

MHRH230R

切削参数参考表 Recommended Milling Conditions

加工材料 Work Material			淬火钢 Hardened Steels HPM-38·STAVAX·SKD61 (~ 55HRC)				淬火钢 Hardened Steels SKD11·PD613 (~ 62HRC)				高速钢 High Speed Tool Steels SKH (~ 65HRC)			
刃径 Dia.	(R)角半径 Corner Radius	有效长 Effective length	主轴转速 Spindle Speed	进给速度 Feed	切深量 Depth of Cut		主轴转速 Spindle Speed	进给速度 Feed	切深量 Depth of Cut		主轴转速 Spindle Speed	进给速度 Feed	切深量 Depth of Cut	
			min ⁻¹	mm/min	ap mm	ae mm	min ⁻¹	mm/min	ap mm	ae mm	min ⁻¹	mm/min	ap mm	ae mm
0.2	0.05	0.5	30,000	200	0.003	0.03	30,000	160	0.003	0.02	30,000	120	0.003	0.01
		1	30,000	150	0.003	0.02	30,000	120	0.003	0.01	30,000	80	0.003	0.007
		1.5	30,000	100	0.002	0.01	30,000	80	0.002	0.007	30,000	60	0.002	0.005
		2	30,000	50	0.002	0.007	30,000	40	0.002	0.005	30,000	30	0.002	0.003
0.3	0.05	1	30,000	300	0.003	0.05	30,000	250	0.003	0.04	30,000	200	0.003	0.03
		1.5	30,000	200	0.003	0.04	30,000	160	0.003	0.03	30,000	120	0.003	0.02
		2	30,000	150	0.003	0.03	30,000	120	0.003	0.02	25,000	100	0.003	0.01
		2.5	25,000	100	0.002	0.02	25,000	80	0.002	0.01	20,000	60	0.002	0.007
		3	25,000	50	0.002	0.01	25,000	40	0.002	0.007	20,000	30	0.002	0.005
0.4	0.05 0.1	1	30,000	400	0.005	0.07	30,000	350	0.005	0.05	25,000	300	0.005	0.03
		2	30,000	320	0.005	0.05	25,000	280	0.005	0.03	25,000	220	0.005	0.02
		3	25,000	260	0.004	0.03	20,000	220	0.003	0.02	18,000	180	0.003	0.01
		4	25,000	200	0.003	0.01	20,000	160	0.002	0.01	18,000	120	0.002	0.007
0.5	0.05 0.1	1	25,000	500	0.01	0.15	23,000	450	0.007	0.1	20,000	400	0.005	0.08
		2	25,000	420	0.01	0.1	23,000	380	0.007	0.08	20,000	320	0.005	0.05
		3	25,000	350	0.007	0.07	23,000	320	0.005	0.05	20,000	280	0.003	0.03
		4	25,000	280	0.005	0.05	23,000	240	0.003	0.03	20,000	200	0.002	0.02
		5	20,000	200	0.003	0.03	18,000	150	0.003	0.02	16,000	100	0.002	0.01
0.6	0.05 0.1	2	25,000	500	0.015	0.2	23,000	400	0.01	0.15	20,000	300	0.007	0.1
		4	25,000	350	0.015	0.1	23,000	250	0.007	0.1	16,000	200	0.005	0.05
		6	20,000	200	0.008	0.07	18,000	150	0.005	0.05	12,000	100	0.003	0.02
0.7	0.05 0.1	4	25,000	600	0.02	0.15	23,000	500	0.01	0.1	20,000	400	0.007	0.07
		6	20,000	350	0.01	0.06	18,000	250	0.007	0.05	16,000	200	0.005	0.03
0.8	0.05 0.1 0.2	4	25,000	700	0.025	0.2	23,000	600	0.015	0.15	20,000	500	0.01	0.1
		6	20,000	550	0.02	0.15	18,000	450	0.01	0.1	16,000	350	0.007	0.08
		8	16,000	400	0.007	0.08	14,000	300	0.005	0.05	12,000	200	0.005	0.03
0.9	0.1	4	25,000	800	0.03	0.25	20,000	720	0.02	0.2	16,000	600	0.01	0.15
		8	16,000	400	0.01	0.1	12,000	350	0.008	0.1	8,500	300	0.005	0.07
备注 Notes			<p>※ 请根据实际的加工形状及使用机床等调整切削参数。</p> <p>※ 切深量的ap表示轴向切入量，ae表示径向切入量。</p> <p>※ 加工淬火钢时，建议使用油雾冷却方式。</p> <p>※ 轴向进刀建议采用螺旋进刀及倾斜进刀方式。</p> <p>※ L (有效长) / D (刃径) 超过8倍时，立面附近的进给速度须调整至50%以下，切深量：ae调整至30%以下。</p> <p>※ 沟槽切削时建议参考切削参数表，切深量ap及进给速度设定为50%以下，采用来回切削加工方式。</p> <p>※ 发生振动时，请以相同的比率降低主轴转速和进给速度。此外，主轴转速过低时，也以相同的比率调整。</p> <p>※ Adjust milling conditions according to milling shape and machine type.</p> <p>※ Recommend to use oil mist coolant for machining hardened steels.</p> <p>※ Recommend to apply helical or ramping for approaching into axial direction.</p> <p>※ Adjust feed rate 50% lower and cutting depth (ae) 30% lower for milling deep wall area when L/D exceeds 8 for stable milling.</p> <p>※ For slotting, recommend reciprocating milling by adjusting feed & ap in below 50% of recommended milling condition.</p> <p>※ Reduce both spindle speed and feed at same rate for chattering and also for insufficient spindle speed of a machine.</p>											

CBN铣刀
Cube Boron Nitride

钻石铣刀
Diamond

平底铣刀
Square

长颈平底铣刀
Long Neck Square

球头铣刀
Ball

长颈球头铣刀
Long Neck Ball

圆鼻铣刀
Radius

长颈圆鼻铣刀
Long Neck Radius

锥形铣刀
Taper

锥形球头铣刀
Taper Ball

锥形圆鼻铣刀
Taper Radius

钻头
Drilling

螺纹铣刀
Thread Milling

倒角刀
Chamfering