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www.sgsotools.com

安全须知
●请不要直接用手摸切削刃、切屑。●请在推荐条件范围内使用，提早更换刀具。●有时会有高温的切屑飞出、伸长的切屑排出。请使用安全罩、防护镜等防护用具。●使用非水溶性切削液时，务必采取防火措施。
●使用旋转刀具时，务必进行试运转，确认有无摇摆、振动、异常声音。



SGSO MILLING TOOLS

HGX Micro Series
微小径系列



HGXB2L **208** 种
208 types

HGXE2L **167** 种
167 types

HGXE4L **94** 种
94 types

HGXR2L **316** 种
316 types

HGXR4L **345** 种
345 types



神钢赛欧科技有限公司
SGSO TECHNOLOGY CO., LTD.

ABOUT US

世界智造
神钢赛欧

神钢赛欧科技成立于2013年，是一家致力于高性能纳米涂层刀具开发和制造的国家级高新技术企业。

公司拥有世界领先的全套生产线，研发团队由3名德国资深工程师和数名国内有着十多年实践技术工程师组成。公司集科研、应用研究为一体，并和国外研究所进行合作建立先进涂层刀具研究中心，涉及材料、几何设计、磨削工艺、表面处理、纳米涂层、切削应用和高效加工方案等研究领域。公司研发和生产的高性能涂层刀具广泛应用于汽车工业、国防工业、航空航天以及IT等领域！

公司正在扩容中的第二期智能生产线，将以更高的品质，服务于世界智造。

Founded in 2013, SGSO, a National High-Tech Enterprise, is dedicated to the development and manufacture of high-performing nano-coated tools.

The company has a world-leading complete production line. The R&D team consists of 3 German senior engineers and several domestic engineers with more than ten years of practical skills. The company integrates scientific research and applied research and cooperates with foreign research institutes to establish an advanced coating tool research center, covering materials, geometric design, grinding process, surface treatment, nano coating, cutting application and efficient processing solutions. The high-performance coating tool developed and produced by the company are widely used in the automotive industry, national defense industry, aerospace and IT.

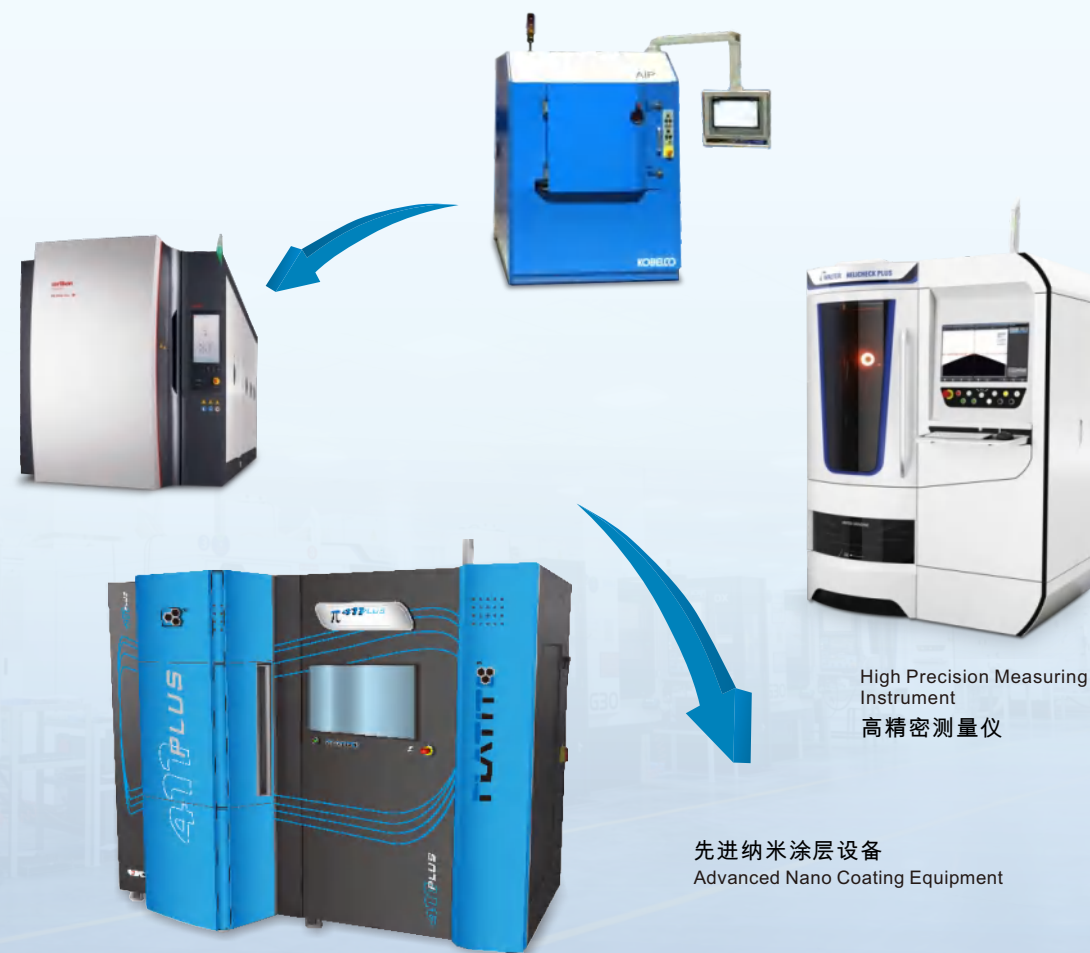
The company is expanding its second intelligent production line to serve the world's smart products with higher quality.



Testing Equipment 设备仪器

我们拥有全套先进刀具生产线，从『磨削-刃口处理-检测-涂层』整个流程所需的世界顶级研发设备！

We have a full range of advanced tooling lines, from the full process of 'grinding-edge processing-detection-coating' to the world's top R&D equipment.



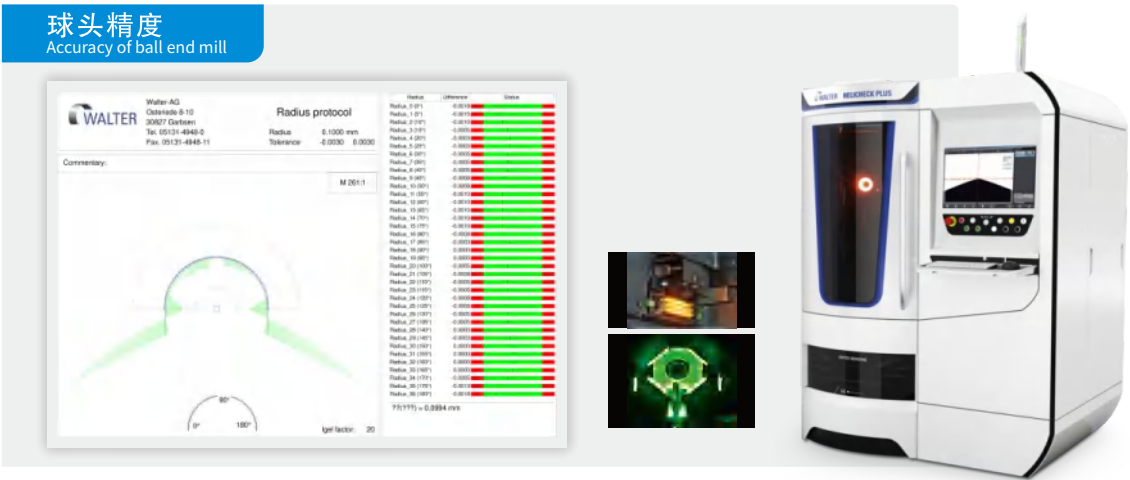
High Precision Measuring Instrument
高精密度量仪

先进纳米涂层设备
Advanced Nano Coating Equipment

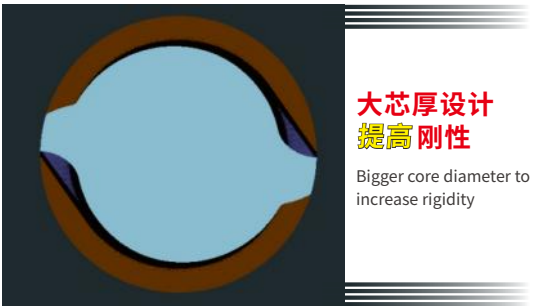


1 刀具精度 Tool Accuracy

球头精度
Accuracy of ball end mill

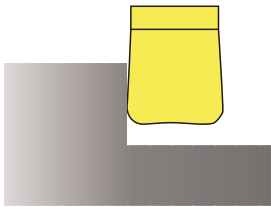


2 结构设计:实现高速高精度加工 Structural Design to Pursue High-speed and High-accuracy Machining



大芯厚设计
提高刚性
Bigger core diameter to increase rigidity

倒拔模形状
Back draft effect



倒锥度设计可实现
点接触切削,
有效降低切削振动

The back draft shape can reduce chattering by performing point cutting.

刀具侧刃倒拔模设计, 刀具最大直径为一个点, 在侧壁工况加工中, 刀具为点触, 侧刃不会与工件直接接触, 减少切削振动, 增加刀具寿命。

3 涂层的突破 Breakthroughs in Coatings

高耐磨

Excellent Wear Resistance

耐冲击性强

Excellent Thermal Shock Resistance

更少的液滴

Fewer Droplets and More Lubricating



4 丰富的规格尺寸 Complete Specifications

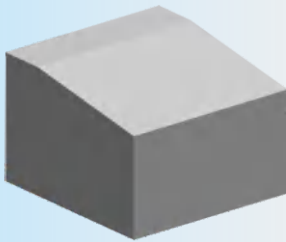
总共
Altogether
1130
种 types

HGXB2L	208 种	208 types
HGXE2L	167 种	167 types
HGXE4L	94 种	94 types
HGXR2L	316 种	316 types
HGXR4L	345 种	345 types

5 切削案例 Cutting Cases

10 度斜面单点 Single Point Cutting of 10° Slope Face

[1.2343ESR 50HRC]



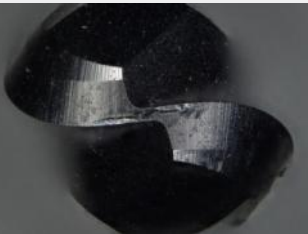
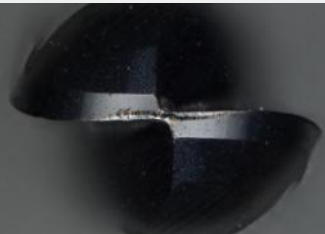
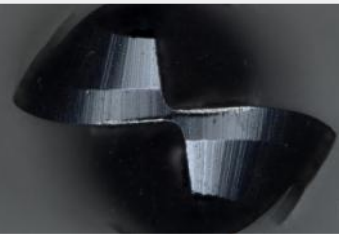
机床 Machine	快捷 AV70S Quick Jet AV70S
刀柄 Holder	MST HSK E50-SLRA4
刀具 Tool	HGXB2005L2 0450(R0.25*2)
工件材料 Work Material	1.2343ESR 50HRC
加工工况 Cutting Conditions	10 度斜面单点 Single Point Cutting Of 10 ° slope Face
刀具突出量 Over Hang	15mm
切削参数 Cutting Parameter	n=25000r/min(Vc=39.35m/min) Vf=500mm/min(fz=0.01mm/t) ap=0.01mm ae=0.025mm
冷却 Coolant	水溶性切削液 Water Base Coolant

加工时间
Process Time 2h40min

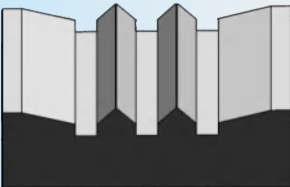
HGXB系列 HGXB Series

日本知名品牌 Famous Japanese Brand

日本知名品牌 Famous Japanese Brand



15 度以及45 斜面单点 Single point cutting of 10° and 45° slope face 【 1.2343ESR 50HRC 】



机床 Machine	快捷 AV70S Quick Jet AV70S
刀柄 Holder	MST HSK E50-SLRA4
刀具 Tool	HGXB2005L2 0450(R0.25*2)
工件材料 Work Material	1.2343ESR 50HRC
加工工况 Cutting Conditions	15度以及45斜面单点 Single Point Cutting Of 10° And 45° Slope Face
刀具突出量 Over Hang	15mm
切削参数 Cutting Parameter	n=25000r/min(Vc=39.35m/min) Vf=500mm/min(fz=0.01mm/t) ap=0.01mm ae=0.025mm
冷却 Coolant	水溶性切削液 Water Base Coolant

加工时间
Process Time 7h

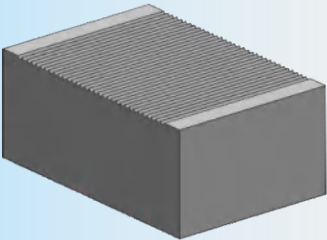
HGXB系列 / HGXB Series

日本知名品牌 / Famous Japanese Brand

日本知名品牌 / Famous Japanese Brand



V 型沟槽底部大余量测试 V-groove semi machining 【 1.2343ESR 50HRC 】



机床 Machine	快捷 AV70S Quick Jet AV70S
刀柄 Holder	MST HSK E50-SLRA4
刀具 Tool	HGXB2005L2 0450(R0.25*2)
工件材料 Work Material	1.2343ESR 50HRC
加工工况 Cutting Conditions	V型沟槽底部大余量抗折力测试 V-groove Semi Machining
刀具突出量 Over Hang	15mm
切削参数 Cutting Parameter	n=25000r/min(Vc=39.35m/min) Vf=500mm/min(fz=0.01mm/t) ap=0.01mm ae=0.025mm
冷却 Coolant	水溶性切削液 Water Base Coolant

HGXB系列 / HGXB Series

日本知名品牌 / Famous Japanese Brand



HGXB系列 / HGXB Series

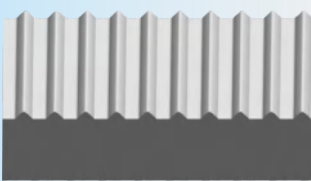
日本知名品牌 / Famous Japanese Brand



加工时间
Process Time

1.5h

平面及侧弧面测试 Flat and side curved surface cutting 【 2083ESR 45HRC 】



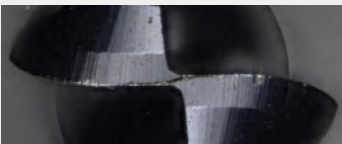
机床 Machine	快捷 AV70S Quick Jet AV70S
刀柄 Holder	MST HSK E50-SLRA4
刀具 Tool	HGXB2005L2 0450(R0.25*2)
工件材料 Work Material	2083ESR 45HRC
加工工况 Cutting Conditions	平面及侧弧面测试 Flat And Side Curved Surface Cutting
刀具突出量 Over Hang	15mm
切削参数 Cutting Parameter	n=28000r/min(Vc=39.35m/min) Vf=300mm/min(fz=0.054mm/t) ap=0.01mm ae=0.025mm
冷却 Coolant	水溶性切削液 Water Base Coolant

加工时间
Process Time 3h

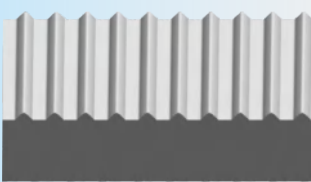
HGXB系列 / HGB Series

日本知名品牌 / Famous Japanese Brand

韩国知名品牌 / Famous Korean Brand



平面及侧弧面测试 Flat and side curved surface cutting 【 2083ESR 45HRC 】



机床 Machine	快捷 AV70S Quick Jet AV70S
刀柄 Holder	MST HSK E50-SLRA4
刀具 Tool	HGXB2005L2 0450(R0.25*2)
工件材料 Work Material	2083ESR 45HRC
加工工况 Cutting Conditions	平面及侧弧面测试 Flat and Side Curved Surface Cutting
刀具突出量 Over Hang	15mm
切削参数 Cutting Parameter	n=28000r/min(Vc=39.35m/min) Vf=300mm/min(fz=0.054mm/t) ap=0.01mm ae=0.025mm
冷却 Coolant	油雾 Mist

HGXB系列 / HGXB Series

日本知名品牌 / Famous Japanese Brand



HGXB系列 / HGXB Series

日本知名品牌 / Famous Japanese Brand



加工时间
Process Time

5h

HGXB2L 2刃长颈球刀

HGXB2L 2-Flute Long Neck Ball End Mill



∅ D	D Tolerance	∅ D	R Tolerance
D < 1	-0.008~0	D < 1	±0.003
1 ≤ D < 4	-0.010~0	1 ≤ D < 6	±0.005
4 ≤ D ≤ 6	-0.012~0		



单位Unit:mm

型 号	球半径R	颈长l1	刃长l	外径D	颈径d1	颈角 γ	全长L	柄径d
Type No.	Radius	Under Neck Length	Length of Cut	Dia.	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXB2001L0.2 0450	R0.05	0.2	0.07	0.1	0.085	12	50	4
HGXB2001L0.3 0450		0.3	0.07	0.1	0.085	12	50	4
HGXB2001L0.5 0450		0.5	0.07	0.1	0.085	12	50	4
HGXB2001L0.75 0450		0.75	0.07	0.1	0.085	12	50	4
HGXB2001L1 0450		1	0.07	0.1	0.085	12	50	4
HGXB20015L0.3 0450	R0.075	0.3	0.1	0.15	0.13	12	50	4
HGXB20015L0.5 0450		0.5	0.1	0.15	0.13	12	50	4
HGXB20015L0.75 0450		0.75	0.1	0.15	0.13	12	50	4
HGXB20015L1 0450		1	0.1	0.15	0.13	12	50	4
HGXB20015L1.5 0450		1.5	0.1	0.15	0.13	12	50	4
HGXB2002L0.3 0450	R0.1	0.3	0.15	0.2	0.18	12	50	4
HGXB2002L0.5 0450		0.5	0.15	0.2	0.18	12	50	4
HGXB2002L0.75 0450		0.75	0.15	0.2	0.18	12	50	4
HGXB2002L1 0450		1	0.15	0.2	0.18	12	50	4
HGXB2002L1.25 0450		1.25	0.15	0.2	0.18	12	50	4
HGXB2002L1.5 0450		1.5	0.15	0.2	0.18	12	50	4
HGXB2002L1.75 0450		1.75	0.15	0.2	0.18	12	50	4
HGXB2002L2 0450		2	0.15	0.2	0.18	12	50	4
HGXB2002L2.5 0450		2.5	0.15	0.2	0.18	12	50	4
HGXB2002L3 0450		3	0.15	0.2	0.18	12	50	4
HGXB2003L0.5 0450	R0.15	0.5	0.2	0.3	0.28	12	50	4
HGXB2003L0.6 0450		0.6	0.2	0.3	0.28	12	50	4
HGXB2003L0.75 0450		0.75	0.2	0.3	0.28	12	50	4
HGXB2003L1 0450		1	0.2	0.3	0.28	12	50	4
HGXB2003L1.25 0450		1.25	0.2	0.3	0.28	12	50	4
HGXB2003L1.5 0450		1.5	0.2	0.3	0.28	12	50	4
HGXB2003L1.75 0450		1.75	0.2	0.3	0.28	12	50	4

HGXB2L 2刃长颈球刀

HGXB2L 2-Flute Long Neck Ball End Mill

单位Unit:mm

型 号	球半径R	颈长l1	刃长l	外径D	颈径d1	颈角 γ	全长L	柄径d
Type No.	Radius	Under Neck Length	Length of Cut	Dia.	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXB2003L2 0450	R0.15	2	0.2	0.3	0.28	12	50	4
HGXB2003L2.25 0450		2.25	0.2	0.3	0.28	12	50	4
HGXB2003L2.5 0450		2.5	0.2	0.3	0.28	12	50	4
HGXB2003L3 0450		3	0.2	0.3	0.28	12	50	4
HGXB2003L3.5 0450		3.5	0.2	0.3	0.28	12	50	4
HGXB2003L4 0450	R0.2	4	0.2	0.3	0.28	12	50	4
HGXB2004L0.5 0450		0.5	0.3	0.4	0.37	12	50	4
HGXB2004L0.8 0450		0.8	0.3	0.4	0.37	12	50	4
HGXB2004L1 0450		1	0.3	0.4	0.37	12	50	4
HGXB2004L1.5 0450		1.5	0.3	0.4	0.37	12	50	4
HGXB2004L2 0450		2	0.3	0.4	0.37	12	50	4
HGXB2004L2.5 0450		2.5	0.3	0.4	0.37	12	50	4
HGXB2004L3 0450		3	0.3	0.4	0.37	12	50	4
HGXB2004L3.5 0450		3.5	0.3	0.4	0.37	12	50	4
HGXB2004L4 0450		4	0.3	0.4	0.37	12	50	4
HGXB2004L4.5 0450	R0.25	4.5	0.3	0.4	0.37	12	50	4
HGXB2004L5 0450		5	0.3	0.4	0.37	12	50	4
HGXB2004L6 0450		6	0.3	0.4	0.37	12	50	4
HGXB2004L8 0450		8	0.3	0.4	0.37	12	50	4
HGXB2005L1 0450		1	0.35	0.5	0.46	12	50	4
HGXB2005L1.5 0450		1.5	0.35	0.5	0.46	12	50	4
HGXB2005L2 0450		2	0.35	0.5	0.46	12	50	4
HGXB2005L2.5 0450		2.5	0.35	0.5	0.46	12	50	4
HGXB2005L3 0450		3	0.35	0.5	0.46	12	50	4
HGXB2005L3.5 0450		3.5	0.35	0.5	0.46	12	50	4
HGXB2005L4 0450	R0.3	4	0.35	0.5	0.46	12	50	4
HGXB2005L4.5 0450		4.5	0.35	0.5	0.46	12	50	4
HGXB2005L5 0450		5	0.35	0.5	0.46	12	50	4
HGXB2005L5.5 0450		5.5	0.35	0.5	0.46	12	50	4
HGXB2005L6 0450		6	0.35	0.5	0.46	12	50	4
HGXB2005L8 0450		8	0.35	0.5	0.46	12	50	4
HGXB2005L10 0450		10	0.35	0.5	0.46	12	50	4
HGXB2006L1 0450	R0.3	1	0.45	0.6	0.56	12	50	4
HGXB2006L1.5 0450		1.5	0.45	0.6	0.56	12	50	4

HGXB2L 2刃长颈球刀

HGXB2L 2-Flute Long Neck Ball End Mill

单位Unit:mm

型 号	球半径R	颈长l1	刃长l	外径D	颈径d1	颈角 γ	全长L	柄径d
Type No.	Radius	Under Neck Length	Length of Cut	Dia.	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXB2006L2 0450	R0.3	2	0.45	0.6	0.56	12	50	4
HGXB2006L2.5 0450		2.5	0.45	0.6	0.56	12	50	4
HGXB2006L3 0450		3	0.45	0.6	0.56	12	50	4
HGXB2006L3.5 0450		3.5	0.45	0.6	0.56	12	50	4
HGXB2006L4 0450		4	0.45	0.6	0.56	12	50	4
HGXB2006L4.5 0450		4.5	0.45	0.6	0.56	12	50	4
HGXB2006L5 0450		5	0.45	0.6	0.56	12	50	4
HGXB2006L5.5 0450		5.5	0.45	0.6	0.56	12	50	4
HGXB2006L6 0450		6	0.45	0.6	0.56	12	50	4
HGXB2006L7 0450		7	0.45	0.6	0.56	12	50	4
HGXB2006L8 0450		8	0.45	0.6	0.56	12	50	4
HGXB2006L9 0450		9	0.45	0.6	0.56	12	50	4
HGXB2006L10 0450	R0.35	10	0.45	0.6	0.56	12	50	4
HGXB2006L12 0450		12	0.45	0.6	0.56	12	50	4
HGXB2007L2 0450		2	0.5	0.7	0.66	12	50	4
HGXB2007L3 0450		3	0.5	0.7	0.66	12	50	4
HGXB2007L4 0450		4	0.5	0.7	0.66	12	50	4
HGXB2007L6 0450	R0.4	6	0.5	0.7	0.66	12	50	4
HGXB2007L8 0450		8	0.5	0.7	0.66	12	50	4
HGXB2008L2 0450		2	0.6	0.8	0.76	12	50	4
HGXB2008L2.5 0450		2.5	0.6	0.8	0.76	12	50	4
HGXB2008L3 0450		3	0.6	0.8	0.76	12	50	4
HGXB2008L4 0450	R0.45	4	0.6	0.8	0.76	12	50	4
HGXB2008L5 0450		5	0.6	0.8	0.76	12	50	4
HGXB2008L6 0450		6	0.6	0.8	0.76	12	50	4
HGXB2008L7 0450		7	0.6	0.8	0.76	12	50	4
HGXB2008L8 0450		8	0.6	0.8	0.76	12	50	4
HGXB2008L10 0450		10	0.6	0.8	0.76	12	50	4
HGXB2008L12 0450		12	0.6	0.8	0.76	12	50	4
HGXB2008L16 0450		16	0.6	0.8	0.76	12	50	4
HGXB2009L2 0450	R0.5	2	0.65	0.9	0.86	12	50	4
HGXB2009L4 0450		4	0.65	0.9	0.86	12	50	4
HGXB2009L6 0450		6	0.65	0.9	0.86	12	50	4
HGXB2009L8 0450		8	0.65	0.9	0.86	12	50	4
HGXB2010L2.5 0450	R0.5	2.5	0.75	1	0.95	12	50	4

HGXB2L 2刃长颈球刀

HGXB2L 2-Flute Long Neck Ball End Mill

单位Unit:mm

型 号	球半径R	颈长l1	刃长l	外径D	颈径d1	颈角 γ	全长L	柄径d
Type No.	Radius	Under Neck Length	Length of Cut	Dia.	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXB2010L3 0450	R0.5	3	0.75	1	0.95	12	50	4
HGXB2010L4 0450		4	0.75	1	0.95	12	50	4
HGXB2010L4 0660		4	0.75	1	0.95	12	60	6
HGXB2010L5 0450		5	0.75	1	0.95	12	50	4
HGXB2010L6 0450		6	0.75	1	0.95	12	50	4
HGXB2010L6 0660		6	0.75	1	0.95	12	60	6
HGXB2010L7 0450		7	0.75	1	0.95	12	50	4
HGXB2010L8 0450		8	0.75	1	0.95	12	50	4
HGXB2010L8 0660		8	0.75	1	0.95	12	60	6
HGXB2010L9 0450		9	0.75	1	0.95	12	50	4
HGXB2010L10 0450		10	0.75	1	0.95	12	50	4
HGXB2010L10 0660		10	0.75	1	0.95	12	60	6
HGXB2010L12 0450	R0.6	12	0.75	1	0.95	12	50	4
HGXB2010L14 0450		14	0.75	1	0.95	12	50	4
HGXB2010L16 0450		16	0.75	1	0.95	12	50	4
HGXB2010L18 0460		18	0.75	1	0.95	12	60	4
HGXB2010L20 0460		20	0.75	1	0.95	12	60	4
HGXB2010L22 0460		22	0.75	1	0.95	12	60	4
HGXB2012L4 0450		4	1	1.2	1.14	11	50	4
HGXB2012L6 0450		6	1	1.2	1.14	11	50	4
HGXB2012L8 0450	R0.7	8	1	1.2	1.14	11	50	4
HGXB2012L10 0450		10	1	1.2	1.14	11	50	4
HGXB2012L12 0450		12	1	1.2	1.14	11	50	4
HGXB2012L14 0450		14	1	1.2	1.14	11	50	4
HGXB2012L16 0450	R0.75	16	1	1.2	1.14	11	50	4
HGXB2014L8 0450		8	1.1	1.4	1.34	11	50	4
HGXB2014L12 0450		12	1.1	1.4	1.34	11	50	4
HGXB2014L16 0450		16	1.1	1.4	1.34	11	50	4
HGXB2015L4 0450	R0.75	4	1.2	1.5	1.42	11	50	4
HGXB2015L6 0450		6	1.2	1.5	1.42	11	50	4
HGXB2015L6 0660		6	1.2	1.5	1.42	11	60	6
HGXB2015L8 0450		8	1.2	1.5	1.42	11	50	4
HGXB2015L8 0660		8	1.2	1.5	1.42	11	60	6
HGXB2015L10 0450		10	1.2	1.5	1.42	11	50	4
HGXB2015L10 0660		10	1.2	1.5	1.42	11	60	6

HGXB2L 2刃长颈球刀

HGXB2L 2-Flute Long Neck Ball End Mill

单位Unit:mm

型 号	球半径R	颈长l1	刃长l	外径D	颈径d1	颈角 γ	全长L	柄径d
Type No.	Radius	Under Neck Length	Length of Cut	Dia.	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXB2015L12 0450	R0.75	12	1.2	1.5	1.42	11	50	4
HGXB2015L12 0660		12	1.2	1.5	1.42	11	60	6
HGXB2015L14 0450		14	1.2	1.5	1.42	11	50	4
HGXB2015L16 0450		16	1.2	1.5	1.42	11	50	4
HGXB2015L18 0460		18	1.2	1.5	1.42	11	60	4
HGXB2015L20 0460		20	1.2	1.5	1.42	11	60	4
HGXB2015L25 0460		25	1.2	1.5	1.42	11	60	4
HGXB2015L30 0475		30	1.2	1.5	1.42	11	75	4
HGXB2016L8 0450	R0.8	8	1.3	1.6	1.52	11	50	4
HGXB2016L12 0450		12	1.3	1.6	1.52	11	50	4
HGXB2016L16 0450		16	1.3	1.6	1.52	11	50	4
HGXB2016L20 0460		20	1.3	1.6	1.52	11	60	4
HGXB2020L6 0450	R1	6	1.6	2	1.9	11	50	4
HGXB2020L8 0450		8	1.6	2	1.9	11	50	4
HGXB2020L8 0660		8	1.6	2	1.9	11	60	6
HGXB2020L10 0450		10	1.6	2	1.9	11	50	4
HGXB2020L10 0660		10	1.6	2	1.9	11	60	6
HGXB2020L12 0450		12	1.6	2	1.9	11	50	4
HGXB2020L12 0660		12	1.6	2	1.9	11	60	6
HGXB2020L14 0450		14	1.6	2	1.9	11	50	4
HGXB2020L16 0450		16	1.6	2	1.9	11	50	4
HGXB2020L16 0660		16	1.6	2	1.9	11	60	6
HGXB2020L18 0460		18	1.6	2	1.9	11	60	4
HGXB2020L20 0460		20	1.6	2	1.9	11	60	4
HGXB2020L22 0460		22	1.6	2	1.9	11	60	4
HGXB2020L25 0460		25	1.6	2	1.9	11	60	4
HGXB2020L30 0475		30	1.6	2	1.9	11	75	4
HGXB2020L35 0475		35	1.6	2	1.9	11	75	4
HGXB2020L40 0475		40	1.6	2	1.9	11	75	4
HGXB2025L6 0450	R1.25	6	2	2.5	2.4	11	50	4
HGXB2025L8 0450		8	2	2.5	2.4	11	50	4
HGXB2025L10 0450		10	2	2.5	2.4	11	50	4
HGXB2025L12 0450		12	2	2.5	2.4	11	50	4
HGXB2025L16 0450		16	2	2.5	2.4	11	50	4
HGXB2025L20 0460		20	2	2.5	2.4	11	60	4

HGXB2L 2刃长颈球刀

HGXB2L 2-Flute Long Neck Ball End Mill

单位Unit:mm

型 号	球半径R	颈长l1	刃长l	外径D	颈径d1	颈角 γ	全长L	柄径d
Type No.	Radius	Under Neck Length	Length of Cut	Dia.	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXB2025L25 0460	R1.25	25	2	2.5	2.4	11	60	4
HGXB2025L30 0475		30	2	2.5	2.4	11	75	4
HGXB2025L35 0475		35	2	2.5	2.4	11	75	4
HGXB2030L8 0450	R1.5	8	2.4	3	2.9	11	50	4
HGXB2030L10 0450		10	2.4	3	2.9	11	50	4
HGXB2030L10 0660		10	2.4	3	2.9	11	60	6
HGXB2030L12 0450		12	2.4	3	2.9	11	50	4
HGXB2030L12 0660		12	2.4	3	2.9	11	60	6
HGXB2030L14 0450		14	2.4	3	2.9	11	50	4
HGXB2030L14 0660		14	2.4	3	2.9	11	60	6
HGXB2030L16 0450		16	2.4	3	2.9	11	50	4
HGXB2030L16 0660		16	2.4	3	2.9	11	60	6
HGXB2030L20 0660		20	2.4	3	2.9	11	60	6
HGXB2030L25 0675	R1.75	25	2.4	3	2.9	11	75	6
HGXB2030L30 0675		30	2.4	3	2.9	11	75	6
HGXB2030L35 0675		35	2.4	3	2.9	11	75	6
HGXB2030L40 06100		40	2.4	3	2.9	11	100	6
HGXB2035L16 0660		16	2.8	3.5	3.4	11	60	6
HGXB2035L20 0660		20	2.8	3.5	3.4	11	60	6
HGXB2035L25 0675	R2	25	3.2	4	3.9	11	60	6
HGXB2035L30 0675		30	3.2	4	3.9	11	60	6
HGXB2035L35 0675		35	3.2	4	3.9	11	60	6
HGXB2035L40 06100		40	3.2	4	3.9	11	60	6
HGXB2035L45 06100		45	3.2	4	3.9	11	60	6
HGXB2040L12 0660		12	3.2	4	3.9	11	60	6
HGXB2040L14 0660	R2.5	14	3.2	4	3.9	11	60	6
HGXB2040L16 0660		16	3.2	4	3.9	11	60	6
HGXB2040L20 0660		20	3.2	4	3.9	11	60	6
HGXB2040L25 0675		25	3.2	4	3.9	11	75	6
HGXB2040L30 0675		30	3.2	4	3.9	11	75	6
HGXB2040L35 0675		35	3.2	4	3.9	11	75	6
HGXB2040L40 06100		40	3.2	4	3.9	11	100	6
HGXB2040L45 06100		45	3.2	4	3.9	11	100	6
HGXB2050L16 0660		16	4	5	4.85	11	60	6

HGXB2L 2刃长颈球刀

HGXB2L 2-Flute Long Neck Ball End Mill

单位Unit:mm

型 号	球半径R	颈长l1	刃长l	外径D	颈径d1	颈角 γ	全长L	柄径d
Type No.	Radius	Under Neck Length	Length of Cut	Dia.	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXB2050L20 0660	R2.5	20	4	5	4.85	11	60	6
HGXB2050L25 0675		25	4	5	4.85	11	75	6
HGXB2050L30 0675		30	4	5	4.85	11	75	6
HGXB2050L35 0675		35	4	5	4.85	11	75	6
HGXB2050L40 06100		40	4	5	4.85	11	100	6
HGXB2050L45 06100		45	4	5	4.85	11	100	6
HGXB2050L50 06100		50	4	5	4.85	11	100	6

可切削材料适用表

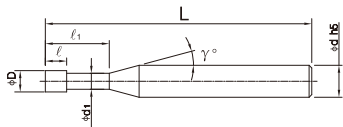
TABLE OF RECOMMENDED MILLING MATERIALS

○ 非常合适 ○ 适合

碳素钢 CARBON STEELS	合金钢 ALLOY STEELS	预硬钢、淬硬钢 PREHARDENED STEELS, HARDENED STEELS				不锈钢 STAINLESS STEELS	铸铁 CAST IRON	铜合金 COPPER ALLOYS	铝合金 ALUMINUM ALLOY	石墨 GRAPHITE	钛合金 TITANIUM ALLOY	耐热合金 HEAT RESISTANT ALLOYS	塑料 PLASTIC
预硬钢 PREHARDENED STEELS	工具钢 TOOL STEELS						球墨铸铁 DUCTILE CAST IRON						
~40HRC		~50HRC	~55HRC	~60HRC	~65HRC	~35HRC	~350HB						
○		○	○			○	○	○	○		○	○	

HGXE2L 2刃长颈平刀

HGXE2L 2-Flute Long Neck End Mill



∅ D	D Tolerance
D < 1	-0.008~0
1 ≤ D < 4	-0.010~0
4 < D ≤ 6	-0.012~0



单位Unit:mm

型 号	外径D	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXE2001L0.3 0450	0.1	0.3	0.07	0.085	12	50	4
HGXE2001L0.5 0450		0.5	0.07	0.085	12	50	4
HGXE2001L0.75 0450		0.75	0.07	0.085	12	50	4
HGXE2001L1 0450		1	0.07	0.085	12	50	4
HGXE20015L0.3 0450	0.15	0.3	0.1	0.13	12	50	4
HGXE20015L0.5 0450		0.5	0.1	0.13	12	50	4
HGXE20015L0.75 0450		0.75	0.1	0.13	12	50	4
HGXE20015L1 0450		1	0.1	0.13	12	50	4
HGXE20015L1.5 0450	0.2	1.5	0.1	0.13	12	50	4
HGXE2002L0.5 0450		0.5	0.15	0.18	12	50	4
HGXE2002L0.75 0450		0.75	0.15	0.18	12	50	4
HGXE2002L1 0450		1	0.15	0.18	12	50	4
HGXE2002L1.5 0450	0.3	1.5	0.15	0.18	12	50	4
HGXE2002L2 0450		2	0.15	0.18	12	50	4
HGXE2002L2.5 0450		2.5	0.15	0.18	12	50	4
HGXE2002L3 0450		3	0.15	0.18	12	50	4
HGXE2003L1 0450	0.3	1	0.2	0.28	12	50	4
HGXE2003L1.5 0450		1.5	0.2	0.28	12	50	4
HGXE2003L2 0450		2	0.2	0.28	12	50	4
HGXE2003L2.5 0450		2.5	0.2	0.28	12	50	4
HGXE2003L3 0450	0.4	3	0.2	0.28	12	50	4
HGXE2003L3.5 0450		3.5	0.2	0.28	12	50	4
HGXE2003L4 0450		4	0.2	0.28	12	50	4
HGXE2004L1 0450		1	0.3	0.37	12	50	4
HGXE2004L1.5 0450	0.4	1.5	0.3	0.37	12	50	4
HGXE2004L2 0450		2	0.3	0.37	12	50	4
HGXE2004L2.5 0450		2.5	0.3	0.37	12	50	4
HGXE2004L3 0450		3	0.3	0.37	12	50	4

HGXE2L 2刃长颈平刀

HGXE2L 2-Flute Long Neck End Mill

单位Unit:mm

型 号	外径D	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXE2004L3.5 0450	0.4	3.5	0.3	0.37	12	50	4
HGXE2004L4 0450		4	0.3	0.37	12	50	4
HGXE2004L5 0450		5	0.3	0.37	12	50	4
HGXE2004L6 0450		6	0.3	0.37	12	50	4
HGXE2004L8 0450		8	0.3	0.37	12	50	4
HGXE2004L10 0450		10	0.3	0.37	12	50	4
HGXE2005L1 0450	0.5	1	0.35	0.46	12	50	4
HGXE2005L1.5 0450		1.5	0.35	0.46	12	50	4
HGXE2005L2 0450		2	0.35	0.46	12	50	4
HGXE2005L2.5 0450		2.5	0.35	0.46	12	50	4
HGXE2005L3 0450		3	0.35	0.46	12	50	4
HGXE2005L3.5 0450		3.5	0.35	0.46	12	50	4
HGXE2005L4 0450		4	0.35	0.46	12	50	4
HGXE2005L4.5 0450		4.5	0.35	0.46	12	50	4
HGXE2005L5 0450		5	0.35	0.46	12	50	4
HGXE2005L6 0450		6	0.35	0.46	12	50	4
HGXE2005L7 0450		7	0.35	0.46	12	50	4
HGXE2005L8 0450		8	0.35	0.46	12	50	4
HGXE2005L9 0450		9	0.35	0.46	12	50	4
HGXE2005L10 0450		10	0.35	0.46	12	50	4
HGXE2006L1.5 0450	0.6	1.5	0.45	0.56	12	50	4
HGXE2006L2 0450		2	0.45	0.56	12	50	4
HGXE2006L2.5 0450		2.5	0.45	0.56	12	50	4
HGXE2006L3 0450		3	0.45	0.56	12	50	4
HGXE2006L3.5 0450		3.5	0.45	0.56	12	50	4
HGXE2006L4 0450		4	0.45	0.56	12	50	4
HGXE2006L4.5 0450		4.5	0.45	0.56	12	50	4
HGXE2006L5 0450		5	0.45	0.56	12	50	4
HGXE2006L6 0450		6	0.45	0.56	12	50	4
HGXE2006L7 0450		7	0.45	0.56	12	50	4
HGXE2006L8 0450		8	0.45	0.56	12	50	4
HGXE2006L9 0450		9	0.45	0.56	12	50	4
HGXE2006L10 0450		10	0.45	0.56	12	50	4
HGXE2006L12 0450		12	0.45	0.56	12	50	4
HGXE2007L2 0450	0.7	2	0.5	0.66	12	50	4
HGXE2007L4 0450		4	0.5	0.66	12	50	4

HGXE2L 2刃长颈平刀

HGXE2L 2-Flute Long Neck End Mill

单位Unit:mm

型 号	外径D	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXE2007L6 0450	0.7	6	0.5	0.66	12	50	4
HGXE2007L8 0450		8	0.5	0.66	12	50	4
HGXE2007L10 0450		10	0.5	0.66	12	50	4
HGXE2008L2 0450		2	0.6	0.76	12	50	4
HGXE2008L3 0450	0.8	3	0.6	0.76	12	50	4
HGXE2008L4 0450		4	0.6	0.76	12	50	4
HGXE2008L5 0450		5	0.6	0.76	12	50	4
HGXE2008L6 0450		6	0.6	0.76	12	50	4
HGXE2008L7 0450		7	0.6	0.76	12	50	4
HGXE2008L8 0450		8	0.6	0.76	12	50	4
HGXE2008L10 0450		10	0.6	0.76	12	50	4
HGXE2008L12 0450	0.9	12	0.6	0.76	12	50	4
HGXE2008L16 0450		16	0.6	0.76	12	50	4
HGXE2009L2 0450		2	0.65	0.86	12	50	4
HGXE2009L4 0450		4	0.65	0.86	12	50	4
HGXE2009L6 0450		6	0.65	0.86	12	50	4
HGXE2009L8 0450		8	0.65	0.86	12	50	4
HGXE2009L10 0450	1	10	0.65	0.86	12	50	4
HGXE2010L3 0450		3	0.75	0.95	12	50	4
HGXE2010L4 0450		4	0.75	0.95	12	50	4
HGXE2010L5 0450		5	0.75	0.95	12	50	4
HGXE2010L6 0450		6	0.75	0.95	12	50	4
HGXE2010L7 0450		7	0.75	0.95	12	50	4
HGXE2010L8 0450		8	0.75	0.95	12	50	4
HGXE2010L9 0450		9	0.75	0.95	12	50	4
HGXE2010L10 0450		10	0.75	0.95	12	50	4
HGXE2010L12 0450		12	0.75	0.95	12	50	4
HGXE2010L14 0450	1.2	14	0.75	0.95	12	50	4
HGXE2010L16 0450		16	0.75	0.95	12	50	4
HGXE2010L18 0460		18	0.75	0.95	12	60	4
HGXE2010L20 0460		20	0.75	0.95	12	60	4
HGXE2010L22 0460		22	0.75	0.95	12	60	4
HGXE2012L6 0450		6	1	1.14	11	50	4
HGXE2012L8 0450		8	1	1.14	11	50	4
HGXE2012L10 0450		10	1	1.14	11	50	4
HGXE2012L12 0450		12	1	1.14	11	50	4

HGXE2L 2刃长颈平刀

HGXE2L 2-Flute Long Neck End Mill

单位Unit:mm

型 号	外径D	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXE2012L16 0450	1.2	16	1	1.14	11	50	4
HGXE2014L6 0450	1.4	6	1.1	1.34	11	50	4
HGXE2014L12 0450		12	1.1	1.34	11	50	4
HGXE2014L16 0450		16	1.1	1.34	11	50	4
HGXE2015L4 0450	1.5	4	1.2	1.42	11	50	4
HGXE2015L6 0450		6	1.2	1.42	11	50	4
HGXE2015L8 0450		8	1.2	1.42	11	50	4
HGXE2015L10 0450		10	1.2	1.42	11	50	4
HGXE2015L12 0450		12	1.2	1.42	11	50	4
HGXE2015L14 0450		14	1.2	1.42	11	50	4
HGXE2015L16 0450		16	1.2	1.42	11	50	4
HGXE2015L18 0460		18	1.2	1.42	11	60	4
HGXE2015L20 0460		20	1.2	1.42	11	60	4
HGXE2015L25 0460		25	1.2	1.42	11	60	4
HGXE2015L30 0475		30	1.2	1.42	11	75	4
HGXE2015L35 0475		35	1.2	1.42	11	75	4
HGXE2016L6 0450	1.6	6	1.3	1.52	11	50	4
HGXE2016L8 0450		8	1.3	1.52	11	50	4
HGXE2016L12 0450		12	1.3	1.52	11	50	4
HGXE2016L16 0450		16	1.3	1.52	11	50	4
HGXE2018L6 0450	1.8	6	1.4	1.72	11	50	4
HGXE2018L8 0450		8	1.4	1.72	11	50	4
HGXE2018L10 0450		10	1.4	1.72	11	50	4
HGXE2018L12 0450		12	1.4	1.72	11	50	4
HGXE2018L14 0450		14	1.4	1.72	11	50	4
HGXE2018L16 0450		16	1.4	1.72	11	50	4
HGXE2018L18 0460	2	18	1.4	1.72	11	60	4
HGXE2020L6 0450		6	1.6	1.9	11	50	4
HGXE2020L8 0450		8	1.6	1.9	11	50	4
HGXE2020L10 0450		10	1.6	1.9	11	50	4
HGXE2020L12 0450		12	1.6	1.9	11	50	4
HGXE2020L14 0450		14	1.6	1.9	11	50	4
HGXE2020L16 0450		16	1.6	1.9	11	50	4
HGXE2020L18 0460		18	1.6	1.9	11	60	4
HGXE2020L20 0460		20	1.6	1.9	11	60	4
HGXE2020L25 0460		25	1.6	1.9	11	60	4

HGXE2L 2刃长颈平刀

HGXE2L 2-Flute Long Neck End Mill

单位Unit:mm

型 号	外径D	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXE2020L30 0475	2	30	1.6	1.9	11	75	4
HGXE2020L35 0475		35	1.6	1.9	11	75	4
HGXE2020L40 0475		40	1.6	1.9	11	75	4
HGXE2020L50 04100		50	1.6	1.9	11	100	4
HGXE2025L8 0450	2.5	8	2	2.4	11	50	4
HGXE2025L10 0450		10	2	2.4	11	50	4
HGXE2025L12 0450		12	2	2.4	11	50	4
HGXE2025L16 0450		16	2	2.4	11	50	4
HGXE2025L20 0460		20	2	2.4	11	60	4
HGXE2025L25 0460		25	2	2.4	11	60	4
HGXE2025L30 0475		30	2	2.4	11	75	4
HGXE2025L35 0475		35	2	2.4	11	75	4
HGXE2025L40 0475		40	2	2.4	11	75	4
HGXE2025L50 04100		50	2	2.4	11	100	4
HGXE2030L10 0660	3	10	2.4	2.9	11	60	6
HGXE2030L12 0660		12	2.4	2.9	11	60	6
HGXE2030L16 0660		16	2.4	2.9	11	60	6
HGXE2030L20 0660		20	2.4	2.9	11	60	6
HGXE2030L25 0675		25	2.4	2.9	11	75	6
HGXE2030L30 0675		30	2.4	2.9	11	75	6
HGXE2030L35 0675		35	2.4	2.9	11	75	6
HGXE2030L40 06100	4	40	2.4	2.9	11	100	6
HGXE2040L12 0660		12	3.2	3.9	11	60	6
HGXE2040L16 0660		16	3.2	3.9	11	60	6
HGXE2040L20 0660		20	3.2	3.9	11	60	6
HGXE2040L25 0675		25	3.2	3.9	11	75	6
HGXE2040L30 0675		30	3.2	3.9	11	75	6
HGXE2040L35 0675		35	3.2	3.9	11	75	6
HGXE2040L40 06100		40	3.2	3.9	11	100	6
HGXE2040L45 06100		45	3.2	3.9	11	100	6
HGXE2040L50 06100		50	3.2	3.9	11	100	6

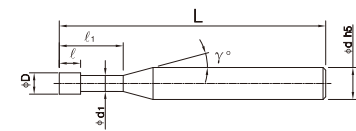
可切削材料适用表

碳素钢 CARBON STEELS	合金钢 ALLOY STEELS	预硬钢、淬硬钢 PREHARDENED STEELS, HARDENED STEELS				不锈钢 STAINLESS STEELS	铸铁 CAST IRON	铜合金 COPPER ALLOYS	铝合金 ALUMINUM ALLOY	石墨 GRAPHITE	钛合金 TITANIUM ALLOY	耐热合金 HEAT RESISTANT ALLOYS	塑料 PLASTIC
预硬钢 PREHARDENED STEELS	工具钢 TOOL STEELS	~40HRC	~50HRC	~55HRC	~60HRC	~65HRC	~35HRC	球墨铸铁 DUCTILE CAST IRON ~350HB					
		○	○	○			○	○	○			○	○

○ 非常适合 ○ 适合

HGXE4L 4刃长颈平刀

HGXE4L 4-Flute Long Neck End Mill



Ø D	D Tolerance
D < 1	-0.008 ~ 0
1 ≤ D < 4	-0.010 ~ 0
4 ≤ D ≤ 6	-0.012 ~ 0



型 号	外径D	颈长L1	刃长L	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXE4008L2 0450	0.8	2	0.6	0.76	12	50	4
HGXE4008L3 0450		3	0.6	0.76	12	50	4
HGXE4008L4 0450		4	0.6	0.76	12	50	4
HGXE4008L5 0450		5	0.6	0.76	12	50	4
HGXE4008L6 0450		6	0.6	0.76	12	50	4
HGXE4008L7 0450		7	0.6	0.76	12	50	4
HGXE4008L8 0450		8	0.6	0.76	12	50	4
HGXE4008L10 0450		10	0.6	0.76	12	50	4
HGXE4008L12 0450	12	0.6	0.76	12	50	4	
HGXE4008L16 0450	16	0.6	0.76	12	50	4	
HGXE4010L3 0450	1	3	0.75	0.95	12	50	4
HGXE4010L4 0450		4	0.75	0.95	12	50	4
HGXE4010L5 0450		5	0.75	0.95	12	50	4
HGXE4010L6 0450		6	0.75	0.95	12	50	4
HGXE4010L7 0450		7	0.75	0.95	12	50	4
HGXE4010L8 0450		8	0.75	0.95	12	50	4
HGXE4010L9 0450		9	0.75	0.95	12	50	4
HGXE4010L10 0450		10	0.75	0.95	12	50	4
HGXE4010L12 0450	12	0.75	0.95	12	50	4	
HGXE4010L14 0450	14	0.75	0.95	12	50	4	
HGXE4010L16 0450	16	0.75	0.95	12	50	4	
HGXE4010L18 0460	18	0.75	0.95	12	60	4	
HGXE4010L20 0460	20	0.75	0.95	12	60	4	
HGXE4010L22 0460	22	0.75	0.95	12	60	4	
HGXE4012L6 0450	1.2	6	1	1.14	11	50	4
HGXE4012L8 0450		8	1	1.14	11	50	4
HGXE4012L10 0450		10	1	1.14	11	50	4

HGXE4L 4刃长颈平刀

HGXE4L 4-Flute Long Neck End Mill

单位Unit:mm							
型 号	外径D	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXE4012L12 0450	1.2	12	1	1.14	11	50	4
HGXE4014L6 0450	1.4	6	1.1	1.34	11	50	4
HGXE4014L12 0450		12	1.1	1.34	11	50	4
HGXE4014L16 0450		16	1.1	1.34	11	50	4
HGXE4015L4 0450	1.5	4	1.2	1.42	11	50	4
HGXE4015L6 0450		6	1.2	1.42	11	50	4
HGXE4015L8 0450		8	1.2	1.42	11	50	4
HGXE4015L10 0450		10	1.2	1.42	11	50	4
HGXE4015L12 0450		12	1.2	1.42	11	50	4
HGXE4015L14 0450		14	1.2	1.42	11	50	4
HGXE4015L16 0450		16	1.2	1.42	11	50	4
HGXE4015L18 0460		18	1.2	1.42	11	60	4
HGXE4015L20 0460		20	1.2	1.42	11	60	4
HGXE4015L25 0460	25	1.2	1.42	11	60	4	
HGXE4016L8 0450	1.6	8	1.3	1.52	11	50	4
HGXE4016L12 0450		12	1.3	1.52	11	50	4
HGXE4016L16 0450		16	1.3	1.52	11	50	4
HGXE4018L6 0450	1.8	6	1.4	1.72	11	50	4
HGXE4018L8 0450		8	1.4	1.72	11	50	4
HGXE4018L10 0450		10	1.4	1.72	11	50	4
HGXE4018L12 0450		12	1.4	1.72	11	50	4
HGXE4018L14 0450		14	1.4	1.72	11	50	4
HGXE4018L16 0450		16	1.4	1.72	11	50	4
HGXE4018L18 0460	18	1.4	1.72	11	60	4	
HGXE4020L6 0450	2	6	1.6	1.9	11	50	4
HGXE4020L8 0450		8	1.6	1.9	11	50	4
HGXE4020L10 0450		10	1.6	1.9	11	50	4
HGXE4020L12 0450		12	1.6	1.9	11	50	4
HGXE4020L14 0450		14	1.6	1.9	11	50	4
HGXE4020L16 0450		16	1.6	1.9	11	50	4
HGXE4020L18 0460		18	1.6	1.9	11	60	4
HGXE4020L20 0460		20	1.6	1.9	11	60	4
HGXE4020L25 0460		25	1.6	1.9	11	60	4
HGXE4020L30 0475		30	1.6	1.9	11	75	4
HGXE4020L35 0475	35	1.6	1.9	11	75	4	

HGXE4L 4 刃长颈平刀

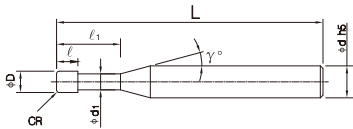
HGXE4L 4-Flute Long Neck End Mill

单位Unit:mm

型 号	外径D	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXE4025L8 0450	2.5	8	2	2.4	11	50	4
HGXE4025L10 0450		10	2	2.4	11	50	4
HGXE4025L12 0450		12	2	2.4	11	50	4
HGXE4025L16 0450		16	2	2.4	11	50	4
HGXE4025L20 0460		20	2	2.4	11	60	4
HGXE4025L25 0460		25	2	2.4	11	60	4
HGXE4025L30 0475		30	2	2.4	11	75	4
HGXE4025L35 0475		35	2	2.4	11	75	4
HGXE4030L10 0450	3	10	2.4	2.9	11	50	4
HGXE4030L10 0660		10	2.4	2.9	11	60	6
HGXE4030L12 0450		12	2.4	2.9	11	50	4
HGXE4030L12 0660		12	2.4	2.9	11	60	6
HGXE4030L16 0450		16	2.4	2.9	11	50	4
HGXE4030L16 0660		16	2.4	2.9	11	60	6
HGXE4030L20 0660		20	2.4	2.9	11	60	6
HGXE4030L25 0675		25	2.4	2.9	11	75	6
HGXE4030L30 0675		30	2.4	2.9	11	75	6
HGXE4030L35 0675		35	2.4	2.9	11	75	6
HGXE4030L40 06100		40	2.4	2.9	11	100	6
HGXE4040L12 0660	4	12	3.2	3.9	11	60	6
HGXE4040L16 0660		16	3.2	3.9	11	60	6
HGXE4040L20 0660		20	3.2	3.9	11	60	6
HGXE4040L25 0675		25	3.2	3.9	11	75	6
HGXE4040L30 0675		30	3.2	3.9	11	75	6
HGXE4040L35 0675		35	3.2	3.9	11	75	6
HGXE4040L40 06100		40	3.2	3.9	11	100	6
HGXE4040L45 06100		45	3.2	3.9	11	100	6
HGXE4040L50 06100		50	3.2	3.9	11	100	6
HGXE4050L16 0660	5	16	4	4.85	11	60	6
HGXE4050L25 0675		25	4	4.85	11	75	6
HGXE4050L35 0675		35	4	4.85	11	75	6
HGXE4050L50 06100		50	4	4.85	11	100	6

HGXR2L 2 刃长颈圆鼻刀

HGXR2L 2-Flute Long Neck Corner Radius End Mill



∅ D	D Tolerance	∅ D	R Tolerance
D < 1	-0.008 ~ -0	CR ≤ 0.05	±0.003
1 ≤ D < 4	-0.010 ~ -0	0.05 < CR ≤ 3	±0.005
4 < D ≤ 6	-0.012 ~ -0		



单位Unit:mm

型 号	外径D	圆角半径CR	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Corner Radius	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXR2002R0.02L0.5 0450	0.2	R0.02	0.5	0.15	0.18	12	50	4
HGXR2002R0.02L1 0450		R0.02	1	0.15	0.18	12	50	4
HGXR2002R0.02L1.5 0450		R0.02	1.5	0.15	0.18	12	50	4
HGXR2002R0.02L2 0450		R0.02	2	0.15	0.18	12	50	4
HGXR2002R0.05L0.5 0450	0.2	R0.05	0.5	0.15	0.18	12	50	4
HGXR2002R0.05L1 0450		R0.05	1	0.15	0.18	12	50	4
HGXR2002R0.05L1.5 0450		R0.05	1.5	0.15	0.18	12	50	4
HGXR2002R0.05L2 0450		R0.05	2	0.15	0.18	12	50	4
HGXR2003R0.02L1 0450	0.3	R0.02	1	0.2	0.28	12	50	4
HGXR2003R0.02L1.5 0450		R0.02	1.5	0.2	0.28	12	50	4
HGXR2003R0.02L2 0450		R0.02	2	0.2	0.28	12	50	4
HGXR2003R0.02L2.5 0450		R0.02	2.5	0.2	0.28	12	50	4
HGXR2003R0.02L3 0450		R0.02	3	0.2	0.28	12	50	4
HGXR2003R0.05L1 0450	0.3	R0.05	1	0.2	0.28	12	50	4
HGXR2003R0.05L1.5 0450		R0.05	1.5	0.2	0.28	12	50	4
HGXR2003R0.05L2 0450		R0.05	2	0.2	0.28	12	50	4
HGXR2003R0.05L2.5 0450		R0.05	2.5	0.2	0.28	12	50	4
HGXR2003R0.05L3 0450		R0.05	3	0.2	0.28	12	50	4
HGXR2004R0.02L1 0450	0.4	R0.02	1	0.3	0.37	12	50	4
HGXR2004R0.02L1.5 0450		R0.02	1.5	0.3	0.37	12	50	4
HGXR2004R0.02L2 0450		R0.02	2	0.3	0.37	12	50	4
HGXR2004R0.02L2.5 0450		R0.02	2.5	0.3	0.37	12	50	4
HGXR2004R0.02L3 0450		R0.02	3	0.3	0.37	12	50	4
HGXR2004R0.02L4 0450		R0.02	4	0.3	0.37	12	50	4
HGXR2004R0.05L1 0450	0.4	R0.05	1	0.3	0.37	12	50	4
HGXR2004R0.05L1.5 0450		R0.05	1.5	0.3	0.37	12	50	4
HGXR2004R0.05L2 0450		R0.05	2	0.3	0.37	12	50	4

HGXR2L 2刃长颈圆鼻刀

HGXR2L 2-Flute Long Neck Corner Radius End Mill

单位Unit:mm

型 号	外径D	圆角半径CR	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Corner Radius	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXR2004R0.05L2.5 0450	0.4	R0.05	2.5	0.3	0.37	12	50	4
HGXR2004R0.05L3 0450		R0.05	3	0.3	0.37	12	50	4
HGXR2004R0.05L4 0450		R0.05	4	0.3	0.37	12	50	4
HGXR2004R0.1L1 0450	0.4	R0.1	1	0.3	0.37	12	50	4
HGXR2004R0.1L1.5 0450		R0.1	1.5	0.3	0.37	12	50	4
HGXR2004R0.1L2 0450		R0.1	2	0.3	0.37	12	50	4
HGXR2004R0.1L2.5 0450		R0.1	2.5	0.3	0.37	12	50	4
HGXR2004R0.1L3 0450		R0.1	3	0.3	0.37	12	50	4
HGXR2004R0.1L4 0450		R0.1	4	0.3	0.37	12	50	4
HGXR2005R0.02L1 0450	0.4	R0.02	1	0.35	0.46	12	50	4
HGXR2005R0.02L1.5 0450		R0.02	1.5	0.35	0.46	12	50	4
HGXR2005R0.02L2 0450		R0.02	2	0.35	0.46	12	50	4
HGXR2005R0.02L2.5 0450		R0.02	2.5	0.35	0.46	12	50	4
HGXR2005R0.02L3 0450		R0.02	3	0.35	0.46	12	50	4
HGXR2005R0.02L4 0450		R0.02	4	0.35	0.46	12	50	4
HGXR2005R0.02L5 0450		R0.02	5	0.35	0.46	12	50	4
HGXR2005R0.02L6 0450		R0.02	6	0.35	0.46	12	50	4
HGXR2005R0.05L1 0450	0.5	R0.05	1	0.35	0.46	12	50	4
HGXR2005R0.05L1.5 0450		R0.05	1.5	0.35	0.46	12	50	4
HGXR2005R0.05L2 0450		R0.05	2	0.35	0.46	12	50	4
HGXR2005R0.05L2.5 0450		R0.05	2.5	0.35	0.46	12	50	4
HGXR2005R0.05L3 0450		R0.05	3	0.35	0.46	12	50	4
HGXR2005R0.05L4 0450		R0.05	4	0.35	0.46	12	50	4
HGXR2005R0.05L5 0450		R0.05	5	0.35	0.46	12	50	4
HGXR2005R0.05L6 0450		R0.05	6	0.35	0.46	12	50	4
HGXR2005R0.1L1 0450	0.5	R0.1	1	0.35	0.46	12	50	4
HGXR2005R0.1L1.5 0450		R0.1	1.5	0.35	0.46	12	50	4
HGXR2005R0.1L2 0450		R0.1	2	0.35	0.46	12	50	4
HGXR2005R0.1L2.5 0450		R0.1	2.5	0.35	0.46	12	50	4
HGXR2005R0.1L3 0450		R0.1	3	0.35	0.46	12	50	4
HGXR2005R0.1L4 0450		R0.1	4	0.35	0.46	12	50	4
HGXR2005R0.1L5 0450		R0.1	5	0.35	0.46	12	50	4
HGXR2005R0.1L6 0450		R0.1	6	0.35	0.46	12	50	4
HGXR2006R0.02L2 0450	0.6	R0.02	2	0.45	0.56	12	50	4
HGXR2006R0.02L3 0450		R0.02	3	0.45	0.56	12	50	4

HGXR2L 2刃长颈圆鼻刀

HGXR2L 2-Flute Long Neck Corner Radius End Mill

单位Unit:mm

型 号	外径D	圆角半径CR	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Corner Radius	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXR2006R0.02L4 0450	0.6	R0.02	4	0.45	0.56	12	50	4
HGXR2006R0.02L6 0450		R0.02	6	0.45	0.56	12	50	4
HGXR2006R0.02L8 0450		R0.02	8	0.45	0.56	12	50	4
HGXR2006R0.02L10 0450		R0.02	10	0.45	0.56	12	50	4
HGXR2006R0.05L2 0450	0.6	R0.05	2	0.45	0.56	12	50	4
HGXR2006R0.05L3 0450		R0.05	3	0.45	0.56	12	50	4
HGXR2006R0.05L4 0450		R0.05	4	0.45	0.56	12	50	4
HGXR2006R0.05L6 0450		R0.05	6	0.45	0.56	12	50	4
HGXR2006R0.05L8 0450		R0.05	8	0.45	0.56	12	50	4
HGXR2006R0.05L10 0450		R0.05	10	0.45	0.56	12	50	4
HGXR2006R0.1L2 0450	0.6	R0.1	2	0.45	0.56	12	50	4
HGXR2006R0.1L3 0450		R0.1	3	0.45	0.56	12	50	4
HGXR2006R0.1L4 0450		R0.1	4	0.45	0.56	12	50	4
HGXR2006R0.1L6 0450		R0.1	6	0.45	0.56	12	50	4
HGXR2006R0.1L8 0450		R0.1	8	0.45	0.56	12	50	4
HGXR2006R0.1L10 0450		R0.1	10	0.45	0.56	12	50	4
HGXR2007R0.02L2 0450	0.7	R0.02	2	0.5	0.66	12	50	4
HGXR2007R0.02L3 0450		R0.02	3	0.5	0.66	12	50	4
HGXR2007R0.02L4 0450		R0.02	4	0.5	0.66	12	50	4
HGXR2007R0.02L6 0450		R0.02	6	0.5	0.66	12	50	4
HGXR2007R0.02L8 0450		R0.02	8	0.5	0.66	12	50	4
HGXR2007R0.02L10 0450		R0.02	10	0.5	0.66	12	50	4
HGXR2007R0.05L2 0450	0.7	R0.05	2	0.5	0.66	12	50	4
HGXR2007R0.05L3 0450		R0.05	3	0.5	0.66	12	50	4
HGXR2007R0.05L4 0450		R0.05	4	0.5	0.66	12	50	4
HGXR2007R0.05L6 0450		R0.05	6	0.5	0.66	12	50	4
HGXR2007R0.05L8 0450		R0.05	8	0.5	0.66	12	50	4
HGXR2007R0.05L10 0450		R0.05	10	0.5	0.66	12	50	4
HGXR2007R0.1L2 0450	0.7	R0.1	2	0.5	0.66	12	50	4
HGXR2007R0.1L3 0450		R0.1	3	0.5	0.66	12	50	4
HGXR2007R0.1L4 0450		R0.1	4	0.5	0.66	12	50	4
HGXR2007R0.1L6 0450		R0.1	6	0.5	0.66	12	50	4
HGXR2007R0.1L8 0450		R0.1	8	0.5	0.66	12	50	4
HGXR2007R0.1L10 0450		R0.1	10	0.5	0.66	12	50	4
HGXR2008R0.02L2 0450	0.8	R0.02	2	0.6	0.76	12	50	4

HGXR2L 2刃长颈圆鼻刀

HGXR2L 2-Flute Long Neck Corner Radius End Mill

单位Unit:mm

型 号	外径D	圆角半径CR	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Corner Radius	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXR2008R0.02L3 0450	0.8	R0.02	3	0.6	0.76	12	50	4
HGXR2008R0.02L4 0450		R0.02	4	0.6	0.76	12	50	4
HGXR2008R0.02L6 0450		R0.02	6	0.6	0.76	12	50	4
HGXR2008R0.02L8 0450		R0.02	8	0.6	0.76	12	50	4
HGXR2008R0.02L10 0450		R0.02	10	0.6	0.76	12	50	4
HGXR2008R0.02L12 0450		R0.02	12	0.6	0.76	12	50	4
HGXR2008R0.05L2 0450	0.8	R0.05	2	0.6	0.76	12	50	4
HGXR2008R0.05L3 0450		R0.05	3	0.6	0.76	12	50	4
HGXR2008R0.05L4 0450		R0.05	4	0.6	0.76	12	50	4
HGXR2008R0.05L6 0450		R0.05	6	0.6	0.76	12	50	4
HGXR2008R0.05L8 0450		R0.05	8	0.6	0.76	12	50	4
HGXR2008R0.05L10 0450		R0.05	10	0.6	0.76	12	50	4
HGXR2008R0.05L12 0450	0.8	R0.05	12	0.6	0.76	12	50	4
HGXR2008R0.1L2 0450		R0.1	2	0.6	0.76	12	50	4
HGXR2008R0.1L3 0450		R0.1	3	0.6	0.76	12	50	4
HGXR2008R0.1L4 0450		R0.1	4	0.6	0.76	12	50	4
HGXR2008R0.1L6 0450		R0.1	6	0.6	0.76	12	50	4
HGXR2008R0.1L8 0450		R0.1	8	0.6	0.76	12	50	4
HGXR2008R0.1L10 0450	0.8	R0.1	10	0.6	0.76	12	50	4
HGXR2008R0.1L12 0450		R0.1	12	0.6	0.76	12	50	4
HGXR2008R0.2L2 0450		R0.2	2	0.6	0.76	12	50	4
HGXR2008R0.2L3 0450		R0.2	3	0.6	0.76	12	50	4
HGXR2008R0.2L4 0450		R0.2	4	0.6	0.76	12	50	4
HGXR2008R0.2L6 0450		R0.2	6	0.6	0.76	12	50	4
HGXR2008R0.2L8 0450	0.8	R0.2	8	0.6	0.76	12	50	4
HGXR2008R0.2L10 0450		R0.2	10	0.6	0.76	12	50	4
HGXR2008R0.2L12 0450		R0.2	12	0.6	0.76	12	50	4
HGXR2009R0.1L4 0450		R0.1	4	0.65	0.86	12	50	4
HGXR2009R0.1L8 0450		R0.1	8	0.65	0.86	12	50	4
HGXR2010R0.05L3 0450	1	R0.05	3	0.75	0.95	12	50	4
HGXR2010R0.05L4 0450		R0.05	4	0.75	0.95	12	50	4
HGXR2010R0.05L5 0450		R0.05	5	0.75	0.95	12	50	4
HGXR2010R0.05L6 0450		R0.05	6	0.75	0.95	12	50	4
HGXR2010R0.05L8 0450		R0.05	8	0.75	0.95	12	50	4
HGXR2010R0.05L10 0450		R0.05	10	0.75	0.95	12	50	4

HGXR2L 2刃长颈圆鼻刀

HGXR2L 2-Flute Long Neck Corner Radius End Mill

单位Unit:mm

型 号	外径D	圆角半径CR	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Corner Radius	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXR2010R0.05L12 0450	1	R0.05	12	0.75	0.95	12	50	4
HGXR2010R0.05L16 0450		R0.05	16	0.75	0.95	12	50	4
HGXR2010R0.05L20 0460		R0.05	20	0.75	0.95	12	60	4
HGXR2010R0.1L3 0450	1	R0.1	3	0.75	0.95	12	50	4
HGXR2010R0.1L4 0450		R0.1	4	0.75	0.95	12	50	4
HGXR2010R0.1L5 0450		R0.1	5	0.75	0.95	12	50	4
HGXR2010R0.1L6 0450		R0.1	6	0.75	0.95	12	50	4
HGXR2010R0.1L8 0450		R0.1	8	0.75	0.95	12	50	4
HGXR2010R0.1L10 0450		R0.1	10	0.75	0.95	12	50	4
HGXR2010R0.1L12 0450		R0.1	12	0.75	0.95	12	50	4
HGXR2010R0.1L16 0450		R0.1	16	0.75	0.95	12	50	4
HGXR2010R0.1L20 0460		R0.1	20	0.75	0.95	12	60	4
HGXR2010R0.2L3 0450		R0.2	3	0.75	0.95	12	50	4
HGXR2010R0.2L4 0450	1	R0.2	4	0.75	0.95	12	50	4
HGXR2010R0.2L5 0450		R0.2	5	0.75	0.95	12	50	4
HGXR2010R0.2L6 0450		R0.2	6	0.75	0.95	12	50	4
HGXR2010R0.2L8 0450		R0.2	8	0.75	0.95	12	50	4
HGXR2010R0.2L10 0450		R0.2	10	0.75	0.95	12	50	4
HGXR2010R0.2L12 0450		R0.2	12	0.75	0.95	12	50	4
HGXR2010R0.2L16 0450		R0.2	16	0.75	0.95	12	50	4
HGXR2010R0.2L20 0460		R0.2	20	0.75	0.95	12	60	4
HGXR2010R0.3L3 0450		R0.3	3	0.75	0.95	12	50	4
HGXR2010R0.3L4 0450	1.5	R0.3	4	0.75	0.95	12	50	4
HGXR2010R0.3L5 0450		R0.3	5	0.75	0.95	12	50	4
HGXR2010R0.3L6 0450		R0.3	6	0.75	0.95	12	50	4
HGXR2010R0.3L8 0450		R0.3	8	0.75	0.95	12	50	4
HGXR2010R0.3L10 0450		R0.3	10	0.75	0.95	12	50	4
HGXR2010R0.3L12 0450		R0.3	12	0.75	0.95	12	50	4
HGXR2010R0.3L16 0450		R0.3	16	0.75	0.95	12	50	4
HGXR2010R0.3L20 0460		R0.3	20	0.75	0.95	12	60	4
HGXR2015R0.05L4 0450		R0.05	4	1.2	1.42	11	50	4
HGXR2015R0.05L6 0450		R0.05	6	1.2	1.42	11	50	4
HGXR2015R0.05L8 0450	1.5	R0.05	8	1.2	1.42	11	50	4
HGXR2015R0.05L10 0450		R0.05	10	1.2	1.42	11	50	4
HGXR2015R0.05L12 0450		R0.05	12	1.2	1.42	11	50	4

HGXR2L 2 刃长颈圆鼻刀

HGXR2L 2-Flute Long Neck Corner Radius End Mill

单位Unit:mm

型 号	外径D	圆角半径CR	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Corner Radius	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXR2015R0.05L16 0450	1.5	R0.05	16	1.2	1.42	11	50	4
HGXR2015R0.05L20 0460		R0.05	20	1.2	1.42	11	60	4
HGXR2015R0.1L4 0450	1.5	R0.1	4	1.2	1.42	11	50	4
HGXR2015R0.1L6 0450		R0.1	6	1.2	1.42	11	50	4
HGXR2015R0.1L8 0450		R0.1	8	1.2	1.42	11	50	4
HGXR2015R0.1L10 0450		R0.1	10	1.2	1.42	11	50	4
HGXR2015R0.1L12 0450		R0.1	12	1.2	1.42	11	50	4
HGXR2015R0.1L16 0450		R0.1	16	1.2	1.42	11	50	4
HGXR2015R0.1L20 0460	1.5	R0.1	20	1.2	1.42	11	60	4
HGXR2015R0.2L4 0450		R0.2	4	1.2	1.42	11	50	4
HGXR2015R0.2L6 0450		R0.2	6	1.2	1.42	11	50	4
HGXR2015R0.2L8 0450		R0.2	8	1.2	1.42	11	50	4
HGXR2015R0.2L10 0450		R0.2	10	1.2	1.42	11	50	4
HGXR2015R0.2L12 0450		R0.2	12	1.2	1.42	11	50	4
HGXR2015R0.2L16 0450	1.5	R0.2	16	1.2	1.42	11	50	4
HGXR2015R0.2L20 0460		R0.2	20	1.2	1.42	11	60	4
HGXR2015R0.3L4 0450		R0.3	4	1.2	1.42	11	50	4
HGXR2015R0.3L6 0450		R0.3	6	1.2	1.42	11	50	4
HGXR2015R0.3L8 0450		R0.3	8	1.2	1.42	11	50	4
HGXR2015R0.3L10 0450		R0.3	10	1.2	1.42	11	50	4
HGXR2015R0.3L12 0450	1.5	R0.3	12	1.2	1.42	11	50	4
HGXR2015R0.3L16 0450		R0.3	16	1.2	1.42	11	50	4
HGXR2015R0.3L20 0460		R0.3	20	1.2	1.42	11	60	4
HGXR2020R0.05L6 0450		R0.05	6	1.6	1.9	11	50	4
HGXR2020R0.05L8 0450		R0.05	8	1.6	1.9	11	50	4
HGXR2020R0.05L10 0450		R0.05	10	1.6	1.9	11	50	4
HGXR2020R0.05L12 0450	2	R0.05	12	1.6	1.9	11	50	4
HGXR2020R0.05L16 0450		R0.05	16	1.6	1.9	11	50	4
HGXR2020R0.05L20 0460		R0.05	20	1.6	1.9	11	60	4
HGXR2020R0.05L25 0460		R0.05	25	1.6	1.9	11	60	4
HGXR2020R0.05L30 0475		R0.05	30	1.6	1.9	11	75	4
HGXR2020R0.1L6 0450		R0.1	6	1.6	1.9	11	50	4
HGXR2020R0.1L8 0450	2	R0.1	8	1.6	1.9	11	50	4
HGXR2020R0.1L10 0450		R0.1	10	1.6	1.9	11	50	4
HGXR2020R0.1L12 0450		R0.1	12	1.6	1.9	11	50	4
HGXR2020R0.1L16 0450		R0.1	16	1.6	1.9	11	50	4
HGXR2020R0.1L20 0460		R0.1	20	1.6	1.9	11	60	4
HGXR2020R0.1L12 0450		R0.1	12	1.6	1.9	11	50	4

HGXR2L 2 刃长颈圆鼻刀

HGXR2L 2-Flute Long Neck Corner Radius End Mill

单位Unit:mm

型 号	外径D	圆角半径CR	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Corner Radius	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXR2020R0.1L16 0450	2	R0.1	16	1.6	1.9	11	50	4
HGXR2020R0.1L20 0460		R0.1	20	1.6	1.9	11	60	4
HGXR2020R0.1L25 0460		R0.1	25	1.6	1.9	11	60	4
HGXR2020R0.1L30 0475		R0.1	30	1.6	1.9	11	75	4
HGXR2020R0.2L6 0450	2	R0.2	6	1.6	1.9	11	50	4
HGXR2020R0.2L8 0450		R0.2	8	1.6	1.9	11	50	4
HGXR2020R0.2L10 0450		R0.2	10	1.6	1.9	11	50	4
HGXR2020R0.2L12 0450		R0.2	12	1.6	1.9	11	50	4
HGXR2020R0.2L16 0450		R0.2	16	1.6	1.9	11	50	4
HGXR2020R0.2L20 0460		R0.2	20	1.6	1.9	11	60	4
HGXR2020R0.2L25 0460	2	R0.2	25	1.6	1.9	11	60	4
HGXR2020R0.2L30 0475		R0.2	30	1.6	1.9	11	75	4
HGXR2020R0.3L6 0450		R0.3	6	1.6	1.9	11	50	4
HGXR2020R0.3L8 0450		R0.3	8	1.6	1.9	11	50	4
HGXR2020R0.3L10 0450		R0.3	10	1.6	1.9	11	50	4
HGXR2020R0.3L12 0450		R0.3	12	1.6	1.9	11	50	4
HGXR2020R0.3L16 0450	2	R0.3	16	1.6	1.9	11	50	4
HGXR2020R0.3L20 0460		R0.3	20	1.6	1.9	11	60	4
HGXR2020R0.3L25 0460		R0.3	25	1.6	1.9	11	60	4
HGXR2020R0.3L30 0475		R0.3	30	1.6	1.9	11	75	4
HGXR2020R0.5L6 0450		R0.5	6	1.6	1.9	11	50	4
HGXR2020R0.5L8 0450		R0.5	8	1.6	1.9	11	50	4
HGXR2020R0.5L10 0450	2	R0.5	10	1.6	1.9	11	50	4
HGXR2020R0.5L12 0450		R0.5	12	1.6	1.9	11	50	4
HGXR2020R0.5L16 0450		R0.5	16	1.6	1.9	11	50	4
HGXR2020R0.5L20 0460		R0.5	20	1.6	1.9	11	60	4
HGXR2020R0.5L25 0460		R0.5	25	1.6	1.9	11	60	4
HGXR2020R0.5L30 0475		R0.5	30	1.6	1.9	11	75	4
HGXR2030R0.1L8 0660	3	R0.1	8	2.4	2.9	11	60	6
HGXR2030R0.1L10 0660		R0.1	10	2.4	2.9	11	60	6
HGXR2030R0.1L12 0660		R0.1	12	2.4	2.9	11	60	6
HGXR2030R0.1L16 0660		R0.1	16	2.4	2.9	11	60	6
HGXR2030R0.1L20 0660		R0.1	20	2.4	2.9	11	60	6
HGXR2030R0.1L25 0675		R0.1	25	2.4	2.9	11	75	6
HGXR2030R0.1L30 0675		R0.1	30	2.4	2.9	11	75	6

HGXR2L 2 刃长颈圆鼻刀

HGXR2L 2-Flute Long Neck Corner Radius End Mill

单位Unit:mm

型 号	外径D	圆角半径CR	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Corner Radius	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXR2030R0.1L35 0675	3	R0.1	35	2.4	2.9	11	75	6
HGXR2030R0.1L40 06100		R0.1	40	2.4	2.9	11	100	6
HGXR2030R0.2L8 0660		R0.2	8	2.4	2.9	11	60	6
HGXR2030R0.2L10 0660		R0.2	10	2.4	2.9	11	60	6
HGXR2030R0.2L12 0660	3	R0.2	12	2.4	2.9	11	60	6
HGXR2030R0.2L16 0660		R0.2	16	2.4	2.9	11	60	6
HGXR2030R0.2L20 0660		R0.2	20	2.4	2.9	11	60	6
HGXR2030R0.2L25 0675		R0.2	25	2.4	2.9	11	75	6
HGXR2030R0.2L30 0675	3	R0.2	30	2.4	2.9	11	75	6
HGXR2030R0.2L35 0675		R0.2	35	2.4	2.9	11	75	6
HGXR2030R0.2L40 06100		R0.2	40	2.4	2.9	11	100	6
HGXR2030R0.3L8 0660		R0.3	8	2.4	2.9	11	60	6
HGXR2030R0.3L10 0660	3	R0.3	10	2.4	2.9	11	60	6
HGXR2030R0.3L12 0660		R0.3	12	2.4	2.9	11	60	6
HGXR2030R0.3L16 0660		R0.3	16	2.4	2.9	11	60	6
HGXR2030R0.3L20 0660		R0.3	20	2.4	2.9	11	60	6
HGXR2030R0.3L25 0675	3	R0.3	25	2.4	2.9	11	75	6
HGXR2030R0.3L30 0675		R0.3	30	2.4	2.9	11	75	6
HGXR2030R0.3L35 0675		R0.3	35	2.4	2.9	11	75	6
HGXR2030R0.3L40 06100		R0.3	40	2.4	2.9	11	100	6
HGXR2030R0.5L8 0660	3	R0.5	8	2.4	2.9	11	60	6
HGXR2030R0.5L10 0660		R0.5	10	2.4	2.9	11	60	6
HGXR2030R0.5L12 0660		R0.5	12	2.4	2.9	11	60	6
HGXR2030R0.5L16 0660		R0.5	16	2.4	2.9	11	60	6
HGXR2030R0.5L20 0660	3	R0.5	20	2.4	2.9	11	60	6
HGXR2030R0.5L25 0675		R0.5	25	2.4	2.9	11	75	6
HGXR2030R0.5L30 0675		R0.5	30	2.4	2.9	11	75	6
HGXR2030R0.5L35 0675		R0.5	35	2.4	2.9	11	75	6
HGXR2030R0.5L40 06100	4	R0.5	40	2.4	2.9	11	100	6
HGXR2040R0.1L10 0660		R0.1	10	3.2	3.9	11	60	6
HGXR2040R0.1L12 0660		R0.1	12	3.2	3.9	11	60	6
HGXR2040R0.1L16 0660		R0.1	16	3.2	3.9	11	60	6
HGXR2040R0.1L20 0660	4	R0.1	20	3.2	3.9	11	60	6
HGXR2040R0.1L25 0675		R0.1	25	3.2	3.9	11	75	6
HGXR2040R0.1L30 0675		R0.1	30	3.2	3.9	11	75	6
HGXR2040R0.1L30 0675		R0.1	30	3.2	3.9	11	75	6

HGXR2L 2 刃长颈圆鼻刀

HGXR2L 2-Flute Long Neck Corner Radius End Mill

单位Unit:mm

型 号	外径D	圆角半径CR	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Corner Radius	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXR2040R0.1L35 0675	4	R0.1	35	3.2	3.9	11	75	6
HGXR2040R0.1L40 06100		R0.1	40	3.2	3.9	11	100	6
HGXR2040R0.1L45 06100		R0.1	45	3.2	3.9	11	100	6
HGXR2040R0.1L50 06100		R0.1	50	3.2	3.9	11	100	6
HGXR2040R0.2L10 0660	4	R0.2	10	3.2	3.9	11	60	6
HGXR2040R0.2L12 0660		R0.2	12	3.2	3.9	11	60	6
HGXR2040R0.2L16 0660		R0.2	16	3.2	3.9	11	60	6
HGXR2040R0.2L20 0660		R0.2	20	3.2	3.9	11	60	6
HGXR2040R0.2L25 0675	4	R0.2	25	3.2	3.9	11	75	6
HGXR2040R0.2L30 0675		R0.2	30	3.2	3.9	11	75	6
HGXR2040R0.2L35 0675		R0.2	35	3.2	3.9	11	75	6
HGXR2040R0.2L40 06100		R0.2	40	3.2	3.9	11	100	6
HGXR2040R0.2L45 06100	4	R0.2	45	3.2	3.9	11	100	6
HGXR2040R0.2L50 06100		R0.2	50	3.2	3.9	11	100	6
HGXR2040R0.3L10 0660		R0.3	10	3.2	3.9	11	60	6
HGXR2040R0.3L12 0660	4	R0.3	12	3.2	3.9	11	60	6
HGXR2040R0.3L16 0660		R0.3	16	3.2	3.9	11	60	6
HGXR2040R0.3L20 0660		R0.3	20	3.2	3.9	11	60	6
HGXR2040R0.3L25 0675		R0.3	25	3.2	3.9	11	75	6
HGXR2040R0.3L30 0675	4	R0.3	30	3.2	3.9	11	75	6
HGXR2040R0.3L35 0675		R0.3	35	3.2	3.9	11	75	6
HGXR2040R0.3L40 06100		R0.3	40	3.2	3.9	11	100	6
HGXR2040R0.3L45 06100		R0.3	45	3.2	3.9	11	100	6
HGXR2040R0.3L50 06100	4	R0.3	50	3.2	3.9	11	100	6
HGXR2040R0.5L10 0660		R0.5	10	3.2	3.9	11	60	6
HGXR2040R0.5L12 0660		R0.5	12	3.2	3.9	11	60	6
HGXR2040R0.5L16 0660		R0.5	16	3.2	3.9	11	60	6
HGXR2040R0.5L20 0660	4	R0.5	20	3.2	3.9	11	60	6
HGXR2040R0.5L25 0675		R0.5	25	3.2	3.9	11	75	6
HGXR2040R0.5L30 0675		R0.5	30	3.2	3.9	11	75	6
HGXR2040R0.5L35 0675		R0.5	35	3.2	3.9	11	75	6
HGXR2040R0.5L40 06100	4	R0.5	40	3.2	3.9	11	100	6
HGXR2040R0.5L45 06100		R0.5	45	3.2	3.9	11	100	6
HGXR2040R0.5L50 06100		R0.5	50	3.2	3.9	11	100	6
HGXR2040R1.0L10 0660	4	R1	10	3.2	3.9	11	60	6

HGXR2L 2 刃长颈圆鼻刀

HGXR2L 2-Flute Long Neck Corner Radius End Mill

单位Unit:mm

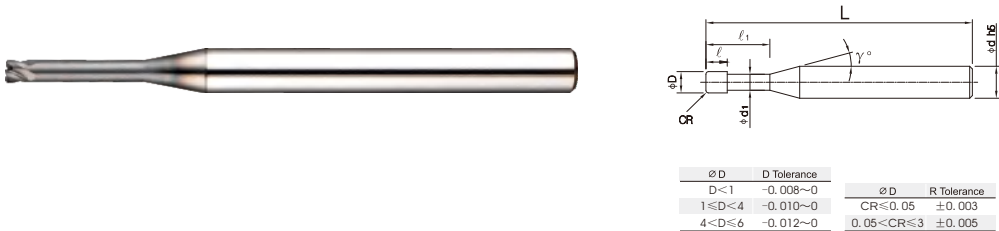
型 号	外径D	圆角半径CR	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Corner Radius	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXR2040R1.0L12 0660	4	R1	12	3.2	3.9	11	60	6
HGXR2040R1.0L16 0660		R1	16	3.2	3.9	11	60	6
HGXR2040R1.0L20 0660		R1	20	3.2	3.9	11	60	6
HGXR2040R1.0L25 0675		R1	25	3.2	3.9	11	75	6
HGXR2040R1.0L30 0675		R1	30	3.2	3.9	11	75	6
HGXR2040R1.0L35 0675		R1	35	3.2	3.9	11	75	6
HGXR2040R1.0L40 06100		R1	40	3.2	3.9	11	100	6
HGXR2040R1.0L45 06100		R1	45	3.2	3.9	11	100	6
HGXR2040R1.0L50 06100		R1	50	3.2	3.9	11	100	6

可切削材料适用表 TABLE OF RECOMMENDED MILLING MATERIALS										
碳素钢 CARBON STEELS	合金钢 ALLOY STEELS	预硬钢、淬硬钢 PREHARDENED STEELS, HARDENED STEELS				不锈钢 STAINLESS STEELS	铸铁 CAST IRON	铜合金 COPPER ALLOYS	铝合金 ALUMINUM ALLOY	石墨 GRAPHITE
预硬钢 PREHARDENED STEELS	工具钢 TOOL STEELS						球墨铸铁 DUCTILE CAST IRON			钛合金 TITANIUM ALLOY
~40HRC		~50HRC	~55HRC	~60HRC	~65HRC	~35HRC	~350HB			耐热合金 HEAT RESISTANT ALLOYS
○		○	○			○	○	○	○	○

○ 非常适合 ○ 适合

HGXR4L 4 刃长颈圆鼻刀

HGXR4L 4-Flute Long Neck Corner Radius End Mill



单位Unit:mm

型 号	外径D	圆角半径CR	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Corner Radius	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXR4005R0.02L1 0450	0.5	R0.02	1	0.35	0.46	12	50	4
HGXR4005R0.02L1.5 0450		R0.02	1.5	0.35	0.46	12	50	4
HGXR4005R0.02L2 0450		R0.02	2	0.35	0.46	12	50	4
HGXR4005R0.02L2.5 0450		R0.02	2.5	0.35	0.46	12	50	4
HGXR4005R0.02L3 0450		R0.02	3	0.35	0.46	12	50	4
HGXR4005R0.02L4 0450		R0.02	4	0.35	0.46	12	50	4
HGXR4005R0.02L5 0450		R0.02	5	0.35	0.46	12	50	4
HGXR4005R0.02L6 0450	0.5	R0.02	6	0.35	0.46	12	50	4
HGXR4005R0.05L1 0450		R0.05	1	0.35	0.46	12	50	4
HGXR4005R0.05L1.5 0450		R0.05	1.5	0.35	0.46	12	50	4
HGXR4005R0.05L2 0450		R0.05	2	0.35	0.46	12	50	4
HGXR4005R0.05L2.5 0450		R0.05	2.5	0.35	0.46	12	50	4
HGXR4005R0.05L3 0450		R0.05	3	0.35	0.46	12	50	4
HGXR4005R0.05L4 0450		R0.05	4	0.35	0.46	12	50	4
HGXR4005R0.05L5 0450	0.5	R0.05	5	0.35	0.46	12	50	4
HGXR4005R0.05L6 0450		R0.05	6	0.35	0.46	12	50	4
HGXR4005R0.1L1 0450		R0.1	1	0.35	0.46	12	50	4
HGXR4005R0.1L1.5 0450		R0.1	1.5	0.35	0.46	12	50	4
HGXR4005R0.1L2 0450		R0.1	2	0.35	0.46	12	50	4
HGXR4005R0.1L2.5 0450		R0.1	2.5	0.35	0.46	12	50	4
HGXR4005R0.1L3 0450		R0.1	3	0.35	0.46	12	50	4
HGXR4005R0.1L4 0450	0.6	R0.1	4	0.35	0.46	12	50	4
HGXR4005R0.1L5 0450		R0.1	5	0.35	0.46	12	50	4
HGXR4005R0.1L6 0450		R0.1	6	0.35	0.46	12	50	4
HGXR4006R0.02L2 0450	0.6	R0.02	2	0.45	0.56	12	50	4
HGXR4006R0.02L3 0450		R0.02	3	0.45	0.56	12	50	4

HGXR4L 4刃长颈圆鼻刀

HGXR4L 4-Flute Long Neck Corner Radius End Mill

单位Unit:mm

型 号	外径D	圆角半径CR	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Corner Radius	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXR4006R0.02L4 0450	0.6	R0.02	4	0.45	0.56	12	50	4
HGXR4006R0.02L6 0450		R0.02	6	0.45	0.56	12	50	4
HGXR4006R0.02L8 0450		R0.02	8	0.45	0.56	12	50	4
HGXR4006R0.02L10 0450		R0.02	10	0.45	0.56	12	50	4
HGXR4006R0.05L2 0450	0.6	R0.05	2	0.45	0.56	12	50	4
HGXR4006R0.05L3 0450		R0.05	3	0.45	0.56	12	50	4
HGXR4006R0.05L4 0450		R0.05	4	0.45	0.56	12	50	4
HGXR4006R0.05L6 0450		R0.05	6	0.45	0.56	12	50	4
HGXR4006R0.05L8 0450	0.6	R0.05	8	0.45	0.56	12	50	4
HGXR4006R0.05L10 0450		R0.05	10	0.45	0.56	12	50	4
HGXR4006R0.1L2 0450		R0.1	2	0.45	0.56	12	50	4
HGXR4006R0.1L3 0450		R0.1	3	0.45	0.56	12	50	4
HGXR4006R0.1L4 0450	0.6	R0.1	4	0.45	0.56	12	50	4
HGXR4006R0.1L6 0450		R0.1	6	0.45	0.56	12	50	4
HGXR4006R0.1L8 0450		R0.1	8	0.45	0.56	12	50	4
HGXR4006R0.1L10 0450		R0.1	10	0.45	0.56	12	50	4
HGXR4007R0.02L2 0450	0.7	R0.02	2	0.5	0.66	12	50	4
HGXR4007R0.02L3 0450		R0.02	3	0.5	0.66	12	50	4
HGXR4007R0.02L4 0450		R0.02	4	0.5	0.66	12	50	4
HGXR4007R0.02L6 0450		R0.02	6	0.5	0.66	12	50	4
HGXR4007R0.02L8 0450	0.7	R0.02	8	0.5	0.66	12	50	4
HGXR4007R0.02L10 0450		R0.02	10	0.5	0.66	12	50	4
HGXR4007R0.05L2 0450		R0.05	2	0.5	0.66	12	50	4
HGXR4007R0.05L3 0450		R0.05	3	0.5	0.66	12	50	4
HGXR4007R0.05L4 0450	0.7	R0.05	4	0.5	0.66	12	50	4
HGXR4007R0.05L6 0450		R0.05	6	0.5	0.66	12	50	4
HGXR4007R0.05L8 0450		R0.05	8	0.5	0.66	12	50	4
HGXR4007R0.05L10 0450		R0.05	10	0.5	0.66	12	50	4
HGXR4007R0.1L2 0450	0.7	R0.1	2	0.5	0.66	12	50	4
HGXR4007R0.1L3 0450		R0.1	3	0.5	0.66	12	50	4
HGXR4007R0.1L4 0450		R0.1	4	0.5	0.66	12	50	4
HGXR4007R0.1L6 0450		R0.1	6	0.5	0.66	12	50	4
HGXR4007R0.1L8 0450	0.7	R0.1	8	0.5	0.66	12	50	4
HGXR4007R0.1L10 0450		R0.1	10	0.5	0.66	12	50	4

HGXR4L 4刃长颈圆鼻刀

HGXR4L 4-Flute Long Neck Corner Radius End Mill

单位Unit:mm

型 号	外径D	圆角半径CR	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Corner Radius	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXR4008R0.02L2 0450	0.8	R0.02	2	0.6	0.76	12	50	4
HGXR4008R0.02L4 0450		R0.02	4	0.6	0.76	12	50	4
HGXR4008R0.02L6 0450		R0.02	6	0.6	0.76	12	50	4
HGXR4008R0.02L8 0450		R0.02	8	0.6	0.76	12	50	4
HGXR4008R0.02L10 0450	0.8	R0.02	10	0.6	0.76	12	50	4
HGXR4008R0.02L12 0450		R0.02	12	0.6	0.76	12	50	4
HGXR4008R0.05L2 0450		R0.05	2	0.6	0.76	12	50	4
HGXR4008R0.05L4 0450		R0.05	4	0.6	0.76	12	50	4
HGXR4008R0.05L6 0450	0.8	R0.05	6	0.6	0.76	12	50	4
HGXR4008R0.05L8 0450		R0.05	8	0.6	0.76	12	50	4
HGXR4008R0.05L10 0450		R0.05	10	0.6	0.76	12	50	4
HGXR4008R0.05L12 0450		R0.05	12	0.6	0.76	12	50	4
HGXR4008R0.1L2 0450	0.8	R0.1	2	0.6	0.76	12	50	4
HGXR4008R0.1L4 0450		R0.1	4	0.6	0.76	12	50	4
HGXR4008R0.1L6 0450		R0.1	6	0.6	0.76	12	50	4
HGXR4008R0.1L8 0450		R0.1	8	0.6	0.76	12	50	4
HGXR4008R0.1L10 0450	0.8	R0.1	10	0.6	0.76	12	50	4
HGXR4008R0.1L12 0450		R0.1	12	0.6	0.76	12	50	4
HGXR4008R0.2L2 0450		R0.2	2	0.6	0.76	12	50	4
HGXR4008R0.2L4 0450		R0.2	4	0.6	0.76	12	50	4
HGXR4008R0.2L6 0450	0.8	R0.2	6	0.6	0.76	12	50	4
HGXR4008R0.2L8 0450		R0.2	8	0.6	0.76	12	50	4
HGXR4008R0.2L10 0450		R0.2	10	0.6	0.76	12	50	4
HGXR4008R0.2L12 0450		R0.2	12	0.6	0.76	12	50	4
HGXR4009R0.1L4 0450	0.9	R0.1	4	0.65	0.86	12	50	4
HGXR4009R0.1L8 0450		R0.1	8	0.65	0.86	12	50	4
HGXR4010R0.02L4 0450	1	R0.02	4	0.75	0.95	12	50	4
HGXR4010R0.02L5 0450		R0.02	5	0.75	0.95	12	50	4
HGXR4010R0.02L6 0450		R0.02	6	0.75	0.95	12	50	4
HGXR4010R0.02L8 0450		R0.02	8	0.75	0.95	12	50	4
HGXR4010R0.02L10 0450	1	R0.02	10	0.75	0.95	12	50	4
HGXR4010R0.02L12 0450		R0.02	12	0.75	0.95	12	50	4
HGXR4010R0.02L16 0450		R0.02	16	0.75	0.95	12	50	4
HGXR4010R0.02L20 0460		R0.02	20	0.75	0.95	12	60	4

HGXR4L 4刃长颈圆鼻刀

HGXR4L 4-Flute Long Neck Corner Radius End Mill

单位Unit:mm

型 号	外径D	圆角半径CR	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Corner Radius	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXR4010R0.05L4 0450	1	R0.05	4	0.75	0.95	12	50	4
HGXR4010R0.05L5 0450		R0.05	5	0.75	0.95	12	50	4
HGXR4010R0.05L6 0450		R0.05	6	0.75	0.95	12	50	4
HGXR4010R0.05L8 0450		R0.05	8	0.75	0.95	12	50	4
HGXR4010R0.05L10 0450		R0.05	10	0.75	0.95	12	50	4
HGXR4010R0.05L12 0450		R0.05	12	0.75	0.95	12	50	4
HGXR4010R0.05L16 0450		R0.05	16	0.75	0.95	12	50	4
HGXR4010R0.05L20 0460		R0.05	20	0.75	0.95	12	60	4
HGXR4010R0.1L4 0450	1	R0.1	4	0.75	0.95	12	50	4
HGXR4010R0.1L5 0450		R0.1	5	0.75	0.95	12	50	4
HGXR4010R0.1L6 0450		R0.1	6	0.75	0.95	12	50	4
HGXR4010R0.1L8 0450		R0.1	8	0.75	0.95	12	50	4
HGXR4010R0.1L10 0450		R0.1	10	0.75	0.95	12	50	4
HGXR4010R0.1L12 0450		R0.1	12	0.75	0.95	12	50	4
HGXR4010R0.1L16 0450		R0.1	16	0.75	0.95	12	50	4
HGXR4010R0.1L20 0460		R0.1	20	0.75	0.95	12	60	4
HGXR4010R0.2L4 0450	1	R0.2	4	0.75	0.95	12	50	4
HGXR4010R0.2L5 0450		R0.2	5	0.75	0.95	12	50	4
HGXR4010R0.2L6 0450		R0.2	6	0.75	0.95	12	50	4
HGXR4010R0.2L8 0450		R0.2	8	0.75	0.95	12	50	4
HGXR4010R0.2L10 0450		R0.2	10	0.75	0.95	12	50	4
HGXR4010R0.2L12 0450		R0.2	12	0.75	0.95	12	50	4
HGXR4010R0.2L16 0450		R0.2	16	0.75	0.95	12	50	4
HGXR4010R0.2L20 0460		R0.2	20	0.75	0.95	12	60	4
HGXR4010R0.3L4 0450	1	R0.3	4	0.75	0.95	12	50	4
HGXR4010R0.3L5 0450		R0.3	5	0.75	0.95	12	50	4
HGXR4010R0.3L6 0450		R0.3	6	0.75	0.95	12	50	4
HGXR4010R0.3L8 0450		R0.3	8	0.75	0.95	12	50	4
HGXR4010R0.3L10 0450		R0.3	10	0.75	0.95	12	50	4
HGXR4010R0.3L12 0450		R0.3	12	0.75	0.95	12	50	4
HGXR4010R0.3L16 0450		R0.3	16	0.75	0.95	12	50	4
HGXR4010R0.3L20 0460		R0.3	20	0.75	0.95	12	60	4
HGXR4012R0.05L5 0450	1.2	R0.05	5	1	1.14	12	50	4
HGXR4012R0.05L10 0450		R0.05	10	1	1.14	12	50	4

HGXR4L 4刃长颈圆鼻刀

HGXR4L 4-Flute Long Neck Corner Radius End Mill

单位Unit:mm

型 号	外径D	圆角半径CR	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Corner Radius	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXR4012R0.1L5 0450	1.2	R0.1	5	1	1.14	12	50	4
HGXR4012R0.1L10 0450		R0.1	10	1	1.14	12	50	4
HGXR4012R0.2L5 0450	1.2	R0.2	5	1	1.14	12	50	4
HGXR4012R0.2L10 0450		R0.2	10	1	1.14	12	50	4
HGXR4012R0.3L5 0450	1.2	R0.3	5	1	1.14	12	50	4
HGXR4012R0.3L10 0450		R0.3	10	1	1.14	12	50	4
HGXR4015R0.02L6 0450	1.5	R0.02	6	1.2	1.42	11	50	4
HGXR4015R0.02L8 0450		R0.02	8	1.2	1.42	11	50	4
HGXR4015R0.02L10 0450		R0.02	10	1.2	1.42	11	50	4
HGXR4015R0.02L12 0450		R0.02	12	1.2	1.42	11	50	4
HGXR4015R0.02L16 0450		R0.02	16	1.2	1.42	11	50	4
HGXR4015R0.02L20 0460	1.5	R0.02	20	1.2	1.42	11	60	4
HGXR4015R0.05L6 0450		R0.05	6	1.2	1.42	11	50	4
HGXR4015R0.05L8 0450		R0.05	8	1.2	1.42	11	50	4
HGXR4015R0.05L10 0450		R0.05	10	1.2	1.42	11	50	4
HGXR4015R0.05L12 0450		R0.05	12	1.2	1.42	11	50	4
HGXR4015R0.05L16 0450	1.5	R0.05	16	1.2	1.42	11	50	4
HGXR4015R0.05L20 0460		R0.05	20	1.2	1.42	11	60	4
HGXR4015R0.1L6 0450		R0.1	6	1.2	1.42	11	50	4
HGXR4015R0.1L8 0450		R0.1	8	1.2	1.42	11	50	4
HGXR4015R0.1L10 0450		R0.1	10	1.2	1.42	11	50	4
HGXR4015R0.1L12 0450	1.5	R0.1	12	1.2	1.42	11	50	4
HGXR4015R0.1L16 0450		R0.1	16	1.2	1.42	11	50	4
HGXR4015R0.1L20 0460		R0.1	20	1.2	1.42	11	60	4
HGXR4015R0.2L6 0450		R0.2	6	1.2	1.42	11	50	4
HGXR4015R0.2L8 0450		R0.2	8	1.2	1.42	11	50	4
HGXR4015R0.2L10 0450	1.5	R0.2	10	1.2	1.42	11	50	4
HGXR4015R0.2L12 0450		R0.2	12	1.2	1.42	11	50	4
HGXR4015R0.2L16 0450		R0.2	16	1.2	1.42	11	50	4
HGXR4015R0.2L20 0460		R0.2	20	1.2	1.42	11	60	4
HGXR4015R0.3L6 0450		R0.3	6	1.2	1.42	11	50	4
HGXR4015R0.3L8 0450	1.5	R0.3	8	1.2	1.42	11	50	4
HGXR4015R0.3L10 0450		R0.3	10	1.2	1.42	11	50	4
HGXR4015R0.3L12 0450		R0.3	12	1.2	1.42	11	50	4

HGXR4L 4刃长颈圆鼻刀

HGXR4L 4-Flute Long Neck Corner Radius End Mill

单位Unit:mm

型 号	外径D	圆角半径CR	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Corner Radius	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXR4015R0.3L16 0450	1.5	R0.3	16	1.2	1.42	11	50	4
HGXR4015R0.3L20 0460		R0.3	20	1.2	1.42	11	60	4
HGXR4015R0.5L6 0450	1.5	R0.5	6	1.2	1.42	11	50	4
HGXR4015R0.5L8 0450		R0.5	8	1.2	1.42	11	50	4
HGXR4015R0.5L10 0450		R0.5	10	1.2	1.42	11	50	4
HGXR4015R0.5L12 0450		R0.5	12	1.2	1.42	11	50	4
HGXR4015R0.5L16 0450		R0.5	16	1.2	1.42	11	50	4
HGXR4015R0.5L20 0460		R0.5	20	1.2	1.42	11	60	4
HGXR4020R0.02L8 0450	2	R0.02	8	1.6	1.9	11	50	4
HGXR4020R0.02L10 0450		R0.02	10	1.6	1.9	11	50	4
HGXR4020R0.02L12 0450		R0.02	12	1.6	1.9	11	50	4
HGXR4020R0.02L16 0450		R0.02	16	1.6	1.9	11	50	4
HGXR4020R0.02L20 0460		R0.02	20	1.6	1.9	11	60	4
HGXR4020R0.02L25 0460		R0.02	25	1.6	1.9	11	60	4
HGXR4020R0.02L30 0475	2	R0.02	30	1.6	1.9	11	75	4
HGXR4020R0.05L8 0450		R0.05	8	1.6	1.9	11	50	4
HGXR4020R0.05L10 0450		R0.05	10	1.6	1.9	11	50	4
HGXR4020R0.05L12 0450		R0.05	12	1.6	1.9	11	50	4
HGXR4020R0.05L16 0450		R0.05	16	1.6	1.9	11	50	4
HGXR4020R0.05L20 0460		R0.05	20	1.6	1.9	11	60	4
HGXR4020R0.05L25 0460	2	R0.05	25	1.6	1.9	11	60	4
HGXR4020R0.05L30 0475		R0.05	30	1.6	1.9	11	75	4
HGXR4020R0.1L8 0450		R0.1	8	1.6	1.9	11	50	4
HGXR4020R0.1L10 0450		R0.1	10	1.6	1.9	11	50	4
HGXR4020R0.1L12 0450		R0.1	12	1.6	1.9	11	50	4
HGXR4020R0.1L16 0450		R0.1	16	1.6	1.9	11	50	4
HGXR4020R0.1L20 0460	2	R0.1	20	1.6	1.9	11	60	4
HGXR4020R0.1L25 0460		R0.1	25	1.6	1.9	11	60	4
HGXR4020R0.1L30 0475		R0.1	30	1.6	1.9	11	75	4
HGXR4020R0.2L8 0450		R0.2	8	1.6	1.9	11	50	4
HGXR4020R0.2L10 0450		R0.2	10	1.6	1.9	11	50	4
HGXR4020R0.2L12 0450		R0.2	12	1.6	1.9	11	50	4
HGXR4020R0.2L16 0450	2	R0.2	16	1.6	1.9	11	50	4
HGXR4020R0.2L20 0460		R0.2	20	1.6	1.9	11	60	4

HGXR4L 4刃长颈圆鼻刀

HGXR4L 4-Flute Long Neck Corner Radius End Mill

单位Unit:mm

型 号	外径D	圆角半径CR	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Corner Radius	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXR4020R0.2L25 0460	2	R0.2	25	1.6	1.9	11	60	4
HGXR4020R0.2L30 0475		R0.2	30	1.6	1.9	11	75	4
HGXR4020R0.3L8 0450	2	R0.3	8	1.6	1.9	11	50	4
HGXR4020R0.3L10 0450		R0.3	10	1.6	1.9	11	50	4
HGXR4020R0.3L12 0450		R0.3	12	1.6	1.9	11	50	4
HGXR4020R0.3L16 0450		R0.3	16	1.6	1.9	11	50	4
HGXR4020R0.3L20 0460		R0.3	20	1.6	1.9	11	60	4
HGXR4020R0.3L25 0460		R0.3	25	1.6	1.9	11	60	4
HGXR4020R0.3L30 0475	2	R0.3	30	1.6	1.9	11	75	4
HGXR4020R0.5L8 0450		R0.5	8	1.6	1.9	11	50	4
HGXR4020R0.5L10 0450		R0.5	10	1.6	1.9	11	50	4
HGXR4020R0.5L12 0450		R0.5	12	1.6	1.9	11	50	4
HGXR4020R0.5L16 0450		R0.5	16	1.6	1.9	11	50	4
HGXR4020R0.5L20 0460		R0.5	20	1.6	1.9	11	60	4
HGXR4020R0.5L25 0460	2.5	R0.5	25	1.6	1.9	11	60	4
HGXR4020R0.5L30 0475		R0.5	30	1.6	1.9	11	75	4
HGXR4025R0.1L10 0450		R0.1	10	2	2.4	11	50	4
HGXR4025R0.1L20 0460		R0.1	20	2	2.4	11	60	4
HGXR4025R0.1L30 0475		R0.1	30	2	2.4	11	75	4
HGXR4025R0.2L10 0450	2.5	R0.2	10	2	2.4	11	50	4
HGXR4025R0.2L20 0460		R0.2	20	2	2.4	11	60	4
HGXR4025R0.2L30 0475		R0.2	30	2	2.4	11	75	4
HGXR4025R0.3L10 0450		R0.3	10	2	2.4	11	50	4
HGXR4025R0.3L20 0460		R0.3	20	2	2.4	11	60	4
HGXR4025R0.3L30 0475		R0.3	30	2	2.4	11	75	4
HGXR4025R0.5L10 0450	2.5	R0.5	10	2	2.4	11	50	4
HGXR4025R0.5L20 0460		R0.5	20	2	2.4	11	60	4
HGXR4025R0.5L30 0475		R0.5	30	2	2.4	11	75	4
HGXR4030R0.05L10 0450		R0.05	10	2.4	2.9	11	50	4
HGXR4030R0.05L10 0660		R0.05	10	2.4	2.9	11	60	6
HGXR4030R0.05L12 0450		R0.05	12	2.4	2.9	11	50	4
HGXR4030R0.05L12 0660	3	R0.05	12	2.4	2.9	11	60	6
HGXR4030R0.05L16 0450		R0.05	16	2.4	2.9	11	50	4
HGXR4030R0.05L16 0660		R0.05	16	2.4	2.9	11	60	6

HGXR4L 4刃长颈圆鼻刀

HGXR4L 4-Flute Long Neck Corner Radius End Mill

单位Unit:mm

型 号	外径D	圆角半径CR	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Corner Radius	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXR4030R0.05L20 0660	3	R0.05	20	2.4	2.9	11	60	6
HGXR4030R0.05L25 0675		R0.05	25	2.4	2.9	11	75	6
HGXR4030R0.05L30 0675		R0.05	30	2.4	2.9	11	75	6
HGXR4030R0.05L35 0675		R0.05	35	2.4	2.9	11	75	6
HGXR4030R0.05L40 06100		R0.05	40	2.4	2.9	11	100	6
HGXR4030R0.1L10 0450	3	R0.1	10	2.4	2.9	11	50	4
HGXR4030R0.1L10 0660		R0.1	10	2.4	2.9	11	60	6
HGXR4030R0.1L12 0450		R0.1	12	2.4	2.9	11	50	4
HGXR4030R0.1L12 0660		R0.1	12	2.4	2.9	11	60	6
HGXR4030R0.1L16 0450		R0.1	16	2.4	2.9	11	50	4
HGXR4030R0.1L16 0660		R0.1	16	2.4	2.9	11	60	6
HGXR4030R0.1L20 0660		R0.1	20	2.4	2.9	11	60	6
HGXR4030R0.1L25 0675		R0.1	25	2.4	2.9	11	75	6
HGXR4030R0.1L30 0675		R0.1	30	2.4	2.9	11	75	6
HGXR4030R0.1L35 0675		R0.1	35	2.4	2.9	11	75	6
HGXR4030R0.1L40 06100		R0.1	40	2.4	2.9	11	100	6
HGXR4030R0.2L10 0450		R0.2	10	2.4	2.9	11	50	4
HGXR4030R0.2L10 0660		R0.2	10	2.4	2.9	11	60	6
HGXR4030R0.2L12 0450		R0.2	12	2.4	2.9	11	50	4
HGXR4030R0.2L12 0660		R0.2	12	2.4	2.9	11	60	6
HGXR4030R0.2L16 0450		R0.2	16	2.4	2.9	11	50	4
HGXR4030R0.2L16 0660		R0.2	16	2.4	2.9	11	60	6
HGXR4030R0.2L20 0660		R0.2	20	2.4	2.9	11	60	6
HGXR4030R0.2L25 0675		R0.2	25	2.4	2.9	11	75	6
HGXR4030R0.2L30 0675		R0.2	30	2.4	2.9	11	75	6
HGXR4030R0.2L35 0675		R0.2	35	2.4	2.9	11	75	6
HGXR4030R0.2L40 06100		R0.2	40	2.4	2.9	11	100	6
HGXR4030R0.3L10 0450	3	R0.3	10	2.4	2.9	11	50	4
HGXR4030R0.3L10 0660		R0.3	10	2.4	2.9	11	60	6
HGXR4030R0.3L12 0450		R0.3	12	2.4	2.9	11	50	4
HGXR4030R0.3L12 0660		R0.3	12	2.4	2.9	11	60	6
HGXR4030R0.3L16 0450		R0.3	16	2.4	2.9	11	50	4
HGXR4030R0.3L16 0660		R0.3	16	2.4	2.9	11	60	6
HGXR4030R0.3L20 0660		R0.3	20	2.4	2.9	11	60	6
HGXR4030R0.3L20 0660		R0.3	20	2.4	2.9	11	60	6

HGXR4L 4刃长颈圆鼻刀

HGXR4L 4-Flute Long Neck Corner Radius End Mill

单位Unit:mm

型 号	外径D	圆角半径CR	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Corner Radius	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXR4030R0.3L25 0675	3	R0.3	25	2.4	2.9	11	75	6
HGXR4030R0.3L30 0675		R0.3	30	2.4	2.9	11	75	6
HGXR4030R0.3L35 0675		R0.3	35	2.4	2.9	11	75	6
HGXR4030R0.3L40 06100		R0.3	40	2.4	2.9	11	100	6
HGXR4030R0.5L10 0450		R0.5	10	2.4	2.9	11	50	4
HGXR4030R0.5L10 0660	3	R0.5	10	2.4	2.9	11	60	6
HGXR4030R0.5L12 0450		R0.5	12	2.4	2.9	11	50	4
HGXR4030R0.5L12 0660		R0.5	12	2.4	2.9	11	60	6
HGXR4030R0.5L16 0450		R0.5	16	2.4	2.9	11	50	4
HGXR4030R0.5L16 0660		R0.5	16	2.4	2.9	11	60	6
HGXR4030R0.5L20 0660		R0.5	20	2.4	2.9	11	60	6
HGXR4030R0.5L25 0675		R0.5	25	2.4	2.9	11	75	6
HGXR4030R0.5L30 0675		R0.5	30	2.4	2.9	11	75	6
HGXR4030R0.5L35 0675		R0.5	35	2.4	2.9	11	75	6
HGXR4030R0.5L40 06100		R0.5	40	2.4	2.9	11	100	6
HGXR4030R1.0L10 0450	3	R1.0	10	2.4	2.9	11	50	4
HGXR4030R1.0L10 0660		R1.0	10	2.4	2.9	11	60	6
HGXR4030R1.0L12 0450		R1.0	12	2.4	2.9	11	50	4
HGXR4030R1.0L12 0660		R1.0	12	2.4	2.9	11	60	6
HGXR4030R1.0L16 0450		R1.0	16	2.4	2.9	11	50	4
HGXR4030R1.0L16 0660		R1.0	16	2.4	2.9	11	60	6
HGXR4030R1.0L20 0660		R1.0	20	2.4	2.9	11	60	6
HGXR4030R1.0L25 0675		R1.0	25	2.4	2.9	11	75	6
HGXR4030R1.0L30 0675		R1.0	30	2.4	2.9	11	75	6
HGXR4030R1.0L35 0675		R1.0	35	2.4	2.9	11	75	6
HGXR4030R1.0L40 06100		R1.0	40	2.4	2.9	11	100	6
HGXR4040R0.1L16 0660		R0.1	16	3.2	3.9	11	60	6
HGXR4040R0.1L20 0660		R0.1	20	3.2	3.9	11	60	6
HGXR4040R0.1L25 0675		R0.1	25	3.2	3.9	11	75	6
HGXR4040R0.1L30 0675		R0.1	30	3.2	3.9	11	75	6
HGXR4040R0.1L35 0675		R0.1	35	3.2	3.9	11	75	6
HGXR4040R0.1L40 06100	4	R0.1	40	3.2	3.9	11	100	6
HGXR4040R0.1L45 06100		R0.1	45	3.2	3.9	11	100	6
HGXR4040R0.1L50 06100		R0.1	50	3.2	3.9	11	100	6

HGXR4L 4刃长颈圆鼻刀

HGXR4L 4-Flute Long Neck Corner Radius End Mill

单位Unit:mm

型 号	外径D	圆角半径CR	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Corner Radius	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXR4040R0.2L16 0660	4	R0.2	16	3.2	3.9	11	60	6
HGXR4040R0.2L20 0660		R0.2	20	3.2	3.9	11	60	6
HGXR4040R0.2L25 0675		R0.2	25	3.2	3.9	11	75	6
HGXR4040R0.2L30 0675		R0.2	30	3.2	3.9	11	75	6
HGXR4040R0.2L35 0675		R0.2	35	3.2	3.9	11	75	6
HGXR4040R0.2L40 06100		R0.2	40	3.2	3.9	11	100	6
HGXR4040R0.2L45 06100		R0.2	45	3.2	3.9	11	100	6
HGXR4040R0.2L50 06100		R0.2	50	3.2	3.9	11	100	6
HGXR4040R0.3L16 0660	4	R0.3	16	3.2	3.9	11	60	6
HGXR4040R0.3L20 0660		R0.3	20	3.2	3.9	11	60	6
HGXR4040R0.3L25 0675		R0.3	25	3.2	3.9	11	75	6
HGXR4040R0.3L30 0675		R0.3	30	3.2	3.9	11	75	6
HGXR4040R0.3L35 0675		R0.3	35	3.2	3.9	11	75	6
HGXR4040R0.3L40 06100		R0.3	40	3.2	3.9	11	100	6
HGXR4040R0.3L45 06100		R0.3	45	3.2	3.9	11	100	6
HGXR4040R0.3L50 06100		R0.3	50	3.2	3.9	11	100	6
HGXR4040R0.5L16 0660	4	R0.5	16	3.2	3.9	11	60	6
HGXR4040R0.5L20 0660		R0.5	20	3.2	3.9	11	60	6
HGXR4040R0.5L25 0675		R0.5	25	3.2	3.9	11	75	6
HGXR4040R0.5L30 0675		R0.5	30	3.2	3.9	11	75	6
HGXR4040R0.5L35 0675		R0.5	35	3.2	3.9	11	75	6
HGXR4040R0.5L40 06100		R0.5	40	3.2	3.9	11	100	6
HGXR4040R0.5L45 06100		R0.5	45	3.2	3.9	11	100	6
HGXR4040R0.5L50 06100		R0.5	50	3.2	3.9	11	100	6
HGXR4040R1.0L16 0660	4	R1	16	3.2	3.9	11	60	6
HGXR4040R1.0L20 0660		R1	20	3.2	3.9	11	60	6
HGXR4040R1.0L25 0675		R1	25	3.2	3.9	11	75	6
HGXR4040R1.0L30 0675		R1	30	3.2	3.9	11	75	6
HGXR4040R1.0L35 0675		R1	35	3.2	3.9	11	75	6
HGXR4040R1.0L40 06100		R1	40	3.2	3.9	11	100	6
HGXR4040R1.0L45 06100		R1	45	3.2	3.9	11	100	6
HGXR4040R1.0L50 06100		R1	50	3.2	3.9	11	100	6
HGXR4050R0.1L16 0660	5	R0.1	16	4	4.85	11	60	6
HGXR4050R0.1L20 0660		R0.1	20	4	4.85	11	60	6

HGXR4L 4刃长颈圆鼻刀

HGXR4L 4-Flute Long Neck Corner Radius End Mill

单位Unit:mm

型 号	外径D	圆角半径CR	颈长l1	刃长l	颈径d1	颈角 γ	全长L	柄径d
Type No.	Dia.	Corner Radius	Under Neck Length	Length of Cut	Neck Dia.	Neck Taper Angle	Overall Length	Shank Dia.
HGXR4050R0.1L40 06100	5	R0.1	40	4	4.85	11	100	6
HGXR4050R0.2L16 0660	5	R0.2	16	4	4.85	11	60	6
HGXR4050R0.2L20 0660		R0.2	20	4	4.85	11	60	6
HGXR4050R0.2L40 06100		R0.2	40	4	4.85	11	100	6
HGXR4050R0.3L16 0660	5	R0.3	16	4	4.85	11	60	6
HGXR4050R0.3L20 0660		R0.3	20	4	4.85	11	60	6
HGXR4050R0.3L40 06100		R0.3	40	4	4.85	11	100	6
HGXR4050R0.5L16 0660	5	R0.5	16	4	4.85	11	60	6
HGXR4050R0.5L20 0660		R0.5	20	4	4.85	11	60	6
HGXR4050R0.5L40 06100		R0.5	40	4	4.85	11	100	6
HGXR4050R1.0L16 0660	5	R1	16	4	4.85	11	60	6
HGXR4050R1.0L20 0660		R1	20	4	4.85	11	60	6
HGXR4050R1.0L40 06100		R1	40	4	4.85	11	100	6

HGXB2L 2刃长颈球刀HGXB2L 2-Flute Long Neck Ball End Mill

加工材料 Work Material		碳素钢、合金钢 Carbon Steels, Alloy Steels (≤HRC30)				预硬钢 Pre-Hardened Steels (HRC30-45)				淬火钢 Hardened Steels (HRC46-55)			
球头半径 Radius	颈长 Under Neck Length	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm
R0.05	0.2	40000	120	0.003	0.005	40000	100	0.002	0.005	40000	70	0.002	0.003
	0.3	40000	100	0.003	0.005	40000	70	0.002	0.005	40000	50	0.002	0.003
	0.5	40000	70	0.002	0.003	40000	50	0.001	0.003	40000	30	0.001	0.002
	0.75	40000	70	0.002	0.003	40000	50	0.001	0.003	40000	30	0.001	0.002
	1	40000	50	0.002	0.003	40000	30	0.001	0.003	40000	30	0.001	0.002
R0.075	0.3	40000	180	0.003	0.005	40000	150	0.002	0.005	40000	100	0.002	0.003
	0.5	40000	150	0.003	0.005	40000	120	0.002	0.005	40000	70	0.002	0.003
	0.75	40000	70	0.002	0.003	40000	50	0.001	0.003	40000	30	0.001	0.002
	1	40000	70	0.002	0.003	40000	50	0.001	0.003	40000	30	0.001	0.002
	1.5	40000	50	0.002	0.003	40000	30	0.001	0.003	40000	30	0.001	0.002
R0.1	0.3	40000	350	0.01	0.01	40000	300	0.006	0.005	36000	200	0.003	0.003
	0.5	40000	320	0.008	0.01	39600	280	0.005	0.005	36000	180	0.003	0.003
	0.75	40000	280	0.005	0.01	39600	200	0.003	0.005	36000	150	0.002	0.003
	1	40000	250	0.003	0.005	39600	160	0.002	0.003	36000	120	0.001	0.002
	1.25	40000	180	0.003	0.005	39600	140	0.002	0.003	36000	100	0.001	0.002
	1.5	40000	150	0.003	0.005	39600	120	0.002	0.003	36000	80	0.001	0.002
	1.75	40000	120	0.002	0.003	39600	100	0.001	0.002	36000	60	0.001	0.002
	2	40000	100	0.002	0.003	39600	80	0.001	0.002	36000	50	0.001	0.001
	2.5	40000	70	0.001	0.002	39600	60	0.001	0.001	36000	40	0.001	0.001
	3	40000	50	0.001	0.001	39600	40	0.001	0.001	36000	30	0.001	0.001
R0.15	0.5	36300	350	0.01	0.015	33000	300	0.007	0.01	30000	280	0.003	0.005
	0.6	36300	350	0.007	0.01	33000	300	0.005	0.007	30000	250	0.003	0.005
	0.75	36300	330	0.007	0.01	33000	280	0.005	0.007	30000	230	0.003	0.005
	1	36300	320	0.007	0.01	33000	250	0.005	0.007	30000	200	0.003	0.005
	1.25	36300	280	0.005	0.007	33000	200	0.003	0.005	30000	160	0.002	0.003
	1.5	36300	230	0.005	0.007	33000	180	0.003	0.005	30000	120	0.002	0.003
	1.75	36300	180	0.003	0.005	33000	150	0.002	0.003	30000	100	0.002	0.002
	2	36300	150	0.003	0.005	33000	120	0.002	0.003	30000	90	0.002	0.002
	2.25	36300	120	0.002	0.003	33000	100	0.001	0.002	30000	80	0.001	0.001
	2.5	36300	100	0.002	0.003	33000	80	0.001	0.002	30000	70	0.001	0.001
	3	36300	80	0.001	0.003	33000	70	0.001	0.002	30000	60	0.001	0.001
	3.5	36300	70	0.001	0.002	33000	60	0.001	0.001	30000	50	0.001	0.001
R0.2	4	36300	60	0.001	0.002	33000	50	0.001	0.001	30000	40	0.001	0.001
	0.5	36300	800	0.03	0.05	33000	720	0.03	0.03	30000	580	0.009	0.02
	0.8	36300	800	0.02	0.05	33000	720	0.02	0.03	30000	580	0.008	0.02
	1	36300	800	0.02	0.05	33000	720	0.02	0.03	30000	580	0.008	0.02
	1.5	36300	620	0.01	0.03	33000	500	0.01	0.02	30000	400	0.005	0.01

加工材料 Work Material		碳素钢、合金钢 Carbon Steels, Alloy Steels (≤HRC30)				预硬钢 Pre-Hardened Steels (HRC30-45)				淬火钢 Hardened Steels (HRC46-55)			
球头半径 Radius	颈长 Under Neck Length	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm
R0.2	2	36300	500	0.01	0.02	33000	380	0.01	0.01	30000	300	0.005	0.007
	2.5	36300	420	0.007	0.01	33000	300	0.005	0.007	30000	260	0.003	0.005
	3	36300	300	0.007	0.01	33000	240	0.005	0.007	30000	200	0.003	0.005
	3.5	36300	230	0.005	0.007	33000	160	0.003	0.005	30000	120	0.002	0.003
	4	30000	160	0.005	0.005	30000	120	0.003	0.003	30000	90	0.002	0.003
	4.5	30000	100	0.003	0.005	30000	80	0.002	0.003	30000	60	0.001	0.002
	5	30000	70	0.002	0.003	30000	50	0.001	0.002	30000	40	0.001	0.002
	6	30000	50	0.001	0.002	30000	40	0.001	0.001	30000	30	0.001	0.001
	8	30000	50	0.001	0.002	30000	40	0.001	0.001	30000	30	0.001	0.001
	1	37500	650	0.01	0.025	34800	590	0.01	0.025	30000	500	0.01	0.025
R0.25	1.5	37500	650	0.009	0.02	34800	590	0.009	0.02	30000	500	0.009	0.02
	2	37500	520	0.008	0.02	34800	470	0.008	0.02	30000	400	0.008	0.02
	2.5	35000	520	0.007	0.015	32480	470	0.007	0.015	28000	400	0.007	0.015
	3	35000	468	0.007	0.01	32480	420	0.007	0.01	28000	360	0.007	0.01
	3.5	31250	468	0.006	0.01	29000	420	0.006	0.01	25000	360	0.006	0.01
	4	31250	390	0.005	0.008	29000	350	0.005	0.008	25000	300	0.005	0.008
	4.5	31250	338	0.004	0.008	29000	300	0.004	0.008	25000	260	0.004	0.008
	5	31250	338	0.004	0.008	29000	300	0.004	0.008	25000	260	0.004	0.008
	5.5	31250	312	0.004	0.006	29000	280	0.004	0.006	25000	240	0.004	0.006
	6	27500	156	0.003	0.005	25520	140	0.003	0.005	22000	120	0.003	0.005
	8	25000	104	0.003	0.003	23200	90	0.003	0.003	20000	80	0.003	0.003
	10	25000	65	0.003	0.003	23200	60	0.003	0.003	20000	50	0.003	0.003
R0.3	1	33000	975	0.02	0.03	31320	700	0.02	0.03	28800	600	0.02	0.03
	1.5	33000	975	0.02	0.03	31320	700	0.02	0.03	28800	600	0.02	0.03
	2	33000	780	0.02	0.03	31320	560	0.02	0.03	28800	480	0.02	0.03
	2.5	30800	780	0.015	0.02	29232	560	0.015	0.02	26880	480	0.015	0.02
	3	30800	702	0.015	0.02	29232	500	0.015	0.02	26880	432	0.015	0.02
	3.5	27500	702	0.01	0.02	26100	500	0.01	0.02	24000	432	0.01	0.02
	4	27500	585	0.01	0.02	26100	420	0.01	0.02	24000	360	0.01	0.02
	4.5	27500	507	0.01	0.02	26100	360	0.01	0.02	24000	312	0.01	0.02
	5	27500	507	0.01	0.02	26100	360	0.01	0.02	24000	312	0.01	0.02
	5.5	27500	468	0.008	0.01	26100	336	0.008	0.01	24000	288	0.008	0.01
	6	24200	234	0.008	0.01	22968	168	0.008	0.01	21120	144	0.008	0.01
	7	22000	156	0.006	0.008	20880	108	0.006	0.008	19200	96	0.006	0.008
	8	22000	97.5	0.005	0.008	20880	70	0.005	0.008	19200	60	0.005	0.008
	9	19040	85	0.005	0.008	18188	65	0.005	0.008	18048	50	0.005	0.008
	10	19040	80	0.003	0.005	18188	60	0.003	0.005	18000	40	0.003	0.005

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加工材料 Work Material		碳素钢、合金钢 Carbon Steels、Alloy Steels (≤HRC30)				预硬钢 Pre-Hardened Steels (HRC30-45)				淬火钢 Hardened Steels (HRC46-55)			
球头半径 Radius	颈长 Under Neck Length	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm
R0.3	12	19040	60	0.003	0.005	18188	50	0.003	0.005	18000	30	0.003	0.005
	2	42500	1625	0.02	0.035	41200	1300	0.02	0.035	36000	1000	0.02	0.035
R0.35	3	40000	1200	0.02	0.03	40000	960	0.02	0.03	30000	800	0.02	0.03
	4	40000	1025	0.015	0.02	40000	820	0.015	0.02	30000	600	0.015	0.02
	6	30000	625	0.006	0.01	30000	500	0.006	0.01	25000	420	0.006	0.01
	8	25000	475	0.004	0.006	20000	380	0.004	0.006	20000	250	0.004	0.006
R0.4	2	24200	2000	0.03	0.05	22000	1600	0.03	0.05	20000	1200	0.03	0.05
	2.5	24200	2000	0.03	0.05	22000	1600	0.03	0.05	20000	1200	0.03	0.05
	3	24200	2000	0.03	0.05	22000	1600	0.03	0.05	20000	1200	0.03	0.05
	4	24200	1600	0.03	0.05	22000	1200	0.03	0.05	20000	860	0.03	0.05
	5	24200	1600	0.02	0.03	22000	1000	0.02	0.03	20000	620	0.02	0.03
	6	21780	1200	0.02	0.03	19800	760	0.02	0.03	18000	560	0.02	0.03
	7	21780	1000	0.02	0.03	19800	680	0.02	0.03	18000	520	0.02	0.03
	8	21780	820	0.01	0.02	19800	600	0.01	0.02	18000	480	0.01	0.02
	10	19360	450	0.008	0.015	17600	380	0.008	0.015	16000	320	0.008	0.015
	12	18150	320	0.006	0.012	16500	260	0.006	0.012	15000	200	0.006	0.012
R0.45	16	18150	320	0.005	0.01	16500	260	0.005	0.01	15000	200	0.005	0.01
	2	24200	2000	0.03	0.05	22000	1600	0.03	0.05	20000	1200	0.03	0.05
	4	24200	1600	0.03	0.05	22000	1200	0.03	0.05	20000	860	0.03	0.05
	6	21780	1200	0.02	0.03	19800	760	0.02	0.03	18000	560	0.02	0.03
R0.5	8	21780	820	0.01	0.02	19800	600	0.01	0.02	18000	480	0.01	0.02
	2.5	24000	2000	0.03	0.06	22000	1600	0.03	0.05	20000	1200	0.03	0.05
	3	24000	2000	0.03	0.06	22000	1600	0.03	0.05	20000	1200	0.03	0.05
	4	24000	2000	0.03	0.06	22000	1600	0.03	0.05	20000	1200	0.03	0.05
	5	24000	2000	0.03	0.05	22000	1600	0.03	0.05	20000	920	0.03	0.05
	6	21600	1800	0.05	0.05	19800	1200	0.03	0.05	18000	740	0.02	0.05
	7	21600	1200	0.04	0.05	19800	950	0.03	0.04	18000	680	0.02	0.03
	8	21600	1000	0.04	0.05	19800	860	0.03	0.04	18000	560	0.02	0.03
	9	19200	820	0.03	0.05	17600	750	0.02	0.03	16000	500	0.01	0.02
	10	18000	750	0.03	0.05	16500	620	0.02	0.03	15000	450	0.01	0.02
	12	18000	600	0.01	0.03	16500	520	0.007	0.02	15000	400	0.005	0.01
	14	16800	420	0.005	0.01	15400	360	0.003	0.007	14000	320	0.002	0.005
	16	16800	300	0.005	0.005	15400	250	0.003	0.005	14000	200	0.002	0.003
	18	16800	180	0.003	0.005	15400	120	0.002	0.005	14000	85	0.002	0.002
	20	14400	100	0003	0.003	13200	75	0.002	0.003	12000	60	0.002	0.002
	22	12000	50	0.002	0.003	11000	40	0.002	0.002	10000	35	0.001	0.002
R0.6	4	24000	2000	0.03	0.06	22000	1600	0.03	0.05	20000	1200	0.03	0.05

加工材料 Work Material		碳素钢、合金钢 Carbon Steels、Alloy Steels (≤HRC30)				预硬钢 Pre-Hardened Steels (HRC30-45)				淬火钢 Hardened Steels (HRC46-55)			
球头半径 Radius	颈长 Under Neck Length	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm
R0.6	6	21600	1800	0.05	0.05	19800	1200	0.04	0.05	18000	740	0.02	0.05
	8	21600	1000	0.04	0.05	19800	860	0.03	0.04	18000	560	0.02	0.03
	10	18000	750	0.03	0.05	16500	620	0.02	0.03	15000	450	0.01	0.02
	12	18000	600	0.01	0.03	16500	520	0.007	0.02	15000	400	0.005	0.01
	14	16800	420	0.005	0.01	15400	360	0.003	0.007	14000	320	0.002	0.005
	16	16800	300	0.005	0.005	15400	250	0.003	0.005	14000	200	0.002	0.003
R0.7	8	21600	2500	0.03	0.05	19800	1600	0.03	0.05	18000	1200	0.03	0.05
	12	18000	1800	0.02	0.05	16500	920	0.02	0.05	15000	780	0.02	0.05
	16	18000	720	0.01	0.02	16500	650	0.01	0.02	15000	580	0.01	0.02
R0.75	4	21600	3000	0.03	0.05	19800	2500	0.03	0.05	18000	2000	0.03	0.05
	6	21600	3000	0.03	0.05	19800	2000	0.03	0.05	18000	1600	0.03	0.05
	8	21600	2500	0.03	0.05	19800	1600	0.03	0.05	18000	1200	0.03	0.05
	10	21600	2500	0.02	0.05	19800	1200	0.02	0.05	18000	860	0.02	0.05
	12	18000	1800	0.02	0.05	16500	920	0.02	0.05	15000	780	0.02	0.05
	14	18000	1200	0.02	0.03	16500	820	0.02	0.03	15000	650	0.02	0.03
	16	18000	720	0.01	0.02	16500	650	0.01	0.02	15000	580	0.01	0.02
	18	16800	550	0.008	0.015	15400	400	0.008	0.015	14000	400	0.008	0.015
	20	16800	450	0.007	0.01	15400	360	0.007	0.01	14000	300	0.007	0.01
	25	14400	330	0.007	0.007	13200	250	0.007	0.007	12000	200	0.007	0.007
	30	9600	80	0.003	0.003	8800	60	0.003	0.003	8000	40	0.003	0.003
R0.8	8	21600	2500	0.03	0.05	19800	1600	0.03	0.05	18000	1200	0.03	0.05
	12	18000	1800	0.02	0.05	16500	920	0.02	0.05	15000	780	0.02	0.05
	16	18000	720	0.01	0.02	16500	650	0.01	0.02	15000	580	0.01	0.02
	20	16800	450	0.007	0.01	15400	360	0.007	0.01	14000	300	0.007	0.01
R1	6	18000	1920	0.04	0.06	16500	1760	0.04	0.06	15000	1600	0.04	0.06
	8	18000	1440	0.03	0.05	16500	1320	0.03	0.05	15000	1200	0.03	0.05
	10	16800	1440	0.03	0.05	15400	1320	0.03	0.05	14000	1200	0.03	0.05
	12	14400	1128	0.02	0.05	13200	1034	0.02	0.05	12000	940	0.02	0.05
	14	14400	1128	0.015	0.04	13200	1034	0.015	0.04	12000	940	0.015	0.04
	16	14400	1128	0.015	0.04	13200	1034	0.015	0.04	12000	940	0.015	0.04
	18	12000	1020	0.01	0.03	11000	935	0.01	0.03	10000	850	0.01	0.03
	20	12000	864	0.01	0.03	11000	792	0.01	0.03	10000	720	0.01	0.03
	22	12000	720	0.008	0.02	11000	660	0.008	0.02	10000	600	0.008	0.02
	25	10200	504	0.008	0.02	9350	462	0.008	0.02	8500	420	0.008	0.02
	30	10200	288	0.005	0.01	9350	264	0.005	0.01	8500	240	0.005	0.01
	35	8160	120	0.005	0.007	7480	110	0.005	0.007	6800	100	0.005	0.007
	40	8160	60	0.002	0.005	7480	55	0.002	0.005	6800	50	0.002	0.005

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加工材料 Work Material		碳素钢、合金钢 Carbon Steels、Alloy Steels (≤HRC30)				预硬钢 Pre-Hardened Steels (HRC30-45)				淬火钢 Hardened Steels (HRC46-55)			
球头半径 Radius	颈长 Under Neck Length	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apm	切宽 Depth of Cut Aemm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apm	切宽 Depth of Cut Aemm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apm	切宽 Depth of Cut Aemm
R1.25	6	18000	1920	0.04	0.06	16500	1760	0.04	0.06	15000	1600	0.04	0.06
	8	18000	1440	0.03	0.05	16500	1320	0.03	0.05	15000	1200	0.03	0.05
	10	16800	1440	0.03	0.05	15400	1320	0.03	0.05	14000	1200	0.03	0.05
	12	15000	1320	0.02	0.05	13800	1180	0.02	0.04	13000	1080	0.02	0.04
	16	14400	1128	0.015	0.04	13200	1034	0.015	0.04	12000	940	0.015	0.04
	20	12000	864	0.01	0.03	11000	792	0.01	0.03	10000	720	0.01	0.03
	25	10200	504	0.008	0.02	9350	462	0.008	0.02	8500	420	0.008	0.02
	30	10200	288	0.005	0.01	9350	264	0.005	0.01	8500	240	0.005	0.01
	35	8160	120	0.005	0.007	7480	110	0.005	0.007	6800	100	0.005	0.007
R1.5	8	16800	2500	0.04	0.08	15400	2200	0.04	0.08	14000	2000	0.04	0.08
	10	16800	1875	0.03	0.07	15400	1650	0.03	0.07	14000	1500	0.03	0.07
	12	14400	1875	0.03	0.07	13200	1650	0.03	0.07	12000	1500	0.03	0.07
	14	14400	1500	0.03	0.07	13200	1320	0.03	0.07	12000	1200	0.03	0.07
	16	14400	1500	0.02	0.05	13200	1320	0.02	0.05	12000	1200	0.02	0.05
	20	12000	1200	0.02	0.05	11000	1056	0.02	0.05	10000	960	0.02	0.05
	25	10320	1000	0.015	0.05	9460	880	0.015	0.05	8600	800	0.015	0.05
	30	8640	750	0.015	0.04	7920	660	0.015	0.04	7200	600	0.015	0.04
	35	7680	525	0.01	0.03	7040	462	0.01	0.03	6400	420	0.01	0.03
R1.75	40	7200	325	0.01	0.03	6600	286	0.01	0.03	6000	260	0.01	0.03
	16	14400	1500	0.02	0.05	13200	1320	0.02	0.05	12000	1200	0.02	0.05
	20	12000	1200	0.02	0.05	11000	1056	0.02	0.05	10000	960	0.02	0.05
	25	10320	1000	0.015	0.05	9460	880	0.015	0.05	8600	800	0.015	0.05
	30	8640	750	0.015	0.04	7920	660	0.015	0.04	7200	600	0.015	0.04
R2	35	7680	525	0.01	0.03	7040	462	0.01	0.03	6400	420	0.01	0.03
	40	7200	325	0.01	0.03	6600	286	0.01	0.03	6000	260	0.01	0.03
	45	6800	300	0.01	0.03	6500	264	0.01	0.03	6000	200	0.01	0.03
	12	13200	3000	0.04	0.08	12100	2500	0.04	0.08	11000	2000	0.04	0.08
	14	13200	3000	0.04	0.08	12100	2000	0.04	0.08	11000	1600	0.04	0.08
	16	12000	3000	0.03	0.06	11000	2000	0.03	0.06	10000	1600	0.03	0.06
	20	12000	2400	0.03	0.06	11000	1800	0.03	0.06	10000	1400	0.03	0.06
	25	10800	1600	0.03	0.05	9900	1200	0.03	0.05	9000	1000	0.03	0.05
	30	9600	1600	0.03	0.05	8800	1200	0.03	0.05	8000	1000	0.03	0.05
R2.5	35	9000	1200	0.03	0.05	8250	1000	0.03	0.05	7500	820	0.03	0.05
	40	8160	1200	0.02	0.04	7480	1000	0.02	0.04	6800	820	0.02	0.04
	45	7800	750	0.02	0.04	7150	620	0.02	0.04	6500	500	0.02	0.04
	50	6600	550	0.015	0.03	6050	500	0.015	0.03	5500	420	0.015	0.03
	16	12000	3000	0.03	0.06	11000	2000	0.03	0.06	10000	1600	0.03	0.06

加工材料 Work Material		碳素钢、合金钢 Carbon Steels、Alloy Steels (≤HRC30)				预硬钢 Pre-Hardened Steels (HRC30-45)				淬火钢 Hardened Steels (HRC46-55)			
球头半径 Radius	颈长 Under Neck Length	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apm	切宽 Depth of Cut Aemm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apm	切宽 Depth of Cut Aemm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apm	切宽 Depth of Cut Aemm
R2.5	20	12000	2400	0.03	0.06	11000	1800	0.03	0.06	10000	1400	0.03	0.06
	25	10800	1600	0.03	0.05	9900	1200	0.03	0.05	9000	1000	0.03	0.05
	30	9600	1600	0.03	0.05	8800	1200	0.03	0.05	8000	1000	0.03	0.05
	35	8500	1450	0.025	0.045	8000	1100	0.025	0.045	7500	950	0.025	0.045
	40	8160	1200	0.02	0.04	7480	1000	0.02	0.04	6800	820	0.02	0.04
	45	7800	750	0.02	0.04	7150	620	0.02	0.04	6500	500	0.02	0.04
	50	6600	550	0.015	0.03	6050	500	0.015	0.03	5500	420	0.015	0.03

HGXE2L 2刃长颈平刀HGXE2L 2-Flute Long Neck End Mill

加工材料 Work Material		碳素钢、合金钢 Carbon Steels、Alloy Steels (≤HRC30)				预硬钢 Pre-Hardened Steels (HRC30-45)				淬火钢 Hardened Steels (HRC46-55)			
外径 Dia.	颈长 Under Neck Length	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apm	切宽 Depth of Cut Aemm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apm	切宽 Depth of Cut Aemm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apm	切宽 Depth of Cut Aemm
0.1	0.3	48000	150	0.006	0.06	40000	150	0.005	0.06	32000	120	0.003	0.05
	0.5	48000	100	0.006	0.06	40000	100	0.005	0.06	32000	80	0.003	0.05
	0.75	48000	80	0.004	0.06	40000	80	0.003	0.06	32000	70	0.002	0.05
	1	48000	60	0.002	0.06	40000	60	0.002	0.06	32000	50	0.001	0.05
0.15	0.3	48000	180	0.006	0.09	40000	180	0.005	0.09	32000	150	0.003	0.07
	0.5	48000	150	0.006	0.09	40000	150	0.005	0.09	32000	120	0.003	0.07
	0.75	48000	120	0.004	0.09	40000	120	0.003	0.09	32000	100	0.002	0.07
	1	48000	100	0.002	0.09	40000	100	0.002	0.09	32000	80	0.001	0.07
	1.5	48000	80	0.002	0.09	40000	80	0.002	0.09	32000	60	0.001	0.07
0.2	0.5	36000	240	0.006	0.12	30000	240	0.005	0.12	24000	200	0.003	0.1
	0.75	36000	200	0.006	0.12	30000	200	0.005	0.12	24000	180	0.003	0.1
	1	36000	180	0.006	0.12	30000	180	0.005	0.12	24000	150	0.003	0.1
	1.5	36000	120	0.004	0.12	30000	120	0.003	0.12	24000	100	0.002	0.1
	2	36000	80	0.004	0.12	30000	80	0.003	0.12	24000	50	0.002	0.1
	2.5	36000	60	0.002	0.12	30000	60	0.002	0.12	24000	50	0.001	0.1
	3	36000	40	0.002	0.12	30000	40	0.002	0.12	24000	40	0.001	0.1
	1	36000	350	0.008	0.18	30000	350	0.007	0.18	24000	300	0.003	0.15
0.3	1.5	36000	260	0.008	0.18	30000	260	0.007	0.18	24000	200	0.003	0.15
	2	36000	180	0.006	0.18	30000	180	0.005	0.18	24000	150	0.003	0.15

HGXE2L 2刃长颈平刀 HGXE2L 2-Flute Long Neck End Mill

加工材料 Work Material		碳素钢、合金钢 Carbon Steels、Alloy Steels (≤HRC30)				预硬钢 Pre-Hardened Steels (HRC30-45)				淬火钢 Hardened Steels (HRC46-55)			
外径 Dia.	颈长 Under Neck Length	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm
0.3	2.5	36000	150	0.005	0.18	30000	150	0.004	0.18	24000	100	0.002	0.15
	3	36000	70	0.005	0.18	30000	70	0.004	0.18	24000	50	0.002	0.15
	3.5	30000	70	0.005	0.18	25000	70	0.004	0.18	20000	50	0.002	0.15
	4	28800	70	0.005	0.18	24000	70	0.004	0.18	19200	50	0.002	0.15
0.4	1	36000	495	0.012	0.28	30000	450	0.01	0.24	24000	400	0.005	0.2
	1.5	36000	440	0.012	0.28	30000	400	0.01	0.24	24000	360	0.005	0.2
	2	36000	400	0.012	0.28	30000	360	0.01	0.24	24000	320	0.005	0.2
	2.5	36000	370	0.01	0.28	30000	340	0.008	0.24	24000	280	0.005	0.2
	3	36000	350	0.01	0.28	30000	320	0.008	0.24	24000	260	0.004	0.2
	3.5	36000	300	0.008	0.28	30000	280	0.007	0.24	24000	220	0.004	0.2
	4	36000	275	0.008	0.28	30000	250	0.006	0.24	24000	200	0.003	0.2
	5	30000	275	0.006	0.28	25000	250	0.005	0.24	20000	180	0.003	0.2
	6	30000	220	0.005	0.28	25000	200	0.004	0.24	20000	150	0.002	0.2
	8	24000	165	0.003	0.28	20000	150	0.002	0.24	16000	120	0.001	0.2
0.5	10	19200	110	0.003	0.28	16000	100	0.002	0.24	12800	80	0.001	0.2
	1	36000	605	0.025	0.36	30000	550	0.02	0.3	24000	500	0.01	0.25
	1.5	36000	570	0.025	0.36	30000	520	0.02	0.3	24000	450	0.01	0.25
	2	36000	550	0.025	0.36	30000	500	0.02	0.3	24000	420	0.01	0.25
	2.5	36000	530	0.020	0.36	30000	480	0.015	0.3	24000	400	0.008	0.25
	3	36000	460	0.020	0.36	30000	420	0.015	0.3	24000	350	0.007	0.25
	3.5	30000	440	0.015	0.36	25000	400	0.012	0.3	20000	320	0.006	0.25
	4	30000	420	0.012	0.36	25000	380	0.01	0.3	20000	280	0.005	0.25
	4.5	30000	385	0.01	0.36	25000	350	0.008	0.3	20000	230	0.004	0.25
	5	30000	350	0.008	0.36	25000	320	0.007	0.3	20000	200	0.003	0.25
	6	30000	330	0.006	0.36	25000	300	0.005	0.3	20000	200	0.003	0.25
	7	24000	275	0.006	0.36	20000	250	0.005	0.3	16000	180	0.003	0.25
	8	24000	220	0.006	0.36	20000	200	0.005	0.3	16000	160	0.002	0.25
	9	24000	220	0.004	0.36	20000	200	0.003	0.3	16000	150	0.002	0.25
	10	19200	190	0.004	0.36	16000	170	0.003	0.3	12800	130	0.002	0.25
0.6	1.5	36000	720	0.025	0.42	30000	650	0.02	0.35	24000	550	0.01	0.3
	2	36000	605	0.025	0.42	30000	550	0.02	0.35	24000	500	0.01	0.3
	2.5	36000	605	0.025	0.42	30000	550	0.02	0.35	24000	500	0.01	0.3
	3	36000	550	0.020	0.42	30000	500	0.015	0.35	24000	450	0.007	0.3
	3.5	36000	550	0.020	0.42	30000	500	0.015	0.35	24000	450	0.007	0.3
	4	30000	495	0.012	0.42	25000	450	0.01	0.35	20000	400	0.005	0.3
	4.5	30000	495	0.012	0.42	25000	450	0.01	0.35	20000	400	0.005	0.3
	5	30000	440	0.010	0.42	25000	400	0.007	0.35	20000	350	0.003	0.3

加工材料 Work Material		碳素钢、合金钢 Carbon Steels、Alloy Steels (≤HRC30)				预硬钢 Pre-Hardened Steels (HRC30-45)				淬火钢 Hardened Steels (HRC46-55)			
外径 Dia.	颈长 Under Neck Length	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm
0.6	6	30000	385	0.006	0.42	25000	350	0.005	0.35	20000	300	0.002	0.3
	7	23760	340	0.003	0.24	19800	308	0.002	0.2	18000	280	0.002	0.2
	8	21120	300	0.003	0.24	17600	275	0.002	0.2	16000	250	0.002	0.2
	9	18480	260	0.003	0.18	15400	242	0.002	0.15	14000	220	0.002	0.15
	10	15840	240	0.003	0.18	13200	220	0.002	0.15	12000	200	0.002	0.15
	12	13200	180	0.003	0.12	11000	165	0.002	0.1	10000	150	0.002	0.1
0.7	2	36000	820	0.05	0.48	30000	750	0.04	0.4	24000	600	0.03	0.35
	4	30000	760	0.038	0.48	25000	690	0.03	0.4	20000	560	0.02	0.35
	6	30000	600	0.025	0.48	25000	550	0.02	0.4	20000	410	0.015	0.35
	8	24000	470	0.015	0.48	20000	430	0.012	0.4	16000	330	0.01	0.35
	10	19200	330	0.01	0.48	16000	300	0.008	0.4	12800	200	0.005	0.35
0.8	2	30000	940	0.05	0.54	25000	850	0.04	0.45	20000	780	0.03	0.4
	3	30000	940	0.05	0.54	25000	850	0.04	0.45	20000	780	0.03	0.4
	4	30000	880	0.04	0.54	25000	800	0.03	0.45	20000	700	0.025	0.4
	5	30000	770	0.04	0.54	25000	700	0.03	0.45	20000	630	0.02	0.4
	6	24000	680	0.03	0.54	20000	620	0.025	0.45	16000	550	0.02	0.4
	7	21600	605	0.25	0.54	18000	550	0.2	0.45	14400	500	0.01	0.4
	8	19200	550	0.02	0.54	16000	500	0.015	0.45	12800	400	0.007	0.4
	10	19200	440	0.015	0.54	16000	400	0.012	0.45	12800	350	0.007	0.4
	12	19200	330	0.008	0.54	16000	300	0.007	0.45	12800	220	0.005	0.4
0.9	16	18000	220	0.006	0.5	15000	200	0.005	0.40	12000	150	0.005	0.4
	2	30000	1320	0.08	0.6	25000	1200	0.07	0.5	20000	1000	0.06	0.45
	4	30000	1100	0.06	0.6	25000	1000	0.05	0.5	20000	900	0.04	0.45
	6	24000	990	0.04	0.6	20000	900	0.03	0.5	16000	700	0.02	0.45
	8	21600	880	0.04	0.6	18000	800	0.03	0.5	14400	600	0.02	0.45
1	10	19200	660	0.025	0.6	16000	600	0.02	0.5	12800	500	0.01	0.45
	3	30000	1320	0.075	0.7	25000	1200	0.06	0.6	20000	1000	0.05	0.5
	4	30000	1100	0.06	0.7	25000	1000	0.05	0.6	20000	900	0.04	0.5
	5	24000	1100	0.05	0.7	20000	1000	0.04	0.6	16000	800	0.03	0.5
	6	24000	990	0.04	0.7	20000	900	0.03	0.6	16000	700	0.02	0.5
	7	24000	990	0.04	0.7	20000	900	0.03	0.6	16000	650	0.02	0.5
	8	21600	880	0.04	0.7	18000	800	0.03	0.6	14400	600	0.02	0.5
	9	21600	770	0.025	0.7	18000	700	0.02	0.6	14400	550	0.015	0.5
	10	19200	660	0.025	0.7	16000	600	0.02	0.6	12800	500	0.01	0.5
	12	19200	550	0.025	0.7	16000	500	0.02	0.6	12800	400	0.01	0.5
	14	19200	495	0.02	0.7	16000	450	0.015	0.6	12800	360	0.008	0.5
	16	16800	440	0.015	0.7	14000	400	0.012	0.6	11200	320	0.006	0.5

HGXE2L 2刃长颈平刀 HGXE2L 2-Flute Long Neck End Mill

加工材料 Work Material		碳素钢、合金钢 Carbon Steels、Alloy Steels (≤HRC30)				预硬钢 Pre-Hardened Steels (HRC30-45)				淬火钢 Hardened Steels (HRC46-55)			
外径 Dia.	颈长 Under Neck Length	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm
1	18	16800	330	0.012	0.7	14000	300	0.01	0.6	11200	240	0.006	0.5
	20	14400	220	0.008	0.7	12000	200	0.007	0.6	9600	160	0.005	0.5
	22	14400	198	0.006	0.7	12000	180	0.005	0.6	9600	150	0.003	0.5
1.2	6	24000	990	0.05	0.8	20000	900	0.04	0.7	16000	700	0.03	0.6
	8	21600	880	0.05	0.8	18000	800	0.04	0.7	14400	600	0.02	0.6
	10	19200	660	0.04	0.8	16000	600	0.03	0.7	12800	500	0.02	0.6
	12	16800	660	0.025	0.8	14000	600	0.02	0.7	11200	500	0.01	0.6
	16	14400	440	0.02	0.8	12000	400	0.018	0.7	9600	300	0.01	0.6
1.4	6	26400	1100	0.075	1	22000	1000	0.06	0.8	17600	800	0.04	0.7
	12	19200	770	0.04	1	16000	700	0.03	0.8	12800	500	0.01	0.7
	16	14400	440	0.02	0.8	12000	400	0.018	0.7	9600	300	0.01	0.6
1.5	4	27600	1320	0.08	1.1	23000	1200	0.07	0.9	18400	900	0.05	0.75
	6	27600	1100	0.075	1.1	23000	1000	0.06	0.9	18400	800	0.04	0.75
	8	24000	990	0.075	1.1	20000	900	0.06	0.9	16000	600	0.03	0.75
	10	24000	880	0.05	1.1	20000	800	0.04	0.9	16000	500	0.03	0.75
	12	19200	770	0.05	1.1	16000	700	0.04	0.9	12800	500	0.02	0.75
	14	16800	660	0.04	1.1	14000	600	0.03	0.9	11200	400	0.02	0.75
	16	14400	550	0.025	1.1	12000	500	0.02	0.9	9600	360	0.01	0.75
	18	12000	440	0.025	1.1	10000	400	0.02	0.9	8000	330	0.008	0.75
	20	10800	352	0.02	1.1	9000	320	0.015	0.9	7200	280	0.005	0.75
	25	9600	275	0.012	1.1	8000	250	0.01	0.9	6400	200	0.004	0.75
	30	8400	220	0.006	1.1	7000	200	0.005	0.9	5600	150	0.003	0.75
	35	7200	165	0.004	1.1	6000	150	0.003	0.9	4800	110	0.002	0.75
1.6	6	26400	1100	0.075	1.2	22000	1000	0.06	0.96	17600	850	0.04	0.8
	8	24000	990	0.075	1.2	20000	900	0.06	0.96	16000	750	0.03	0.8
	12	19200	770	0.05	1	16000	700	0.04	0.9	12800	500	0.02	0.75
	16	14400	550	0.025	1	12000	500	0.02	0.9	9600	360	0.01	0.75
1.8	6	24000	1100	0.08	1.2	20000	1000	0.07	1	16000	900	0.05	0.9
	8	21600	990	0.075	1.2	18000	900	0.06	1	14400	800	0.04	0.9
	10	19200	880	0.075	1.2	16000	800	0.06	1	12800	700	0.04	0.9
	12	16800	770	0.06	1.2	14000	700	0.05	1	11200	600	0.03	0.9
	14	16800	770	0.06	1.2	14000	700	0.05	1	11200	600	0.03	0.9
	16	14400	660	0.05	1.2	12000	600	0.04	1	9600	500	0.02	0.9
2	18	12000	550	0.05	1.2	10000	500	0.04	1	8000	410	0.02	0.9
	6	24000	1100	0.1	1.4	20000	1000	0.08	1.2	16000	900	0.06	1
	8	21600	990	0.08	1.4	18000	900	0.07	1.2	14400	800	0.05	1
	10	19200	880	0.075	1.4	16000	800	0.06	1.2	12800	700	0.05	1

加工材料 Work Material		碳素钢、合金钢 Carbon Steels、Alloy Steels (≤HRC30)				预硬钢 Pre-Hardened Steels (HRC30-45)				淬火钢 Hardened Steels (HRC46-55)			
外径 Dia.	颈长 Under Neck Length	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm
2	12	16800	770	0.06	1.4	14000	700	0.05	1.2	11200	600	0.04	1
	14	16800	770	0.05	1.4	14000	700	0.04	1.2	11200	600	0.03	1
	16	14400	660	0.05	1.4	12000	600	0.04	1.2	9600	500	0.03	1
	18	12000	550	0.04	1.4	10000	500	0.03	1.2	8000	410	0.02	1
	20	12000	440	0.04	1.4	10000	400	0.03	1.2	8000	380	0.02	1
	25	10800	385	0.025	1.4	9000	350	0.02	1.2	7200	330	0.015	1
	30	9600	330	0.02	1.4	8000	300	0.015	1.2	6400	280	0.01	1
	35	8400	275	0.015	1.4	7000	250	0.012	1.2	5600	230	0.008	1
	40	7200	220	0.01	1.4	6000	200	0.008	1.2	4800	180	0.005	1
	50	6000	132	0.006	1.4	5000	120	0.005	1.2	4000	100	0.004	1
2.5	8	19200	1100	0.1	1.8	16000	1000	0.08	1.5	12800	800	0.07	1.25
	10	19200	880	0.075	1.8	16000	800	0.06	1.5	12800	700	0.05	1.25
	12	16800	880	0.08	1.8	14000	800	0.07	1.5	11200	700	0.06	1.25
	16	14400	770	0.075	1.8	12000	700	0.06	1.5	9600	600	0.05	1.25
	20	12000	660	0.075	1.8	10000	600	0.06	1.5	8000	500	0.05	1.25
	25	10800	600	0.025	1.8	9000	500	0.02	1.5	7200	400	0.015	1.25
	30	9600	440	0.04	1.8	8000	400	0.03	1.5	6400	300	0.025	1.25
	35	8400	330	0.02	1.4	7000	300	0.015	1.2	5600	280	0.01	1.25
	40	7200	275	0.02	1.8	6000	250	0.015	1.5	4800	200	0.012	1.25
	50	6000	165	0.012	1.8	5000	150	0.01	1.5	4000	120	0.008	1.25
3	10	18000	880	0.15	2	15000	800	0.12	1.8	12000	700	0.09	1.5
	12	16800	990	0.125	2	14000	900	0.1	1.8	11200	800	0.08	1.5
	16	14400	880	0.1	2	12000	800	0.08	1.8	9600	700	0.07	1.5
	20	12000	880	0.1	2	10000	800	0.08	1.8	8000	700	0.07	1.5
	25	10800	770	0.08	2	9000	700	0.07	1.8	7200	600	0.06	1.5
	30	9600	770	0.06	2	8000	700	0.05	1.8	6400	600	0.03	1.5
	35	8400	330	0.02	1.8	7000	300	0.015	1.5	5600	280	0.02	1.25
4	40	7200	275	0.02	1.4	6000	250	0.015	1.2	4800	200	0.012	1
	12	14400	990	0.125	2.4	12000	900	0.1	2.0	9600	720	0.1	1.5
	16	12000	880	0.1	2.4	10000	800	0.08	2.0	8000	640	0.09	1.5
	20	10800	880	0.1	2.4	9000	800	0.08	2.0	7200	640	0.08	1.5
	25	9600	770	0.08	2.4	8000	700	0.07	2.0	6400	560	0.07	1.5
	30	8400	770	0.06	2.4	7000	700	0.05	2.0	5600	560	0.07	1.5
	35	7200	330	0.02	2.4	6000	300	0.015	2.0	4800	240	0.06	1.5
	40	6000	275	0.02	1.8	5000	250	0.015	1.5	4000	200	0.03	1.5
	45	4800	220	0.012	1.8	4000	200	0.01	1.5	3200	160	0.02	1.25
	50	3600	165	0.012	1.8	3000	150	0.01	1.5	2400	120	0.012	1

HGXE4L 4刃长颈球刀 HGXE4L 4-Flute Long Neck End Mill

加工材料 Work Material		碳素钢、合金钢 Carbon Steels、 Alloy Steels (≤HRC30)				预硬钢 Pre-Hardened Steels (HRC30-45)				淬火钢 Hardened Steels (HRC46-55)			
外径 Dia.	颈长 Under Neck Length	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm
0.8	2	30000	1870	0.05	0.54	25000	1700	0.04	0.45	20000	1560	0.03	0.4
	3	30000	1870	0.05	0.54	25000	1700	0.04	0.45	20000	1560	0.03	0.4
	4	30000	1760	0.04	0.54	25000	1600	0.03	0.45	20000	1468	0.025	0.4
	5	30000	1540	0.04	0.54	25000	1400	0.03	0.45	20000	1285	0.02	0.4
	6	24000	1360	0.04	0.54	20000	1240	0.025	0.45	16000	1138	0.02	0.4
	7	21600	1200	0.25	0.54	18000	1100	0.2	0.45	14400	1009	0.01	0.4
	8	19200	1100	0.018	0.54	16000	1000	0.015	0.45	12800	920	0.007	0.4
	10	19200	880	0.015	0.54	16000	800	0.012	0.45	12800	730	0.007	0.4
	12	19200	660	0.008	0.54	16000	600	0.007	0.45	12800	550	0.005	0.4
1	16	18000	880	0.006	0.48	15000	800	0.005	0.40	12000	730	0.005	0.4
	3	30000	2650	0.075	0.72	25000	2400	0.06	0.6	20000	2200	0.05	0.5
	4	30000	2200	0.06	0.72	25000	2000	0.05	0.6	20000	1800	0.04	0.5
	5	24000	2200	0.05	0.72	20000	2000	0.04	0.6	16000	1800	0.03	0.5
	6	24000	2000	0.04	0.72	20000	1800	0.03	0.6	16000	1650	0.02	0.5
	7	24000	2000	0.04	0.72	20000	1800	0.03	0.6	16000	1650	0.02	0.5
	8	21600	1750	0.04	0.72	18000	1600	0.03	0.6	14400	1450	0.02	0.5
	9	21600	1540	0.025	0.72	18000	1400	0.02	0.6	14400	1300	0.015	0.5
	10	19200	1320	0.025	0.72	16000	1200	0.02	0.6	12800	1100	0.01	0.5
	12	19200	1100	0.025	0.72	16000	1000	0.02	0.6	12800	920	0.01	0.5
	14	19200	990	0.02	0.72	16000	900	0.015	0.6	12800	820	0.008	0.5
	16	16800	880	0.015	0.72	14000	800	0.012	0.6	11200	730	0.006	0.5
	18	16800	660	0.012	0.72	14000	600	0.01	0.6	11200	550	0.006	0.5
	20	14400	440	0.008	0.72	12000	400	0.007	0.6	9600	370	0.005	0.5
1.2	22	14400	396	0.006	0.72	12000	360	0.005	0.6	9600	330	0.003	0.5
	6	24000	2000	0.05	0.84	20000	1800	0.04	0.7	16000	1400	0.03	0.6
	8	21600	1760	0.05	0.84	18000	1600	0.04	0.7	14400	1200	0.02	0.6
	10	19200	1300	0.04	0.84	16000	1200	0.03	0.7	12800	1000	0.02	0.6
1.4	12	16800	1300	0.025	0.84	14000	1200	0.02	0.7	11200	1000	0.01	0.6
	6	26400	2200	0.075	0.96	22000	2000	0.06	0.8	17600	1600	0.04	0.7
	12	19200	1540	0.04	0.96	16000	1400	0.03	0.8	12800	1000	0.01	0.7
1.5	16	14400	880	0.02	0.84	12000	800	0.018	0.7	9600	600	0.01	0.6
	4	27600	2640	0.08	1.08	23000	2400	0.07	0.9	18400	1800	0.05	0.75
	6	27600	2200	0.075	1.08	23000	2000	0.06	0.9	18400	1600	0.04	0.75
	8	24000	1980	0.075	1.08	20000	1800	0.06	0.9	16000	1200	0.03	0.75
	10	24000	1760	0.05	1.08	20000	1600	0.04	0.9	16000	1000	0.03	0.75
1.5	12	19200	1540	0.05	1.08	16000	1400	0.04	0.9	12800	1000	0.02	0.75
	14	16800	1320	0.04	1.08	14000	1200	0.03	0.9	11200	800	0.02	0.75

加工材料 Work Material		碳素钢、合金钢 Carbon Steels、 Alloy Steels (≤HRC30)				预硬钢 Pre-Hardened Steels (HRC30-45)				淬火钢 Hardened Steels (HRC46-55)			
外径 Dia.	颈长 Under Neck Length	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm
1.5	16	14400	1100	0.025	1.08	12000	1000	0.02	0.9	9600	720	0.015	0.75
	18	12000	880	0.025	1.08	10000	800	0.02	0.9	8000	660	0.015	0.75
	20	10800	700	0.018	1.08	9000	640	0.014	0.9	7200	560	0.01	0.75
	25	9600	550	0.012	1.08	8000	500	0.01	0.9	6400	400	0.008	0.75
1.6	8	24000	1980	0.075	1.15	20000	1800	0.06	0.96	16000	1500	0.03	0.8
	12	19200	1540	0.05	1.1	16000	1400	0.04	0.9	12800	1000	0.02	0.75
	16	14400	1100	0.025	1.1	12000	1000	0.02	0.9	9600	720	0.01	0.75
1.8	6	24000	2200	0.08	1.2	20000	2000	0.07	1	16000	1800	0.05	0.9
	8	21600	1980	0.075	1.2	18000	1800	0.06	1	14400	1600	0.04	0.9
	10	19200	1760	0.075	1.2	16000	1600	0.06	1	12800	1400	0.04	0.9
	12	16800	1540	0.06	1.2	14000	1400	0.05	1	11200	1200	0.03	0.9
	14	16800	1540	0.06	1.2	14000	1400	0.05	1	11200	1200	0.03	0.9
2	16	14400	1320	0.05	1.2	12000	1200	0.04	1	9600	1000	0.02	0.9
	18	12000	1100	0.05	1.2	10000	1000	0.04	1	8000	820	0.02	0.9
	6	24000	2200	0.1	1.4	20000	2000	0.08	1.2	16000	1800	0.06	1
	8	21600	1980	0.08	1.4	18000	1800	0.07	1.2	14400	1650	0.05	1
	10	19200	1760	0.075	1.4	16000	1600	0.06	1.2	12800	1500	0.05	1
	12	16800	1540	0.06	1.4	14000	1400	0.05	1.2	11200	1300	0.04	1
	14	16800	1540	0.05	1.4	14000	1400	0.04	1.2	11200	1300	0.03	1
	16	14400	1300	0.05	1.4	12000	1200	0.04	1.2	9600	1100	0.03	1
	18	12000	1100	0.04	1.4	10000	1000	0.03	1.2	8000	920	0.02	1
	20	12000	880	0.04	1.4	10000	800	0.03	1.2	8000	730	0.02	1
	25	10800	770	0.025	1.4	9000	700	0.02	1.2	7200	640	0.015	1
	30	9600	660	0.018	1.4	8000	600	0.015	1.2	6400	550	0.01	1
	35	8400	550	0.015	1.4	7000	500	0.012	1.2	5600	460	0.008	1
2.5	8	19200	2200	0.1	1.8	16000	2000	0.08	1.5	12800	1830	0.07	1.25
	10	18000	2000	0.1	1.8	15000	1800	0.08	1.5	11800	1550	0.07	1.25
	12	16800	1760	0.08	1.8	14000	1600	0.07	1.5	11200	1450	0.06	1.25
	16	14400	1540	0.075	1.8	12000	1400	0.06	1.5	9600	1280	0.05	1.25
	20	12000	1300	0.075	1.8	10000	1200	0.06	1.5	8000	1100	0.05	1.25
	25	10800	990	0.025	1.8	9000	900	0.02	1.5	7200	830	0.015	1.25
3	30	9600	880	0.04	1.8	8000	800	0.03	1.5	6400	734	0.025	1.25
	35	8400	660	0.018	1.44	7000	600	0.015	1.2	5600	550	0.01	1
	10	19200	2200	0.18	2.16	16000	2000	0.15	1.8	12800	1800	0.1	1.5
	12	16800	2000	0.12	2.16	14000	1800	0.1	1.8	11200	1650	0.08	1.5
	16	14400	1500	0.1	2.16	12000	1400	0.08	1.8	9600	1280	0.07	1.5
	20	12000	1300	0.1	2.16	10000	1200	0.08	1.8	8000	1100	0.07	1.5

HGXE4L 4刃长颈球刀HGXE4L 4-Flute Long Neck End Mill

加工材料 Work Material		碳素钢、合金钢 Carbon Steels、Alloy Steels (≤HRC30)				预硬钢 Pre-Hardened Steels (HRC30-45)				淬火钢 Hardened Steels (HRC46-55)			
外径 Dia.	颈长 Under Neck Length	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm
3	25	10800	1100	0.08	2.16	9000	1000	0.07	1.8	7200	920	0.06	1.5
	30	9600	880	0.06	2.16	8000	800	0.05	1.8	6400	730	0.03	1.5
	35	8400	660	0.018	1.44	7000	600	0.015	1.2	5600	550	0.02	1.2
	40	7200	600	0.018	1.2	6000	550	0.015	1.0	4800	500	0.012	1
4	12	12000	2000	0.2	2.5	9500	2000	0.15	2	8000	1600	0.08	1.6
	16	10000	2000	0.15	2.5	8000	1800	0.1	2	7000	1400	0.06	1.6
	20	8500	1800	0.12	2.5	7000	1600	0.08	2	6500	1200	0.05	1.6
	25	8000	1600	0.1	2.5	6000	1400	0.07	2	5200	1200	0.04	1.6
	30	6800	1400	0.08	2.5	4800	1000	0.05	2	4200	850	0.03	1.6
	35	5500	1000	0.07	2.5	4200	880	0.04	2	3800	720	0.02	1.6
	40	4000	860	0.05	2.5	3600	720	0.03	2	3000	600	0.01	1.6
	45	3600	600	0.04	2.5	3200	500	0.03	2	2850	400	0.01	1.6
5	16	10000	2000	0.2	3	7000	1800	0.12	2.5	5500	1600	0.08	2
	25	8000	1600	0.15	3	5800	1400	0.07	2.5	4200	1200	0.05	2
	35	6000	1200	0.1	3	4200	900	0.05	2.5	3500	800	0.03	2
	50	3500	750	0.07	3	2800	620	0.03	2.5	2500	500	0.02	2

HGXR2L 2刃长颈圆鼻刀HGXR2L 2-Flute Long Neck Corner Radius End Mill

加工材料 Work Material			碳素钢、合金钢 Carbon Steels、Alloy Steels (≤HRC30)				预硬钢 Pre-Hardened Steels (HRC30-45)				淬火钢 Hardened Steels (HRC46-55)			
外径 Dia.	角半径 Corner Radius	颈长 Under Neck Length	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm
0.2	R0.02	0.5	36000	360	0.006	0.12	30000	300	0.005	0.12	24000	200	0.003	0.1
		1	36000	300	0.006	0.12	30000	240	0.005	0.12	24000	150	0.003	0.1
		1.5	36000	240	0.004	0.12	30000	180	0.003	0.12	24000	100	0.002	0.1
		2	36000	180	0.004	0.12	30000	120	0.003	0.12	24000	50	0.002	0.1
	R0.05	0.5	36000	440	0.006	0.12	30000	400	0.005	0.12	24000	300	0.003	0.1
		1	36000	360	0.006	0.12	30000	300	0.005	0.12	24000	200	0.003	0.1
		1.5	36000	240	0.004	0.12	30000	200	0.003	0.12	24000	150	0.002	0.1
		2	36000	200	0.004	0.12	30000	150	0.003	0.12	24000	100	0.002	0.1
0.3	R0.02	1	36000	350	0.008	0.18	30000	350	0.007	0.18	24000	300	0.003	0.15

加工材料 Work Material			碳素钢、合金钢 Carbon Steels、Alloy Steels (≤HRC30)				预硬钢 Pre-Hardened Steels (HRC30-45)				淬火钢 Hardened Steels (HRC46-55)			
外径 Dia.	角半径 Corner Radius	颈长 Under Neck Length	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm
0.3	R0.02	1.5	36000	260	0.008	0.18	30000	260	0.007	0.18	24000	200	0.003	0.15
		2	36000	180	0.006	0.18	30000	180	0.005	0.18	24000	150	0.003	0.15
		2.5	36000	150	0.005	0.18	30000	150	0.004	0.18	24000	100	0.002	0.15
		3	36000	70	0.005	0.18	30000	70	0.004	0.18	24000	50	0.002	0.15
	R0.05	1	36000	450	0.008	0.18	30000	400	0.007	0.18	24000	350	0.003	0.15
		1.5	36000	330	0.008	0.18	30000	300	0.007	0.18	24000	250	0.003	0.15
		2	36000	280	0.006	0.18	30000	250	0.005	0.18	24000	200	0.003	0.15
		2.5	36000	250	0.005	0.18	30000	200	0.004	0.18	24000	150	0.002	0.15
0.4	R0.02	3	36000	150	0.005	0.18	30000	100	0.004	0.18	24000	80	0.002	0.15
		1	36000	500	0.012	0.28	30000	450	0.01	0.24	24000	400	0.005	0.2
		1.5	36000	440	0.012	0.28	30000	400	0.01	0.24	24000	360	0.005	0.2
		2	36000	400	0.012	0.28	30000	360	0.01	0.24	24000	320	0.005	0.2
		2.5	36000	370	0.01	0.28	30000	340	0.008	0.24	24000	280	0.005	0.2
	R0.05	3	36000	350	0.01	0.28	30000	320	0.008	0.24	24000	260	0.004	0.2
		4	36000	275	0.008	0.28	30000	250	0.006	0.24	24000	200	0.003	0.2
		1	36000	600	0.012	0.28	30000	500	0.01	0.24	24000	400	0.005	0.2
		1.5	36000	540	0.012	0.28	30000	450	0.01	0.24	24000	360	0.005	0.2
		2	36000	490	0.012	0.28	30000	410	0.01	0.24	24000	328	0.005	0.2
		2.5	36000	450	0.01	0.28	30000	380	0.008	0.24	24000	304	0.005	0.2
		3	36000	430	0.01	0.28	30000	360	0.008	0.24	24000	288	0.004	0.2
		4	36000	360	0.008	0.28	30000	300	0.006	0.24	24000	240	0.003	0.2
	R0.1	1	36000	660	0.012	0.28	30000	550	0.01	0.24	24000	440	0.005	0.2
		1.5	36000	600	0.012	0.28	30000	500	0.01	0.24	24000	400	0.005	0.2
		2	36000	550	0.012	0.28	30000	460	0.01	0.24	24000	360	0.005	0.2
		2.5	36000	500	0.01	0.28	30000	420	0.008	0.24	24000	340	0.005	0.2
		3	36000	450	0.01	0.28	30000	380	0.008	0.24	24000	300	0.004	0.2
		4	36000	420	0.008	0.28	30000	350	0.006	0.24	24000	280	0.003	0.2
0.5	R0.02	1	30000	600	0.016	0.14	25000	500	0.008	0.15	23000	400	0.006	0.1
		1.5	30000	550	0.016	0.14	25000	460	0.008	0.15	23000	370	0.006	0.1
		2	30000	500	0.014	0.14	25000	420	0.007	0.15	23000	340	0.005	0.1
		2.5	30000	450	0.014	0.14	25000	380	0.007	0.15	23000	300	0.005	0.1
		3	30000	420	0.012	0.14	25000	350	0.006	0.15	23000	280	0.004	0.1
		4	25000	360	0.01	0.14	25000	300	0.004	0.15	23000	240	0.002	0.1
		5	25000	240	0.008	0.14	20000	200	0.003	0.15	18000	160	0.002	0.1
		6	25000	190	0.004	0.14	20000	160	0.002	0.15	18000	130	0.001	0.1
	R0.05 R0.1	1	30000	720	0.03	0.14	25000	600	0.01	0.15	23000	480	0.007	0.1
		1.5	30000	660	0.03	0.14	25000	550	0.01	0.15	23000	440	0.007	0.1

HGXR2L 2刃长颈圆鼻刀 HGXR2L 2-Flute Long Neck Corner Radius End Mill

加工材料 Work Material			碳素钢、合金钢 Carbon Steels、Alloy Steels (≤HRC30)				预硬钢 Pre-Hardened Steels (HRC30-45)				淬火钢 Hardened Steels (HRC46-55)			
外径 Dia.	角半径 Corner Radius	颈长 Under Neck Length	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm
0.5	R0.05 R0.1	2	30000	576	0.025	0.14	25000	480	0.01	0.15	23000	384	0.007	0.1
		2.5	30000	540	0.025	0.14	25000	450	0.01	0.15	23000	360	0.007	0.1
		3	30000	480	0.02	0.14	25000	400	0.008	0.15	23000	320	0.005	0.1
		4	25000	420	0.015	0.14	25000	350	0.005	0.15	23000	280	0.003	0.1
		5	25000	300	0.01	0.14	20000	250	0.004	0.15	18000	200	0.003	0.1
		6	25000	240	0.008	0.14	20000	200	0.003	0.15	18000	160	0.002	0.1
0.6	R0.02	2	30000	600	0.016	0.2	25000	500	0.012	0.2	23000	400	0.006	0.15
		3	28000	540	0.014	0.2	24000	450	0.01	0.2	21000	360	0.005	0.15
		4	25000	480	0.012	0.2	23000	400	0.007	0.2	20000	320	0.004	0.15
		6	23000	240	0.008	0.2	20000	200	0.005	0.2	18000	160	0.003	0.15
		8	18000	180	0.006	0.2	16000	150	0.003	0.2	14000	120	0.001	0.15
		10	16000	120	0.003	0.2	14000	100	0.001	0.2	12000	80	0.001	0.15
	R0.05 R0.1	2	30000	720	0.035	0.2	25000	600	0.02	0.2	23000	480	0.01	0.15
		3	28000	600	0.03	0.2	24000	500	0.02	0.2	21000	400	0.008	0.15
		4	25000	480	0.025	0.2	23000	400	0.015	0.2	20000	320	0.007	0.15
		6	23000	264	0.015	0.2	20000	220	0.008	0.2	18000	180	0.005	0.15
		8	18000	216	0.01	0.2	16000	180	0.005	0.2	14000	140	0.002	0.15
		10	16000	144	0.005	0.2	14000	120	0.002	0.2	12000	100	0.001	0.15
	R0.02	2	30000	840	0.016	0.25	25000	700	0.012	0.25	23000	560	0.01	0.15
		3	30000	840	0.016	0.25	25000	700	0.012	0.25	23000	560	0.01	0.15
		4	28000	720	0.012	0.25	25000	600	0.01	0.25	23000	480	0.008	0.15
		6	25000	480	0.008	0.25	20000	400	0.008	0.25	18000	320	0.006	0.15
		8	18000	240	0.006	0.2	16000	200	0.005	0.2	14000	160	0.005	0.15
		10	16000	216	0.005	0.2	14000	180	0.005	0.2	12000	140	0.005	0.15
0.7	R0.05 R0.1	2	30000	840	0.05	0.25	25000	700	0.03	0.25	23000	560	0.02	0.15
		3	30000	780	0.04	0.25	25000	650	0.03	0.25	23000	520	0.015	0.15
		4	28000	720	0.03	0.25	25000	600	0.02	0.25	23000	480	0.01	0.15
		6	25000	480	0.02	0.25	20000	400	0.01	0.25	18000	320	0.01	0.15
		8	18000	360	0.02	0.25	16000	300	0.01	0.25	14000	240	0.008	0.15
		10	16000	240	0.015	0.25	14000	200	0.01	0.25	12000	160	0.006	0.15
	R0.02	2	28000	1020	0.02	0.3	25000	850	0.014	0.25	23000	680	0.012	0.16
		3	28000	960	0.02	0.3	25000	800	0.014	0.25	23000	640	0.012	0.16
		4	28000	840	0.015	0.3	25000	700	0.012	0.25	23000	560	0.01	0.16
		6	23000	660	0.012	0.3	20000	550	0.01	0.25	18000	440	0.01	0.15
0.8	R0.02	8	18000	480	0.012	0.3	16000	400	0.01	0.25	14000	320	0.008	0.15
		10	16000	360	0.01	0.25	15000	300	0.008	0.20	13500	240	0.006	0.12
		12	14000	240	0.01	0.2	13000	200	0.008	0.15	12000	160	0.006	0.12

加工材料 Work Material			碳素钢、合金钢 Carbon Steels、Alloy Steels (≤HRC30)				预硬钢 Pre-Hardened Steels (HRC30-45)				淬火钢 Hardened Steels (HRC46-55)			
外径 Dia.	角半径 Corner Radius	颈长 Under Neck Length	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm
0.8	R0.05 R0.1	2	28000	1200	0.02	0.3	25000	1000	0.014	0.25	23000	800	0.012	0.16
		3	28000	1080	0.02	0.3	25000	900	0.014	0.25	23000	720	0.012	0.16
		4	28000	960	0.015	0.3	25000	800	0.012	0.25	23000	640	0.01	0.16
		6	23000	720	0.012	0.3	20000	600	0.01	0.25	18000	480	0.01	0.15
		8	18000	600	0.012	0.3	16000	500	0.01	0.25	14000	400	0.008	0.15
		10	16000	480	0.01	0.25	15000	400	0.008	0.20	13500	320	0.006	0.12
		12	14000	360	0.01	0.2	13000	300	0.008	0.15	12000	240	0.006	0.12
0.9	R0.1	4	25000	1200	0.05	0.3	25000	900	0.03	0.3	20000	800	0.02	0.2
		8	18000	800	0.03	0.3	16000	500	0.01	0.3	14000	400	0.008	0.2
1	R0.05	3	30000	1450	0.04	0.35	25000	1300	0.03	0.3	22000	1000	0.025	0.3
		4	30000	1440	0.03	0.35	25000	1200	0.025	0.3	21000	960	0.02	0.25
		5	28000	1200	0.03	0.35	23000	1000	0.025	0.3	20000	800	0.02	0.25
		6	25000	1080	0.02	0.35	21000	900	0.02	0.3	18000	720	0.015	0.25
		8	23000	960	0.02	0.35	19000	800	0.02	0.3	16000	640	0.015	0.25
		10	20000	840	0.02	0.35	16000	700	0.015	0.3	14000	560	0.010	0.25
		12	18000	720	0.015	0.35	15000	600	0.015	0.3	13000	480	0.010	0.25
		16	16000	480	0.015	0.35	13000	400	0.01	0.3	11000	320	0.008	0.25
		20	14000	400	0.015	0.35	13000	300	0.01	0.3	11000	240	0.008	0.25
	R0.1 R0.2 R0.3	3	30000	1500	0.04	0.35	25000	1350	0.03	0.3	22000	1080	0.025	0.3
		4	30000	1440	0.07	0.35	25000	1200	0.05	0.3	21000	960	0.04	0.25
		5	28000	1200	0.06	0.35	23000	1000	0.05	0.3	20000	800	0.04	0.25
		6	25000	1080	0.055	0.35	21000	900	0.04	0.3	18000	720	0.03	0.25
		8	23000	960	0.05	0.35	19000	800	0.03	0.3	16000	640	0.02	0.25
		10	20000	840	0.045	0.35	16000	700	0.02	0.3	14000	560	0.01	0.25
		12	18000	720	0.035	0.35	15000	600	0.015	0.3	13000	480	0.008	0.25
		16	18000	480	0.035	0.35	15000	400	0.015	0.3	13000	320	0.008	0.25
		20	14000	450	0.015	0.35	13000	350	0.01	0.3	11000	280	0.008	0.25
1.5	R0.05 R0.1 R0.2 R0.3	4	28000	1500	0.1	0.55	24000	1250	0.05	0.5	22000	1000	0.04	0.4
		6	28000	1440	0.1	0.55	23000	1200	0.05	0.5	20000	960	0.04	0.4
		8	25000	1200	0.08	0.55	21000	1000	0.05	0.5	18000	800	0.04	0.4
		10	23000	1080	0.08	0.55	19000	900	0.045	0.5	16000	720	0.03	0.4
		12	20000	960	0.06	0.55	16000	800	0.04	0.5	14000	640	0.025	0.4
		16	16000	720	0.06	0.55	13000	600	0.03	0.5	11000	480	0.02	0.4
		20	12000	480	0.03	0.55	11000	400	0.02	0.5	9000	320	0.007	0.4
2	R0.05 R0.1 R0.3 R0.5	6	24000	1320	0.13	0.7	20000	1100	0.06	0.6	17000	880	0.05	0.5
		8	24000	1320	0.13	0.7	20000	1100	0.06	0.6	17000	880	0.05	0.5
		10	22000	1200	0.12	0.7	18000	1000	0.06	0.6	15000	800	0.05	0.5

HGXR2L 2刃长颈圆鼻刀 HGXR2L 2-Flute Long Neck Corner Radius End Mill

加工材料 Work Material			碳素钢、合金钢 Carbon Steels、 Alloy Steels (≤HRC30)				预硬钢 Pre-Hardened Steels (HRC30-45)				淬火钢 Hardened Steels (HRC46-55)			
外径 Dia.	角半径 Corner Radius	颈长 Under Neck Length	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm
2	R0.05 R0.1 R0.2 R0.3	12	20000	1080	0.11	0.7	16000	900	0.05	0.6	14000	720	0.04	0.5
		16	16000	840	0.09	0.7	13000	700	0.04	0.6	11000	560	0.03	0.5
		20	14000	720	0.07	0.7	11000	600	0.03	0.6	9500	480	0.02	0.5
		25	12000	600	0.06	0.7	9000	500	0.03	0.6	8000	400	0.02	0.5
		30	10000	480	0.05	0.7	8000	400	0.02	0.6	7000	320	0.01	0.5
3	R0.1 R0.2 R0.3 R0.5	8	18000	1440	0.18	1	15000	1200	0.1	0.8	13000	960	0.07	0.7
		10	18000	1440	0.18	1	15000	1200	0.1	0.8	13000	960	0.07	0.7
		12	16000	1320	0.17	1	13000	1100	0.1	0.8	11000	880	0.07	0.7
		16	14000	1200	0.16	1	11000	1000	0.1	0.8	9500	800	0.07	0.7
		20	13500	1080	0.16	1	11000	900	0.08	0.8	9500	720	0.06	0.7
		25	12000	900	0.14	1	10000	750	0.07	0.8	8500	600	0.05	0.7
		30	10000	780	0.12	1	8000	650	0.05	0.8	7000	520	0.04	0.7
		35	9000	600	0.08	1	7500	500	0.04	0.8	6500	400	0.02	0.7
		40	8000	480	0.06	1	6500	400	0.03	0.8	5500	320	0.02	0.7
4	R0.1 R0.2 R0.3 R0.5 R1	10	14000	1800	0.3	2.5	13000	1500	0.15	2	12000	1200	0.12	1.5
		12	13000	1500	0.3	2.5	12000	1300	0.15	2	10000	1000	0.12	1.5
		16	12000	1300	0.25	1.4	10000	1100	0.15	1.2	8500	900	0.1	1
		20	12000	1300	0.25	1.4	10000	1000	0.15	1.2	8500	900	0.1	1
		25	10000	1100	0.17	1.4	8000	900	0.1	1.2	7000	800	0.08	1
		30	8000	800	0.14	1.4	6500	800	0.08	1.2	5500	660	0.08	1
		35	6500	700	0.08	1.4	5500	700	0.06	1.2	4500	540	0.05	1
		40	5800	660	0.06	1.2	5200	600	0.05	1	4000	480	0.05	0.8
		45	5200	550	0.05	1.2	4800	500	0.04	1	3800	420	0.04	0.8
		50	4800	450	0.04	1.2	4500	400	0.03	1	3200	360	0.04	0.8

HGXR4L 4刃长颈圆鼻刀 HGXR4L 4-Flute Long Neck Corner Radius End Mill

加工材料 Work Material			碳素钢、合金钢 Carbon Steels、 Alloy Steels (≤HRC30)				预硬钢 Pre-Hardened Steels (HRC30-45)				淬火钢 Hardened Steels (HRC46-55)			
外径 Dia.	角半径 Corner Radius	颈长 Under Neck Length	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm
0.5	R0.02	1	30000	1200	0.016	0.14	25000	1000	0.008	0.15	23000	800	0.006	0.1
		1.5	30000	1100	0.016	0.14	25000	920	0.008	0.15	23000	740	0.006	0.1
		2	30000	1000	0.014	0.14	25000	840	0.007	0.15	23000	670	0.005	0.1

加工材料 Work Material			碳素钢、合金钢 Carbon Steels、 Alloy Steels (≤HRC30)				预硬钢 Pre-Hardened Steels (HRC30-45)				淬火钢 Hardened Steels (HRC46-55)			
外径 Dia.	角半径 Corner Radius	颈长 Under Neck Length	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm
0.5	R0.02	2.5	30000	910	0.014	0.14	25000	760	0.007	0.15	23000	610	0.005	0.1
		3	30000	840	0.012	0.14	25000	700	0.006	0.15	23000	560	0.004	0.1
		4	25000	720	0.01	0.14	25000	600	0.004	0.15	23000	480	0.002	0.1
		5	25000	480	0.008	0.14	20000	400	0.003	0.15	18000	320	0.002	0.1
		6	25000	280	0.004	0.14	20000	230	0.002	0.15	18000	180	0.001	0.1
	R0.05 R0.1	1	30000	1440	0.03	0.14	25000	1200	0.01	0.15	23000	960	0.007	0.1
		1.5	30000	1300	0.03	0.14	25000	1100	0.01	0.15	23000	880	0.007	0.1
		2	30000	1150	0.025	0.14	25000	960	0.01	0.15	23000	770	0.007	0.1
		2.5	30000	1100	0.025	0.14	25000	900	0.01	0.15	23000	720	0.007	0.1
		3	30000	960	0.02	0.14	25000	800	0.008	0.15	23000	640	0.005	0.1
		4	25000	840	0.015	0.14	25000	700	0.005	0.15	23000	560	0.003	0.1
		5	25000	600	0.01	0.14	20000	500	0.004	0.15	18000	400	0.003	0.1
		6	25000	480	0.008	0.14	20000	400	0.003	0.15	18000	320	0.002	0.1
0.6	R0.02	2	30000	1200	0.016	0.2	25000	1000	0.012	0.2	23000	800	0.006	0.15
		3	28000	1080	0.014	0.2	24000	900	0.01	0.2	21000	720	0.005	0.15
		4	25000	960	0.012	0.2	23000	800	0.007	0.2	20000	640	0.004	0.15
		6	23000	480	0.008	0.2	20000	400	0.005	0.2	18000	320	0.003	0.15
		8	18000	360	0.006	0.2	16000	300	0.005	0.2	14000	240	0.003	0.15
		10	16000	240	0.003	0.2	14000	200	0.002	0.2	12000	160	0.002	0.15
	R0.05 R0.1	2	30000	1440	0.035	0.2	25000	1200	0.02	0.2	23000	960	0.01	0.15
		3	28000	1200	0.030	0.2	24000	1000	0.02	0.2	21000	800	0.008	0.15
		4	25000	960	0.025	0.2	23000	800	0.015	0.2	20000	640	0.007	0.15
		6	23000	530	0.015	0.2	20000	440	0.008	0.2	18000	350	0.005	0.15
		8	18000	430	0.01	0.2	16000	360	0.005	0.2	14000	290	0.002	0.15
		10	16000	290	0.005	0.2	14000	240	0.002	0.2	12000	190	0.001	0.15
0.7	R0.02	2	30000	1680	0.016	0.25	25000	1400	0.012	0.25	23000	1120	0.01	0.15
		3	30000	1680	0.016	0.25	25000	1400	0.012	0.25	23000	1120	0.01	0.15
		4	28000	1440	0.012	0.25	25000	1200	0.01	0.25	23000	960	0.008	0.15
		6	25000	960	0.008	0.25	20000	800	0.008	0.25	18000	640	0.006	0.15
		8	18000	480	0.006	0.2	16000	400	0.005	0.2	14000	320	0.005	0.15
		10	16000	430	0.005	0.2	14000	360	0.005	0.2	12000	290	0.005	0.15
	R0.05 R0.1	2	30000	1680	0.05	0.25	25000	1400	0.03	0.25	23000	1120	0.02	0.15
		3	30000	1560	0.04	0.25	25000	1300	0.03	0.25	23000	1040	0.015	0.15
		4	28000	1440	0.03	0.25	25000	1200	0.02	0.25	23000	960	0.01	0.15
		6	25000	960	0.02	0.25	20000	800	0.01	0.25	18000	640	0.01	0.15
		8	18000	720	0.02	0.25	16000	600	0.01	0.25	14000	480	0.008	0.15
		10	16000	480	0.02	0.25	14000	400	0.01	0.25	12000	320	0.006	0.15

HGXR4L 4刃长颈圆鼻刀 HGXR4L 4-Flute Long Neck Corner Radius End Mill

加工材料 Work Material			碳素钢、合金钢 Carbon Steels、Alloy Steels (≤HRC30)				预硬钢 Pre-Hardened Steels (HRC30-45)				淬硬钢 Hardened Steels (HRC46-55)			
外径 Dia.	角半径 Corner Radius	颈长 Under Neck Length	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm
0.8	R0.02	2	28000	2040	0.020	0.3	25000	1700	0.014	0.25	23000	1360	0.012	0.16
		4	28000	1680	0.015	0.3	25000	1400	0.012	0.25	23000	1120	0.01	0.16
		6	23000	1320	0.012	0.3	20000	1100	0.01	0.25	18000	880	0.01	0.15
		8	18000	960	0.012	0.3	16000	800	0.01	0.25	14000	640	0.008	0.15
		10	16000	720	0.010	0.25	15000	600	0.008	0.20	13500	480	0.006	0.12
		12	14000	480	0.010	0.2	13000	400	0.008	0.15	12000	320	0.006	0.12
	R0.05 R0.1 R0.2	2	28000	2400	0.020	0.3	25000	2000	0.014	0.25	23000	1600	0.012	0.16
		4	28000	1920	0.015	0.3	25000	1600	0.012	0.25	23000	1280	0.01	0.16
		6	23000	1440	0.012	0.3	20000	1200	0.01	0.25	18000	960	0.01	0.15
		8	18000	1200	0.012	0.3	16000	1000	0.01	0.25	14000	800	0.008	0.15
0.9	R0.1	10	16000	960	0.010	0.25	15000	800	0.008	0.20	13500	640	0.006	0.12
		12	14000	720	0.010	0.2	13000	600	0.008	0.15	12000	480	0.006	0.12
1	R0.02	4	25000	2200	0.05	0.3	25000	1700	0.03	0.3	20000	1400	0.02	0.2
		8	18000	1000	0.03	0.3	16000	800	0.01	0.3	14000	700	0.008	0.2
		4	30000	2880	0.030	0.35	25000	2400	0.025	0.3	21000	1920	0.02	0.25
		5	28000	2400	0.030	0.35	23000	2000	0.025	0.3	20000	1600	0.02	0.25
		6	25000	2160	0.020	0.35	21000	1800	0.02	0.3	18000	1440	0.015	0.25
		8	23000	1920	0.020	0.35	19000	1600	0.020	0.3	16000	1280	0.015	0.25
		10	20000	1680	0.02	0.35	16000	1400	0.015	0.3	14000	1120	0.010	0.25
		12	18000	1440	0.015	0.35	15000	1200	0.015	0.3	13000	960	0.010	0.25
	R0.05 R0.1 R0.2 R0.3	16	16000	960	0.015	0.35	13000	800	0.010	0.3	11000	640	0.008	0.25
		20	14000	720	0.015	0.35	13000	600	0.010	0.3	11000	480	0.008	0.25
		4	30000	2880	0.065	0.35	25000	2400	0.05	0.3	21000	1920	0.04	0.25
		5	28000	2400	0.06	0.35	23000	2000	0.05	0.3	20000	1600	0.04	0.25
		6	25000	2160	0.055	0.35	21000	1800	0.04	0.3	18000	1440	0.03	0.25
		8	23000	1920	0.05	0.35	19000	1600	0.03	0.3	16000	1280	0.02	0.25
1.2	R0.05 R0.1 R0.2 R0.3	10	20000	1680	0.045	0.35	16000	1400	0.02	0.3	14000	1120	0.01	0.25
		12	18000	1440	0.035	0.35	15000	1200	0.015	0.3	13000	960	0.008	0.25
	R0.05 R0.1 R0.2 R0.3	16	18000	960	0.035	0.35	15000	800	0.015	0.3	13000	640	0.008	0.25
		20	14000	840	0.015	0.35	13000	700	0.010	0.3	11000	560	0.008	0.25
	R0.05 R0.1 R0.2 R0.3	5	24000	2200	0.06	0.45	20000	1800	0.045	0.4	17000	1500	0.03	0.3
		10	16000	1400	0.04	0.45	13000	1100	0.03	0.4	11000	950	0.01	0.3
1.5	R0.02	6	28000	2800	0.016	0.55	23000	2300	0.012	0.5	20000	2000	0.01	0.4
		8	25000	2400	0.016	0.55	21000	2000	0.012	0.5	18000	1700	0.01	0.4
		10	23000	2200	0.014	0.55	19000	1800	0.01	0.5	16000	1500	0.008	0.4
		12	20000	1800	0.014	0.55	16000	1500	0.01	0.5	14000	1300	0.008	0.4

加工材料 Work Material			碳素钢、合金钢 Carbon Steels、Alloy Steels (≤HRC30)				预硬钢 Pre-Hardened Steels (HRC30-45)				淬硬钢 Hardened Steels (HRC46-55)			
外径 Dia.	角半径 Corner Radius	颈长 Under Neck Length	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm
1.5	R0.02	16	16000	1400	0.012	0.55	13000	1100	0.008	0.5	11000	950	0.005	0.4
		20	14000	1000	0.008	0.55	11000	800	0.005	0.5	9000	700	0.003	0.4
	R0.05 R0.1 R0.2 R0.3 R0.5	6	28000	2800	0.1	0.55	23000	2300	0.05	0.5	20000	2000	0.04	0.4
		8	25000	2400	0.08	0.55	21000	2000	0.05	0.5	18000	1700	0.04	0.4
		10	23000	2200	0.08	0.55	19000	1800	0.045	0.5	16000	1500	0.03	0.4
		12	20000	1800	0.06	0.55	16000	1500	0.04	0.5	14000	1300	0.025	0.4
		16	16000	1400	0.06	0.55	13000	1100	0.03	0.5	11000	950	0.02	0.4
		20	14000	1000	0.03	0.55	11000	800	0.02	0.5	9000	700	0.007	0.4
2	R0.02	8	24000	2800	0.02	0.7	20000	2300	0.015	0.6	17000	2000	0.012	0.5
		10	22000	2500	0.018	0.7	18000	2100	0.015	0.6	15000	1800	0.012	0.5
		12	20000	2200	0.016	0.7	16000	1800	0.012	0.6	14000	1500	0.01	0.5
		16	16000	1700	0.014	0.7	13000	1400	0.01	0.6	11000	1200	0.008	0.5
		20	14000	1400	0.012	0.7	11000	1100	0.008	0.6	9500	950	0.005	0.5
		25	10000	800	0.01	0.7	8000	650	0.005	0.6	7000	550	0.003	0.5
	R0.05 R0.1 R0.2 R0.3 R0.5	30	10000	480	0.005	0.7	8000	400	0.002	0.6	7000	320	0.002	0.5
		8	24000	2800	0.13	0.7	20000	2300	0.06	0.6	17000	2000	0.05	0.5
		10	22000	2500	0.12	0.7	18000	2100	0.06	0.6	15000	1800	0.05	0.5
		12	20000	2200	0.11	0.7	16000	1800	0.05	0.6	14000	1500	0.04	0.5
		16	16000	1700	0.09	0.7	13000	1400	0.04	0.6	11000	1200	0.03	0.5
		20	14000	1400	0.07	0.7	11000	1100	0.03	0.6	9500	950	0.02	0.5
		25	12000	960	0.06	0.7	9000	800	0.03	0.6	8000	640	0.02	0.5
		30	10000	800	0.05	0.7	8000	650	0.02	0.6	7000	550	0.01	0.5
2.5	R0.05 R0.1 R0.2 R0.3 R0.5	10	16000	2200	0.14	0.85	13000	1800	0.07	0.7	11000	1500	0.05	0.5
		20	11000	1400	0.08	0.85	9000	1100	0.04	0.7	7500	950	0.02	0.5
		30	7000	800	0.03	0.85	5500	650	0.01	0.7	4500	550	0.01	0.5
3	R0.05	10	18000	2800	0.18	1	15000	2300	0.1	0.8	13000	2000	0.07	0.7
		12	16000	2500	0.17	1	13000	2100	0.1	0.8	11000	1800	0.07	0.7
		16	14000	2200	0.16	1	11000	1800	0.1	0.8	9500	1500	0.07	0.7
		20	13500	2000	0.16	1	11000	1600	0.08	0.8	9500	1400	0.06	0.7
		25	12000	1800	0.14	1	10000	1500	0.07	0.8	8500	1300	0.05	0.7
		30	10000	1400	0.12	1	8000	1100	0.05	0.8	7000	950	0.04	0.7
		35	9000	1200	0.08	1	7500	1000	0.04	0.8	6500	800	0.02	0.7
		40	8000	960	0.06	1	6500	800	0.03	0.8	5500	640	0.02	0.7
	R0.1 R0.2 R0.3 R0.5	10	18000	2800	0.18	1	15000	2300	0.1	0.8	13000	2000	0.07	0.7
		12	16000	2500	0.17	1	13000	2100	0.1	0.8	11000	1800	0.07	0.7
		16	14000	2200	0.16	1	11000	1800	0.1	0.8	9500	1500	0.07	0.7
		20	13500	2000	0.16	1	11000	1600	0.08	0.8	9500	1400	0.06	0.7

HGXR4L 4刃长颈圆鼻刀

HGXR4L 4-Flute Long Neck Corner Radius End Mill

加工材料 Work Material			碳素钢、合金钢 Carbon Steels、 Alloy Steels (≤HRC30)				预硬钢 Pre-Hardened Steels (HRC30-45)				淬火钢 Hardened Steels (HRC46-55)			
外径 Dia.	角半径 Corner Radius	颈长 Under Neck Length	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm	转速 Spindle Speed r/min	进给速度 Feed mm/min	切深 Depth of Cut Apmm	切宽 Depth of Cut Aemmm
3	R0.1	25	12000	1800	0.14	1	10000	1500	0.07	0.8	8500	1300	0.05	0.7
	R0.2	30	10000	1400	0.12	1	8000	1100	0.05	0.8	7000	950	0.04	0.7
	R0.3	35	9000	1200	0.08	1	7500	1050	0.04	0.8	6500	850	0.02	0.7
	R0.5	40	8000	1000	0.06	1	6500	800	0.03	0.8	5500	700	0.02	0.7
	R0.1	10	14000	2200	0.16	1	11000	1800	0.1	0.8	9500	1500	0.07	0.7
		12	13500	2000	0.16	1	11000	1600	0.08	0.8	9500	1400	0.06	0.7
		16	12000	1800	0.14	1	10000	1500	0.07	0.8	8500	1300	0.05	0.7
		20	10000	1400	0.12	1	8000	1100	0.05	0.8	7000	950	0.04	0.7
		25	9000	1200	0.08	1	7500	1100	0.04	0.8	6500	850	0.02	0.7
		30	9000	1200	0.08	1	7500	1100	0.04	0.8	6500	800	0.02	0.7
		35	9000	1200	0.08	1	7500	1050	0.04	0.8	6500	750	0.02	0.7
		40	8000	1000	0.06	1	6500	800	0.03	0.8	5500	700	0.02	0.7
4	R0.1 R0.2 R0.3 R0.5 R1	16	12000	2650	0.25	1.4	10000	2200	0.15	1.2	8500	1760	0.1	1
		20	12000	2400	0.25	1.4	10000	2000	0.15	1.2	8500	1600	0.1	1
		25	10000	2160	0.17	1.4	8000	1800	0.1	1.2	7000	1440	0.08	1
		30	8000	1900	0.14	1.4	6500	1600	0.08	1.2	5500	1280	0.08	1
		35	6500	1680	0.08	1.4	5500	1400	0.06	1.2	4500	1100	0.05	1
		40	5800	1440	0.06	1.2	5200	1200	0.05	1	4000	960	0.05	0.8
		45	5200	1200	0.05	1.2	4800	1000	0.04	1	3800	800	0.04	0.8
		50	4800	960	0.04	1.2	4500	800	0.03	1	3200	640	0.04	0.8
5	R0.1 R0.2 R0.3 R0.5 R1	16	9500	2400	0.25	2.2	8000	2000	0.15	2	7000	1700	0.08	1.6
		20	8000	2000	0.18	2.2	6500	1600	0.1	2	5500	1400	0.07	1.6
		40	5000	1200	0.09	2.2	4000	1000	0.05	2	3500	850	0.02	1.6

【注意 Note】

■ 请结合工件材料、加工形状，使用适当的冷却液。
Use The Appropriate Coolant For The Work Material And Machining Shape.

■ 此标准切削条件表中的数值为切削条件的基准值。
实际加工时，请考虑加工形状、目的、使用机床等因素，对切削条件进行调整。
These Recommend Cutting Conditions Indicate Only Machining Shape.
Machining Shape,purpose And The Machine Type.

■ 如果机床转速低于表中所列数值，则进给速度应与转速按同一比例降低。
If The Rpm Of Machine Is Low,lower The Feed Rate Also To Put The Rpm And Feed Ratein The Same Ratio.

HGXB2L

HGXE2L

HGXE4L

HGXR2L

HGXR4L