HONGJIANG
鸿 疆

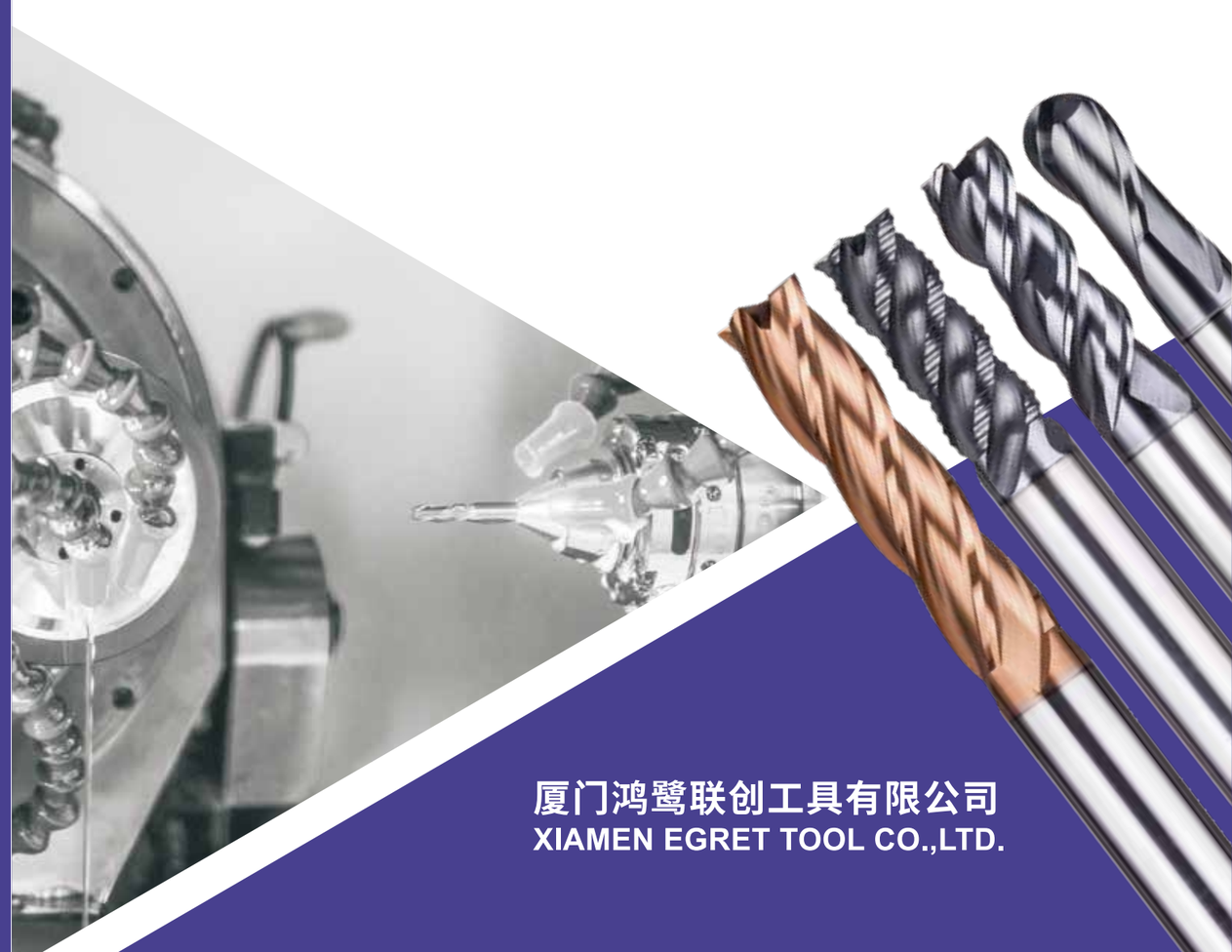
硬质合金立铣刀 Solid Carbide Endmill

厦门鸿鹭联创工具有限公司
XIAMEN EGRET TOOL CO.,LTD.

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目录
CONTENTS

基本信息 BASIC INFORMATION

01 标记说明
Icon guideline

03 整体硬质合金立铣刀(订货号)表示规则
Product code (order number) instruction of solid carbide endmill

05 涂层介绍
Coating introduction

07 刀具系列介绍
Introduction of tool series

09 产品选择目录表
Product selection table

产品与切削参数 TOOLS AND CUTTING DATA

19 U系列普通钢通用加工立铣刀
U series endmill for steel general machining

39 UC系列普通钢通用加工立铣刀
UC series endmill for steel general machining

48 UR系列普通钢粗加工立铣刀
UR series endmill for steel roughing

50 UN系列普通钢粗加工立铣刀
UN series endmill for steel roughing

52 X系列普通钢高效加工立铣刀
X series endmill for steel high efficiency machining

62 UX系列普通钢高效加工立铣刀
UX series endmill for steel high efficiency machining

68 H系列高硬钢通用加工立铣刀
H series endmill for hardened steel general machining

79 A系列铝合金通用加工立铣刀
A series endmill for aluminium alloys general machining

86 S系列不锈钢通用加工立铣刀
S series endmill for stainless steels general machining

94 S10系列不锈钢通用加工立铣刀
S10 series end mill for stainless steel general machining

99 G系列石墨加工立铣刀
G series endmill for graphite machining

111 UM系列小径深加工立铣刀
UM series endmill for small diameter deep processing

132 推荐切削参数
Recommended cutting data

附录 APPENDIX

199 铣削加工的切削参数与通用计算公式
Recommended cutting data and general formula for milling

200 工件材料代码表
Workpiece code table

201 工件材料常用牌号对照表
Reference table of workpiece materials

标记说明
Icon Guideline

01 材 质 / Material

硬质合金	金属陶瓷	CBN	PCD	
硬质合金 Cemented Carbide	金属陶瓷 Cermet	CBN Polycrystalline Cubic Bolon Nitride	PCD Polycrystalline Diamond	

02 螺旋角 / Helix Angle

30°	35°	35°/38°	43° 45° 47°	45°
30° Helix Angle	35° Helix Angle	35°/38° Helix Angle	43°/45°/47° Helix Angle	45° Helix Angle

03 涂层 / Coating

TiAlN	AlCrSiN	TiAlCrSiN	DIA	
TiAlN Coating	AlCrSiN Coating	TiAlCrSiN Coating	金刚石涂层 Diamond Coating	

04 刃 数 / Number of Flutes

2	3	4	6	
2刃 2 Flutes	3刃 3 Flutes	4刃 4 Flutes	6刃 6 Flutes	

05 角部形状 / Corner

圆角 Corner Radius	直角 Sharp Edge	球头 Ball Nose	倒角 Chamfer	

06 加工用途 / Applications

槽铣 Slot Milling	侧铣 Side Milling	仿形铣 Profile Milling		

整体硬质合金立铣刀订货号表示规则
Product Code (Order Number) Instruction Of Solid Carbide Endmill

U -			S	
{ 1 }			{ 2 }	
产品系列 Product series	工件材料 Workpiece material	系列说明 Remark	底刃形状 Endteeth type	
U	钢件、铸铁 Steel, Cast iron	通用加工系列 General machining	S	平头 Square
UC	钢件、铸铁 Steel, Cast iron	通用加工系列 General machining	B	球头 Ball nose
UR	钢件、铸铁 Steel, Cast iron	通用粗加工系列 Roughing	R	圆弧角 Corner radious
UN	钢件、铸铁 Steel, Cast iron	通用粗加工系列 Roughing	C	刀尖倒角 Chamfer
X	钢件、铸铁 Steel, Cast iron	高效加工系列 High efficient machining		
H	高硬钢 Hardened steel	通用加工系列 General machining		
UM	钢件、铸铁 Steel, Cast Iron	小径深加工系列 Small diameter & Deep cavity nachining		
A	铝合金 Aluminum Alloy	通用铝合金加工系列 Aluminum alloy general machining		
S	不锈钢 Stainless steel	通用不锈钢加工系列 Stainless steel general machining		
G	石墨 Graphite	石墨加工系列 Graphite machining		

H		2	020		06		
{ 3 }		{ 4 }	{ 5 }		{ 6 }		
特征项 Features		刃数 Flute number	刃径 Flute diameter		特征项 Characteristic code		
N	长颈 Long neck	2	2mm	020		类型 Type	代表项 Represented item	对应值 Value instruction
H	长柄 Long shank	3	10mm	100	1	平头\球头 Square \ Ball nose	a.颈长 b.刃长 a. neck length b. flute length	06-6mm
L	长刃 Long flute	4			2	圆角头 Corner radious	r值 r value	06-r0.6
S	短刃 Short flute	6			3	刀尖倒角 Chamfer	倒角值 Chamfer value	06-c0.06
空 Blank	标准 Standard							

涂层介绍
Coating Introduction

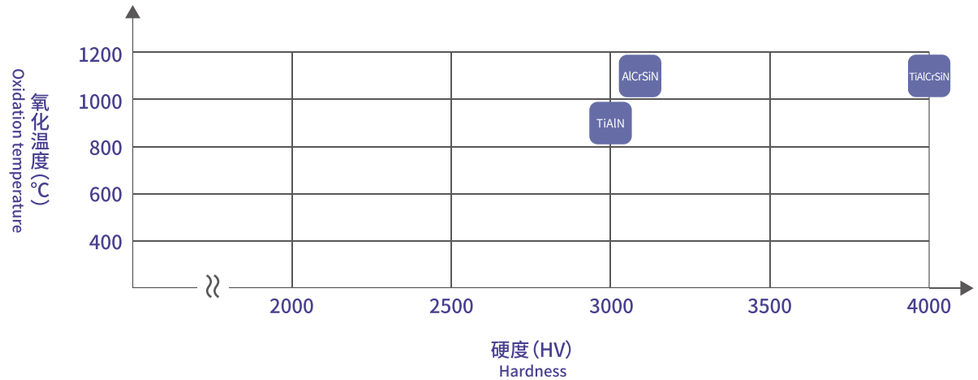
01 涂层特性 / Feature of Coating

涂层名称 Coating name	维氏硬度 (HV0.05) Vickers hardness	摩擦系数 Friction coefficient	最高适用温度(°C) Maximum applicable temperature	特点与功能 Features and function
AlCrSiN	3300	0.4	1100	高抗氧化性和高附着强度，适用于碳钢、合金钢、不锈钢、钛合金等材料 (55HRC以下) 的各种铣削加工，通用性好。 High oxidation resistance and high adhesion, suitable for milling of carbon steel, alloy steel, stainless steel, titanium alloy etc. (under 55HRC). Good versatility. 干、湿式切削均可实现长寿命加工 Long life in both dry cutting and wet cutting.
TiAlN	2900	0.35	900	高抗氧化性和高附着强度，适用于不锈钢铣削加工，部分高硬度钢的干式加工，钛合金钻削加工。 High oxidation resistance and high adhesion, suitable for milling of stainless steel, dry machining of hardened steel and drilling of titanium alloy.
TiAlCrSiN	4000	0.35	1100	高硬度和高抗氧化性，实现了高硬度材料切削加工的长寿命化和高效率化。 High Hardness and high oxidation resistance. Enables long life and high efficiency in machining of high hardness materials. 在高硬度材料(55HRC以上) 的切削加工中发挥卓越性能。 Exhibits amazing performance when cutting high-hardness,materials(55HRC or higher).
粗晶金刚石 Coarse grained diamond	8500	—	700	高硬度，高热导率，高耐磨性； High hardness, high thermal conductivity, high wear resistance; 适用于石墨加工。 Suitable for graphite machining.
超细晶金刚石 Ultrafine grained diamond	8000	—	700	高硬度，高热导率，高耐磨性，自润滑性好； High hardness, high thermal conductivity, high wear resistance, good self lubrication; 适用于非铁材料，碳纤维复合材料等加工 Suitable for machining non-ferrous material, carbon fiber composites, etc.

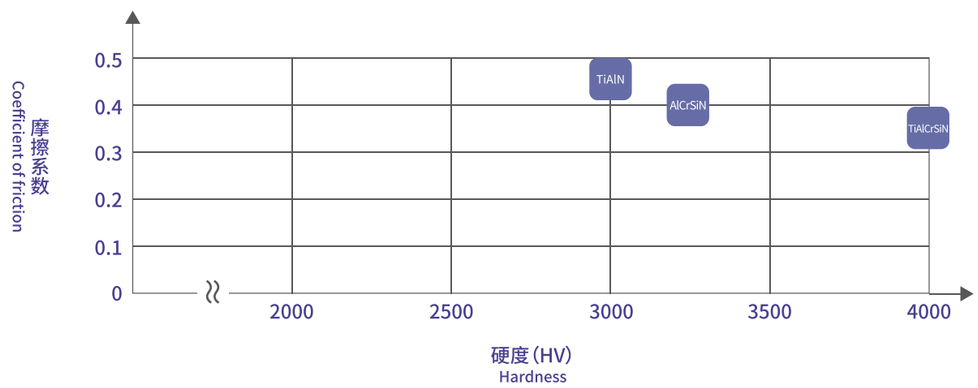
02 纳米PVD涂层定位 / Positioning of Nano PVD Coating

晶体颗粒控制在纳米量级，因而大幅改善了硬度和抗氧化性
By controlling the crystalline structure at nano level, hardness and oxidization resistance are greatly improved.

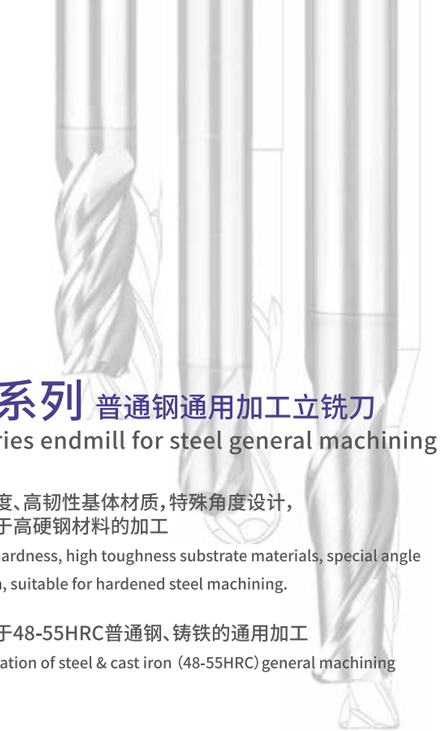
硬度与氧化温度
Hardness and oxidation temperature



硬度与润滑特性
Hardness and lubricant properties



刀具系列介绍
Introduction of Tool Series



U系列 普通钢通用加工立铣刀
U series endmill for steel general machining

◎ 适用于普通钢、铸铁材料（≤48HRC）的通用加工
Suitable for application of steel & cast iron (≤48HRC) general machining

◎ 采用高抗氧化性和高附着强度的AlCr系涂层
AlCr series coating with high oxidation resista nee and high adhesion

◎ 干、湿式加工均可实现长寿命
Long life for both dry cutting and wet cutting

UC系列 普通钢通用加工立铣刀
UC series endmill for steel general machining

◎ 高硬度、高韧性基体材质，特殊角度设计，适用于高硬钢材料的加工
High hardness, high toughness substrate materials, special angle design, suitable for hardened steel machining.

◎ 适用于48-55HRC普通钢、铸铁的通用加工
Application of steel & cast iron (48-55HRC) general machining

UR系列 普通钢粗加工立铣刀
UR series endmill for steel roughing

◎ 适用于普通钢、铸铁材料（≤48HRC）的大切深、大切宽粗加工
Suitable for application of steel & cast iron(≤48HRC) roughing with big cutting depth and width

◎ 独特的波形齿设计，使切屑更细更小，排屑更顺畅
Special wave teeth design makes fine and short chip, and smooth chip removal.

UN系列普通钢粗加工立铣刀
UN series endmill for steel roughing

◎ 适用于普通钢、铸铁材料（≤48HRC）的大切深、大切宽粗加工、半精加工
Suitable for application of steel & cast iron(≤48HRC) roughing and semi-finishing with big cutting depth and width

◎ 独特的断屑齿设计，使切屑更小，排屑更顺畅，表面质量更高
Special teeth design makes short chip, better chip removal and better surface quality

X系列 普通钢高效加工立铣刀
X series endmill for steel high efficiency machining

◎ 适用于普通钢、铸铁材料（≤48HRC）的高效加工
Suitable for application of steel & cast iron (≤48HRC) high performance machining

◎ 采用高抗氧化性和高附着强度的AlCr系涂层
AlCr series coating with high oxidation resista nee and high adhesion

◎ 不等螺旋、不等分割设计，减震性能优越
Unequal helix angle and unequal spacing of teeth , greatly reduces vibration

◎ 适用于大切深、大切宽的高效加工
Applicable to big cutting depth and width

UX系列 普通钢高效加工立铣刀
UX series endmill for steel high efficiency machining

◎ 适用于普通钢、铸铁材料（≤48HRC）的高效加工
Suitable for application of steel & cast iron (≤48HRC) high performance machining

◎ 特别适合槽铣，刃口强度高，抗崩刃
Especially suitable for slot milling, with high cutting edge strength and anti chipping

◎ 底刃变分度设计，切削过程稳定
Variable indexing design of bottom edge, stable cutting process

◎ 抛物线容屑槽设计，排屑性能优异
Parabolic chip tank design, excellent chip removal performance

H系列 高硬钢通用加工立铣刀
H series endmill for hardened steel general machining

◎ 适用于高硬钢材料（≤60HRC）的半精加工、精加工
Suitable for application of hardened steel (≤60HRC) semi-finishing and finishing

◎ 采用高硬度和高抗氧化性的TiAlCrSiN涂层
TiAlCrSiN coating with high hardness and high oxidation resistance

A系列 铝合金通用加工立铣刀
A series endmill for aluminum alloys general machining

◎ 适用于铝合金（Si＜12%）及铜合金（＜200HB）的半精加工及精加工
Suitable for application of semi-finishing and finishing of aluminum alloy(Si<12%) and copper alloy (<200HB)

◎ 独特的刃型设计，能够有效防止振动
Special edge design, reduces vibration effectively.

◎ 精细磨削的切削刃，实现良好的精加工面
Special edge preparation, good surface quality

S系列 不锈钢通用加工立铣刀
S series end mill for stainless steel general machining

◎ 适用于不锈钢（≤300HB）的通用加工
Suitable for application of stainless steel (≤300HB) general machining

◎ 采用高抗氧化性和高附着强度的TiAlN涂层
TiAlN coating with high oxidation resistance and high adhesion

◎ 干、湿式加工均可实现长寿命
Long life in both dry cutting and wet cutting

S10系列 不锈钢通用加工立铣刀
S10 series end mill for stainless steel general machining

◎ 适用于不锈钢（＜380HB）粗加工、精加工
Suitable for rough and finish machining of stainless steel (<380HB)

◎ 采用优异的基体搭配TiAlCrSiN涂层，提升粗加工抗崩性能以及精加工耐磨性，刀具寿命长
The excellent matrix and TiAlCrSiN coating are used to improve the anti collapse performance of rough machining and the wear resistance of finish machining, and the tool life is long

◎ 适用于高速快进给，面铣、侧铣、浅槽铣
Suitable for high-speed fast feed, face milling, side milling and shallow groove milling

◎ 推荐油冷、水冷的冷却方式
Recommended oil cooling and water cooling methods

G系列 石墨加工立铣刀
G series endmill for graphite machining

◎ 刀具精度高，工件加工表面质量好
Excellent accuracy and excellent surface finish

◎ 金刚石涂层纯度高，具有优良的耐磨性，可实现长时间石墨加工
High purity diamond coating enable high abrasion resistance and better tool life

◎ 适用于石墨材料的半精加工和精加工
Suitable for application of semi-finishing and finishing of graphites

UM系列 小径深加工立铣刀
UM series endmill for small diameter & deep machining

◎ 适用于碳钢、合金钢、淬硬钢、铜、铝合金（≤55HRC）等材料的微加工
Suitable for small & deep-cavity milling of carbon steel, alloy steel, hardened steel,copper&aluminum alloys etc (≤55HRC)

◎ 采用高抗氧化性和高附着强度的AlCr系涂层
AlCr series coating with high oxidation resistance and high adhesion

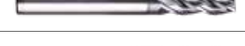
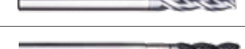
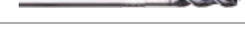
◎ 特殊的避空设计，耐折损性高
Special reduced neck design gives high breakage resistance

产品选择目录表
Product selection table

名称 Name	产品系列 Series	产品型号 Item code	产品名称 Product name	刀尖形状 Nose shape	刀具类型 Type	齿数 No.of flutes	刃径范围 Flute diameter range	页码 Page		形状图示 Picture	涂层 Coating	工件材料 Workpiece Material										
								规格明细表 Size list	切削条件 Cutting data			铸铁 Cast iron	碳素钢/合金钢 Carbon steel, alloy	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC ~55HRC	高硬材料 Hardened steels 55HRC -65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 TI alloy	石墨 Graphite	铜合金 Copper alloy	铝合金 Aluminum alloy
通用加工立铣刀 Endmill for general machining	U	U-S2	2刃平头立铣刀 Square, Regular, 2 Flutes	平头 Square	常规刃 Regular	2	ø1-ø20	21	133		AlCrSiN	◎	◎	◎	○			○			○	
		U-SL2	2刃长刃平头立铣刀 Square，Long flute，2 Flutes	平头 Square	长刃 Long flute	2	ø2-ø20	22	133		AlCrSiN	◎	◎	◎	○			○			○	
		U-SH2	2刃长柄平头立铣刀 Square, Long shank, 2 Flutes	平头 Square	长柄 Long shank	2	ø2-ø20	23	133		AlCrSiN	◎	◎	◎	○			○			○	
		U-S3	3刃平头立铣刀 Square, Regular, 3 Flutes	平头 Square	常规刃 Regular	3	ø2-ø20	24	134		AlCrSiN	◎	◎	◎	○			○			○	
		U-S4	4刃平头立铣刀 Square, Regular, 4 Flutes	平头 Square	常规刃 Regular	4	ø1-ø20	25	135		AlCrSiN	◎	◎	◎	○			○			○	
		U-SL4	4刃长刃平头立铣刀 Square，Long flute，2 Flutes	平头 Square	长刃 Long flute	4	ø1-ø20	27	135		AlCrSiN	◎	◎	◎	○			○			○	
		U-SH4	4刃长柄平头立铣刀 Square, Long shank, 4 Flutes	平头 Square	长柄 Long shank	4	ø2-ø20	28	135		AlCrSiN	◎	◎	◎	○			○			○	
		U-S6	6刃平头立铣刀 Square, Regular,6 Flutes	平头 Square	常规刃 Regular	6	ø6-ø20	29	135		AlCrSiN	◎	◎	◎	○			○			○	
		U-R2	2刃圆角头立铣刀 Radius, Regular, 2 Flutes	圆弧 Radius	常规刃 Regular	2	ø1-ø20	30	133		AlCrSiN	◎	◎	◎	○			○			○	
		U-RH2	2刃长柄圆角头立铣刀 Radius, Long shank, 2 Flutes	圆弧 Radius	长柄 Long shank	2	ø6-ø20	32	133		AlCrSiN	◎	◎	◎	○			○			○	
		U-R4	4刃圆角头立铣刀 Radius, Regular, 4 Flutes	圆弧 Radius	常规刃 Regular	4	ø1.5-ø20	33	135		AlCrSiN	◎	◎	◎	○			○			○	
		U-RH4	4刃长柄圆角头立铣刀 Radius, Long shank, 4 Flutes	圆弧 Radius	长柄 Long shank	4	ø3-ø20	35	135		AlCrSiN	◎	◎	◎	○			○			○	
		U-B2	2刃球头立铣刀 Ball, Regular, 2 Flutes	球头 Ball	常规刃 Regular	2	ø1-ø20	36	136		AlCrSiN	◎	◎	◎	○			○			○	
		U-BH2	2刃长柄球头立铣刀 Ball, Long shank, 2 Flutes	球头 Ball	长柄 Long shank	2	ø2-ø20	37	136		AlCrSiN	◎	◎	◎	○			○			○	
		U-B4	4刃球头立铣刀 Ball, Regular, 4 Flutes	球头 Ball	常规刃 Regular	4	ø2-ø20	38	136		AlCrSiN	◎	◎	◎	○			○			○	

◎ 最适合 Most Suitable　○ 适合 Suitable

产品选择目录表
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名称 Name	产品系列 Series	产品型号 Item code	产品名称 Product name	刀尖形状 Nose shape	刀具类型 Type	齿数 No.of flutes	刃径范围 Flute diameter range	页码 Page		形状图示 Picture	涂层 Coating	工件材料 Workpiece Material										
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通用加工立铣刀 Endmill for general machining	UC	UC-S2	2刃平头立铣刀 Square，Regular，2 Flutes	平头 Square	常规刃 Regular	2	ø1-ø10	40	137		AlCrSiN	◎	◎	◎	○			○			○	
		UC-S4	4刃平头立铣刀 Square，Regular，4 Flutes	平头 Square	常规刃 Regular	4	ø1-ø10	41	138		AlCrSiN	◎	◎	◎	○			○			○	
		UC-SH4	4刃长柄平头立铣刀 Square，Long shank，4 Flutes	平头 Square	长柄 Long shank	4	ø1-ø10	42	138		AlCrSiN	◎	◎	◎	○			○			○	
		UC-R2	2刃圆角头立铣刀 Radius，Regular，2 Flutes	圆弧 Radius	常规刃 Regular	2	ø1-ø10	43	137		AlCrSiN	◎	◎	◎	○			○			○	
		UC-R4	4刃圆角头立铣刀 Radius，Regular，2 Flutes	圆弧 Radius	常规刃 Regular	4	ø1-ø10	44	138		AlCrSiN	◎	◎	◎	○			○			○	
		UC-RH4	4刃长柄圆角头立铣刀 Radius，Long shank，4 Flutes	圆弧 Radius	长柄 Long shank	4	ø1-ø10	45	138		AlCrSiN	◎	◎	◎	○			○			○	
		UC-B2	2刃球头立铣刀 Ball，Regular，2 Flutes	球头 Ball	常规刃 Regular	2	ø1-ø10	46	138		AlCrSiN	◎	◎	◎	○			○			○	
		UC-BH2	2刃长柄球头立铣刀 Ball，Long shank，2 Flutes	球头 Ball	长柄 Long shank	2	ø1-ø10	47	138		AlCrSiN	◎	◎	◎	○			○			○	
粗加工立铣刀 Endmill for rough machining	UR	UR-S4	4刃平头立铣刀（波浪齿） Square，Regular，4 Flutes with wave teeth	平头 Square	常规刃 Regular	4	ø6-ø20	49	139		AlCrSiN	◎	◎	◎	○			○			○	
	UN	UN-S4	4刃平头立铣刀（断屑齿） Square，Regular，4 Flutes with chip breaking teeth	平头 Square	常规刃 Regular	4	ø6-ø20	51	140		AlCrSiN	◎	◎	◎	○			○			○	
高效加工立铣刀 Endmill for efficiency machining	X	X-S3	3刃平头立铣刀 Square，Regular，3 Flutes	平头 Square	常规刃 Regular	3	ø3-ø20	54	141		AlCrSiN	◎	◎	◎	○			○			○	
		X-C3	3刃平头立铣刀（刀尖倒角保护） Square，Regular，3 Flutes with Chamfer	平头 Square	常规刃 Regular	3	ø6-ø16	55	141		AlCrSiN	◎	◎	◎	○			○			○	
		X-S4	4刃平头立铣刀 Square，Regular，4 Flutes	平头 Square	常规刃 Regular	4	ø2-ø20	56	142		AlCrSiN	◎	◎	◎	○			○			○	
		X-C4	4刃平头立铣刀（刀尖倒角保护） Square，Regular，4 Flutes with Chamfer	平头 Square	常规刃 Regular	4	ø3-ø20	57	142		AlCrSiN	◎	◎	◎	○			○			○	
		X-CN4	4刃长颈平头立铣刀（刀尖倒角保护） Square，Long neck，4Flutes with Chamfer	平头 Square	长颈 Long neck	4	ø3-ø20	58	142		AlCrSiN	◎	◎	◎	○			○			○	
		X-R4	4刃圆角头立铣刀 Radius，Regular，4 Flutes	圆弧 Radius	常规刃 Regular	4	ø3-ø16	59	142		AlCrSiN	◎	◎	◎	○			○			○	

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Product selection table

名称 Name	产品系列 Series	产品型号 Item code	产品名称 Product name	刀尖形状 Nose shape	刀具类型 Type	齿数 No.of flutes	刃径范围 Flute diameter range	页码 Page		形状图示 Picture	涂层 Coating	工件材料 Workpiece Material										
								规格明细表 Size list	切削条件 Cutting data			铸铁 Cast iron	碳素钢/合金钢 Carbon steel, alloy	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC ~55HRC	高硬材料 Hardened steels 55HRC -65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 TI alloy	石墨 Graphite	铜合金 Copper alloy	铝合金 Aluminum alloy
高效加工立铣刀 Endmill for efficiency machining	X	X-B2	2刃球头立铣刀 Ball，Regular，2 Flutes	球头 Ball	常规刃 Regular	2	ø1-ø12	60	143		AlCrSiN	◎	◎	◎	○			○			○	
		X-BH2	2刃长柄球头立铣刀 Ball，Long shank，2 Flutes	球头 Ball	长柄 Long shank	2	ø4-ø12	61	143		AlCrSiN	◎	◎	◎	○			○			○	
高效加工立铣刀 Endmill for efficiency machining	UX	UX-S4	4 刃平头立铣刀 Square，Regular，4 Flutes	平头 Square	常规刃 Regular	4	ø1-ø20	63	144		AlCrSiN	◎	◎	◎	○			○			○	
		UX-SL4	4 刃长刃平头立铣刀 Square, Long flute, 4 Flute	平头 Square	长刃 Long flute	4	ø1-ø20	64	144		AlCrSiN	◎	◎	◎	○			○			○	
		UX-SH4	4 刃长柄平头立铣刀 Square，Long shank，4 Flutes	平头 Square	长柄 Long shank	4	ø1-ø20	65	144		AlCrSiN	◎	◎	◎	○			○			○	
		UX-R4	4 刃圆角头立铣刀 Radius, Regular, 4 Flutes	圆弧 Radius	常规刃 Regular	4	ø1-ø20	66	144		AlCrSiN	◎	◎	◎	○			○			○	
		UX-RH4	4 刃长柄圆角头立铣刀 Radius，Long shank，4 Flutes	圆弧 Radius	长柄 Long shank	4	ø1-ø20	67	144		AlCrSiN	◎	◎	◎	○			○			○	
高硬钢加工立铣刀 Endmill for hardened steel machining	H	H-S4	4刃平头立铣刀 Square，Regular，4 Flutes	平头 Square	常规刃 Regular	4	ø1-ø20	70	145		TiAlCrSiN		○	◎	◎	○						
		H-SL4	4刃长刃平头立铣刀 Square, Long flute, 4 Flute	平头 Square	长刃 Long flute	4	ø1-ø16	71	145		TiAlCrSiN		○	◎	◎	○						
		H-S6	6刃平头立铣刀 Square，Regular，6 Flutes	平头 Square	常规刃 Regular	6	ø1-ø12	72	147		TiAlCrSiN		○	◎	◎	○						
		H-SL6	6刃长刃平头立铣刀 Square，Long Regular，6 Flutes	平头 Square	长刃 Long flute	6	ø1-ø12	73	147		TiAlCrSiN		○	◎	◎	○						
		H-R4	4刃圆角头立铣刀 Radius, Regular, 4 Flutes	圆弧 Radius	常规刃 Regular	4	ø1-ø12	74	145		TiAlCrSiN		○	◎	◎	○						
		H-RH4	4刃长柄圆角工立铣刀 corner radius long shank,4 flute	圆弧 Radius	长柄 Long shank	4	ø1-ø12	75	145		TiAlCrSiN		○	◎	◎	○						
		H-RN4	4刃长颈圆角头立铣刀 Radius，Long neck，4 Flutes	圆弧 Radius	长颈 Long neck	4	ø1-ø12	76	145		TiAlCrSiN		○	◎	◎	○						
		H-B2	2刃球头立铣刀 Ball，Regular，2 Flutes	球头 Ball	常规刃 Regular	2	ø0.6-ø16	77	146		TiAlCrSiN		○	◎	◎	○						
		H-BH2	2刃长柄球头立铣刀 Ball，Long shank，2 Flutes	球头 Ball	长柄 Long shank	2	ø2-ø12	78	146		TiAlCrSiN		○	◎	◎	○						

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								规格明细表 Size list	切削条件 Cutting data			铸铁 Cast iron	碳素钢/合金钢 Carbon steel, alloy	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC ~55HRC	高硬材料 Hardened steels 55HRC -65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 TI alloy	石墨 Graphite	铜合金 Copper alloy	铝合金 Aluminum alloy
铝合金通用加工立铣刀 Endmill for aluminum alloys machining	A	A-S2/SS2/SL2	2刃平头立铣刀 Square，Regular，2 Flutes	平头 Square	常规/短刃/长刃 Regular/Short /Long flute	2	ø1-ø12	81	148												○	◎
		A-S3/SS3/SL3	3刃平头立铣刀 Square，Regular，3 Flutes	平头 Square	常规/短刃/长刃 Regular/Short /Long flute	3	ø1-ø12	83	149												○	◎
		A-R2/RS2/RL2	2刃圆角头立铣刀 Radius，Regular，2 Flutes	圆弧 Radius	常规/短刃/长刃 Regular/Short /Long flute	2	ø1-ø10	84	148												○	◎
		A-R3/RS3	3刃圆角头立铣刀 Radius，Regular，3 Flutes	圆弧 Radius	常规/短刃 Regular/Short flute	3	ø2-ø10	85	149												○	◎
		A-B2	2刃球头立铣刀 Ball，Regular，2 Flutes	球头 Ball	常规刃 Regular	2	ø1-ø10	86	150												○	◎
不锈钢通用加工立铣刀 Endmill for stainless steel machining	S	S-S2	2刃平头立铣刀 Square，Regular，2 Flutes	平头 Square	常规刃 Regular	2	ø0.5-ø8	87	151		TiAlN		○					◎				
		S-SS4	4刃短刃平头立铣刀 Square，Short Regular，4 Flutes	平头 Square	短刃 Short flute	4	ø2-ø12	88	153		TiAlN		○					◎				
		S-S4	4刃平头立铣刀 Square，Regular，4 Flutes	平头 Square	常规刃 Regular	4	ø1-ø12	89	153		TiAlN		○					◎				
		S-R2	2刃圆角头立铣刀 Radius，Regular，2 Flutes	圆弧 Radius	常规刃 Regular	2	ø3-ø8	90	151		TiAlN		○					◎				
		S-R3	3刃圆角头立铣刀 Radius，Regular，3 Flutes	圆弧 Radius	常规刃 Regular	3	ø2-ø6	91	152		TiAlN		○					◎				
		S-R4/RS4	4刃圆角头 / 短刃立铣刀 Radius，Regualr，4 Flutes	圆弧 Radius	常规 / 短刃 Regular/Short flute	4	ø2-ø10	92	153		TiAlN		○					◎				
		S-B2	2刃球头立铣刀 Ball，Regular，2 Flutes	球头 Ball	常规刃 Regular	2	ø1-ø4	93	154		TiAlN		○					◎				
不锈钢通用加工立铣刀 Endmill for stainless steel machining	S10	S10-S2	2刃平头立铣刀 Square，Regular，2 Flutes	平头 Square	常规刃 Regular	2	ø0.5-ø8	95	155		TiAlCrSiN		○					◎				
		S10-S4/SS4	4刃平头立铣刀 Square，Regular/Short Regular，4 Flutes	平头 Square	常规 / 短刃 Regular/Short flute	4	ø1-ø16	96	155		TiAlCrSiN		○					◎				
		S10-R4/RS4	4刃圆角头 / 短刃立铣刀 Radius，Regualr，4 Flutes	圆弧 Radius	常规 / 短刃 Regular/Short flute	4	ø1-ø10	98	155		TiAlCrSiN		○					◎				

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石墨加工立铣刀 Endmill for graphite machining	G	G-S2	2刃平头立铣刀 Square，Regular，2 Flutes	平头 Square	常规刃 Regular	2	ø0.4-ø12	101	156		DIA									◎	○	○
		G-SN2	2刃长颈平头立铣刀 Square，Long neck，2 Flutes	平头 Square	长颈 Long neck	2	ø1-ø12	102	156		DIA									◎	○	○
		G-S3	3刃平头立铣刀 Square，Regular，3 Flutes	平头 Square	常规刃 Regular	3	ø1-ø12	103	157		DIA									◎	○	○
		G-S4	4刃平头立铣刀 Square，Regular，4 Flutes	平头 Square	常规刃 Regular	4	ø2-ø12	104	158		DIA									◎	○	○
		G-R2	2刃圆角头立铣刀 Radius，Regular，2 Flutes	圆弧 Radius	常规刃 Regular	2	ø2-ø12	105	156		DIA									◎	○	○
		G-RN2	2刃长颈圆角头立铣刀 Radius，Long neck，2 Flutes	圆弧 Radius	长颈 Long neck	2	ø2-ø10	106	156		DIA									◎	○	○
		G-R4	4刃圆角头立铣刀 Radius，Regular，4 Flutes	圆弧 Radius	常规刃 Regular	4	ø2-ø12	107	158		DIA									◎	○	○
		G-RN4	4刃长颈圆角头立铣刀 Radius，Long neck，4 Flutes	圆弧 Radius	长颈 Long neck	3	ø2-ø12	108	158		DIA									◎	○	○
		G-B2	2刃球头立铣刀 Ball，Regular，2 Flutes	球头 Ball	常规刃 Regular	2	ø0.5-ø12	109	158		DIA									◎	○	○
		G-BN2	2刃长颈球头立铣刀 Ball，Long neck，2 Flutes	球头 Ball	长颈 Long neck	2	ø0.5-ø10	110	158		DIA									◎	○	○
小径深加工立铣刀 Endmill for small diameter & deep machining	UM	UM-SN2	小径深加工 2 刃平头立铣刀 Square，long neck，2 flute	平头 Square	长颈 Long neck	2	ø0.1-ø6	112	159		AlCrSiN	◎	◎	◎	○			○	○		◎	○
		UM-BN2	小径深加工 2 刃球头立铣刀 Ball，long neck，2 flute	球头 Ball	长颈 Long neck	2	ø0.1-ø6	117	167		AlCrSiN	◎	◎	◎	○			○	○		◎	○
		UM-RN2	小径深加工 2 刃圆角头立铣刀 Radius，long neck，2 flute	圆弧 Radius	长颈 Long neck	2	ø0.2-ø6	121	177		AlCrSiN	◎	◎	◎	○			○	○		◎	○
		UM-RN4	小径深加工 4 刃圆角头立铣刀 Radius，long neck，4 flute	圆弧 Radius	长颈 Long neck	4	ø1-ø6	129	195		AlCrSiN	◎	◎	◎	○			○	○		◎	○

◎ 最适合 Most Suitable ○ 适合 Suitable

U系列

普通钢通用加工立铣刀
U series endmill for steel general machining



加工材料范围广
Suitable for wide range of workpiece

◎ 适用于普通钢、铸铁、不锈钢等（≤48HRC）的半精加工、精加工
Suitable for semi-finishing, finishing of steel, cast iron, stainless steel (<48HRC)

加工工况广
Suitable for wide range of application

◎ 适用于小切深、大切宽的面铣；大切深、小切宽的侧铣；同时适用于小于0.5D的浅槽铣
Suitable for facing milling under small ap & big ae, side milling under big ap & small ae, and slotting under condition of less than 0.5D

基体涂层优势
Substrate coating strength

◎ 超高性能的超细晶和超高硬度基体
High performance, ultra-fine and super hard substrate.

◎ 采用Balzers最新一代涂层炉KiLA配合AlCr系涂层，使用稳定、耐高温、耐磨损
Use the latest Kila coating furnace from Balzers, with AlCr series coating, which enable stable machining with good high temperature resistance & wear resistance

刀型结构
Geometry structure

◎ 特殊的切削刃设计，保证刃口强度与锋利性
Special cutting edge design, which guarantees the strength & sharpness of the cutting edge

超高性能的基体配合高硬度涂层，使得刀具获的优秀得耐磨性及韧性，即使在高效率切削条件下，也能保持良好得耐磨以及抗崩性能。
Super high performance substrate with high hardness coating, equip the cutting tool with good wear resistance and toughness, which makes the tool maintain good wear resistance and anti-chipping performance.

- 刀具型号：U-BH2-10005
- 刀具规格：R5*18*100*d10
- 加工材料：5CrNiMo（30-35HRC）
- 切削速度：3800RPM
- 进给速度：2000mm/min
- 切削方式：仿形铣
- 切削量：ap=0.15mm，ae=0.25mm
- 冷却方式：气冷

- Model No:U-BH2-10005
- Specification:R5*18*100*d10
- Workpiece material:5CrNiMo（30-35HRC）
- Cutting speed:3800RPM
- Feed rate:2000mm/min
- Way of cutting:Profile milling
- ap, ae:ap=0.15mm，ae=0.25mm
- Coolant:Gas



加工 2 小时后
Process 2 hours later



U-BH2-10005



A 公司（Company）

- 刀具型号：U-S4-04011
- 刀具规格：D4*11*50*d4
- 加工材料：45# 钢（180HB）
- 切削速度：11942RPM
- 进给速度：1194mm/min
- 切削方式：圆周铣 - 顺铣
- 切削量：ap=6mm，ae=0.4mm
- 冷却方式：水冷

- Model No:U-S4-04011
- Specification:D4*11*50*d4
- Workpiece material:45#steel(180HB)
- Cutting speed:11942RPM
- Feed rate:1194mm/min
- Way of cutting: side milling, climb
- ap, ae:ap=6mm，ae=0.4mm
- Coolant:Water

切削长度 80 米
Cutting length:80m



U-S4-04011



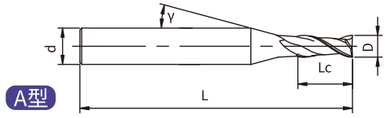
A 公司（Company）

U-S2

2刃平头通用加工立铣刀

2 flute, square endmill for general machining





硬质合金 | 2 | AlCrSiN | 35°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
U-S2-01003	1	3	50	4	A	●
U-S2-01504	1.5	4	50	4	A	●
U-S2-02006	2	6	50	4	A	●
U-S2-02508	2.5	8	50	4	A	●
U-S2-03009	3	9	50	4	A	●
U-S2-63009	3	9	50	6	A	●
U-S2-03509	3.5	9	50	4	A	●
U-S2-63509	3.5	9	50	6	A	●
U-S2-04011	4	11	50	4	B	●
U-S2-64011	4	11	50	6	A	●
U-S2-05013	5	13	50	6	A	●
U-S2-06016	6	16	50	6	B	●
U-S2-08020	8	20	60	8	B	●
U-S2-10025	10	25	75	10	B	●
U-S2-12030	12	30	75	12	B	●
U-S2-14034	14	34	100	14	B	●
U-S2-16036	16	36	100	16	B	●
U-S2-18040	18	40	100	18	B	●
U-S2-20045	20	45	100	20	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○		○	

◎ 最适合 Most Suitable ○ 适合 Suitable

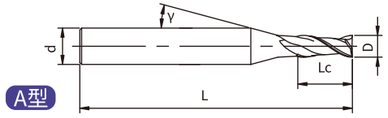
推荐切削参数P133

U-SL2

2刃长刃平头通用加工立铣刀

2 flute, square long flute endmill for general machining





硬质合金 | 2 | AlCrSiN | 35°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
U-SL2-02015	2	15	75	4	A	●
U-SL2-03025	3	25	75	4	A	●
U-SL2-04030	4	30	75	4	B	●
U-SL2-05030	5	30	75	6	A	●
U-SL2-06035	6	35	75	6	B	●
U-SL2-08040	8	40	100	8	B	●
U-SL2-10045	10	45	100	10	B	●
U-SL2-12050	12	50	100	12	B	●
U-SL2-14055	14	55	100	14	B	●
U-SL2-16060	16	60	150	16	B	●
U-SL2-18065	18	65	150	18	B	●
U-SL2-20070	20	70	150	20	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○		○	

◎ 最适合 Most Suitable ○ 适合 Suitable

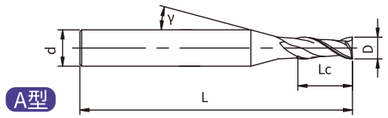
推荐切削参数P133

U-SH2

2刃长柄平头通用加工立铣刀

2 flute, square long shank endmill for general machining





硬质合金 | 2 | AlCrSiN | 35°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
U-SH2-02006	2	6	75	4	A	●
U-SH2-03009	3	9	75	4	A	●
U-SH2-04011	4	11	75	4	B	●
U-SH2-05020	5	20	75	6	A	●
U-SH2-06020	6	20	100	6	B	●
U-SH2-08025	8	25	100	8	B	●
U-SH2-10030	10	30	100	10	B	●
U-SH2-12035	12	35	100	12	B	●
U-SH2-14036	14	36	150	14	B	●
U-SH2-16036	16	36	150	16	B	●
U-SH2-18045	18	45	150	18	B	●
U-SH2-20045	20	45	150	20	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels ＜45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels ＞65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○		○	

◎ 最适合 Most Suitable ○ 适合 Suitable

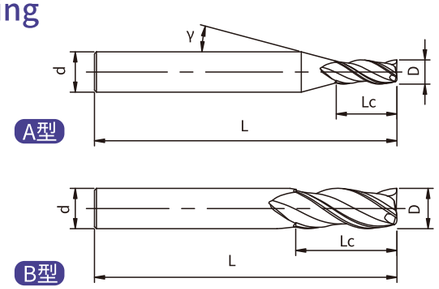
推荐切削参数P133

U-S3

3刃平头通用加工立铣刀

3 flute, square endmill for general machining





硬质合金 | 3 | AlCrSiN | 35°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
U-S3-02006	2	6	50	4	A	●
U-S3-03009	3	9	50	4	A	●
U-S3-04011	4	11	50	4	B	●
U-S3-05013	5	13	50	6	A	●
U-S3-06016	6	16	50	6	B	●
U-S3-08020	8	20	60	8	B	●
U-S3-10025	10	25	75	10	B	●
U-S3-12030	12	30	75	12	B	●
U-S3-14032	14	32	100	14	B	●
U-S3-16036	16	36	100	16	B	●
U-S3-18040	18	40	100	18	B	●
U-S3-20045	20	45	100	20	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels ＜45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels ＞65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○		○	

◎ 最适合 Most Suitable ○ 适合 Suitable

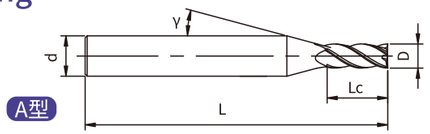
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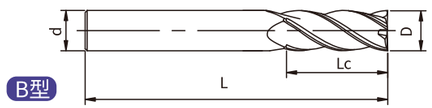
U-S4

4刃平头通用加工立铣刀

4 flute, square endmill for general machining









订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
U-S4-01003	1	3	50	4	A	●
U-S4-61003	1	3	50	6	A	●
U-S4-01505	1.5	5	50	4	A	●
U-S4-61505	1.5	5	50	6	A	●
U-S4-02006	2	6	50	4	A	●
U-S4-62006	2	6	50	6	A	●
U-S4-02508	2.5	8	50	4	A	●
U-S4-62508	2.5	8	50	6	A	●
U-S4-03009	3	9	50	4	A	●
U-S4-63009	3	9	50	6	A	●
U-S4-03511	3.5	11	50	4	A	●
U-S4-63511	3.5	11	50	6	A	●
U-S4-04011	4	11	50	4	B	●
U-S4-64011	4	11	50	6	A	●
U-S4-05013	5	13	50	6	A	●
U-S4-06016	6	16	50	6	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○		○	

◎ 最适合 Most Suitable ○ 适合 Suitable

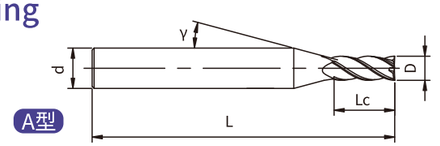
推荐切削参数P135

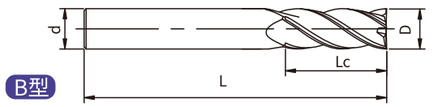
U-S4

4刃平头通用加工立铣刀

4 flute, square endmill for general machining









订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
U-S4-07020	7	20	60	8	A	●
U-S4-08020	8	20	60	8	B	●
U-S4-09023	9	23	75	10	A	●
U-S4-10025	10	25	75	10	B	●
U-S4-12030	12	30	75	12	B	●
U-S4-14034	14	34	100	14	B	●
U-S4-16036	16	36	100	16	B	●
U-S4-16040	16	40	100	16	B	●
U-S4-16045	16	45	100	16	B	●
U-S4-18045	18	45	100	18	B	●
U-S4-20045	20	45	100	20	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○		○	

◎ 最适合 Most Suitable ○ 适合 Suitable

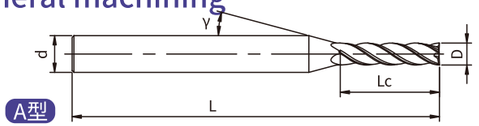
推荐切削参数P135

U-SL4

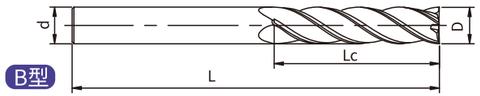
4刃长刃平头通用加工立铣刀

4 flute, square long flute endmill for general machining









订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
U-SL4-01004	1	4	50	4	A	●
U-SL4-02010	2	10	50	4	A	●
U-SL4-03015	3	15	60	4	A	●
U-SL4-63015	3	15	60	6	A	●
U-SL4-04020	4	20	60	4	B	●
U-SL4-64020	4	20	75	6	A	●
U-SL4-04030	4	30	75	4	B	●
U-SL4-05025	5	25	75	6	A	●
U-SL4-05030	5	30	75	6	A	●
U-SL4-06030	6	30	75	6	B	●
U-SL4-08025	8	25	75	8	B	●
U-SL4-08040	8	40	100	8	B	●
U-SL4-10050	10	50	100	10	B	●
U-SL4-12050	12	50	100	12	B	●
U-SL4-14045	14	45	100	14	B	●
U-SL4-16060	16	60	150	16	B	●
U-SL4-18070	18	70	150	18	B	●
U-SL4-20070	20	70	150	20	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○		○	

◎ 最适合 Most Suitable ○ 适合 Suitable

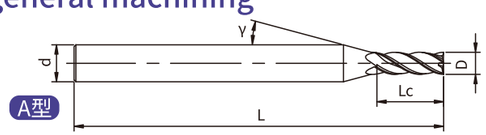
推荐切削参数P135

U-SH4

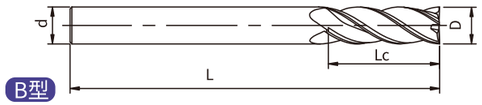
4刃长柄平头通用加工立铣刀

4 flute, square long shank endmill for general machining









订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
U-SH4-02010	2	10	75	4	A	●
U-SH4-03012	3	12	75	4	A	●
U-SH4-04011	4	11	75	4	B	●
U-SH4-04015-100	4	15	100	4	B	●
U-SH4-04015	4	15	75	4	B	●
U-SH4-05020	5	20	75	6	A	●
U-SH4-06016	6	16	75	6	B	●
U-SH4-06020	6	20	75	6	B	●
U-SH4-06020-100	6	20	100	6	B	●
U-SH4-08020	8	20	100	8	B	●
U-SH4-08025	8	25	100	8	B	●
U-SH4-10030	10	30	100	10	B	●
U-SH4-10035	10	35	100	10	B	●
U-SH4-12035	12	35	100	12	B	●
U-SH4-14036	14	36	150	14	B	●
U-SH4-16036	16	36	150	16	B	●
U-SH4-18045	18	45	150	18	B	
U-SH4-20045	20	45	150	20	B	

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○		○	

◎ 最适合 Most Suitable ○ 适合 Suitable

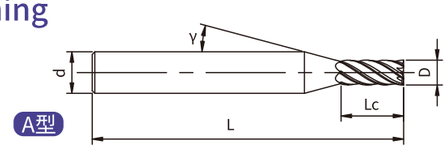
推荐切削参数P135

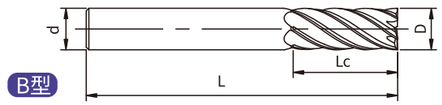
U-S6

6刃平头通用加工立铣刀

6 flute, square endmill for general machining









订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
U-S6-06015	6	15	50	6	B	●
U-S6-08020	8	20	60	8	B	●
U-S6-10025	10	25	75	10	B	●
U-S6-12030	12	30	75	12	B	●
U-S6-14032	14	32	100	14	B	●
U-S6-16036	16	36	100	16	B	●
U-S6-18040	18	40	100	18	B	●
U-S6-20045	20	45	100	20	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels ＜45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels ＞65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○		○	

◎ 最适合 Most Suitable ○ 适合 Suitable

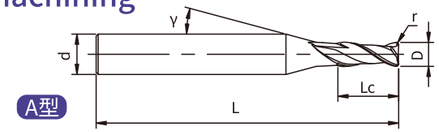
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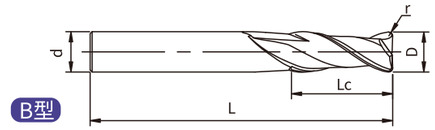
U-R2

2刃圆角头通用加工立铣刀

2 flute, corner radius endmill for general machining









订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	圆角(r) Corner	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
U-R2-01002	1	3	0.2	50	4	A	●
U-R2-01502	1.5	5	0.2	50	4	A	●
U-R2-02002	2	6	0.2	50	4	A	●
U-R2-03002	3	9	0.2	50	4	A	●
U-R2-63002	3	9	0.2	50	6	A	●
U-R2-03005	3	9	0.5	50	4	A	●
U-R2-63005	3	9	0.5	50	6	A	●
U-R2-04002	4	11	0.2	50	4	B	●
U-R2-64002	4	11	0.2	50	6	A	●
U-R2-04005	4	11	0.5	50	4	B	●
U-R2-64005	4	11	0.5	50	6	A	●
U-R2-05002	5	13	0.2	50	6	A	●
U-R2-05005	5	13	0.5	50	6	A	●
U-R2-06005	6	16	0.5	50	6	B	●
U-R2-06010	6	16	1.0	50	6	B	●
U-R2-08005	8	20	0.5	60	8	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels ＜45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels ＞65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○		○	

◎ 最适合 Most Suitable ○ 适合 Suitable

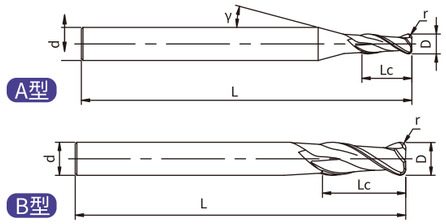
推荐切削参数P133

U-R2

2刃圆角头通用加工立铣刀

2 flute, ball nose endmill for general machining





硬质合金 | 2 | AlCrSiN | 35°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	圆角(r) Corner	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
U-R2-08010	8	20	1.0	60	8	B	●
U-R2-10005	10	25	0.5	75	10	B	●
U-R2-10010	10	25	1.0	75	10	B	●
U-R2-10020	10	25	2.0	75	10	B	●
U-R2-12005	12	30	0.5	75	12	B	●
U-R2-12010	12	30	1.0	75	12	B	●
U-R2-12020	12	30	2.0	75	12	B	●
U-R2-16005	16	36	0.5	100	16	B	●
U-R2-16010	16	36	1.0	100	16	B	●
U-R2-16020	16	36	2.0	100	16	B	●
U-R2-20010	20	45	1.0	100	20	B	●
U-R2-20020	20	45	2.0	100	20	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○		○	

◎ 最适合 Most Suitable ○ 适合 Suitable

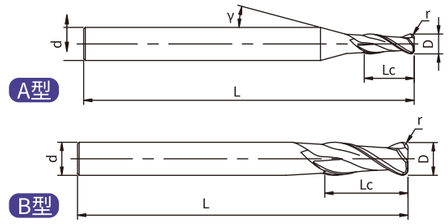
推荐切削参数P133

U-RH2

2刃长柄圆角头通用加工立铣刀

2 flute, ball nose, long shank endmill for general machining





硬质合金 | 2 | AlCrSiN | 35°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	圆角(r) Corner	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
U-RH2-06005	6	16	0.5	75	6	B	●
U-RH2-06010	6	16	1.0	75	6	B	●
U-RH2-08005	8	20	0.5	100	8	B	●
U-RH2-08010	8	20	1.0	100	8	B	●
U-RH2-10005	10	25	0.5	100	10	B	●
U-RH2-10010	10	25	1.0	100	10	B	●
U-RH2-10020	10	25	2.0	100	10	B	●
U-RH2-12005	12	30	0.5	100	12	B	●
U-RH2-12010	12	30	1.0	100	12	B	●
U-RH2-12020	12	30	2.0	100	12	B	●
U-RH2-16005	16	36	0.5	150	16	B	●
U-RH2-16010	16	36	1.0	150	16	B	●
U-RH2-16020	16	36	2.0	150	16	B	●
U-RH2-20010	20	45	1.0	150	20	B	●
U-RH2-20020	20	45	2.0	150	20	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○		○	

◎ 最适合 Most Suitable ○ 适合 Suitable

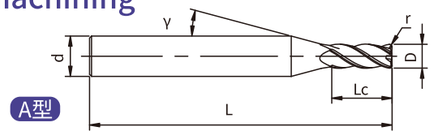
推荐切削参数P133

U-R4

4刃圆角头通用加工立铣刀

4 flute, corner radius endmill for general machining





硬质合金 | 4 | AlCrSiN | 35°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	圆角(r) Corner	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
U-R4-01002	1	3	0.2	50	4	A	●
U-R4-01502	1.5	5	0.2	50	4	A	●
U-R4-02002	2	6	0.2	50	4	A	●
U-R4-03002	3	9	0.2	50	4	A	●
U-R4-03005	3	9	0.5	50	4	A	●
U-R4-04002	4	11	0.2	50	4	B	●
U-R4-04003	4	11	0.3	50	4	B	●
U-R4-04005	4	11	0.5	50	4	B	●
U-R4-04010	4	11	1	50	4	B	●
U-R4-05002	5	13	0.2	50	6	A	●
U-R4-05005	5	13	0.5	50	6	A	●
U-R4-05010	5	13	1	50	6	A	●
U-R4-06002	6	16	0.2	50	6	B	●
U-R4-06005	6	16	0.5	50	6	B	●
U-R4-06010	6	16	1	50	6	B	●
U-R4-06015	6	16	1.5	50	6	B	●
U-R4-08005	8	20	0.5	60	8	B	●
U-R4-08010	8	20	1	60	8	B	●
U-R4-08020	8	20	2	60	8	B	●
U-R4-10005	10	25	0.5	75	10	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○		○	

◎ 最适合 Most Suitable ○ 适合 Suitable

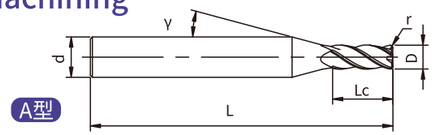
推荐切削参数P135

U-R4

4刃圆角头通用加工立铣刀

4 flute, corner radius endmill for general machining





硬质合金 | 4 | AlCrSiN | 35°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	圆角(r) Corner	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
U-R4-10010	10	25	1	75	10	B	●
U-R4-10020	10	25	2	75	10	B	●
U-R4-12005	12	30	0.5	75	12	B	●
U-R4-12010	12	30	1	75	12	B	●
U-R4-12020	12	30	2	75	12	B	●
U-R4-12030	12	30	3	75	12	B	●
U-R4-16005	16	36	0.5	100	16	B	●
U-R4-16010	16	36	1	100	16	B	●
U-R4-16020	16	36	2	100	16	B	●
U-R4-16030	16	36	3	100	16	B	●
U-R4-20010	20	45	1	100	20	B	●
U-R4-20020	20	45	2	100	20	B	●
U-R4-20030	20	45	3	100	20	B	●
U-R4-20040	20	45	4	100	20	B	●
U-R4-20050	20	45	5	100	20	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○		○	

◎ 最适合 Most Suitable ○ 适合 Suitable

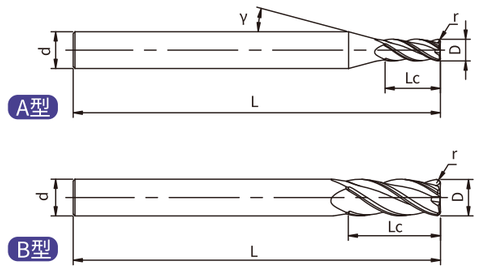
推荐切削参数P135

U-RH4

4刃长柄圆角头通用加工立铣刀

4 flute corner radius, with long shank length endmill for general machining





硬质合金 | 4 | AlCrSiN | 35°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	圆角(r) Corner	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
U-RH4-03005	3	9	0.5	75	4	A	●
U-RH4-04005	4	11	0.5	75	4	B	●
U-RH4-06005	6	16	0.5	75	6	B	●
U-RH4-06005-100	6	20	0.5	100	6	B	●
U-RH4-06010	6	16	1	75	6	B	●
U-RH4-06010-100	6	20	1	100	6	B	●
U-RH4-08005-75	8	20	0.5	75	8	B	●
U-RH4-08005	8	20	0.5	100	8	B	●
U-RH4-08010-75	8	20	1	75	8	B	●
U-RH4-08010	8	20	1	100	8	B	●
U-RH4-10005	10	25	0.5	100	10	B	●
U-RH4-10010	10	25	1	100	10	B	●
U-RH4-10020	10	25	2	100	10	B	●
U-RH4-12005	12	30	0.5	100	12	B	●
U-RH4-12010	12	30	1	100	12	B	●
U-RH4-12020	12	30	2	100	12	B	●
U-RH4-16005	16	36	0.5	150	16	B	●
U-RH4-16010	16	36	1	150	16	B	●
U-RH4-16020	16	36	2	150	16	B	●
U-RH4-20010	20	45	1	150	20	B	●
U-RH4-20020	20	45	2	150	20	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○		○	

◎ 最适合 Most Suitable ○ 适合 Suitable

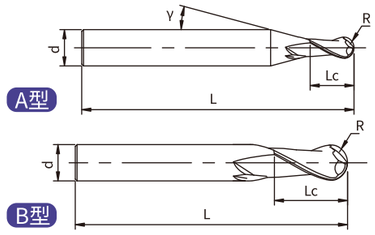
推荐切削参数P135

U-B2

2刃球头通用加工立铣刀

2 flute, ball nose endmill for general machining





硬质合金 | 2 | AlCrSiN | 30°

订货号 Ordering Code	外径(D) Mill Dia.	球半径(R) Ball Radius	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
U-B2-01002	1	0.5	2	50	4	A	●
U-B2-61002	1	0.5	2	50	6	A	●
U-B2-01503	1.5	0.75	3	50	4	A	●
U-B2-61503	1.5	0.75	3	50	6	A	●
U-B2-02004	2	1	4	50	4	A	●
U-B2-62004	2	1	4	50	6	A	●
U-B2-02505	2.5	1.25	5	50	4	A	●
U-B2-03006	3	1.5	6	50	4	A	●
U-B2-63006	3	1.5	6	50	6	A	●
U-B2-04008	4	2	8	50	4	B	●
U-B2-64008	4	2	8	50	6	A	●
U-B2-05010	5	2.5	10	50	6	A	●
U-B2-06012	6	3	12	50	6	B	●
U-B2-07014	7	3.5	14	60	8	A	●
U-B2-08014	8	4	14	60	8	B	●
U-B2-09016	9	4.5	16	75	10	A	●
U-B2-10018	10	5	18	75	10	B	●
U-B2-12022	12	6	22	75	12	B	●
U-B2-16030	16	8	30	100	16	B	●
U-B2-20038	20	10	38	100	20	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

球半径R	公差 Tol.
R≤1.5	0 -0.01
1.5<R<3	0 -0.015
R≥3	0 -0.02

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○		○	

◎ 最适合 Most Suitable ○ 适合 Suitable

推荐切削参数P136

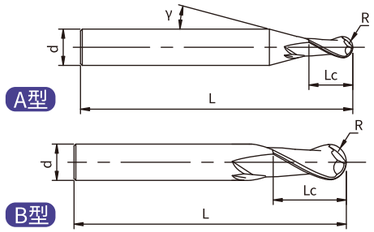
U-BH2

2刃长柄球头通用加工立铣刀

2 flute,ball nose, with long shank length endmill for general machining







订货号 Ordering Code	外径(D) Mill Dia.	球半径(R) Ball Radius	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
U-BH2-02004	2	1	4	75	4	A	●
U-BH2-62004	2	1	4	75	6	A	●
U-BH2-03006	3	1.5	6	75	4	A	●
U-BH2-63006	3	1.5	6	75	6	A	●
U-BH2-04008	4	2	8	75	4	B	●
U-BH2-64008	4	2	8	75	6	A	●
U-BH2-05010	5	2.5	10	75	6	A	●
U-BH2-06012	6	3	12	75	6	B	●
U-BH2-06012-100	6	3	12	100	6	B	●
U-BH2-08014	8	4	14	75	8	B	●
U-BH2-08014H	8	4	14	100	8	B	●
U-BH2-10018	10	5	18	100	10	B	●
U-BH2-12022	12	6	22	100	12	B	●
U-BH2-16030	16	8	30	150	16	B	●
U-BH2-20038	20	10	38	150	20	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

球半径R	公差 Tol.
R≤1.5	0 -0.01
1.5<R<3	0 -0.015
R≥3	0 -0.02

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○		○	

◎ 最适合 Most Suitable ○ 适合 Suitable

推荐切削参数P136

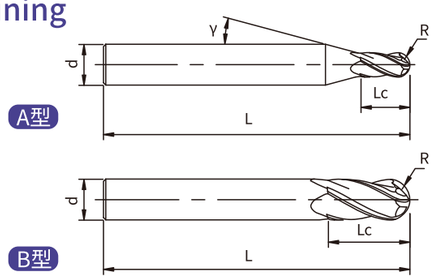
U-B4

4刃球头通用加工立铣刀

4 flute, ball nose endmill for general machining







订货号 Ordering Code	外径(D) Mill Dia.	球半径(R) Ball Radius	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
U-B4-02004	2	1	4	50	4	A	●
U-B4-03006	3	1.5	6	50	4	A	●
U-B4-63006	3	1.5	6	50	6	A	●
U-B4-04008	4	2	8	50	4	B	●
U-B4-64008	4	2	8	50	6	A	●
U-B4-05010	5	2.5	10	50	6	A	●
U-B4-06012	6	3	12	50	6	B	●
U-B4-08014	8	4	14	60	8	B	●
U-B4-10018	10	5	18	75	10	B	●
U-B4-12022	12	6	22	75	12	B	●
U-B4-16030	16	8	30	100	16	B	●
U-B4-20018	20	10	38	100	20	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

球半径R	公差 Tol.
R≤1.5	0 -0.01
1.5<R<3	0 -0.015
R≥3	0 -0.02

(mm)

工件材料 Workpiece Materials

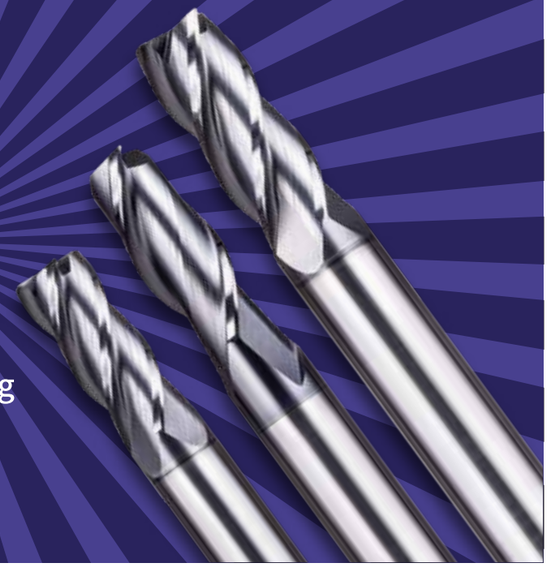
碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○		○	

◎ 最适合 Most Suitable ○ 适合 Suitable

推荐切削参数P136

UC系列

普通钢通用加工立铣刀
UC series endmill for steel general machining



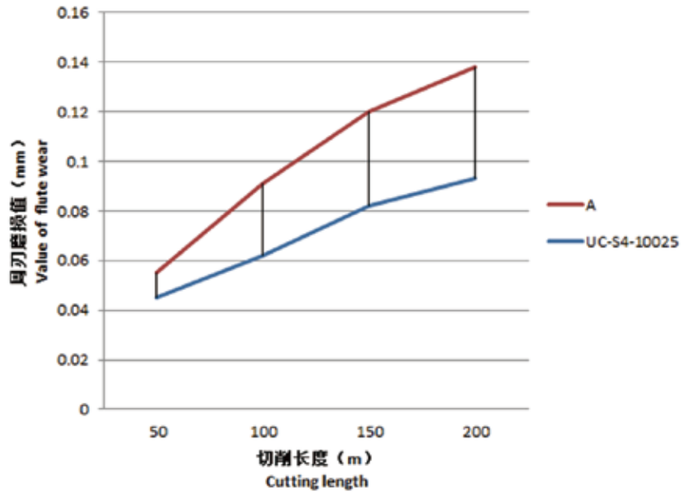
加工材质范围广：能实现从普通钢到高硬钢的高效率切削加工
Workable on wide range of workpiece: Suitable for high efficient machining for steel, hardened steel

刀具结构：特殊的切削刃配合大螺旋角设计，保证刀具刃口强度，刀具寿命更长
Tool geometry: Special cutting edge, together with big helix angle design, ensure cutting edge strength, and prolong tool life

基体涂层优势：超高性能的超细晶和超高硬度基体配合Balzers最新一代涂层炉KiLA配合AlCr系涂层，耐磨性能、抗氧化性能、润滑性能优异
Substrate and coating advantage: Super high performance, ultra fine grain and high hardness substrate, together with AlCr series coating from Balzers latest Killa furnace, excellent wear resistance, oxidize resistance and lubricity.

- 刀具型号：UC-S4-10025
- 刀具规格：D10*25*75*d10
- 加工材料：H13（45HRC）
- 切削速度：2600RPM
- 进给速度：400mm/min
- 切削方式：侧铣
- 切削量：ap=10mm，ae=0.5mm
- 冷却方式：气冷

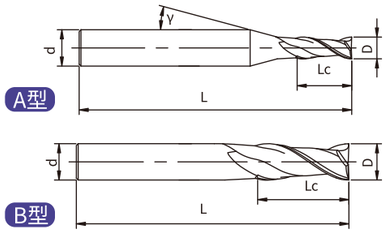
- Model No:UC-S4-10025
- Specification:D10*25*75*d10
- Workpiece material:H13（45HRC）
- Cutting speed:2600RPM
- Feed rate:400mm/min
- Way of cutting: side milling
- ap, ae:ap=10mm，ae=0.5mm
- Coolant:Gas



UC-S2
2刃平头通用加工立铣刀
2 flute，square endmill for general machining







订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
UC-S2-01003	1	3	50	4	A	●
UC-S2-01504	1.5	4	50	4	A	●
UC-S2-02006	2	6	50	4	A	●
UC-S2-02508	2.5	8	50	4	A	●
UC-S2-03009	3	9	50	4	A	●
UC-S2-63009	3	9	50	6	A	●
UC-S2-03509	3.5	9	50	4	A	●
UC-S2-63509	3.5	9	50	6	A	●
UC-S2-04011	4	11	50	4	B	●
UC-S2-64011	4	11	50	6	A	●
UC-S2-05013	5	13	50	6	A	●
UC-S2-06016	6	16	50	6	B	●
UC-S2-08020	8	20	60	8	B	●
UC-S2-10025	10	25	75	10	B	●
UC-S2-12030	12	30	75	12	B	●
UC-S2-14034	14	34	100	14	B	●
UC-S2-16036	16	36	100	16	B	●
UC-S2-18040	18	40	100	18	B	●
UC-S2-20045	20	45	100	20	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○		○	

◎ 最适合 Most Suitable ○ 适合 Suitable

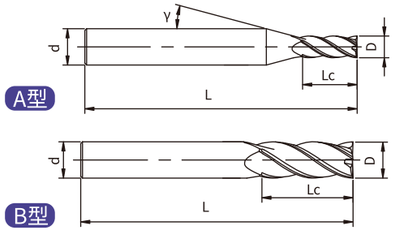
推荐切削参数P137

UC-S4

4刃平头通用加工立铣刀

4 flute, square endmill for general machining





硬质合金 | 4 | AlCrSiN | 45°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
UC-S4-01003	1	3	50	4	A	●
UC-S4-01505	1.5	5	50	4	A	●
UC-S4-02006	2	6	50	4	A	●
UC-S4-02508	2.5	8	50	4	A	●
UC-S4-03009	3	9	50	4	A	●
UC-S4-63009	3	9	50	6	A	●
UC-S4-03509	3.5	9	50	4	A	●
UC-S4-04011	4	11	50	4	B	●
UC-S4-64011	4	11	50	6	A	●
UC-S4-05013	5	13	50	6	A	●
UC-S4-06016	6	16	50	6	B	●
UC-S4-07020	7	20	60	8	A	●
UC-S4-08020	8	20	60	8	B	●
UC-S4-09023	9	23	75	10	A	●
UC-S4-10025	10	25	75	10	B	●
UC-S4-12030	12	30	75	12	B	●
UC-S4-14034	14	34	100	14	B	●
UC-S4-16036	16	36	100	16	B	●
UC-S4-18045	18	45	100	18	B	●
UC-S4-20045	20	45	100	20	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○		○	

◎ 最适合 Most Suitable ○ 适合 Suitable

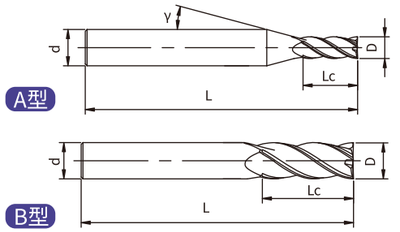
推荐切削参数P138

UC-SH4

4刃长柄平头通用加工立铣刀

4 flute, square long shank endmill for general machining





硬质合金 | 4 | AlCrSiN | 45°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
UC-SH4-03012	3	12	75	4	A	●
UC-SH4-04015	4	15	75	4	B	●
UC-SH4-06020	6	20	75	6	B	●
UC-SH4-06020-100	6	20	100	6	B	●
UC-SH4-08020-75	8	20	75	8	B	●
UC-SH4-08025	8	25	100	8	B	●
UC-SH4-10030	10	30	100	10	B	●
UC-SH4-12035	12	35	100	12	B	●
UC-SH4-14040	14	40	100	14	B	●
UC-SH4-16050	16	50	150	16	B	●
UC-SH4-20055	20	55	150	20	B	●

外径D	公差 Tol.
D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○		○	

◎ 最适合 Most Suitable ○ 适合 Suitable

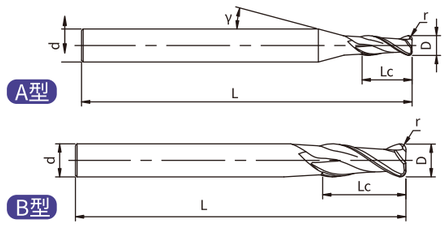
推荐切削参数P138

UC-R2

2刃圆角头通用加工立铣刀

2 flute，corner radius endmill for general machining





硬质合金 | 2 | AlCrSiN | 35°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	圆角(r) Corner	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
UC-R2-02002	2	6	0.2	50	4	A	●
UC-R2-03005	3	9	0.5	50	4	A	●
UC-R2-04005	4	11	0.5	50	4	B	●
UC-R2-05005	5	13	0.5	50	6	A	●
UC-R2-06005	6	16	0.5	50	6	B	●
UC-R2-06010	6	16	1	50	6	B	●
UC-R2-08005	8	20	0.5	60	8	B	●
UC-R2-08010	8	20	1	60	8	B	●
UC-R2-10005	10	25	0.5	75	10	B	●
UC-R2-10010	10	25	1	75	10	B	●
UC-R2-10020	10	25	2	75	10	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D＞12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels ＜45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels ＞65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○		○	

◎ 最适合 Most Suitable ○ 适合 Suitable

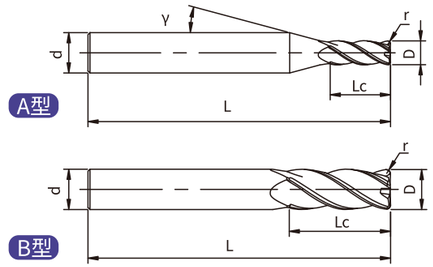
推荐切削参数P137

UC-R4

4刃圆角头通用加工立铣刀

4 flute，corner radius endmill for general machining





硬质合金 | 4 | AlCrSiN | 45°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	圆角(r) Corner	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
UC-R4-01002	1	3	0.2	50	4	A	●
UC-R4-01502	1.5	5	0.2	50	4	A	●
UC-R4-02002	2	6	0.2	50	4	A	●
UC-R4-03002	3	9	0.2	50	4	A	●
UC-R4-03005	3	9	0.5	50	4	A	●
UC-R4-04002	4	11	0.2	50	4	B	●
UC-R4-04003	4	11	0.3	50	4	B	●
UC-R4-04005	4	11	0.5	50	4	B	●
UC-R4-04010	4	11	1.0	50	4	B	●
UC-R4-05005	5	13	0.5	50	6	A	●
UC-R4-05010	5	13	1.0	50	6	A	●
UC-R4-06002	6	16	0.2	50	6	B	●
UC-R4-06003	6	16	0.3	50	6	B	●
UC-R4-06005	6	16	0.5	50	6	B	●
UC-R4-06010	6	16	1.0	50	6	B	●
UC-R4-08005	8	20	0.5	60	8	B	●
UC-R4-08010	8	20	1.0	60	8	B	●
UC-R4-10005	10	25	0.5	75	10	B	●
UC-R4-10010	10	25	1.0	75	10	B	●
UC-R4-10020	10	25	2.0	75	10	B	●
UC-R4-10030	10	25	3.0	75	10	B	●
UC-R4-12005	12	30	0.5	75	12	B	●
UC-R4-12010	12	30	1	75	12	B	●
UC-R4-12020	12	30	2	75	12	B	●
UC-R4-12030	12	30	3	75	12	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D＞12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels ＜45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels ＞65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○		○	

◎ 最适合 Most Suitable ○ 适合 Suitable

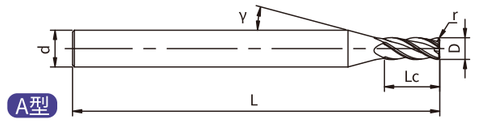
推荐切削参数P138

UC-RH4

4刃长柄圆角头通用加工立铣刀

4 flute, corner radius, long shank endmill for general machining





硬质合金 | 4 | AlCrSiN | 35°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	圆角(r) Corner	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
UC-RH4-04002	4	11	0.2	75	4	B	●
UC-RH4-04005	4	11	0.5	75	4	B	●
UC-RH4-06005	6	16	0.5	75	6	B	●
UC-RH4-06005-100	6	16	0.5	100	6	B	●
UC-RH4-06010	6	16	1.0	75	6	B	●
UC-RH4-06010-100	6	16	1.0	100	6	B	●
UC-RH4-08005-75	8	20	0.5	75	8	B	●
UC-RH4-08010-75	8	20	1.0	75	8	B	●
UC-RH4-08005	8	20	0.5	100	8	B	●
UC-RH4-08010	8	20	1.0	100	8	B	●
UC-RH4-10005	10	25	0.5	100	10	B	●
UC-RH4-10010	10	25	1.0	100	10	B	●
UC-RH4-10020	10	25	2.0	100	10	B	●
UC-RH4-12005	12	30	0.5	100	12	B	●
UC-RH4-12010	12	30	1.0	100	12	B	●
UC-RH4-12020	12	30	2.0	100	12	B	●
UC-RH4-16010	16	45	1.0	100	16	B	●
UC-RH4-16020	16	45	2.0	100	16	B	●

外径D	公差 Tol.
D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○		○	

◎ 最适合 Most Suitable ○ 适合 Suitable

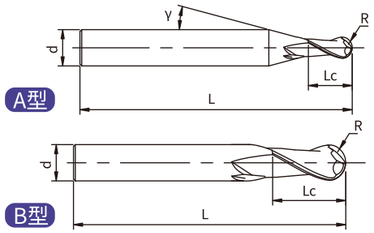
推荐切削参数P138

UC-B2

2刃球头通用加工立铣刀

2 flute, ball nose endmill for general machining





硬质合金 | 2 | AlCrSiN | 30°

订货号 Ordering Code	外径(D) Mill Dia.	球半径(R) Ball Radius	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
UC-B2-01002	1	0.5	2	50	4	A	●
UC-B2-01503	1.5	0.75	3	50	4	A	●
UC-B2-02004	2	1	4	50	4	A	●
UC-B2-02505	2.5	1.25	5	50	4	A	●
UC-B2-03006	3	1.5	6	50	4	A	●
UC-B2-03507	3.5	1.75	7	50	4	A	●
UC-B2-04008	4	2	8	50	4	B	●
UC-B2-05010	5	2.5	10	50	6	A	●
UC-B2-06012	6	3	12	50	6	B	●
UC-B2-07014	7	3.5	14	60	8	A	●
UC-B2-08014	8	4	14	60	8	B	●
UC-B2-09016	9	4.5	16	75	10	A	●
UC-B2-10018	10	5	18	75	10	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

球半径R	公差 Tol.
R≤1.5	0 -0.01
1.5<R<3	0 -0.015
R≥3	0 -0.02

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○		○	

◎ 最适合 Most Suitable ○ 适合 Suitable

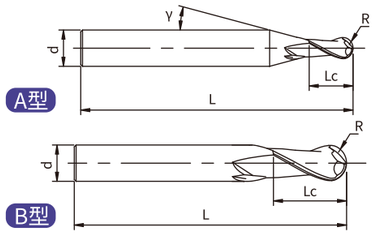
推荐切削参数P138

UC-BH2 2刃长柄球头通用加工立铣刀

2 flute, ball nose, long shank endmill for general machining



硬质合金 | 2 | AlCrSiN | 30°



订货号 Ordering Code	外径(D) Mill Dia.	球半径 (R) Ball Radius	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
UC-BH2-04008	4	2	8	75	4	B	●
UC-BH2-04008-100	4	2	8	100	4	B	●
UC-BH2-06012	6	3	12	75	6	B	●
UC-BH2-06012-100	6	3	12	100	6	B	●
UC-BH2-08014	8	4	14	75	8	B	●
UC-BH2-08014-100	8	4	14	100	8	B	●
UC-BH2-10018	10	5	18	100	10	B	●
UC-BH2-12022	12	6	22	100	12	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

球半径R	公差 Tol.
R≤1.5	0 -0.01
1.5＜R＜3	0 -0.015
R≥3	0 -0.02

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels ＜45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels ＞65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○		○	

◎ 最适合 Most Suitable ○ 适合 Suitable

推荐切削参数P138

UR系列

普通钢粗加工立铣刀

UR series endmill for steel rough machining



独特的波形刃设计，使得切削更细小，排屑更顺畅
Special wave flute design, makes small chip and smooth chip exhausting

采用大螺旋角+U型槽设计，提高刀具加工稳定性
Big helix angle + U groove design, increases machining stability

高性能超细晶基体配合高性能AlCrSiN涂层，耐高温，耐磨损，在重载粗加工况也能轻松驾驭
High performance ultra fine substrate, together with high performance AlCrSiN coating, good heat resistance and wear resistance. Also suitable for heavy roughing

- 刀具型号：UR-S4-10005
- 刀具规格：D10*C0.3*25*75*d10
- 加工材料：45#（180HB）
- 切削速度：5500RPM
- 进给速度：600mm/min
- 切削方式：槽铣
- 切削量：ap=6mm，ae=10mm
- 冷却方式：水基乳化液
- Model No:UR-S4-10005
- Specification:D10*C0.3*25*75*d10
- Workpiece material:45#（180HB）
- Cutting speed:5500RPM
- Feed rate:600mm/min
- Way of cutting:slotting
- ap, ae: ap=6mm，ae=10mm
- Coolant:emulsion





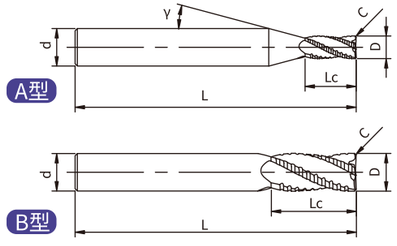
UR-S4

4刃粗加工平头立铣刀

4 flute，square endmill for rough machining







订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	刃尖倒角(C) Chamfer	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
UR-S4-06016	6	16	0.2	50	6	B	●
UR-S4-08020	8	20	0.2	60	8	B	●
UR-S4-10025	10	25	0.3	75	10	B	●
UR-S4-12030	12	30	0.3	75	12	B	●
UR-S4-16036	16	36	0.4	100	16	B	●
UR-S4-20045	20	45	0.5	100	20	B	●

● 标准库存 Stock　○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤6	0 -0.03
6＜D≤10	0 -0.04
D＞10	0 -0.05

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels ＜45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels ＞65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○			

◎ 最适合 Most Suitable　○ 适合 Suitable

推荐切削参数P139

UN系列

普通钢断屑齿粗加工立铣刀

UN series endmill for steel roughing



- 适用于普通钢、铸铁材料（≤48HRC）的大切深、大切宽粗加工、半精加工
  Suitable for semi-finishing, roughing with big ap. ae. on steel, cast iron (≤48HRC)
- 独特的断屑齿+大容屑槽设计，使切屑更小，排屑更顺畅，表面质量更高
  Special chip breaker+big chip pocket design, makes small chip and smooth chip exhausting, so as to get better surface quality
- 高性能超细晶基体配合高性能AlCrSiN涂层，耐高温，耐磨损
  High performance ultra fine substrate, together with high performance AlCrSiN coating, good heat resistance and wear resistance

- 刀具型号：UN-S4-10005
- 刀具规格：D10*C0.3*25*75*d10
- 加工材料：4140（30HRC）
- 切削速度：4000RPM
- 进给速度：900mm/min
- 切削方式：侧铣
- 切削量：ap=6mm，ae=10mm
- 冷却方式：油雾

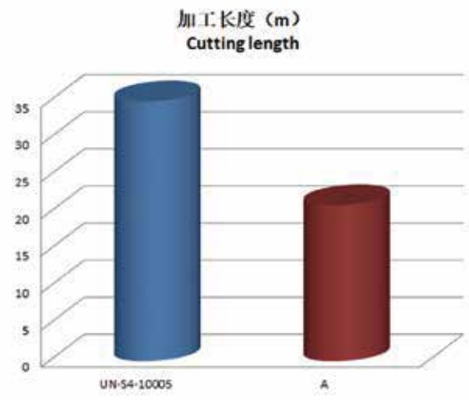
- Model No:UN-S4-10005
- Specification:D10*C0.3*25*75*d10
- Workpiece material:4140（30HRC）
- Cutting speed:4000RPM
- Feed rate:900mm/min
- Way of cutting:side milling
- ap, ae: ap=6mm，ae=10mm
- Coolant:Oil mist



UN-S4-10005



A



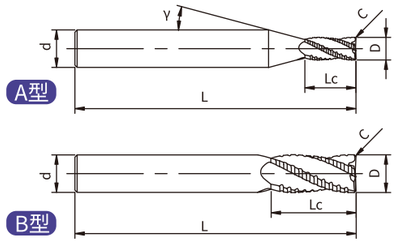
UN-S4

4刃粗加工平头立铣刀

4 flute，square endmill for rough machining



硬质合金 | 4 | AlCrSiN | 45°



订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	刃尖倒角(C) Chamfer	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
UN-S4-06016	6	16	0.2	50	6	B	●
UN-S4-08020	8	20	0.2	60	8	B	●
UN-S4-10025	10	25	0.3	75	10	B	●
UN-S4-12030	12	30	0.3	75	12	B	●
UN-S4-16036	16	36	0.4	100	16	B	●
UN-S4-20045	20	45	0.5	100	20	B	●

● 标准库存 Stock　○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤6	0 -0.03
6<D≤10	0 -0.04
D>10	0 -0.05

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○			

◎ 最适合 Most Suitable　○ 适合 Suitable

推荐切削参数P140

X系列

普通钢高效加工立铣刀

X series endmill for steel high efficiency machining



加工材料范围广

Suitable for wide range of workpiece

◎ 变槽深设计，兼顾刀具刚性及容屑空间，适用于大切深、大切宽的高效加工
Variable groove depth design considering both tool rigidity and chip pocket, good for high efficient machining with big cutting depth & width

加工工况广

Suitable for wide range of application

◎ 适用于小切深、大切宽的面铣；大切深、小切宽的侧铣；同时适用于小于0.5D的浅槽铣
Suitable for facing milling under small ap & big ae, side milling under big ap & small ae, and slotting under condition of less than 0.5D

基体涂层优势

Substrate coating strength

◎ 高性能的超细晶基体，保证刀具兼具高耐磨性及高韧性
High performance ultra-fine substrate guarantees good wear and toughness

◎ 采用Balzers最新一代涂层炉KiLA配合自主研发高性能AlCrSiN涂层
Use the latest Kila coatingfurnace from Balzers, with AlCr series coating

刀型结构

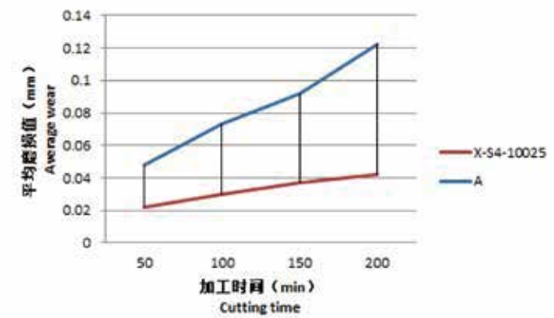
Geometry structure

◎ 采用不等齿距，不等螺旋分割设计，减震性能优越
Use variable pitch & helix design; Excellent vibration reduction performance

- 刀具型号：X-S4-10005
- 刀具规格：D10*25*75*d10
- 加工材料：Q235A（HB200）
- 切削速度：5100RPM
- 进给速度：1600mm/min
- 切削方式：侧铣
- 切削量：ap=12mm，ae=0.15m
- 冷却方式：水基乳化液

- Model No:X-S4-10005
- Specification:D10*25*75*d10
- Workpiece material:Q235A（HB200）
- Cutting speed:1600mm/min
- Feed rate:2000mm/min
- Way of cutting:Side milling
- ap, ae:ap=12mm，ae=0.15m
- Coolant:Emulsion





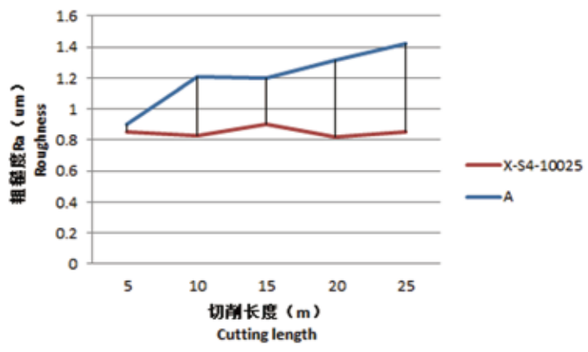
刀具磨损趋势变化对比

Comparison of tool wear trend

- 刀具型号：X-BH2-08014
- 刀具规格：R4*14*75*d8
- 加工材料：718（38HRC）
- 切削速度：8000RPM
- 进给速度：4500mm/min
- 切削方式：仿形铣
- 切削量：ap=0.15mm，ae=0.15mm
- 冷却方式：油雾冷却

- Model No:X-BH2-08014
- Specification:R4*14*75*d8
- Workpiece material:718（38HRC）
- Cutting speed:8000RPM
- Feed rate:4500mm/min
- Way of cutting: Profile milling
- ap, ae:ap=0.15mm，ae=0.15mm
- Coolant:Oil mist





被加工表面粗糙度测试

Workpiece surface roughness test

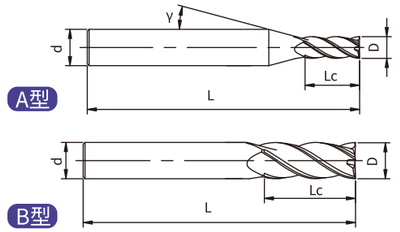
X-S3

3刃平头变螺旋高效加工立铣刀

3 flute，square variabe helix endmill for high efficiency machining







订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
X-S3-03009	3	9	50	4	A	●
X-S3-04011	4	11	50	4	B	●
X-S3-05013	5	13	50	6	B	●
X-S3-06016	6	16	50	6	B	●
X-S3-08020	8	20	60	8	B	●
X-S3-10025	10	25	75	10	B	●
X-S3-12030	12	30	75	12	B	●
X-S3-16036	16	36	100	16	B	●
X-S3-20045	20	45	100	20	B	●

● 标准库存 Stock　○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D＞12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels ＜45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels ＞65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○			

◎ 最适合 Most Suitable　○ 适合 Suitable

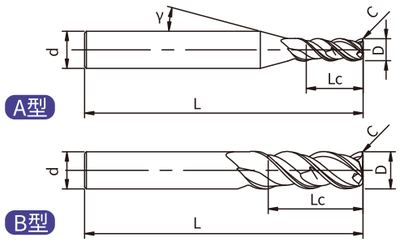
推荐切削参数P141

X-C3

3刃平头双螺旋高效加工立铣刀（刀尖倒角）

3 flute，square variabe helix endmill for high efficiency machining（chamfer）





硬质合金 | 3 | AlCrSiN | 43° 45° 47°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	刃尖倒角(C) Chamfer	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
X-C3-06020	6	16	0.2	50	6	B	●
X-C3-08020	8	20	0.2	60	8	B	●
X-C3-10030	10	25	0.3	75	10	B	●
X-C3-12030	12	30	0.3	75	12	B	●
X-C3-16030	16	36	0.3	100	16	B	●

● 标准库存 Stock　○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D＞12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels ＜45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels ＞65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○			

◎ 最适合 Most Suitable　○ 适合 Suitable

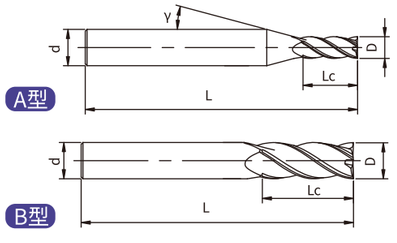
推荐切削参数P141

X-S4

4刃平头双螺旋高效加工立铣刀

4 flute，square variabe helix endmill for high efficiency machining





硬质合金 | 4 | AlCrSiN | 35°/38°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
X-S4-02006	2	6	50	4	A	●
X-S4-03009	3	9	50	4	A	●
X-S4-04011	4	11	50	4	B	●
X-S4-05013	5	13	50	6	A	●
X-S4-06016	6	16	50	6	B	●
X-S4-08020	8	20	60	8	B	●
X-S4-10025	10	25	75	10	B	●
X-S4-12030	12	30	75	12	B	●
X-S4-16036	16	36	100	16	B	●
X-S4-20045	20	45	100	20	B	○

● 标准库存 Stock　○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D＞12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels ＜45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels ＞65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○			

◎ 最适合 Most Suitable　○ 适合 Suitable

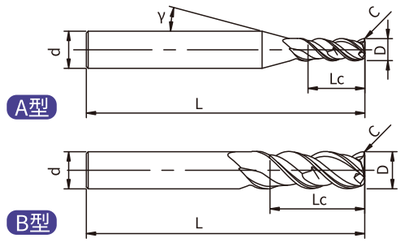
推荐切削参数P142

X-C4

4刃平头变螺旋高效加工立铣刀（刀尖倒角）

4 flute，square variabe helix endmill for high efficiency machining（chamfer）





硬质合金 | 4 | AlCrSiN | 35°/38°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	刃尖倒角(C) Chamfer	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
X-C4-03003	3	9	0.03	50	4	A	○
X-C4-03013	3	9	0.13	50	4	A	●
X-C4-04004	4	11	0.04	50	4	B	○
X-C4-04018	4	11	0.18	50	4	B	●
X-C4-05005	5	13	0.05	50	6	A	○
X-C4-05013	5	13	0.13	57	6	A	●
X-C4-05020	5	13	0.2	50	6	A	●
X-C4-06006	6	16	0.06	50	6	B	○
X-C4-06013	6	16	0.13	57	6	B	●
X-C4-06020	6	16	0.2	50	6	B	●
X-C4-08008	8	20	0.08	60	8	B	●
X-C4-08020	8	20	0.2	60	8	B	●
X-C4-10010	10	25	0.1	75	10	B	●
X-C4-10030	10	25	0.3	75	10	B	●
X-C4-12012	12	30	0.12	75	12	B	○
X-C4-12030	12	30	0.3	75	12	B	●
X-C4-16015	16	36	0.15	100	16	B	○
X-C4-16040	16	36	0.4	100	16	B	○
X-C4-20015	20	45	0.15	100	20	B	○
X-C4-20050	20	45	0.5	100	20	B	○

● 标准库存 Stock　○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D＞12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels ＜45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels ＞65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○			

◎ 最适合 Most Suitable　○ 适合 Suitable

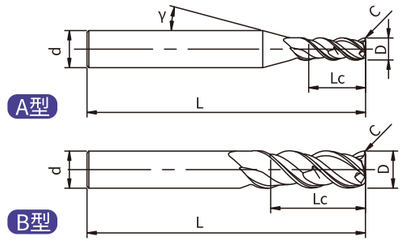
推荐切削参数P142

X-CN4

4刃长颈平头双螺旋高效加工立铣刀（刀尖倒角）

4 flute，square variabe helix endmill for high efficiency machining（chamfer）





硬质合金 | 4 | AlCrSiN | 35°/38°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	颈长(L1) Under Neck Length	颈径(d2) Neck Dia.	刃尖倒角(C) Chamfer	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
X-CN4-03013	3	10	18	2.9	0.13	75	4	A	○
X-CN4-04018	4	12	20	3.8	0.18	75	4	B	●
X-CN4-05020	5	15	35	4.8	0.2	75	6	B	●
X-CN4-06020	6	16	24	5.8	0.2	100	6	B	●
X-CN4-08020	8	20	30	7.5	0.2	100	8	B	○
X-CN4-10030	10	25	40	9.5	0.3	150	10	B	○
X-CN4-12030	12	30	40	11	0.3	150	12	B	○
X-CN4-16040	16	36	50	15	0.4	150	16	B	○
X-CN4-20050	20	45	60	19	0.5	150	20	B	○

● 标准库存 Stock　○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D＞12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels ＜45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels ＞65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○			

◎ 最适合 Most Suitable　○ 适合 Suitable

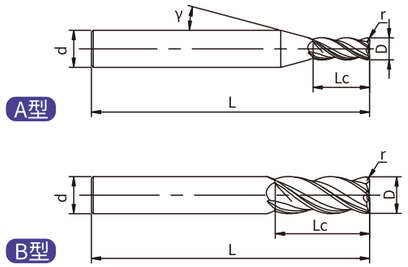
推荐切削参数P142

X-R4

4刃圆角头双螺旋高效加工立铣刀

4 flute, corner radius, variabe helix endmill for high efficiency machining





硬质合金 | 4 | AlCrSiN | 35°/38°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	圆角(r) Corner	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
X-R4-03003	3	9	0.3	50	4	A	○
X-R4-03005	3	9	0.5	50	4	A	●
X-R4-04003	4	11	0.3	50	4	B	●
X-R4-04005	4	11	0.5	50	4	B	●
X-R4-05003	5	13	0.3	50	6	A	○
X-R4-05005	5	13	0.5	50	6	A	●
X-R4-06005	6	16	0.5	50	6	B	●
X-R4-06010	6	16	1	50	6	B	●
X-R4-08005	8	20	0.5	60	8	B	●
X-R4-08010	8	20	1	60	8	B	●
X-R4-10005	10	25	0.5	75	10	B	●
X-R4-10010	10	25	1	75	10	B	●
X-R4-10020	10	25	2	75	10	B	●
X-R4-12005	12	30	0.5	75	12	B	○
X-R4-12010	12	30	1	75	12	B	●
X-R4-12020	12	30	2	75	12	B	○
X-R4-14020	14	32	2	75	14	B	○
X-R4-16020	16	36	2	100	16	B	○

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D＞12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels ＜45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels ＞65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○			

◎ 最适合 Most Suitable ○ 适合 Suitable

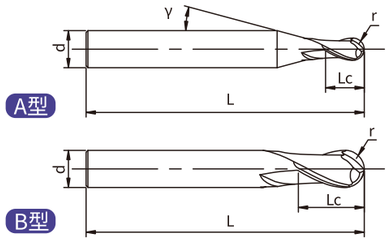
推荐切削参数P142

X-B2

2刃球头高速加工立铣刀

2 flute, ball nose endmill for high speed machining





硬质合金 | 2 | AlCrSiN | 30°

订货号 Ordering Code	外径(D) Mill Dia.	球半径 (R) Ball Radius	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
X-B2-01002	1	0.5	2	50	4	A	●
X-B2-01503	1.5	0.75	3	50	4	A	●
X-B2-02004	2	1	4	50	4	A	●
X-B2-03006	3	1.5	6	50	4	A	●
X-B2-04008	4	2	8	50	4	B	●
X-B2-06012	6	3	12	50	6	B	●
X-B2-08014	8	4	14	60	8	B	●
X-B2-10018	10	5	18	75	10	B	●
X-B2-11020	11	5.5	20	75	12	B	●
X-B2-12022	12	6	22	75	12	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

球半径R	公差 Tol.
R≤1.5	0 -0.01
1.5＜R＜3	0 -0.015
R≥3	0 -0.02

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels ＜45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels ＞65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○			

◎ 最适合 Most Suitable ○ 适合 Suitable

推荐切削参数P143

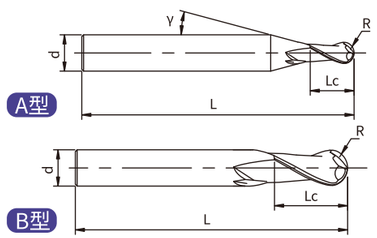
X-BH2

2刃长柄球头高速加工立铣刀

2 flute, ball nose, long shank endmill for high speed machining



硬质合金 | 2 | AlCrSiN | 30°



订货号 Ordering Code	外径(D) Mill Dia.	球半径(R) Ball Radius	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
X-BH2-04008	4	2	8	75	4	B	●
X-BH2-06012	6	3	12	60	6	B	●
X-BH2-06012H	6	3	12	75	6	B	●
X-BH2-08014	8	4	14	75	8	B	●
X-BH2-10018	10	5	18	100	10	B	●
X-BH2-12022	12	6	22	100	12	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

球半径R	公差 Tol.
R≤1.5	0 -0.01
1.5<R<3	0 -0.015
R≥3	0 -0.02

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	○			○			

◎ 最适合 Most Suitable ○ 适合 Suitable

推荐切削参数P143

UX系列

普通钢高效加工立铣刀

UX series endmill for steel high efficiency machining



U型槽设计，兼顾刀具刚性及容屑空间，适用于大切深、大切宽槽铣

U-shaped groove design, taking into account the rigidity of the tool and chip space, is suitable for groove milling with large cutting depth and width

底刃变分度+45°大螺旋角设计，减震性能优越，切削过程稳定

The bottom edge variable index+45 ° large spiral angle design has excellent shock absorption performance and stable cutting process

高性能的基体搭配AlCr系涂层，刀具兼具高耐磨性以及高韧性

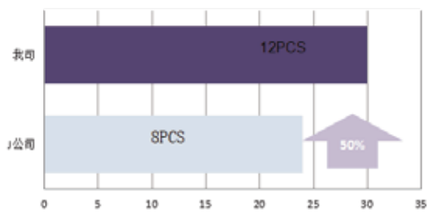
High performance matrix with AlCr coating, the tool has high wear resistance and high toughness

- 刀具型号：UX-S4-12030
- 刀具规格：D12*30*75*d12
- 加工材料：铸铁
- 加工参数：S=4krpm、F=2000mm/min、ap=28mm、ae=1mm
- 切削方式：动态侧铣
- 冷却方式：乳化液



- Model No:UX-S4-12030
- Specification:D12*30*75*d12
- Workpiece material:cast
- Processing parameters:S=4krpm、F=2000mm/min ap=28mm，ae=1mm
- Way of cutting:Dynamic side milling
- Coolant:emulsion

加工数量（PCS）

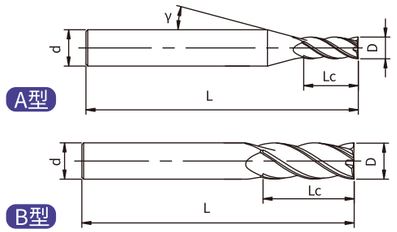


UX-S4

4刃平头普通钢高效加工立铣刀

4 flute，square endmill for steel high efficiency machining





硬质合金 | 4 | AlCrSiN | 45°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
UX-S4-01003	1	3	50	4	A	●
UX-S4-01505	1.5	5	50	4	A	●
UX-S4-61505	1.5	5	50	6	A	●
UX-S4-02006	2	6	50	4	A	●
UX-S4-62006	2	6	50	6	A	●
UX-S4-02508	2.5	8	50	4	A	●
UX-S4-62508	2.5	8	50	6	A	●
UX-S4-03009	3	9	50	4	A	●
UX-S4-63009	3	9	50	6	A	●
UX-S4-03511	3.5	11	50	4	A	●
UX-S4-63511	3.5	11	50	6	A	●
UX-S4-04011	4	11	50	4	B	●
UX-S4-64011	4	11	50	6	A	●
UX-S4-05013	5	13	50	6	A	●
UX-S4-06016	6	16	50	6	B	●
UX-S4-07020	7	20	60	8	A	●
UX-S4-08020	8	20	60	8	B	●
UX-S4-09023	9	23	75	10	A	●
UX-S4-10025	10	25	75	10	B	●
UX-S4-12030	12	30	75	12	B	●
UX-S4-14034	14	34	100	14	B	●
UX-S4-16036	16	36	100	16	B	●
UX-S4-18045	18	45	100	18	B	●
UX-S4-20045	20	45	100	20	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D＞12	0 -0.03

(mm)

工件材料 Workpiece Materials

铸铁 Cast	碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels ＜45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels ＞65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	石墨 Graphite	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	◎	○			○			○	

◎ 最适合 Most Suitable ○ 适合 Suitable

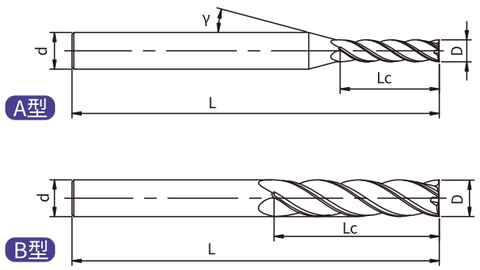
推荐切削参数P144

UX-SL4

4刃长刃平头普通钢高效加工立铣刀

4 flute，square long flute endmill for steel high efficiency machining





硬质合金 | 4 | AlCrSiN | 45°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
UX-SL4-01004	1	4	50	4	A	●
UX-SL4-02010	2	10	50	4	A	●
UX-SL4-03015	3	15	60	4	A	●
UX-SL4-63015	3	15	60	6	A	●
UX-SL4-04020	4	20	60	4	B	●
UX-SL4-64020	4	20	75	6	A	●
UX-SL4-05025	5	25	75	6	A	●
UX-SL4-06030	6	30	75	6	B	●
UX-SL4-08040	8	40	100	8	B	●
UX-SL4-10050	10	50	100	10	B	●
UX-SL4-12050	12	50	100	12	B	●
UX-SL4-14045	14	45	100	14	B	●
UX-SL4-16060	16	60	150	16	B	●
UX-SL4-18070	18	70	150	18	B	●
UX-SL4-20070	20	70	150	20	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D＞12	0 -0.03

(mm)

工件材料 Workpiece Materials

铸铁 Cast	碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels ＜45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels ＞65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	石墨 Graphite	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	◎	○			○			○	

◎ 最适合 Most Suitable ○ 适合 Suitable

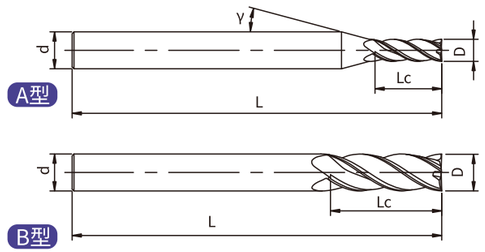
推荐切削参数P144

UX-SH4

4刃长柄平头普通钢高效加工立铣刀

4 flute，square long shank endmill for steel high efficiency machining





硬质合金 | 4 | AlCrSiN | 45°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
UX-SH4-02010	2	10	75	4	A	●
UX-SH4-03012	3	12	75	4	A	●
UX-SH4-04011	4	11	75	4	B	●
UX-SH4-04015	4	15	75	4	B	●
UX-SH4-05020	5	20	75	6	A	●
UX-SH4-06016	6	16	75	6	B	●
UX-SH4-06020	6	20	75	6	B	●
UX-SH4-08020	8	20	100	8	B	●
UX-SH4-08025	8	25	100	8	B	●
UX-SH4-10030	10	30	100	10	B	●
UX-SH4-10035	10	35	100	10	B	●
UX-SH4-12035	12	35	100	12	B	●
UX-SH4-14036	14	36	150	14	B	●
UX-SH4-16036	16	36	150	16	B	●
UX-SH4-18045	18	45	150	18	B	●
UX-SH4-20045	20	45	150	20	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D＞12	0 -0.03

(mm)

工件材料 Workpiece Materials

铸铁 Cast	碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels ＜45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels ＞65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	石墨 Graphite	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	◎	○			○			○	

◎ 最适合 Most Suitable ○ 适合 Suitable

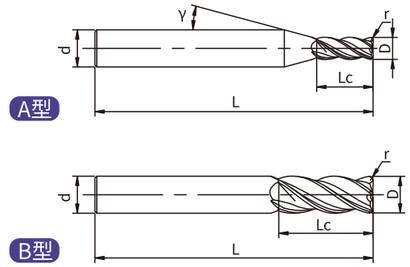
推荐切削参数P144

UX-R4

4刃圆角头普通钢高效加工立铣刀

4 flute，corner radius endmill for steel high efficiency machining





硬质合金 | 4 | AlCrSiN | 45°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	圆角(r) Corner	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
UX-R4-01502	1.5	5	0.2	50	4	A	●
UX-R4-02002	2	6	0.2	50	4	A	●
UX-R4-03002	3	9	0.2	50	4	A	●
UX-R4-03005	3	9	0.5	50	4	A	●
UX-R4-04002	4	11	0.2	50	4	B	●
UX-R4-04005	4	11	0.5	50	4	B	●
UX-R4-04010	4	11	1	50	4	B	●
UX-R4-05005	5	13	0.5	50	6	A	●
UX-R4-05010	5	13	1	50	6	A	●
UX-R4-06002	6	16	0.2	50	6	B	●
UX-R4-06005	6	16	0.5	50	6	B	●
UX-R4-06010	6	16	1	50	6	B	●
UX-R4-08005	8	20	0.5	60	8	B	●
UX-R4-08010	8	20	1	60	8	B	●
UX-R4-10005	10	25	0.5	75	10	B	●
UX-R4-10010	10	25	1	75	10	B	●
UX-R4-10020	10	25	2	75	10	B	●
UX-R4-12005	12	30	0.5	75	12	B	●
UX-R4-12010	12	30	1	75	12	B	●
UX-R4-12020	12	30	2	75	12	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D＞12	0 -0.03

(mm)

工件材料 Workpiece Materials

铸铁 Cast	碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels ＜45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels ＞65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	石墨 Graphite	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	◎	○			○			○	

◎ 最适合 Most Suitable ○ 适合 Suitable

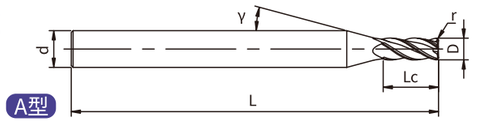
推荐切削参数P144

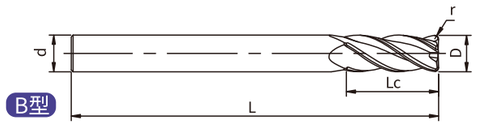
UX-RH4

4刃长柄圆角头普通钢高效加工立铣刀

4 flute corner radius, with long shank length endmill for steel high efficiency machining









订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	圆角(r) Corner	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
UX-RH4-03005	3	9	0.5	75	4	A	●
UX-RH4-04005	4	11	0.5	75	4	B	●
UX-RH4-06005	6	16	0.5	75	6	B	●
UX-RH4-06010	6	16	1	75	6	B	●
UX-RH4-08005	8	20	0.5	100	8	B	●
UX-RH4-08010	8	20	1	100	8	B	●
UX-RH4-10005	10	25	0.5	100	10	B	●
UX-RH4-10010	10	25	1	100	10	B	●
UX-RH4-10020	10	25	2	100	10	B	●
UX-RH4-12005	12	30	0.5	100	12	B	●
UX-RH4-12010	12	30	1	100	12	B	●
UX-RH4-12020	12	30	2	100	12	B	●
UX-RH4-16005	16	36	0.5	150	16	B	●
UX-RH4-16010	16	36	1	150	16	B	●
UX-RH4-16020	16	36	2	150	16	B	●
UX-RH4-20010	20	45	1	150	20	B	●
UX-RH4-20020	20	45	2	150	20	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

铸铁 Cast	碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	石墨 Graphite	铜合金 Copper alloy	铝合金 Aluminium alloy
◎	◎	◎	○			○			○	

◎ 最适合 Most Suitable ○ 适合 Suitable

推荐切削参数P144

H系列

高硬钢加工立铣刀

H series endmill for hardened steel machining



可加工材料硬度高

Suitable for high hardness workpiece

◎ 可用于45~60HRC预硬化钢、淬火钢、高硬钢的半精加工、精加工
Suitable for semi-finishing, finishing of pre-hardened steel, hardened steel, and high speed steel

加工工况广

Suitable for wide range of application

◎ 适用普通加工、高速加工、部分高效加工、可加工注塑模具、锻造模具、压铸模具等
Suitable for general machining, high speed machining and part of high efficient machining, Used on injection mould, forging die and die-casting mould

基体涂层优势

Substrate coating strength

◎ 超高性能的超细晶和超高硬度基体
High performance, ultra-fine and super hard substrate.

◎ 采用Balzers最新一代涂层炉KiLA配合自主研发TiAlSICrN系涂层，使用稳定、耐高温、耐磨损
Use the latest Kila coating furnace from Balzers, with our self-developed TiAlCrSiN

刀型结构

Geometry structure

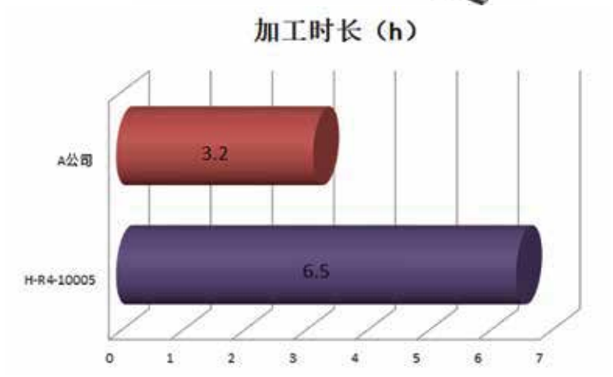
◎ 独特的槽型设计、精细磨削切削刃，实现卓越的高硬钢材料加工
Unique geometry design, fine grinded cutting edge, enable excellent processing on hardened steel

“全新技术，让切削更简单”
New technology makes cutting easier

- 刀具型号：H-R4-10005
- 刀具规格：D10*R0.5*25*75*d10
- 加工材料：SKD61（52HRC）
- 切削速度：3800RPM
- 进给速度：1200mm/min
- 切削方式：侧铣、面铣
- 切削量：面铣 ap=0.03mm ae=5mm
  侧铣 ap=0.1mm ae=0.05mm
- 冷却方式：水基乳化液

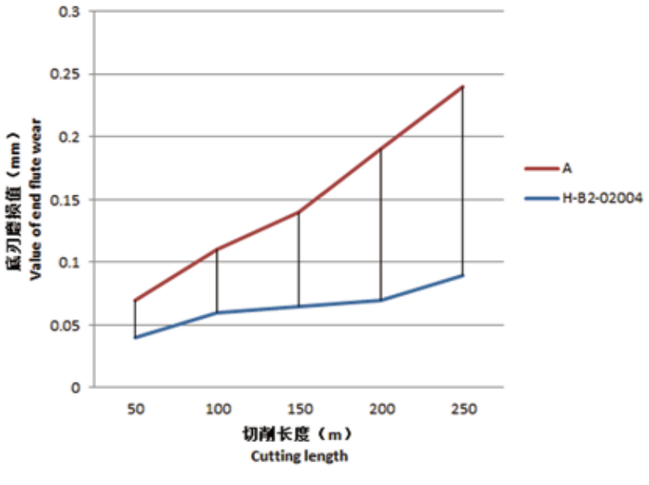
- Model No:H-R4-10005
- Specification:D10*R0.5*25*75*d10
- Workpiece material:SKD61（52HRC）
- Cutting speed:3800RPM
- Feed rate:1200mm/min
- Way of cutting:Side milling, face milling
- ap, ae:face milling ap=0.03mm ae=5mm
  side milling ap=0.1mm，ae=0.05mm
- Coolant:Emulsion





- 刀具型号：H-B2-02004
- 刀具规格：R1*4*50*d4
- 加工材料：SKD11（60HRC）
- 切削速度：20000RPM
- 进给速度：2000mm/min
- 切削方式：面铣
- 切削量：ap=0.1mm，ae=0.3mm
- 冷却方式：油雾

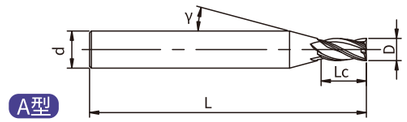
- Model No:H-B2-02004
- Specification:R1*4*50*d4
- Workpiece material:SKD11（60HRC）
- Cutting speed:20000RPM
- Feed rate:2000mm/min
- Way of cutting: face milling
- ap, ae:ap=0.1mm，ae=0.3mm
- Coolant:oil mist

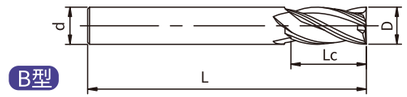


H-S4

4刃平头高硬钢加工立铣刀
4 flute，square endmill for hardened steel machining









订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
H-S4-01003	1	3	50	4	A	●
H-S4-01504	1.5	4	50	4	A	●
H-S4-02006	2	6	50	4	A	●
H-S4-62006	2	6	50	6	A	●
H-S4-02508	2.5	8	50	4	A	●
H-S4-03008	3	8	50	4	A	●
H-S4-63008	3	8	50	6	A	●
H-S4-04011	4	11	50	4	B	●
H-S4-64011	4	11	50	6	A	●
H-S4-05013	5	13	50	6	A	●
H-S4-06016	6	16	50	6	B	●
H-S4-08020	8	20	60	8	B	●
H-S4-10025	10	25	75	10	B	●
H-S4-12030	12	30	75	12	B	●
H-S4-14032	14	32	100	14	B	●
H-S4-16040	16	40	100	16	B	●
H-S4-20045	20	45	100	20	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤6	0 -0.01
6<D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
○	◎	◎	○				○	

◎ 最适合 Most Suitable ○ 适合 Suitable

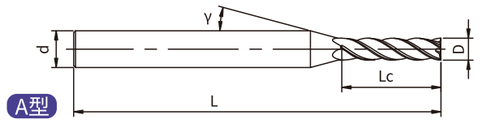
推荐切削参数P145

H-SL4

4刃长刃平头高硬钢加工立铣刀

4 flute，square long flute endmill for hardened steel machining





硬质合金 | 4 | TiAlCrSiN | 30°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
H-SL4-03012	3	12	75	6	A	●
H-SL4-04015	4	15	75	6	A	●
H-SL4-05020	5	20	75	6	A	●
H-SL4-06020	6	20	75	6	B	●
H-SL4-08025	8	25	100	8	B	●
H-SL4-10030	10	30	100	10	B	●
H-SL4-12035	12	35	100	12	B	●
H-SL4-14040	14	40	100	14	B	●
H-SL4-16050	16	50	150	16	B	●
H-SL4-20055	20	55	150	20	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤6	0 -0.01
6<D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
○	◎	◎	○				○	

◎ 最适合 Most Suitable ○ 适合 Suitable

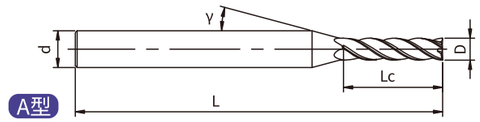
推荐切削参数P145

H-S6

6刃平头高硬钢加工立铣刀

6 flute，square endmill for hardened steel machining





硬质合金 | 6 | TiAlCrSiN | 45°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
H-S6-06018	6	18	50	6	B	●
H-S6-08020	8	20	60	8	B	●
H-S6-10030	10	30	75	10	B	●
H-S6-12032	12	32	75	12	B	●
H-S6-16040	16	40	100	16	B	●
H-S6-20045	20	45	100	20	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤6	0 -0.01
6<D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
○	◎	◎	○				○	

◎ 最适合 Most Suitable ○ 适合 Suitable

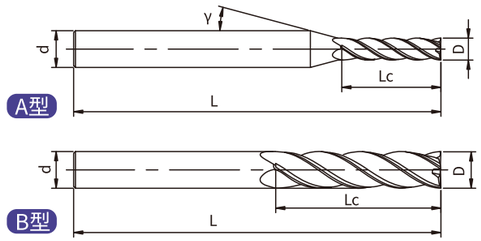
推荐切削参数P147

H-SL6

6刃长刃平头高硬钢加工立铣刀

6 flute，square long flute endmill for hardened steel machining





硬质合金 | 6 | TiAlCrSiN | 45°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
H-SL6-06024	6	24	75	6	B	●
H-SL6-08032	8	32	75	8	B	●
H-SL6-10040	10	40	100	10	B	●
H-SL6-12045	12	45	100	12	B	●
H-SL6-16064	16	64	150	16	B	●
H-SL6-20075	20	75	150	20	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤6	0 -0.01
6<D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels ＜45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels ＞65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
○	◎	◎	○				○	

◎ 最适合 Most Suitable ○ 适合 Suitable

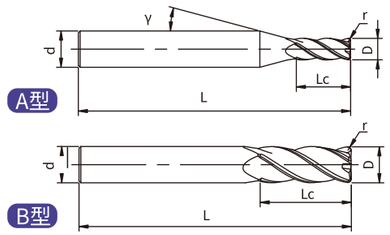
推荐切削参数P147

H-R4

4刃圆角头高硬钢加工立铣刀

4 flute，corner radius endmill for hardened steel machining





硬质合金 | 4 | TiAlCrSiN | 30°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	圆角(r) Corner	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
H-R4-01002	1	2.5	0.2	50	4	A	●
H-R4-01502	1.5	4	0.2	50	4	A	●
H-R4-02002	2	5	0.2	50	4	A	●
H-R4-02005	2	5	0.2	50	4	A	●
H-R4-03002	3	8	0.2	50	4	A	●
H-R4-03005	3	8	0.5	50	4	A	●
H-R4-04002	4	10	0.2	50	4	B	●
H-R4-04003	4	10	0.3	50	4	B	●
H-R4-04005	4	10	0.5	50	4	B	●
H-R4-04010	4	10	1.0	50	4	B	●
H-R4-05005	5	13	0.5	50	6	A	●
H-R4-06005	6	16	0.5	50	6	B	●
H-R4-06010	6	16	1.0	50	6	B	●
H-R4-08005	8	20	0.5	60	8	B	●
H-R4-08010	8	20	1.0	60	8	B	●
H-R4-10005	10	25	0.5	75	10	B	●
H-R4-10010	10	25	1.0	75	10	B	●
H-R4-12005	12	30	0.5	75	12	B	●
H-R4-12010	12	30	1.0	75	12	B	●
H-R4-12020	12	30	2.0	75	12	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤6	0 -0.01
6<D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels ＜45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels ＞65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
○	◎	◎	○				○	

◎ 最适合 Most Suitable ○ 适合 Suitable

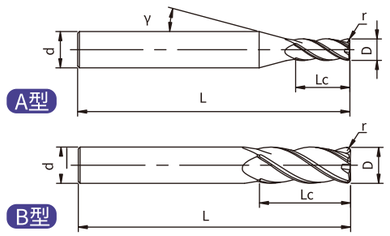
推荐切削参数P145

H-RH4

4刃长柄圆角头高硬钢加工立铣刀

4 flute，corner radius long shank endmill for hardened steel machining





硬质合金 | 4 | TiAlCrSiN | 30°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	圆角(r) Corner	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
H-RH4-04002	4	10	0.2	75	4	B	●
H-RH4-04003	4	10	0.3	75	4	B	●
H-RH4-04005	4	10	0.5	75	4	B	●
H-RH4-04010	4	10	1.0	75	4	B	●
H-RH4-06005	6	16	0.5	75	6	B	●
H-RH4-06010	6	16	1.0	75	6	B	●
H-RH4-08005	8	20	0.5	75	8	B	●
H-RH4-08010	8	20	1.0	75	8	B	●
H-RH4-08005-100	8	20	0.5	100	8	B	●
H-RH4-08010-100	8	20	1.0	100	8	B	●
H-RH4-10005	10	25	0.5	100	10	B	●
H-RH4-10010	10	25	1.0	100	10	B	●
H-RH4-12005	12	30	0.5	100	12	B	●
H-RH4-12010	12	30	1.0	100	12	B	●
H-RH4-12020	12	30	2.0	100	12	B	●

● 标准库存 Stock　○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤6	0 -0.01
6<D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
○	◎	◎	○				○	

◎ 最适合 Most Suitable　○ 适合 Suitable

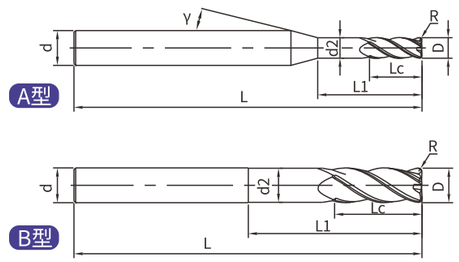
推荐切削参数P145

H-RN4

4刃长颈圆角头高硬钢加工立铣刀

4 flute，corner radius long neck endmill for hardened steel machining





硬质合金 | 4 | TiAlCrSiN | 45°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	圆角(r) Corner	颈长(L1) Under Neck Length	颈径(d2) Neck Dia.	全长(L) Overall Length	柄径(d) Shank Dia	类型 Type	库存 Stock
H-RN4-06005	6	6	0.5	18	5.8	75	6	B	●
H-RN4-06010	6	6	1.0	18	5.8	75	6	B	●
H-RN4-08005-75	8	8	0.5	24	7.8	75	8	B	●
H-RN4-08005	8	8	0.5	24	7.8	100	8	B	●
H-RN4-08010	8	8	1.0	24	7.8	100	8	B	●
H-RN4-10005	10	10	0.5	30	9.6	100	10	B	●
H-RN4-10010	10	10	1.0	30	9.6	100	10	B	●
H-RN4-10020	10	10	2.0	30	9.6	100	10	B	●
H-RN4-12005	12	12	0.5	36	11.5	100	12	B	●
H-RN4-12010	12	12	1.0	36	11.5	100	12	B	●
H-RN4-12020	12	12	2.0	36	11.5	100	12	B	●
H-RN4-16010	16	16	1.0	40	15.5	150	16	B	●
H-RN4-16020	16	16	2.0	40	15.5	150	16	B	●

● 标准库存 Stock　○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤6	0 -0.01
6<D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
○	◎	◎	○				○	

◎ 最适合 Most Suitable　○ 适合 Suitable

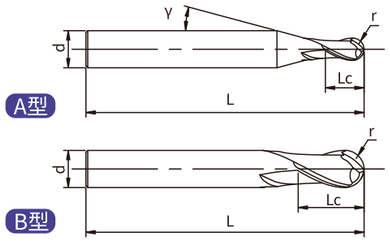
推荐切削参数P145

H-B2

2刃球头高硬钢加工立铣刀

2 flute, ball nose endmill for hardened steel machining





硬质合金 | 2 | TiAlCrSiN | 30°

订货号 Ordering Code	外径(D) Mill Dia.	球半径(R) Ball Radius	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
H-B2-01002	1	0.5	2	50	4	A	●
H-B2-01503	1.5	0.75	3	50	4	A	●
H-B2-02004	2	1	4	50	4	A	●
H-B2-02505	2.5	1.25	5	50	4	A	●
H-B2-03006	3	1.5	6	50	4	A	●
H-B2-63006	3	1.5	6	50	6	A	●
H-B2-04008	4	2	8	50	4	B	●
H-B2-64008	4	2	8	50	6	A	●
H-B2-05010	5	2.5	10	50	6	A	●
H-B2-06012	6	3	12	50	6	B	●
H-B2-07014	7	3.5	14	60	8	A	●
H-B2-08014	8	4	14	60	8	B	●
H-B2-10020	10	5	20	75	10	B	●
H-B2-12024	12	6	24	75	12	B	●
H-B2-16032	16	8	32	100	16	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤6	0 -0.01
6<D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
○	◎	◎	○				○	

◎ 最适合 Most Suitable ○ 适合 Suitable

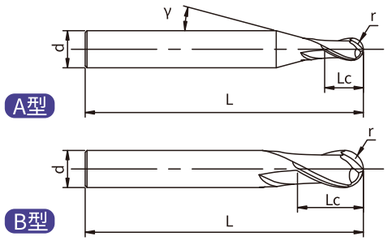
推荐切削参数P146

H-BH2

2刃长柄球头高硬钢加工立铣刀

2 flute, ball nose long shank endmill for hardened steel machining





硬质合金 | 2 | TiAlCrSiN | 30°

订货号 Ordering Code	外径(D) Mill Dia.	球半径(R) Ball Radius	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
H-BH2-02004	2	1	4	75	4	A	●
H-BH2-03006	3	1.5	6	75	4	A	●
H-BH2-63006	3	1.5	6	60	6	A	●
H-BH2-63006-75	3	1.5	6	75	6	A	●
H-BH2-04008	4	2	8	75	4	B	●
H-BH2-64008-60	4	2	8	60	6	A	●
H-BH2-64008	4	2	8	75	6	A	●
H-BH2-05010	5	2.5	10	75	6	A	●
H-BH2-06012-60	6	3	12	60	6	B	●
H-BH2-06012	6	3	12	75	6	B	●
H-BH2-06012-100	6	3	12	100	6	B	●
H-BH2-08016-75	8	4	16	75	8	B	●
H-BH2-08016	8	4	16	100	8	B	●
H-BH2-10020	10	5	20	100	10	B	●
H-BH2-12024	12	6	24	100	12	B	●
H-BH2-16032	16	8	32	150	16	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤6	0 -0.01
6<D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

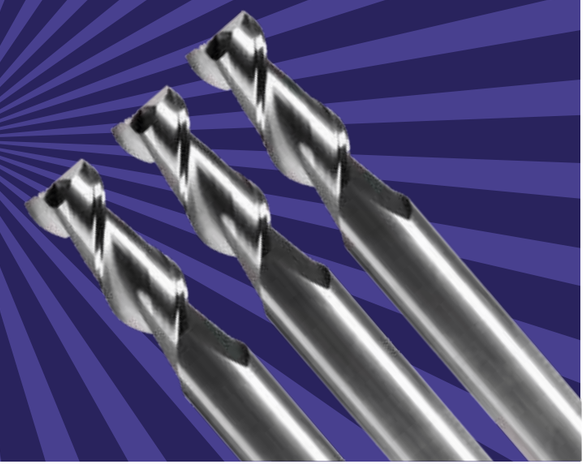
碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
○	◎	◎	○				○	

◎ 最适合 Most Suitable ○ 适合 Suitable

推荐切削参数P146

A系列

铝合金通用加工立铣刀
A series endmill for aluminium alloys general machining



大前角和特殊周刃设计有效防止积屑瘤的产生，能够在精加工中完美表现
Big rake angle and special flute design effectively prevent build-up-edge, making the tool perform well in finishing

独特的容屑槽设计，保证刀具强度及排屑性能，大幅提高了加工稳定性
Special groove design guarantee both tool strength and chip removal performance, increasing machining stability a lot

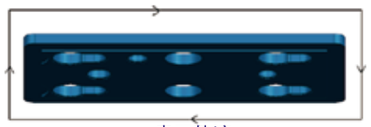
超细颗粒硬质合金基体，刀具耐磨性和切削刃强度得到完美结合
Ultra fine substrate, good wear resistance and cutting edge strength

- 刀具型号：A-S3-06016
- 刀具规格：D6*16*50*d6
- 加工材料：AL6063
- 切削速度：12000RPM
- 进给速度：600mm/min
- 切削方式：精加工、侧铣
- 切削量：ap=5mm，ae=0.05mm
- 冷却方式：乳化液

- Model No:A-S3-06016
- Specification:D6*16*50*d6
- Workpiece material:AL6063
- Cutting speed:12000RPM
- Feed rate:600mm/min
- Way of cutting:finishing, side milling
- ap, ae: ap=5mm，ae=0.05mm
- Coolant:emulsion



加工表面质量（20X）
The machining surface（20X）



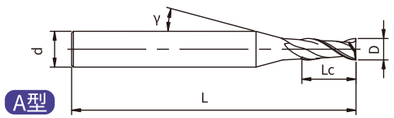
走刀轨迹
Cutting Path

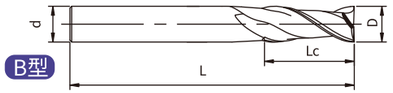


A-S2/SS2/SL2
2刃平头铝合金加工立铣刀
2 flute，square endmill for aluminium alloys general machining



硬质合金 | 2 | 45° | L | T |





订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
A-S2-01003	1	3	50	4	A	●
A-SL2-01005	1	5	50	4	A	○
A-S2-01203	1.2	3	50	4	A	○
A-SS2-01503	1.5	3	50	4	A	○
A-S2-01504	1.5	4	50	4	A	●
A-SL2-01505	1.5	5	50	4	A	○
A-SL2-01506	1.5	6	50	4	A	○
A-SS2-02004	2	4	50	4	A	○
A-S2-02006	2	6	50	4	A	●
A-SL2-02008	2	8	50	4	A	○
A-S2-02508	2.5	8	50	4	A	○
A-SS2-03006	3	6	50	4	A	○
A-S2-03009	3	9	50	4	A	●
A-S2-63009	3	9	50	6	A	○

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02 (mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels ＜45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels ＞65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
							○	◎

◎ 最适合 Most Suitable ○ 适合 Suitable

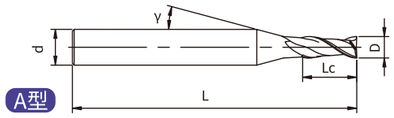
推荐切削参数P148

A-S2/SS2/SL2

2刃平头铝合金加工立铣刀

2 flute，square endmill for aluminium alloys general machining





硬质合金 | 2 | 45° | | | |

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
A-SS2-04006	4	6	50	4	B	○
A-S2-04011	4	11	50	4	B	●
A-S2-64011	4	11	50	6	A	○
A-S2-05013	5	13	50	6	A	○
A-SS2-06009	6	9	50	6	B	○
A-SS2-06012	6	12	50	6	B	○
A-S2-06016	6	16	50	6	B	●
A-SS2-08009	8	9	60	8	B	○
A-SS2-08015	8	15	60	8	B	○
A-S2-08020	8	20	60	8	B	●
A-SS2-10015	10	15	75	10	B	○
A-S2-10025	10	25	75	10	B	○
A-SS2-12015	12	15	75	10	B	○
A-S2-12030	12	30	75	12	B	○

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02 (mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
							○	◎

◎ 最适合 Most Suitable ○ 适合 Suitable

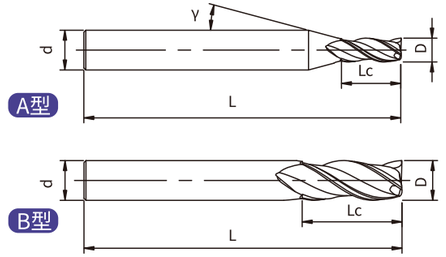
推荐切削参数P148

A-S3/SS3/SL3

3刃平头铝合金加工立铣刀

3 flute，square endmill for aluminium alloys general machining





硬质合金 | 3 | 45° | | | |

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
A-S3-01003	1	3	50	4	A	●
A-SL3-01005	1	5	50	4	A	○
A-S3-01203	1.2	3	50	4	A	○
A-S3-01504	1.5	4	50	4	A	●
A-SL3-01505	1.5	5	50	4	A	○
A-SS3-02004	2	4	50	4	A	○
A-S3-02006	2	6	50	4	A	●
A-S3-02508	2.5	8	50	4	A	●
A-SS3-03006	3	6	50	4	A	○
A-S3-03009	3	9	50	4	A	●
A-SS3-04006	4	6	50	4	B	○
A-S3-04011	4	11	50	4	B	●
A-S3-64011	4	11	50	6	A	○
A-S3-05013	5	13	50	6	A	●
A-SS3-06012	6	12	50	6	B	●
A-S3-06016	6	16	50	6	B	●
A-SS3-08015	8	15	60	8	B	○
A-S3-08020	8	20	60	8	B	●
A-SS3-10015	10	15	75	10	B	○
A-S3-10025	10	25	75	10	B	●
A-SS3-12015	12	15	75	10	B	○
A-S3-12030	12	30	75	12	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02 (mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
							○	◎

◎ 最适合 Most Suitable ○ 适合 Suitable

推荐切削参数P149

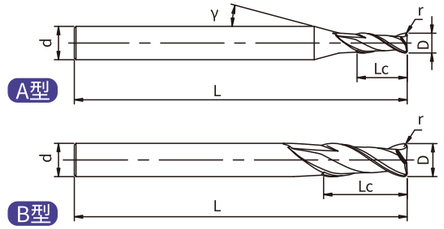
A-R2/RS2/RL2

2刃圆角头铝合金加工立铣刀

2 flute, corner radius endmill for aluminium alloys general machining







订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	圆角(r) Corner Radius	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
A-R2-01001	1	3	0.1	50	4	A	●
A-R2-01002	1	3	0.2	50	4	A	○
A-R2-01202	1.2	3	0.2	50	4	A	○
A-RL2-01502	1.5	6	0.2	50	4	A	○
A-R2-02002	2	6	0.2	50	4	A	○
A-R2-02005	2	6	0.5	50	4	A	●
A-R2-03002	3	9	0.2	50	4	A	●
A-R2-03003	3	9	0.3	50	4	A	○
A-R2-03005	3	9	0.5	50	4	A	○
A-R2-04002	4	11	0.2	50	4	B	●
A-RS2-04005	4	6	0.5	50	4	B	○
A-R2-05002	5	13	0.2	50	6	A	○
A-R2-05003	5	13	0.3	50	6	A	○
A-R2-06005	6	16	0.5	50	6	B	○
A-R2-06010	6	16	1	50	6	B	○
A-R2-08005	8	20	0.5	60	8	B	○
A-R2-08010	8	20	1	60	8	B	○
A-RS2-10002	10	15	0.2	50	10	B	○
A-R2-10005	10	25	0.5	75	10	B	○
A-R2-10020	10	25	2	75	10	B	○

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
							○	◎

◎ 最适合 Most Suitable ○ 适合 Suitable

推荐切削参数P148

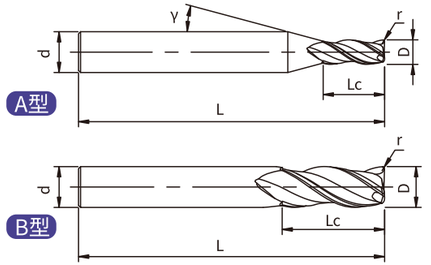
A-R3/RS3

3刃圆角头铝合金加工立铣刀

3 flute, corner radius endmill for aluminium alloys general machining







订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	圆角(r) Corner Radius	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
A-R3-02002	2	6	0.2	50	4	A	○
A-R3-03002	3	9	0.2	50	4	A	○
A-R3-04002	4	11	0.2	50	4	B	○
A-R3-04005	4	11	0.5	50	4	B	○
A-R3-05002	5	13	0.2	50	6	A	○
A-R3-05005	5	13	0.5	50	6	A	○
A-R3-06005	6	16	0.5	50	6	B	○
A-R3-06010	6	16	1	50	6	B	○
A-RS3-08002	8	9	0.2	60	8	B	○
A-R3-08005	8	20	0.5	60	8	B	○
A-R3-08010	8	20	1	60	8	B	○
A-R3-10005	10	25	0.5	75	10	B	○
A-RS3-10005	10	10	0.5	50	10	B	○
A-R3-10020	10	25	2	75	10	B	○

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
							○	◎

◎ 最适合 Most Suitable ○ 适合 Suitable

推荐切削参数P149

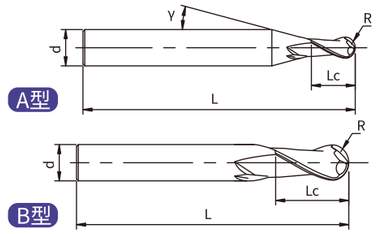
A-B2

2刃球头铝合金加工立铣刀

2 flute, ballnose endmill for aluminium alloys general machining







订货号 Ordering Code	外径(D) Mill Dia.	球半径(R) Ball Radius	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
A-B2-01002	1	0.5	2	50	4	A	●
A-B2-02004	2	1	4	50	4	A	●
A-B2-02006	2	1	6	50	4	A	○
A-B2-03006	3	1.5	6	50	4	A	●
A-B2-04008	4	2	8	50	4	B	●
A-B2-64009	4	2	9	50	6	A	○
A-B2-06012	6	3	12	50	6	B	●
A-B2-08014	8	4	14	60	8	B	●
A-B2-10018	10	5	18	75	10	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

球半径R	公差 Tol.
R＜3	±0.015
R≥3	±0.02

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels ＜45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels ＞65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
							○	◎

◎ 最适合 Most Suitable ○ 适合 Suitable

推荐切削参数P150



S系列

不锈钢通用加工立铣刀

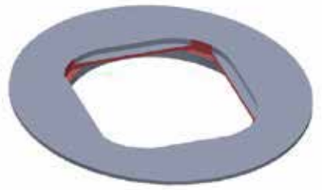
S series endmill for stainless steels general machining

采用超细硬质合金和TiAlN涂层，耐高温，耐磨损，涂层表面光滑，降低切削阻力
Use ultra fine carbide and TiAlN coating, good heat resistance and wear resistance,Smooth coating surface reduces cutting force

独特的刃口设计，有效解决刀具刃口粘屑问题
Special cutting edge design, effectively solve the issue of sticky chip on cutting edge

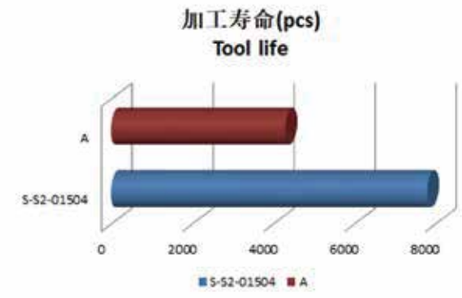
全尖角保护设计，使刀具具有良好的抗崩性能，满足通用加工需求
Full angle protection design gives the tool with good anti-breaking performance, which is suitable for general machining

- 刀具型号：S-S2-01504
- 刀具规格：D1.5*4*50*d4
- 加工材料：SUS316L(HB150-200)
- 切削速度：12000RPM
- 进给速度：2025mm/min
- 切削方式：方肩铣、侧铣
- 切削量：方肩铣 ap=0.6mm，ae=0.3mm
  侧铣 ap=0.3mm，ae=0.03mm
- 冷却方式：油冷



红色为加工区

- Model No:S-S2-01504
- Specification:D1.5*4*50*d4
- Workpiece material:SUS316L(HB150-200)
- Cutting speed:12000RPM
- Feed rate:2025mm/min
- Way of cutting:shoulder milling, side milling
- ap, ae: shoulder milling ap=0.6mm，ae=0.3mm
  side milling ap=0.3mm，ae=0.03mm
- Coolant:oil

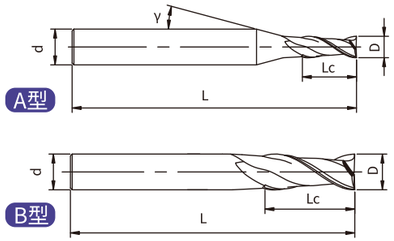


S-S2

2刃平头不锈钢通用加工立铣刀

2 flute, square endmill for stainless steel general machining





硬质合金 | 2 | TiAlN | 35°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
S-S2-00501	0.5	1	50	4	A	●
S-S2-00802	0.8	2	50	4	A	●
S-S2-01003	1	3	50	4	A	●
S-S2-01504	1.5	4	50	4	A	●
S-S2-02006	2	6	50	4	A	●
S-S2-02508	2.5	8	50	4	A	●
S-S2-03009	3	9	50	4	A	●
S-S2-04011	4	11	50	4	B	●
S-S2-06016	6	16	50	6	B	●
S-S2-08020	8	20	60	8	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02 (mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
○					◎			

◎ 最适合 Most Suitable ○ 适合 Suitable

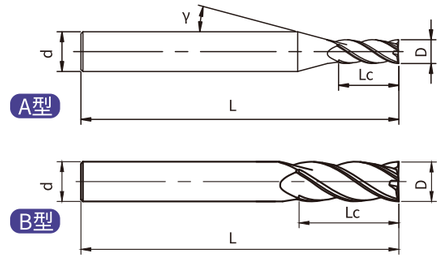
推荐切削参数P151

S-SS4

4刃短刃平头不锈钢通用加工立铣刀

4 flute, square short flute endmill for stainless steel general machining





硬质合金 | 4 | TiAlN | 35°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
S-SS4-02004	2	4	50	4	A	●
S-SS4-03004	3	4	50	4	A	●
S-SS4-04006	4	6	50	4	B	●
S-SS4-05008	5	8	50	6	A	○
S-SS4-06009	6	9	50	6	B	●
S-SS4-08010	8	10	60	8	B	●
S-SS4-10012	10	12	75	10	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02 (mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
○					◎			

◎ 最适合 Most Suitable ○ 适合 Suitable

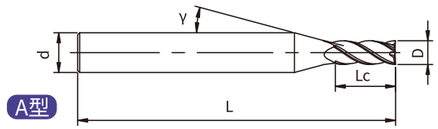
推荐切削参数P153

S-S4

4刃平头不锈钢通用加工立铣刀

4 flute, square endmill for stainless steel general machining





硬质合金 | 4 | TiAlN | 35°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
S-S4-01003	1	3	50	4	A	●
S-S4-01504	1.5	4	50	4	A	●
S-S4-02006	2	6	50	4	A	●
S-S4-02508	2.5	8	50	4	A	●
S-S4-03009	3	9	50	4	A	●
S-S4-03510	3.5	10	50	4	A	●
S-S4-04011	4	11	50	4	B	●
S-S4-64011	4	11	50	6	A	●
S-S4-05013	5	13	50	6	A	●
S-S4-06016	6	16	50	6	B	●
S-S4-08020	8	20	60	8	B	●
S-S4-10025	10	25	75	10	B	●
S-S4-12030	12	30	75	12	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
○					◎			

◎ 最适合 Most Suitable ○ 适合 Suitable

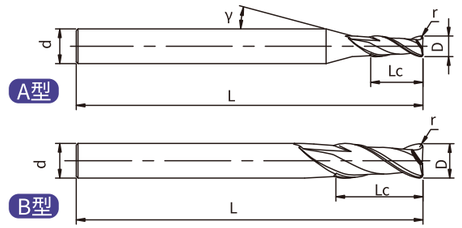
推荐切削参数P153

S-R2

2刃圆角头不锈钢通用加工立铣刀

2 flute, corner radius endmill for stainless steel general machining





硬质合金 | 2 | TiAlN | 35°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	圆角(r) Corner	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
S-R2-03003	3	9	0.3	50	4	A	○
S-R2-03005	3	9	0.5	50	4	A	○
S-R2-04003	4	11	0.3	50	4	B	○
S-R2-64002	4	11	0.2	50	6	A	○
S-R2-64003	4	11	0.3	50	6	A	○
S-R2-64005	4	11	0.5	50	6	A	○
S-R2-05002	5	13	0.2	50	6	A	○
S-R2-05003	5	13	0.3	50	6	A	○
S-R2-05005	5	13	0.5	50	6	A	○
S-R2-06002	6	16	0.2	50	6	B	○
S-R2-06003	6	16	0.3	50	6	B	○
S-R2-06005	6	16	0.5	50	6	B	○
S-R2-08005	8	20	0.5	60	8	B	○
S-R2-08010	8	20	1.0	60	8	B	○

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
○					◎			

◎ 最适合 Most Suitable ○ 适合 Suitable

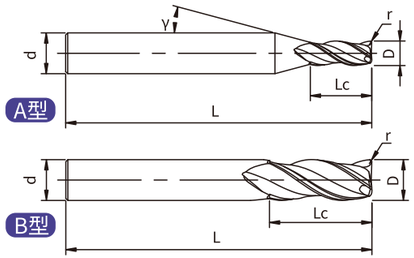
推荐切削参数P151

S-R3

3刃圆角头不锈钢通用加工立铣刀

3 flute, corner radius endmill for stainless steel general machining





硬质合金 | 3 | TiAlN | 35°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	圆角(r) Corner	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
S-R3-02001	2	6	0.1	50	4	A	●
S-R3-02002	2	6	0.2	50	4	A	●
S-R3-04002	4	11	0.2	50	4	B	●
S-R3-64005	4	11	0.5	50	6	A	●
S-R3-06002	6	16	0.2	50	6	B	○
S-R3-06005	6	16	0.5	50	6	B	○

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02 (mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
○					◎			

◎ 最适合 Most Suitable ○ 适合 Suitable

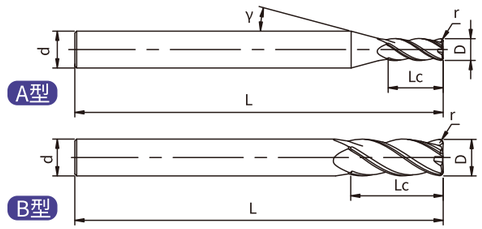
推荐切削参数P152

S-R4/RS4

4刃短刃圆角头不锈钢通用加工立铣刀

4 flute, corner radius short flute endmill for stainless steel general machining





硬质合金 | 4 | TiAlN | 35°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	圆角(r) Corner	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
S-R4-02002	2	6	0.2	50	4	A	●
S-R4-03003	3	9	0.3	50	4	A	○
S-R4-03005	3	9	0.5	50	4	A	○
S-R4-04003	4	11	0.3	50	4	B	○
S-R4-04005	4	11	0.5	50	4	B	○
S-R4-64002	4	11	0.2	50	6	A	●
S-R4-64003	4	11	0.3	50	6	A	○
S-R4-05005	5	13	0.5	50	6	B	○
S-R4-06005	6	16	0.5	50	6	B	●
S-RS4-06005	6	6	0.5	50	6	B	●
S-R4-08002	8	20	0.2	60	8	B	○
S-R4-08005	8	20	0.5	60	8	B	●
S-R4-08010	8	20	1	60	8	B	○
S-R4-10005	10	25	0.5	75	10	B	○

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02 (mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
○					◎			

◎ 最适合 Most Suitable ○ 适合 Suitable

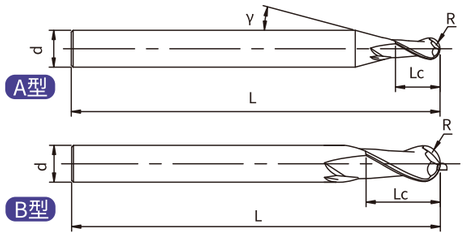
推荐切削参数P153

S-B2

2刃球头不锈钢通用加工立铣刀

2 flute, ballnose endmill for stainless steel general machining





硬质合金 | 2 | TiAlN | 30°

订货号 Ordering Code	外径(D) Mill Dia.	球半径(R) Ball Radius	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
S-B2-01002	1	0.5	2	50	4	A	○
S-B2-01503	1.5	0.75	3	50	4	A	○
S-B2-02004	2	1	4	50	4	A	○
S-B2-03006	3	1.5	6	50	4	A	○
S-B2-63006	3	1.5	6	50	6	A	○
S-B2-04008	4	2	8	50	4	B	○
S-B2-64008	4	2	8	50	6	A	○
S-B2-05010	5	2.5	10	50	6	A	○
S-B2-06012	6	3	12	50	6	B	○
S-B2-08014	8	4	14	60	8	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

球头半径R	公差 Tol.
R<3	±0.015
R≥3	±0.02

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
○					◎			

◎ 最适合 Most Suitable ○ 适合 Suitable

推荐切削参数P154

S10系列

不锈钢通用加工立铣刀

S10 series end mill for stainless steel general machining



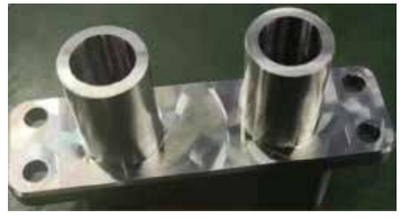
大前角设计，切削刃锋利，保证精加工良好的表面质量
Use high pure diamond coating, perfect adhesiveness between substrate and coating; Good wear resistance enable longer life during machining

双刃带设计，圆弧刃带利于侧刃更加锋利，特殊槽型设计，保证切削刃的刚性
Double edge belt design, arc edge belt is conducive to sharper side edges, and special groove design ensures the rigidity of cutting edges

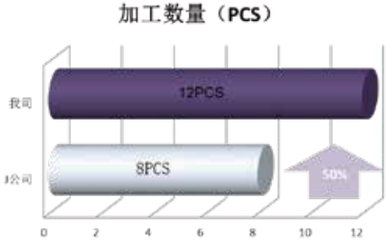
全新自主研发专用刀具基体，保证开粗抗崩性能
New independent research and development of professional tool matrix to ensure the anti collapse performance of rough cutting

采用巴尔查斯AlCr系涂层，抗高温氧化性能佳，大大提升刀具耐磨性
Balchas AlCr series coating is adopted, which has good high-temperature oxidation resistance and greatly improves tool wear resistance

- 刀具型号：S10-S4-10025
- 刀具规格：D10*25*75*d10
- 加工材料：S316L
- 加工参数：S=3.2krpm、F=450mm/min
  ap=15mm，ae=0.9mm
- 切削方式：侧铣粗加工
- 冷却方式：乳化液



- Model No:S10-S4-10025
- Specification:D10*25*75*d10
- Workpiece material:S316L
- Processing parameters:S=3.2krpm、F=450mm/min
  ap=15mm，ae=0.9mm
- Way of cutting: Side milling rough machining
- Coolant:Emulsion

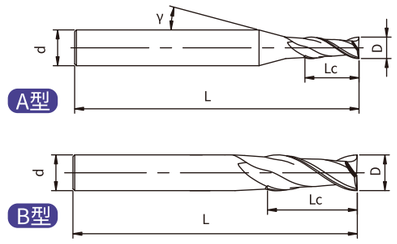


S10-S2

2刃平头不锈钢通用立铣刀

2 flute, square endmill for stainless steel general machining





硬质合金 | 2 | TiAlCrSIN | 35°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
S10-S2-00501	0.5	1	50	4	A	●
S10-S2-00802	0.8	2	50	4	A	●
S10-S2-01003	1	3	50	4	A	●
S10-S2-01504	1.5	4	50	4	A	●
S10-S2-02006	2	6	50	4	A	●
S10-S2-02508	2.5	8	50	4	A	●
S10-S2-03009	3	9	50	4	A	●
S10-S2-04011	4	11	50	4	B	●
S10-S2-06016	6	16	50	6	B	●
S10-S2-08020	8	20	60	8	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
○					◎			

◎ 最适合 Most Suitable ○ 适合 Suitable

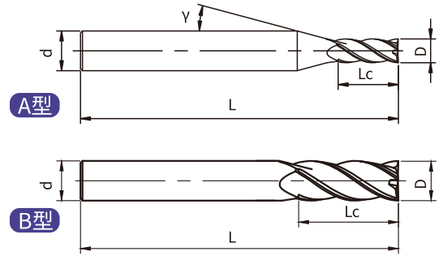
推荐切削参数P155

S10-SS4

4刃短刃平头不锈钢通用加工立铣刀

4 flute, square short flute endmill for stainless steel general machining





硬质合金 | 4 | TiAlCrSIN | 35°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
S10-SS4-02004	2	4	50	4	A	●
S10-SS4-03004	3	4	50	4	A	●
S10-SS4-04006	4	6	50	4	B	●
S10-SS4-05008	5	8	50	6	A	○
S10-SS4-06009	6	9	50	6	B	●
S10-SS4-08010	8	10	60	8	B	●
S10-SS4-10012	10	12	75	10	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D>12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金	铜合金 Copper alloy	铝合金 Aluminium alloy
○					◎			

◎ 最适合 Most Suitable ○ 适合 Suitable

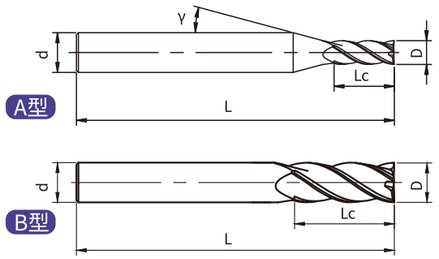
推荐切削参数P155

S10-S4

4刃平头不锈钢通用加工立铣刀

4 flute，square endmill for stainless steel general machining





硬质合金 | 4 | TiAlCrSIN | 35°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
S10-S4-01003	1	3	50	4	A	●
S10-S4-01504	1.5	4	50	4	A	●
S10-S4-02006	2	6	50	4	A	●
S10-S4-02508	2.5	8	50	4	A	●
S10-S4-03009	3	9	50	4	A	●
S10-S4-03510	3.5	10	50	4	A	●
S10-S4-04011	4	11	50	4	B	●
S10-S4-64011	4	11	50	6	A	●
S10-S4-05013	5	13	50	6	A	●
S10-S4-06016	6	16	50	6	B	●
S10-S4-08020	8	20	60	8	B	●
S10-S4-10025	10	25	75	10	B	●
S10-S4-12030	12	30	75	12	B	●
S10-S4-14034	14	34	100	14	B	●
S10-S4-16036	16	36	100	16	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D＞12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels ＜45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels ＞65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
○					◎			

◎ 最适合 Most Suitable ○ 适合 Suitable

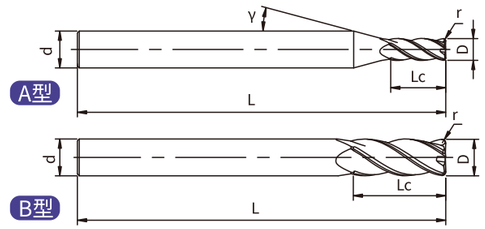
推荐切削参数P155

S10-R4/RS4

4刃短刃圆角头不锈钢通用加工立铣刀

4 flute，corner radius short flute endmill for stainless steel general machining





硬质合金 | 4 | TiAlCrSIN | 35°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	圆角(r) Corner	全长(L) Overall Length	柄径(d) Shank Dia.	类型 Type	库存 Stock
S10-R4-02002	2	6	0.2	50	4	A	●
S10-R4-03003	3	9	0.3	50	4	A	○
S10-R4-03005	3	9	0.5	50	4	A	●
S10-R4-04003	4	11	0.3	50	4	B	○
S10-R4-04005	4	11	0.5	50	4	B	●
S10-R4-64002	4	11	0.2	50	6	A	○
S10-R4-64003	4	11	0.3	50	6	A	○
S10-R4-05005	5	13	0.5	50	6	B	○
S10-R4-06005	6	16	0.5	50	6	B	●
S10-RS4-06005	6	6	0.5	50	6	B	●
S10-R4-08002	8	20	0.2	60	8	B	○
S10-R4-08005	8	20	0.5	60	8	B	●
S10-R4-08010	8	20	1	60	8	B	○
S10-R4-10005	10	25	0.5	75	10	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
D≤12	0 -0.02
D＞12	0 -0.03

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels ＜45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels ＞65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	铝合金 Aluminium alloy
○					◎			

◎ 最适合 Most Suitable ○ 适合 Suitable

推荐切削参数P155

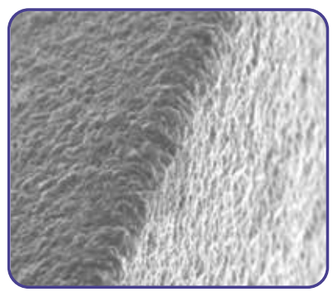


G系列

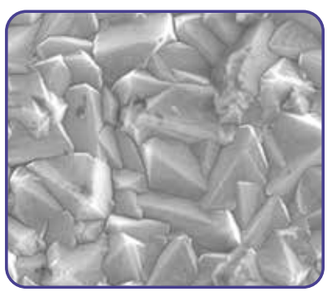
金刚石涂层立铣刀
G series endmill for graphite machining

采用高纯度金刚石涂层，基体与涂层粘合性强，具有良好的耐磨性，能够实现刀具长寿命加工
Use high pure diamond coating, perfect adhesiveness between substrate and coating; Good wear resistance enable longer life during machining

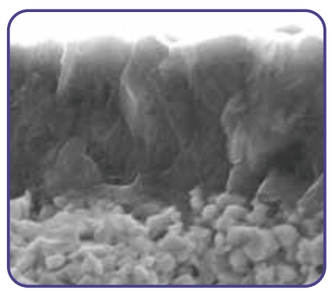
适用于石墨电极、石墨模具等石墨工件的精加工、半精加工，推荐使用气冷
Suitable for finishing & semi-finishing of graphite workpiece such as graphite electrode, graphite mould, etc., recommending gas coolant



金刚石涂层刀具刃口形貌
Cutting edge picture of diamond coating tool

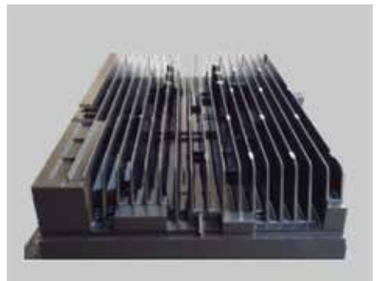


金刚石涂层刀具表层形貌图
Surface picture of diamond coating tool

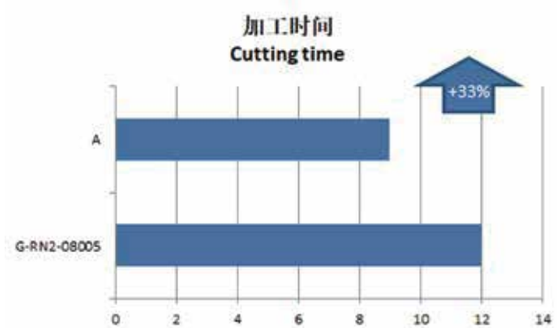


金刚石涂层刀具断面图
Cross section picture of diamond coating tool

- 刀具型号：G-RN2-08005
- 刀具规格：D8*R0.5*12*30*100*d8
- 加工材料：石墨
- 切削速度：10000RPM
- 进给速度：3000mm/min
- 切削方式：侧铣
- 切削量：ap=0.15mm，ae=0.2mm
- 冷却方式：气冷



- Model No:G-RN2-08005
- Specification:D8*R0.5*12*30*100*d8
- Workpiece material:Graphite
- Cutting speed:10000RPM
- Feed rate:3000mm/min
- Way of cutting: side milling
- ap, ae: ap=0.15mm，ae=0.2mm
- Coolant:Gas

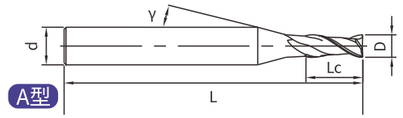


G-S2

石墨加工2刃平头立铣刀

2 flute, square endmill for graphite machining





硬质合金 | 2 | DIA | 40°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	型号 Type	库存 Stock
G-S2-004008	0.4	0.8	50	4	A	●
G-S2-00802	0.8	2	50	4	A	●
G-S2-01003	1	3	60	4	A	●
G-S2-01506	1.5	6	60	4	A	●
G-S2-02006	2	6	60	4	A	●
G-S2-03009	3	9	60	4	A	●
G-S2-63009	3	9	60	6	A	○
G-S2-04012	4	12	60	4	B	●
G-S2-64012	4	12	60	6	A	○
G-S2-05015	5	15	60	6	A	○
G-S2-06018	6	18	60	6	B	●
G-S2-08024	8	24	75	8	B	●
G-S2-10025	10	25	80	10	B	○
G-S2-12025	12	25	80	12	B	○

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
0.2≤D<6	0 -0.015
6≤D≤12	0 -0.025

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	石墨 Graphite
							○	◎

◎ 最适合 Most Suitable ○ 适合 Suitable

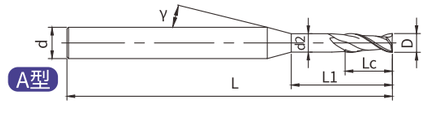
推荐切削参数P156

G-SN2

石墨加工2刃长颈立铣刀

2 flute, long neck endmill for graphite machining





硬质合金 | 2 | DIA | 40°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	颈长(L1) Under Neck Length	颈径(d2) Neck Dia.	全长(L) Overall Length	柄径(d) Shank Dia.	型号 Type	库存 Stock
G-SN2-01005	1	3	5	0.95	60	4	A	●
G-SN2-01510	1.5	6	10	1.44	60	4	A	●
G-SN2-02015	2	8	15	1.92	60	4	A	●
G-SN2-02020	2	8	20	1.92	60	4	A	○
G-SN2-03015	3	12	15	2.9	60	4	A	●
G-SN2-04020	4	16	20	3.9	60	4	B	○
G-SN2-04025	4	16	25	3.9	75	4	B	●
G-SN2-04040	4	16	40	3.9	75	4	B	○
G-SN2-05030	5	20	30	4.9	75	6	A	●
G-SN2-06030	6	24	30	5.9	75	6	B	●
G-SN2-08040	8	24	40	7.9	150	8	B	●
G-SN2-10040	10	25	40	9.8	150	10	B	○
G-SN2-12040	12	25	40	11.8	150	12	B	●
G-SN2-12060	12	25	60	11.8	150	12	B	○

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
0.2≤D<6	0 -0.015
6≤D≤12	0 -0.025

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	石墨 Graphite
							○	◎

◎ 最适合 Most Suitable ○ 适合 Suitable

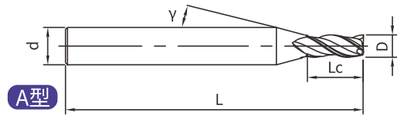
推荐切削参数P156

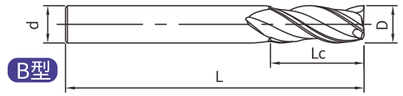
G-S3

石墨加工3刃平头立铣刀

3 flute, square endmill for graphite machining







硬质合金 | 3 | DIA | 40°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	型号 Type	库存 Stock
G-S3-01003	1	3	60	4	A	●
G-S3-01506	1.5	6	60	4	A	●
G-S3-02006	2	6	60	4	A	●
G-S3-03009	3	9	60	4	A	●
G-S3-63009	3	9	60	6	A	○
G-S3-04012	4	12	60	4	B	●
G-S3-64012	4	12	60	6	A	○
G-S3-06018	6	18	60	6	B	●
G-S3-08024	8	24	75	8	B	●
G-S3-10025	10	25	80	10	B	●
G-S3-12025	12	25	80	12	B	○

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
0.2≤D<6	0 -0.015
6≤D≤12	0 -0.025

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	石墨 Graphite
							○	◎

◎ 最适合 Most Suitable ○ 适合 Suitable

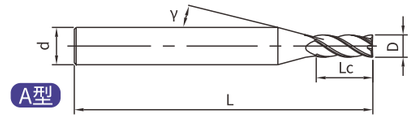
推荐切削参数P157

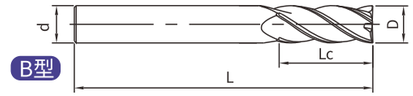
G-S4

石墨加工4刃平头立铣刀

4 flute, square endmill for graphite machining







硬质合金 | 4 | DIA | 40°

订货号 Ordering Code	外径(D) Mill Dia.	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	型号 Type	库存 Stock
G-S4-02006	2	6	60	4	A	●
G-S4-03009	3	9	60	4	A	●
G-S4-63009	3	9	60	6	A	○
G-S4-04012	4	12	60	4	B	●
G-S4-64012	4	12	60	6	A	○
G-S4-05015	5	15	60	6	A	●
G-S4-06018	6	18	60	6	B	●
G-S4-08024	8	24	75	8	B	●
G-S4-10025	10	25	80	10	B	●
G-S4-12025	12	25	80	12	B	○

● 标准库存 Stock ○ 需预定 Available Upon Order

外径D	公差 Tol.
0.2≤D<6	0 -0.015
6≤D≤12	0 -0.025

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	石墨 Graphite
							○	◎

◎ 最适合 Most Suitable ○ 适合 Suitable

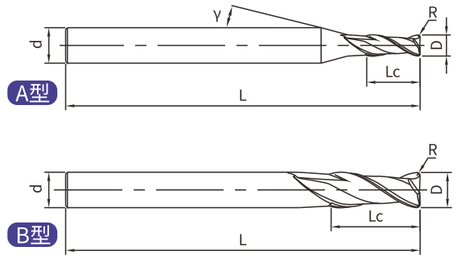
推荐切削参数P158

G-R2

石墨加工2刃圆角头立铣刀

2 flute, corner radius endmill for graphite machining





硬质合金 | 2 | DIA | 40°

订货号 Ordering Code	外径(D) Mill Dia.	圆角(R) Corner Radius	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	型号 Type	库存 Stock
G-R2-02002	2	0.2	3.5	60	4	A	●
G-R2-03002	3	0.2	4	60	4	A	●
G-R2-04002	4	0.2	5	60	4	B	●
G-R2-04005	4	0.5	5	60	4	B	●
G-R2-05005	5	0.5	6	75	6	A	●
G-R2-06003	6	0.3	9	75	6	B	●
G-R2-06005	6	0.5	9	75	6	B	●
G-R2-08005	8	0.5	12	75	8	B	●
G-R2-08010	8	1	12	75	8	B	○
G-R2-10005	10	0.5	15	100	10	B	●
G-R2-10010	10	1	15	100	10	B	●
G-R2-10015	10	1.5	15	100	10	B	○
G-R2-12005	12	0.5	18	100	12	B	○
G-R2-12010	12	1	18	100	12	B	○
G-R2-12015	12	1.5	18	100	12	B	○

● 标准库存 Stock ○ 需预定 Available Upon Order

圆角半径R	公差 Tol.
R	±0.01 (mm)

外径D	公差 Tol.
0.2≤D<6	0 -0.015
6≤D≤12	0 -0.025 (mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	石墨 Graphite
							○	◎

◎ 最适合 Most Suitable ○ 适合 Suitable

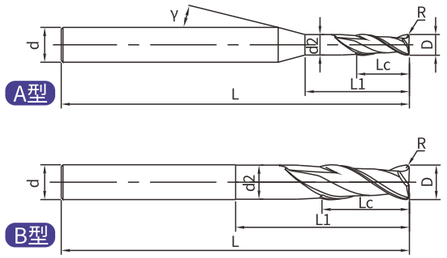
推荐切削参数P156

G-RN2

石墨加工2刃长颈圆角头立铣刀

2 flute, corner radius long neck endmill for graphite machining





硬质合金 | 2 | DIA | 40°

订货号 Ordering Code	外径 (D) Mill Dia.	圆角 (R) Corner Radius	刃长 (Lc) Flute Length	颈长 (L1) Under Neck Length	颈径 (d2) Neck Dia.	全长 (L) Overall Length	柄径 (d) Shank Dia.	型号 Type	库存 Stock
G-RN2-02002	2	0.2	3.5	6	1.92	60	4	A	●
G-RN2-02003	2	0.3	3.5	6	1.92	60	4	A	○
G-RN2-02005	2	0.5	3.5	6	1.92	60	4	A	○
G-RN2-03002	3	0.2	4	10	2.9	60	4	A	●
G-RN2-03003	3	0.3	4	10	2.9	60	4	A	○
G-RN2-03005	3	0.5	4	10	2.9	60	4	A	○
G-RN2-04002	4	0.2	5	15	3.9	75	4	B	●
G-RN2-04005	4	0.5	5	15	3.9	75	4	B	●
G-RN2-04010	4	1	5	15	3.9	75	4	B	○
G-RN2-05002	5	0.2	6	15	4.9	100	6	A	○
G-RN2-05005	5	0.5	6	15	4.9	100	6	A	○
G-RN2-06002	6	0.2	7	20	5.9	100	6	B	●
G-RN2-06005	6	0.5	7	20	5.9	100	6	B	●
G-RN2-06010	6	1	7	20	5.9	100	6	B	○
G-RN2-08005	8	0.5	12	30	7.9	100	8	B	●
G-RN2-10005	10	0.5	15	35	9.8	100	10	B	○

● 标准库存 Stock ○ 需预定 Available Upon Order

圆角半径R	公差 Tol.
R	±0.01 (mm)

外径D	公差 Tol.
0.2≤D<6	0 -0.015
6≤D≤12	0 -0.025 (mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	石墨 Graphite
							○	◎

◎ 最适合 Most Suitable ○ 适合 Suitable

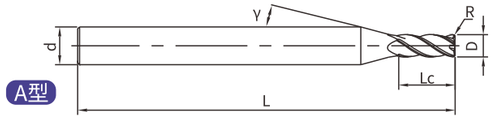
推荐切削参数P156

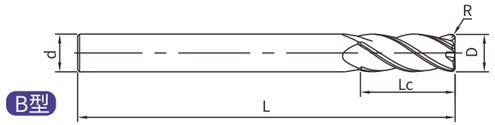
G-R4

石墨加工4刃圆角头立铣刀

4 flute, corner radius endmill for graphite machining







硬质合金 | 4 | DIA | 40°

订货号 Ordering Code	外径(D) Mill Dia.	圆角(R) Corner Radius	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	型号 Type	库存 Stock
G-R4-02002	2	0.2	3.5	60	4	A	●
G-R4-03002	3	0.2	4	60	4	A	○
G-R4-04002	4	0.2	6	60	4	B	●
G-R4-04005	4	0.5	6	60	4	B	●
G-R4-06003	6	0.3	9	75	6	B	○
G-R4-06005	6	0.5	9	75	6	B	●
G-R4-08005	8	0.5	12	75	8	B	●
G-R4-08010	8	1	12	75	8	B	○
G-R4-10005	10	0.5	15	100	10	B	●
G-R4-10010	10	1	15	100	10	B	○
G-R4-12005	12	0.5	18	100	12	B	●
G-R4-12010	12	1	18	100	12	B	○

● 标准库存 Stock ○ 需预定 Available Upon Order

圆角半径R	公差 Tol.
R	±0.01

(mm)

外径D	公差 Tol.
0.2≤D<6	0 -0.015
6≤D≤12	0 -0.025

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	石墨 Graphite
							○	◎

◎ 最适合 Most Suitable ○ 适合 Suitable

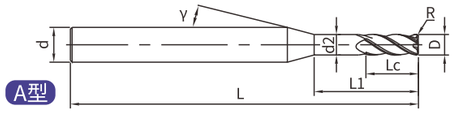
推荐切削参数P158

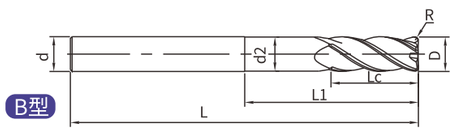
G-RN4

石墨加工4刃长颈圆角头立铣刀

4 flute, corner radius long neck endmill for graphite machining







硬质合金 | 4 | DIA | 40°

订货号 Ordering Code	外径(D) Mill Dia.	圆角(R) Corner Radius	刃长(Lc) Flute Length	颈长(L1) Under Neck Length	颈径(d2) Neck Dia.	全长(L) Overall Length	柄径(d) Shank Dia.	型号 Type	库存 Stock
G-RN4-020015	2	0.15	3.5	6	1.92	60	4	A	○
G-RN4-02002	2	0.2	3.5	6	1.92	60	4	A	●
G-RN4-03002	3	0.2	4	10	2.9	60	4	A	●
G-RN4-03003	3	0.3	4	20	2.9	60	4	A	○
G-RN4-04002	4	0.2	6	20	3.9	75	4	B	●
G-RN4-04005	4	0.5	6	20	3.9	75	4	B	●
G-RN4-04010	4	1	6	20	3.9	75	4	B	○
G-RN4-06005	6	0.5	9	25	5.9	100	6	B	●
G-RN4-06010	6	1	9	25	5.9	100	6	B	○
G-RN4-06015	6	1.5	9	25	5.9	100	6	B	○
G-RN4-08005	8	0.5	12	30	7.9	100	8	B	●
G-RN4-08010	8	1	12	30	7.9	100	8	B	○
G-RN4-08020	8	2	12	30	7.9	100	8	B	○
G-RN4-10005	10	0.5	15	35	9.8	100	10	B	●
G-RN4-10010	10	1	15	35	9.8	100	10	B	○
G-RN4-12005	12	0.5	18	40	11.8	100	12	B	●
G-RN4-12010	12	1	18	40	11.8	100	12	B	○

● 标准库存 Stock ○ 需预定 Available Upon Order

圆角半径R	公差 Tol.
R	±0.01

(mm)

外径D	公差 Tol.
0.2≤D<6	0 -0.015
6≤D≤12	0 -0.025

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	石墨 Graphite
							○	◎

◎ 最适合 Most Suitable ○ 适合 Suitable

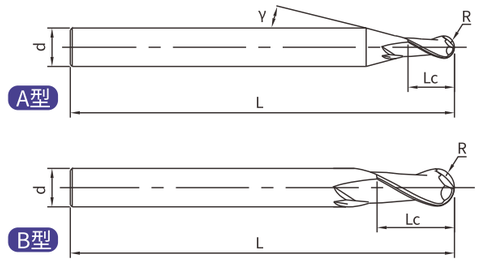
推荐切削参数P158

G-B2

石墨加工2刃球头立铣刀

2 flute, ball nose endmill for graphite machining





硬质合金 | 2 | DIA | 30°

订货号 Ordering Code	外径(D) Mill Dia.	球半径(R) Ball Radius	刃长(Lc) Flute Length	全长(L) Overall Length	柄径(d) Shank Dia.	型号 Type	库存 Stock
G-B2-00502	0.5	0.25	2	50	4	A	●
G-B2-00602	0.6	0.3	2	50	4	A	●
G-B2-00803	0.8	0.4	3	50	4	A	●
G-B2-01003	1	0.5	3	60	4	A	●
G-B2-01505	1.5	0.75	5	60	4	A	●
G-B2-02006	2	1	6	60	4	A	●
G-B2-03008	3	1.5	8	60	4	A	●
G-B2-04016	4	2	16	60	4	B	●
G-B2-06016	6	3	16	60	6	B	●
G-B2-08020	8	4	20	80	8	B	●
G-B2-10025	10	5	25	100	10	B	●
G-B2-12025	12	6	25	100	12	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

球半径R	公差 Tol.
R<3	0 -0.015
3≤R≤6	0 -0.025

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	石墨 Graphite
							○	◎

◎ 最适合 Most Suitable ○ 适合 Suitable

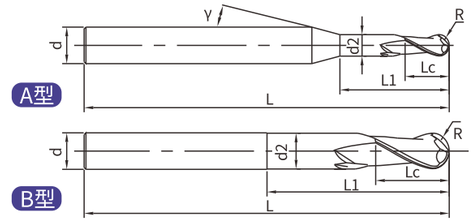
推荐切削参数P158

G-BN2

石墨加工2刃长颈球头立铣刀

2 flute, ball nose long neck endmill for graphite machining





硬质合金 | 2 | DIA | 30°

订货号 Ordering Code	外径(D) Mill Dia.	球半径(R) Ball Radius	颈长(L1) Under Neck Length	刃长(Lc) Flute Length	颈径(d2) Neck Dia.	全长(L) Overall Length	柄径(d) Shank Dia.	型号 Type	库存 Stock
G-BN2-00505	0.5	0.25	5	2	0.46	50	4	A	●
G-BN2-00606	0.6	0.3	6	2	0.55	50	4	A	●
G-BN2-00610	0.6	0.3	10	2	0.55	50	4	A	○
G-BN2-00808	0.8	0.4	8	3	0.75	50	4	A	●
G-BN2-00815	0.8	0.4	15	3	0.75	50	4	A	○
G-BN2-01008	1	0.5	8	3	0.95	60	4	A	○
G-BN2-01010	1	0.5	10	3	0.95	60	4	A	●
G-BN2-01508	1.5	0.75	8	5	1.44	75	4	A	●
G-BN2-01515	1.5	0.75	15	5	1.44	75	4	A	●
G-BN2-01525	1.5	0.75	25	5	1.44	75	4	A	○
G-BN2-02010	2	1	10	6	1.92	75	4	A	○
G-BN2-02015	2	1	15	6	1.92	75	4	A	●
G-BN2-02025	2	1	25	6	1.92	75	4	A	○
G-BN2-03015	3	1.5	15	8	2.9	75	4	A	●
G-BN2-03025	3	1.5	25	8	2.9	75	4	A	○
G-BN2-04025	4	2	25	12	3.9	75	4	B	●
G-BN2-04040	4	2	40	12	3.9	100	4	B	○
G-BN2-06025	6	3	25	18	5.9	75	6	B	●
G-BN2-06040	6	3	40	18	5.9	100	6	B	○
G-BN2-08030	8	4	30	20	7.9	100	8	B	●
G-BN2-08040	8	4	40	20	7.9	100	8	B	○
G-BN2-10035	10	5	35	25	9.8	100	10	B	●
G-BN2-10050	10	5	50	25	9.8	100	10	B	○
G-BN2-12050	12	6	50	25	11.8	100	12	B	●

● 标准库存 Stock ○ 需预定 Available Upon Order

球半径R	公差 Tol.
R<3	0 -0.015
3≤R≤6	0 -0.025

(mm)

工件材料 Workpiece Materials

碳素钢 合金钢 Carbon steels Alloy steels	预硬化钢 Pre-hardened steels <45HRC	高硬材料 Hardened steels 45HRC-55HRC	高硬材料 Hardened steels 55HRC-65HRC	高硬材料 Hardened steels >65HRC	不锈钢 Stainless steels	钛合金 耐热合金 Ti alloy Heat-resistant alloy	铜合金 Copper alloy	石墨 Graphite
							○	◎

◎ 最适合 Most Suitable ○ 适合 Suitable

推荐切削参数P158

UM系列

小径深加工立铣刀
UM series endmill for small diameter deep machining



特殊的避空设计，耐折损性高
Special reduced neck design gives high breakage resistance

适用于碳钢、合金钢、淬硬钢、铜、铝合金（＜55HRC）的深沟槽微加工
Suitable for small diameter & deep machining of carbon steel, alloy steel, hardened steel, coper, aluminum alloy (<55HRC)

采用高性能超细晶基体配合高性能AlCrSiN涂层，耐高温，耐磨损，在重载粗加工况也能轻松驾驭
Use high performance ultra fine substrate, together with high performance AlCrSiN coating, good heat resistance and wear resistance. Also suitable for heavy roughing

高的刃径精度 Flute diameter tolerence	0.1≤D≤0.5：$^{0}_{-0.007}$　0.6≤D≤0.9：$^{0}_{-0.010}$ 1.0≤D≤6.0：$^{0}_{-0.015}$
高的R弧轮廓精度 R profile tolerance	R±0.005
高的球头轮廓精度 Ball nose profile tolerance	R≤0.25，R±0.003 R＞0.25，R±0.005
高的刀柄外径精度 Shank diameter tolerance	h5

- 刀具型号：UM-BN2-006040
- 刀具规格：R0.3*0.48*4*50*d4
- 加工材料：铜钨合金（25~30HRC）
- 切削速度：30000RPM
- 进给速度：500mm/min
- 切削方式：仿形精加工
- 切削量：ap=0.01mm，ae=0.02mm
- 冷却方式：油雾冷却



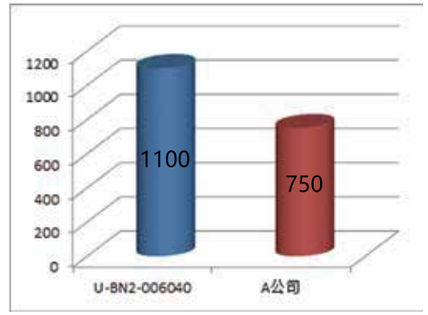
UM-BN2-006040



A

- Model No:UM-BN2-006040
- Specification:R0.3*0.48*4*50*d4
- Workpiece material:Coper tungsten alloy（25~30HRC）
- Cutting speed:30000RPM
- Feed rate:500mm/min
- Way of cutting:profile finish milling
- ap, ae:ap=0.01mm，ae=0.02mm
- Coolant:Oil mist

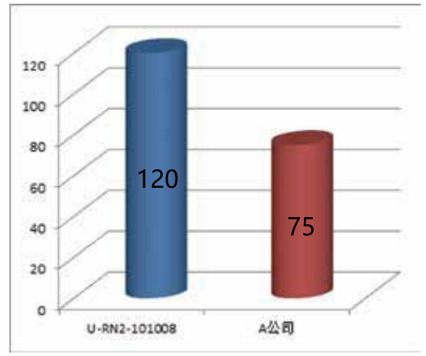
加工时间（min）
Processing time

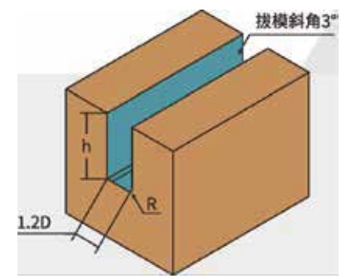


- 刀具型号：UM-RN2-101008
- 刀具规格：D1*R0.1*0.8*10*50*d4
- 加工材料：NAK80（42HRC）
- 切削速度：26438RPM
- 进给速度：634mm/min
- 切削方式：等高线顺铣
- 切削量：ap=0.016mm
- 冷却方式：气冷

- Model No:UM-RN2-101008
- Specification:D1*R0.1*0.8*10*50*d4
- Workpiece material:NAK80（42HRC）
- Cutting speed:26438RPM
- Feed rate:634mm/min
- Way of cutting: contour milling
- ap, ae:ap=0.016mm
- Coolant:air coolant

加工距离（m）
Cutting length



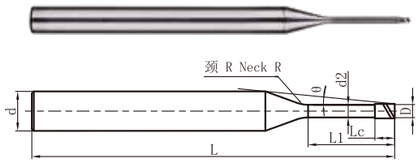


UM-SN2

小径深加工2刃平头立铣刀

2 flute, square endmill for small diameter & deep machining

硬质合金 | 2 | AlCrSiN | 30°



订货号 Ordering Code	外径 (D) Mill Dia.	颈长 (L1) Under Neck Length	刃长 (Lc) Flute Length	颈径 (d2) Neck Dia.	全长 (L) Overall Length	柄径 (d) Shank Dia.	颈 (R) Neck R	干涉角 (Θ) Interference Angle	对应拔模角的有效颈长 The effective under-neck length for the various draft angles					库存 Stock
									0.5°	1°	1.5°	2°	3°	
UM-SN2-01002	0.1	0.3	0.15	0.08	50	4	1	14.39	0.31	0.33	0.35	0.37	0.40	●
UM-SN2-01005		0.5						14.03	0.52	0.55	0.58	0.60	0.65	●
UM-SN2-01010		1						13.22	1.05	1.09	1.13	1.18	1.27	●
UM-SN2-02005	0.2	0.5	0.3	0.17	50	4	1	14.03	0.52	0.54	0.57	0.59	0.64	●
UM-SN2-02010		1						13.20	1.04	1.08	1.12	1.16	1.26	●
UM-SN2-02015		1.5						12.45	1.56	1.62	1.67	1.74	1.88	●
UM-SN2-02020		2						11.79	2.08	2.15	2.23	2.31	2.50	●
UM-SN2-02030		3						10.65	3.11	3.22	3.34	3.46	3.74	●
UM-SN2-03010	0.3	1	0.45	0.27	50	4	2	13.06	1.06	1.12	1.18	1.23	1.33	●
UM-SN2-03015		1.5						12.31	1.59	1.67	1.74	1.81	1.95	●
UM-SN2-03020		2						11.65	2.12	2.21	2.29	2.38	2.57	●
UM-SN2-03025		2.5						11.05	2.64	2.75	2.85	2.96	3.20	●
UM-SN2-03030		3						10.51	3.16	3.28	3.40	3.53	3.82	●
UM-SN2-04010	0.4	1	0.6	0.37	50	4	2	13.01	1.06	1.12	1.18	1.23	1.33	●
UM-SN2-04015		1.5						12.25	1.59	1.67	1.74	1.81	1.95	●
UM-SN2-04020		2						11.57	2.12	2.21	2.29	2.38	2.57	●
UM-SN2-04025		2.5						10.97	2.64	2.75	2.85	2.96	3.20	●
UM-SN2-04030		3						10.42	3.16	3.28	3.40	3.53	3.82	●
UM-SN2-04035		3.5						9.92	3.68	3.82	3.96	4.11	4.44	●
UM-SN2-04040		4						9.47	4.20	4.35	4.51	4.68	5.06	●
UM-SN2-04050		5						8.68	5.24	5.42	5.62	5.83	6.30	●
UM-SN2-04060		6						8.01	6.27	6.49	6.73	6.98	7.55	●
UM-SN2-04080		8						6.94	8.34	8.63	8.94	9.28	10.03	●
UM-SN2-04100		10						6.12	10.41	10.77	11.16	11.58	12.52	●
UM-SN2-05010	0.5	1	0.75	0.47	50	4	2	12.96	1.06	1.12	1.18	1.23	1.33	●
UM-SN2-05015		1.5						12.19	1.59	1.67	1.74	1.81	1.95	●
UM-SN2-05020		2						11.50	2.12	2.21	2.29	2.38	2.57	●
UM-SN2-05025		2.5						10.88	2.64	2.75	2.85	2.96	3.20	●
UM-SN2-05030		3						10.33	3.16	3.28	3.40	3.53	3.82	●
UM-SN2-05040		4						9.37	4.20	4.35	4.51	4.68	5.06	●
UM-SN2-05050		5						8.58	5.24	5.42	5.62	5.83	6.30	●
UM-SN2-05060		6						7.91	6.27	6.49	6.73	6.98	7.55	●
UM-SN2-05080		8						6.84	8.34	8.63	8.94	9.28	10.03	●
UM-SN2-05100		10						6.02	10.41	10.77	11.16	11.58	12.52	●
UM-SN2-06020	0.6	2	0.9	0.57	50	4	4	11.21	2.17	2.31	2.44	2.56	2.78	●
UM-SN2-06030		3						10.07	3.24	3.42	3.58	3.72	4.02	●
UM-SN2-06040		4						9.13	4.30	4.51	4.69	4.87	5.26	●
UM-SN2-06050		5						8.36	5.35	5.59	5.80	6.02	6.50	●
UM-SN2-06060		6						7.70	6.40	6.67	6.91	7.17	7.75	●
UM-SN2-06070		7						7.14	7.44	7.74	8.02	8.32	8.99	●
UM-SN2-06080		8						6.66	8.49	8.81	9.12	9.47	10.23	●
UM-SN2-06090		9						6.23	9.53	9.88	10.23	10.62	11.48	●
UM-SN2-06100		10						5.86	10.57	10.94	11.34	11.77	12.72	●

● 标准库存 Stock ○ 需预定 Available Upon Order 推荐切削参数P159/P163

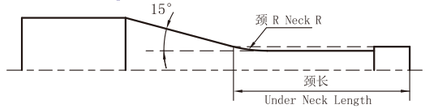
外径D	公差 Tol.	外径D	公差 Tol.	外径D	公差 Tol.
0.1≤D≤0.5	0 -0.007	0.6≤D≤0.9	0 -0.01	1.0≤D≤6.0	0 -0.015

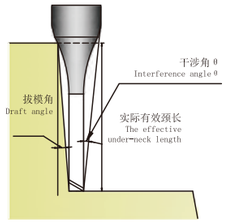
(mm)

UM-SN2

小径深加工2刃平头立铣刀

2 flute, square endmill for small diameter & deep machining





订货号 Ordering Code	外径 (D) Mill Dia.	颈长 (L1) Under Neck Length	刃长 (Lc) Flute Length	颈径 (d2) Neck Dia.	全长 (L) Overall Length	柄径 (d) Shank Dia.	颈 (R) Neck R	干涉角 (Θ) Interference Angle	对应拔模角的有效颈长 The effective under-neck length for the various draft angles					库存 Stock
									0.5°	1°	1.5°	2°	3°	
UM-SN2-07020	0.7	2	1.05	0.67	50	4	4	11.13	2.17	2.31	2.44	2.56	2.78	●
UM-SN2-07040		4						9.02	4.30	4.51	4.69	4.87	5.26	●
UM-SN2-07060		6						7.59	6.40	6.67	6.91	7.17	7.75	●
UM-SN2-07080		8						6.54	8.49	8.81	9.12	9.47	10.23	●
UM-SN2-07100		10						5.75	10.57	10.94	11.34	11.77	12.72	●
UM-SN2-08040	0.8	4	1.2	0.76	50	4	4	8.94	4.27	4.48	4.65	4.83	5.22	●
UM-SN2-08060		6			50			7.49	6.37	6.63	6.87	7.13	7.70	●
UM-SN2-08080		8			50			6.45	8.46	8.77	9.09	9.43	10.19	●
UM-SN2-08100		10			50			5.65	10.54	10.91	11.30	11.73	12.68	●
UM-SN2-08120		12			55			5.04	12.61	13.05	13.52	14.03	15.16	●
UM-SN2-09060	0.9	6	1.35	0.86	50	4	4	7.37	6.37	6.63	6.87	7.13	7.70	●
UM-SN2-09080		8			50			6.33	8.46	8.77	9.09	9.43	10.19	●
UM-SN2-09100		10			50			5.54	10.54	10.91	11.30	11.73	12.68	●
UM-SN2-09120		12			55			4.93	12.61	13.05	13.52	14.03	15.16	●
UM-SN2-10020	1	2	1.5	0.96	50	4	4	10.89	2.15	2.29	2.41	2.52	2.73	●
UM-SN2-10030		3			50			9.68	3.21	3.39	3.54	3.68	3.98	●
UM-SN2-10040		4			50			8.71	4.27	4.48	4.65	4.83	5.22	●
UM-SN2-10050		5			50			7.91	5.32	5.56	5.76	5.98	6.46	●
UM-SN2-10060		6			50			7.25	6.37	6.63	6.87	7.13	7.70	●
UM-SN2-10070		7			50			6.69	7.41	7.7	7.98	8.28	8.95	●
UM-SN2-10080		8			50			6.21	8.46	8.77	9.09	9.43	10.19	●
UM-SN2-10090		9			50			5.79	9.50	9.84	10.19	10.58	11.43	●
UM-SN2-10100		10			50			5.43	10.54	10.91	11.30	11.73	12.68	●
UM-SN2-10120		12			55			4.82	12.61	13.05	13.52	14.03	15.16	●
UM-SN2-10140		14			55			4.34	14.67	15.19	15.73	16.32	17.65	●
UM-SN2-10160		16			55			3.94	16.74	17.33	17.95	18.62	20.14	●
UM-SN2-10200		20			60			3.33	20.88	21.6	22.38	23.22	25.11	●
UM-SN2-10250		25			65			2.79	26.05	26.95	27.93	28.97	-	●
UM-SN2-12060	1.2	6	1.8	1.15	50	4	4	7.01	6.35	6.6	6.84	7.09	7.67	●
UM-SN2-12080		8			50			5.97	8.43	8.74	9.05	9.39	10.16	●
UM-SN2-12100		10			50			5.20	10.51	10.88	11.27	11.69	12.64	●
UM-SN2-12120		12			55			4.61	12.58	13.02	13.49	13.99	15.13	●
UM-SN2-12160		16			55			3.75	16.71	17.3	17.92	18.59	20.10	●
UM-SN2-14060	1.4	6	2.1	1.34	50	4	4	6.74	6.33	6.57	6.81	7.07	7.64	●
UM-SN2-14120		12			55			4.38	12.55	12.99	13.46	13.97	15.10	●
UM-SN2-15040	1.5	4	2.25	1.44	50	4	4	8.08	4.24	4.43	4.59	4.77	5.15	●
UM-SN2-15060		6			50			6.60	6.33	6.57	6.81	7.07	7.64	●
UM-SN2-15080		8			50			5.58	8.41	8.71	9.03	9.37	10.13	●
UM-SN2-15100		10			50			4.83	10.48	10.85	11.24	11.67	12.61	●
UM-SN2-15120		12			55			4.26	12.55	12.99	13.46	13.97	15.10	●
UM-SN2-15140		14			55			3.81	14.62	15.13	15.68	16.26	17.58	●
UM-SN2-15160		16			55			3.44	16.69	17.27	17.89	18.56	20.07	●
UM-SN2-15180		18			60			3.14	18.76	19.41	20.11	20.86	22.56	●

● 标准库存 Stock
○ 需预定 Available Upon Order
推荐切削参数P160/P164

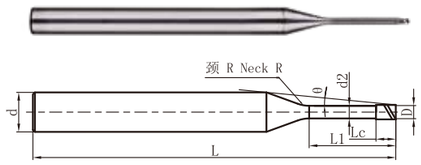
外径D	公差 Tol.	外径D	公差 Tol.	外径D	公差 Tol.
0.1≤D≤0.5	0 -0.007	0.6≤D≤0.9	0 -0.01	1.0≤D≤6.0	0 -0.015

(mm)

UM-SN2

小径深加工2刃平头立铣刀
2 flute, square endmill for small diameter & deep machining

硬质合金 | 2 | AlCrSiN | 30°



订货号 Ordering Code	外径 (D) Mill Dia.	颈长 (L1) Under Neck Length	刃长 (Lc) Flute Length	颈径 (d2) Neck Dia.	全长 (L) Overall Length	柄径 (d) Shank Dia.	颈 (R) Neck R	干涉角 (Θ) Interference Angle	对应拔模角的有效颈长 The effective under-neck length for the various draft angles					库存 Stock
									0.5°	1°	1.5°	2°	3°	
UM-SN2-15200	1.5	20	2.25	1.44	60	4	4	2.89	20.82	21.55	22.33	23.16	-	●
UM-SN2-15250		25			65			2.41	25.99	26.9	27.87	28.91	-	●
UM-SN2-15300		30			70			2.06	31.16	32.25	33.41	34.66	-	●
UM-SN2-15350		35			75			1.80	36.33	37.59	38.95	-	-	●
UM-SN2-15400		40			80			1.60	41.50	42.94	44.49	-	-	●
UM-SN2-16060	1.6	6	2.4	1.54	50	4	4	6.45	6.33	6.57	6.81	7.07	7.64	●
UM-SN2-16080		8			50			5.43	8.41	8.71	9.03	9.37	10.13	●
UM-SN2-18060	1.8	6	2.7	1.73	50	4	4	6.14	6.31	6.55	6.79	7.04	7.61	●
UM-SN2-18080		8			50			5.14	8.39	8.69	9.00	9.34	10.10	●
UM-SN2-20040	2	4	3	1.92	50	4	4	7.27	4.21	4.39	4.55	4.72	5.11	●
UM-SN2-20060		6			50			5.81	6.30	6.53	6.77	7.02	7.59	●
UM-SN2-20080		8			50			4.83	8.38	8.67	8.99	9.32	10.08	●
UM-SN2-20100		10			50			4.14	10.45	10.81	11.20	11.62	12.57	●
UM-SN2-20120		12			55			3.62	12.51	12.95	13.42	13.92	15.05	●
UM-SN2-20140		14			55			3.21	14.58	15.09	15.64	16.22	17.54	●
UM-SN2-20160		16			55			2.89	16.65	17.23	17.85	18.52	-	●
UM-SN2-20180		18			60			2.63	18.72	19.37	20.07	20.82	-	●
UM-SN2-20200		20			60			2.41	20.78	21.51	22.28	23.12	-	●
UM-SN2-20250		25			65			1.99	25.95	26.86	27.83	-	-	●
UM-SN2-20300		30			70			1.70	31.12	32.2	33.37	-	-	●
UM-SN2-20350		35			75			1.48	36.29	37.55	-	-	-	●
UM-SN2-20400		40			80			1.31	41.46	42.9	-	-	-	●
UM-SN2-20500		50			90			1.07	51.79	53.6	-	-	-	●
UM-SN2-25080	2.5	8	3.75	2.4	50	4	4	3.95	8.35	8.64	8.95	9.29	10.04	●
UM-SN2-25120		12			55			2.89	12.48	12.92	13.39	13.89	-	●
UM-SN2-25160		16			55			2.28	16.62	17.2	17.82	18.49	-	●
UM-SN2-25200		20			60			1.88	20.75	21.48	22.25	-	-	●
UM-SN2-25300		30			70			1.31	31.09	32.17	-	-	-	●
UM-SN2-25400		40			80			1.01	41.43	42.87	-	-	-	●
UM-SN2-25500		50			90			0.82	51.76	-	-	-	-	●
UM-SN2-30080	3	8	4.5	2.88	55	6	4	6.27	8.33	8.62	8.93	9.26	10.02	●
UM-SN2-30120		12			60			4.86	12.46	12.9	13.36	13.86	14.99	●
UM-SN2-30160		16			60			3.97	16.60	17.17	17.79	18.46	19.96	●
UM-SN2-30200		20			65			3.35	20.73	21.45	22.23	23.06	24.93	●
UM-SN2-30250		25			70			2.81	25.90	26.8	27.77	28.81	-	●
UM-SN2-30300		30			75			2.41	31.07	32.15	33.31	34.56	-	●
UM-SN2-30400		40			90			1.89	41.40	42.85	44.39	-	-	●
UM-SN2-30500		50			100			1.55	51.74	53.54	55.48	-	-	●
UM-SN2-40120	4	12	6	3.86	60	6	4	3.63	12.44	12.88	13.34	13.84	14.97	●
UM-SN2-40160		16			60			2.90	16.58	17.16	17.78	18.44	-	●
UM-SN2-40200		20			70			2.41	20.71	21.43	22.21	23.04	-	●
UM-SN2-40250		25			70			2.00	25.88	26.78	27.75	-	-	●
UM-SN2-40300		30			80			1.70	31.05	32.13	33.29	-	-	●

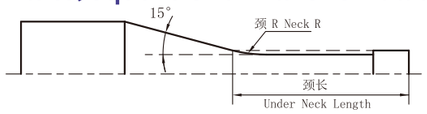
● 标准库存 Stock　　需预定 Available Upon Order　　推荐切削参数P161/P165

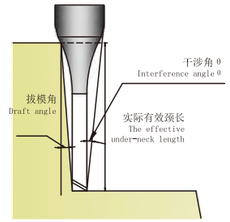
外径D	公差 Tol.	外径D	公差 Tol.	外径D	公差 Tol.
0.1≤D≤0.5	0 -0.007	0.6≤D≤0.9	0 -0.01	1.0≤D≤6.0	0 -0.015

(mm)

UM-SN2

小径深加工2刃平头立铣刀
2 flute, square endmill for small diameter & deep machining





订货号 Ordering Code	外径 (D) Mill Dia.	颈长 (L1) Under Neck Length	刃长 (Lc) Flute Length	颈径 (d2) Neck Dia.	全长 (L) Overall Length	柄径 (d) Shank Dia.	颈 (R) Neck R	干涉角 (Θ) Interference Angle	对应拔模角的有效颈长 The effective under-neck length for the various draft angles					库存 Stock
									0.5°	1°	1.5°	2°	3°	
UM-SN2-40350	4	35	6	3.86	80	6	4	1.48	36.22	37.48	-	-	-	●
UM-SN2-40400		40			90			1.31	41.39	42.83	-	-	-	●
UM-SN2-40500		50			100			1.07	51.72	53.52	-	-	-	●
UM-SN2-50200	5	20	7.5	4.85	70	6	4	1.31	20.71	21.43	-	-	-	●
UM-SN2-50250		25			70			1.07	25.87	26.78	-	-	-	●
UM-SN2-50300		30			80			0.90	31.04	-	-	-	-	●
UM-SN2-50400		40			90			0.69	41.38	-	-	-	-	●
UM-SN2-50500		50			100			0.56	51.72	-	-	-	-	●
UM-SN2-60200	6	20	9	5.85	70	6	-	-	-	-	-	-	-	●
UM-SN2-60300		30			80			-	-	-	-	-	-	●
UM-SN2-60400		40			90			-	-	-	-	-	-	●
UM-SN2-60500		50			100			-	-	-	-	-	-	●

● 标准库存 Stock　　○ 需预定 Available Upon Order　　推荐切削参数P162/P166

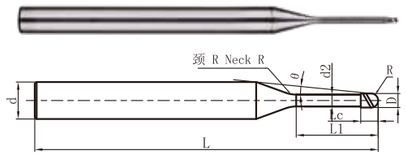
外径D	公差 Tol.
0.1≤D≤0.5	0 -0.007
0.6≤D≤0.9	0 -0.01
1.0≤D≤6.0	0 -0.015

(mm)

UM-BN2

小径深加工2刃球头立铣刀
2 flute, ball nose endmill for small diameter & machining

硬质合金 | 2 | AlCrSiN | 30°



订货号 Ordering Code	外径(D) Mill Dia.	球半径(R) Ball Radius	颈长(L1) Under Neck Length	刃长(Lc) Flute Length	颈径(d2) Neck Dia.	全长(L) Overall Length	柄径(d) Shank Dia.	颈(R) Neck R	干涉角(Θ) Interference Angle	对应拔模角的有效颈长 The effective under-neck length for the various draft angles 0.5°	1°	1.5°	2°	3°	库存 Stock
UM-BN2-01002	0.1	0.05	0.2	0.08	0.08	50	4	1	14.66	0.2	0.21	0.22	0.24	0.26	●
UM-BN2-01003			0.3						14.48	0.31	0.33	0.34	0.36	0.39	●
UM-BN2-01005			0.5						14.12	0.52	0.55	0.57	0.59	0.64	●
UM-BN2-02005	0.2	0.1	0.5	0.16	0.17	50	4	1	14.21	0.51	0.53	0.55	0.57	0.61	●
UM-BN2-020075			0.75						13.77	0.78	0.8	0.83	0.86	0.92	●
UM-BN2-02010			1						13.36	1.04	1.07	1.11	1.15	1.23	●
UM-BN2-020125			1.25						12.97	1.3	1.34	1.39	1.43	1.54	●
UM-BN2-02015			1.5						12.6	1.56	1.61	1.66	1.72	1.85	●
UM-BN2-02020			2						11.92	2.07	2.14	2.22	2.3	2.48	●
UM-BN2-02025			2.5						11.31	2.59	2.68	2.77	2.87	3.1	●
UM-BN2-02030			3						10.76	3.11	3.21	3.33	3.45	3.72	●
UM-BN2-03005	0.3	0.15	0.5	0.24	0.27	50	4	2	14.17	0.52	0.55	0.57	0.6	0.66	●
UM-BN2-030075			0.75						13.72	0.79	0.83	0.87	0.91	0.98	●
UM-BN2-03010			1						13.3	1.05	1.11	1.16	1.2	1.29	●
UM-BN2-030125			1.25						12.9	1.32	1.38	1.44	1.5	1.61	●
UM-BN2-03015			1.5						12.53	1.58	1.66	1.72	1.78	1.92	●
UM-BN2-03020			2						11.84	2.11	2.2	2.28	2.36	2.54	●
UM-BN2-03025			2.5						11.22	2.63	2.74	2.83	2.93	3.16	●
UM-BN2-03030			3						10.66	3.15	3.27	3.39	3.51	3.78	●
UM-BN2-040075	0.4	0.2	0.75	0.32	0.37	50	4	2	13.78	0.78	0.82	0.86	0.9	0.97	●
UM-BN2-04010			1						13.34	1.05	1.1	1.15	1.19	1.28	●
UM-BN2-04015			1.5						12.55	1.58	1.65	1.72	1.78	1.9	●
UM-BN2-04020			2						11.84	2.11	2.19	2.27	2.35	2.53	●
UM-BN2-04025			2.5						11.2	2.63	2.73	2.83	2.93	3.15	●
UM-BN2-04030			3						10.63	3.15	3.27	3.38	3.5	3.77	●
UM-BN2-04035			3.5						10.12	3.67	3.8	3.94	4.08	4.39	●
UM-BN2-04040			4						9.65	4.19	4.34	4.49	4.65	5.01	●
UM-BN2-04045			4.5						9.22	4.71	4.87	5.04	5.23	5.63	●
UM-BN2-05010	0.5	0.25	1	0.4	0.47	50	4	2	13.39	1.05	1.09	1.14	1.19	1.27	●
UM-BN2-05015			1.5						12.56	1.58	1.65	1.71	1.77	1.89	●
UM-BN2-05020			2						11.83	2.1	2.19	2.27	2.34	2.51	●
UM-BN2-05025			2.5						11.18	2.63	2.73	2.82	2.92	3.14	●
UM-BN2-05030			3						10.6	3.15	3.27	3.38	3.49	3.76	●
UM-BN2-05040			4						9.6	4.19	4.34	4.48	4.64	5	●
UM-BN2-05050			5						8.77	5.23	5.41	5.59	5.79	6.24	●
UM-BN2-05055			5.5						8.4	5.75	5.94	6.15	6.37	6.86	●
UM-BN2-05060			6						8.07	6.27	6.48	6.7	6.94	7.49	●
UM-BN2-05080			8						6.96	8.33	8.62	8.92	9.24	9.97	●
UM-BN2-06010	0.6	0.3	1	0.48	0.57	50	4	4	13.15	1.07	1.14	1.2	1.27	1.41	●
UM-BN2-06020			2						11.61	2.15	2.28	2.39	2.5	2.7	●
UM-BN2-06025			2.5						10.96	2.68	2.84	2.97	3.09	3.32	●
UM-BN2-06030			3						10.38	3.22	3.39	3.54	3.67	3.95	●
UM-BN2-06035			3.5						9.86	3.75	3.94	4.1	4.25	4.57	●

● 标准库存 Stock ○ 需预定 Available Upon Order

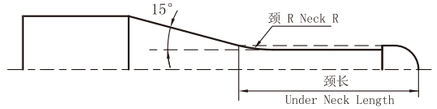
推荐切削参数P167/P172

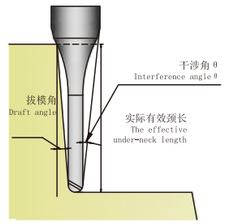
球半径R	公差 Tol.
R≤0.25	±0.003
R>0.25	±0.005

(mm)

UM-BN2

小径深加工2刃球头立铣刀
2 flute, ball nose endmill for small diameter & machining





订货号 Ordering Code	外径(D) Mill Dia.	球半径(R) Ball Radius	颈长(L1) Under Neck Length	刃长(Lc) Flute Length	颈径(d2) Neck Dia.	全长(L) Overall Length	柄径(d) Shank Dia.	颈(R) Neck R	干涉角(Θ) Interference Angle	对应拔模角的有效颈长 The effective under-neck length for the various draft angles 0.5°	1°	1.5°	2°	3°	库存 Stock
UM-BN2-06040	0.6	0.3	4	0.48	0.57	50	4	4	9.39	4.28	4.48	4.66	4.82	5.19	●
UM-BN2-06045			4.5			50			8.97	4.81	5.03	5.21	5.4	5.81	●
UM-BN2-06050			5			50			8.57	5.33	5.57	5.77	5.97	6.43	●
UM-BN2-06055			5.5			50			8.22	5.86	6.11	6.32	6.55	7.05	●
UM-BN2-06060			6			50			7.89	6.38	6.64	6.87	7.12	7.67	●
UM-BN2-06070			7			50			7.3	7.43	7.71	7.98	8.27	8.92	●
UM-BN2-06080			8			50			6.79	8.48	8.78	9.09	9.42	10.16	●
UM-BN2-06090			9			50			6.35	9.52	9.85	10.2	10.57	11.4	●
UM-BN2-06100			10			50			5.97	10.56	10.92	11.31	11.72	12.65	●
UM-BN2-06120			12			50			5.32	12.63	13.06	13.52	14.02	15.13	●
UM-BN2-07020	0.7	0.35	2	0.56	0.67	50	4	4	11.6	2.14	2.27	2.39	2.49	2.69	●
UM-BN2-07040			4			50			9.33	4.27	4.48	4.65	4.81	5.18	●
UM-BN2-07060			6			50			7.81	6.38	6.64	6.87	7.11	7.66	●
UM-BN2-07080			8			50			6.71	8.47	8.78	9.09	9.41	10.15	●
UM-BN2-08020	0.8	0.4	2	0.64	0.76	50	4	4	11.64	2.12	2.24	2.35	2.45	2.63	●
UM-BN2-08040			4			50			9.3	4.25	4.44	4.61	4.77	5.12	●
UM-BN2-08050			5			50			8.45	5.3	5.53	5.72	5.92	6.36	●
UM-BN2-08060			6			50			7.74	6.35	6.6	6.83	7.07	7.61	●
UM-BN2-08080			8			50			6.63	8.44	8.74	9.04	9.37	10.09	●
UM-BN2-08100			10			50			5.8	10.52	10.88	11.26	11.67	12.58	●
UM-BN2-09020	0.9	0.45	2	0.72	0.86	50	4	4	11.63	2.12	2.23	2.34	2.44	2.62	●
UM-BN2-09040			4			50			9.24	4.25	4.44	4.6	4.76	5.11	●
UM-BN2-09060			6			50			7.66	6.35	6.6	6.82	7.06	7.6	●
UM-BN2-09080			8			50			6.54	8.44	8.74	9.04	9.36	10.08	●
UM-BN2-10020	1	0.5	2	0.8	0.96	50	4	4	11.62	2.12	2.23	2.33	2.43	2.61	●
UM-BN2-10030			3			50			10.25	3.18	3.34	3.48	3.6	3.85	●
UM-BN2-10040			4			50			9.17	4.24	4.43	4.6	4.75	5.1	●
UM-BN2-10050			5			50			8.29	5.3	5.52	5.71	5.9	6.34	●
UM-BN2-10060			6			50			7.57	6.35	6.59	6.81	7.05	7.58	●
UM-BN2-10070			7			50			6.96	7.39	7.66	7.92	8.2	8.83	●
UM-BN2-10080			8			50			6.44	8.44	8.73	9.03	9.35	10.07	●
UM-BN2-10090			9			50			5.99	9.48	9.8	10.14	10.5	11.31	●
UM-BN2-10100			10			50			5.6	10.52	10.87	11.25	11.65	12.56	●
UM-BN2-10120			12			55			4.96	12.59	13.01	13.46	13.95	15.04	●
UM-BN2-10130			13			55			4.69	13.62	14.08	14.57	15.1	16.29	●
UM-BN2-10140			14			55			4.45	14.66	15.15	15.68	16.25	17.53	●
UM-BN2-10160			16			55			4.03	16.73	17.29	17.9	18.55	20.01	●
UM-BN2-10180			18			60			3.69	18.79	19.43	20.11	20.85	22.5	●
UM-BN2-10120			20			60			3.4	20.86	21.57	22.33	23.15	24.99	●
UM-BN2-11020	1.1	0.55	2	0.88	1.06	50	4	4	11.61	2.11	2.22	2.32	2.42	2.6	●
UM-BN2-11040			4			50			9.09	4.24	4.43	4.59	4.74	5.08	●
UM-BN2-11060			6			50			8.57	5.33	5.57	5.77	5.97	6.43	●
UM-BN2-11080			8			50			6.34	8.43	8.73	9.03	9.34	10.06	●

球半径R	公差 Tol.
R≤0.25	±0.003
R>0.25	±0.005

(mm)

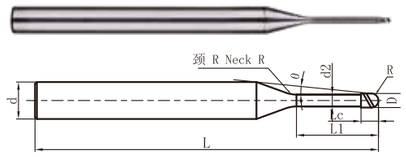
● 标准库存 Stock ○ 需预定 Available Upon Order

推荐切削参数P168/P173

UM-BN2

小径深加工2刃球头立铣刀
2 flute, ball nose endmill for small diameter & machining

硬质合金 | 2 | AlCrSiN | 30°



订货号 Ordering Code	外径 (D) Mill Dia.	球半径 (R) Ball Radius	颈长 (L1) Under Neck Length	刃长 (Lc) Flute Length	颈径 (d2) Neck Dia.	全长 (L) Overall Length	柄径 (d) Shank Dia.	颈 (R) Neck R	干涉角 (Θ) Interference Angle	对应拔模角的有效颈长 The effective under-neck length for the various draft angles 0.5°	1°	1.5°	2°	3°	库存 Stock
UM-BN2-11100	1.1	0.55	10	0.88	1.06	50	4	4	5.5	10.51	10.87	11.24	11.64	12.54	●
UM-BN2-12040	1.2	0.6	4	0.96	1.15	50	4	4	9.05	4.22	4.4	4.55	4.7	5.04	●
UM-BN2-12080			8			50			6.25	8.41	8.7	8.99	9.3	10.01	●
UM-BN2-12100			10			50			5.41	10.49	10.84	11.21	11.6	12.5	●
UM-BN2-12120			12			55			4.77	12.56	12.97	13.42	13.9	14.98	●
UM-BN2-14080	1.4	0.7	8	1.12	1.34	50	4	4	6.04	8.38	8.66	8.95	9.26	9.96	●
UM-BN2-14120			12			55			4.56	12.53	12.94	13.38	13.86	14.93	●
UM-BN2-14160			16			55			3.67	16.66	17.22	17.82	18.46	19.9	●
UM-BN2-15040	1.5	0.75	4	1.2	1.44	50	4	4	8.82	4.2	4.36	4.51	4.65	4.97	●
UM-BN2-15060			6			50			7.08	6.29	6.52	6.73	6.95	7.46	●
UM-BN2-15080			8			50			5.92	8.38	8.66	8.95	9.25	9.94	●
UM-BN2-15100			10			50			5.08	10.46	10.8	11.16	11.55	12.43	●
UM-BN2-15120			12			55			4.45	12.53	12.94	13.38	13.85	14.92	●
UM-BN2-15140			14			55			3.96	14.6	15.08	15.6	16.15	17.4	●
UM-BN2-15160			16			55			3.57	16.66	17.22	17.81	18.45	19.89	●
UM-BN2-15180			18			60			3.25	18.73	19.36	20.03	20.75	22.38	●
UM-BN2-15200			20			60			2.98	20.8	21.5	22.25	23.05	-	●
UM-BN2-16080	1.6	0.8	8	1.28	1.54	50	4	4	5.8	8.38	8.66	8.94	9.25	9.93	●
UM-BN2-16120			12			55			4.34	12.53	12.94	13.37	13.85	14.9	●
UM-BN2-16160			16			55			3.47	16.66	17.21	17.81	18.44	19.88	●
UM-BN2-16200			20			60			2.89	20.8	21.49	22.24	23.04	-	●
UM-BN2-18080	1.8	0.9	8	1.44	1.73	50	4	4	5.55	8.36	8.63	8.91	9.21	9.88	●
UM-BN2-18120			12			55			4.11	12.5	12.91	13.34	13.81	14.85	●
UM-BN2-18160			16			55			3.26	16.64	17.19	17.77	18.41	19.83	●
UM-BN2-18200			20			60			2.7	20.77	21.46	22.21	23.01	-	●
UM-BN2-20030	2	1	3	1.6	1.92	50	4	4	9.72	3.11	3.22	3.32	3.42	3.62	●
UM-BN2-20040			4			50			8.32	4.16	4.31	4.44	4.57	4.86	●
UM-BN2-20060			6			50			6.46	6.26	6.46	6.66	6.87	7.35	●
UM-BN2-20080			8			50			5.27	8.34	8.6	8.88	9.17	9.84	●
UM-BN2-20100			10			50			4.46	10.41	10.74	11.09	11.47	12.32	●
UM-BN2-20120			12			55			3.86	12.48	12.88	13.31	13.77	14.81	●
UM-BN2-20130			13			55			3.62	13.51	13.95	14.42	14.92	16.05	●
UM-BN2-20140			14			55			3.4	14.55	15.02	15.53	16.07	17.29	●
UM-BN2-20160			16			55			3.04	16.62	17.16	17.74	18.37	19.78	●
UM-BN2-20180			18			60			2.75	18.68	19.3	19.96	20.67	-	●
UM-BN2-20200			20			60			2.51	20.75	21.44	22.18	22.97	-	●
UM-BN2-20220			22			60			2.31	22.82	23.58	24.39	25.27	-	●
UM-BN2-20250			25			65			2.06	25.92	26.79	27.72	28.72	-	●
UM-BN2-20300			30			70			1.75	31.09	32.14	33.26	-	-	●
UM-BN2-20350			35			75			1.52	36.26	37.48	38.8	-	-	●
UM-BN2-20400			40			80			1.34	41.42	42.83	-	-	-	●
UM-BN2-25060	2.5	1.25	6	2	2.4	50	4	4	5.62	6.22	6.41	6.6	6.8	7.25	●
UM-BN2-25100			10			50			3.69	10.37	10.69	11.03	11.4	12.23	●

● 标准库存 Stock ○ 需预定 Available Upon Order

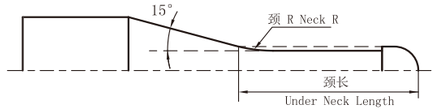
推荐切削参数P169/P174

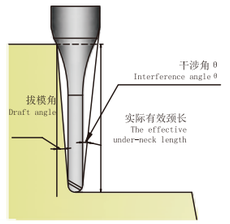
球半径R	公差 Tol.
R≤0.25	±0.003
R>0.25	±0.005

(mm)

UM-BN2

小径深加工2刃球头立铣刀
2 flute, ball nose endmill for small diameter & machining





订货号 Ordering Code	外径 (D) Mill Dia.	球半径 (R) Ball Radius	颈长 (L1) Under Neck Length	刃长 (Lc) Flute Length	颈径 (d2) Neck Dia.	全长 (L) Overall Length	柄径 (d) Shank Dia.	颈 (R) Neck R	干涉角 (Θ) Interference Angle	对应拔模角的有效颈长 The effective under-neck length for the various draft angles 0.5°	1°	1.5°	2°	3°	库存 Stock
UM-BN2-25150	2.5	1.25	15	2	2.4	55	4	4	2.59	15.54	16.04	16.58	17.15	-	○
UM-BN2-25200			20			50			1.99	20.71	21.39	22.12	-	-	●
UM-BN2-25250			25			50			1.62	25.88	26.74	27.66	-	-	●
UM-BN2-25300			30			50			1.36	31.05	32.09	-	-	-	●
UM-BN2-30080	3	1.5	8	2.4	2.88	50	6	4	7.04	8.27	8.51	8.77	9.04	9.65	●
UM-BN2-30100			10			50			6.05	10.34	10.65	10.98	11.34	12.14	●
UM-BN2-30130			13			50			5	13.44	13.86	14.31	14.79	15.87	●
UM-BN2-30160			16			50			4.26	16.55	17.07	17.63	18.24	19.6	●
UM-BN2-30200			20			50			3.56	20.68	21.35	22.07	22.84	24.57	●
UM-BN2-30250			25			50			2.95	25.85	26.7	27.61	28.59	-	●
UM-BN2-30300			30			50			2.52	31.02	32.05	33.15	34.34	-	●
UM-BN2-30350			35			50			2.2	36.19	37.39	38.69	40.08	-	●
UM-BN2-35150	3.5	1.75	15	2.8	3.36	50	6	4	3.99	15.49	15.96	16.48	17.03	18.27	●
UM-BN2-35250			25			50			2.56	25.82	26.66	27.56	28.53	-	●
UM-BN2-36350			35			50			1.89	36.16	37.36	38.64	-	-	●
UM-BN2-35450			45			50			1.5	46.5	48.05	-	-	-	●
UM-BN2-40100	4	2	10	3.2	3.86	50	6	4	4.86	10.31	10.6	10.91	11.24	11.99	●
UM-BN2-40130			13			50			3.88	13.41	13.81	14.23	14.69	15.72	●
UM-BN2-40160			16			50			3.23	16.51	17.02	17.56	18.14	19.45	●
UM-BN2-40200			20			50			2.63	20.65	21.3	21.99	22.74	-	●
UM-BN2-40250			25			50			2.14	25.81	26.64	27.53	28.49	-	●
UM-BN2-40300			30			50			1.81	30.98	31.99	33.08	-	-	●
UM-BN2-40350			35			50			1.56	36.15	37.34	38.62	-	-	●
UM-BN2-40400			40			50			1.38	41.32	42.69	-	-	-	●
UM-BN2-40450			45			50			1.23	46.49	48.04	-	-	-	●
UM-BN2-40500			50			50			1.11	51.66	53.39	-	-	-	●
UM-BN2-50200	5	2.5	20	4	4.85	50	6	4	1.48	20.62	21.25	-	-	-	●
UM-BN2-50250			25			50			1.18	25.79	26.6	-	-	-	●
UM-BN2-50300			30			50			0.98	30.96	-	-	-	-	●
UM-BN2-50400			40			50			0.73	41.29	-	-	-	-	●
UM-BN2-60120	6	3	12	6	5.85	50	6	-	-	-	-	-	-	-	●
UM-BN2-60200			20			50			-	-	-	-	-	-	●
UM-BN2-60300			30			55			-	-	-	-	-	-	●
UM-BN2-60500			50			55			-	-	-	-	-	-	●

● 标准库存 Stock ○ 需预定 Available Upon Order

推荐切削参数P170/P175

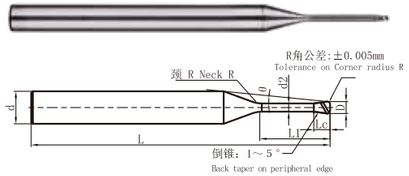
球半径R	公差 Tol.
R≤0.25	±0.003
R>0.25	±0.005

(mm)

UM-RN2

小径深加工2刃圆角头立铣刀
2 flute,corner radius endmill for small diameter & deep machining

硬质合金 | 2 | AlCrSiN | 30°



订货号 Ordering Code	外径(D) Mill Dia.	圆角(R) Corner Radius	颈长(L1) Under Neck Length	刃长(Lc) Flute Length	颈径(d2) Neck Dia.	全长(L) Overall Length	柄径(d) Shank Dia.	颈(R) Neck R	干涉角(Θ) Interference Angle	对应拔模角的有效颈长 The effective under-neck length for the various draft angles 0.5°	1°	1.5°	2°	3°	库存 Stock
UM-RN2-0202005	0.2	0.02	0.5	0.16	0.17	50	4	1	14.07	0.52	0.54	0.56	0.58	0.63	●
UM-RN2-020201			1						13.23	1.04	1.08	1.12	1.16	1.25	●
UM-RN2-020202			2						11.82	2.08	2.15	2.23	2.31	2.50	●
UM-RN2-0205005		0.05	0.5						14.12	0.52	0.54	0.56	0.58	0.62	●
UM-RN2-020501			1						13.28	1.04	1.08	1.11	1.15	1.24	●
UM-RN2-0205015			1.5						12.53	1.56	1.61	1.67	1.73	1.87	●
UM-RN2-020502			2						11.85	2.08	2.15	2.22	2.30	2.49	●
UM-RN2-030201	0.3	0.02	1	0.24	0.27	50	4	2	13.09	1.06	1.12	1.17	1.23	1.33	●
UM-RN2-030202			2						11.67	2.11	2.21	2.29	2.38	2.57	●
UM-RN2-030203			3						10.53	3.16	3.28	3.40	3.53	3.81	●
UM-RN2-030501		0.05	1						13.14	1.06	1.12	1.17	1.22	1.32	●
UM-RN2-0305015			1.5						12.38	1.59	1.66	1.73	1.80	1.94	●
UM-RN2-030502			2						11.71	2.11	2.21	2.29	2.37	2.56	●
UM-RN2-0305025			2.5						11.11	2.64	2.75	2.84	2.95	3.18	●
UM-RN2-030503			3						10.56	3.16	3.28	3.40	3.52	3.81	●
UM-RN2-040201	0.4	0.02	1	0.32	0.37	50	4	2	13.04	1.06	1.12	1.17	1.23	1.33	●
UM-RN2-040202			2						11.60	2.11	2.21	2.29	2.38	2.57	●
UM-RN2-040203			3						10.44	3.16	3.28	3.40	3.53	3.81	●
UM-RN2-040204			4						9.49	4.20	4.35	4.51	4.68	5.06	●
UM-RN2-040501		0.05	1						13.09	1.06	1.12	1.17	1.22	1.32	●
UM-RN2-0405015			1.5						12.32	1.59	1.66	1.73	1.80	1.94	●
UM-RN2-040502			2						11.64	2.11	2.21	2.29	2.37	2.56	●
UM-RN2-0405025			2.5						11.03	2.64	2.75	2.84	2.95	3.18	●
UM-RN2-040503			3						10.47	3.16	3.28	3.40	3.52	3.81	●
UM-RN2-0405035			3.5						9.97	3.68	3.82	3.95	4.10	4.43	●
UM-RN2-040504			4						9.52	4.20	4.35	4.51	4.67	5.05	●
UM-RN2-041001		0.1	1						13.17	1.06	1.11	1.16	1.21	1.31	●
UM-RN2-041002			2						11.70	2.11	2.20	2.28	2.37	2.55	●
UM-RN2-041003			3						10.53	3.16	3.28	3.39	3.52	3.79	●
UM-RN2-041004			4						9.56	4.20	4.35	4.50	4.67	5.04	●
UM-RN2-050201	0.5	0.02	1	0.4	0.47	50	4	2	13.00	1.06	1.12	1.17	1.23	1.33	●
UM-RN2-050202			2						11.53	2.11	2.21	2.29	2.38	2.57	●
UM-RN2-050203			3						10.35	3.16	3.28	3.40	3.53	3.81	●
UM-RN2-050204			4						9.39	4.20	4.35	4.51	4.68	5.06	●
UM-RN2-050206			6						7.92	6.27	6.49	6.73	6.98	7.54	●
UM-RN2-050501		0.05	1						13.05	1.06	1.12	1.17	1.22	1.32	●
UM-RN2-050502			2						11.56	2.11	2.21	2.29	2.37	2.56	●
UM-RN2-050503			3						10.38	3.16	3.28	3.40	3.52	3.81	●
UM-RN2-050504			4						9.42	4.20	4.35	4.51	4.67	5.05	●
UM-RN2-050505			5						8.62	5.24	5.42	5.61	5.82	6.29	●
UM-RN2-050506			6						7.94	6.27	6.49	6.72	6.97	7.53	●
UM-RN2-051001		0.1	1						13.13	1.06	1.11	1.16	1.21	1.31	●
UM-RN2-051002			2						11.63	2.11	2.20	2.28	2.37	2.55	●

● 标准库存 Stock ○ 需预定 Available Upon Order

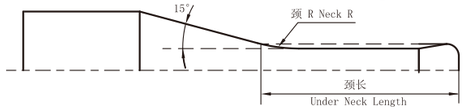
推荐切削参数P177/P186

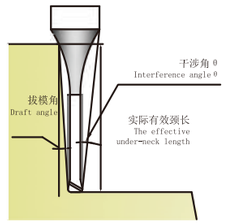
圆角R	公差 Tol.
R	±0.005

(mm)

UM-RN2

小径深加工2刃圆角头立铣刀
2 flute,corner radius endmill for small diameter & deep machining





订货号 Ordering Code	外径(D) Mill Dia.	圆角(R) Corner Radius	颈长(L1) Under Neck Length	刃长(Lc) Flute Length	颈径(d2) Neck Dia.	全长(L) Overall Length	柄径(d) Shank Dia.	颈(R) Neck R	干涉角(Θ) Interference Angle	对应拔模角的有效颈长 The effective under-neck length for the various draft angles 0.5°	1°	1.5°	2°	3°	库存 Stock
UM-RN2-051003	0.5	0.1	3	0.4	0.47	50	4	2	10.44	3.16	3.28	3.39	3.52	3.79	●
UM-RN2-051004			4						9.46	4.20	4.35	4.50	4.67	5.04	●
UM-RN2-051005			5						8.65	5.24	5.42	5.61	5.82	6.28	●
UM-RN2-051006			6						7.97	6.27	6.49	6.72	6.97	7.52	●
UM-RN2-060202	0.6	0.02	2	0.48	0.57	50	4	4	11.24	2.17	2.31	2.44	2.55	2.77	●
UM-RN2-060204			4						9.15	4.29	4.51	4.69	4.86	5.26	●
UM-RN2-060206			6						7.71	6.40	6.66	6.90	7.16	7.74	●
UM-RN2-060502		0.05	2						11.27	2.17	2.31	2.43	2.55	2.76	●
UM-RN2-060504			4						9.18	4.29	4.51	4.68	4.86	5.25	●
UM-RN2-060506			6						7.73	6.40	6.66	6.90	7.16	7.74	●
UM-RN2-060508			8						6.68	8.49	8.80	9.12	9.46	10.22	●
UM-RN2-060510			10						5.88	10.57	10.94	11.33	11.76	12.71	●
UM-RN2-061002		0.1	2						11.34	2.16	2.30	2.43	2.54	2.75	●
UM-RN2-061004			4						9.22	4.29	4.50	4.68	4.85	5.24	●
UM-RN2-061006			6						7.76	6.39	6.66	6.90	7.15	7.72	●
UM-RN2-061008			8						6.70	8.48	8.80	9.11	9.45	10.21	●
UM-RN2-061010			10						5.89	10.57	10.94	11.33	11.75	12.70	●
UM-RN2-070504	0.7	0.05	4	0.56	0.67	50	4	4	9.07	4.29	4.51	4.68	4.86	5.25	●
UM-RN2-070506			6						7.62	6.40	6.66	6.90	7.16	7.74	●
UM-RN2-071004		0.1	4						9.11	4.29	4.50	4.68	4.85	5.24	●
UM-RN2-071006			6						7.65	6.39	6.66	6.90	7.15	7.72	●
UM-RN2-080204	0.8	0.02	4	0.64	0.76	50	4	4	8.96	4.27	4.47	4.65	4.82	5.21	●
UM-RN2-080206			6			50			7.51	6.37	6.63	6.87	7.12	7.70	●
UM-RN2-080504		0.05	4			50			8.99	4.27	4.47	4.65	4.82	5.21	●
UM-RN2-080506			6			50			7.52	6.37	6.63	6.86	7.12	7.69	●
UM-RN2-080508			8			50			6.47	8.45	8.76	9.08	9.42	10.18	●
UM-RN2-080512			12			55			5.05	12.61	13.04	13.51	14.02	15.15	●
UM-RN2-081004		0.1	4			50			9.03	4.26	4.47	4.64	4.81	5.19	●
UM-RN2-081006			6			50			7.55	6.37	6.62	6.86	7.11	7.68	●
UM-RN2-081008			8			50			6.49	8.45	8.76	9.07	9.41	10.17	●
UM-RN2-081012			12			55			5.06	12.60	13.04	13.51	14.01	15.14	●
UM-RN2-082004		0.2	4			50			9.12	4.26	4.46	4.63	4.80	5.17	●
UM-RN2-082006			6			50			7.62	6.36	6.61	6.85	7.10	7.66	●
UM-RN2-082008			8			50			6.54	8.45	8.75	9.06	9.40	10.14	●
UM-RN2-082012			12			55			5.09	12.60	13.03	13.50	14.00	15.11	●
UM-RN2-100202	1	0.02	2	0.8	0.96	50	4	4	10.92	2.15	2.28	2.40	2.52	2.73	●
UM-RN2-100204			4			50			8.72	4.27	4.47	4.65	4.82	5.21	●
UM-RN2-100206			6			50			7.26	6.37	6.63	6.87	7.12	7.70	●
UM-RN2-100208			8			50			6.22	8.46	8.77	9.08	9.42	10.19	●
UM-RN2-100210			10			50			5.44	10.53	10.91	11.30	11.72	12.67	●
UM-RN2-100212			12			55			4.83	12.61	13.05	13.52	14.02	15.16	●
UM-RN2-100502		0.05	2			50			10.96	2.15	2.28	2.40	2.51	2.72	●
UM-RN2-100503			3			50			9.73	3.21	3.38	3.53	3.67	3.96	●

圆角R	公差 Tol.
R	±0.005

(mm)

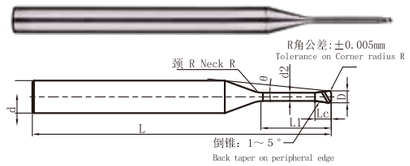
● 标准库存 Stock ○ 需预定 Available Upon Order

推荐切削参数P178/P187

UM-RN2

小径深加工2刃圆角头立铣刀
2 flute,corner radius endmill for small diameter & deep machining

硬质合金 | 2 | AlCrSiN | 30°



订货号 Ordering Code	外径(D) Mill Dia.	圆角(R) Corner Radius	颈长(L1) Under Neck Length	刃长(Lc) Flute Length	颈径(d2) Neck Dia.	全长(L) Overall Length	柄径(d) Shank Dia.	颈(R) Neck R	干涉角(Θ) Interference Angle	对应拔模角的有效颈长 The effective under-neck length for the various draft angles 0.5°	1°	1.5°	2°	3°	库存 Stock
UM-RN2-100504			4			50			8.75	4.27	4.47	4.65	4.82	5.21	●
UM-RN2-100505			5			50			7.95	5.32	5.55	5.75	5.97	6.45	●
UM-RN2-100506			6			50			7.28	6.37	6.63	6.86	7.12	7.69	●
UM-RN2-100508		0.05	8			50			6.23	8.45	8.76	9.08	9.42	10.18	●
UM-RN2-100510			10			50			5.45	10.53	10.90	11.30	11.72	12.67	●
UM-RN2-100512			12			55			4.84	12.61	13.04	13.51	14.02	15.15	●
UM-RN2-100516			16			60			3.95	16.74	17.32	17.95	18.62	20.12	●
UM-RN2-100520			20			60			3.34	20.88	21.60	22.38	23.22	25.10	●
UM-RN2-101002			2			50			11.03	2.14	2.27	2.39	2.50	2.71	●
UM-RN2-101003			3			50			9.79	3.21	3.38	3.53	3.66	3.95	●
UM-RN2-101004			4			50			8.80	4.26	4.47	4.64	4.81	5.19	●
UM-RN2-101005			5			50			7.99	5.32	5.55	5.75	5.96	6.44	●
UM-RN2-101006		0.1	6			50			7.31	6.37	6.62	6.86	7.11	7.68	●
UM-RN2-101008			8			50			6.25	8.45	8.76	9.07	9.41	10.17	●
UM-RN2-101010			10			50			5.46	10.53	10.90	11.29	11.71	12.65	●
UM-RN2-101012			12			55			4.85	12.60	13.04	13.51	14.01	15.14	●
UM-RN2-101016			16			60			3.96	16.74	17.32	17.94	18.61	20.11	●
UM-RN2-101020			20			60			3.35	20.87	21.60	22.37	23.21	25.08	●
UM-RN2-102002			2			50			11.17	2.14	2.26	2.38	2.48	2.68	●
UM-RN2-102003	1		3	0.8	0.96	50	4	4	9.90	3.20	3.37	3.51	3.65	3.93	●
UM-RN2-102004			4			50			8.89	4.26	4.46	4.63	4.80	5.17	●
UM-RN2-102005			5			50			8.06	5.31	5.54	5.74	5.95	6.41	●
UM-RN2-102006		0.2	6			50			7.37	6.36	6.61	6.85	7.10	7.66	●
UM-RN2-102008			8			50			6.30	8.45	8.75	9.06	9.40	10.14	●
UM-RN2-102010			10			50			5.50	10.53	10.89	11.28	11.70	12.63	●
UM-RN2-102012			12			55			4.88	12.60	13.03	13.50	14.00	15.11	●
UM-RN2-102016			16			60			3.98	16.74	17.31	17.93	18.59	20.09	●
UM-RN2-102020			20			60			3.36	20.87	21.59	22.36	23.19	25.06	●
UM-RN2-103002			2			50			11.32	2.13	2.25	2.36	2.47	2.66	●
UM-RN2-103003			3			50			10.01	3.20	3.36	3.50	3.63	3.90	●
UM-RN2-103004			4			50			8.98	4.25	4.45	4.62	4.78	5.15	●
UM-RN2-103005			5			50			8.14	5.31	5.53	5.73	5.93	6.39	●
UM-RN2-103006		0.3	6			50			7.44	6.36	6.61	6.84	7.08	7.63	●
UM-RN2-103008			8			50			6.35	8.44	8.75	9.05	9.38	10.12	●
UM-RN2-103010			10			50			5.53	10.52	10.89	11.27	11.68	12.60	●
UM-RN2-103012			12			55			4.90	12.60	13.03	13.49	13.98	15.09	●
UM-RN2-103016			16			60			4.00	16.73	17.30	17.92	18.58	20.06	●
UM-RN2-103020			20			60			3.37	20.87	21.58	22.35	23.18	25.04	●
UM-RN2-1251005			5			50			7.68	5.30	5.52	5.72	5.93	6.40	●
UM-RN2-1251010		0.1	10			50			5.17	10.50	10.87	11.26	11.68	12.62	●
UM-RN2-1251015	1.25		15	1	1.2	55	4	4	3.90	15.68	16.22	16.80	17.43	18.83	●
UM-RN2-1251020			20			60			3.13	20.84	21.57	22.34	23.18	25.05	●
UM-RN2-1252005		0.2	5			50			7.75	5.29	5.51	5.71	5.91	6.38	●

● 标准库存 Stock　○ 需预定 Available Upon Order

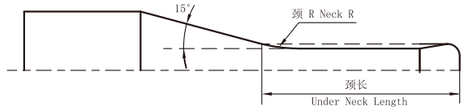
推荐切削参数P179/P188

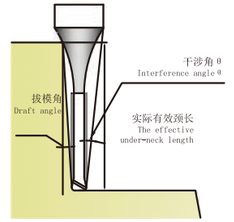
圆角R	公差 Tol.
R	±0.005

(mm)

UM-RN2

小径深加工2刃圆角头立铣刀
2 flute,corner radius endmill for small diameter & deep machining





订货号 Ordering Code	外径(D) Mill Dia.	圆角(R) Corner Radius	颈长(L1) Under Neck Length	刃长(Lc) Flute Length	颈径(d2) Neck Dia.	全长(L) Overall Length	柄径(d) Shank Dia.	颈(R) Neck R	干涉角(Θ) Interference Angle	对应拔模角的有效颈长 The effective under-neck length for the various draft angles 0.5°	1°	1.5°	2°	3°	库存 Stock
UM-RN2-1252010			10			50			5.21	10.50	10.86	11.25	11.66	12.59	●
UM-RN2-1252015		0.2	15			55			3.92	15.67	16.21	16.79	17.41	18.81	●
UM-RN2-1252020			20			60			3.14	20.84	21.56	22.33	23.16	25.02	●
UM-RN2-1253005	1.25		5	1	1.2	50	4	4	7.83	5.29	5.50	5.70	5.90	6.35	●
UM-RN2-1253010		0.3	10			50			5.24	10.50	10.86	11.24	11.65	12.57	●
UM-RN2-1253015			15			55			3.94	15.67	16.20	16.78	17.40	18.78	●
UM-RN2-1253020			20			60			3.15	20.84	21.55	22.32	23.15	25.00	●
UM-RN2-151004			4			50			8.17	4.23	4.42	4.58	4.75	5.13	●
UM-RN2-151006			6			50			6.66	6.32	6.57	6.80	7.05	7.62	●
UM-RN2-151008		0.1	8			50			5.62	8.41	8.71	9.02	9.35	10.10	●
UM-RN2-151012			12			55			4.28	12.55	12.98	13.45	13.95	15.07	●
UM-RN2-151015			15			55			3.63	15.65	16.19	16.77	17.40	18.80	●
UM-RN2-151020			20			60			2.90	20.82	21.54	22.32	23.15	-	●
UM-RN2-152004			4			50			8.26	4.23	4.41	4.57	4.74	5.10	●
UM-RN2-152006			6			50			6.72	6.32	6.56	6.79	7.04	7.59	●
UM-RN2-125008		0.2	8			50			5.66	8.40	8.70	9.01	9.34	10.08	●
UM-RN2-152012			12			55			4.31	12.55	12.98	13.44	13.94	15.05	●
UM-RN2-152015			15			55			3.65	15.65	16.19	16.76	17.38	18.78	●
UM-RN2-152020	1.5		20	1.2	1.44	60	4	4	2.91	20.82	21.53	22.31	23.13	-	●
UM-RN2-153004			4			50			8.36	4.22	4.40	4.56	4.72	5.08	●
UM-RN2-153006		0.3	6			50			6.78	6.31	6.55	6.78	7.02	7.57	●
UM-RN2-153008			8			50			5.71	8.40	8.69	8.99	9.32	10.05	●
UM-RN2-153012			12			55			4.33	12.54	12.97	13.43	13.92	15.03	●
UM-RN2-153015			15			55			3.67	15.64	16.18	16.75	17.37	18.76	●
UM-RN2-153020			20			60			2.92	20.81	21.53	22.29	23.12	-	●
UM-RN2-155004			4			50			8.55	4.21	4.39	4.54	4.69	5.03	●
UM-RN2-155006		0.5	6			50			6.91	6.31	6.54	6.76	6.99	7.52	●
UM-RN2-155008			8			50			5.80	8.39	8.68	8.97	9.29	10.00	●
UM-RN2-155012			12			55			4.39	12.54	12.96	13.41	13.89	14.98	●
UM-RN2-155015			15			55			3.71	15.64	16.17	16.73	17.34	18.71	●
UM-RN2-155020			20			60			2.95	20.81	21.51	22.27	23.09	-	●
UM-RN2-1751005			5			50			6.96	5.26	5.47	5.67	5.88	6.35	●
UM-RN2-1751010		0.1	10			50			4.53	10.46	10.82	11.21	11.63	12.56	●
UM-RN2-1751015			15			55			3.35	15.63	16.17	16.75	17.38	18.78	●
UM-RN2-1751020			20			60			2.66	20.80	21.52	22.29	23.13	-	●
UM-RN2-1752005			5			50			7.03	5.26	5.47	5.66	5.86	6.32	●
UM-RN2-1752010	1.75	0.2	10	1.4	1.68	50	4	4	4.56	10.46	10.82	11.20	11.61	12.54	●
UM-RN2-1752015			15			55			3.37	15.63	16.16	16.74	17.36	18.75	●
UM-RN2-1752020			20			60			2.67	20.80	21.51	22.28	23.11	-	●
UM-RN2-1753005			5			50			7.11	5.25	5.46	5.65	5.85	6.30	●
UM-RN2-1753010		0.3	10			50			4.59	10.45	10.81	11.19	11.60	12.51	●
UM-RN2-1753015			15			55			3.39	15.62	16.16	16.73	17.35	18.73	●
UM-RN2-1753020			20			60			2.69	20.79	21.51	22.27	23.10	-	●

圆角R	公差 Tol.
R	±0.005

(mm)

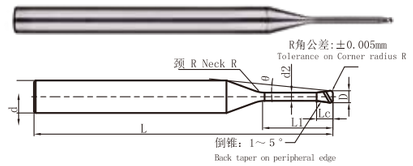
● 标准库存 Stock　○ 需预定 Available Upon Order

推荐切削参数P180/P189

UM-RN2

小径深加工2刃圆角头立铣刀
2 flute,corner radius endmill for small diameter & deep machining

硬质合金 | 2 | AlCrSiN | 30°



订货号 Ordering Code	外径(D) Mill Dia.	圆角(R) Corner Radius	颈长(L1) Under Neck Length	刃长(Lc) Flute Length	颈径(d2) Neck Dia.	全长(L) Overall Length	柄径(d) Shank Dia.	颈(R) Neck R	干涉角(Θ) Interference Angle	对应拔模角的有效颈长 The effective under-neck length for the various draft angles 0.5°	1°	1.5°	2°	3°	库存 Stock
UM-RN2-201004		0.1	4			50			7.36	4.21	4.38	4.54	4.71	5.08	●
UM-RN2-201006			6			50			5.86	6.29	6.53	6.76	7.01	7.57	●
UM-RN2-201008			8			50			4.87	8.37	8.66	8.97	9.31	10.05	●
UM-RN2-201012			12			55			3.64	12.51	12.94	13.41	13.91	15.03	●
UM-RN2-201016			16			55			2.90	16.65	17.22	17.84	18.51	-	●
UM-RN2-201020			20			60			2.42	20.78	21.50	22.27	23.11	-	●
UM-RN2-201025			25			65			2.00	25.95	26.85	27.82	-	-	●
UM-RN2-201030			30			70			1.70	31.12	32.20	33.36	-	-	●
UM-RN2-202004		0.2	4			50			7.46	4.20	4.37	4.53	4.69	5.06	●
UM-RN2-202006			6			50			5.93	6.29	6.52	6.75	6.99	7.54	●
UM-RN2-202008			8			50			4.91	8.37	8.66	8.96	9.29	10.30	●
UM-RN2-202012			12			55			3.66	12.51	12.94	13.40	13.89	15.00	●
UM-RN2-202016			16			55			2.92	16.64	17.22	17.83	18.49	-	●
UM-RN2-202020			20			60			2.43	20.78	21.49	22.26	23.09	-	●
UM-RN2-202025			25			65			2.00	25.95	26.84	27.80	-	-	●
UM-RN2-202030			30			70			1.71	31.11	32.19	33.35	-	-	●
UM-RN2-203004		0.3	4			50			7.56	4.20	4.37	4.52	4.68	5.30	●
UM-RN2-203006			6			50			5.99	6.28	6.51	6.74	6.98	7.52	●
UM-RN2-203008			8			50			4.96	8.36	8.65	8.95	9.28	10.01	●
UM-RN2-203012	2		12	1.6	1.92	55	4	4	3.69	12.50	12.93	13.39	13.88	14.98	●
UM-RN2-203016			16			55			2.93	16.64	17.21	17.82	18.48	-	●
UM-RN2-203020			20			60			2.44	20.77	21.49	22.25	23.08	-	●
UM-RN2-203025			25			65			2.01	25.94	26.84	27.79	28.82	-	●
UM-RN2-203030			30			70			1.71	31.11	32.18	33.34	-	-	●
UM-RN2-205006		0.5	6			50			6.11	6.28	6.50	6.71	6.95	7.47	●
UM-RN2-205008			8			50			5.04	8.36	8.64	8.93	9.25	9.96	●
UM-RN2-205012			12			55			3.73	12.50	12.92	13.36	13.85	14.93	●
UM-RN2-205016			16			55			2.96	16.63	17.19	17.80	18.45	-	●
UM-RN2-205020			20			60			2.46	20.77	21.47	22.23	23.50	-	●
UM-RN2-205025			25			65			2.30	25.94	26.82	27.77	28.79	-	●
UM-RN2-205030			30			70			1.72	31.10	32.17	33.31	-	-	●
UM-RN2-208006		0.8	6			50			6.31	6.26	6.48	6.68	6.90	7.40	●
UM-RN2-208008			8			50			5.18	8.35	8.62	8.90	9.20	9.88	●
UM-RN2-208012			12			55			3.81	12.49	12.89	13.33	13.80	14.86	●
UM-RN2-208016			16			55			3.01	16.62	17.17	17.77	18.40	19.83	●
UM-RN2-208020			20			60			2.49	20.76	21.45	22.20	23.00	-	●
UM-RN2-208025			25			65			2.50	25.93	26.80	27.74	28.75	-	●
UM-RN2-208030			30			70			1.74	31.09	32.15	33.28	-	-	●
UM-RN2-251010		0.1	10			50			3.36	10.41	10.77	11.16	11.57	12.50	●
UM-RN2-251020			20			60			1.89	20.75	21.47	22.24	-	-	●
UM-RN2-251030	2.5		30	2	2.4	70	4	4	1.32	31.09	32.17	-	-	-	●
UM-RN2-252010		0.2	10			50			3.39	10.41	10.77	11.15	11.56	12.48	●
UM-RN2-25020			20			60			1.90	20.75	21.46	22.23	-	-	●

● 标准库存 Stock　○ 需预定 Available Upon Order

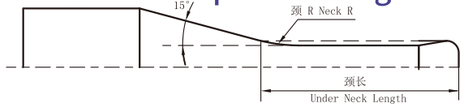
推荐切削参数P181/P190

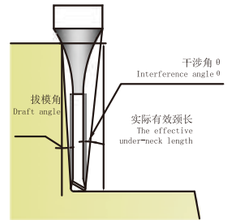
圆角R	公差 Tol.
R	±0.005

(mm)

UM-RN2

小径深加工2刃圆角头立铣刀
2 flute,corner radius endmill for small diameter & deep machining





订货号 Ordering Code	外径(D) Mill Dia.	圆角(R) Corner Radius	颈长(L1) Under Neck Length	刃长(Lc) Flute Length	颈径(d2) Neck Dia.	全长(L) Overall Length	柄径(d) Shank Dia.	颈(R) Neck R	干涉角(Θ) Interference Angle	对应拔模角的有效颈长 The effective under-neck length for the various draft angles 0.5°	1°	1.5°	2°	3°	库存 Stock
UM-RN2-252030		0.2	30			70			1.32	31.08	32.16	-	-	-	●
UM-RN2-253010		0.3	10			50			3.42	10.41	10.76	11.14	11.54	12.46	●
UM-RN2-253010			20			60			1.91	20.74	21.46	22.22	-	-	●
UM-RN2-253030	2.5		30	2	2.4	70	4	4	1.32	31.08	32.15	-	-	-	●
UM-RN2-255010		0.5	10			50			3.47	10.40	10.75	11.12	11.51	12.41	●
UM-RN2-255020			20			60			1.92	20.74	21.44	22.20	-	-	●
UM-RN2-255030			30			70			1.33	31.07	32.14	-	-	-	●
UM-RN2-301006		0.1	6			50			7.40	6.25	6.47	6.70	6.95	7.50	●
UM-RN2-301008			8			55			6.32	8.32	8.61	8.92	9.25	9.99	●
UM-RN2-301022			12			60			4.89	12.46	12.89	13.35	13.85	14.96	●
UM-RN2-301016			16			60			3.99	16.59	17.17	17.78	18.45	19.94	●
UM-RN2-301018			18			65			3.65	18.66	19.31	20.00	20.75	22.42	●
UM-RN2-301020			20			65			3.36	20.73	21.45	22.22	23.50	24.91	●
UM-RN2-301030			30			75			2.42	31.06	32.14	33.30	34.55	-	●
UM-RN2-301035			35			80			2.12	36.23	37.49	38.84	40.29	-	●
UM-RN2-302006		0.2	6			50			7.46	6.25	6.46	6.69	6.93	7.48	●
UM-RN2-302008			8			55			6.36	8.32	8.60	8.91	9.23	9.97	●
UM-RN2-302012			12			60			4.92	12.45	12.88	13.34	13.83	14.94	●
UM-RN2-302016			16			60			4.00	16.59	17.16	17.77	18.43	19.91	●
UM-RN2-302018			18			65			3.66	18.66	19.30	19.99	20.73	22.40	●
UM-RN2-302020			20			65			3.38	20.72	21.44	22.21	23.30	24.88	●
UM-RN2-302030			30			75			2.43	31.06	32.14	33.29	34.53	-	●
UM-RN2-302035			35			80			2.13	36.23	37.48	38.83	40.28	-	●
UM-RN2-303006		0.3	6			50			7.53	6.24	6.46	6.68	6.92	7.46	●
UM-RN2-303008	3		8	2.4	2.88	55	6	4	6.41	8.32	8.60	8.90	9.22	9.94	●
UM-RN2-303012			12			60			4.94	12.45	12.87	13.33	13.82	14.91	●
UM-RN2-303016			16			60			4.02	16.59	17.15	17.76	18.42	19.89	●
UM-RN2-303018			18			65			3.68	18.65	19.29	19.98	20.72	22.37	●
UM-RN2-303020			20			65			3.39	20.72	21.43	22.20	23.02	24.86	●
UM-RN2-303030			30			75			2.43	31.06	32.13	33.28	34.52	-	●
UM-RN2-303035			35			80			2.13	36.23	37.48	38.82	40.26	-	●
UM-RN2-305008		0.5	8			55			6.51	8.31	8.58	8.87	9.19	9.89	●
UM-RN2-305012			12			60			5.00	12.44	12.86	13.31	13.79	14.87	●
UM-RN2-305016			16			60			4.06	16.58	17.14	17.74	18.39	19.84	●
UM-RN2-305018			18			65			3.71	18.65	19.28	19.96	20.69	22.33	●
UM-RN2-305020			20			65			3.42	20.71	21.42	22.17	22.99	24.81	●
UM-RN2-305030			30			75			2.45	31.50	32.12	33.26	34.49	-	●
UM-RN2-305035			35			80			2.14	36.22	37.46	38.80	40.23	-	●
UM-RN2-30A008		1	8			55			6.76	8.29	8.55	8.82	9.11	9.77	●
UM-RN2-30A012			12			60			5.15	12.43	12.83	13.25	13.71	14.74	●
UM-RN2-30A016			16			55			4.16	16.56	17.10	17.69	18.31	19.72	●
UM-RN2-30A018			18			60			3.79	18.63	19.24	19.90	20.61	22.20	●
UM-RN2-30A020			20			50			3.49	20.70	21.38	22.12	22.91	24.69	●

圆角R	公差 Tol.
R	±0.005

(mm)

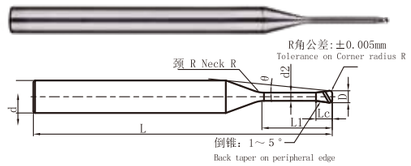
● 标准库存 Stock　○ 需预定 Available Upon Order

推荐切削参数P182/P191

UM-RN2

小径深加工2刃圆角头立铣刀
2 flute,corner radius endmill for small diameter & deep machining

硬质合金 | 2 | AlCrSiN | 30°



订货号 Ordering Code	外径(D) Mill Dia.	圆角(R) Corner Radius	颈长(L1) Under Neck Length	刃长(Lc) Flute Length	颈径(d2) Neck Dia.	全长(L) Overall Length	柄径(d) Shank Dia.	颈(R) Neck R	干涉角(Θ) Interference Angle	对应拔模角的有效颈长 The effective under-neck length for the various draft angles 0.5°	1°	1.5°	2°	3°	库存 Stock
UM-RN2-30A030	3	1	30	2.4	2.88	50	6	4	2.48	31.30	32.08	33.20	34.41	-	●
UM-RN2-30A035			35			50			2.17	36.20	37.43	38.74	40.16	-	●
UM-RN2-401008			8			55			4.90	8.31	8.59	8.90	9.23	9.97	●
UM-RN2-401012			12			55			3.66	12.44	12.87	13.33	13.83	14.94	●
UM-RN2-401016			16			60			2.91	16.57	17.15	17.76	18.43	-	●
UM-RN2-401020		0.1	20			65			2.42	20.71	21.43	22.20	23.30	-	●
UM-RN2-401030			30			70			1.71	31.50	32.12	33.28	-	-	●
UM-RN2-401035			35			50			1.49	36.21	37.47	-	-	-	●
UM-RN2-401045			45			50			1.18	46.55	48.17	-	-	-	●
UM-RN2-402008			8			50			4.94	8.30	8.58	8.89	9.21	9.94	●
UM-RN2-402012			12			55			3.68	12.44	12.86	13.32	13.81	14.92	●
UM-RN2-402016			16			55			2.93	16.57	17.14	17.75	18.41	-	●
UM-RN2-402020		0.2	20			60			2.43	20.71	21.42	22.19	23.01	-	●
UM-RN2-402030			30			65			1.71	31.04	32.12	33.27	-	-	●
UM-RN2-402035			35			70			1.49	36.21	37.47	-	-	-	●
UM-RN2-402045			45			50			1.18	46.55	48.16	-	-	-	●
UM-RN2-403008			8			50			4.99	8.30	8.58	8.88	9.20	9.92	●
UM-RN2-403012			12			50			3.70	12.43	12.86	13.31	13.80	14.89	●
UM-RN2-403016			16			55			2.94	16.57	17.13	17.74	18.40	-	●
UM-RN2-403020		0.3	20			55			2.44	20.70	21.41	22.18	23.00	-	●
UM-RN2-403030			30			60			1.72	31.04	32.11	33.26	-	-	●
UM-RN2-403035	4		35	3.2	3.86	65	6	4	1.49	36.21	37.46	-	-	-	●
UM-RN2-403045			45			70			1.19	46.54	48.16	-	-	-	●
UM-RN2-405012			12			50			3.75	12.43	12.84	13.29	13.77	14.84	●
UM-RN2-405016			16			50			2.97	16.56	17.12	17.72	18.37	-	●
UM-RN2-405020		0.5	20			55			2.47	20.70	21.40	22.15	22.97	-	●
UM-RN2-405030			30			55			1.73	31.03	32.10	33.24	-	-	●
UM-RN2-405035			35			60			1.50	36.20	37.44	-	-	-	●
UM-RN2-405045			45			65			1.19	46.54	48.14	-	-	-	●
UM-RN2-40A012			12			70			3.88	12.41	12.81	13.23	13.69	14.72	●
UM-RN2-40A016			16			50			3.50	16.54	17.09	17.67	18.29	19.70	●
UM-RN2-40A020		1	20			50			2.52	20.68	21.36	22.10	22.89	-	●
UM-RN2-40A030			30			55			1.75	31.02	32.06	33.18	-	-	●
UM-RN2-40A035			35			55			1.52	36.18	37.41	38.73	-	-	●
UM-RN2-40A045			45			60			1.20	46.52	48.11	-	-	-	●
UM-RN2-501020		0.1	20			65			1.32	20.70	21.42	-	-	-	●
UM-RN2-501040			40			70			0.69	41.38	-	-	-	-	●
UM-RN2-502020		0.2	20			50			1.32	20.70	21.41	-	-	-	●
UM-RN2-502040	5		40	4	4.85	60	6	4	0.69	41.37	-	-	-	-	●
UM-RN2-503020		0.3	20			70			1.33	20.69	21.41	-	-	-	●
UM-RN2-503040			40			50			0.69	41.37	-	-	-	-	●
UM-RN2-505020		0.5	20			60			1.34	20.69	21.39	-	-	-	●
UM-RN2-505040			40			85			0.70	41.36	-	-	-	-	●

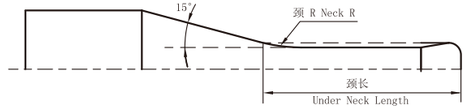
● 标准库存 Stock ○ 需预定 Available Upon Order

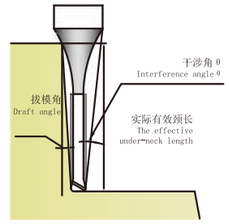
推荐切削参数P183/P192

圆角R	公差 Tol.
R	±0.005 (mm)

UM-RN2

小径深加工2刃圆角头立铣刀
2 flute,corner radius endmill for small diameter & deep machining





订货号 Ordering Code	外径(D) Mill Dia.	圆角(R) Corner Radius	颈长(L1) Under Neck Length	刃长(Lc) Flute Length	颈径(d2) Neck Dia.	全长(L) Overall Length	柄径(d) Shank Dia.	颈(R) Neck R	干涉角(Θ) Interference Angle	对应拔模角的有效颈长 The effective under-neck length for the various draft angles 0.5°	1°	1.5°	2°	3°	库存 Stock
UM-RN2-50A020	5	1	20	4	4.85	65	6	4	1.38	20.67	21.36	-	-	-	●
UM-RN2-50A040			40			85			0.71	41.34	-	-	-	-	●
UM-RN2-601012			12			50			-	-	-	-	-	-	●
UM-RN2-601018			18			60			-	-	-	-	-	-	●
UM-RN2-601024		0.1	24			70			-	-	-	-	-	-	●
UM-RN2-601035			35			80			-	-	-	-	-	-	●
UM-RN2-601055			55			100			-	-	-	-	-	-	●
UM-RN2-602012			12			50			-	-	-	-	-	-	●
UM-RN2-602018			18			60			-	-	-	-	-	-	●
UM-RN2-602024		0.2	24			70			-	-	-	-	-	-	●
UM-RN2-602035			35			80			-	-	-	-	-	-	●
UM-RN2-602055			55			100			-	-	-	-	-	-	●
UM-RN2-603012			12			50			-	-	-	-	-	-	●
UM-RN2-603018	6		18	4.8	5.85	60	6	-	-	-	-	-	-	-	●
UM-RN2-603024		0.3	24			70			-	-	-	-	-	-	●
UM-RN2-603035			35			80			-	-	-	-	-	-	●
UM-RN2-603055			55			100			-	-	-	-	-	-	●
UM-RN2-605018			18			60			-	-	-	-	-	-	●
UM-RN2-605024		0.5	24			70			-	-	-	-	-	-	●
UM-RN2-605035			35			80			-	-	-	-	-	-	●
UM-RN2-605055			55			100			-	-	-	-	-	-	●
UM-RN2-60A018			18			60			-	-	-	-	-	-	●
UM-RN2-60A024		1	24			70			-	-	-	-	-	-	●
UM-RN2-60A035			35			80			-	-	-	-	-	-	●
UM-RN2-60A055			55			100			-	-	-	-	-	-	●

● 标准库存 Stock ○ 需预定 Available Upon Order

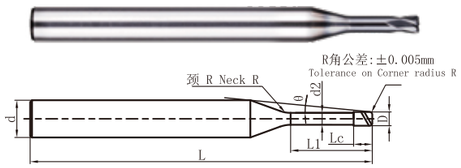
推荐切削参数P184/P193

圆角R	公差 Tol.
R	±0.005 (mm)

UM-RN4

小径深加工4刃圆角头立铣刀
4 flute,corner radius endmill for small diameter & deep machining

硬质合金 | 4 | AlCrSiN | 30°



订货号 Ordering Code	外径(D) Mill Dia.	圆角(R) Corner Radius	颈长(L1) Under Neck Length	刃长(Lc) Flute Length	颈径(d2) Neck Dia.	全长(L) Overall Length	柄径(d) Shank Dia.	颈(R) Neck R	干涉角(Θ) Interference Angle	对应拔模角的有效颈长 The effective under-neck length for the various draft angles 0.5°	1°	1.5°	2°	3°	库存 Stock
UM-RN4-100504	1	0.05	4	0.8	0.96	50	4	4	8.75	4.27	4.47	4.65	4.82	5.21	●
UM-RN4-100506			6			50			7.28	6.37	6.63	6.86	7.12	7.69	●
UM-RN4-100508			8			50			6.23	8.45	8.76	9.08	9.42	10.18	●
UM-RN4-100510			10			50			5.45	10.53	10.90	11.30	11.72	12.67	●
UM-RN4-100512			12			60			4.84	12.61	13.04	13.51	14.02	15.15	●
UM-RN4-100516			16			60			3.95	16.74	17.32	17.95	18.62	20.12	●
UM-RN4-100520			20			60			3.34	20.88	21.60	22.38	23.22	25.10	●
UM-RN4-101004		0.1	4			50			8.80	4.26	4.47	4.64	4.81	5.19	●
UM-RN4-101006			6			50			7.31	6.37	6.62	6.86	7.11	7.68	●
UM-RN4-101008			8			50			6.25	8.45	8.76	9.07	9.41	10.17	●
UM-RN4-101010			10			50			5.46	10.53	10.90	11.29	11.71	12.65	●
UM-RN4-101012			12			60			4.85	12.60	13.04	13.51	14.01	15.14	●
UM-RN4-101016			16			60			3.96	16.74	17.32	17.94	18.61	20.11	●
UM-RN4-101020			20			60			3.35	20.87	21.60	22.37	23.21	25.08	●
UM-RN4-150504	1.5	0.05	4	1.2	1.44	50			8.12	4.23	4.42	4.59	4.76	5.14	●
UM-RN4-150508			8			50			5.60	8.41	8.71	9.02	9.36	10.11	●
UM-RN4-150512			12			60			4.27	12.55	12.99	13.46	13.96	15.09	●
UM-RN4-150515			15			60			3.62	15.65	16.20	16.78	17.41	18.82	●
UM-RN4-150520			20			60			2.89	20.82	21.55	22.32	23.16	-	●
UM-RN4-151004		0.1	4			50			8.17	4.23	4.42	4.58	4.75	5.13	●
UM-RN4-151008			8			50			5.62	8.41	8.71	9.02	9.35	10.10	●
UM-RN4-151012			12			60			4.28	12.55	12.98	13.45	13.95	15.07	●
UM-RN4-151015			15			60			3.63	15.65	16.19	16.77	17.40	18.80	●
UM-RN4-151020			20			60			2.90	20.82	21.54	22.32	23.15	-	●
UM-RN4-200504	2	0.05	4	1.6	1.92	50			7.32	4.21	4.39	4.55	4.72	5.09	●
UM-RN4-200506			6			50			5.84	6.30	6.53	6.76	7.01	7.58	●
UM-RN4-200508			8			50			4.85	8.37	8.67	8.98	9.31	10.07	●
UM-RN4-200512			12			60			3.63	12.51	12.95	13.41	13.91	15.04	●
UM-RN4-200516			16			60			2.90	16.65	17.23	17.85	18.51	-	●
UM-RN4-200520			20			60			2.41	20.78	21.50	22.28	23.11	-	●
UM-RN4-201004		0.1	4			50			7.36	4.21	4.38	4.54	4.71	5.08	●
UM-RN4-201006			6			50			5.86	6.29	6.53	6.76	7.01	7.57	●
UM-RN4-201008			8			50			4.87	8.37	8.66	8.97	9.31	10.05	●
UM-RN4-201012			12			60			3.64	12.51	12.94	13.41	13.91	15.03	●
UM-RN4-201016			16			60			2.90	16.65	17.22	17.84	18.51	-	●
UM-RN4-201020			20			60			2.42	20.78	21.50	22.27	23.11	-	●
UM-RN4-202004		0.2	4			50			7.46	4.20	4.37	4.53	4.69	5.06	●
UM-RN4-202006			6			50			5.93	6.29	6.52	6.75	6.99	7.54	●
UM-RN4-202008			8			50			4.91	8.37	8.66	8.96	9.29	10.03	●
UM-RN4-202012			12			60			3.66	12.51	12.94	13.40	13.89	15.00	●
UM-RN4-202016			16			60			2.92	16.64	17.22	17.83	18.49	-	●
UM-RN4-202020			20			60			2.43	20.78	21.49	22.26	23.09	-	●
UM-RN4-202025			25			70			2.00	25.95	26.84	27.80	-	-	●

● 标准库存 Stock ○ 需预定 Available Upon Order

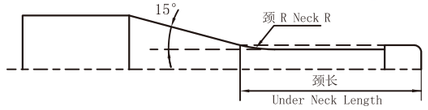
推荐切削参数P195

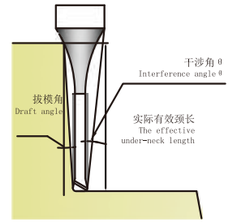
圆角R	公差 Tol.
R	±0.005

(mm)

UM-RN4

小径深加工4刃圆角头立铣刀
4 flute,corner radius endmill for small diameter & deep machining





订货号 Ordering Code	外径(D) Mill Dia.	圆角(R) Corner Radius	颈长(L1) Under Neck Length	刃长(Lc) Flute Length	颈径(d2) Neck Dia.	全长(L) Overall Length	柄径(d) Shank Dia.	颈(R) Neck R	干涉角(Θ) Interference Angle	对应拔模角的有效颈长 The effective under-neck length for the various draft angles 0.5°	1°	1.5°	2°	3°	库存 Stock
UM-RN4-202030	2	0.2	30	1.6	1.92	70	4	4	1.71	31.11	32.19	33.35	-	-	●
UM-RN4-203004		0.3	4			50			7.56	4.20	4.37	4.52	4.68	5.03	●
UM-RN4-203008			8			50			4.96	8.36	8.65	8.95	9.28	10.01	●
UM-RN4-203012			12			60			3.69	12.50	12.93	13.39	13.88	14.98	●
UM-RN4-203016			16			60			2.93	16.64	17.21	17.82	18.48	-	●
UM-RN4-203020			20			60			2.44	20.77	21.49	22.25	23.08	-	●
UM-RN4-205004		0.5	4			50			7.76	4.19	4.35	4.50	4.65	4.98	●
UM-RN4-205006			6			50			6.11	6.28	6.50	6.71	6.95	7.47	●
UM-RN4-205008			8			50			5.04	8.36	8.64	8.93	9.25	9.96	●
UM-RN4-205012			12			60			3.73	12.50	12.92	13.36	13.85	14.93	●
UM-RN4-205016			16			60			2.96	16.63	17.19	17.80	18.45	-	●
UM-RN4-205020			20			60			2.46	20.77	21.47	22.23	23.05	-	●
UM-RN4-205025			25			70			2.03	25.94	26.82	27.77	28.79	-	●
UM-RN4-205030			30			70			1.72	31.10	32.17	33.31	-	-	●
UM-RN4-251008	2.5	0.1	8	2	2.4	50			3.98	8.34	8.63	8.94	9.27	10.02	●
UM-RN4-251016			16			60			2.29	16.62	17.19	17.81	18.47	-	●
UM-RN4-251020			20			60			1.89	20.75	21.47	22.24	-	-	●
UM-RN4-252008		0.2	8			50			4.02	8.34	8.63	8.93	9.26	9.99	●
UM-RN4-252016			16			60			2.30	16.61	17.18	17.80	18.46	-	●
UM-RN4-252020			20			60			1.90	20.75	21.46	22.23	-	-	●
UM-RN4-253012		0.3	12			60			2.95	12.47	12.90	13.35	13.84	-	●
UM-RN4-253020			20			60			1.91	20.74	21.46	22.22	-	-	●
UM-RN4-255020		0.5	12			60			2.99	12.47	12.88	13.33	13.81	-	●
UM-RN4-255020			20			60			1.92	20.74	21.44	22.20	-	-	●
UM-RN4-301008	3	0.1	8	2.4	2.88	60	6		6.32	8.32	8.61	8.92	9.25	9.99	●
UM-RN4-301016			16			60			3.99	16.59	17.17	17.78	18.45	19.94	●
UM-RN4-301025			25			70			2.82	25.90	26.79	27.76	28.80	-	●
UM-RN4-301030			30			80			2.42	31.06	32.14	33.30	34.55	-	●
UM-RN4-302008		0.2	8			60			6.36	8.32	8.60	8.91	9.23	9.97	●
UM-RN4-302012			12			60			4.92	12.45	12.88	13.34	13.83	14.94	●
UM-RN4-302016			16			60			4.00	16.59	17.16	17.77	18.43	19.91	●
UM-RN4-302020			20			70			3.38	20.72	21.44	22.21	23.03	24.88	●
UM-RN4-302025			25			70			2.82	25.89	26.79	27.75	28.78	-	●
UM-RN4-302030			30			80			2.43	31.06	32.14	33.29	34.53	-	●
UM-RN4-303008			8			60			6.41	8.32	8.60	8.90	9.22	9.94	●
UM-RN4-303016			16			60			4.02	16.59	17.15	17.76	18.42	19.89	●
UM-RN4-303020			20			70			3.39	20.72	21.43	22.20	23.02	24.86	●
UM-RN4-303025			25			70			2.83	25.89	26.78	27.74	28.77	-	●
UM-RN4-303030			30			80			2.43	31.06	32.13	33.28	34.52	-	●
UM-RN4-305008			8			60			6.51	8.31	8.58	8.87	9.19	9.89	●
UM-RN4-305012			12			60			5.00	12.44	12.86	13.31	13.79	14.87	●
UM-RN4-305016			16			60			4.06	16.58	17.14	17.74	18.39	19.84	●
UM-RN4-305020			20			70			3.42	20.71	21.42	22.17	22.99	24.81	●

圆角R	公差 Tol.
R	±0.005

(mm)

● 标准库存 Stock ○ 需预定 Available Upon Order

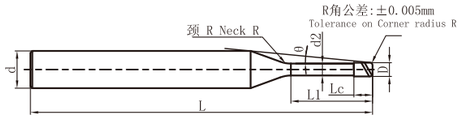
推荐切削参数P196

UM-RN4

小径深加工4刃圆角头立铣刀
4 flute,corner radius endmill for small diameter & deep machining

硬质合金 | 4 | AlCrSiN | 30°





订货号 Ordering Code	外径 (D) Mill Dia.	圆角 (R) Corner Radius	颈长 (L1) Under Neck Length	刃长 (Lc) Flute Length	颈径 (d2) Neck Dia.	全长 (L) Overall Length	柄径 (d) Shank Dia.	颈 (R) Neck R	干涉角 (Θ) Interference Angle	对应拔模角的有效颈长 The effective under-neck length for the various draft angles					库存 Stock
										0.5°	1°	1.5°	2°	3°	
UM-RN4-305025	3	0.5	25	2.4	2.88	70	6	4	2.85	25.88	26.77	27.72	28.74	-	●
UM-RN4-305030			30			80			2.45	31.05	32.12	33.26	34.49	-	●
UM-RN4-305035			35			80			2.14	36.22	37.46	38.80	40.23	-	●
UM-RN4-401012	4	0.1	12	3.2	3.86	60			3.66	12.44	12.87	13.33	13.83	14.94	●
UM-RN4-401020			20			60			2.42	20.71	21.43	22.20	23.03	-	●
UM-RN4-401030			30			80			1.71	31.05	32.12	33.28	-	-	●
UM-RN4-401040			40			80			1.32	41.38	42.82	-	-	-	●
UM-RN4-402012		0.2	12			60			3.68	12.44	12.86	13.32	13.81	14.92	●
UM-RN4-402020			20			60			2.43	20.71	21.42	22.19	23.01	-	●
UM-RN4-402030			30			80			1.71	31.04	32.12	33.27	-	-	●
UM-RN4-402040			40			80			1.32	41.38	42.81	-	-	-	●
UM-RN4-403012		0.3	12			60			3.70	12.43	12.86	13.31	13.80	14.89	●
UM-RN4-403020			20			60			2.44	20.70	21.41	22.18	23.00	-	●
UM-RN4-403030			30			80			1.72	31.04	32.11	33.26	-	-	●
UM-RN4-403040			40			80			1.32	41.38	42.81	-	-	-	●
UM-RN4-405012		0.5	12			60			3.75	12.43	12.84	13.29	13.77	14.84	●
UM-RN4-405020			20			60			2.47	20.70	21.40	22.15	22.97	-	●
UM-RN4-405030			30			80			1.73	31.03	32.10	33.24	-	-	●
UM-RN4-405040			40			80			1.33	41.37	42.79	-	-	-	●
UM-RN4-501020	5	0.1	20	4	4.85	70			1.32	20.70	21.42	-	-	-	●
UM-RN4-501040			40			90			0.69	41.38	-	-	-	-	●
UM-RN4-502020		0.2	20			70			1.32	20.70	21.41	-	-	-	●
UM-RN4-502040			40			90			0.69	41.37	-	-	-	-	●
UM-RN4-503020		0.3	20			70			1.33	20.69	21.41	-	-	-	●
UM-RN4-503040			40			90			0.69	41.37	-	-	-	-	●
UM-RN4-505020		0.5	20			70			1.34	20.69	21.39	-	-	-	●
UM-RN4-505040			40			90			0.70	41.36	-	-	-	-	●
UM-RN4-50A020		1	20			70			1.38	20.67	21.36	-	-	-	●
UM-RN4-50A040			40			90			0.71	41.34	-	-	-	-	●
UM-RN4-602030	6	0.2	30	4	4.85	80			-	-	-	-	-	-	●
UM-RN4-602054			54			100			-	-	-	-	-	-	●
UM-RN4-602072			72			120			-	-	-	-	-	-	●
UM-RN4-603030		0.3	30			80			-	-	-	-	-	-	●
UM-RN4-603054			54			100			-	-	-	-	-	-	●
UM-RN4-603072			72			120			-	-	-	-	-	-	●
UM-RN4-605030		0.5	30			80			-	-	-	-	-	-	●
UM-RN4-605054			54			100			-	-	-	-	-	-	●
UM-RN4-605072			72			120			-	-	-	-	-	-	●
UM-RN4-60A030		1	30			80			-	-	-	-	-	-	●
UM-RN4-60A054			54			100			-	-	-	-	-	-	●
UM-RN4-60A072			72			120			-	-	-	-	-	-	●

● 标准库存 Stock　○ 需预定 Available Upon Order

推荐切削参数P197

圆角R	公差 Tol.
R	±0.005

(mm)

切削参数推荐

RECOMMENDED CUTTING PARAMETERS

