

G-LIST No. | EH1195

XPM 大螺旋角短刃型 (V涂层)
V Coated-XPM-High Helix-Short

V-XPM-EHS

切削条件 Cutting Conditions **P832**



切削锋利的良好大螺旋角刃，重切削精加工可以得到广泛的对应。
High helix flute with superior milling capability. This tool can perform a wide range of operations, from heavy to finish milling.

XPM V $\text{DC} \leq 6$ 0~0.035
6<DC \leq 10 0~0.04
10<DC \leq 18 0~0.045
18<DC 0~0.05

50°

G-LIST No. | EH1201

XPM大螺旋角长刃型 (V涂层)
V Coated-XPM-High Helix-Long

V-XPM-EHL



切削锋利的良好大螺旋角长刃系列。通过V涂层获得安定长久的工具寿命。
Long flute with strong helix and superior milling ability. Vcoating provides additional tool longevity.

XPM V $\text{DC} \leq 6$ 0~0.035
6<DC \leq 10 0~0.04
10<DC \leq 18 0~0.045
18<DC 0~0.05

50°

(单位:mm) (Unit:mm)

商品号 EDP No.	外径×刃数 DC × ZEFP	全长 LF	刃长 APMX	柄径 DCON	刃数 ZEFP	库存 Stock	重量 (g)
8454030	3 × 3F	55	6	6			14
8454040	4 × 3F		8		3		25
8454050	5 × 3F		10				25
8454060	6 × 3F	65		8			25
8454660	6 × 4F		15		4		26
8454070	7 × 3F						41
8454080	8 × 3F	75	20	10	3		44
8454680	8 × 4F				4		43
8454090	9 × 3F	80					60
8454100	10 × 3F		25		3		75
8454700	10 × 4F	90			4		77
8454110	11 × 3F			12	3		80
8454120	12 × 3F	95	30				83
8454720	12 × 4F				4		84
8454140	14 × 3F				3		151
8454740	14 × 4F	105	35		4		150
8454150	15 × 3F			16	3		161
8454750	15 × 4F				4		163
8454160	16 × 3F	110	40		3		164
8454760	16 × 4F				4		169
8454180	18 × 3F				3		273
8454780	18 × 4F	120			4		280
8454200	20 × 3F			20	3		298
8454800	20 × 4F	125	45		4		302
8454220	22 × 3F				3		459
8454320	22 × 4F	135			4		467
8454240	24 × 3F			25	3		492
8454340	24 × 4F				4		501
8454250	25 × 3F	140	50		3		504
8454350	25 × 4F				4		507
8454280	28 × 3F				3		823
8454380	28 × 4F	150	55	32	4		843
8454300	30 × 3F				3		859
8454400	30 × 4F				4		870

(单位:mm) (Unit:mm)

商品号 EDP No.	外径×刃数 DC × ZEFP	全长 LF	刃长 APMX	柄径 DCON	刃数 ZEFP	库存 Stock	重量 (g)
8454456	6 × 3F	75	25	8			26
8454457	7 × 3F						48
8454458	8 × 3F	90	35	10			50
8454459	9 × 3F	100		45			56
8454460	10 × 3F	110					82
8454461	11 × 3F				12		95
8454462	12 × 3F	120	55		3		98
8454464	14 × 3F						180
8454465	15 × 3F	135	65	16			186
8454466	16 × 3F						191
8454468	18 × 3F	155	75		20		319
8454470	20 × 3F	165					357
8454472	22 × 3F			85			552
8454492	22 × 4F	175			4		540
8454474	24 × 3F				3		627
8454494	24 × 4F				4		622
8454475	25 × 3F			195			653
8454495	25 × 4F				4		657
8454478	28 × 3F				3		970
8454498	28 × 4F				4		976
8454480	30 × 3F	200			32		1038
8454500	30 × 4F				4		1063

加工材料 Work Material	碳素钢 Carbon Steel	合金钢 Alloy Steel	预硬钢 Prehardened Steel	不锈钢 Stainless Steel	铸铁 Cast Iron	铜合金 Copper Alloy	铝合金 Aluminum Alloy	钛合金 Titanium Alloy	耐热合金 Heat Resistant Alloy	塑料 Plastic
商品记号 Abbreviation	预硬钢 Prehardened Steel	工具钢 Tool Steel	淬火钢 Hardened Steel	~45HRC	~35HRC	~350HB				
V-XPM-EHS	○	○	○	○	○	○	○	○	○	○
V-XPM-EHL	○	○	○	○	○	○	○	○	○	○

● = 标准库存品 ● = Standard stock item. □ = 特定代理店库存品 □ = Stocked by specific distributors. Contact us for price & availability.

●记号说明请参考 P1 页。

See page 1 for explanation of icons.

硬质合金铣刀
CARBIDE MILLS

高速钢立铣刀
HSS END MILLS

SPECIFICATION CHART
形状尺寸表

可转位式刀具
INDEXABLE TOOL

钻头/铰刀
DRILLS/REAMERS

索引
INDEX

HSS SQUARE
高速钢平头铣刀

HSS BALL NOSE
高速钢球头铣刀

HSS CORNER RADIUS
高速钢圆弧
R角铣刀

HSS ROUGHING
高速钢波纹
铣刀

HSS TAPER
高速钢锥形铣刀

HSS TAPER BALL NOSE
高速钢锥形
球头铣刀

HSS INVERTED TAPER
高速钢倒锥形铣刀

HSS T-SLOT
高速钢T槽铣刀

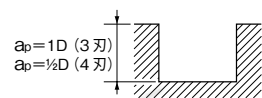
HSS COUNTERBORING
高速钢沉孔铣刀

HSS CHAMFERING
高速钢倒角刀

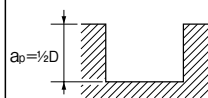
V涂层 XPM 大螺旋角短刀型 V-XPM-EHS
V涂层 XPM 大螺旋角铣刀短刃带断屑槽 V-XPM-NHS※
槽铣

V COATED XPM HIGH HELIX SHORT
V COATED XPM HIGH HELIX WITH NICK
SLOTTING

加工材料 Work Material	碳素钢·铸铁 Carbon Steel·Cast Iron S50C·FC250 (490~735N/mm ²)		合金钢 Alloy Steel SCM·SNCM (735~980N/mm ²)		不锈钢·预硬钢 Stainless Steel· Prehardened Steel SUS304·NAK80 (30~38HRC)		调质钢 Hardened Steel SKD·SKT (38~45HRC)		耐热合金钢·钛合金 镍基合金 Heat Resistant Alloy Steel· Titanium Alloy Steel· Inconel® Ti-6Al-4V	
	外径 Mill Dia. (mm)	转速 Speed (min ⁻¹)	进给速度 Feed (mm/min)	转速 Speed (min ⁻¹)	进给速度 Feed (mm/min)	转速 Speed (min ⁻¹)	进给速度 Feed (mm/min)	转速 Speed (min ⁻¹)	进给速度 Feed (mm/min)	转速 Speed (min ⁻¹)
6	1,500	60	1,400	56	1,300	45	1,000	40	750	25
8	1,200	60	1,050	56	950	45	710	40	560	25
10	950	60	850	63	710	56	600	50	450	35
12	800	71	750	63	600	56	500	50	375	35
14	800	71	750	63	600	56	400	50	315	35
16	710	71	630	63	450	56	400	50	280	35
18	630	71	530	63	450	56	300	50	250	35
20	475	60	450	55	355	45	300	50	225	35
25	425	60	400	50	355	45	200	40	180	30
30	280	60	280	50	225	40	200	40	150	30



$a_p = 1D$ (3刃)
 $a_p = 1/2D$ (4刃)



$a_p = 1/2D$

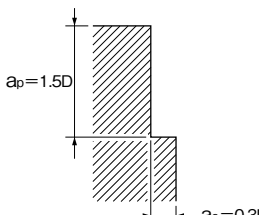
1. 此条件表是以粗加工为基准作成的。
2. a_p 降低至一半时，进给速度能够上调至两倍左右。
3. 使用4刃时，请将 a_p 下降至一半。
4. 重切削时请使用发烟性少的切削油。
5. 请使用把力强的弹簧夹头。
- ※ 用 V-XPM-NHS(带断屑槽) 进行粗加工时，能够将进给速度提高1.3~1.5倍。

1. The indicated speeds and feeds are for a roughing operations.
2. When reducing cutting depth by half, the feeds can be increased approximately 2 times the above figures.
3. For milling with 4-fluted end mills, reduce the cutting depth by half when slotting.
4. For heavy milling, use cutting fluids with high smoke retardant.
5. Use a rigid milling chuck with high holding power.
- ※ For roughing operations with V-XPM-NHS, the feed can be increased by 30~50%.

V涂层 XPM 大螺旋角短刀型 V-XPM-EHS
V涂层 XPM 大螺旋角铣刀短刃带断屑槽 V-XPM-NHS※
侧铣

V COATED XPM HIGH HELIX
V COATED XPM HIGH HELIX WITH NICK
SIDE MILLING

加工材料 Work Material	碳素钢·铸铁 Carbon Steel·Cast Iron S50C·FC250 (490~735N/mm ²)		合金钢 Alloy Steel SCM·SNCM (735~980N/mm ²)		不锈钢·预硬钢 Stainless Steel· Prehardened Steel SUS304·NAK80 (30~38HRC)		调质钢 Hardened Steel SKD·SKT (38~45HRC)		耐热合金钢·钛合金 镍基合金 Heat Resistant Alloy Steel· Titanium Alloy Steel· Inconel® Ti-6Al-4V	
	外径 Mill Dia. (mm)	转速 Speed (min ⁻¹)	进给速度 Feed (mm/min)	转速 Speed (min ⁻¹)	进给速度 Feed (mm/min)	转速 Speed (min ⁻¹)	进给速度 Feed (mm/min)	转速 Speed (min ⁻¹)	进给速度 Feed (mm/min)	转速 Speed (min ⁻¹)
6	2,500	90	2,350	90	1,900	71	1,400	60	1,050	40
8	1,800	120	1,700	90	1,400	75	1,050	60	800	40
10	1,500	125	1,300	100	1,100	95	850	71	630	60
12	1,250	140	1,200	120	950	95	750	71	530	60
14	1,000	150	1,000	125	800	110	630	71	450	60
16	850	150	900	125	710	110	560	80	400	60
18	800	140	750	120	630	110	475	75	355	40
20	750	140	670	120	560	100	450	75	315	40
25	600	160	560	120	450	80	355	60	250	40
30	425	180	400	110	335	60	265	45	210	35

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$a_p = 1.5D$

$a_e = 0.3D$
1. 此条件表是以粗加工为基准作成的。
 2. a_p 降低至一半时，进给速度能够上调至两倍左右。
 3. 使用4刃时，可将进给速度上调1.2~1.3倍。
 4. 重切削时请使用发烟性少的切削油。
 5. 请使用把力强的弹簧夹头。
 - ※ 用 V-XPM-NHS(带断屑槽) 进行粗加工时，能够将进给速度提高1.3~1.5倍。

1. The indicated speeds and feeds are for a roughing operations.
2. When reducing cutting depth by half, the feeds can be increased approximately 2 times the above figures.
3. For side milling with 4-fluted end mills, the feed can be increased by 20~30%.
4. For heavy milling, use cutting fluids with high smoke retardant.
5. Use a rigid milling chuck with high holding power.
- ※ For roughing operations with V-XPM-NHS, the feed can be increased by 30~50%.