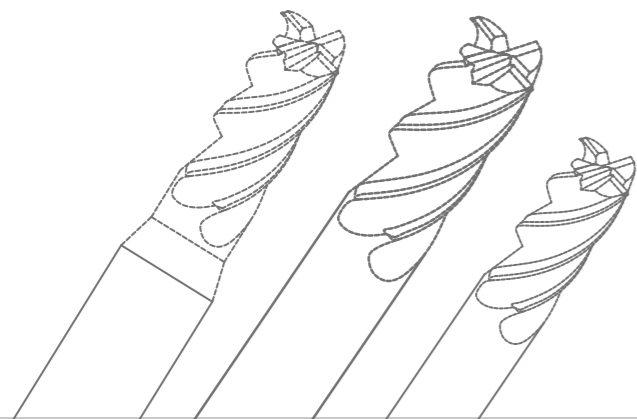


整体硬质合金铣刀目录

Solid End Mill Contents



株洲欧科亿数控精密刀具股份有限公司
OKE Precision Cutting Tools Co., Ltd.

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整硬标准立铣刀命名规则

Standard End Mills Naming Rules



OMPQ通用系列 OMPQ General purpose series

OMPQ-4E 四刃直柄平头立铣刀 OMPQ-4E 4 flute straight shank flat end mill	02
OMPQ-4EL 四刃直柄平头长刃立铣刀 OMPQ-4EL 4 flute long cutting edge flat end mill	03
OMPQ-4EX 四刃直柄超长刃平头立铣刀 OMPQ-4EX 4 flute extra long cutting edge flat end mill	04
OMPQ-4D 尖角型四刃直柄平头立铣刀 OMPQ-4D Sharp flattened 4 flute straight shank flat end mill	05
OMPQ-4EH/G 四刃长柄/超长柄平头立铣刀 OMPQ-4EH/G 4 flute long shank/extra long shank flat end mill	07
OMPQ-2B 二刃直柄球头立铣刀 OMPQ-2B 2 flutes straight shank ball head end mill	09
OMPQ-2BH/G 二刃长柄/超长柄球头立铣刀 OMPQ-2BH/G 2 flutes long shank/extra long shank ball head end mill	10
OMPQ-4R 四刃直柄圆弧立铣刀 OMPQ-4R 4 flutes straight shank corner radius end mill	12
OMPQ-4RH/G 四刃长柄/超长柄圆弧立铣刀 OMPQ-4RH/G 4 flutes long shank/extra long shank corner radius end mill	13

OMPX高性能通用系列 OMPX series, High

OMPX-4E 四刃直柄平头立铣刀 OMPX-4E 4 flutes straight shank flat end mill	16
OMPX-4EL 四刃直柄平头长刃立铣刀 OMPX-4EL 4 flutes long cutting edge flat end mill	17
OMPX-4EH/G 四刃直柄平头长柄/超长柄立铣刀 OMPX-4EH/G 4 flutes long shank/extra long shank flat end mill	18
OMPX-4R 四刃直柄圆角立铣刀 OMPX-4R 4 flutes straight shank corner radius end mill	21
OMPX-4RH/G 四刃直柄圆角长柄/超长柄立铣刀 OMPX-4RH/G 4 flutes long shank/extra long corner radius end mill	23
OMPX-2B 二刃直柄球头立铣刀 OMPX-2B 2 flutes straight shank ball head end mill	25
OMPX-2BH/G 二刃直柄球头长柄/超长柄立铣刀 OMPX-2BH/G 2 flutes long shank/extra long shank ball head end mill	26

OMH淬火钢加工系列 OMH series for quenched steel

OMH-4E 四刃直柄平头立铣刀 OMH-4E 4 flutes straight flat head end mill	30
OMH-4EL 四刃直柄平头长刃立铣刀 OMH-4EL 4 flute long shank flat end mill	32
OMH-4EH/G 四刃直柄平头长柄/超长柄立铣刀 OMH-4EH/G 4 flute long shank/extra long shank flat end mill	33
OMH-4R 四刃直柄圆角立铣刀 OMH-4R 4 flutes straight shank corner radius end mill	35
OMH-4RH/G 四刃直柄圆角长柄/超长柄立铣刀 OMH-4RH/G 4 flutes long shank/extra long shank corner radius end mill	36
OMH-2B 二刃直柄球头立铣刀 OMH-2B 2 flutes straight shank ball head end mill	39
OMH-2BH/G 二刃直柄球头长柄/超长柄立铣刀 OMH-2BH/G 2 flutes long shank/extra long shank ball head end mill	40

OMHH高硬度钢加工系列 OMHH series for High-hardened steel

OMHH-4E 四刃直柄平头立铣刀 OMHH-4E 4 flutes straight flat head end mill	43
OMHH-4EL 四刃直柄长刃平头立铣刀 OMHH-4EL 4 flutes long cutting edge flat end mill	44
OMHH-4EH/G 四刃长柄/超长柄平头立铣刀 OMHH-4EH/G 4 flutes long shank/extra long shank flat end mill	45
OMHH-4R 四刃直柄圆弧立铣刀 OMHH-4R 4 flutes straight shank corner radius end mill	47
OMHH-4RH/G 四刃长柄/超长柄圆弧立铣刀 OMHH-4RH/G 4 flutes long shank/extra long shank corner radius end mill	49
OMHH-2B 二刃直柄球头立铣刀 OMHH-2B 2 flutes straight shank ball head end mill	51
OMHH-2BH/G 二刃长柄/超长柄球头立铣刀 OMH-2BH/G 2 flutes long shank/extra long shank ball head end mill	52

OMPQ通用铣刀系列

OMPQ General purpose series

产品特点及应用范围

Product features and application range

该系列产品适用于硬度<HRC45的工件材料的粗加工到精加工。

- ①采用最新配比耐高温、耐磨涂层搭配全新配方的硬质合金基材,能适应更多的工况;
- ②周刃设计成兼顾刃口强度和耐磨性的曲面型后刀面结构,提高刀具寿命;
- ③新升级槽型不但保证足够容屑空间,而且提高周刃强度和刚性,适合从精加工到粗加工,刀具性能更加全面。

This series of products are suitable for rough machining to semi-finishing of workpiece materials with hardness <HRC45.

- ①Adopt the latest high temperature resistance, wear resistance coating with the new formula of carbide substrate, able to adapt to more working condition;
- ②The edge is designed to take into account the cutting edge strength and wear resistance of the curved flank surface structure, improve the tool life;
- ③The new upgraded spiral flute not only ensures enough chip space, but also improves the strength and rigidity of the edge. It is suitable for machining from finishing to rough machining, and the tool performance is more comprehensive.

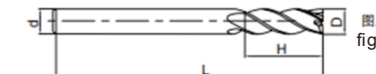
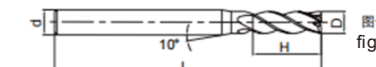


OMPQ-4E 四刃直柄平头立铣刀

OMPQ-4E 4 flute straight shank flat end mill



尖角保护型
Corner protection
flattened



- 适用于侧面铣削、浅槽加工。
Suitable for machining side and shallow slot
- 适用范围广泛。
wide application.

螺旋角 $\angle 38^\circ$ 直径公差 $D1 \sim D6_{-0.02}^0 / D6 \sim D14_{-0.025}^0 / D15 \sim D20_{-0.03}^0$
helical angle diameter tolerance

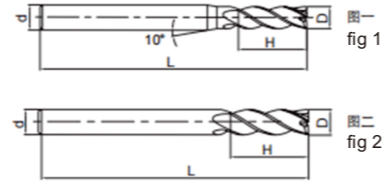
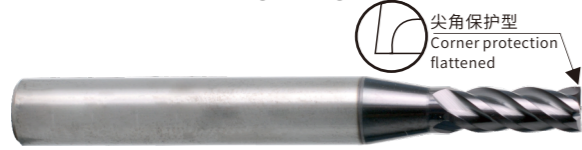


订货号 part number	基本尺寸 (mm) dimension (mm)				齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	d	H	L			
OMPQ-4E-010F	1.0	3	3	50	4	图一 fig 1	▲
OMPQ-4E-010S	1.0	4	3	50	4	图一 fig 1	●
OMPQ-4E-010	1.0	6	3	50	4	图一 fig 1	●
OMPQ-4E-015F	1.5	3	4	50	4	图一 fig 1	▲
OMPQ-4E-015S	1.5	4	4	50	4	图一 fig 1	●
OMPQ-4E-015	1.5	6	4	50	4	图一 fig 1	●
OMPQ-4E-020F	2.0	3	6	50	4	图一 fig 1	▲
OMPQ-4E-020S	2.0	4	6	50	4	图一 fig 1	●
OMPQ-4E-020	2.0	6	6	50	4	图一 fig 1	●
OMPQ-4E-025F	2.5	3	8	50	4	图一 fig 1	▲
OMPQ-4E-025S	2.5	4	8	50	4	图一 fig 1	●
OMPQ-4E-025	2.5	6	8	50	4	图一 fig 1	●
OMPQ-4E-030F	3.0	3	8	50	4	图二 fig 2	▲
OMPQ-4E-030S	3.0	4	8	50	4	图一 fig 1	●
OMPQ-4E-030	3.0	6	8	50	4	图一 fig 1	●
OMPQ-4E-035S	3.5	4	10	50	4	图一 fig 1	●
OMPQ-4E-035	3.5	6	10	50	4	图一 fig 1	●
OMPQ-4E-040S	4.0	4	11	50	4	图二 fig 2	●
OMPQ-4E-040	4.0	6	11	50	4	图一 fig 1	●
OMPQ-4E-045	4.5	6	11	50	4	图一 fig 1	●
OMPQ-4E-050	5.0	6	13	50	4	图一 fig 1	●
OMPQ-4E-055	5.5	6	16	50	4	图一 fig 1	●
OMPQ-4E-060	6.0	6	16	50	4	图二 fig 2	●
OMPQ-4E-070	7.0	8	20	60	4	图一 fig 1	●
OMPQ-4E-080	8.0	8	20	60	4	图二 fig 2	●
OMPQ-4E-090	9.0	10	22	75	4	图一 fig 1	●
OMPQ-4E-100	10.0	10	25	75	4	图二 fig 2	●
OMPQ-4E-110	11.0	12	26	75	4	图一 fig 1	●
OMPQ-4E-120	12.0	12	30	75	4	图二 fig 2	●
OMPQ-4E-140	14.0	14	32	75	4	图二 fig 2	●
OMPQ-4E-160	16.0	16	45	100	4	图二 fig 2	●
OMPQ-4E-180	18.0	18	45	100	4	图二 fig 2	●
OMPQ-4E-200	20.0	20	45	100	4	图二 fig 2	●

●常备库存 Stock available ▲按订单生产 Make-to-order

OMPQ-4EL 四刃直柄长刃平头立铣刀

OMPQ-4EL 4 flute long cutting edge flat end mill



● OMPQ-4E的长刃系列。
OMPQ-4E long cutting edge series

螺旋角 $\angle 38^\circ$ 直径公差 $D1\sim D6_{-0.02}^0 / D6\sim D14_{-0.025}^0 / D15\sim D20_{-0.03}^0$
helical angle diameter tolerance

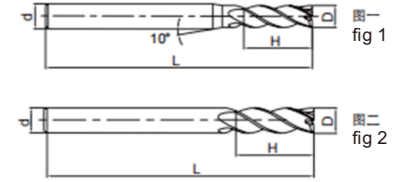


订货号 part number	基本尺寸 (mm) dimension (mm)				齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	d	H	L			
OMPQ-4E-030L	3.0	6	12	75	4	图一 fig 1	●
OMPQ-4E-040L	4.0	6	15	75	4	图一 fig 1	●
OMPQ-4E-050L	5.0	6	20	75	4	图一 fig 1	●
OMPQ-4E-060L	6.0	6	20	75	4	图二 fig 2	●
OMPQ-4E-080L	8.0	8	25	100	4	图二 fig 2	●
OMPQ-4E-100L	10.0	10	30	100	4	图二 fig 2	●
OMPQ-4E-120L	12.0	12	35	100	4	图二 fig 2	●
OMPQ-4E-140L	14.0	14	40	100	4	图二 fig 2	●
OMPQ-4E-160L	16.0	16	50	150	4	图二 fig 2	●
OMPQ-4E-200L	20.0	20	55	150	4	图二 fig 2	●

●常备库存 Stock available ▲按订单生产 Make-to-order

OMPQ-4EX 四刃直柄超长刃平头立铣刀

OMPQ-4EX 4 flute extra long cutting edge flat end mill



● OMPQ-4E的超长刃系列, 适用于深侧壁的加工。
OMPQ-4E extra long cutting edge series, Suitable for deep side machining.

螺旋角 $\angle 38^\circ$ 直径公差 $D1\sim D6_{-0.02}^0 / D6\sim D14_{-0.025}^0 / D15\sim D20_{-0.03}^0$
helical angle diameter tolerance



订货号 part number	基本尺寸 (mm) dimension (mm)				齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	d	H	L			
OMPQ-4E-030X	3.0	6	20	75	4	图一 fig 1	▲
OMPQ-4E-040X	4.0	6	25	75	4	图一 fig 1	▲
OMPQ-4E-050X	5.0	6	30	75	4	图一 fig 1	▲
OMPQ-4E-060X	6.0	6	30	75	4	图二 fig 2	▲
OMPQ-4E-080X	8.0	8	40	100	4	图二 fig 2	▲
OMPQ-4E-100X	10.0	10	50	110	4	图二 fig 2	▲
OMPQ-4E-120X	12.0	12	50	110	4	图二 fig 2	▲
OMPQ-4E-160X	16.0	16	70	150	4	图二 fig 2	▲
OMPQ-4E-200X	20.0	20	75	150	4	图二 fig 2	▲

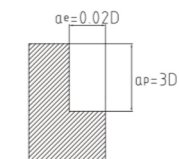
被加工材料 Workpiece material (○适合 suitable, ◎非常适合 very suitable)

碳素钢 Carbon steel	合金钢 Alloy steel	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel				不锈钢 Stainless steel	铸铁球 墨铸铁 Cast iron, nodular cast iron	铜合金 copper alloy	铝合金 Aluminum alloy	钛合金 titanium alloy	耐热合金 Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
◎	◎	◎	○			○	◎				

OMPQ-4EX 切削参数表
recommend cutting parameters

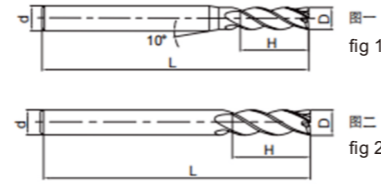
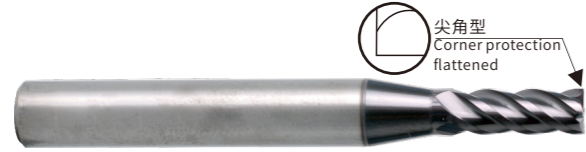
被加工材料 Workpiece material	铸铁球墨铸铁 Cast iron nodular cast		碳素钢 合金钢 Carbon steel, Alloy steel ~750N/mm ²		碳素钢 合金钢 Carbon steel, Alloy steel ~30HRC		预硬钢 调质钢 Pre-hardened steel, hardened and tempered steel ~40HRC		不锈钢 Stainless steel		预硬钢, 调质钢 Pre-hardened steel, hardened and tempered steel ~50HRC	
	直径 Diameter (mm)	转速 Rotating speed (min ⁻¹)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min ⁻¹)
6	5800	475	5800	475	5300	430	4250	340	2650	70	3600	290
8	4400	475	4400	475	4000	430	3180	340	2000	70	2700	290
10	3500	460	3500	460	3200	420	2550	330	1600	70	2150	280
12	2900	460	2900	460	2650	420	2120	330	1350	70	1800	280
16	2200	430	2200	430	2000	390	1590	315	1000	65	1350	260
20	1750	430	1750	430	1600	385	1270	310	800	60	1050	255

最大切深量
max. cutting depth



OMPQ-4D 尖角型四刃直柄平头立铣刀

OMPQ-4D Sharp flattened 4 flute straight shank flat end mill



- 适用于侧面铣削、浅槽加工。
Suitable for side milling and shallow slot machining.

螺旋角 $\angle 38^\circ$ 直径公差 $D1 \sim D6_{-0.02}^0 / D6 \sim D14_{-0.025}^0 / D15 \sim D20_{-0.03}^0$
helical angle diameter tolerance

订货号 part number	基本尺寸 (mm) dimension (mm)				齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	d	H	L			
OMPQ-4D-010S	1.0	4	3	50	4	图一 fig 1	▲
OMPQ-4D-010	1.0	6	3	50	4	图一 fig 1	▲
OMPQ-4D-015S	1.5	4	4	50	4	图一 fig 1	▲
OMPQ-4D-015	1.5	6	4	50	4	图一 fig 1	▲
OMPQ-4D-020S	2.0	4	6	50	4	图一 fig 1	▲
OMPQ-4D-020	2.0	6	6	50	4	图一 fig 1	▲
OMPQ-4D-025S	2.5	4	8	50	4	图一 fig 1	▲
OMPQ-4D-025	2.5	6	8	50	4	图一 fig 1	▲
OMPQ-4D-030S	3.0	4	8	50	4	图一 fig 1	▲
OMPQ-4D-030	3.0	6	8	50	4	图一 fig 1	▲
OMPQ-4D-035	3.5	6	10	50	4	图一 fig 1	▲
OMPQ-4D-040S	4.0	4	11	50	4	图二 fig 2	●
OMPQ-4D-040	4.0	6	11	50	4	图一 fig 1	▲
OMPQ-4D-045	4.5	6	11	50	4	图一 fig 1	▲
OMPQ-4D-050	5.0	6	13	50	4	图一 fig 1	▲
OMPQ-4D-055	5.5	6	16	50	4	图一 fig 1	▲
OMPQ-4D-060	6.0	6	16	50	4	图二 fig 2	●
OMPQ-4D-070	7.0	8	20	60	4	图一 fig 1	▲
OMPQ-4D-080	8.0	8	20	60	4	图二 fig 2	●
OMPQ-4D-090	9.0	10	22	75	4	图一 fig 1	▲
OMPQ-4D-100	10.0	10	25	75	4	图二 fig 2	●
OMPQ-4D-110	11.0	12	26	75	4	图一 fig 1	▲
OMPQ-4D-120	12.0	12	30	75	4	图二 fig 2	●
OMPQ-4D-140	14.0	14	32	75	4	图二 fig 2	▲
OMPQ-4D-160	16.0	16	45	100	4	图二 fig 2	●
OMPQ-4D-180	18.0	18	45	100	4	图二 fig 2	▲
OMPQ-4D-200	20.0	20	45	100	4	图二 fig 2	▲

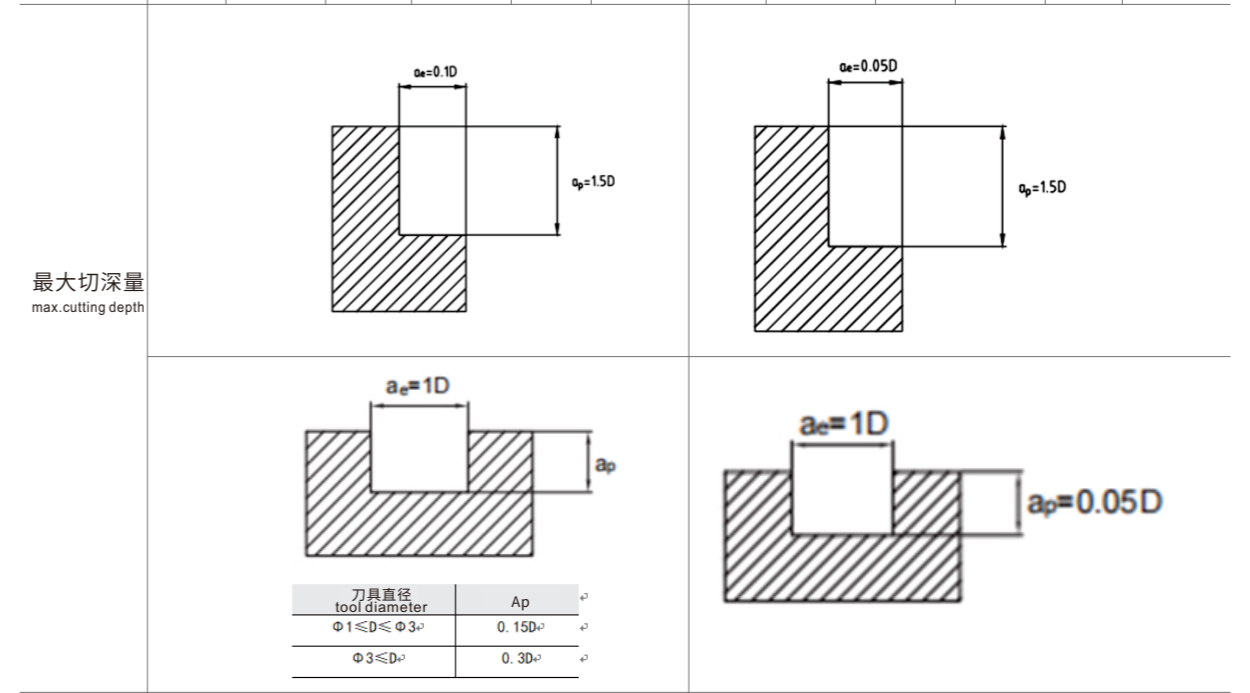
●常备库存 Stock available ▲按订单生产 Make-to-order

被加工材料 Workpiece material (○适合 suitable、◎非常适合 very suitable)

碳素钢 Carbon steel	合金钢 Alloy steel	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel				不锈钢 Stainless steel	铸铁球 墨铸铁 Cast iron, nodular cast iron	铜合金 copper alloy	铝合金 Aluminum alloy	钛合金 titanium alloy	耐热合金 Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
◎	◎	◎	○			○	◎				

OMPQ-4D/切削参数表
recommend cutting parameters

被加工材料 Workpiece material	铸铁球墨铸铁 Cast iron nodular cast		碳素钢 合金钢 Carbon steel, Alloy steel ~750N/mm ²		碳素钢 合金钢 Carbon steel, Alloy steel ~30HRC		预硬钢 调质钢 Pre-hardened steel, hardened and tempered steel ~40HRC		不锈钢 Stainless steel		预硬钢, 调质钢 Pre-hardened steel, hardened and tempered steel ~50HRC	
	直径 Diameter (mm)	转速 Rotating speed (min ⁻¹)	进给速度 Feedspeed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feedspeed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feedspeed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feedspeed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feedspeed (mm/min)	转速 Rotating speed (min ⁻¹)
1	20000	160	20000	160	20000	125	20000	125	20000	55	20000	95
2	15000	250	15000	250	15000	230	15000	230	11150	65	13000	140
3	14000	430	14000	430	13000	400	10600	400	7500	80	8500	260
4	10800	440	10800	440	10000	400	8000	400	5500	80	6500	265
5	8200	460	8200	460	7600	420	6400	420	4500	80	5000	280
6	7000	470	7000	470	6400	435	5300	435	3700	85	4200	285
8	5200	465	5200	465	4800	430	4000	430	2800	85	3200	290
10	4200	460	4200	460	3800	420	3200	420	2200	85	2500	275
12	3500	460	3500	460	3200	420	2650	420	1850	80	2100	275
14	3000	430	3000	430	2700	400	2300	400	1600	80	1800	260
16	2600	430	2600	430	2400	400	2000	400	1400	80	1600	260
18	2300	420	2300	420	2100	390	1800	390	1250	70	1400	255
20	2050	420	2050	420	1900	390	1600	390	1100	70	1250	255

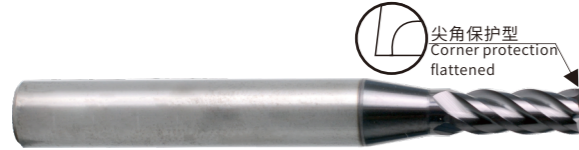


1. 上表是侧铣加工的标准值, 刀具切槽时, 转速要以上表的50%~70%, 进给速度要以40%~60%为标准值。
2. 请使用高精度的机床和刀柄。
3. 请使用空气冷却或不易产生烟雾的切削液。
4. 侧面铣削推荐顺铣加工。
5. 机床与工件安装刚性较差的情况下, 会产生振动和异常声音, 此时应将上表的转速与进给速度同比降低。
6. 在不干涉的条件下尽可能使刀具悬长最短。

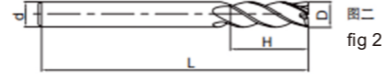
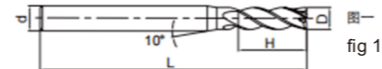
1. The above table shows the standard value of side milling. When milling slot, 50%~70% of rotating speed and 40%~60% of feed speed stated above are recommended as standard.
2. Please select high-precision machine and tool holder.
3. Please use air blow or cutting liquid with high mist retardant property.
4. Down milling is recommended in the case of side milling.
5. When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed speed stated above correspondingly.
6. Make overhang of tool as short as possible in conditions of non-interference.

OMPQ-4EH/G 四刃长柄/超长柄平头立铣刀

OMPQ-4EH/G 4 flute long shank/ extra long shank flat end mill



尖角保护型
Corner protection
flattened



- OMPQ-4E的长柄与超长柄系列, 适合深腔铣削。
OMPQ-4E long and extra long shank series for deep cavity milling.

螺旋角 $\angle 38^\circ$ 直径公差 $D1\sim D6_{-0.02}^0 / D6\sim D14_{-0.025}^0 / D15\sim D20_{-0.03}^0$
helical angle diameter tolerance



订货号 part number	基本尺寸 (mm) dimension (mm)				齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	d	H	L			
OMPQ-4E-030SH	3.0	4	8	75	4	图一 fig 1	▲
OMPQ--4E-030H	3.0	6	8	75	4	图一 fig 1	▲
OMPQ-4E-040SH	4.0	4	11	75	4	图二 fig 2	▲
OMPQ-4E-040H	4.0	6	11	75	4	图一 fig 1	▲
OMPQ-4E-060H	6.0	6	16	75	4	图二 fig 2	▲
OMPQ-4E-060G	6.0	6	16	100	4	图二 fig 2	▲
OMPQ-4E-080H	8.0	8	20	75	4	图二 fig 2	▲
OMPQ-4E-080G	8.0	8	20	100	4	图二 fig 2	▲
OMPQ-4E-100H	10.0	10	25	100	4	图二 fig 2	▲
OMPQ-4E-100G	10.0	10	25	150	4	图二 fig 2	▲
OMPQ-4E-120H	12.0	12	30	100	4	图二 fig 2	▲
OMPQ-4E-120G	12.0	12	30	150	4	图二 fig 2	▲

●常备库存Stock available ▲按订单生产Make-to-order

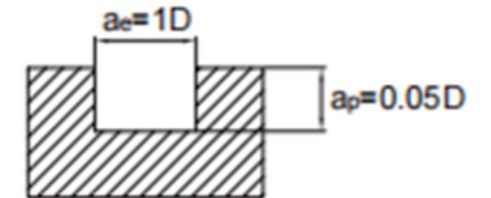
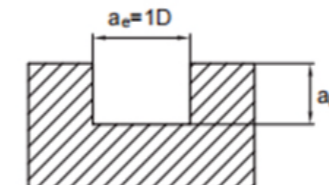
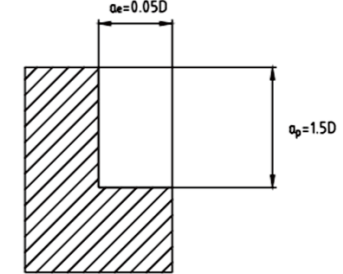
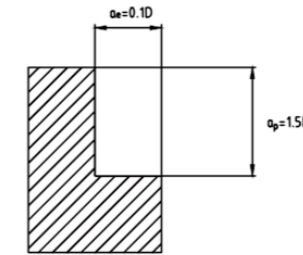
被加工材料Workpiece material (○适合suitable、◎非常适合very suitable)

碳素钢 Carbon steel	合金钢 Alloy steel	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel				不锈钢 Stainless steel	铸铁球 墨铸铁 Cast iron, nodular cast iron	铜合金 copper alloy	铝合金 Aluminum alloy	钛合金 titanium alloy	耐热合金 Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
◎	◎	◎	○			○	◎				

OMPQ-4E/4EL、G、H切削参数表
recommend cutting parameters

被加工材料 Workpiece material	铸铁球墨铸铁 Cast iron/nodular cast		碳素钢 合金钢 Carbon steel, Alloy steel ~750N/mm2		碳素钢 合金钢 Carbon steel, Alloy steel ~30HRC		预硬钢 调质钢 Pre-hardened steel, hardened and tempered steel ~40HRC		不锈钢 Stainless steel		预硬钢, 调质钢 Pre-hardened steel, hardened and tempered steel ~50HRC	
	直径 Diameter (mm)	转速 Rotating speed (min ⁻¹)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min ⁻¹)
1	20000	250	20000	250	20000	200	20000	200	20000	90	20000	150
2	15000	400	15000	400	15000	360	15000	350	11150	100	13000	225
3	14000	680	14000	680	13000	630	10600	525	7500	120	8500	410
4	10800	700	10800	700	10000	640	8000	535	5500	125	6500	420
5	8200	730	8200	730	7600	670	6400	560	4500	125	5000	440
6	7000	750	7000	750	6400	690	5300	575	3700	135	4200	450
8	5200	740	5200	740	4800	680	4000	565	2800	135	3200	460
10	4200	730	4200	730	3800	670	3200	560	2200	135	2500	435
12	3500	730	3500	730	3200	670	2650	560	1850	135	2100	435
14	3000	680	3000	680	2700	630	2300	525	1600	125	1800	410
16	2600	680	2600	680	2400	630	2000	525	1400	120	1600	410
18	2300	670	2300	670	2100	620	1800	515	1250	105	1400	405
20	2050	670	2050	670	1900	620	1600	515	1100	105	1250	405

最大切深量
max. cutting depth



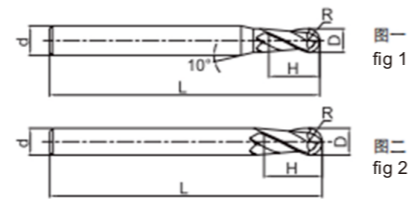
刀具直径 tool diameter	Ap
$\Phi 1 \leq D \leq \Phi 3$	0.15D
$\Phi 3 \leq D$	0.3D

1. 上表是侧铣加工的标准值, 刀具切槽时, 转速要以上表的50%~70% 进给速度要以40%~60%为标准值。
2. 请使用高精度的机床和刀柄。
3. 请使用空气冷却或不易产生烟雾的切削液。
4. 侧面铣削推荐顺铣加工。
5. 机床与工件安装刚性较差的情况下, 会产生振动和异常声音, 此时应将上表的转速与进给速度同比例降低。
6. 在不干涉的条件下尽可能使刀具悬长最短。

1. The above table shows the standard value of side milling. When milling slot, 50%~70% of rotating speed and 40%~60% of feed speed stated above are recommended as standard.
2. Please select high-precision machine and tool holder.
3. Please use air blow or cutting liquid with high mist retardant property.
4. Down milling is recommended in the case of side milling.
5. When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed speed stated above correspondingly.
6. Make overhang of tool as short as possible in conditions of non-interference.

OMPQ-2B 二刃直柄球头立铣刀

OMPQ-2B 2 flutes straight shank ball head end mill



- 适用于仿形铣削, 可作高速加工。
- 适用范围广泛。

Suitable for profile milling, and high speed machining, with wide range of applications.

螺旋角 $\angle 30^\circ$ 直径D公差 $^{0}_{-0.02}$ $R \pm 0.005$
helical angle diameter tolerance

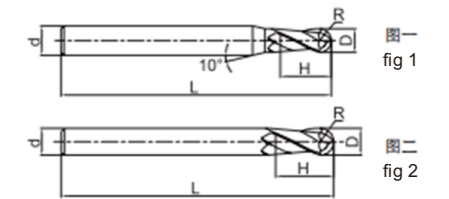


订货号 part number	基本尺寸 (mm) dimension (mm)					齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	R	d	H	L			
OMPQ-2B-010R0.5S	1	0.5	4	2	50	2	图一 fig 1	▲
OMPQ-2B-010R0.5	1	0.5	6	2	50	2	图一 fig 1	▲
OMPQ-2B-015R0.75S	1.5	0.75	4	3	50	2	图一 fig 1	▲
OMPQ-2B-015R0.75	1.5	0.75	6	3	50	2	图一 fig 1	▲
OMPQ-2B-020R1.0F	2	1	3	4	50	2	图一 fig 1	▲
OMPQ-2B-020R1.0S	2	1	4	4	50	2	图一 fig 1	▲
OMPQ-2B-020R1.0	2	1	6	4	50	2	图一 fig 1	▲
OMPQ-2B-025R1.25F	2.5	1.25	3	5	50	2	图一 fig 1	▲
OMPQ-2B-025R1.25S	2.5	1.25	4	5	50	2	图一 fig 1	▲
OMPQ-2B-025R1.25	2.5	1.25	6	5	50	2	图一 fig 1	▲
OMPQ-2B-030R1.5F	3	1.5	3	6	50	2	图二 fig 2	▲
OMPQ-2B-030R1.5S	3	1.5	4	6	50	2	图一 fig 1	●
OMPQ-2B-030R1.5	3	1.5	6	6	50	2	图一 fig 1	●
OMPQ-2B-035R1.75S	3.5	1.75	4	8	50	2	图一 fig 1	●
OMPQ-2B-035R1.75	3.5	1.75	6	8	50	2	图一 fig 1	●
OMPQ-2B-040R2.0S	4	2	4	8	50	2	图二 fig 2	●
OMPQ-2B-040R2.0	4	2	6	8	50	2	图一 fig 1	●
OMPQ-2B-050R2.5	5	2.5	6	10	50	2	图一 fig 1	●
OMPQ-2B-055R2.75	5.5	2.75	6	12	50	2	图一 fig 1	●
OMPQ-2B-060R3.0	6	3	6	12	50	2	图二 fig 2	●
OMPQ-2B-070R3.5	7	3.5	8	14	60	2	图一 fig 1	●
OMPQ-2B-080R4.0	8	4	8	16	60	2	图二 fig 2	●
OMPQ-2B-090R4.5	9	4.5	10	18	75	2	图一 fig 1	●
OMPQ-2B-100R5.0	10	5	10	20	75	2	图二 fig 2	●
OMPQ-2B-120R6.0	12	6	12	24	75	2	图二 fig 2	●
OMPQ-2B-140R7.0	14	7	14	28	75	2	图二 fig 2	●
OMPQ-2B-160R8.0	16	8	16	32	100	2	图二 fig 2	●
OMPQ-2B-200R10.0	20	10	20	40	100	2	图二 fig 2	●

●常备库存Stock available▲按订单生产Make-to-order

OMPQ-2BH/G 二刃长柄/超长柄球头立铣刀

OMPQ-2BH/G 2 flutes long shank/extra long shank ball head end mill



- OMPQ-2B的长柄、超长柄系列。
- OMPQ-2B long shank and extra long shank series

螺旋角 $\angle 30^\circ$ 直径D公差 $^{0}_{-0.02}$ $R \pm 0.005$
helical angle diameter tolerance



订货号 part number	基本尺寸 (mm) dimension (mm)					齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	R	d	H	L			
OMPQ-2B-020R1.0SH	2	1	4	4	75	2	图一 fig 1	●
OMPQ-2B-020R1.0H	2	1	6	4	75	2	图一 fig 1	●
OMPQ-2B-025R1.25SH	2.5	1.25	4	5	75	2	图一 fig 1	●
OMPQ-2B-025R1.25H	2.5	1.25	6	5	75	2	图一 fig 1	●
OMPQ-2B-030R1.5SH	3	1.5	4	6	75	2	图一 fig 1	●
OMPQ-2B-030R1.5H	3	1.5	6	6	75	2	图一 fig 1	●
OMPQ-2B-035R1.75SH	3.5	1.75	4	8	75	2	图一 fig 1	●
OMPQ-2B-035R1.75H	3.5	1.75	6	8	75	2	图一 fig 1	●
OMPQ-2B-040R2.0SH	4	2	4	8	75	2	图二 fig 2	●
OMPQ-2B-040R2.0H	4	2	6	8	75	2	图一 fig 1	●
OMPQ-2B-050R2.5H	5	2.5	6	10	75	2	图一 fig 1	●
OMPQ-2B-055R2.75H	5.5	2.75	6	12	75	2	图一 fig 1	●
OMPQ-2B-060R3.0H	6	3	6	12	75	2	图二 fig 2	●
OMPQ-2B-060R3.0G	6	3	6	12	100	2	图二 fig 2	●
OMPQ-2B-070R3.5H	7	3.5	8	14	75	2	图一 fig 1	●
OMPQ-2B-080R4.0H	8	4	8	16	75	2	图二 fig 2	●
OMPQ-2B-080R4.0G	8	4	8	16	100	2	图二 fig 2	●
OMPQ-2B-090R4.5H	9	4.5	10	18	100	2	图一 fig 1	●
OMPQ-2B-100R5.0H	10	5	10	20	100	2	图二 fig 2	●
OMPQ-2B-100R5.0G	10	5	10	20	150	2	图二 fig 2	●
OMPQ-2B-120R6.0H	12	6	12	24	100	2	图二 fig 2	●
OMPQ-2B-120R6.0G	12	6	12	24	150	2	图二 fig 2	●
OMPQ-2B-140R7.0H	14	7	14	28	100	2	图二 fig 2	●
OMPQ-2B-160R8.0H	16	8	16	32	150	2	图二 fig 2	●
OMPQ-2B-200R10.0H	20	10	20	40	150	2	图二 fig 2	●

被加工材料Workpiece material (○适合suitable、●非常适合very suitable)

碳素钢 Carbon steel	合金钢 Alloy steel	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel				不锈钢 Stainless steel	铸铁球 墨铸铁 Cast iron, nodular cast iron	铜合金 copper alloy	铝合金 Aluminum alloy	钛合金 titanium alloy	耐热合金 Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
○	○	○	○	○	○	○					

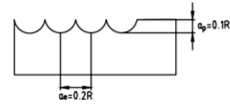
OMPQ-2BH/G 二刃长柄/超长柄球头立铣刀

OMPQ-2BH/G 2 flutes long shank/extra long shank ball head end mill

OMPQ-2BH切削参数表
recommend cutting parameters

被加工材料 Workpiece material	铸铁球墨铸铁 Cast iron/nodular cast		碳素钢 合金钢 Carbon steel, Alloy steel ~750N/mm2		碳素钢 合金钢 Carbon steel, Alloy steel ~30HRC		预硬钢 调质钢 Pre-hardened steel, hardened and tempered steel ~40HRC		不锈钢 Stainless steel		预硬钢, 调质钢 Pre-hardened steel, hardened and tempered steel ~50HRC	
	直径 Diameter (mm)	转速 Rotating speed (min ⁻¹)	进给速度 Feedspeed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feedspeed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feedspeed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feedspeed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feedspeed (mm/min)	转速 Rotating speed (min ⁻¹)
R0.5	40000	800	40000	800	38000	700	32000	320	22300	200	25000	275
R1.0	24000	900	24000	900	19000	760	16000	400	11150	230	13000	275
R1.5	15500	950	15500	950	12750	760	10600	450	7400	290	8500	280
R2.0	11500	950	11500	950	9550	760	8000	550	5550	370	6500	370
R2.5	9500	1050	9500	1050	7650	800	6400	550	4450	370	5000	375
R3.0	8000	1050	8000	1050	6400	800	5300	580	3700	390	4200	390
R4.0	6000	1300	6000	1300	4800	950	4000	700	2750	455	3200	440
R5.0	4800	1200	4800	1200	3800	900	3200	650	2200	430	2500	440
R6.0	4000	1100	4000	1100	3200	840	2650	610	1850	430	2100	420
R8.0	3000	1050	3000	1050	2400	800	2000	600	1350	380	1600	375
R10.0	2400	950	2400	950	1900	680	1600	560	1100	370	1250	330

最大切深量
max. cutting depth

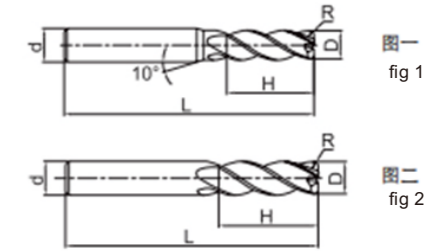


1. 请使用高精度的机床和刀柄。
2. 请使用空气冷却或不易产生烟雾的切削液。
3. 机床与工件安装刚性较差的情况下, 会产生振动和异常声音, 此时应将上表的转速与进给速度同比降低。
4. 在不干涉的条件下尽可能使刀具悬长最短。

1. Please select high-precision machine and tool holder.
2. Please use air cooling or liquid cooling (Smoke-resistant cutting fluid).
3. When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed rate stated above correspondingly.
4. Make overhang of tool as short as possible in conditions of non-interference.

OMPQ-4R 四刃直柄圆弧立铣刀

OMPQ-4R 4 flutes straight shank corner radius end mill



- 适用范围广泛, 可实现多种形态的加工。
Wide range of applications, able to achieve a variety of forms of processing

螺旋角 $\angle 38^\circ$ 直径公差 $D1\sim D6_{-0.02}^0 / D7\sim D12_{-0.025}^0$ 圆角 R 公差 ± 0.02
helical angle diameter tolerance radius R tolerance



订货号 part number	基本尺寸 (mm) dimension (mm)					齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	R	d	H	L			
OMPQ-4R-010R0.2S	1.0	0.2	4	3	50	4	图一 fig 1	▲
OMPQ-4R-015R0.2S	1.5	0.2	4	4	50	4	图一 fig 1	▲
OMPQ-4R-020R0.2S	2.0	0.2	4	6	50	4	图一 fig 1	▲
OMPQ-4R-020R0.5S	2.0	0.5	4	6	50	4	图一 fig 1	▲
OMPQ-4R-025R0.2S	2.5	0.2	4	8	50	4	图一 fig 1	▲
OMPQ-4R-025R0.5S	2.5	0.5	4	8	50	4	图一 fig 1	▲
OMPQ-4R-030R0.2S	3.0	0.2	4	8	50	4	图一 fig 1	●
OMPQ-4R-030R0.5S	3.0	0.5	4	8	50	4	图一 fig 1	●
OMPQ-4R-040R0.2S	4.0	0.2	4	11	50	4	图二 fig 2	●
OMPQ-4R-040R0.3S	4.0	0.3	4	11	50	4	图二 fig 2	●
OMPQ-4R-040R0.5	4.0	0.5	6	11	50	4	图二 fig 2	●
OMPQ-4R-040R0.5S	4.0	0.5	4	11	50	4	图二 fig 2	●
OMPQ-4R-050R0.2	5.0	0.2	6	13	50	4	图二 fig 2	●
OMPQ-4R-050R0.5	5.0	0.5	6	13	50	4	图一 fig 1	●
OMPQ-4R-050R1.0	5.0	1.0	6	13	50	4	图一 fig 1	●
OMPQ-4R-060R0.2	6.0	0.2	6	16	50	4	图一 fig 1	●
OMPQ-4R-060R0.3	6.0	0.3	6	16	50	4	图二 fig 2	●
OMPQ-4R-060R0.5	6.0	0.5	6	16	50	4	图二 fig 2	●
OMPQ-4R-060R1.0	6.0	1.0	6	16	50	4	图二 fig 2	●
OMPQ-4R-080R0.3	8.0	0.3	8	20	60	4	图二 fig 2	●
OMPQ-4R-080R0.5	8.0	0.5	8	20	60	4	图二 fig 2	●
OMPQ-4R-080R1.0	8.0	1.0	8	20	60	4	图二 fig 2	●
OMPQ-4R-100R0.3	10.0	0.3	10	25	75	4	图二 fig 2	●
OMPQ-4R-100R0.5	10.0	0.5	10	25	75	4	图二 fig 2	●
OMPQ-4R-100R1.0	10.0	1.0	10	25	75	4	图二 fig 2	●
OMPQ-4R-100R2.0	10.0	2.0	10	25	75	4	图二 fig 2	●
OMPQ-4R-100R3.0	10.0	3.0	10	25	75	4	图二 fig 2	●
OMPQ-4R-120R0.3	12.0	0.3	12	30	75	4	图二 fig 2	●
OMPQ-4R-120R0.5	12.0	0.5	12	30	75	4	图二 fig 2	●
OMPQ-4R-120R1.0	12.0	1.0	12	30	75	4	图二 fig 2	●
OMPQ-4R-120R2.0	12.0	2.0	12	30	75	4	图二 fig 2	●
OMPQ-4R-120R3.0	12.0	3.0	12	30	75	4	图二 fig 2	●

●常备库存 Stock available ▲按订单生产 Make-to-order

OMPQ-4RH/G 四刃长柄/超长柄圆弧立铣刀

OMPQ-4RH/G 4 flutes long shank / extra long shank corner radius end mill



- OMPQ-4R的长柄/超长柄系列。
OMPQ-4R long shank/extra shank series.

螺旋角 $\angle 38^\circ$ 直径公差 $D1\sim D6 \begin{smallmatrix} 0 \\ -0.02 \end{smallmatrix}$ / $D7\sim D12 \begin{smallmatrix} 0 \\ -0.025 \end{smallmatrix}$ 圆角 R 公差 ± 0.02
helical angle diameter tolerance radius

订货号 part number	基本尺寸 (mm) dimension (mm)					齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	R	d	H	L			
OMPQ-4R-040R0.2SH	4.0	0.2	4	10	75	4	图二 fig 2	●
OMPQ-4R-040R0.2H	4.0	0.2	6	10	75	4	图一 fig 2	●
OMPQ-4R-040R0.5SH	4.0	0.5	4	10	75	4	图二 fig 2	●
OMPQ-4R-040R0.5H	4.0	0.5	6	10	75	4	图一 fig 2	●
OMPQ-4R-060R0.2H	6.0	0.2	6	16	75	4	图二 fig 2	●
OMPQ-4R-060R0.2G	6.0	0.2	6	16	100	4	图二 fig 2	●
OMPQ-4R-060R0.5H	6.0	0.5	6	16	75	4	图二 fig 2	●
OMPQ-4R-060R0.5G	6.0	0.5	6	16	100	4	图二 fig 2	●
OMPQ-4R-060R1.0H	6.0	1.0	6	16	75	4	图二 fig 2	●
OMPQ-4R-060R1.0G	6.0	1.0	6	16	100	4	图二 fig 2	●
OMPQ-4R-080R0.2H	8.0	0.2	8	20	75	4	图二 fig 2	●
OMPQ-4R-080R0.2G	8.0	0.2	8	20	100	4	图二 fig 2	●
OMPQ-4R-080R0.5H	8.0	0.5	8	20	75	4	图二 fig 2	●
OMPQ-4R-080R0.5G	8.0	0.5	8	20	100	4	图二 fig 2	●
OMPQ-4R-080R1.0H	8.0	1.0	8	20	75	4	图二 fig 2	●
OMPQ-4R-080R1.0G	8.0	1.0	8	20	100	4	图二 fig 2	●
OMPQ-4R-100R0.2H	10.0	0.2	10	25	100	4	图二 fig 2	●
OMPQ-4R-100R0.2G	10.0	0.2	10	25	150	4	图二 fig 2	●
OMPQ-4R-100R0.5H	10.0	0.5	10	25	100	4	图二 fig 2	●
OMPQ-4R-100R0.5G	10.0	0.5	10	25	150	4	图二 fig 2	●
OMPQ-4R-100R1.0H	10.0	1.0	10	25	100	4	图二 fig 2	●
OMPQ-4R-100R1.0G	10.0	1.0	10	25	150	4	图二 fig 2	●
OMPQ-4R-100R2.0H	10.0	2.0	10	25	100	4	图二 fig 2	●
OMPQ-4R-100R2.0G	10.0	2.0	10	25	150	4	图二 fig 2	●
OMPQ-4R-120R0.2H	12.0	0.2	12	30	100	4	图二 fig 2	●
OMPQ-4R-120R0.2G	12.0	0.2	12	30	150	4	图二 fig 2	●
OMPQ-4R-120R0.5H	12.0	0.5	12	30	100	4	图二 fig 2	●
OMPQ-4R-120R0.5G	12.0	0.5	12	30	150	4	图二 fig 2	●
OMPQ-4R-120R1.0H	12.0	1.0	12	30	100	4	图二 fig 2	●
OMPQ-4R-120R1.0G	12.0	1.0	12	30	150	4	图二 fig 2	●
OMPQ-4R-120R2.0H	12.0	2.0	12	30	100	4	图二 fig 2	●
OMPQ-4R-120R2.0G	12.0	2.0	12	30	150	4	图二 fig 2	●

●常备库存 Stock available ▲按订单生产 Make-to-order

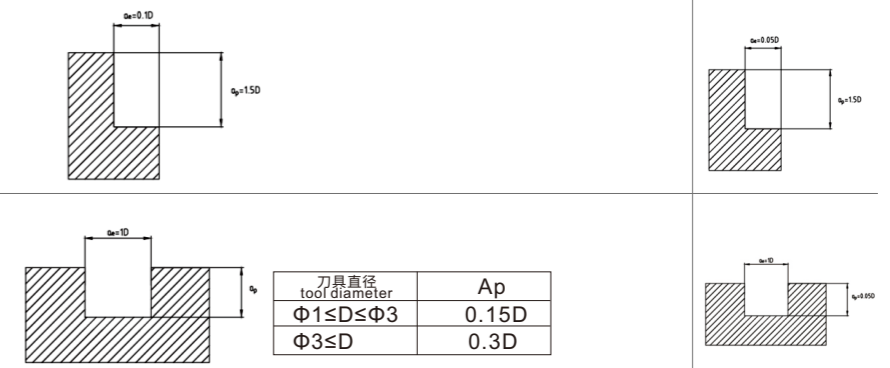
被加工材料 Workpiece material (○适合 suitable, ●非常适合 very suitable)

碳素钢 Carbon steel	合金钢 Alloy steel	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel				不锈钢 Stainless steel	铸铁球 墨铸铁 Cast iron, nodular cast iron	铜合金 copper alloy	铝合金 Aluminum alloy	钛合金 titanium alloy	耐热合金 Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
○	○	○	○			○	○				

OMPQ-4R切削参数表
recommend cutting parameters

被加工材料 Workpiece material	铸铁球墨铸铁 Cast iron/nodular cast		碳素钢 合金钢 Carbon steel, Alloy steel ~750N/mm2		碳素钢 合金钢 Carbon steel, Alloy steel ~30HRC		预硬钢 调质钢 Pre-hardened steel, hardened and tempered steel ~40HRC		不锈钢 Stainless steel		预硬钢, 调质钢 Pre-hardened steel, hardened and tempered steel ~50HRC	
	直径 Diameter (mm)	转速 Rotating speed (min ⁻¹)	进给速度 Feedspeed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feedspeed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feedspeed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feedspeed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feedspeed (mm/min)	转速 Rotating speed (min ⁻¹)
3	14000	820	14000	820	13000	755	10600	630	7500	145	8500	490
4	10800	840	10800	840	10000	770	8000	640	5500	145	6500	500
5	8200	880	8200	880	7600	810	6400	670	4500	145	5000	530
6	7000	900	7000	900	6400	830	5300	690	3700	160	4200	540
8	5200	890	5200	890	4800	815	4000	680	2800	160	3200	550
10	4200	880	4200	880	3800	810	3200	670	2200	160	2500	520
12	3500	880	3500	880	3200	810	2650	670	1850	160	2100	520
16	2600	680	2600	680	2400	630	2000	525	1400	120	1600	490

最大切深
max. cutting depth



1. 上表是侧铣加工的标准值, 刀具切槽时, 转速要以上表的50%~70% 进给速度要以40%~60%为标准值。
2. 请使用高精度的机床和刀柄。
3. 请使用空气冷却或不易产生烟雾的切削液。
4. 侧面铣削推荐顺铣加工。
5. 机床与工件安装刚性较差的情况下, 会产生振动和异常声音, 此时应将上表的转速与进给速度同比降低。
6. 在不干涉的条件下尽可能使刀具悬长最短。

1. The above table shows the standard value of side milling. When milling slot, 50%~70% of rotating speed and 40%~60% of feed speed stated above are recommended as standard.
2. Please select high-precision machine and tool holder.
3. Please use air cooling or liquid cooling (Smoke-resistant cutting fluid).
4. Climb cutting is recommended in the case of side milling.
5. When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed rate correspondingly.
6. Make overhang of tool as short as possible in conditions of non-interference.

OMPX高性能通用铣刀系列

OMPX high performance and wide application range

产品特点及应用范围

Product features and application range

该系列产品适用于硬度<HRC50的工件材料的高效切削。

OMPX is suitable for efficient cutting of workpiece hardness <HRC50

OMPX-4E

- ✓ 高抗弯曲力和耐热冲击性优良的微粒硬质基材；
- ✓ 耐磨损性和耐热性的涂层,在众多被加工材料中提高刀具寿命；
- ✓ 不等分不等螺旋角设计,发挥良好的防振效果.可广泛用于铸铁、模具钢、不锈钢、可伐合金、钛合金等难削材的加工抑制振动,实现了高速大进给、大切深高效加工。

OMPX-4R

曲面型圆弧前刀面设计,不但保证R角的精度情况下,而且圆弧出前角连续变化式设计,提高了刃口的强度,提高刀具寿命。

OMPX-2B

- ✓ 新涂层和微粒超硬母材的组合,提高刀具耐热性和耐磨损性；
- ✓ 曲线型刃口增强刃口强度,降低刃口切削阻力,提高耐磨性和抗崩能力；
- ✓ 球头刃齿隙角特殊设计,提高切屑排出性。

OMPX-4E

1Fine grain size hard substrate with high resistance to bending and excellent heat impact resistance. Wear-resistant and heat-resistant coating improves tool life in difference processed materials. Unequal spiral Angle design plays a good effect of vibration control. It is widely used in difficult cutting material such as cast iron, die steel, stainless steel, Kovar-alloy, titanium alloy etc, to achieve high speed, high feed, and large cutting depth processing.

OMPX-4R

The design of curved rake face ensures the accuracy of R corner, in addition, continuously changed design of rake face angle improves the strength of the cutting edge and provides better tool life.

OMPX-2B

The combination of new coating and ultra fine super-hard substrate improves the heat and wear resistance. Curvilinear cutting edge enhances cutting edge strength, reduces cutting resistance, and improves wear resistance and chipping resistance. The special design of the tooth space angle improves the chip discharge performance.

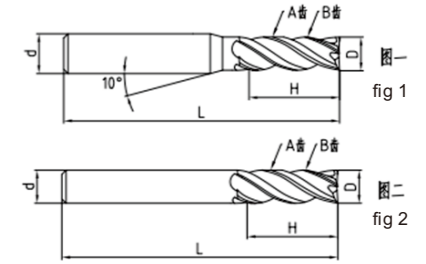


OMPX-4E 四刃直柄平头立铣刀

OMPX-4E 4 flutes straight shank flat end mill



尖角保护型
Corner protection
flattened



●最适宜侧面铣削,浅槽加工。●适用范围广

Most suitable for side milling and shallow groove processing. Wide applicability

A 齿螺旋角 $\angle 41^\circ$, B 齿螺旋角 $\angle 38^\circ$ 直径公差 $D1\sim D6_{-0.02}^0 / D7\sim D20_{-0.025}^0$

订货号 part number	基本尺寸(mm) dimension (mm)				齿数(z) Number of flutes	形式 Geometry	库存 stock
	D	d	H	L			
OMPX-4E-010S	1	4	3	50	4	图一 fig 1	●
OMPX-4E-015S	1.5	4	4	50	4	图一 fig 1	●
OMPX-4E-020S	2	4	6	50	4	图一 fig 1	●
OMPX-4E-025S	2.5	4	8	50	4	图一 fig 1	●
OMPX-4E-030S	3.0	4	8	50	4	图一 fig 1	●
OMPX-4E-025	2.5	6	8	50	4	图一 fig 1	●
OMPX-4E-030	3.0	6	8	50	4	图一 fig 1	●
OMPX-4E-035S	3.5	4	10	50	4	图一 fig 1	●
OMPX-4E-040S	4.0	4	11	50	4	图二 fig 2	●
OMPX-4E-035	3.5	6	10	50	4	图一 fig 1	●
OMPX-4E-040	4.0	6	11	50	4	图一 fig 1	●
OMPX-4E-045	4.5	6	11	50	4	图一 fig 1	●
OMPX-4E-050	5.0	6	13	50	4	图一 fig 1	●
OMPX-4E-055	5.5	6	16	50	4	图一 fig 1	●
OMPX-4E-060	6.0	6	16	50	4	图二 fig 2	●
OMPX-4E-070	7.0	8	20	60	4	图一 fig 1	●
OMPX-4E-080	8.0	8	20	60	4	图二 fig 2	●
OMPX-4E-090	9.0	10	22	75	4	图一 fig 1	●
OMPX-4E-100	10.0	10	25	75	4	图二 fig 2	●
OMPX-4E-110	11.0	12	26	75	4	图一 fig 1	●
OMPX-4E-120	12.0	12	30	75	4	图二 fig 2	●
OMPX-4E-140	14.0	14	32	75	4	图二 fig 2	●
OMPX-4E-160	16.0	16	45	100	4	图二 fig 2	●
OMPX-4E-180	18.0	18	45	100	4	图二 fig 2	●
OMPX-4E-200	20.0	20	45	100	4	图二 fig 2	●

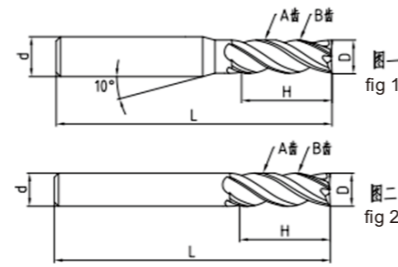
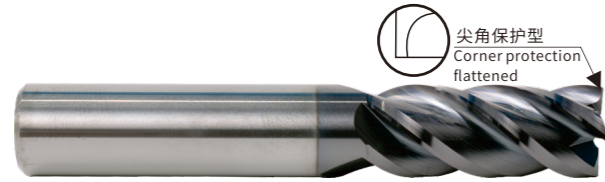
●常备库存Stock available▲按订单生产Make-to-order

被加工材料Workpiece material (○适合suitable、◎非常适合very suitable)

碳素钢 Carbon steel	合金钢 Alloy steel	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel				不锈钢 Stainless steel	铸铁球 墨铸铁 Cast iron, nodular cast iron	铜合金 copper alloy	铝合金 Aluminum alloy	钛合金 titanium alloy	耐热合金 Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
○	◎	◎	◎			◎	◎			◎	○

OMPX-4EL 四刃直柄长刃平头立铣刀

OMPX-4EL 4 flutes long cutting edge flat end mill



- OMPX-4E的长刃系列。
OMPX-4E Long cutting edge series

A 齿螺旋角 $\angle 41^\circ / 40^\circ / 39^\circ$, B 齿螺旋角 $\angle 38^\circ$ 直径公差 $D1 \sim D6 \begin{smallmatrix} 0 \\ -0.02 \end{smallmatrix}$ / $D7 \sim D20 \begin{smallmatrix} 0 \\ -0.025 \end{smallmatrix}$

订货号 part number	基本尺寸 (mm) dimension (mm)				齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	d	H	L			
OMPX-4E-030L	3.0	6	12	75	4	图一 fig 1	●
OMPX-4E-040L	4.0	6	15	75	4	图一 fig 1	●
OMPX-4E-050L	5.0	6	20	75	4	图一 fig 1	●
OMPX-4E-060L	6.0	6	20	75	4	图二 fig 2	●
OMPX-4E-080L	8.0	8	25	100	4	图二 fig 2	●
OMPX-4E-100L	10.0	10	30	100	4	图二 fig 2	●
OMPX-4E-120L	12.0	12	35	100	4	图二 fig 2	●
OMPX-4E-140L	14.0	14	40	100	4	图二 fig 2	●
OMPX-4E-160L	16.0	16	50	150	4	图二 fig 2	●
OMPX-4E-200L	20.0	20	55	150	4	图二 fig 2	●

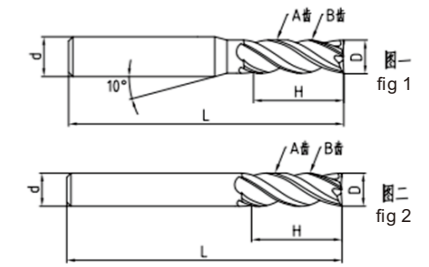
●常备库存 Stock available ▲按订单生产 Make-to-order

被加工材料 Workpiece material (○适合 suitable, ◎非常适合 very suitable)

碳素钢 Carbon steel	合金钢 Alloy steel	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel				不锈钢 Stainless steel	铸铁球 墨铸铁 Cast iron, nodular cast iron	铜合金 copper alloy	铝合金 Aluminum alloy	钛合金 titanium alloy	耐热合金 Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
◎	◎	◎	◎			◎	◎		◎	○	

OMPX-4EH/G 四刃长柄/超长柄平头立铣刀

OMPX-4EH/G 4 flutes long shank / extra long shank flat end mill



- OMPX-4E的长柄和超长柄系列。
OMPX-4E long shank / extra long shank series.

A 齿螺旋角 $\angle 41^\circ$, B 齿螺旋角 $\angle 38^\circ$ 直径公差 $D1 \sim D6 \begin{smallmatrix} 0 \\ -0.02 \end{smallmatrix}$ / $D7 \sim D12 \begin{smallmatrix} 0 \\ -0.025 \end{smallmatrix}$

订货号 part number	基本尺寸 (mm) dimension (mm)				齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	d	H	L			
OMPX-4E-030SH	3.0	4	8	75	4	图一 fig 1	●
OMPX-4E-030H	3.0	6	8	75	4	图一 fig 1	●
OMPX-4E-040SH	4.0	4	11	75	4	图二 fig 2	●
OMPX-4E-040H	4.0	6	11	75	4	图一 fig 1	●
OMPX-4E-050H	5.0	6	13	75	4	图一 fig 1	●
OMPX-4E-060H	6.0	6	16	75	4	图二 fig 2	●
OMPX-4E-060G	6.0	6	16	100	4	图二 fig 2	●
OMPX-4E-080H	8.0	8	20	75	4	图二 fig 2	●
OMPX-4E-080G	8.0	8	20	100	4	图二 fig 2	●
OMPX-4E-100H	10.0	10	25	100	4	图二 fig 2	●
OMPX-4E-100G	10.0	10	25	150	4	图二 fig 2	●
OMPX-4E-120H	12.0	12	30	100	4	图二 fig 2	●
OMPX-4E-120G	12.0	12	30	150	4	图二 fig 2	●

●常备库存 Stock available ▲按订单生产 Make-to-order

被加工材料 Workpiece material (○适合 suitable, ◎非常适合 very suitable)

碳素钢 Carbon steel	合金钢 Alloy steel	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel				不锈钢 Stainless steel	铸铁球 墨铸铁 Cast iron, nodular cast iron	铜合金 copper alloy	铝合金 Aluminum alloy	钛合金 titanium alloy	耐热合金 Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
◎	◎	◎	◎			◎	◎		◎	○	

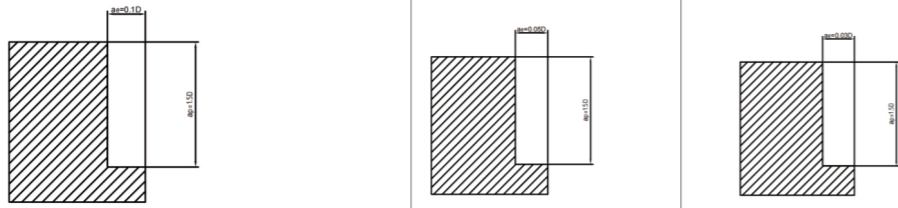
OMPX-4EH/G 四刃长柄/超长柄平头立铣刀

OMPX-4EH/G 4 flutes long shank /extra long shank flat end mill

OMPX-4E/4EL/4EH/4EG系列切削参数表(普通切削) recommend cutting parameters(Normal cutting)

被加工材料 Workpiece material	铸铁、碳素钢、合金钢 Cast iron, carbon steel, Alloy Steel ~30HRC		不锈钢 Stainless steel		预硬钢 调质钢 Pre-hardened steel, hardened and tempered steel ~40HRC		预硬钢 调质钢 Pre-hardened steel, hardened and tempered steel ~50HRC		淬硬钢 Quenched steel 55HRC	
	直径 (mm)	转速 (min ⁻¹)	进给速度 (mm/min)	转速 (min ⁻¹)	进给速度 (mm/min)	转速 (min ⁻¹)	进给速度 (mm/min)	转速 (min ⁻¹)	进给速度 (mm/min)	转速 (min ⁻¹)
1	20000	300	20000	108	20000	240	20000	180	20000	135
2	15000	480	11500	120	15000	420	13000	270	11140	195
3	14000	815	7500	145	10600	630	8500	495	7430	360
4	10800	840	5500	150	8000	645	6500	505	5570	370
5	8200	875	4500	150	6400	675	5000	530	4460	390
6	7000	900	3700	165	5300	690	4200	540	3710	390
8	5200	890	2800	165	4000	680	3200	555	2785	405
10	4200	875	2200	165	3200	675	2500	525	2230	375
12	3500	875	1850	165	2650	675	2100	525	1855	375
14	3000	815	1600	150	2300	630	1800	495	1590	360
16	2600	815	1400	145	2000	630	1600	495	1390	360
18	2300	805	1250	125	1800	620	1400	485	1240	350
20	2050	805	1100	125	1600	620	1250	485	1115	350

最大切深量
max. cutting depth



刀具直径 tool diameter	Ap
□ 1 ≤ D ≤ □ 3	0.15D
□ 3 ≤ D ≤ □ 6	0.3D
□ 6 ≤ D ≤ □ 20	0.5D

刀具直径 tool diameter	Ap
∅ 1 ≤ D ≤ ∅ 3	0.1D
∅ 3 ≤ D	0.3D

1. 上表是侧铣加工的标准值, 刀具切槽时, 转速要以上表的50%~70% 进给速度要以40%~60%为标准值。
2. 请使用高精度的机床和刀柄。
3. 请使用空气冷却或不易产生烟雾的切削液。
4. 侧面铣削推荐顺铣加工。
5. 机床与工件安装刚性较差的情况下, 会产生振动和异常声音, 此时应将上表的转速与进给速度同比降低。
6. 在不干涉的条件下尽可能使刀具悬长最短。

1. The above table shows the standard value of side milling. When milling slot, 50%~70% of rotating speed and 40%~60% of feed speed stated above are recommended as standard.
2. Please select high-precision machine and tool holder.
3. Please use air cooling or liquid cooling (Smoke-resistant cutting fluid).
4. Climb cutting is recommended in the case of side milling.
5. When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed rate stated above correspondingly.
6. Make overhang of tool as short as possible in conditions of non-interference.

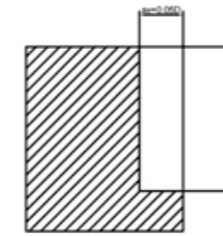
OMPX-4EH/G 四刃长柄/超长柄平头立铣刀

OMPX-4EH/G 4 flutes long shank /extra long shank flat end mill

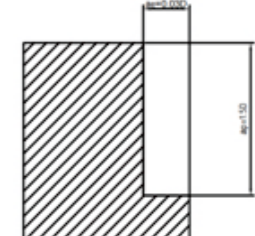
OMPX-4E/4EL/4EH/4EG系列切削参数表(高速切削) recommend cutting parameters(high speed cutting)

被加工材料 Workpiece material	铸铁、碳素钢、合金钢 Cast iron, carbon steel, Alloy Steel 30HRC		不锈钢 Stainless steel		预硬钢 调质钢 Pre-hardened steel, hardened and tempered steel 40HRC		预硬钢, 调质钢 Pre-hardened steel, hardened and tempered steel 50HRC		淬硬钢 Quenched steel 55HRC	
	直径 (mm)	转速 (min ⁻¹)	进给速度 (mm/min)	转速 (min ⁻¹)	进给速度 (mm/min)	转速 (min ⁻¹)	进给速度 (mm/min)	转速 (min ⁻¹)	进给速度 (mm/min)	转速 (min ⁻¹)
6	15915	1705	13260	1420	10600	1135	7960	850	5300	570
8	11935	1700	9950	1400	7960	1130	5970	850	3980	570
10	9550	1660	7960	1380	6370	1110	4775	830	3180	550
12	7960	1660	6630	1380	5300	1110	3980	830	2650	550
14	6820	1545	5685	1290	4550	1030	3410	900	2275	515
16	5970	1545	4975	1290	3980	1030	2985	900	1990	515
18	5305	1545	4420	1290	3540	1030	2650	900	1770	515
20	4775	1545	3980	1290	3180	1030	2390	900	1590	515

最大切深量
max. cutting depth



最大MAX ae=1.0mm



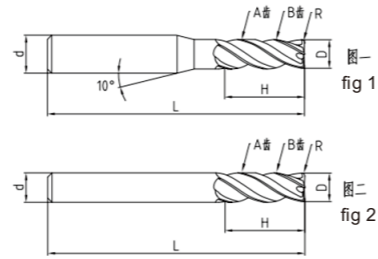
最大MAX ap=0.5mm

1. 请使用高精度的机床和刀柄。
2. 请使用空气冷却或MQL(最小量油雾冷却)。
3. 侧面铣削推荐顺铣加工。
4. 机床与工件安装刚性较差的情况下, 会产生振动和异常声音, 此时应将上表的转速与进给速度同比降低。
5. 在不干涉的条件下尽可能使刀具悬长最短。

1. Please select high-precision machine and tool holder.
2. Please use air cooling or MQL (minimum oil mist cooling)
3. climb milling is recommended in the case of side milling.
4. When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed rate stated above correspondingly.
5. Make overhang of tool as short as possible in conditions of non-interference.

OMPX-4R 四刃直柄圆弧立铣刀

OMPX-4R 4 flutes straight shank corner radius end mill



- 适用范围广泛, 可实现多种形态加工
wide range of applications, able to achieve various forms of processing

A 齿螺旋角 $\angle 41^\circ$, B 齿螺旋角 $\angle 38^\circ$ 直径公差 $D1\sim D6_{-0.02}^0 / D7\sim D12_{-0.025}^0$ $R \pm 0.01$



订货号 part number	基本尺寸 (mm) dimension (mm)					齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	R	H	L	d			
OMPX-4R-010R0.2S	1.0	0.2	3	50	4	4	图一 fig 1	▲
OMPX-4R-015R0.2S	1.5	0.2	4	50	4	4	图一 fig 1	▲
OMPX-4R-020R0.2S	2.0	0.2	6	50	4	4	图一 fig 1	▲
OMPX-4R-020R0.2	2.0	0.2	6	50	6	4	图一 fig 1	▲
OMPX-4R-020R0.5S	2.0	0.5	6	50	4	4	图一 fig 1	▲
OMPX-4R-020R0.5	2.0	0.5	6	50	6	4	图一 fig 1	▲
OMPX-4R-025R0.2S	2.5	0.2	8	50	4	4	图一 fig 1	▲
OMPX-4R-025R0.2	2.5	0.5	8	50	6	4	图一 fig 1	▲
OMPX-4R-025R0.5S	2.5	0.5	8	50	4	4	图一 fig 1	▲
OMPX-4R-025R0.5	2.5	0.5	8	50	6	4	图一 fig 1	▲
OMPX-4R-030R0.2S	3.0	0.2	8	50	4	4	图一 fig 1	●
OMPX-4R-030R0.2	3.0	0.2	8	50	6	4	图一 fig 1	●
OMPX-4R-030R0.5S	3.0	0.5	8	50	4	4	图一 fig 1	●
OMPX-4R-030R0.5	3.0	0.5	8	50	6	4	图一 fig 1	●
OMPX-4R-040R0.2S	4.0	0.2	11	50	4	4	图二 fig 2	●
OMPX-4R-040R0.2	4.0	0.2	11	50	6	4	图一 fig 1	●
OMPX-4R-040R0.3S	4.0	0.3	11	50	4	4	图二 fig 2	●
OMPX-4R-040R0.3	4.0	0.3	11	50	6	4	图一 fig 1	●
OMPX-4R-040R0.5S	4.0	0.5	11	50	4	4	图二 fig 2	●
OMPX-4R-040R0.5	4.0	0.5	11	50	6	4	图一 fig 1	●
OMPX-4R-050R0.2	5.0	0.2	13	50	6	4	图一 fig 1	●
OMPX-4R-050R0.3	5.0	0.3	13	50	6	4	图一 fig 1	●
OMPX-4R-050R0.5	5.0	0.5	13	50	6	4	图一 fig 1	●
OMPX-4R-050R1.0	5.0	1.0	13	50	6	4	图一 fig 1	●
OMPX-4R-060R0.2	6.0	0.2	16	50	6	4	图二 fig 2	●
OMPX-4R-060R0.3	6.0	0.3	16	50	6	4	图二 fig 2	●
OMPX-4R-060R0.5	6.0	0.5	16	50	6	4	图二 fig 2	●
OMPX-4R-060R1.0	6.0	1.0	16	50	6	4	图二 fig 2	●
OMPX-4R-080R0.2	8.0	0.2	20	60	8	4	图二 fig 2	●
OMPX-4R-080R0.3	8.0	0.3	20	60	8	4	图二 fig 2	●
OMPX-4R-080R0.5	8.0	0.5	20	60	8	4	图二 fig 2	●
OMPX-4R-080R1.0	8.0	1.0	20	60	8	4	图二 fig 2	●
OMPX-4R-100R0.2	10.0	0.2	25	75	10	4	图二 fig 2	●
OMPX-4R-100R0.3	10.0	0.3	25	75	10	4	图二 fig 2	●

●常备库存Stock available▲按订单生产Make-to-order

订货号 part number	基本尺寸 (mm) dimension (mm)					齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	R	H	L	d			
OMPX-4R-100R0.5	10.0	0.5	25	75	10	4	图二 fig 2	●
OMPX-4R-100R1.0	10.0	1.0	25	75	10	4	图二 fig 2	●
OMPX-4R-100R2.0	10.0	2.0	25	75	10	4	图二 fig 2	●
OMPX-4R-100R3.0	10.0	3.0	25	75	10	4	图二 fig 2	●
OMPX-4R-120R0.2	12.0	0.2	30	75	12	4	图二 fig 2	●
OMPX-4R-120R0.3	12.0	0.3	30	75	12	4	图二 fig 2	●
OMPX-4R-120R0.5	12.0	0.5	30	75	12	4	图二 fig 2	●
OMPX-4R-120R1.0	12.0	1.0	30	75	12	4	图二 fig 2	●
OMPX-4R-120R2.0	12.0	2.0	30	75	12	4	图二 fig 2	●
OMPX-4R-120R3.0	12.0	3.0	30	75	12	4	图二 fig 2	●

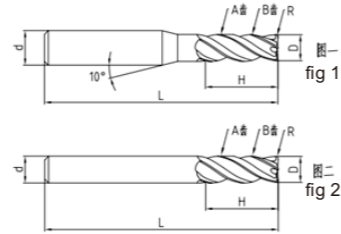
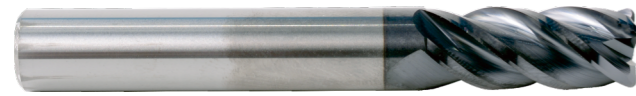
●常备库存Stock available▲按订单生产Make-to-order

被加工材料Workpiece material (○适合suitable、◎非常适合very suitable)

碳素钢 Carbon steel	合金钢 Alloy steel	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel				不锈钢 Stainless steel	铸铁球 墨铸铁 nodular cast iron	铜合金 copper alloy	铝合金 Aluminum alloy	钛合金 titanium alloy	耐热合金 Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
◎	◎	◎	◎			◎	◎			◎	○

OMPX-4RH/G 四刃长柄/超长柄圆弧立铣刀

OMPX-4RH/G 4 flutes long shank/extra long corner radius end mill



● OMPX-4R的长柄/超长柄系列
long shank/Extra long shank series

A 齿螺旋角 $\angle 41^\circ$, B 齿螺旋角 $\angle 38^\circ$ 直径公差 $D1\sim D6_{-0.02}^0 / D7\sim D12_{-0.025}^0 R\pm 0.01$

订货号 part number	基本尺寸 (mm) dimension (mm)					齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	R	H	L	d			
OMPX-4R-040R0.2SH	4.0	0.2	10	75	4	4	图二 fig 2	▲
OMPX-4R-040R0.2H	4.0	0.2	10	75	6	4	图一 fig 1	▲
OMPX-4R-040R0.5SH	4.0	0.5	10	75	4	4	图二 fig 2	▲
OMPX-4R-040R0.5H	4.0	0.5	10	75	6	4	图一 fig 1	▲
OMPX-4R-060R0.2H	6.0	0.2	16	75	6	4	图二 fig 2	▲
OMPX-4R-060R0.2G	6.0	0.2	16	100	6	4	图二 fig 2	▲
OMPX-4R-060R0.5H	6.0	0.5	16	75	6	4	图二 fig 2	▲
OMPX-4R-060R0.5G	6.0	0.5	16	100	6	4	图二 fig 2	▲
OMPX-4R-060R1.0H	6.0	1.0	16	75	6	4	图二 fig 2	▲
OMPX-4R-060R1.0G	6.0	1.0	16	100	6	4	图二 fig 2	▲
OMPX-4R-080R0.2H	8.0	0.2	20	75	8	4	图二 fig 2	▲
OMPX-4R-080R0.2G	8.0	0.2	20	100	8	4	图二 fig 2	▲
OMPX-4R-080R0.5H	8.0	0.5	20	75	8	4	图二 fig 2	▲
OMPX-4R-080R0.5G	8.0	0.5	20	100	8	4	图二 fig 2	▲
OMPX-4R-080R1.0H	8.0	1.0	20	75	8	4	图二 fig 2	▲
OMPX-4R-080R1.0G	8.0	1.0	20	100	8	4	图二 fig 2	▲
OMPX-4R-100R0.2H	10.0	0.2	25	100	10	4	图二 fig 2	▲
OMPX-4R-100R0.2G	10.0	0.2	25	150	10	4	图二 fig 2	▲
OMPX-4R-100R0.5H	10.0	0.5	25	100	10	4	图二 fig 2	▲
OMPX-4R-100R0.5G	10.0	0.5	25	150	10	4	图二 fig 2	▲
OMPX-4R-100R1.0H	10.0	1.0	25	100	10	4	图二 fig 2	▲
OMPX-4R-100R1.0G	10.0	1.0	25	150	10	4	图二 fig 2	▲
OMPX-4R-100R2.0H	10.0	2.0	25	100	10	4	图二 fig 2	▲
OMPX-4R-100R2.0G	10.0	2.0	25	150	10	4	图二 fig 2	▲
OMPX-4R-120R0.2H	12.0	0.2	30	100	12	4	图二 fig 2	▲
OMPX-4R-120R0.2G	12.0	0.2	30	150	12	4	图二 fig 2	▲
OMPX-4R-120R0.5H	12.0	0.5	30	100	12	4	图二 fig 2	▲
OMPX-4R-120R0.5G	12.0	0.5	30	150	12	4	图二 fig 2	▲
OMPX-4R-120R1.0H	12.0	1.0	30	100	12	4	图二 fig 2	▲
OMPX-4R-120R1.0G	12.0	1.0	30	150	12	4	图二 fig 2	▲
OMPX-4R-120R2.0H	12.0	2.0	30	100	12	4	图二 fig 2	▲
OMPX-4R-120R2.0G	12.0	2.0	30	150	12	4	图二 fig 2	▲

●常备库存Stock available▲按订单生产Make-to-order

被加工材料Workpiece material (○适合suitable、◎非常适合very suitable)

碳素钢 Carbon steel	合金钢 Alloy steel	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel				不锈钢 Stainless steel	铸铁球 墨铸铁 Cast iron, nodular cast iron	铜合金 copper alloy	铝合金 Aluminum alloy	钛合金 titanium alloy	耐热合金 Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
◎	◎	◎	◎			◎	◎			◎	○

OMPX-4RH/G 四刃长柄/超长柄圆弧立铣刀

OMPX-4RH/G 4 flutes long shank/extra long corner radius end mill

OMPX-4R/4RH/4RG系列切削参数表 recommend cutting parameters(普通切削normal cutting)

被加工材料 Workpiece material	铸铁、碳素钢、合金钢 Cast iron, carbon steel, Alloy Steel 30HRC		不锈钢 Stainless steel		预硬钢 调质钢 Pre-hardened steel, hardened and tempered steel 40HRC		预硬钢, 调质钢 Pre-hardened steel, hardened and tempered steel ~50HRC		淬硬钢 Quenched steel 55HRC	
	直径 Diameter (mm)	转速 Rotating speed (min ⁻¹)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min ⁻¹)
3	14000	985	7500	175	10600	755	8500	590	7430	435
4	10800	1010	5500	175	8000	770	6500	600	5570	445
5	8200	1055	4500	175	6400	805	5000	640	4460	470
6	7000	1080	3700	195	5300	830	4200	650	3710	470
8	5200	1070	2800	195	4000	815	3200	660	2785	485
10	4200	1055	2200	195	3200	805	2500	625	2230	450
12	3500	1055	1850	195	2650	805	2100	625	1855	450
16	2600	985	1400	175	2000	755	1600	590	1390	435

最大切深量
max. cutting depth

刀具直径 tool diameter	Ap
∅1 ≤ D ≤ ∅3	0.15D
∅3 ≤ D ≤ ∅6	0.3D
∅6 ≤ D ≤ ∅20	0.5D

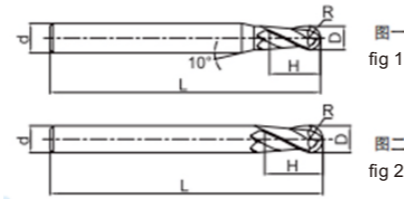
刀具直径 tool diameter	Ap
∅1 ≤ D ≤ ∅3	0.1D
∅3 ≤ D	0.2D

1. 上表是侧铣加工的标准值, 刀具切槽时, 转速要以上表的50%~70%, 进给速度要以40%~60%为标准值。
2. 请使用高精度的机床和刀柄。
3. 请使用空气冷却或不易产生烟雾的切削液。
4. 侧面铣削推荐顺铣加工。
5. 机床与工件安装刚性较差的情况下, 会产生振动和异常声音, 此时应将上表的转速与进给速度同比降低。
6. 在不干涉的条件下尽可能使刀具悬长最短。

1. The above table shows the standard value of side milling. When milling slot, 50%~70% of rotating speed and 40%~60% of feed speed stated above are recommended as standard.
2. Please select high-precision machine and tool holder.
3. Please use air cooling or liquid cooling (Smoke-resistant cutting fluid).
4. Climb milling is recommended in the case of side milling.
5. When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed rate stated above correspondingly.
6. Make overhang of tool as short as possible in conditions of non-interference.

OMPX-2B 二刃直柄球头立铣刀

OMPX-2B 2 flutes straight shank ball head end mill



- 适用范围广泛, 可实现多种形态加工
wide range of applications, able to achieve various forms of processing

螺旋角 $\angle 30^\circ$ 直径公差 $D1 \sim D20 \begin{smallmatrix} 0 \\ -0.02 \end{smallmatrix}$ $R \pm 0.005$
helical angle diameter tolerance



订货号 part number	基本尺寸 (mm) dimension (mm)					齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	R	H	L	d			
OMPX-2B-010R0.5S	1.0	0.5	2	50	4	2	图一 fig 1	▲
OMPX-2B-010R0.5	1.0	0.5	2	50	6	2	图一 fig 1	▲
OMPX-2B-015R0.75S	1.5	0.75	3	50	4	2	图一 fig 1	▲
OMPX-2B-015R0.75	1.5	0.75	3	50	6	2	图一 fig 1	▲
OMPX-2B-020R1.0F	2.0	1.0	4	50	3	2	图一 fig 1	●
OMPX-2B-020R1.0S	2.0	1.0	4	50	4	2	图一 fig 1	●
OMPX-2B-020R1.0	2.0	1.0	4	50	6	2	图一 fig 1	●
OMPX-2B-025R1.25F	2.5	1.25	5	50	3	2	图一 fig 1	●
OMPX-2B-025R1.25S	2.5	1.25	5	50	4	2	图一 fig 1	●
OMPX-2B-025R1.25	2.5	1.25	5	50	6	2	图一 fig 1	●
OMPX-2B-030R1.5F	3.0	1.5	6	50	3	2	图二 fig 2	●
OMPX-2B-030R1.5S	3.0	1.5	6	50	4	2	图一 fig 1	●
OMPX-2B-030R1.5	3.0	1.5	6	50	6	2	图一 fig 1	●
OMPX-2B-035R1.75S	3.5	1.75	8	50	4	2	图一 fig 1	●
OMPX-2B-035R1.75	3.5	1.75	8	50	6	2	图一 fig 1	●
OMPX-2B-040R2.0S	4.0	2.0	8	50	4	2	图二 fig 2	●
OMPX-2B-040R2.0	4.0	2.0	8	50	6	2	图一 fig 1	●
OMPX-2B-050R2.5	5.0	2.5	10	50	6	2	图一 fig 1	●
OMPX-2B-055R2.75	5.5	2.75	12	50	6	2	图一 fig 1	●
OMPX-2B-060R3.0	6.0	3.0	12	50	6	2	图二 fig 2	●
OMPX-2B-070R3.5	7.0	3.5	14	60	8	2	图一 fig 1	●
OMPX-2B-080R4.0	8.0	4.0	16	60	8	2	图二 fig 2	●
OMPX-2B-090R4.5	9.0	4.5	18	75	10	2	图一 fig 1	●
OMPX-2B-100R5.0	10.0	5.0	20	75	10	2	图二 fig 2	●
OMPX-2B-120R6.0	12.0	6.0	24	75	12	2	图二 fig 2	●
OMPX-2B-140R7.0	14.0	7.0	28	75	14	2	图二 fig 2	●
OMPX-2B-160R8.0	16.0	8.0	32	100	16	2	图二 fig 2	●
OMPX-2B-200R10.0	20.0	10.0	40	100	20	2	图二 fig 2	●

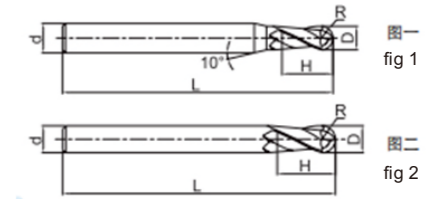
●常备库存 Stock available ▲按订单生产 Make-to-order

被加工材料 Workpiece material (○适合 suitable、◎非常适合 very suitable)

碳素钢 Carbon steel	合金钢 Alloy steel	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel				不锈钢 Stainless steel	铸铁球 墨铸铁 Cast iron, nodular cast iron	铜合金 copper alloy	铝合金 Aluminum alloy	钛合金 titanium alloy	耐热合金 Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
◎	◎	◎	◎			○	◎			○	

OMPX-2BH/G 二刃长柄/超长柄球头立铣刀

OMPX-2BH/G 2 flutes long shank/extra long shank ball head end mill



- OMPX-2B的长柄/超长柄系列
OMPX-2B Long shank/Extra long shank series

螺旋角 $\angle 30^\circ$ 直径公差 $D1 \sim D20 \begin{smallmatrix} 0 \\ -0.02 \end{smallmatrix}$ $R \pm 0.005$
helical angle diameter tolerance



订货号 part number	基本尺寸 (mm) dimension (mm)					齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	R	H	L	d			
OMPX-2B-020R1.0SH	2.0	1.0	4	75	4	2	图一 fig 1	▲
OMPX-2B-020R1.0H	2.0	1.0	4	75	6	2	图一 fig 1	▲
OMPX-2B-025R1.25SH	2.5	1.25	5	75	4	2	图一 fig 1	▲
OMPX-2B-025R1.25H	2.5	1.25	5	75	6	2	图一 fig 1	▲
OMPX-2B-030R1.5SH	3.0	1.5	6	75	4	2	图一 fig 1	▲
OMPX-2B-030R1.5H	3.0	1.5	6	75	6	2	图一 fig 1	▲
OMPX-2B-035R1.75SH	3.5	1.75	8	75	4	2	图一 fig 1	▲
OMPX-2B-035R1.75H	3.5	1.75	8	75	6	2	图一 fig 1	▲
OMPX-2B-040R2.0SH	4.0	2.0	8	75	4	2	图二 fig 2	▲
OMPX-2B-040R2.0H	4.0	2.0	8	75	6	2	图一 fig 1	▲
OMPX-2B-050R2.5H	5.0	2.5	10	75	6	2	图一 fig 1	▲
OMPX-2B-055R2.75H	5.5	2.75	12	75	6	2	图一 fig 1	▲
OMPX-2B-060R3.0H	6.0	3.0	12	75	6	2	图二 fig 2	▲
OMPX-2B-060R3.0G	6.0	3.0	12	100	6	2	图二 fig 2	▲
OMPX-2B-070R3.5H	7.0	3.5	14	75	8	2	图一 fig 1	▲
OMPX-2B-080R4.0H	8.0	4.0	16	75	8	2	图二 fig 2	▲
OMPX-2B-080R4.0G	8.0	4.0	16	100	8	2	图二 fig 2	▲
OMPX-2B-090R4.5H	9.0	4.5	18	100	10	2	图一 fig 1	▲
OMPX-2B-100R5.0H	10.0	5.0	20	100	10	2	图二 fig 2	▲
OMPX-2B-100R5.0G	10.0	5.0	20	150	10	2	图二 fig 2	▲
OMPX-2B-120R6.0H	12.0	6.0	24	100	12	2	图二 fig 2	▲
OMPX-2B-120R6.0G	12.0	6.0	24	150	12	2	图二 fig 2	▲
OMPX-2B-140R7.0H	14.0	7.0	28	100	14	2	图二 fig 2	▲
OMPX-2B-160R8.0H	16.0	8.0	32	150	16	2	图二 fig 2	▲
OMPX-2B-200R10.0H	20.0	10.0	32	150	20	2	图二 fig 2	▲

●常备库存 Stock available ▲按订单生产 Make-to-order

被加工材料 Workpiece material (○适合 suitable、◎非常适合 very suitable)

碳素钢 Carbon steel	合金钢 Alloy steel	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel				不锈钢 Stainless steel	铸铁球 墨铸铁 Cast iron, nodular cast iron	铜合金 copper alloy	铝合金 Aluminum alloy	钛合金 titanium alloy	耐热合金 Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
◎	◎	◎	◎			○	◎			○	

OMPX-2B/2BG/2BH系列切削参数表 recommend cutting parameters(普通切削normal cutting)

被加工材料 Workpiece material	铸铁、碳素钢、合金钢 Cast iron, carbon steel, Alloy Steel 30HRC		不锈钢 Stainless steel		预硬钢 调质钢 Pre-hardened steel, hardened and tempered steel 40HRC		预硬钢, 调质钢 Pre-hardened steel, hardened and tempered steel ~50HRC		淬硬钢 Quenched steel 55HRC	
	直径 Diameter (mm)	转速 Rotating speed (min ⁻¹)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min ⁻¹)
R0.5	40000	960	22300	240	32000	385	25000	330	22280	295
R1.0	24000	1080	11150	275	16000	480	13000	330	11140	295
R1.5	15500	1150	7400	350	10600	545	8500	335	7430	295
R2.0	11500	1150	5550	445	8000	665	6500	450	5570	385
R2.5	9500	1270	4450	445	6400	665	5000	455	4455	405
R3.0	8000	1270	3700	470	5300	700	4200	470	3715	420
R4.0	6000	1575	2750	550	4000	850	3200	535	2785	465
R5.0	4800	1455	2200	520	3200	785	2500	535	2230	465
R6.0	4000	1330	1850	520	2650	740	2100	505	1855	450
R8.0	3000	1270	1350	455	2000	725	1600	455	1395	395
R10.0	2400	1150	1100	445	1600	675	1250	400	1115	360

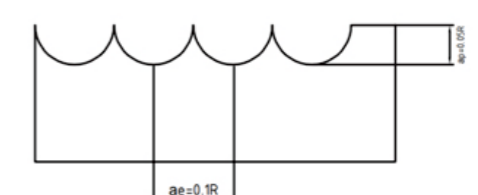
1. 请使用高精度的机床和刀柄。
2. 请使用空气冷却或不易产生烟雾的切削液。
3. 机床与工件安装刚性较差的情况下, 会产生振动和异常声音, 此时应将上表的转速与进给速度同比降低。
4. 在不干涉的条件下尽可能使刀具悬长最短。

1 Please select high-precision machine and tool holder.
 2 Please use air cooling or MQL (minimum oil mist cooling)
 3 When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated.
 4 Please reduce the rotating speed and feed rate stated above correspondingly.
 Make overhang of tool as short as possible in conditions of non-interferen

OMPX-2B/2BH系列切削参数表 recommend cutting parameters(高速切削high speed cutting)

被加工材料 Workpiece material	铸铁、碳素钢、合金钢 Cast iron, carbon steel, Alloy Steel 30HRC		不锈钢 Stainless steel		预硬钢 调质钢 Pre-hardened steel, hardened and tempered steel 40HRC		预硬钢, 调质钢 Pre-hardened steel, hardened and tempered steel ~50HRC		淬硬钢 Quenched steel 55HRC	
	直径 Diameter (mm)	转速 Rotating speed (min ⁻¹)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min ⁻¹)
R3.0	15000	4800	11500	2750	9500	2250	7960	1885	6370	1510
R4.0	11500	3650	8950	2100	7150	1700	5970	1420	4775	1135
R5.0	9500	3000	7150	1700	5700	1350	4775	1130	3820	905
R6.0	7950	2500	5950	1400	4750	1100	3980	920	3180	735
R8.0	5950	1900	4450	1050	3550	850	2985	760	2390	610
R10.0	4750	1500	3550	850	2850	680	2390	570	1910	455

最大切深量
max. cutting depth



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

1 Please select high-precision machine and tool holder.
 2 Please use air cooling or MQL (minimum oil mist cooling)
 3 When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated.
 4 Please reduce the rotating speed and feed rate stated above correspondingly.
 Make overhang of tool as short as possible in conditions of non-interferen

OMH淬火钢加工铣刀系列

OMH series for quenched steel

产品特点及应用范围

Product features and application range

该系列产品适用于<55HRC钢材、淬火钢的半精加工、精加工；
The series are suitable for semi-finishing and finishing of steel <HRC55 and quenched steel；

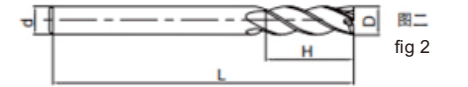
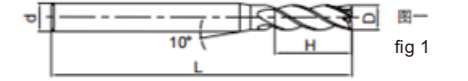
- 1.高刚性的刀具结构设计,有效减少刀具加工过程中的振动；
- 2.高强度、高韧性的基体材质配合新高硬专用涂层,有效延长刀具使用寿命,使被加工工件表面质量更佳。

1. High rigidity tool structure design, effectively reduces the vibration in the process of tool machining;
2. High strength, high toughness substrate with new high hard special coating, effectively prolongs the tool life, also gives better workpiece surface quality.



OMH-4E 四刃直柄平头立铣刀

OMH-4E 4 flutes straight flat head end mill



- 适用于侧面铣削、浅槽加工。 ● 最适于高速铣削、干试铣削。
Suitable for side milling and shallow slot milling.
Most suitable for high speed milling and dry milling.

螺旋角 $\angle 45^\circ$ 直径公差 $D1\sim D6_{-0.02}^0 / D6\sim D14_{-0.025}^0 / D15\sim D20_{-0.03}^0$
helical angle diameter tolerance



订货号 part number	基本尺寸 (mm) dimension (mm)				齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	d	H	L			
OMH-4E-010F	1.0	3	3	50	4	图一 fig 1	●
OMH-4E-010S	1.0	4	3	50	4	图一 fig 1	●
OMH-4E-010	1.0	6	3	50	4	图一 fig 1	●
OMH-4E-015F	1.5	3	4	50	4	图一 fig 1	●
OMH-4E-015S	1.5	4	4	50	4	图一 fig 1	●
OMH-4E-015	1.5	6	4	50	4	图一 fig 1	●
OMH-4E-020F	2.0	3	6	50	4	图一 fig 1	●
OMH-4E-020S	2.0	4	6	50	4	图一 fig 1	●
OMH-4E-020	2.0	6	6	50	4	图一 fig 1	●
OMH-4E-025F	2.5	3	8	50	4	图一 fig 1	●
OMH-4E-025S	2.5	4	8	50	4	图一 fig 1	●
OMH-4E-025	2.5	6	8	50	4	图一 fig 1	●
OMH-4E-030F	3.0	3	8	50	4	图二 fig 2	●
OMH-4E-030S	3.0	4	8	50	4	图一 fig 1	●
OMH-4E-030	3.0	6	8	50	4	图一 fig 1	●
OMH-4E-035S	3.5	4	10	50	4	图一 fig 1	●
OMH-4E-040S	4.0	4	11	50	4	图二 fig 2	●
OMH-4E-035	3.5	6	10	50	4	图一 fig 1	●
OMH-4E-040	4.0	6	11	50	4	图一 fig 1	●
OMH-4E-045	4.5	6	11	50	4	图一 fig 1	●

●常备库存 Stock available ▲按订单生产 Make-to-order

OMH-4E 四刃直柄平头立铣刀

OMH-4E 4 flutes straight flat head end mill

订货号 part number	基本尺寸 (mm) dimension (mm)				齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	d	H	L			
OMH-4E-050	5.0	6	13	50	4	图一 fig 1	●
OMH-4E-055	5.5	6	16	50	4	图一 fig 1	●
OMH-4E-060	6.0	6	16	50	4	图二 fig 2	●
OMH-4E-070	7.0	8	20	60	4	图一 fig 1	●
OMH-4E-080	8.0	8	20	60	4	图二 fig 2	●
OMH-4E-090	9.0	10	22	75	4	图一 fig 1	●
OMH-4E-100	10.0	10	25	75	4	图二 fig 2	●
OMH-4E-110	11.0	12	26	75	4	图一 fig 1	●
OMH-4E-120	12.0	12	30	75	4	图二 fig 2	●
OMH-4E-140	14.0	14	32	75	4	图二 fig 2	●
OMH-4E-160	16.0	16	45	100	4	图二 fig 2	●
OMH-4E-180	18.0	18	45	100	4	图二 fig 2	●
OMH-4E-200	20.0	20	45	100	4	图二 fig 2	●

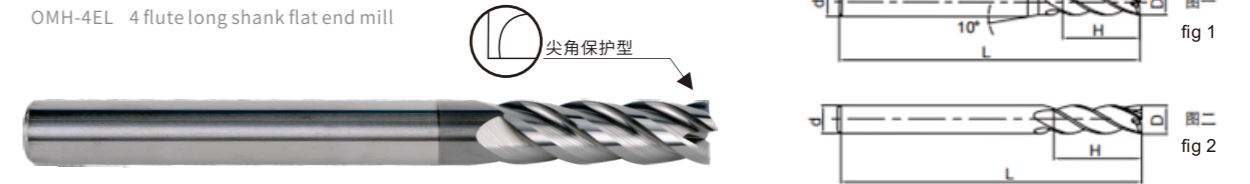
●常备库存Stock available▲按订单生产Make-to-order

被加工材料Workpiece material (○适合suitable、◎非常适合very suitable)

碳素钢 Carbon steel	合金钢 Alloy steel	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel				不锈钢 Stainless steel	铸铁球 墨铸铁 Cast iron, nodular cast iron	铜合金 copper alloy	铝合金 Aluminum alloy	钛合金 titanium alloy	耐热合金 Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
○	○	◎	◎	◎		○	○				

OMH-4EL 四刃直柄长刃平头立铣刀

OMH-4EL 4 flute long shank flat end mill



●适用于侧面铣削、浅槽加工。●最适于高速铣削、干试铣削。
Suitable for side milling and shallow slot milling. Most suitable for high speed milling and dry milling.

螺旋角 $\angle 45^\circ$ 直径公差 $D1\sim D6_{-0.02}^0 / D6\sim D14_{-0.025}^0 / D15\sim D20_{-0.03}^0$
helical angle diameter tolerance

订货号 part number	基本尺寸 (mm) dimension (mm)				齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	d	H	L			
OMH-4E-030L	3.0	6	12	75	4	图一 fig 1	▲
OMH-4E-040L	4.0	6	15	75	4	图一 fig 1	▲
OMH-4E-050L	5.0	6	20	75	4	图一 fig 1	▲
OMH-4E-060L	6.0	6	20	75	4	图二 fig 2	▲
OMH-4E-080L	8.0	8	25	100	4	图二 fig 2	▲
OMH-4E-100L	10.0	10	30	100	4	图二 fig 2	▲
OMH-4E-120L	12.0	12	35	100	4	图二 fig 2	▲
OMH-4E-140L	14.0	14	40	100	4	图二 fig 2	▲
OMH-4E-160L	16.0	16	50	150	4	图二 fig 2	▲
OMH-4E-200L	20.0	20	55	150	4	图二 fig 2	▲

●常备库存Stock available▲按订单生产Make-to-order

被加工材料Workpiece material (○适合suitable、◎非常适合very suitable)

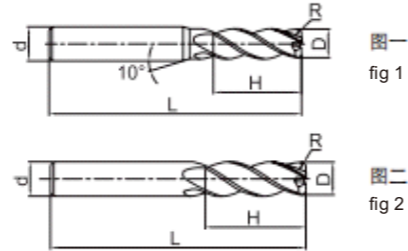
碳素钢 Carbon steel	合金钢 Alloy steel	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel				不锈钢 Stainless steel	铸铁球 墨铸铁 Cast iron, nodular cast iron	铜合金 copper alloy	铝合金 Aluminum alloy	钛合金 titanium alloy	耐热合金 Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
○	○	◎	◎	◎		○	○				

OMH-4EH/G 四刃长柄/超长柄平头立铣刀

OMH-4EH/G 4 flute long shank/ extra long shank flat end mill



尖角保护型
Corner protection
flattened



- 适用于侧面铣削、浅槽加工。 ● 最适于高速铣削、干试铣削。

Suitable for side milling and shallow slot milling. Most suitable for high speed milling and dry milling.

螺旋角 $\angle 45^\circ$ 直径公差 $D1 \sim D6 \begin{smallmatrix} 0 \\ -0.02 \end{smallmatrix}$ / $D6 \sim D14 \begin{smallmatrix} 0 \\ -0.025 \end{smallmatrix}$ / $D15 \sim D20 \begin{smallmatrix} 0 \\ -0.03 \end{smallmatrix}$
helical angle diameter tolerance



订货号 part number	基本尺寸 (mm) dimension (mm)				齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	d	H	L			
OMH-4E-030SH	3.0	4	8	75	4	图一 fig 1	●
OMH-4E-030H	3.0	6	8	75	4	图一 fig 1	●
OMH-4E-040SH	4.0	4	11	75	4	图二 fig 2	●
OMH-4E-040H	4.0	6	11	75	4	图一 fig 1	●
OMH-4E-060H	6.0	6	16	75	4	图二 fig 2	●
OMH-4E-060G	6.0	6	16	100	4	图二 fig 2	●
OMH-4E-080H	8.0	8	20	75	4	图二 fig 2	●
OMH-4E-080G	8.0	8	20	100	4	图二 fig 2	●
OMH-4E-100H	10.0	10	25	100	4	图二 fig 2	●
OMH-4E-100G	10.0	10	25	150	4	图二 fig 2	●
OMH-4E-120H	12.0	12	30	100	4	图二 fig 2	●
OMH-4E-120G	12.0	12	30	150	4	图二 fig 2	●

● 常备库存 Stock available ▲ 按订单生产 Make-to-order

被加工材料 Workpiece material (○ 适合 suitable、◎ 非常适合 very suitable)

碳素钢 Carbon steel	合金钢 Alloy steel	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel				不锈钢 Stainless steel	铸铁球 墨铸铁 Cast iron, nodular cast iron	铜合金 copper alloy	铝合金 Aluminum alloy	钛合金 titanium alloy	耐热合金 Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
○	○	◎	◎	◎	○	○					

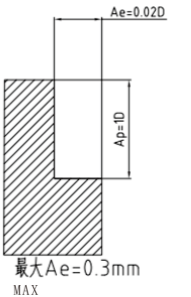
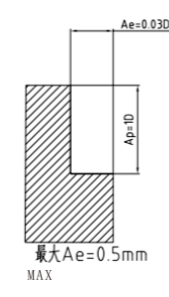
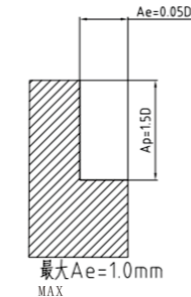
OMH-4EH/G 四刃长柄/超长柄平头立铣刀

OMH-4EH/G 4 flute long shank/ extra long shank flat end mill

OMH-4E/4EL/4EG/4EH系列切削参数表 recommend cutting parameters

被加工材料 Workpiece material	预硬钢、淬硬钢 Pre-hardened steel, hardened steel 40-50HRC		淬硬钢 Hardened steel 50-60HRC		淬硬钢 Hardened steel 60-68HRC		
	直径 Diameter (mm)	转速 Rotating speed (min ⁻¹)	进给速度 Feedspeed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feedspeed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feedspeed (mm/min)
1		40000	320	40000	320	32000	260
2		40000	800	24000	480	16000	320
3		32000	1020	16000	510	11000	350
4		24000	1250	12000	620	8000	420
5		19000	1360	9500	680	6400	460
6		16000	1540	8000	770	5300	510
8		12000	1540	6000	770	4000	510
10		9600	1540	4800	770	3200	510
12		8000	1600	4000	800	2700	540
14		6800	1340	3400	680	2300	460
16		6000	1200	3000	600	2000	400
18		5300	1060	2700	530	1800	360
20		4800	960	2400	480	1600	320

最大切深量
max. cutting depth

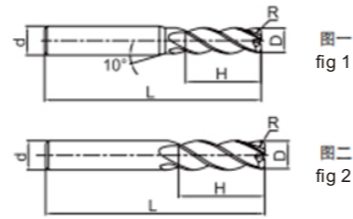
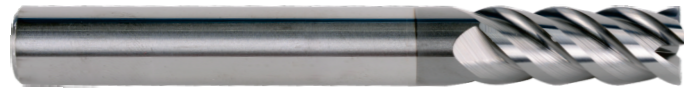


1. 请使用高精度、高刚性的设备及夹具
2. 上表是等高线等负荷变化较小的基准。机床与工件安装刚性较差的情况下，会产生振动及异常声音，此时应将上表的转速与进给速度同比降低
3. 请使用空气冷却或MQC (最小油雾冷却)
4. 侧面铣削推荐顺铣加工
5. 在不干涉的条件下尽可能使刀具悬长最短。

- 1 Please select high-precision machine and tool holder.
- 2 Please use air cooling or MQL (minimum oil mist cooling)
- 3 climb milling is recommended in the case of side milling.
- 4 When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated.
- 5 Please reduce the rotating speed and feed rate stated above correspondingly.
- 6 Make overhang of tool as short as possible in conditions of non-interference.

OMH-4R 四刃直柄圆弧立铣刀

OMH-4R 4 flutes straight shank corner radius end mill



● 适用范围广泛, 可实现多种形态加工
wide range of applications, able to achieve various forms of processing

螺旋角 $\angle 35^\circ$ 直径公差 $D1\sim D6_{-0.02}^0 / D7\sim D12_{-0.025}^0$
helical angle diameter tolerance



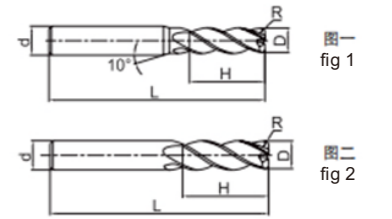
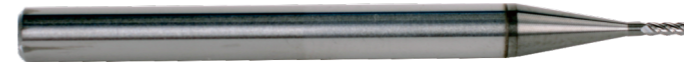
订货号 part number	基本尺寸 (mm) dimension (mm)					齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	d	H	L	R			
OMH-4R-010R0.2S	1.0	4	3	50	0.2	4	图一 fig 1	●
OMH-4R-015R0.2S	1.5	4	4	50	0.2	4	图一 fig 1	●
OMH-4R-020R0.2S	2.0	4	6	50	0.2	4	图一 fig 1	●
OMH-4R-020R0.5S	2.0	4	6	50	0.5	4	图一 fig 1	●
OMH-4R-025R0.2S	2.5	4	8	50	0.2	4	图一 fig 1	●
OMH-4R-025R0.5S	2.5	4	8	50	0.5	4	图一 fig 1	●
OMH-4R-030R0.2S	3.0	4	8	50	0.2	4	图一 fig 1	●
OMH-4R-030R0.5S	3.0	4	8	50	0.5	4	图一 fig 1	●
OMH-4R-040R0.2S	4.0	4	10	50	0.2	4	图二 fig 2	●
OMH-4R-040R0.3S	4.0	4	10	50	0.3	4	图二 fig 2	●
OMH-4R-040R0.5S	4.0	4	10	50	0.5	4	图二 fig 2	●
OMH-4R-050R0.2	5.0	6	13	50	0.2	4	图一 fig 1	●
OMH-4R-050R0.5	5.0	6	13	50	0.5	4	图一 fig 1	●
OMH-4R-050R1.0	5.0	6	13	50	1.0	4	图一 fig 1	●
OMH-4R-060R0.2	6.0	6	16	50	0.2	4	图二 fig 2	●
OMH-4R-060R0.5	6.0	6	16	50	0.5	4	图二 fig 2	●
OMH-4R-060R1.0	6.0	6	16	50	1.0	4	图二 fig 2	●
OMH-4R-080R0.2	8.0	8	20	60	0.2	4	图二 fig 2	●
OMH-4R-080R0.5	8.0	8	20	60	0.5	4	图二 fig 2	●
OMH-4R-080R1.0	8.0	8	20	60	1.0	4	图二 fig 2	●
OMH-4R-100R0.2	10.0	10	25	75	0.2	4	图二 fig 2	●
OMH-4R-100R0.5	10.0	10	25	75	0.5	4	图二 fig 2	●
OMH-4R-100R1.0	10.0	10	25	75	1.0	4	图二 fig 2	●
OMH-4R-100R2.0	10.0	10	25	75	2.0	4	图二 fig 2	●
OMH-4R-100R3.0	10.0	10	25	75	3.0	4	图二 fig 2	●
OMH-4R-120R0.2	12.0	12	30	75	0.2	4	图二 fig 2	●
OMH-4R-120R0.5	12.0	12	30	75	0.5	4	图二 fig 2	●
OMH-4R-120R1.0	12.0	12	30	75	1.0	4	图二 fig 2	●
OMH-4R-120R2.0	12.0	12	30	75	2.0	4	图二 fig 2	●
OMH-4R-120R3.0	12.0	12	30	75	3.0	4	图二 fig 2	●

被加工材料 Workpiece material (○适合 suitable, ●非常适合 very suitable)

碳素钢 Carbon steel	合金钢 Alloy steel	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel				不锈钢 Stainless steel	铸铁球 墨铸铁 Cast iron, nodular cast iron	铜合金 copper alloy	铝合金 Aluminum alloy	钛合金 titanium alloy	耐热合金 Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
○	○	◎	◎	◎	○	○					

OMH-4RH/G 四刃长柄/超长柄圆弧立铣刀

OMH-4RH/G 4 flutes long shank / extra long shank corner radius end mill



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helical angle diameter tolerance

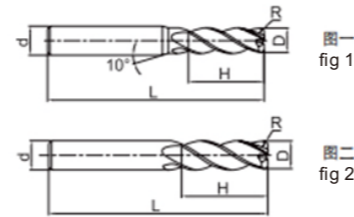
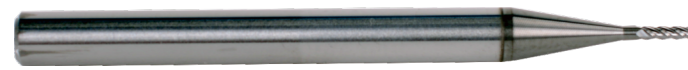


订货号 part number	基本尺寸 (mm) dimension (mm)					齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	R	d	H	L			
OMH-4R-040R0.2SH	4.0	0.2	4	10	75	4	图二 fig 2	●
OMH-4R-040R0.2H	4.0	0.2	6	10	75	4	图一 fig 1	●
OMH-4R-040R0.5SH	4.0	0.5	4	10	75	4	图二 fig 2	●
OMH-4R-040R0.5H	4.0	0.5	6	10	75	4	图一 fig 1	●
OMH-4R-060R0.2H	6.0	0.2	6	16	75	4	图二 fig 2	●
OMH-4R-060R0.2G	6.0	0.2	6	16	100	4	图二 fig 2	●
OMH-4R-060R0.5H	6.0	0.5	6	16	75	4	图二 fig 2	●
OMH-4R-060R0.5G	6.0	0.5	6	16	100	4	图二 fig 2	●
OMH-4R-060R1.0H	6.0	1.0	6	16	75	4	图二 fig 2	●
OMH-4R-060R1.0G	6.0	1.0	6	16	100	4	图二 fig 2	●
OMH-4R-080R0.2H	8.0	0.2	8	20	75	4	图二 fig 2	●
OMH-4R-080R0.2G	8.0	0.2	8	20	100	4	图二 fig 2	●
OMH-4R-080R0.5H	8.0	0.5	8	20	75	4	图二 fig 2	●
OMH-4R-080R0.5G	8.0	0.5	8	20	100	4	图二 fig 2	●
OMH-4R-080R1.0H	8.0	1.0	8	20	75	4	图二 fig 2	●
OMH-4R-080R1.0G	8.0	1.0	8	20	100	4	图二 fig 2	●

● 常备库存 Stock available ▲ 按订单生产 Make-to-order

OMH-4RH/G 四刃长柄/超长柄圆弧立铣刀

OMH-4RH/G 4 flutes long shank /extra long shank corner radius end mill



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wide range of applications, able to achieve various forms of processing

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helical angle diameter tolerance



订货号 part number	基本尺寸 (mm) dimension (mm)					齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	R	d	H	L			
OMH-4R-100R0.2H	10.0	0.2	10	25	100	4	图二 fig 2	●
OMH-4R-100R0.2G	10.0	0.2	10	25	150	4	图二 fig 2	●
OMH-4R-100R0.5H	10.0	0.5	10	25	100	4	图二 fig 2	●
OMH-4R-100R0.5G	10.0	0.5	10	25	150	4	图二 fig 2	●
OMH-4R-100R1.0H	10.0	1.0	10	25	100	4	图二 fig 2	●
OMH-4R-100R1.0G	10.0	1.0	10	25	150	4	图二 fig 2	●
OMH-4R-100R2.0H	10.0	2.0	10	25	100	4	图二 fig 2	●
OMH-4R-100R2.0G	10.0	2.0	10	25	150	4	图二 fig 2	●
OMH-4R-120R0.2H	12.0	0.2	12	30	100	4	图二 fig 2	●
OMH-4R-120R0.2G	12.0	0.2	12	30	150	4	图二 fig 2	●
OMH-4R-120R0.5H	12.0	0.5	12	30	100	4	图二 fig 2	●
OMH-4R-120R0.5G	12.0	0.5	12	30	150	4	图二 fig 2	●
OMH-4R-120R1.0H	12.0	1.0	12	30	100	4	图二 fig 2	●
OMH-4R-120R1.0G	12.0	1.0	12	30	150	4	图二 fig 2	●
OMH-4R-120R2.0H	12.0	2.0	12	30	100	4	图二 fig 2	●
OMH-4R-120R2.0G	12.0	2.0	12	30	150	4	图二 fig 2	●

● 常备库存 Stock available ▲ 按订单生产 Make-to-order

被加工材料 Workpiece material (○ 适合 suitable、◎ 非常适合 very suitable)

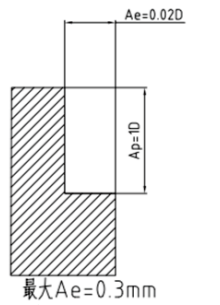
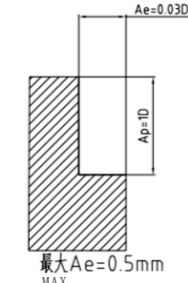
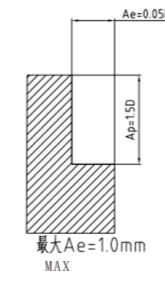
碳素钢 Carbon steel	合金钢 Alloy steel	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel				不锈钢 Stainless steel	铸铁球 墨铸铁 Cast iron, nodular cast iron	铜合金 copper alloy	铝合金 Aluminum alloy	钛合金 titanium alloy	耐热合金 Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
○	○	◎	◎	◎		○	○				

OMH-4RH/G 四刃长柄/超长柄圆弧立铣刀

OMH-4R、4RH、4RG 切削参数 recommend cutting parameters

被加工材料 Workpiece material	预硬钢、淬硬钢 Pre-hardened steel, hardened steel 40-50HRC		淬硬钢 Hardened steel 50-60HRC		淬硬钢 Hardened steel 60-68HRC	
	直径 Diameter (mm)	转速 Rotating speed (min ⁻¹)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min ⁻¹)
3	32000	1225	16000	610	11000	420
4	24000	1500	12000	745	8000	500
5	19000	1630	9500	815	6400	550
6	16000	1850	8000	925	5300	610
8	12000	1850	6000	925	4000	610
10	9600	1850	4800	925	3200	610
12	8000	1920	4000	960	2700	648
16	6000	1440	3000	720	2000	480

最大切深量
max. cutting depth

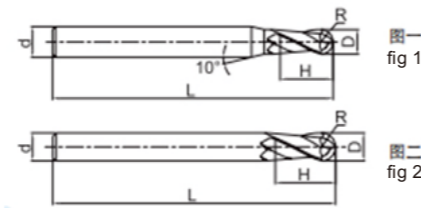


1. 请使用高精度、高刚性的设备及夹具
2. 上表是等高线等负荷变化较小的基准。机床与工件安装刚性较差的情况下,会产生振动及异常声音,此时应将上表的转速与进给速度同比降低
3. 请使用空气冷却或MQC(最小油雾冷却)
4. 侧面铣削推荐顺铣加工
5. 在不干涉的条件下尽可能使刀具悬长最短。

1. Please select high-precision machine and tool holder.
2. Please use air cooling or MQL (minimum oil mist cooling)
3. climb milling is recommended in the case of side milling.
4. When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed rate stated above correspondingly.
5. Make overhang of tool as short as possible in conditions of non-interference.

OMH-2B 二刃直柄球头立铣刀

OMH-2B 2 flutes straight shank ball head end mill



- 适用于仿形铣削, ● 最适用于高速切削, 干式切削
Suitable for profile milling, and high speed machining, with wide range of applications.

螺旋角 $\angle 30^\circ$ 直径公差 $D1 \sim D20 \begin{smallmatrix} 0 \\ -0.02 \end{smallmatrix} R \pm 0.005$
helical angle diameter tolerance



订货号 part number	基本尺寸 (mm) dimension (mm)					齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	R	d	H	L			
OMH-2B-010R0.5S	1.0	0.5	4	2	50	2	图一 fig 1	●
OMH-2B-010R0.5	1.0	0.5	6	2	50	2	图一 fig 1	●
OMH-2B-015R0.75S	1.5	0.75	4	3	50	2	图一 fig 1	●
OMH-2B-015R0.75	1.5	0.75	6	3	50	2	图一 fig 1	●
OMH-2B-020R1.0S	2.0	1.0	4	4	50	2	图一 fig 1	●
OMH-2B-020R1.0	2.0	1.0	6	4	50	2	图一 fig 1	●
OMH-2B-025R1.25S	2.5	1.25	4	5	50	2	图一 fig 1	●
OMH-2B-025R1.25	2.5	1.25	6	5	50	2	图一 fig 1	●
OMH-2B-030R1.5S	3.0	1.5	4	6	50	2	图一 fig 1	●
OMH-2B-030R1.5	3.0	1.5	6	6	50	2	图一 fig 1	●
OMH-2B-035R1.75	3.5	1.75	6	8	50	2	图一 fig 1	●
OMH-2B-040R2.0S	4.0	2.0	4	8	50	2	图二 fig 2	●
OMH-2B-040R2.0	4.0	2.0	6	8	50	2	图一 fig 1	●
OMH-2B-050R2.5	5.0	2.5	6	10	50	2	图一 fig 1	●
OMH-2B-055R2.75	5.5	2.75	6	12	50	2	图一 fig 1	●
OMH-2B-060R3.0	6.0	3.0	6	12	50	2	图二 fig 2	●
OMH-2B-070R3.5	7.0	3.5	8	14	60	2	图一 ig 1	●
OMH-2B-080R4.0	8.0	4.0	8	16	60	2	图二 fig 2	●
OMH-2B-090R4.5	9.0	4.5	10	18	75	2	图一 fig 1	●
OMH-2B-100R5.0	10.0	5.0	10	20	75	2	图二 fig 2	●
OMH-2B-120R6.0	12.0	6.0	12	24	75	2	图二 ig 2	●
OMH-2B-140R7.0	14.0	7.0	14	28	75	2	图二 fig 2	●
OMH-2B-160R8.0	16.0	8.0	16	32	100	2	图二 fig 2	●
OMH-2B-200R10.0	20.0	10.0	20	40	100	2	图二 fig 2	●

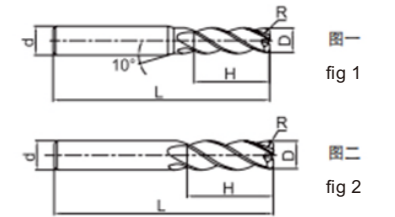
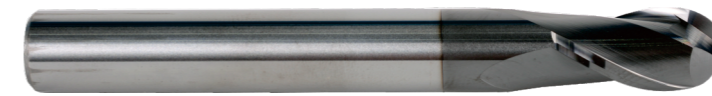
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被加工材料Workpiece material (○适合suitable、◎非常适合very suitable)

碳素钢 Carbon steel	合金钢 Alloy steel	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel				不锈钢 Stainless steel	铸铁球 墨铸铁 Cast iron, nodular cast iron	铜合金 copper alloy	铝合金 Aluminum alloy	钛合金 titanium alloy	耐热合金 Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
○	○	◎	◎	◎		○					

OMH-2BH/G 二刃长柄/超长柄球头立铣刀

OMH-2BH/G 2 flutes long shank/extra long shank ball head end mill



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Suitable for profile milling, and high speed machining, with wide range of applications.

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helical angle diameter tolerance



订货号 part number	基本尺寸 (mm) dimension (mm)					齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	R	d	H	L			
OMH-2B-020R1.0SH	2.0	1.0	4	4	75	2	图一 fig 1	●
OMH-2B-020R1.0H	2.0	1.0	6	4	75	2	图一 fig 1	●
OMH-2B-025R1.25SH	2.5	1.25	4	5	75	2	图一 fig 1	●
OMH-2B-025R1.25H	2.5	1.25	6	5	75	2	图一 fig 1	●
OMH-2B-030R1.5SH	3.0	1.5	4	6	75	2	图一 fig 1	●
OMH-2B-030R1.5H	3.0	1.5	6	6	75	2	图一 fig 1	●
OMH-2B-035R1.75SH	3.5	1.75	4	8	75	2	图一 fig 1	●
OMH-2B-035R1.75H	3.5	1.75	6	8	75	2	图一 fig 1	●
OMH-2B-040R2.0SH	4.0	2.0	4	8	75	2	图二 fig 2	●
OMH-2B-040R2.0H	4.0	2.0	6	8	75	2	图一 fig 1	●
OMH-2B-050R2.5H	5.0	2.5	6	10	75	2	图一 fig 1	●
OMH-2B-055R2.75H	5.5	2.75	6	12	75	2	图一 fig 2	●
OMH-2B-060R3.0H	6.0	3.0	6	12	75	2	图二 fig 2	●
OMH-2B-070R3.5H	7.0	3.5	8	14	75	2	图一 fig 1	●
OMH-2B-080R4.0H	8.0	4.0	8	16	75	2	图二 fig 2	●
OMH-2B-090R4.5H	9.0	4.5	10	18	100	2	图一 fig 2	●
OMH-2B-100R5.0H	10.0	5.0	10	20	100	2	图二 fig 2	●
OMH-2B-120R6.0H	12.0	6.0	12	24	100	2	图二 fig 2	●
OMH-2B-140R7.0H	14.0	7.0	14	28	150	2	图二 fig 2	●
OMH-2B-160R8.0H	16.0	8.0	16	32	150	2	图二 fig 2	●
OMH-2B-200R10.0H	20.0	10.0	20	40	150	2	图二 fig 2	●
OMH-2B-060R3.0G	6.0	3.0	6	12	100	2	图二 fig 2	●
OMH-2B-080R4.0G	8.0	4.0	8	16	100	2	图二 fig 2	●
OMH-2B-100R5.0G	10.0	5.0	10	20	150	2	图二 fig 2	●
OMH-2B-120R6.0G	12.0	6.0	12	24	150	2	图二 fig 2	●

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被加工材料Workpiece material (○适合suitable、◎非常适合very suitable)

碳素钢 Carbon steel	合金钢 Alloy steel	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel				不锈钢 Stainless steel	铸铁球 墨铸铁 Cast iron, nodular cast iron	铜合金 copper alloy	铝合金 Aluminum alloy	钛合金 titanium alloy	耐热合金 Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
○	○	◎	◎	◎		○					

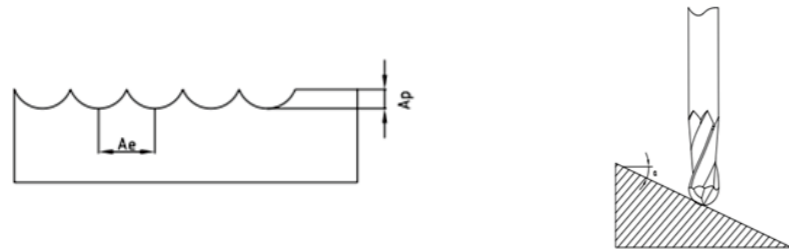
OMH-2BH/G 二刃长柄/超长柄球头立铣刀

OMH-2BH/G 2 flutes long shank/extra long shank ball head end mill

OMH-2B/2BH/G系列切削参数表 recommend cutting parameters

被加工材料 Workpiece material	预硬钢、淬硬钢 Pre-hardened steel, hardened steel 40-50HRC				淬硬钢 Hardened steel 50-60HRC				淬硬钢 Hardened steel 60-68HRC			
	直径 Diameter (mm)	转速 Rotating speed (min ⁻¹)	进给速度 Feedspeed (mm/min)	Ap (mm)	Ae (mm)	转速 Rotating speed (min ⁻¹)	进给速度 Feedspeed (mm/min)	Ap (mm)	Ae (mm)	转速 Rotating speed (min ⁻¹)	进给速度 Feedspeed (mm/min)	Ap (mm)
R0.5	40000	1900	0.01	0.05	36000	1500	0.01	0.05	32000	1400	0.01	0.05
R1.0	33000	3100	0.02	0.075	26000	2100	0.02	0.075	24000	2000	0.02	0.075
R1.5	29000	4100	0.03	0.1	23000	2900	0.03	0.1	21000	2600	0.03	0.1
R2.0	22000	3900	0.04	0.15	17000	2500	0.04	0.15	15500	2100	0.04	0.15
R2.5	17500	3500	0.05	0.15	13500	2200	0.05	0.15	13000	2000	0.05	0.15
R3.0	15000	3100	0.06	0.2	11500	1700	0.06	0.2	10500	1500	0.06	0.2
R4.0	11000	2500	0.08	0.25	8600	1600	0.08	0.25	8000	1400	0.08	0.25
R5.0	9000	2000	0.1	0.3	7000	1400	0.1	0.3	6000	1200	0.1	0.3
R6.0	7500	1800	0.1	0.35	5700	1300	0.1	0.35	5300	1200	0.1	0.35
R8.0	5500	1800	0.1	0.4	4300	1300	0.1	0.4	4000	1200	0.1	0.4
R10.0	4500	1800	0.1	0.5	3500	1300	0.1	0.5	3200	1200	0.1	0.5

最大切深量
max. cutting depth



1. 请使用高精度、高刚性设备及夹角。
2. 上表是等高线等负荷变化较小的基准。机床与工件安装刚性较差的情况下，会产生振动及异常声音，此时应将上表的转速与进给速度同比降低
3. 请使用空气冷却或MQL(最小油雾冷却)
4. 倾斜角度 α 超过15°时，请将上表速度下调至50%-80%
5. 在不干涉的条件下尽可能使刀具悬长最短。

1. Please select high-precision machine and tool holder.
2. When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed rate stated above correspondingly.
3. Please use air cooling or MQL (minimum oil mist cooling)
4. If inclination angle α over 15°, please reduce the speed to 50%-80% of above table.
5. Make overhang of tool as short as possible in conditions of non-interference.

OMHH高硬度钢加工铣刀系列

OMHH series for High-hardened steel

产品特点及应用范围

Product features and application range

该系列产品适用于55~65HRC硬度的淬火钢、高硬度钢的半精加工、精加工；

1. 全新超细颗粒硬质合金基体

- ① 超细颗粒硬质合金基体，WC颗粒度仅为0.2 μ m；
- ② 超高硬度的基体材料，显微硬度 > 2050HV；
- ③ 超高的强度和韧性，抗拉强度 > 4200N/MM。

2. 精细的刃口表面处理

- ① 光滑的前刀面，排屑流畅，阻力更小；
- ② 涂层应力状态改善；
- ③ 抗粘结性能优异。

3. 高刚性和高强度刃口结构设计

- ① 在保证容屑排屑空间足够的情况下，采用大芯厚，提高了刀具刚性；
- ② 刃口为负前角设计，使得刀具刃口强度与切削力的合理搭配，刀具的应用范围更加广阔；
- ③ 严格和科学的槽型几何参数设计，使得刀具能够更加稳定的切削。

OMHH is suitable for finishing and semi-finishing machining of 55~65HRC quenched steel and High-hardened steel

1. New ultra fine cemented carbide substrate

- ① New ultra fine cemented carbide substrate, Wc grain size is 0.2 μ m
- ② Ultra-high hardness substrate material, micro-hardness > 2050HV;
- ③ Super high strength and toughness, tensile strength > 4200N/MM

2. Fine cutting edge surface treatment

- ① Smooth rake face surface, smooth chip removal, less cutting resistance;
- ② The stress between coating and substrate is improved
- ③ Reduce cutting viscosity.

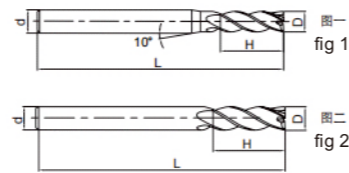
3. High-rigidity and high-strength cutting edge structure design

- ① Ensuring sufficient chip space, meanwhile adopt large core body to improve the tool rigidity;
- ② negative rake angle, which makes the cutting edge strength and cutting force match reasonably, and gives a wider range of applications;
- ③ Strict and scientific chip breaker geometric design, gives more stable cutting.



OMHH-4E 四刃直柄平头立铣刀

OMHH-4E 4 flutes straight flat head end mill



● 适用于侧面铣削、浅槽加工。● 最适于高速铣削、干试铣削。
Suitable for side milling and shallow slot milling. Most suitable for high speed milling and dry milling.

螺旋角 $\angle 45^\circ$ 直径公差 $D1\sim D6_{-0.02}^0 / D6\sim D14_{-0.025}^0 / D15\sim D20_{-0.03}^0$
helical angle diameter tolerance



订货号 part number	基本尺寸 (mm) dimension (mm)				齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	d	H	L			
OMHH-4E-010F	1.0	3	3	50	4	图一 fig 1	●
OMHH-4E-010S	1.0	4	3	50	4	图一 fig 1	●
OMHH-4E-010	1.0	6	3	50	4	图一 fig 1	●
OMHH-4E-015F	1.5	3	4	50	4	图一 fig 1	●
OMHH-4E-015S	1.5	4	4	50	4	图一 fig 1	●
OMHH-4E-015	1.5	6	4	50	4	图一 fig 1	●
OMHH-4E-020F	2.0	3	6	50	4	图一 fig 1	●
OMHH-4E-020S	2.0	4	6	50	4	图一 fig 1	●
OMHH-4E-020	2.0	6	6	50	4	图一 fig 1	●
OMHH-4E-025F	2.5	3	8	50	4	图一 fig 1	●
OMHH-4E-025S	2.5	4	8	50	4	图一 fig 1	●
OMHH-4E-025	2.5	6	8	50	4	图一 fig 1	●
OMHH-4E-030F	3.0	3	8	50	4	图二 fig 2	●
OMHH-4E-030S	3.0	4	8	50	4	图一 fig 1	●
OMHH-4E-030	3.0	6	8	50	4	图一 fig 1	●
OMHH-4E-035S	3.5	4	10	50	4	图一 fig 1	●
OMHH-4E-040S	4.0	4	11	50	4	图二 fig 2	●
OMHH-4E-035	3.5	6	10	50	4	图一 fig 1	●
OMHH-4E-040	4.0	6	11	50	4	图一 fig 1	●
OMHH-4E-045	4.5	6	11	50	4	图一 fig 1	●
OMHH-4E-050	5.0	6	13	50	4	图一 fig 1	●
OMHH-4E-055	5.5	6	16	50	4	图一 fig 1	●
OMHH-4E-060	6.0	6	16	50	4	图二 fig 2	●
OMHH-4E-070	7.0	8	20	60	4	图一 fig 1	●
OMHH-4E-080	8.0	8	20	60	4	图二 fig 2	●
OMHH-4E-090	9.0	10	22	75	4	图一 fig 1	●
OMHH-4E-100	10.0	10	25	75	4	图二 fig 2	●
OMHH-4E-110	11.0	12	26	75	4	图一 fig 1	●
OMHH-4E-120	12.0	12	30	75	4	图二 fig 2	●
OMHH-4E-140	14.0	14	32	75	4	图二 fig 2	●
OMHH-4E-160	16.0	16	45	100	4	图二 fig 2	●
OMHH-4E-180	18.0	18	45	100	4	图二 fig 2	●
OMHH-4E-200	20.0	20	45	100	4	图二 fig 2	●

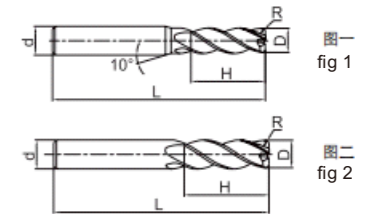
●常备库存Stock available▲按订单生产Make-to-order

被加工材料Workpiece material (○适合suitable、◎非常适合very suitable)

碳素钢 Carbon steel	合金钢 Alloy steel	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel				不锈钢 Stainless steel	铸铁球 墨铸铁 Cast iron, nodular cast iron	铜合金 copper alloy	铝合金 Aluminum alloy	钛合金 titanium alloy	耐热合金 Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
○	○	◎	◎	◎	◎	○	○				

OMHH-4EL 四刃直柄长刃平头立铣刀

OMHH-4EL 4 flutes long cutting edge flat end mill



● 适用于侧面铣削、浅槽加工。● 最适于高速铣削、干试铣削。
Suitable for side milling and shallow slot milling. Most suitable for high speed milling and dry milling.

螺旋角 $\angle 45^\circ$ 直径公差 $D1\sim D6_{-0.02}^0 / D6\sim D14_{-0.025}^0 / D15\sim D20_{-0.03}^0$
helical angle diameter tolerance



订货号 part number	基本尺寸 (mm) dimension (mm)				齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	d	H	L			
OMHH-4E-030L	3.0	6	12	75	4	图一 fig 1	▲
OMHH-4E-040L	4.0	6	15	75	4	图一 fig 1	▲
OMHH-4E-050L	5.0	6	20	75	4	图一 fig 1	▲
OMHH-4E-060L	6.0	6	20	75	4	图二 fig 2	▲
OMHH-4E-080L	8.0	8	25	100	4	图二 fig 2	▲
OMHH-4E-100L	10.0	10	30	100	4	图二 fig 2	▲
OMHH-4E-120L	12.0	12	35	100	4	图二 fig 2	▲
OMHH-4E-140L	14.0	14	40	100	4	图二 fig 2	▲
OMHH-4E-160L	16.0	16	50	150	4	图二 fig 2	▲
OMHH-4E-200L	20.0	20	55	150	4	图二 fig 2	▲

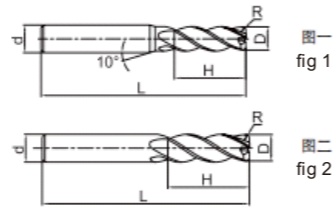
●常备库存Stock available▲按订单生产Make-to-order

被加工材料Workpiece material (○适合suitable、◎非常适合very suitable)

碳素钢 Carbon steel	合金钢 Alloy steel	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel				不锈钢 Stainless steel	铸铁球 墨铸铁 Cast iron, nodular cast iron	铜合金 copper alloy	铝合金 Aluminum alloy	钛合金 titanium alloy	耐热合金 Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
○	○	◎	◎	◎	◎	○	○				

OMHH-4EH/G 四刃长柄/超长柄平头立铣刀

OMHH-4EH/G 4 flutes long shank / extra long shank flat end mill



- 适用于侧面铣削、浅槽加工。● 最适于高速铣削、干试铣削。
Suitable for side milling and shallow slot machining. Most suitable for high speed milling and dry milling.

螺旋角 $\angle 45^\circ$ 直径公差 $D1 \sim D6 \begin{smallmatrix} 0 \\ -0.02 \end{smallmatrix} / D7 \sim D12 \begin{smallmatrix} 0 \\ -0.025 \end{smallmatrix}$
helical angle diameter tolerance



订货号 part number	基本尺寸 (mm) dimension (mm)				齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	d	H	L			
OMHH-4E-030SH	3.0	4	8	75	4	图一 fig 1	●
OMHH--4E-030H	3.0	6	8	75	4	图一 fig 1	●
OMHH-4E-040SH	4.0	4	11	75	4	图二 fig 2	●
OMHH-4E-040H	4.0	6	11	75	4	图一 fig 1	●
OMHH-4E-060H	6.0	6	16	75	4	图二 fig 2	●
OMHH-4E-060G	6.0	6	16	100	4	图二 fig 2	●
OMHH-4E-080H	8.0	8	20	75	4	图二 fig 2	●
OMHH-4E-080G	8.0	8	20	100	4	图二 fig 2	●
OMHH-4E-100H	10.0	10	25	100	4	图二 fig 2	●
OMHH-4E-100G	10.0	10	25	150	4	图二 fig 2	●
OMHH-4E-120H	12.0	12	30	100	4	图二 fig 2	●
OMHH-4E-120G	12.0	12	30	150	4	图二 fig 2	●

●常备库存 Stock available ▲按订单生产 Make-to-order

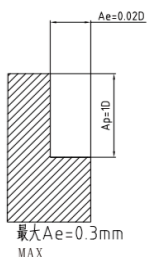
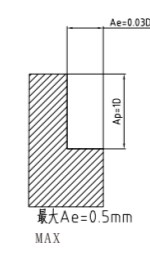
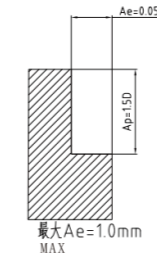
被加工材料 Workpiece material (○适合 suitable, ◎非常适合 very suitable)

碳素钢 Carbon steel	合金钢 Alloy steel	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel				不锈钢 Stainless steel	铸铁球 墨铸铁 Cast iron, nodular cast iron	铜合金 copper alloy	铝合金 Aluminum alloy	钛合金 titanium alloy	耐热合金 Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
○	○	◎	◎	◎	◎	○					

OMHH-4E/4EL/4EG/4EH系列切削参数表

被加工材料 Workpiece material	预硬钢、淬硬钢 Pre-hardened steel, hardened steel 40-50HRC		淬硬钢 Hardened steel 50-60HRC		淬硬钢 Hardened steel 60-68HRC	
	直径 Diameter (mm)	转速 Rotating speed (min ⁻¹)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min ⁻¹)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min ⁻¹)
1	40000	320	40000	320	32000	260
2	40000	800	24000	480	16000	320
3	32000	1020	16000	510	11000	350
4	24000	1250	12000	620	8000	420
5	19000	1360	9500	680	6400	460
6	16000	1540	8000	770	5300	510
8	12000	1540	6000	770	4000	510
10	9600	1540	4800	770	3200	510
12	8000	1600	4000	800	2700	540
14	6800	1340	3400	680	2300	460
16	6000	1200	3000	600	2000	400
18	5300	1060	2700	530	1800	360
20	4800	960	2400	480	1600	320

最大切深量
max. cutting depth

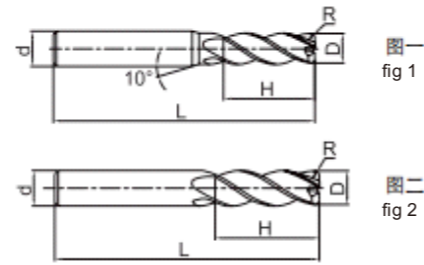


1. 请使用高精度、高刚性的设备及夹具
2. 上表是等高线等负荷变化较小的基准。机床与工件安装刚性较差的情况下, 会产生振动及异常声音, 此时应将上表的转速与进给速度同比降低
3. 请使用空气冷却或MQC (最小油雾冷却)
4. 侧面铣削推荐顺铣加工
5. 在不干涉的条件下尽可能使刀具悬长最短。

- 1 Please select high-precision machine and tool holder.
- 2 Please use air cooling or MQL (minimum oil mist cooling)
- 3 climb milling is recommended in the case of side milling.
- 4 When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed rate stated above correspondingly.
- 5 Make overhang of tool as short as possible in conditions of non-interference.

OMHH-4R 四刃直柄圆弧立铣刀

OMHH-4R 4 flutes straight shank corner radius end mill



● 适用范围广泛, 可实现多种形态加工
wide range of applications, able to achieve various forms of processing

螺旋角 $\angle 35^\circ$ 直径公差 $D1\sim D6_{-0.02}^0 / D7\sim D12_{-0.025}^0$
helical angle diameter tolerance



订货号 part number	基本尺寸 (mm) dimension (mm)					齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	R	H	L	d			
OMHH-4R-010R0.2S	1.0	0.2	3	50	4	4	图一 fig 1	●
OMHH-4R-015R0.2S	1.5	0.2	4	50	4	4	图一 fig 1	●
OMHH-4R-020R0.2S	2.0	0.2	6	50	4	4	图一 fig 1	●
OMHH-4R-020R0.5S	2.0	0.5	6	50	4	4	图一 fig 1	●
OMHH-4R-025R0.2S	2.5	0.2	8	50	4	4	图一 fig 1	●
OMHH-4R-025R0.5S	2.5	0.5	8	50	4	4	图一 fig 1	●
OMHH-4R-030R0.2S	3.0	0.2	8	50	4	4	图一 fig 1	●
OMHH-4R-030R0.5S	3.0	0.5	8	50	4	4	图一 fig 1	●
OMHH-4R-040R0.2S	4.0	0.2	10	50	4	4	图二 fig 2	●
OMHH-4R-040R0.3S	4.0	0.3	10	50	4	4	图二 fig 2	●
OMHH-4R-040R0.5S	4.0	0.5	10	50	4	4	图二 fig 2	●
OMHH-4R-050R0.2	5.0	0.2	13	50	6	4	图一 fig 1	●
OMHH-4R-050R0.5	5.0	0.5	13	50	6	4	图一 fig 1	●
OMHH-4R-050R1.0	5.0	1.0	13	50	6	4	图一 fig 1	●
OMHH-4R-060R0.2	6.0	0.2	16	50	6	4	图二 fig 2	●
OMHH-4R-060R0.5	6.0	0.5	16	50	6	4	图二 fig 2	●
OMHH-4R-060R1.0	6.0	1.0	16	50	6	4	图二 fig 2	●
OMHH-4R-080R0.2	8.0	0.2	20	60	8	4	图二 fig 2	●
OMHH-4R-080R0.5	8.0	0.5	20	60	8	4	图二 fig 2	●
OMHH-4R-080R1.0	8.0	1.0	20	60	8	4	图二 fig 2	●
OMHH-4R-100R0.2	10.0	0.2	25	75	10	4	图二 fig 2	●
OMHH-4R-100R0.5	10.0	0.5	25	75	10	4	图二 fig 2	●
OMHH-4R-100R1.0	10.0	1.0	25	75	10	4	图二 fig 2	●
OMHH-4R-100R2.0	10.0	2.0	25	75	10	4	图二 fig 2	●
OMHH-4R-100R3.0	10.0	3.0	25	75	10	4	图二 fig 2	●
OMHH-4R-120R0.2	12.0	0.2	30	75	12	4	图二 fig 2	●
OMHH-4R-120R0.5	12.0	0.5	30	75	12	4	图二 fig 2	●
OMHH-4R-120R1.0	12.0	1.0	30	75	12	4	图二 fig 2	●
OMHH-4R-120R2.0	12.0	2.0	30	75	12	4	图二 fig 2	●
OMHH-4R-120R3.0	12.0	3.0	30	75	12	4	图二 fig 2	●

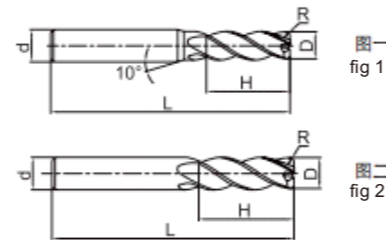
● 常备库存 Stock available ▲ 按订单生产 Make-to-order

被加工材料 Workpiece material (○ 适合 suitable, ◎ 非常适合 very suitable)

碳素钢 Carbon steel	合金钢 Alloy steel	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel				不锈钢 Stainless steel	铸铁球 墨铸铁 Cast iron, nodular cast iron	铜合金 copper alloy	铝合金 Aluminum alloy	钛合金 titanium alloy	耐热合金 Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
○	○	◎	◎	◎	◎		○				

OMHH-4RH/G 四刃长柄/超长柄圆弧立铣刀

OMHH-4RH/G 4 flutes long shank / extra long shank corner radius end mill



- 适用范围广泛, 可实现多种形态加工
wide range of applications, able to achieve various forms of processing

螺旋角 $\angle 35^\circ$ 直径公差 $D1 \sim D6 \begin{smallmatrix} 0 \\ -0.02 \end{smallmatrix} / D7 \sim D12 \begin{smallmatrix} 0 \\ -0.025 \end{smallmatrix}$
helical angle diameter tolerance



订货号 part number	基本尺寸 (mm) dimension (mm)					齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	R	d	H	L			
OMHH-4R-040R0.2SH	4.0	0.2	4	10	75	4	图二 fig 2	●
OMHH-4R-040R0.2H	4.0	0.2	6	10	75	4	图一 fig 1	●
OMHH-4R-040R0.5SH	4.0	0.5	4	10	75	4	图二 fig 2	●
OMHH-4R-040R0.5H	4.0	0.5	6	10	75	4	图一 fig 1	●
OMHH-4R-060R0.2H	6.0	0.2	6	16	75	4	图二 fig 2	●
OMHH-4R-060R0.2G	6.0	0.2	6	16	100	4	图二 fig 2	●
OMHH-4R-060R0.5H	6.0	0.5	6	16	75	4	图二 fig 2	●
OMHH-4R-060R0.5G	6.0	0.5	6	16	100	4	图二 fig 2	●
OMHH-4R-060R1.0H	6.0	1.0	6	16	75	4	图二 fig 2	●
OMHH-4R-060R1.0G	6.0	1.0	6	16	100	4	图二 fig 2	●
OMHH-4R-080R0.2H	8.0	0.2	8	20	75	4	图二 fig 2	●
OMHH-4R-080R0.2G	8.0	0.2	8	20	100	4	图二 fig 2	●
OMHH-4R-080R0.5H	8.0	0.5	8	20	75	4	图二 fig 2	●
OMHH-4R-080R0.5G	8.0	0.5	8	20	100	4	图二 fig 2	●
OMHH-4R-080R1.0H	8.0	1.0	8	20	75	4	图二 fig 2	●
OMHH-4R-080R1.0G	8.0	1.0	8	20	100	4	图二 fig 2	●
OMHH-4R-100R0.2H	10.0	0.2	10	25	100	4	图二 fig 2	●
OMHH-4R-100R0.2G	10.0	0.2	10	25	150	4	图二 fig 2	●
OMHH-4R-100R0.5H	10.0	0.5	10	25	100	4	图二 fig 2	●
OMHH-4R-100R0.5G	10.0	0.5	10	25	150	4	图二 fig 2	●
OMHH-4R-100R1.0H	10.0	1.0	10	25	100	4	图二 fig 2	●
OMHH-4R-100R1.0G	10.0	1.0	10	25	150	4	图二 fig 2	●
OMHH-4R-100R2.0H	10.0	2.0	10	25	100	4	图二 fig 2	●
OMHH-4R-100R2.0G	10.0	2.0	10	25	150	4	图二 fig 2	●
OMHH-4R-120R0.2H	12.0	0.2	12	30	100	4	图二 fig 2	●
OMHH-4R-120R0.2G	12.0	0.2	12	30	150	4	图二 fig 2	●
OMHH-4R-120R0.5H	12.0	0.5	12	30	100	4	图二 fig 2	●
OMHH-4R-120R0.5G	12.0	0.5	12	30	150	4	图二 fig 2	●
OMHH-4R-120R1.0H	12.0	1.0	12	30	100	4	图二 fig 2	●
OMHH-4R-120R1.0G	12.0	1.0	12	30	150	4	图二 fig 2	●
OMHH-4R-120R2.0H	12.0	2.0	12	30	100	4	图二 fig 2	●
OMHH-4R-120R2.0G	12.0	2.0	12	30	150	4	图二 fig 2	●

●常备库存 Stock available ▲按订单生产 Make-to-order

被加工材料 Workpiece material (○适合 suitable, ●非常适合 very suitable)

碳素钢 Carbon steel	合金钢 Alloy steel	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel				不锈钢 Stainless steel	铸铁球 墨铸铁 Cast iron, nodular cast iron	铜合金 copper alloy	铝合金 Aluminum alloy	钛合金 titanium alloy	耐热合金 Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
○	○	●	●	●	●	○	○				

OMHH-4R, 4RH, 4RG 切削参数 recommend cutting parameters

被加工材料 Workpiece material	预硬钢、淬硬钢 Pre-hardened steel, hardened steel 40-50HRC		淬硬钢 Hardened steel 50-60HRC		淬硬钢 Hardened steel 60-68HRC	
	直径 Diameter (mm)	转速 Rotating speed (min-1)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min-1)	进给速度 Feed speed (mm/min)	转速 Rotating speed (min-1)
3	32000	1225	16000	610	11000	420
4	24000	1500	12000	745	8000	500
5	19000	1630	9500	815	6400	550
6	16000	1850	8000	925	5300	610
8	12000	1850	6000	925	4000	610
10	9600	1850	4800	925	3200	610
12	8000	1920	4000	960	2700	648
16	6000	1440	3000	720	2000	480

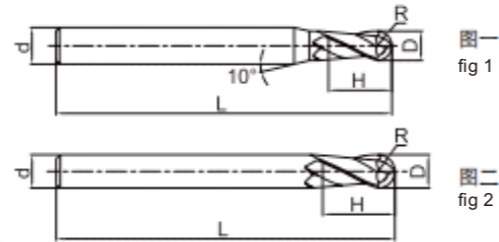
最大切深 max. cutting depth	预硬钢、淬硬钢 Pre-hardened steel, hardened steel 40-50HRC		淬硬钢 Hardened steel 50-60HRC		淬硬钢 Hardened steel 60-68HRC	
	最大 Ae=1.0mm MAX	Ae=1.5D Ap=1D	最大 Ae=0.5mm MAX	Ae=0.3D Ap=1D	最大 Ae=0.3mm MAX	Ae=0.02D Ap=1D

1. 请使用高精度、高刚性的设备及夹具
2. 上表是等高线等负荷变化较小的基准。机床与工件安装刚性较差的情况下, 会产生振动及异常声音, 此时应将上表的转速与进给速度同比降低
3. 请使用空气冷却或MQC (最小油雾冷却)
4. 侧面铣削推荐顺铣加工
5. 在不干涉的条件下尽可能使刀具悬长最短。

- 1 Please select high-precision machine and tool holder.
- 2 Please use air cooling or MQL (minimum oil mist cooling)
- 3 climb milling is recommended in the case of side milling.
- 4 When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed rate stated above correspondingly.
- 5 Make overhang of tool as short as possible in conditions of non-interference.

OMHH-2B 二刃直柄球头立铣刀

OMHH-2B 2 flutes straight shank ball head end mill



●适用于仿形铣削, ●最适用于高速切削, 干式切削
Suitable for profile milling. Most suitable for high speed milling and dry milling.

螺旋角 $\angle 35^\circ$ 直径公差 $D1 \sim D20 \begin{smallmatrix} 0 \\ -0.02 \end{smallmatrix}$ $R \pm 0.005$
helical angle diameter tolerance



订货号 part number	基本尺寸 (mm) dimension (mm)					齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	R	d	H	L			
OMHH-2B-010R0.5S	1.0	0.5	4	2	50	2	图一 fig 1	●
OMHH-2B-010R0.5	1.0	0.5	6	2	50	2	图一 fig 1	●
OMHH-2B-015R0.75S	1.5	0.75	4	3	50	2	图一 fig 1	●
OMHH-2B-015R0.75	1.5	0.75	6	3	50	2	图一 fig 1	●
OMHH-2B-020R1.0S	2.0	1.0	4	4	50	2	图一 fig 1	●
OMHH-2B-020R1.0	2.0	1.0	6	4	50	2	图一 fig 1	●
OMHH-2B-025R1.25S	2.5	1.25	4	5	50	2	图一 fig 1	●
OMHH-2B-025R1.25	2.5	1.25	6	5	50	2	图一 fig 1	●
OMHH-2B-030R1.5S	3.0	1.5	4	6	50	2	图一 fig 1	●
OMHH-2B-030R1.5	3.0	1.5	6	6	50	2	图一 fig 1	●
OMHH-2B-035R1.75	3.5	1.75	6	8	50	2	图一 fig 1	●
OMHH-2B-040R2.0S	4.0	2.0	4	8	50	2	图二 fig 2	●
OMHH-2B-040R2.0	4.0	2.0	6	8	50	2	图一 fig 1	●
OMHH-2B-050R2.5	5.0	2.5	6	10	50	2	图一 fig 1	●
OMHH-2B-055R2.75	5.5	2.75	6	12	50	2	图一 fig 1	●
OMHH-2B-060R3.0	6.0	3.0	6	12	50	2	图二 fig 2	●
OMHH-2B-070R3.5	7.0	3.5	8	14	60	2	图一 fig 1	●
OMHH-2B-080R4.0	8.0	4.0	8	16	60	2	图二 fig 2	●
OMHH-2B-090R4.5	9.0	4.5	10	18	75	2	图一 fig 1	●
OMHH-2B-100R5.0	10.0	5.0	10	20	75	2	图二 fig 2	●
OMHH-2B-120R6.0	12.0	6.0	12	24	75	2	图二 fig 2	●
OMHH-2B-140R7.0	14.0	7.0	14	28	75	2	图二 fig 2	●
OMHH-2B-160R8.0	16.0	8.0	16	32	100	2	图二 fig 2	●
OMHH-2B-200R10.0	20.0	10.0	20	40	100	2	图二 fig 2	●

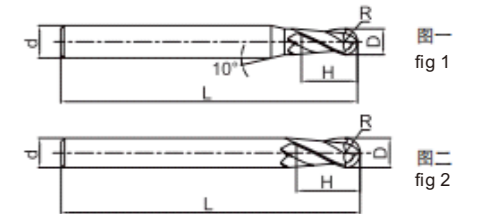
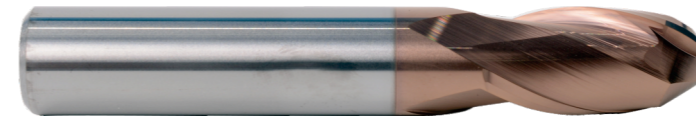
●常备库存 Stock available ▲按订单生产 Make-to-order

被加工材料 Workpiece material (○适合 suitable, ◎非常适合 very suitable)

碳素钢 Carbon steel	合金钢 Alloy steel	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel				不锈钢 Stainless steel	铸铁球 墨铸铁 Cast iron, nodular cast iron	铜合金 copper alloy	铝合金 Aluminum alloy	钛合金 titanium alloy	耐热合金 Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
○	○	◎	◎	◎	◎	○	○				

OMHH-2BH/G 二刃长柄/超长柄球头立铣刀

OMHH-2BH/G 2 flutes long shank/extra long shank ball head end mill



●适用于仿形铣削, ●最适用于高速切削, 干式切削
Suitable for profile milling. Most suitable for high speed milling and dry milling.

螺旋角 $\angle 35^\circ$ 直径公差 $D1 \sim D20 \begin{smallmatrix} 0 \\ -0.02 \end{smallmatrix}$ $R \pm 0.005$
helical angle diameter tolerance



订货号 part number	基本尺寸 (mm) dimension (mm)					齿数 (z) Number of flutes	形式 Geometry	库存 stock
	D	R	d	H	L			
OMHH-2B-020R1.0SH	2.0	1.0	4	4	75	2	图一 fig 1	●
OMHH-2B-020R1.0H	2.0	1.0	6	4	75	2	图一 fig 1	●
OMHH-2B-025R1.25SH	2.5	1.25	4	5	75	2	图一 fig 1	●
OMHH-2B-025R1.25H	2.5	1.25	6	6	75	2	图一 fig 1	●
OMHH-2B-030R1.5SH	3.0	1.5	4	6	75	2	图一 fig 1	●
OMHH-2B-030R1.5H	3.0	1.5	6	6	75	2	图一 fig 1	●
OMHH-2B-035R1.75SH	3.5	1.75	4	8	75	2	图一 fig 1	●
OMHH-2B-035R1.75H	3.5	1.75	6	8	75	2	图一 fig 1	●
OMHH-2B-040R2.0SH	4.0	2.0	4	8	75	2	图二 fig 2	●
OMHH-2B-040R2.0H	4.0	2.0	6	8	75	2	图一 fig 1	●
OMHH-2B-050R2.5H	5.0	2.5	6	10	75	2	图一 fig 1	●
OMHH-2B-055R2.75H	5.5	2.75	6	12	75	2	图一 fig 1	●
OMHH-2B-060R3.0H	6.0	3.0	6	12	75	2	图二 fig 2	●
OMHH-2B-070R3.5H	7.0	3.5	8	14	75	2	图一 fig 1	●
OMHH-2B-080R4.0H	8.0	4.0	8	16	75	2	图二 fig 2	●
OMHH-2B-090R4.5H	9.0	4.5	10	18	100	2	图一 fig 1	●
OMHH-2B-100R5.0H	10.0	5.0	10	20	100	2	图二 fig 2	●
OMHH-2B-120R6.0H	12.0	6.0	12	24	100	2	图二 fig 2	●
OMHH-2B-140R7.0H	14.0	7.0	14	28	150	2	图二 fig 2	●
OMHH-2B-160R8.0H	16.0	8.0	16	32	150	2	图二 fig 2	●
OMHH-2B-200R10.0H	20.0	10.0	20	40	150	2	图二 fig 2	●
OMHH-2B-060R3.0G	6.0	3.0	6	12	100	2	图二 fig 2	●
OMHH-2B-080R4.0G	8.0	4.0	8	16	100	2	图二 fig 2	●
OMHH-2B-100R5.0G	10.0	5.0	10	20	150	2	图二 fig 2	●
OMHH-2B-120R6.0G	12.0	6.0	12	24	150	2	图二 fig 2	●

●常备库存 Stock available ▲按订单生产 Make-to-order

被加工材料 Workpiece material (○适合 suitable, ◎非常适合 very suitable)

碳素钢 Carbon steel	合金钢 Alloy steel	预硬钢、淬硬钢 Pre-hardened steel, Hardened steel				不锈钢 Stainless steel	铸铁球 墨铸铁 Cast iron, nodular cast iron	铜合金 copper alloy	铝合金 Aluminum alloy	钛合金 titanium alloy	耐热合金 Heat resistant alloy
		~40HRC	~50HRC	~55HRC	~68HRC						
○	○	◎	◎	◎	◎	○	○				

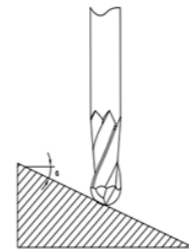
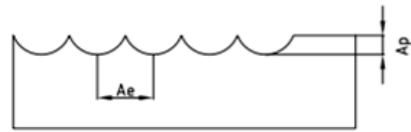
OMHH-2BH/G 二刃长柄/超长柄球头立铣刀

OMHH-2BH/G 2 flutes long shank/extra long shank ball head end mill

OMHH-2B/2BH/G系列切削参数表 recommend cutting parameters

被加工材料 Workpiece material	预硬钢、淬硬钢 Pre-hardened steel, hardened steel 40-50HRC				淬硬钢 Hardened steel 50-60HRC				淬硬钢 Hardened steel 60-68HRC			
	直径 Diameter (mm)	转速 Rotating speed (min ⁻¹)	进给速度 Feedspeed (mm/min)	Ap (mm)	Ae (mm)	转速 Rotating speed (min ⁻¹)	进给速度 Feedspeed (mm/min)	Ap (mm)	Ae (mm)	转速 Rotating speed (min ⁻¹)	进给速度 Feedspeed (mm/min)	Ap (mm)
R0.5	40000	1900	0.01	0.05	36000	1500	0.01	0.05	32000	1400	0.01	0.05
R1.0	33000	3100	0.02	0.075	26000	2100	0.02	0.075	24000	2000	0.02	0.075
R1.5	29000	4100	0.03	0.1	23000	2900	0.03	0.1	21000	2600	0.03	0.1
R2.0	22000	3900	0.04	0.15	17000	2500	0.04	0.15	15500	2100	0.04	0.15
R2.5	17500	3500	0.05	0.15	13500	2200	0.05	0.15	13000	2000	0.05	0.15
R3.0	15000	3100	0.06	0.2	11500	1700	0.06	0.2	10500	1500	0.06	0.2
R4.0	11000	2500	0.08	0.25	8600	1600	0.08	0.25	8000	1400	0.08	0.25
R5.0	9000	2000	0.1	0.3	7000	1400	0.1	0.3	6000	1200	0.1	0.3
R6.0	7500	1800	0.1	0.35	5700	1300	0.1	0.35	5300	1200	0.1	0.35
R8.0	5500	1800	0.1	0.4	4300	1300	0.1	0.4	4000	1200	0.1	0.4
R10.0	4500	1800	0.1	0.5	3500	1300	0.1	0.5	3200	1200	0.1	0.5

最大切深量
max. cutting depth



1. 请使用高精度、高刚性设备及夹角。

1. 上表是等高线等负荷变化较小的基准。机床与工件安装刚性较差的情况下,会产生振动及异常声音,此时应将上表的转速与进给速度同比降低

2. 请使用空气冷却或MQC(最小油雾冷却)

3. 倾斜角度 α 超过15°时, 请将上表速度下调至50%-80%

4. 在不干涉的条件下尽可能使刀具悬长最短。

1. Please select high-precision machine and tool holder.

2. When the machine rigidity and workpiece fixture stability is low, vibration and abnormal noise may be generated. Please reduce the rotating speed and feed rate stated above correspondingly.

3. Please use air cooling or MQL (minimum oil mist cooling)

4 If inclination angle α over 15°, please reduce the speed to 50%-80% of above table.

5 Make overhang of tool as short as possible in conditions of non-interference.