1250A	14	107	60	43	45
12.50	5	HDG-05C1250A	14	124	77	60	45
12.50	8	HDG-08C1250A	14	178	133	116	45
12.70	3	HDG-03C1270A	14	107	60	43	45
12.70	5	HDG-05C1270A	14	124	77	60	45
12.70	8	HDG-08C1270A	14	178	133	116	45
12.75	3	HDG-03C1275A	14	107	60	43	45
12.75	5	HDG-05C1275A	14	124	77	60	45
12.80	3	HDG-03C1280A	14	107	60	43	45
12.80	5	HDG-05C1280A	14	124	77	60	45
12.80	8	HDG-08C1280A	14	178	133	116	45

通用加工 HDG 系列麻花钻 (内冷却型)

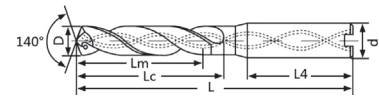
HDG Series Twist Drills for General Machining (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
12.90	3	HDG-03C1290A	14	107	60	43	45
12.90	5	HDG-05C1290A	14	124	77	60	45
13.00	3	HDG-03C1300A	14	107	60	43	45
13.00	5	HDG-05C1300A	14	124	77	60	45
13.00	8	HDG-08C1300A	14	178	133	116	45
13.10	3	HDG-03C1310A	14	107	60	43	45
13.10	5	HDG-05C1310A	14	124	77	60	45
13.35	3	HDG-03C1335A	14	107	60	43	45
13.35	5	HDG-05C1335A	14	124	77	60	45
13.50	3	HDG-03C1350A	14	107	60	43	45
13.50	5	HDG-05C1350A	14	124	77	60	45
13.50	8	HDG-08C1350A	14	178	133	116	45
13.65	3	HDG-03C1365A	14	107	60	43	45
13.65	5	HDG-05C1365A	14	124	77	60	45
13.80	3	HDG-03C1380A	14	107	60	43	45
13.80	5	HDG-05C1380A	14	124	77	60	45
14.00	3	HDG-03C1400A	14	107	60	43	45
14.00	5	HDG-05C1400A	14	124	77	60	45
14.00	8	HDG-08C1400A	14	178	133	116	45
14.25	3	HDG-03C1425A	16	115	65	45	48
14.25	5	HDG-05C1425A	16	133	83	63	48
14.30	3	HDG-03C1430A	16	115	65	45	48
14.30	5	HDG-05C1430A	16	133	83	63	48
14.50	3	HDG-03C1450A	16	115	65	45	48
14.50	5	HDG-05C1450A	16	133	83	63	48
14.50	8	HDG-08C1450A	16	204	152	132	48
14.75	3	HDG-03C1475A	16	115	65	45	48
14.75	5	HDG-05C1475A	16	133	83	63	48

通用加工 HDG 系列麻花钻 (内冷却型)

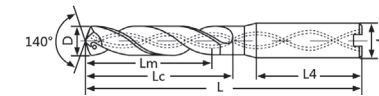
HDG Series Twist Drills for General Machining (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
14.80	3	HDG-03C1480A	16	115	65	45	48
14.80	5	HDG-05C1480A	16	133	83	63	48
14.80	8	HDG-08C1480A	16	204	152	132	48
15.00	3	HDG-03C1500A	16	115	65	45	48
15.00	5	HDG-05C1500A	16	133	83	63	48
15.00	8	HDG-08C1500A	16	204	152	132	48
15.10	3	HDG-03C1510A	16	115	65	45	48
15.10	5	HDG-05C1510A	16	133	83	63	48
15.25	3	HDG-03C1525A	16	115	65	45	48
15.25	5	HDG-05C1525A	16	133	83	63	48
15.35	3	HDG-03C1535A	16	115	65	45	48
15.35	5	HDG-05C1535A	16	133	83	63	48
15.50	3	HDG-03C1550A	16	115	65	45	48
15.50	5	HDG-05C1550A	16	133	83	63	48
15.50	8	HDG-08C1550A	16	204	152	132	48
15.80	3	HDG-03C1580A	16	115	65	45	48
15.80	5	HDG-05C1580A	16	133	83	63	48
16.00	3	HDG-03C1600A	16	115	65	45	48
16.00	5	HDG-05C1600A	16	133	83	63	48
16.00	8	HDG-08C1600A	16	204	152	132	48
16.50	3	HDG-03C1650A	18	123	73	51	48
16.50	5	HDG-05C1650A	18	143	93	71	48
16.50	8	HDG-08C1650A	18	223	171	149	48
16.75	3	HDG-03C1675A	18	123	73	51	48
16.75	5	HDG-05C1675A	18	143	93	71	48
16.80	3	HDG-03C1680A	18	123	73	51	48
16.80	5	HDG-05C1680A	18	143	93	71	48

通用加工 HDG 系列麻花钻 (内冷却型)

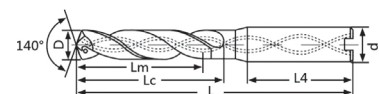
HDG Series Twist Drills for General Machining (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
17.00	3	HDG-03C1700A	18	123	73	51	48
17.00	5	HDG-05C1700A	18	143	93	71	48
17.00	8	HDG-08C1700A	18	223	171	149	48
17.50	3	HDG-03C1750A	18	123	73	51	48
17.50	5	HDG-05C1750A	18	143	93	71	48
17.50	8	HDG-08C1750A	18	223	171	149	48
17.80	3	HDG-03C1780A	18	123	73	51	48
17.80	5	HDG-05C1780A	18	143	93	71	48
17.90	3	HDG-03C1790A	18	123	73	51	48
17.90	5	HDG-05C1790A	18	143	93	71	48
18.00	3	HDG-03C1800A	18	123	73	51	48
18.00	5	HDG-05C1800A	18	143	93	71	48
18.00	8	HDG-08C1800A	18	223	171	149	48
18.30	3	HDG-03C1830A	20	131	79	55	50
18.30	5	HDG-05C1830A	20	153	101	77	50
18.50	3	HDG-03C1850A	20	131	79	55	50
18.50	5	HDG-05C1850A	20	153	101	77	50
18.80	3	HDG-03C1880A	20	131	79	55	50
18.80	5	HDG-05C1880A	20	153	101	77	50
19.00	3	HDG-03C1900A	20	131	79	55	50
19.00	5	HDG-05C1900A	20	153	101	77	50
19.50	3	HDG-03C1950A	20	131	79	55	50
19.50	5	HDG-05C1950A	20	153	101	77	50
19.80	3	HDG-03C1980A	20	131	79	55	50
19.80	5	HDG-05C1980A	20	153	101	77	50
20.00	3	HDG-03C2000A	20	131	79	55	50
20.00	5	HDG-05C2000A	20	153	101	77	50

通用加工 HDG 系列麻花钻 (内冷却型)

HDG Series Twist Drills for General Machining (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
20.40	3	HDG-03C2040A	20	141	86	60	50
20.40	5	HDG-05C2040A	20	167	112	85	50
20.50	3	HDG-03C2050A	20	141	86	60	50
20.50	5	HDG-05C2050A	20	167	112	85	50
21.00	3	HDG-03C2100A	20	141	86	60	50
21.00	5	HDG-05C2100A	20	167	112	85	50
21.40	3	HDG-03C2140A	20	141	86	60	50
21.40	5	HDG-05C2140A	20	167	112	85	50
21.50	3	HDG-03C2150A	20	141	86	60	50
21.50	5	HDG-05C2150A	20	167	112	85	50
22.00	3	HDG-03C2200A	20	141	86	60	50
22.00	5	HDG-05C2200A	20	167	112	85	50
22.25	3	HDG-03C2225A	25	153	95	65	56
22.25	5	HDG-05C2225A	25	184	126	98	56
22.50	3	HDG-03C2250A	25	153	95	65	56
22.25	5	HDG-05C2250A	25	184	126	98	56
23.00	3	HDG-03C2300A	25	153	95	65	56
23.00	5	HDG-05C2300A	25	184	126	98	56
23.25	3	HDG-03C2325A	25	153	95	65	56
23.25	5	HDG-05C2325A	25	184	126	98	56
23.50	3	HDG-03C2350A	25	153	95	65	56
23.50	5	HDG-05C2350A	25	184	126	98	56
24.00	3	HDG-03C2400A	25	153	95	65	56
24.00	5	HDG-05C2400A	25	184	126	98	56
24.50	3	HDG-03C2450A	25	153	95	65	56
24.50	5	HDG-05C2450A	25	184	126	98	56
25.00	3	HDG-03C2500A	25	153	95	65	56
25.00	5	HDG-05C2500A	25	184	126	98	56



不锈钢加工 HDS 系列麻花钻 (内冷却型)

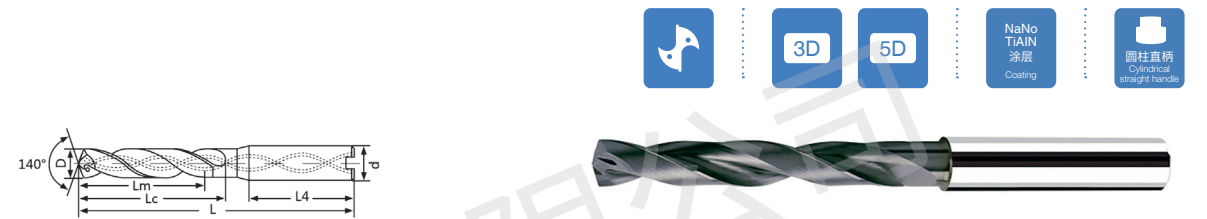
HDS Series Twist Drills for Machining Stainless Steel (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
3.00	3	HDS-03C0300A	6	62	20	14	36
3.00	5	HDS-05C0300A	6	66	28	23	36
3.10	3	HDS-03C0310A	6	62	20	14	36
3.10	5	HDS-05C0310A	6	66	28	23	36
3.20	3	HDS-03C0320A	6	62	20	14	36
3.20	5	HDS-05C0320A	6	66	28	23	36
3.25	3	HDS-03C0325A	6	62	20	14	36
3.25	5	HDS-05C0325A	6	66	28	23	36
3.30	3	HDS-03C0330A	6	62	20	14	36
3.30	5	HDS-05C0330A	6	66	28	23	36
3.40	3	HDS-03C0340A	6	62	20	14	36
3.40	5	HDS-05C0340A	6	66	28	23	36
3.50	3	HDS-03C0350A	6	62	20	14	36
3.50	5	HDS-05C0350A	6	66	28	23	36
3.60	3	HDS-03C0360A	6	62	20	14	36
3.60	5	HDS-05C0360A	6	66	28	23	36
3.70	3	HDS-03C0370A	6	62	20	14	36
3.70	5	HDS-05C0370A	6	66	28	23	36
3.80	3	HDS-03C0380A	6	66	24	17	36
3.80	5	HDS-05C0380A	6	74	36	29	36
3.90	3	HDS-03C0390A	6	66	24	17	36
3.90	5	HDS-05C0390A	6	74	36	29	36
4.00	3	HDS-03C0400A	6	66	24	17	36
4.00	5	HDS-05C0400A	6	74	36	29	36
4.10	3	HDS-03C0410A	6	66	24	17	36
4.10	5	HDS-05C0410A	6	74	36	29	36

不锈钢加工 HDS 系列麻花钻 (内冷却型)

HDS Series Twist Drills for Machining Stainless Steel (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
4.20	3	HDS-03C0420A	6	66	24	17	36
4.20	5	HDS-05C0420A	6	74	36	29	36
4.30	3	HDS-03C0430A	6	66	24	17	36
4.30	5	HDS-05C0430A	6	74	36	29	36
4.40	3	HDS-03C0440A	6	66	24	17	36
4.40	5	HDS-05C0440A	6	74	36	29	36
4.50	3	HDS-03C0450A	6	66	24	17	36
4.50	5	HDS-05C0450A	6	74	36	29	36
4.60	3	HDS-03C0460A	6	66	24	17	36
4.60	5	HDS-05C0460A	6	74	36	29	36
4.65	3	HDS-03C0465A	6	66	24	17	36
4.65	5	HDS-05C0465A	6	74	36	29	36
4.70	3	HDS-03C0470A	6	66	24	17	36
4.70	5	HDS-05C0470A	6	74	36	29	36
4.80	3	HDS-03C0480A	6	66	28	20	36
4.80	5	HDS-05C0480A	6	82	44	35	36
4.90	3	HDS-03C0490A	6	66	28	20	36
4.90	5	HDS-05C0490A	6	82	44	35	36
5.00	3	HDS-03C0500A	6	66	28	20	36
5.00	5	HDS-05C0500A	6	82	44	35	36
5.10	3	HDS-03C0510A	6	66	28	20	36
5.10	5	HDS-05C0510A	6	82	44	35	36
5.20	3	HDS-03C0520A	6	66	28	20	36
5.20	5	HDS-05C0520A	6	82	44	35	36
5.30	3	HDS-03C0530A	6	66	28	20	36
5.30	5	HDS-05C0530A	6	82	44	35	36

不锈钢加工 HDS 系列麻花钻 (内冷却型)

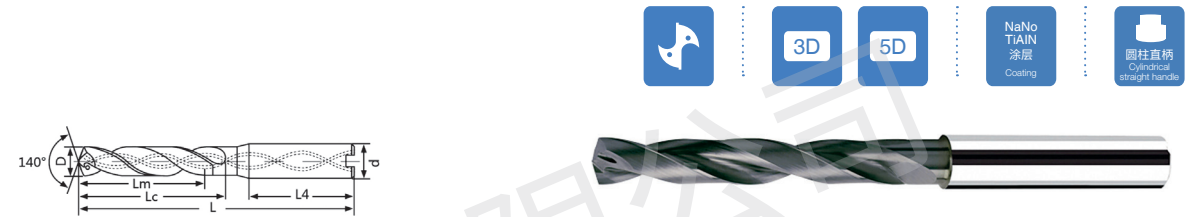
HDS Series Twist Drills for Machining Stainless Steel (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
5.40	3	HDS-03C0540A	6	66	28	20	36
5.40	5	HDS-05C0540A	6	82	44	35	36
5.50	3	HDS-03C0550A	6	66	28	20	36
5.50	5	HDS-05C0550A	6	82	44	35	36
5.60	3	HDS-03C0560A	6	66	28	20	36
5.60	5	HDS-05C0560A	6	82	44	35	36
5.70	3	HDS-03C0570A	6	66	28	20	36
5.70	5	HDS-05C0570A	6	82	44	35	36
5.80	3	HDS-03C0580A	6	66	28	20	36
5.80	5	HDS-05C0580A	6	82	44	35	36
5.90	3	HDS-03C0590A	6	66	28	20	36
5.90	5	HDS-05C0590A	6	82	44	35	36
6.00	3	HDS-03C0600A	6	66	28	20	36
6.00	5	HDS-05C0600A	6	82	44	35	36
6.10	3	HDS-03C0610A	6	79	34	24	36
6.10	5	HDS-05C0610A	6	91	53	43	36
6.20	3	HDS-03C0620A	6	79	34	24	36
6.20	5	HDS-05C0620A	6	91	53	43	36
6.30	3	HDS-03C0630A	6	79	34	24	36
6.30	5	HDS-05C0630A	6	91	53	43	36
6.40	3	HDS-03C0640A	6	79	34	24	36
6.40	5	HDS-05C0640A	6	91	53	43	36
6.50	3	HDS-03C0650A	6	79	34	24	36
6.50	5	HDS-05C0650A	6	91	53	43	36

不锈钢加工 HDS 系列麻花钻 (内冷却型)

HDS Series Twist Drills for Machining Stainless Steel (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
6.60	3	HDS-03C0660A	8	79	34	24	36
6.60	5	HDS-05C0660A	8	91	53	43	36
6.70	3	HDS-03C0670A	8	79	34	24	36
6.70	5	HDS-05C0670A	8	91	53	43	36
6.75	3	HDS-03C0675A	8	79	34	24	36
6.75	5	HDS-05C0675A	8	91	53	43	36
6.90	3	HDS-03C0690A	8	79	34	24	36
6.90	5	HDS-05C0690A	8	91	53	43	36
7.00	3	HDS-03C0700A	8	79	34	24	36
7.00	5	HDS-05C0700A	8	91	53	43	36
7.10	3	HDS-03C0710A	8	79	34	24	36
7.10	5	HDS-05C0710A	8	91	53	43	36
7.20	3	HDS-03C0720A	8	79	34	24	36
7.20	5	HDS-05C0720A	8	91	53	43	36
7.30	3	HDS-03C0730A	8	79	34	24	36
7.30	5	HDS-05C0730A	8	91	53	43	36
7.40	3	HDS-03C0740A	8	79	34	24	36
7.40	5	HDS-05C0740A	8	91	53	43	36
7.50	3	HDS-03C0750A	8	79	34	24	36
7.50	5	HDS-05C0750A	8	91	53	43	36
7.60	3	HDS-03C0760A	8	79	34	24	36
7.60	5	HDS-05C0760A	8	91	53	43	36
7.70	3	HDS-03C0770A	8	79	34	24	36
7.70	5	HDS-05C0770A	8	91	53	43	36
7.80	3	HDS-03C0780A	8	79	34	24	36
7.80	5	HDS-05C0780A	8	91	53	43	36
7.90	3	HDS-03C0790A	8	79	34	24	36
7.90	5	HDS-05C0790A	8	91	53	43	36

不锈钢加工 HDS 系列麻花钻 (内冷却型)

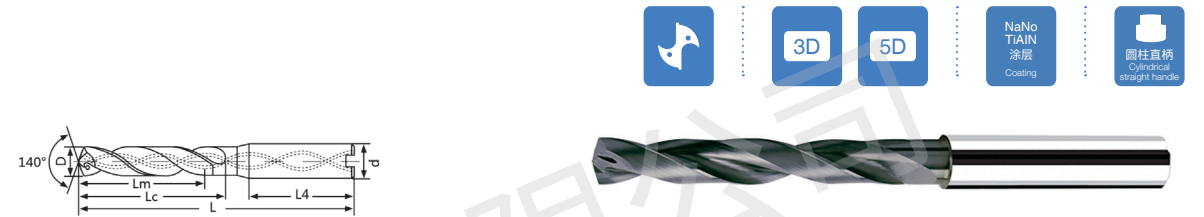
HDS Series Twist Drills for Machining Stainless Steel (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
8.00	3	HDS-03C0800A	8	79	41	29	36
8.00	5	HDS-05C0800A	8	91	53	43	36
8.10	3	HDS-03C0810A	10	89	47	35	40
8.10	5	HDS-05C0810A	10	103	61	49	40
8.20	3	HDS-03C0820A	10	89	47	35	40
8.20	5	HDS-05C0820A	10	103	61	49	40
8.30	3	HDS-03C0830A	10	89	47	35	40
8.30	5	HDS-05C0830A	10	103	61	49	40
8.40	3	HDS-03C0840A	10	89	47	35	40
8.40	5	HDS-05C0840A	10	103	61	49	40
8.50	3	HDS-03C0850A	10	89	47	35	40
8.50	5	HDS-05C0850A	10	103	61	49	40
8.60	3	HDS-03C0860A	10	89	47	35	40
8.60	5	HDS-05C0860A	10	103	61	49	40
8.70	3	HDS-03C0870A	10	89	47	35	40
8.70	5	HDS-05C0870A	10	103	61	49	40
8.80	3	HDS-03C0880A	10	89	47	35	40
8.80	5	HDS-05C0880A	10	103	61	49	40
8.90	3	HDS-03C0890A	10	89	47	35	40
8.90	5	HDS-05C0890A	10	103	61	49	40
9.00	3	HDS-03C0900A	10	89	47	35	40
9.00	5	HDS-05C0900A	10	103	61	49	40
9.10	3	HDS-03C0910A	10	89	47	35	40
9.10	5	HDS-05C0910A	10	103	61	49	40

不锈钢加工 HDS 系列麻花钻 (内冷却型)

HDS Series Twist Drills for Machining Stainless Steel (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
9.20	3	HDS-03C0920A	10	89	47	35	40
9.20	5	HDS-05C0920A	10	103	61	49	40
9.30	3	HDS-03C0930A	10	89	47	35	40
9.30	5	HDS-05C0930A	10	103	61	49	40
9.40	3	HDS-03C0940A	10	89	47	35	40
9.40	5	HDS-05C0940A	10	103	61	49	40
9.50	3	HDS-03C0950A	10	89	47	35	40
9.50	5	HDS-05C0950A	10	103	61	49	40
9.60	3	HDS-03C0960A	10	89	47	35	40
9.60	5	HDS-05C0960A	10	103	61	49	40
9.70	3	HDS-03C0970A	10	89	47	35	40
9.70	5	HDS-05C0970A	10	103	61	49	40
9.80	3	HDS-03C0980A	10	89	47	35	40
9.80	5	HDS-05C0980A	10	103	61	49	40
9.90	3	HDS-03C0990A	10	89	47	35	40
9.90	5	HDS-05C0990A	10	103	61	49	40
10.00	3	HDS-03C1000A	10	89	47	35	40
10.00	5	HDS-05C1000A	10	103	61	49	40
10.10	3	HDS-03C1010A	12	102	55	40	45
10.10	5	HDS-05C1010A	12	118	71	56	45
10.25	3	HDS-03C1025A	12	102	55	40	45
10.25	5	HDS-05C1025A	12	118	71	56	45
10.30	3	HDS-03C1030A	12	102	55	40	45
10.30	5	HDS-05C1030A	12	118	71	56	45
10.40	3	HDS-03C1040A	12	102	55	40	45
10.40	5	HDS-05C1040A	12	118	71	56	45
10.50	3	HDS-03C1050A	12	102	55	40	45
10.50	5	HDS-05C1050A	12	118	71	56	45

不锈钢加工 HDS 系列麻花钻 (内冷却型)

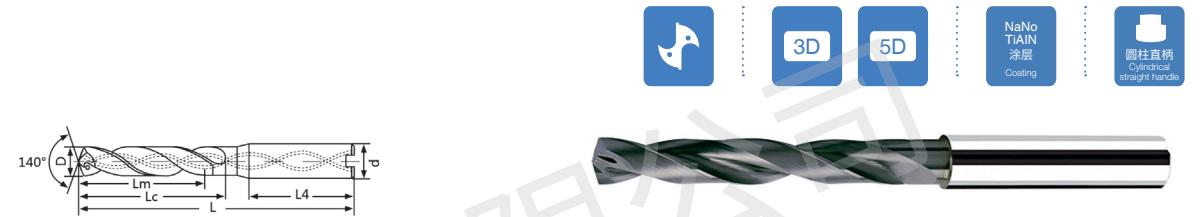
HDS Series Twist Drills for Machining Stainless Steel (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
10.60	3	HDS-03C1060A	12	102	55	40	45
10.60	5	HDS-05C1060A	12	118	71	56	45
10.70	3	HDS-03C1070A	12	102	55	40	45
10.70	5	HDS-05C1070A	12	118	71	56	45
10.80	3	HDS-03C1080A	12	102	55	40	45
10.80	5	HDS-05C1080A	12	118	71	56	45
10.90	3	HDS-03C1090A	12	102	55	40	45
10.90	5	HDS-05C1090A	12	118	71	56	45
11.00	3	HDS-03C1100A	12	102	55	40	45
11.00	5	HDS-05C1100A	12	118	71	56	45
11.10	3	HDS-03C1110A	12	102	55	40	45
11.10	5	HDS-05C1110A	12	118	71	56	45
11.20	3	HDS-03C1120A	12	102	55	40	45
11.20	5	HDS-05C1120A	12	118	71	56	45
11.30	3	HDS-03C1130A	12	102	55	40	45
11.30	5	HDS-05C1130A	12	118	71	56	45
11.40	3	HDS-03C1140A	12	102	55	40	45
11.40	5	HDS-05C1140A	12	118	71	56	45
11.50	3	HDS-03C1150A	12	102	55	40	45
11.50	5	HDS-05C1150A	12	118	71	56	45
11.60	3	HDS-03C1160A	12	102	55	40	45
11.60	5	HDS-05C1160A	12	118	71	56	45
11.70	3	HDS-03C1170A	12	102	55	40	45
11.70	5	HDS-05C1170A	12	118	71	56	45
11.80	3	HDS-03C1180A	12	102	55	40	45
11.80	5	HDS-05C1180A	12	118	71	56	45

不锈钢加工 HDS 系列麻花钻 (内冷却型)

HDS Series Twist Drills for Machining Stainless Steel (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
11.90	3	HDS-03C1190A	12	102	55	40	45
11.90	5	HDS-05C1190A	12	118	71	56	45
12.00	3	HDS-03C1200A	12	102	55	40	45
12.00	5	HDS-05C1200A	12	118	71	56	45
12.25	3	HDS-03C1225A	14	107	60	43	45
12.25	5	HDS-05C1225A	14	124	77	60	45
12.30	3	HDS-03C1230A	14	107	60	43	45
12.30	5	HDS-05C1230A	14	124	77	60	45
12.50	3	HDS-03C1250A	14	107	60	43	45
12.50	5	HDS-05C1250A	14	124	77	60	45
12.70	3	HDS-03C1270A	14	107	60	43	45
12.70	5	HDS-05C1270A	14	124	77	60	45
12.75	3	HDS-03C1275A	14	107	60	43	45
12.75	5	HDS-05C1275A	14	124	77	60	45
12.80	3	HDS-03C1280A	14	107	60	43	45
12.80	5	HDS-05C1280A	14	124	77	60	45
13.00	3	HDS-03C1300A	14	107	60	43	45
13.00	5	HDS-05C1300A	14	124	77	60	45
13.10	3	HDS-03C1310A	14	107	60	43	45
13.10	5	HDS-05C1310A	14	124	77	60	45
13.50	3	HDS-03C1350A	14	107	60	43	45
13.50	5	HDS-05C1350A	14	124	77	60	45
13.80	3	HDS-03C1380A	14	107	60	43	45
13.80	5	HDS-05C1380A	14	124	77	60	45
14.00	3	HDS-03C1400A	14	107	60	43	45
14.00	5	HDS-05C1400A	14	124	77	60	45

不锈钢加工 HDS 系列麻花钻 (内冷却型)

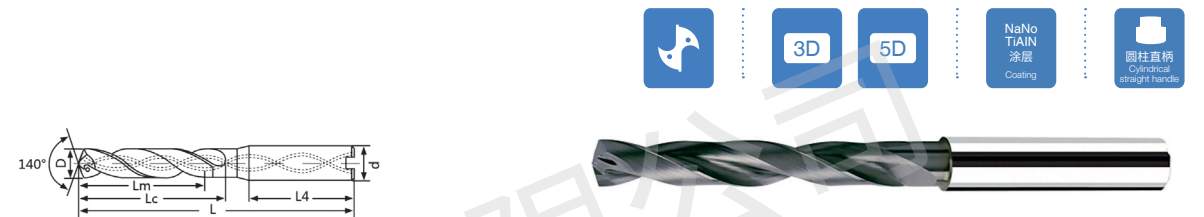
HDS Series Twist Drills for Machining Stainless Steel (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
14.25	3	HDS-03C1425A	16	115	65	45	48
14.25	5	HDS-05C1425A	16	133	83	63	48
14.30	3	HDS-03C1430A	16	115	65	45	48
14.30	5	HDS-05C1430A	16	133	83	63	48
14.50	3	HDS-03C1450A	16	115	65	45	48
14.50	5	HDS-05C1450A	16	133	83	63	48
14.75	3	HDS-03C1475A	16	115	65	45	48
14.75	5	HDS-05C1475A	16	133	83	63	48
14.80	3	HDS-03C1480A	16	115	65	45	48
14.80	5	HDS-05C1480A	16	133	83	63	48
15.00	3	HDS-03C1500A	16	115	65	45	48
15.00	5	HDS-05C1500A	16	133	83	63	48
15.10	3	HDS-03C1510A	16	115	65	45	48
15.10	5	HDS-05C1510A	16	133	83	63	48
15.50	3	HDS-03C1550A	16	115	65	45	48
15.50	5	HDS-05C1550A	16	133	83	63	48
15.80	3	HDS-03C1580A	16	115	65	45	48
15.80	5	HDS-05C1580A	16	133	83	63	48
16.00	3	HDS-03C1600A	16	115	65	45	48
16.00	5	HDS-05C1600A	16	133	83	63	48
16.50	3	HDS-03C1650A	18	123	73	51	48
16.50	5	HDS-05C1650A	18	143	93	71	48
16.75	3	HDS-03C1675A	18	123	73	51	48
16.75	5	HDS-05C1675A	18	143	93	71	48
16.80	3	HDS-03C1680A	18	123	73	51	48
16.80	5	HDS-05C1680A	18	143	93	71	48

不锈钢加工 HDS 系列麻花钻 (内冷却型)

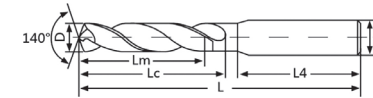
HDS Series Twist Drills for Machining Stainless Steel (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
17.00	3	HDS-03C1700A	18	123	73	51	48
17.00	5	HDS-05C1700A	18	143	93	71	48
17.50	3	HDS-03C1750A	18	123	73	51	48
17.50	5	HDS-05C1750A	18	143	93	71	48
17.80	3	HDS-03C1780A	18	123	73	51	48
17.80	5	HDS-05C1780A	18	143	93	71	48
18.00	3	HDS-03C1800A	18	123	73	51	48
18.00	5	HDS-05C1800A	18	143	93	71	48
18.50	3	HDS-03C1850A	20	131	79	55	50
18.50	5	HDS-05C1850A	20	153	101	77	50
18.80	3	HDS-03C1880A	20	131	79	55	50
18.80	5	HDS-05C1880A	20	153	101	77	50
19.00	3	HDS-03C1900A	20	131	79	55	50
19.00	5	HDS-05C1900A	20	153	101	77	50
19.50	3	HDS-03C1950A	20	131	79	55	50
19.50	5	HDS-05C1950A	20	153	101	77	50
19.80	3	HDS-03C1980A	20	131	79	55	50
19.80	5	HDS-05C1980A	20	153	101	77	50
20.00	3	HDS-03C2000A	20	131	79	55	50
20.00	5	HDS-05C2000A	20	153	101	77	50

铸铁加工 HDK 系列麻花钻 (外冷却型)

HDK Series Twist Drills for Machining Cast Iron (External coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
3.00	3	HDK-03N0300A	6	62	20	16	36
3.00	5	HDK-05N0300A	6	66	28	24	36
3.30	3	HDK-03N0330A	6	62	20	15	36
3.30	5	HDK-05N0330A	6	66	28	23	36
4.00	3	HDK-03N0400A	6	66	24	18	36
4.00	5	HDK-05N0400A	6	74	36	30	36
4.20	3	HDK-03N0420A	6	66	24	18	36
4.20	5	HDK-05N0420A	6	74	36	30	36
5.00	3	HDK-03N0500A	6	66	28	20	36
5.00	5	HDK-05N0500A	6	82	44	36	36
6.00	3	HDK-03N0600A	6	66	28	19	36
6.00	5	HDK-05N0600A	6	82	44	35	36
6.80	3	HDK-03N0680A	8	79	34	24	36
6.80	5	HDK-05N0680A	8	91	53	43	36
7.00	3	HDK-03N0700A	8	79	34	24	36
7.00	5	HDK-05N0700A	8	91	53	43	36
8.00	3	HDK-03N0800A	8	79	41	29	36
8.00	5	HDK-05N0800A	8	91	53	41	36
8.50	3	HDK-03N0850A	10	89	47	34	40
8.50	5	HDK-05N0850A	10	103	61	48	40
9.00	3	HDK-03N0900A	10	89	47	33	40
9.00	5	HDK-05N0900A	10	103	61	48	40
10.00	3	HDK-03N1000A	10	89	47	32	40
10.00	5	HDK-05N1000A	10	103	61	46	40
10.25	3	HDK-03N1025A	12	102	55	40	45
10.25	5	HDK-05N1025A	12	118	71	56	45

铸铁加工 HDK 系列麻花钻 (外冷却型)

HDK Series Twist Drills for Machining Cast Iron (External coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
10.50	3	HDK-03N1050A	12	102	55	39	45
10.50	5	HDK-05N1050A	12	118	71	55	45
11.00	3	HDK-03N1100A	12	102	55	39	45
11.00	5	HDK-05N1100A	12	118	71	54	45
12.00	3	HDK-03N1200A	12	102	55	37	45
12.00	5	HDK-05N1200A	12	118	71	53	45
12.50	3	HDK-03N1250A	14	107	60	41	45
12.50	5	HDK-05N1250A	14	124	77	58	45
13.00	3	HDK-03N1300A	14	107	60	41	45
13.00	5	HDK-05N1300A	14	124	77	58	45
14.00	3	HDK-03N1400A	14	107	60	39	45
14.00	5	HDK-05N1400A	14	124	77	56	45
14.50	3	HDK-03N1450A	16	115	65	43	48
14.50	5	HDK-05N1450A	16	133	83	61	48
15.00	3	HDK-03N1500A	16	115	65	43	48
15.00	5	HDK-05N1500A	16	133	83	61	48
16.00	3	HDK-03N1600A	16	115	65	41	48
16.00	5	HDK-05N1600A	16	133	83	59	48
17.00	3	HDK-03N1700A	18	123	73	48	48
17.00	5	HDK-05N1700A	18	143	93	68	48
18.00	3	HDK-03N1800A	18	123	73	46	48
18.00	5	HDK-05N1800A	18	143	93	66	48
19.00	3	HDK-03N1900A	20	131	79	51	50
19.00	5	HDK-05N1900A	20	153	101	73	50
20.00	3	HDK-03N2000A	20	131	79	49	50
20.00	5	HDK-05N2000A	20	153	101	71	50

铸铁加工 HDK 系列麻花钻 (内冷却型)

HDK Series Twist Drills for Machining Cast Iron (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
5.00	3	HDK-03C0500A	6	66	28	21	36
5.00	5	HDK-05C0500A	6	66	44	37	44
6.00	3	HDK-03C0600A	6	66	28	19	36
6.00	5	HDK-05C0600A	6	82	44	35	36
6.80	3	HDK-03C0680A	8	79	34	24	36
6.80	5	HDK-05C0680A	8	91	53	43	36
7.00	3	HDK-03C0700A	8	79	34	24	36
7.00	5	HDK-05C0700A	8	91	53	43	36
8.00	3	HDK-03C0800A	8	79	41	29	36
8.00	5	HDK-05C0800A	8	91	53	41	36
8.50	3	HDK-03C0850A	10	89	47	34	40
8.50	5	HDK-05C0850A	10	103	61	48	40
9.00	3	HDK-03C0900A	10	89	47	34	40
9.00	5	HDK-05C0900A	10	103	61	48	40
10.00	3	HDK-03C1000A	10	89	47	32	40
10.00	5	HDK-05C1000A	10	103	61	46	40
10.25	3	HDK-03C1025A	12	102	55	40	45
10.25	5	HDK-05C1025A	12	118	71	56	45
10.50	3	HDK-03C1050A	12	102	55	39	45
10.50	5	HDK-05C1050A	12	118	71	55	45
11.00	3	HDK-03C1100A	12	102	55	39	45
11.00	5	HDK-05C1100A	12	118	71	55	45

铸铁加工 HDK 系列麻花钻 (内冷却型)

HDK Series Twist Drills for Machining Cast Iron (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
12.00	3	HDK-03C1200A	12	102	55	37	45
12.00	5	HDK-05C1200A	12	118	71	53	45
12.50	3	HDK-03C1250A	14	107	60	41	45
12.50	5	HDK-05C1250A	14	124	77	58	45
13.00	3	HDK-03C1300A	14	107	60	41	45
13.00	5	HDK-05C1300A	14	124	77	58	45
14.00	3	HDK-03C1400A	14	107	60	39	45
14.00	5	HDK-05C1400A	14	124	77	56	45
14.50	3	HDK-03C1450A	16	115	65	43	48
14.50	5	HDK-05C1450A	16	133	83	61	48
15.00	3	HDK-03C1500A	16	115	65	43	48
15.00	5	HDK-05C1500A	16	133	83	61	48
16.00	3	HDK-03C1600A	16	115	65	41	48
16.00	5	HDK-05C1600A	16	133	83	59	48
17.00	3	HDK-03C1700A	18	123	73	48	48
17.00	5	HDK-05C1700A	18	143	93	68	48
18.00	3	HDK-03C1800A	18	123	73	46	48
18.00	5	HDK-05C1800A	18	143	93	66	48
19.00	3	HDK-03C1900A	20	131	79	51	50
19.00	5	HDK-05C1900A	20	153	101	73	50
20.00	3	HDK-03C2000A	20	131	79	49	50
20.00	5	HDK-05C2000A	20	153	101	71	50

硬材料加工 HDH 系列麻花钻 (外冷却型)

HDH Series Twist Drills for Machining Hardness Material (External coolant)



钻头直径 D (m7) Drill diameter	型号 Type	基本尺寸 Basic dimension (mm)			
		d (h6)	L	Lc	Lm
4.00	HDH-03N0400Y	4	55	22	16
5.00	HDH-03N0500Y	5	62	26	18
6.00	HDH-03N0600Y	6	66	28	19
7.00	HDH-03N0700Y	7	74	34	24
8.00	HDH-03N0800Y	8	79	37	25
9.00	HDH-03N0900Y	9	84	40	27
10.00	HDH-03N1000Y	10	89	43	28
11.00	HDH-03N1100Y	11	95	47	31
12.00	HDH-03N1200Y	12	102	51	33
13.00	HDH-03N1300Y	13	102	51	32
14.00	HDH-03N1400Y	14	107	54	33
15.00	HDH-03N1500Y	15	111	56	34
16.00	HDH-03N1600Y	16	115	58	34

铸铁加工 HDKZ 系列直槽钻 (外冷却型)

HDKZ Series Straight Flute Drills for Machining Cast Iron (External coolant)



钻头直径 d1 (h8) Drill diameter	型号 Type	基本尺寸 Basic dimension (mm)				
		d (h6)	L	Lc	Lm	L4
4.00	HDKZ-05N0400A	6	74	36	30	36
4.20	HDKZ-05N0420A	6	74	36	30	36
5.00	HDKZ-05N0500A	6	82	44	37	36
6.00	HDKZ-05N0600A	6	82	44	35	36
6.80	HDKZ-05N0680A	8	91	53	43	36
7.00	HDKZ-05N0700A	8	91	53	43	36
8.00	HDKZ-05N0800A	8	91	53	41	36
8.50	HDKZ-05N0850A	10	103	61	48	40
9.00	HDKZ-05N0900A	10	103	61	48	40
10.00	HDKZ-05N1000A	10	103	61	46	40
10.25	HDKZ-05N1025A	12	118	71	56	45
11.00	HDKZ-05N1100A	12	118	71	55	45
12.00	HDKZ-05N1200A	12	118	71	53	45
13.00	HDKZ-05N1300A	14	124	77	58	45
14.00	HDKZ-05N1400A	14	124	77	56	45
15.00	HDKZ-05N1500A	16	133	83	61	48
15.50	HDKZ-05N1550A	16	133	83	60	48
16.00	HDKZ-05N1600A	16	133	83	59	48
17.00	HDKZ-05N1700A	18	143	93	68	48
17.50	HDKZ-05N1750A	18	143	93	67	48
18.00	HDKZ-05N1800A	18	143	93	66	48
19.50	HDKZ-05N1950A	20	153	101	72	50
20.00	HDKZ-05N2000A	20	153	101	71	50

铸铁加工 HDKZ 系列直槽钻 (外冷却型)

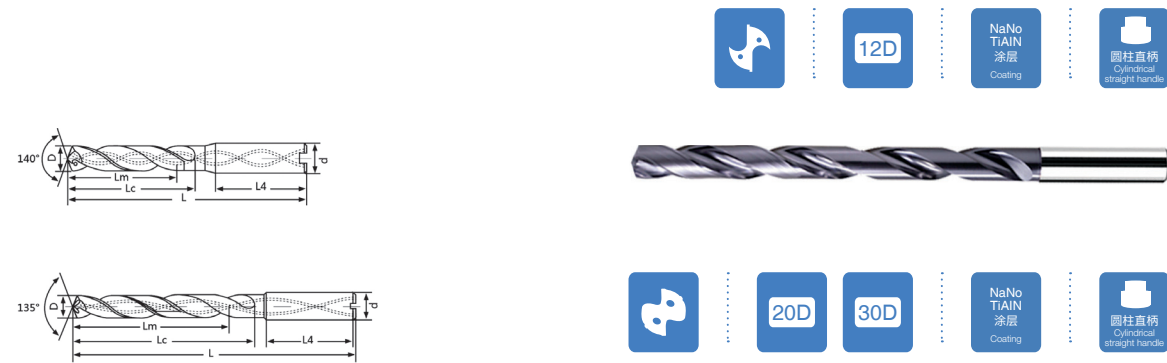
HDKZ Series Straight Flute Drills for Machining Cast Iron (External coolant)



钻头直径 d1 (h8) Drill diameter	型号 Type	基本尺寸 Basic dimension (mm)				
		d (h6)	L	Lc	Lm	L4
4.00	HDKZ-05C0400A	6	74	36	30	36
4.20	HDKZ-05C0420A	6	74	36	30	36
5.00	HDKZ-05C0500A	6	82	44	37	36
6.00	HDKZ-05C0600A	6	82	44	35	36
6.80	HDKZ-05C0680A	8	91	53	43	36
7.00	HDKZ-05C0700A	8	91	53	43	36
8.00	HDKZ-05C0800A	8	91	53	41	36
8.50	HDKZ-05C0850A	10	103	61	48	40
9.00	HDKZ-05C0900A	10	103	61	48	40
10.00	HDKZ-05C1000A	10	103	61	46	40
10.25	HDKZ-05C1025A	12	118	71	56	45
11.00	HDKZ-05C1100A	12	118	71	55	45
12.00	HDKZ-05C1200A	12	118	71	53	45
13.00	HDKZ-05C1300A	14	124	77	58	45
14.00	HDKZ-05C1400A	14	124	77	56	45
15.00	HDKZ-05C1500A	16	133	83	61	48
15.50	HDKZ-05C1550A	16	133	83	60	48
16.00	HDKZ-05C1600A	16	133	83	59	48
17.00	HDKZ-05C1700A	18	143	93	68	48
17.50	HDKZ-05C1750A	18	143	93	67	48
18.00	HDKZ-05C1800A	18	143	93	66	48
19.50	HDKZ-05C1950A	20	153	101	72	50
20.00	HDKZ-05C2000A	20	153	101	71	50

深孔加工 HDL 系列麻花钻 (内冷却型)

HDL Series Twist Drills for Deep-Hole Machining (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
3.00	12	HDL-12C0300A	6	90	50	40	36
3.00	20	HDL-20C0300A	6	110	70	62	36
3.00	30	HDL-30C0300A	6	140	100	92	36
3.10	12	HDL-12C0310A	6	90	50	40	36
3.10	20	HDL-20C0310A	6	123	83	72	36
3.10	30	HDL-30C0310A	6	160	120	108	36
3.20	12	HDL-12C0320A	6	90	50	40	36
3.20	20	HDL-20C0320A	6	123	83	72	36
3.20	30	HDL-30C0320A	6	160	120	108	36
3.30	12	HDL-12C0330A	6	90	50	40	36
3.30	20	HDL-20C0330A	6	123	83	72	36
3.30	30	HDL-30C0330A	6	160	120	108	36
3.40	12	HDL-12C0340A	6	90	50	40	36
3.40	20	HDL-20C0340A	6	123	83	72	36
3.40	30	HDL-30C0340A	6	160	120	108	36
3.50	12	HDL-12C0350A	6	90	50	40	36
3.50	20	HDL-20C0350A	6	123	83	72	36
3.50	30	HDL-30C0350A	6	160	120	108	36
3.60	12	HDL-12C0360A	6	90	50	40	36
3.60	20	HDL-20C0360A	6	136	96	84	36
3.60	30	HDL-30C0360A	6	176	136	124	36
3.70	12	HDL-12C0370A	6	90	50	46	36
3.70	20	HDL-20C0370A	6	136	96	84	36
3.70	30	HDL-30C0370A	6	176	136	124	36

深孔加工 HDL 系列麻花钻 (内冷却型)

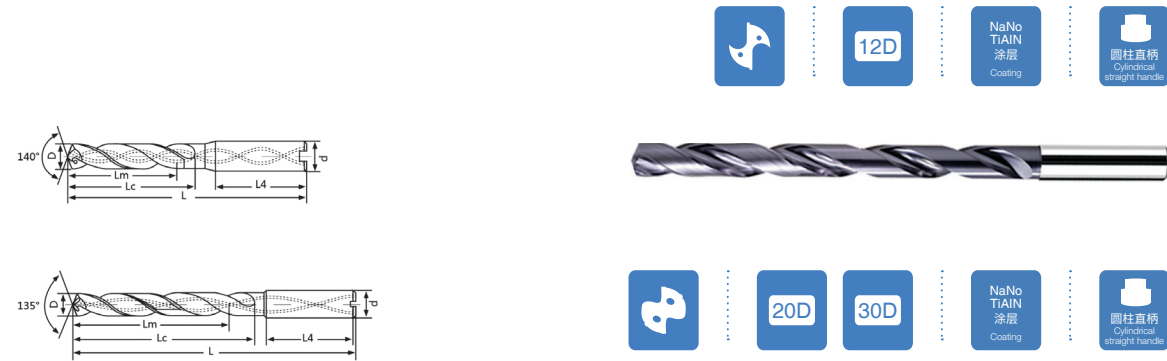
HDL Series Twist Drills for Deep-Hole Machining (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
3.80	12	HDL-12C0380A	6	90	50	46	36
3.80	20	HDL-20C0380A	6	136	96	84	36
3.80	30	HDL-30C0380A	6	176	136	124	36
3.90	12	HDL-12C0390A	6	90	50	46	36
3.90	20	HDL-20C0390A	6	136	96	84	36
3.90	30	HDL-30C0390A	6	176	136	124	36
4.00	12	HDL-12C0400A	6	90	50	46	36
4.00	20	HDL-20C0400A	6	136	96	84	36
4.00	30	HDL-30C0400A	6	176	136	124	36
4.10	12	HDL-12C0410A	6	102	64	56	36
4.10	20	HDL-20C0410A	6	148	108	96	36
4.10	30	HDL-30C0410A	6	192	152	140	36
4.20	12	HDL-12C0420A	6	102	64	56	36
4.20	20	HDL-20C0420A	6	148	108	96	36
4.20	30	HDL-30C0420A	6	192	152	140	36
4.30	12	HDL-12C0430A	6	102	64	56	36
4.30	20	HDL-20C0430A	6	148	108	96	36
4.30	30	HDL-30C0430A	6	192	152	140	36
4.40	12	HDL-12C0440A	6	102	64	56	36
4.40	20	HDL-20C0440A	6	148	108	96	36
4.40	30	HDL-30C0440A	6	192	152	140	36
4.50	12	HDL-12C0450A	6	102	64	56	36
4.50	20	HDL-20C0450A	6	148	108	96	36
4.50	30	HDL-30C0450A	6	192	152	140	36

深孔加工 HDL 系列麻花钻 (内冷却型)

HDL Series Twist Drills for Deep-Hole Machining (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
4.60	12	HDL-12C0460A	6	102	64	56	36
4.60	20	HDL-20C0460A	6	158	118	106	36
4.60	30	HDL-30C0460A	6	208	168	156	36
4.70	12	HDL-12C0470A	6	102	64	56	36
4.70	20	HDL-20C0470A	6	158	118	106	36
4.70	30	HDL-30C0470A	6	208	168	156	36
4.80	12	HDL-12C0480A	6	102	64	56	36
4.80	20	HDL-20C0480A	6	158	118	106	36
4.80	30	HDL-30C0480A	6	208	168	156	36
4.90	12	HDL-12C0490A	6	102	64	56	36
4.90	20	HDL-20C0490A	6	158	118	106	36
4.90	30	HDL-30C0490A	6	208	168	156	36
5.00	12	HDL-12C0500A	6	116	78	72	36
5.00	20	HDL-20C0500A	6	158	118	106	36
5.00	30	HDL-30C0500A	6	208	168	156	36
5.10	12	HDL-12C0510A	6	116	78	72	36
5.10	20	HDL-20C0510A	6	168	128	116	36
5.10	30	HDL-30C0510A	6	228	188	170	36
5.20	12	HDL-12C0520A	6	116	78	72	36
5.20	20	HDL-20C0520A	6	168	128	116	36
5.20	30	HDL-30C0520A	6	228	188	170	36
5.30	12	HDL-12C0530A	6	116	78	72	36
5.30	20	HDL-20C0530A	6	168	128	116	36
5.30	30	HDL-30C0530A	6	228	188	170	36

深孔加工 HDL 系列麻花钻 (内冷却型)

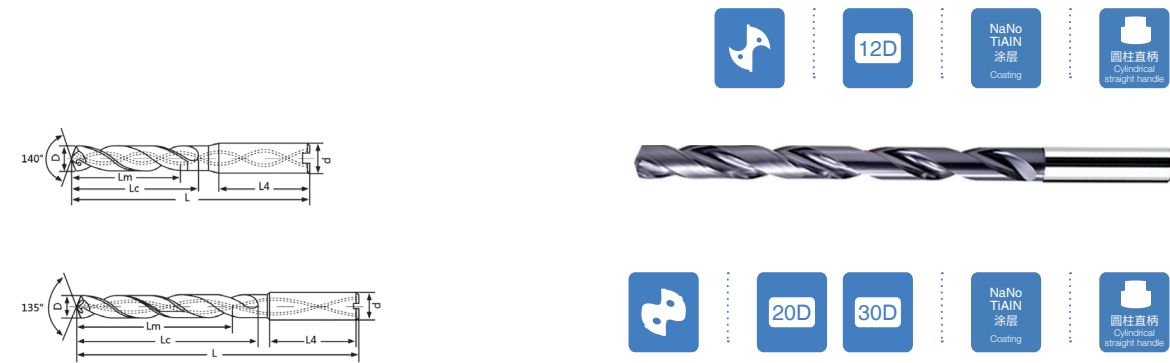
HDL Series Twist Drills for Deep-Hole Machining (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
5.40	12	HDL-12C0540A	6	116	78	72	36
5.40	20	HDL-20C0540A	6	168	128	116	36
5.40	30	HDL-30C0540A	6	228	188	170	36
5.50	12	HDL-12C0550A	6	116	78	72	36
5.50	20	HDL-20C0550A	6	168	128	116	36
5.50	30	HDL-30C0550A	6	228	188	170	36
5.60	12	HDL-12C0560A	6	116	78	72	36
5.60	20	HDL-20C0560A	6	180	140	126	36
5.60	30	HDL-30C0560A	6	240	200	182	36
5.70	12	HDL-12C0570A	6	116	78	72	36
5.70	20	HDL-20C0570A	6	180	140	126	36
5.70	30	HDL-30C0570A	6	240	200	182	36
5.80	12	HDL-12C0580A	6	116	78	72	36
5.80	20	HDL-20C0580A	6	180	140	126	36
5.80	30	HDL-30C0580A	6	240	200	182	36
5.90	12	HDL-12C0590A	6	116	78	72	36
5.90	20	HDL-20C0590A	6	180	140	126	36
5.90	30	HDL-30C0590A	6	240	200	182	36
6.00	12	HDL-12C0600A	6	116	78	72	36
6.00	20	HDL-20C0600A	6	180	140	126	36
6.00	30	HDL-30C0600A	6	240	200	182	36
6.10	12	HDL-12C0610A	8	131	93	84	36
6.10	20	HDL-20C0610A	8	192	150	132	36
6.10	30	HDL-30C0610A	8	260	220	202	36

深孔加工 HDL 系列麻花钻 (内冷却型)

HDL Series Twist Drills for Deep-Hole Machining (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
6.20	12	HDL-12C0620A	8	131	93	84	36
6.20	20	HDL-20C0620A	8	192	150	132	36
6.20	30	HDL-30C0620A	8	260	220	202	36
6.30	12	HDL-12C0630A	8	131	93	84	36
6.30	20	HDL-20C0630A	8	192	150	132	36
6.30	30	HDL-30C0630A	8	260	220	202	36
6.40	12	HDL-12C0640A	8	131	93	84	36
6.40	20	HDL-20C0640A	8	192	150	132	36
6.40	30	HDL-30C0640A	8	260	220	202	36
6.50	12	HDL-12C0650A	8	131	93	84	36
6.50	20	HDL-20C0650A	8	192	150	132	36
6.50	30	HDL-30C0650A	8	260	220	202	36
6.60	12	HDL-12C0660A	8	131	93	84	36
6.60	20	HDL-20C0660A	8	202	162	144	36
6.60	30	HDL-30C0660A	8	272	232	214	36
6.70	12	HDL-12C0670A	8	131	93	84	36
6.70	20	HDL-20C0670A	8	202	162	144	36
6.70	30	HDL-30C0670A	8	272	232	214	36
6.80	12	HDL-12C0680A	8	131	93	84	36
6.80	20	HDL-20C0680A	8	202	162	144	36
6.80	30	HDL-30C0680A	8	272	232	214	36
6.90	12	HDL-12C0690A	8	131	93	84	36
6.90	20	HDL-20C0690A	8	202	162	144	36
6.90	30	HDL-30C0690A	8	272	232	214	36

深孔加工 HDL 系列麻花钻 (内冷却型)

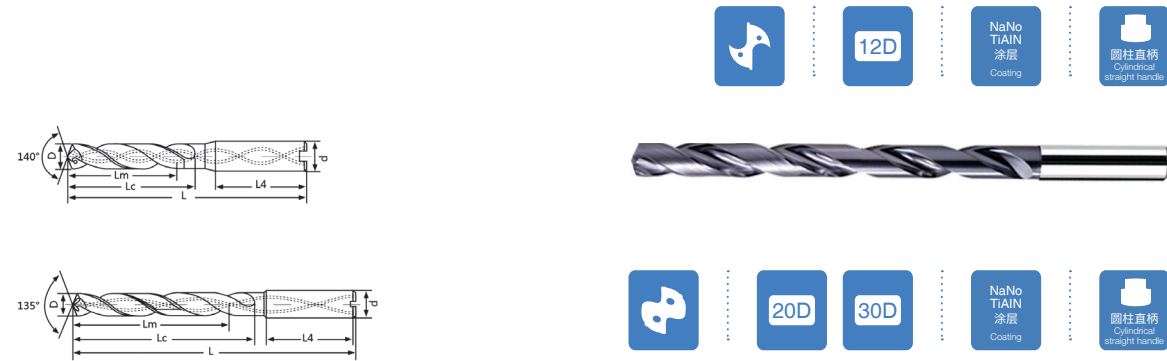
HDL Series Twist Drills for Deep-Hole Machining (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
7.00	12	HDL-12C0700A	8	131	93	84	36
7.00	20	HDL-20C0700A	8	202	162	144	36
7.00	30	HDL-30C0700A	8	272	232	214	36
7.10	12	HDL-12C0710A	8	146	108	96	36
7.10	20	HDL-20C0710A	8	213	173	155	36
7.10	30	HDL-30C0710A	8	290	250	232	36
7.20	12	HDL-12C0720A	8	146	108	96	36
7.20	20	HDL-20C0720A	8	213	173	155	36
7.20	30	HDL-30C0720A	8	290	250	232	36
7.30	12	HDL-12C0730A	8	146	108	96	36
7.30	20	HDL-20C0730A	8	213	173	155	36
7.30	30	HDL-30C0730A	8	290	250	232	36
7.40	12	HDL-12C0740A	8	146	108	96	36
7.40	20	HDL-20C0740A	8	213	173	155	36
7.40	30	HDL-30C0740A	8	290	250	232	36
7.50	12	HDL-12C0750A	8	146	108	96	36
7.50	20	HDL-20C0750A	8	213	173	155	36
7.50	30	HDL-30C0750A	8	290	250	232	36
7.60	12	HDL-12C0760A	8	146	108	96	36
7.60	20	HDL-20C0760A	8	223	183	165	36
7.60	30	HDL-30C0760A	8	305	265	246	36
7.70	12	HDL-12C0770A	8	146	108	96	36
7.70	20	HDL-20C0770A	8	223	183	165	36
7.70	30	HDL-30C0770A	8	305	265	246	36

深孔加工 HDL 系列麻花钻 (内冷却型)

HDL Series Twist Drills for Deep-Hole Machining (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
7.80	12	HDL-12C0780A	8	146	108	96	36
7.80	20	HDL-20C0780A	8	223	183	165	36
7.80	30	HDL-30C0780A	8	305	265	246	36
7.90	12	HDL-12C0790A	8	146	108	96	36
7.90	20	HDL-20C0790A	8	223	183	165	36
7.90	30	HDL-30C0790A	8	305	265	246	36
8.00	12	HDL-12C0800A	8	146	108	96	36
8.00	20	HDL-20C0800A	8	223	183	165	36
8.00	30	HDL-30C0800A	8	305	265	246	36
8.10	12	HDL-12C0810A	10	162	120	108	40
8.10	20	HDL-20C0810A	10	239	195	176	40
8.10	30	HDL-30C0810A	10	330	285	265	40
8.20	12	HDL-12C0820A	10	162	120	108	40
8.20	20	HDL-20C0820A	10	239	195	176	40
8.20	30	HDL-30C0820A	10	330	285	265	40
8.30	12	HDL-12C0830A	10	162	120	108	40
8.30	20	HDL-20C0830A	10	239	195	176	40
8.30	30	HDL-30C0830A	10	330	285	265	40
8.40	12	HDL-12C0840A	10	162	120	108	40
8.40	20	HDL-20C0840A	10	239	195	176	40
8.40	30	HDL-30C0840A	10	330	285	265	40
8.50	12	HDL-12C0850A	10	162	120	108	40
8.50	20	HDL-20C0850A	10	239	195	176	40
8.50	30	HDL-30C0850A	10	330	285	265	40

深孔加工 HDL 系列麻花钻 (内冷却型)

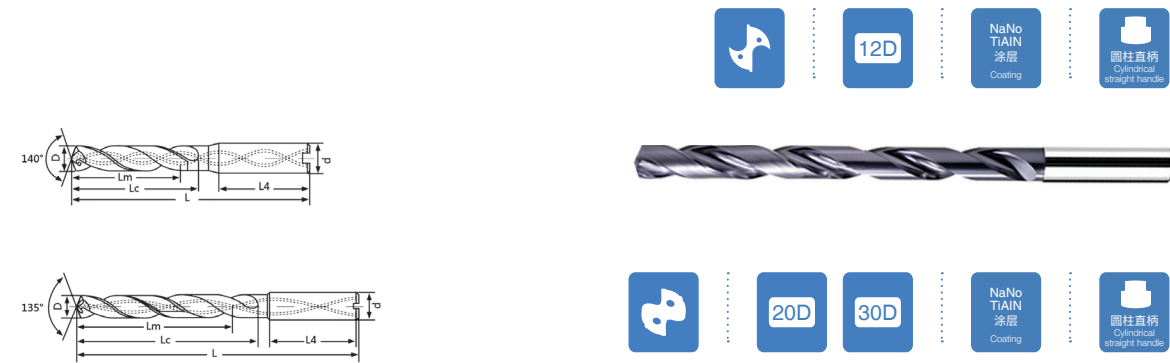
HDL Series Twist Drills for Deep-Hole Machining (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
8.60	12	HDL-12C0860A	10	162	120	108	40
8.60	20	HDL-20C0860A	10	249	205	186	40
8.60	30	HDL-30C0860A	10	340	295	275	40
8.70	12	HDL-12C0870A	10	162	120	108	40
8.70	20	HDL-20C0870A	10	249	205	186	40
8.70	30	HDL-30C0870A	10	340	295	275	40
8.80	12	HDL-12C0880A	10	162	120	108	40
8.80	20	HDL-20C0880A	10	249	205	186	40
8.80	30	HDL-30C0880A	10	340	295	275	40
8.90	12	HDL-12C0890A	10	162	120	108	40
8.90	20	HDL-20C0890A	10	249	205	186	40
8.90	30	HDL-30C0890A	10	340	295	275	40
9.00	12	HDL-12C0900A	10	162	120	108	40
9.00	20	HDL-20C0900A	10	249	205	186	40
9.00	30	HDL-30C0900A	10	340	295	275	40
9.10	12	HDL-12C0910A	10	174	132	120	40
9.10	20	HDL-20C0910A	10	262	218	196	40
9.10	30	HDL-30C0910A	10	360	315	292	40
9.20	12	HDL-12C0920A	10	174	132	120	40
9.20	20	HDL-20C0920A	10	262	218	196	40
9.20	30	HDL-30C0920A	10	360	315	292	40
9.30	12	HDL-12C0930A	10	174	132	120	40
9.30	20	HDL-20C0930A	10	262	218	196	40
9.30	30	HDL-30C0930A	10	360	315	292	40

深孔加工 HDL 系列麻花钻 (内冷却型)

HDL Series Twist Drills for Deep-Hole Machining (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
9.40	12	HDL-12C0940A	10	174	132	120	40
9.40	20	HDL-20C0940A	10	262	218	196	40
9.40	30	HDL-30C0940A	10	360	315	292	40
9.50	12	HDL-12C0950A	10	174	132	120	40
9.50	20	HDL-20C0950A	10	262	218	196	40
9.50	30	HDL-30C0950A	10	360	315	292	40
9.60	12	HDL-12C0960A	10	174	132	120	40
9.60	20	HDL-20C0960A	10	272	228	206	40
9.60	30	HDL-30C0960A	10	372	328	305	40
9.70	12	HDL-12C0970A	10	174	132	120	40
9.70	20	HDL-20C0970A	10	272	228	206	40
9.70	30	HDL-30C0970A	10	372	328	305	40
9.80	12	HDL-12C0980A	10	174	132	120	40
9.80	20	HDL-20C0980A	10	272	228	206	40
9.80	30	HDL-30C0980A	10	372	328	305	40
9.90	12	HDL-12C0990A	10	174	132	120	40
9.90	20	HDL-20C0990A	10	272	228	206	40
9.90	30	HDL-30C0990A	10	372	328	305	40
10.00	12	HDL-12C1000A	10	174	132	120	40
10.00	20	HDL-20C1000A	10	272	228	206	40
10.00	30	HDL-30C1000A	10	372	328	305	40
10.10	12	HDL-12C1010A	12	204	156	144	45
10.10	20	HDL-20C1010A	12	292	242	220	45
10.20	12	HDL-12C1020A	12	204	156	144	45
10.20	20	HDL-20C1020A	12	292	242	220	45

深孔加工 HDL 系列麻花钻 (内冷却型)

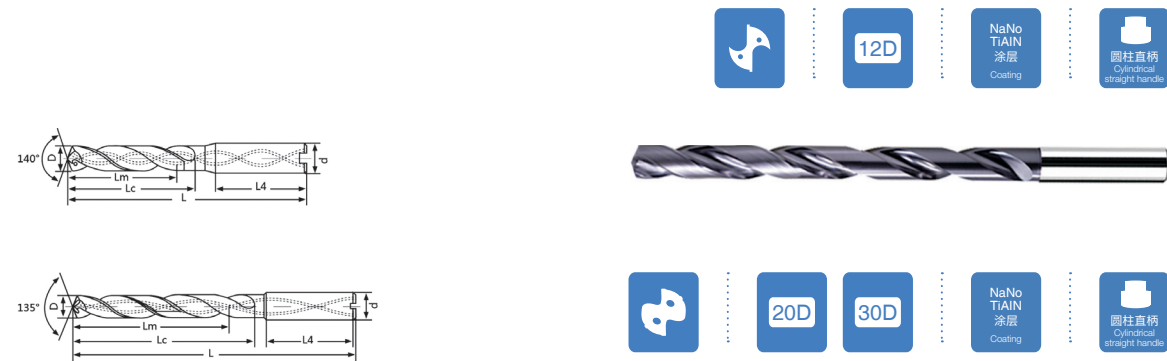
HDL Series Twist Drills for Deep-Hole Machining (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
10.30	12	HDL-12C1030A	12	204	156	144	45
10.30	20	HDL-20C1030A	12	292	242	220	45
10.40	12	HDL-12C1040A	12	204	156	144	45
10.40	20	HDL-20C1040A	12	292	242	220	45
10.50	12	HDL-12C1050A	12	204	156	144	45
10.50	20	HDL-20C1050A	12	292	242	220	45
10.60	12	HDL-12C1060A	12	204	156	144	45
10.60	20	HDL-20C1060A	12	300	250	228	45
10.70	12	HDL-12C1070A	12	204	156	144	45
10.70	20	HDL-20C1070A	12	300	250	228	45
10.80	12	HDL-12C1080A	12	204	156	144	45
10.80	20	HDL-20C1080A	12	300	250	228	45
10.90	12	HDL-12C1090A	12	204	156	144	45
10.90	20	HDL-20C1090A	12	300	250	228	45
11.00	12	HDL-12C1100A	12	204	156	144	45
11.00	20	HDL-20C1100A	12	300	250	228	45
11.10	12	HDL-12C1110A	12	204	156	144	45
11.10	20	HDL-20C1110A	12	315	265	240	45
11.20	12	HDL-12C1120A	12	204	156	144	45
11.20	20	HDL-20C1120A	12	315	265	240	45
11.30	12	HDL-12C1130A	12	204	156	144	45
11.30	20	HDL-20C1130A	12	315	265	240	45
11.40	12	HDL-12C1140A	12	204	156	144	45
11.40	20	HDL-20C1140A	12	315	265	240	45
11.50	12	HDL-12C1150A	12	204	156	144	45
11.50	20	HDL-20C1150A	12	315	265	240	45

深孔加工 HDL 系列麻花钻 (内冷却型)

HDL Series Twist Drills for Deep-Hole Machining (Internal coolant)



钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
11.60	12	HDL-12C1160A	12	204	156	144	45
11.60	20	HDL-20C1160A	12	325	275	250	45
11.70	12	HDL-12C1170A	12	204	156	144	45
11.70	20	HDL-20C1170A	12	325	275	250	45
11.80	12	HDL-12C1180A	12	204	156	144	45
11.80	20	HDL-20C1180A	12	325	275	250	45
11.90	12	HDL-12C1190A	12	204	156	144	45
11.90	20	HDL-20C1190A	12	325	275	250	45
12.00	12	HDL-12C1200A	12	204	156	144	45
12.00	20	HDL-20C1200A	12	325	275	250	45
12.50	12	HDL-12C1250A	14	230	182	168	45
12.50	20	HDL-20C1250A	14	325	275	250	45
12.70	12	HDL-12C1270A	14	230	182	168	45
12.80	12	HDL-12C1280A	14	230	182	168	45
13.00	12	HDL-12C1300A	14	230	182	168	45
13.00	20	HDL-20C1300A	14	338	290	265	45
13.50	12	HDL-12C1350A	14	230	182	168	45
13.50	20	HDL-20C1350A	14	338	290	265	45

深孔加工 HDL 系列麻花钻 (内冷却型)

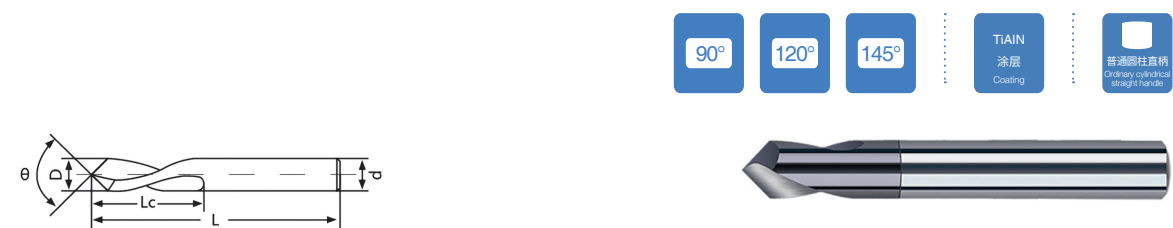
HDL Series Twist Drills for Deep-Hole Machining (Internal coolant)



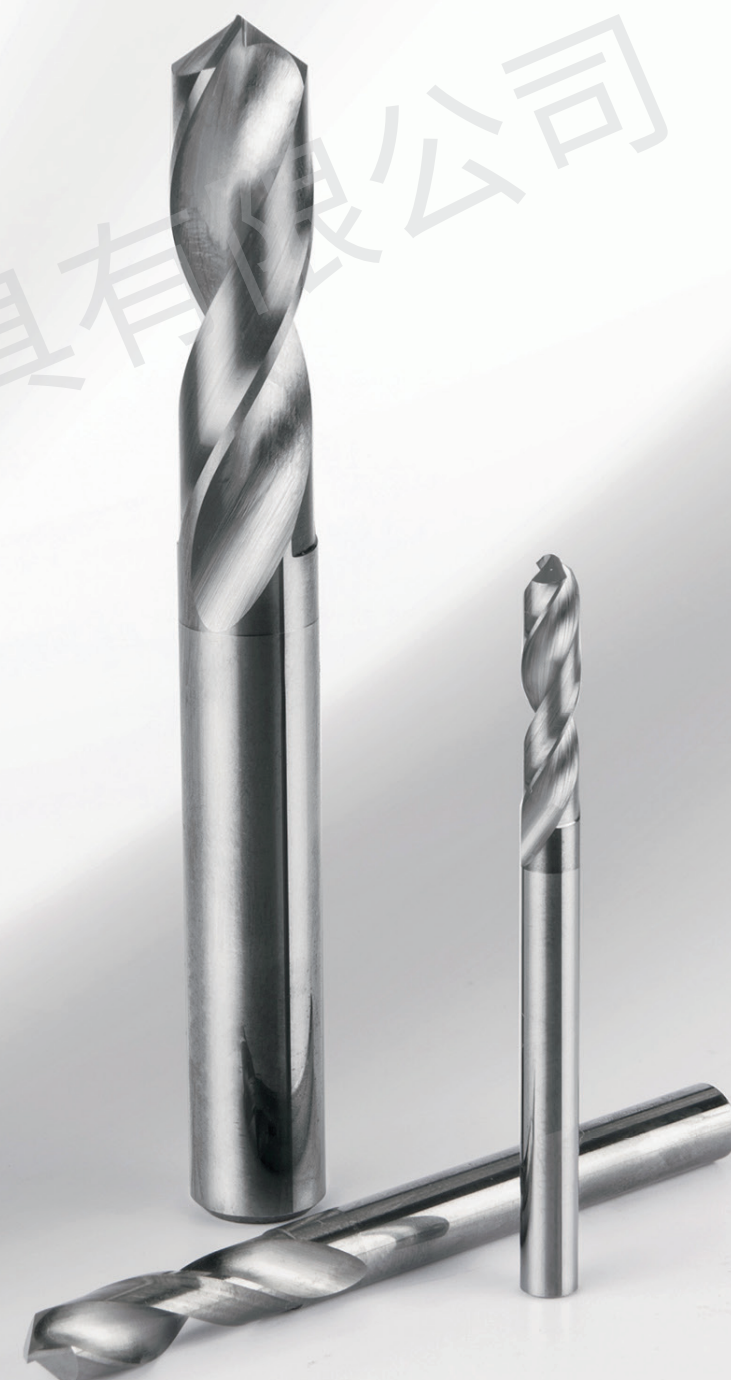
钻头直径 D (m7) Drill diameter	钻孔深度 Drilling depth	型号 Type	基本尺寸 Basic dimension (mm)				
			d (h6)	L	Lc	Lm	L4
14.00	12	HDL-12C1400A	14	230	182	168	45
14.00	20	HDL-20C1400A	14	367	318	290	45
14.50	12	HDL-12C1450A	16	260	208	194	48
15.00	12	HDL-12C1500A	16	260	208	194	48
15.50	12	HDL-12C1550A	16	260	208	194	48
16.00	12	HDL-12C1600A	16	260	208	194	48
16.50	12	HDL-12C1650A	18	286	234	218	48
17.00	12	HDL-12C1700A	18	286	234	218	48
17.50	12	HDL-12C1750A	18	286	234	218	48
18.00	12	HDL-12C1800A	18	286	234	218	48
18.50	12	HDL-12C1850A	20	310	258	240	48
19.00	12	HDL-12C1900A	20	310	258	240	48
19.50	12	HDL-12C1950A	20	310	258	240	48
20.00	12	HDL-12C2000A	20	310	258	240	48

HDP 系列定心钻

HDP Series Pilot Drills



钻头直径 D Drill diameter	型号 Type	基本尺寸 Basic dimension (mm)			
		θ	d (h6)	L	Lc
5.00	HDP-M0500Y	90°	5	62	10
5.00	HDP-N0500Y	120°	5	62	10
5.00	HDP-Q0500Y	145°	5	62	10
6.00	HDP-M0600Y	90°	6	66	15
6.00	HDP-N0600Y	120°	6	66	15
6.00	HDP-Q0600Y	145°	6	66	15
8.00	HDP-M0800Y	90°	8	79	17
8.00	HDP-N0800Y	120°	8	79	17
8.00	HDP-Q0800Y	145°	8	79	17
10.00	HDP-M1000Y	90°	10	89	20
10.00	HDP-N1000Y	120°	10	89	20
10.00	HDP-Q1000Y	145°	10	89	20
12.00	HDP-M1200Y	90°	12	102	25
12.00	HDP-N1200Y	120°	12	102	25
12.00	HDP-Q1200Y	145°	12	102	25
14.00	HDP-M1400Y	90°	14	107	30
14.00	HDP-N1400Y	120°	14	107	30
14.00	HDP-Q1400Y	145°	14	107	30
16.00	HDP-M1600Y	90°	16	115	35
16.00	HDP-N1600Y	120°	16	115	35
16.00	HDP-Q1600Y	145°	16	115	35
20.00	HDP-M2000Y	90°	20	131	40
20.00	HDP-N2000Y	120°	20	131	40
20.00	HDP-Q2000Y	145°	20	131	40



整体硬质合金钻头切削参数

Cutting Parameters for Solid Carbide Drills

通用加工 HDG 系列麻花钻 HDG series twist drills for general machining

工件材料 Workpiece material		软钢 Mild steel ≤180HB	碳钢、合金钢 Carbon steel, Alloy steel <30HRC	预硬钢 Pre-hardened steel <40HRC	不锈钢 Stainless steel	铸铁 Cast iron	球墨铸铁 Nodular cast iron	硅铝合金 Silicon aluminum alloy Si<12%	硅铝合金 Silicon aluminum alloy Si>12%
Vc (m/min)	外冷 External coolant	100-50	90-45	90-45	-	100-60	100-60	-	-
	内冷 Internal coolant	140-60	120-60	110-50	55-20	140-60	140-60	315-90	270-90
fn (mm/rev)	2	0.06-0.12	0.06-0.12	0.06-0.12	0.02-0.06	0.1-0.17	0.08-0.14	0.04-0.07	0.04-0.07
	3	0.09-0.16	0.09-0.16	0.09-0.16	0.03-0.08	0.13-0.21	0.11-0.18	0.06-0.11	0.06-0.11
	4	0.11-0.19	0.11-0.19	0.11-0.19	0.04-0.1	0.15-0.26	0.13-0.22	0.13-0.26	0.13-0.26
	6	0.14-0.23	0.14-0.23	0.14-0.23	0.05-0.1	0.17-0.32	0.15-0.27	0.16-0.28	0.16-0.28
	8	0.19-0.31	0.19-0.31	0.19-0.31	0.06-0.12	0.2-0.4	0.17-0.38	0.18-0.32	0.18-0.32
	10	0.23-0.38	0.23-0.38	0.23-0.38	0.07-0.14	0.25-0.42	0.22-0.38	0.2-0.38	0.2-0.38
	12	0.24-0.41	0.24-0.41	0.24-0.41	0.08-0.16	0.26-0.46	0.22-0.42	0.22-0.42	0.22-0.42
	14	0.28-0.45	0.28-0.45	0.28-0.45	0.09-0.18	0.28-0.5	0.24-0.44	0.24-0.44	0.24-0.44
	16	0.3-0.5	0.3-0.5	0.3-0.5	0.1-0.18	0.3-0.52	0.26-0.48	0.28-0.46	0.28-0.46
	18	0.33-0.5	0.33-0.5	0.33-0.5	0.1-0.2	0.32-0.54	0.3-0.46	0.32-0.48	0.32-0.48
	20	0.34-0.51	0.34-0.51	0.34-0.51	0.12-0.22	0.36-0.56	0.34-0.5	0.34-0.48	0.34-0.48
	25	0.36-0.53	0.36-0.53	0.36-0.53	0.14-0.24	0.38-0.58	0.36-0.52	0.36-0.5	0.36-0.5

不锈钢加工 HDS 系列麻花钻 HDS series twist drills for machining stainless steel

工件材料 Workpiece material		软钢 Mild steel ≤180HB	碳钢、合金钢 Carbon steel, Alloy steel <30HRC	预硬钢 Pre-hardened steel <40HRC	不锈钢 Stainless steel	耐热合金 Heat resistant alloy
Vc (m/min)	外冷 External coolant	100-50	90-45	90-45	35-20	-
	内冷 Internal coolant	140-60	120-60	110-50	60-30	45-20
fn (mm/rev)	3	0.09-0.16	0.09-0.16	0.09-0.16	0.03-0.08	0.03-0.06
	4	0.11-0.19	0.11-0.19	0.11-0.19	0.04-0.1	0.04-0.08
	6	0.14-0.23	0.14-0.23	0.14-0.23	0.05-0.1	0.05-0.1
	8	0.19-0.31	0.19-0.31	0.19-0.31	0.06-0.12	0.06-0.11
	10	0.23-0.38	0.23-0.38	0.23-0.38	0.07-0.14	0.07-0.12
	12	0.24-0.41	0.24-0.41	0.24-0.41	0.08-0.16	0.08-0.14
	14	0.28-0.45	0.28-0.45	0.28-0.45	0.09-0.18	0.09-0.16
	16	0.3-0.5	0.3-0.5	0.3-0.5	0.1-0.18	0.1-0.16
	18	0.33-0.5	0.33-0.5	0.33-0.5	0.1-0.2	0.1-0.18
	20	0.34-0.51	0.34-0.51	0.34-0.51	0.12-0.22	0.12-0.2

- 此标准切削条件适用于水溶性切削液。
- 安装钻头时请使用无缺陷干净的夹头，并将钻头径向跳动控制在0.02mm以内。
- 请使用刚性较高的机床，建议采用液压刀柄、热胀刀柄、带弹夹头的强力刀柄。
- 此表切削条件适用于孔深5D 以下的场合。

- The cutting conditions above are applicable for drilling with emulsion.
- When clamping drill, please use a collet without any defect or dust, and keep the radial run-out of drill under 0.02mm.
- Please use a machine tool with high rigidity. It is recommended to use hydraulic tool handle, thermal expansion tool handle and powerful tool handle with spring chuck.
- These conditions above are applicable for cutting depth under 5D.

整体硬质合金钻头切削参数

Cutting Parameters for Solid Carbide Drills

铸铁加工 HDK 系列麻花钻 HDK series twist drills for machining cast iron

工件材料 Workpiece material		软钢 Mild steel ≤180HB	碳钢、合金钢 Carbon steel, Alloy steel <30HRC	预硬钢 Pre-hardened steel <40HRC	铸铁 Cast iron	球墨铸铁 Nodular cast iron	硅铝合金 Silicon aluminum alloy Si<12%	硅铝合金 Silicon aluminum alloy Si>12%
Vc (m/min)	外冷 External coolant	100-50	90-45	90-45	100-60	100-60	-	-
	内冷 Internal coolant	140-60	120-60	110-50	160-60	140-60	315-90	270-90
fn (mm/rev)	3	0.09-0.16	0.09-0.16	0.09-0.16	0.13-0.21	0.11-0.18	0.06-0.11	0.06-0.11
	4	0.11-0.19	0.11-0.19	0.11-0.19	0.15-0.26	0.13-0.22	0.13-0.26	0.13-0.26
	6	0.14-0.23	0.14-0.23	0.14-0.23	0.17-0.32	0.15-0.27	0.16-0.28	0.16-0.28
	8	0.19-0.31	0.19-0.31	0.19-0.31	0.2-0.4	0.17-0.38	0.18-0.32	0.18-0.32
	10	0.23-0.38	0.23-0.38	0.23-0.38	0.25-0.42	0.22-0.38	0.2-0.38	0.2-0.38
	12	0.24-0.41	0.24-0.41	0.24-0.38	0.25-0.42	0.22-0.38	0.2-0.38	0.2-0.38
	14	0.28-0.45	0.28-0.45	0.28-0.45	0.28-0.5	0.24-0.44	0.24-0.44	0.24-0.44
	16	0.3-0.5	0.3-0.5	0.3-0.5	0.3-0.52	0.26-0.48	0.28-0.46	0.28-0.46
	18	0.33-0.5	0.33-0.5	0.33-0.5	0.32-0.54	0.3-0.46	0.32-0.48	0.32-0.48
	20	0.34-0.51	0.34-0.51	0.34-0.51	0.36-0.56	0.34-0.5	0.34-0.48	0.34-0.48

HDH series twist drills for machining hardness material

工件材料 Workpiece material		预硬钢、淬硬钢 Pre-hardened steel, Hardened steel 40-50HRC	碳钢、合金钢 Carbon steel, alloy steel <30HRC
Vc (m/min)	外冷 External coolant	40-20	30-15
	内冷 Internal coolant	-	-
fn (mm/rev)	3	0.04-0.08	0.03-0.07
	4	0.05-0.1	0.03-0.07
	6	0.06-0.13	0.04-0.12
	8	0.08-0.15	0.06-0.13
	10	0.23-0.38	0.23-0.38
	12	0.1-0.17	0.09-0.15
	14	0.1-0.2	0.1-0.17

- 此标准切削条件适用于水溶性切削液。
- 安装钻头时请使用无缺陷干净的夹头，并将钻头径向跳动控制在0.02mm以内。
- 请使用刚性较高的机床，建议采用液压刀柄、热胀刀柄、带弹夹头的强力刀柄。
- 此表切削条件适用于孔深5D 以下的场合。

- The cutting conditions above are applicable for drilling with emulsion.
- When clamping drill, please use a collet without any defect or dust, and keep the radial run-out of drill under 0.02mm.
- Please use a machine tool with high rigidity. It is recommended to use hydraulic tool handle, thermal expansion tool handle and powerful tool handle with spring chuck.
- These conditions above are applicable for cutting depth under 5D.

整体硬质合金钻头切削参数

Cutting Parameters for Solid Carbide Drills

铸铁加工 HDKZ 系列直槽钻 HDKZ series straight flute drills for machining cast iron

工件材料 Workpiece material		铸铁 Cast iron	球墨铸铁 Nodular cast iron	硅铝合金 Silicon aluminum alloy Si>12%
Vc (m/min)	外冷 External coolant	100-60	100-60	100-60
	内冷 Internal coolant	140-60	120-60	140-60
fn (mm/rev)	4	0.13-0.26	0.13-0.22	0.13-0.26
	6	0.16-0.28	0.15-0.26	0.16-0.28
	8	0.18-0.32	0.16-0.28	0.18-0.32
	10	0.2-0.38	0.18-0.32	0.2-0.38
	12	0.22-0.42	0.22-0.38	0.22-0.42
	14	0.24-0.44	0.24-0.4	0.24-0.44
	16	0.28-0.46	0.26-0.4	0.28-0.46
	18	0.32-0.48	0.28-0.42	0.32-0.48
	20	0.34-0.48	0.3-0.46	0.34-0.48

深孔加工 HDL 系列麻花钻 HDL series twist drills for deep-hole machining

工件材料 Workpiece material		软钢 Mild steel ≤180HB	碳钢、合金钢 Carbon steel, Alloy steel <30HRC	预硬钢 Pre-hardened steel <40HRC	不锈钢 Stainless steel	铸铁 Cast iron	球墨铸铁 Nodular cast iron	铝合金 Aluminum alloy	耐热合金 Heat resistant alloy
Vc (m/min)	120D	60-120	60-120	50-80	40-60	80-150	60-120	100-180	10-20
	20D/30D	70-90	50-80	40-60	40-60	50-80	60-80	100-180	8-15
fn (mm/rev)	3	0.06-0.1	0.06-0.1	0.06-0.1	0.03-0.07	0.06-0.1	0.06-0.1	0.09-0.12	0.03-0.06
	4	0.08-0.12	0.08-0.12	0.08-0.12	0.04-0.08	0.08-0.12	0.08-0.12	0.1-0.15	0.04-0.07
	5	0.1-0.14	0.1-0.14	0.1-0.14	0.05-0.1	0.1-0.14	0.1-0.14	0.1-0.15	0.05-0.09
	6	0.11-0.16	0.11-0.16	0.11-0.16	0.06-0.12	0.11-0.16	0.11-0.16	0.11-0.16	0.06-0.11
	8	0.13-0.19	0.13-0.19	0.13-0.19	0.08-0.16	0.13-0.19	0.13-0.19	0.13-0.19	0.08-0.14
	10	0.14-0.22	0.14-0.22	0.14-0.22	0.1-0.18	0.14-0.22	0.14-0.22	0.14-0.22	0.1-0.16
	12	0.16-0.24	0.16-0.24	0.16-0.24	0.12-0.2	0.16-0.24	0.16-0.24	0.16-0.24	0.12-0.18
	14	0.18-0.28	0.18-0.28	0.18-0.28	0.13-0.22	0.18-0.28	0.18-0.28	0.18-0.28	0.13-0.2
	16	0.2-0.3	0.2-0.3	0.2-0.3	0.14-0.25	0.2-0.3	0.2-0.3	0.25-0.36	0.14-0.23
	18	0.22-0.32	0.22-0.32	0.22-0.32	0.15-0.28	0.22-0.32	0.22-0.32	0.28-0.38	0.15-0.25
20	0.25-0.35	0.25-0.35	0.25-0.35	0.16-0.3	0.25-0.35	0.25-0.35	0.3-0.4	0.16-0.28	

- 此标准切削条件适用于水溶性切削液。
- 安装钻头时请使用无缺陷干净的夹头，并将钻头径向跳动控制在0.02mm以内。
- 请使用刚性较高的机床，建议采用液压力柄、热胀刀柄、带弹夹头的强力刀柄。
- 此表切削条件适用于孔深5D 以下的场合。

- The cutting conditions above are applicable for drilling with emulsion.
- When clamping drill ,please use a collet without any defect or dust , and keep the radial run-out of drill under 0.02mm.
- Please use a machine tool with high rigidity. It is recommended to use hydraulic tool handle, thermal expansion tool handle and powerful tool handle with spring chuck.
- These conditions above are applicable for cutting depth under 5D.

整体硬质合金钻头切削参数

Cutting Parameters for Solid Carbide Drills

HDP 系列定心钻 HDP series pilot drills

工件材料 Workpiece material		软钢 Mild steel ≤180HB	碳钢、合金钢 Carbon steel, Alloy steel <30HRC	预硬钢 Pre-hardened steel <40HRC	铸铁 Cast iron	球墨铸铁 Nodular cast iron	硅铝合金 Silicon aluminum alloy Si<12%	硅铝合金 Silicon aluminum alloy Si>12%
Vc (m/min)	外冷 External coolant	130-60	110-60	110-60	140-60	130-60	150-60	150-60
	内冷 Internal coolant	-	-	-	-	-	-	-
fn (mm/rev)	4	0.1-0.18	0.1-0.16	0.1-0.16	0.12-0.26	0.12-0.24	0.12-0.24	0.1-0.16
	6	0.14-0.2	0.12-0.18	0.12-0.18	0.17-0.32	0.15-0.27	0.15-0.27	0.12-0.18
	8	0.16-0.24	0.14-0.22	0.14-0.22	0.2-0.4	0.17-0.3	0.17-0.3	0.14-0.22
	10	0.18-0.3	0.16-0.24	0.16-0.24	0.25-0.36	0.2-0.32	0.2-0.32	0.16-0.24
	12	0.2-0.32	0.18-0.3	0.18-0.3	0.26-0.38	0.22-0.34	0.22-0.34	0.18-0.3
	14	0.24-0.34	0.2-0.3	0.2-0.3	0.28-0.4	0.24-0.36	0.24-0.36	0.2-0.3
	16	0.28-0.4	0.22-0.32	0.22-0.32	0.3-0.42	0.26-0.38	0.26-0.38	0.22-0.32
	18	0.32-0.45	0.26-0.4	0.26-0.4	0.32-0.44	0.3-0.44	0.3-0.42	0.26-0.4
	20	0.32-0.45	0.26-0.4	0.26-0.4	0.32-0.44	0.3-0.44	0.3-0.42	0.26-0.4

- 此标准切削条件适用于水溶性切削液。
- 安装钻头时请使用无缺陷干净的夹头，并将钻头径向跳动控制在0.02mm以内。
- 请使用刚性较高的机床，建议采用液压力柄、热胀刀柄、带弹夹头的强力刀柄。
- 此表切削条件适用于孔深5D 以下的场合。

- The cutting conditions above are applicable for drilling with emulsion.
- When clamping drill ,please use a collet without any defect or dust , and keep the radial run-out of drill under 0.02mm.
- Please use a machine tool with high rigidity. It is recommended to use hydraulic tool handle, thermal expansion tool handle and powerful tool handle with spring chuck.
- These conditions above are applicable for cutting depth under 5D.