

切削参数参考表

Recommended Milling Conditions

涂层
Coating

加工材料 Work Material			不锈钢 Stainless Steels SUS304						钛合金 Titanium Alloy Ti-6Al-4V					
外 径 Dia.	刃 长 Length of Cut	L(刃长)/ D(刃径) L/D	侧面 Side Milling		沟槽 Slotting		插铣 Plunging		侧面 Side Milling		沟槽 Slotting		插铣 Plunging	
			主轴转速 Spindle Speed	进给速度 Feed	主轴转速 Spindle Speed	进给速度 Feed	主轴转速 Spindle Speed	进给速度 Feed	主轴转速 Spindle Speed	进给速度 Feed	主轴转速 Spindle Speed	进给速度 Feed	主轴转速 Spindle Speed	进给速度 Feed
			min ⁻¹	mm/min	min ⁻¹	mm/min	min ⁻¹	mm/min	min ⁻¹	mm/min	min ⁻¹	mm/min	min ⁻¹	mm/min
1	2	2	18,000	600	15,000	200	15,000	50	16,800	600	13,500	200	13,500	50
	3	3	16,000	500	12,000	150	12,000	30	14,900	500	10,800	150	10,800	30
1.5	3	2	12,500	700	11,000	220	11,000	50	11,700	700	10,000	220	10,000	50
	4.5	3	11,000	550	8,500	160	8,500	30	10,300	550	7,700	160	7,700	30
2	4	2	10,000	850	8,600	240	8,600	50	9,300	850	7,800	240	7,800	50
	6	3	8,500	650	7,300	180	7,300	30	7,900	650	6,600	180	6,600	30
2.5	5	2	8,200	1,000	7,600	280	7,600	50	7,600	1,000	6,900	280	6,900	50
	7.5	3	7,100	750	6,300	200	6,300	30	6,600	750	5,700	200	5,700	30
3	6	2	7,200	1,100	6,800	300	6,800	50	6,700	1,100	6,200	300	6,200	50
	9	3	6,000	800	5,400	220	5,400	30	5,600	800	4,900	220	4,900	30
3.5	7	2	6,700	1,150	5,700	330	5,700	50	6,200	1,150	5,200	330	5,200	50
	10.5	3	5,500	900	4,800	230	4,800	30	5,100	900	4,400	230	4,400	30
4	8	2	6,400	1,200	5,300	330	5,300	50	6,000	1,200	4,800	330	4,800	50
	12	3	5,400	920	4,400	230	4,400	30	5,000	920	4,000	230	4,000	30
4.5	9	2	6,000	1,200	4,900	350	4,900	50	5,600	1,200	4,500	350	4,500	50
	13.5	3	5,200	1,000	4,000	240	4,000	30	4,800	1,000	3,700	240	3,700	30
5	10	2	5,600	1,200	4,600	360	4,600	50	5,200	1,200	4,200	360	4,200	50
	15	3	5,000	1,000	3,700	240	3,700	30	4,700	1,000	3,400	240	3,400	30
5.5	11	2	5,300	1,200	4,400	380	4,400	50	4,900	1,200	4,000	380	4,000	50
	16.5	3	4,800	1,000	3,400	250	3,400	30	4,500	1,000	3,100	250	3,100	30
6	12	2	5,000	1,200	4,200	400	4,200	50	4,600	1,200	3,800	400	3,800	50
	18	3	4,500	1,000	3,200	250	3,200	30	4,200	1,000	2,900	250	2,900	30
切深量 Depth of Cut (D:外径 Dia.)														
备 注 Notes			<p>※ 1 测量刀具长度时请测量子刃。 ※ 2 请根据机床刚性和工件的夹持状态等调整切削参数。 实际加工时请根据加工形状、目的以及所用的机床等调整切削参数。 ※ 3 请以相同的比率调整主轴转速和进给速度。 ※ 4 建议使用水溶性切削方式。 ※ 5 供应冷却液时请尽量增大流量、加高压力，以排出切屑。 ※ 6 插铣时若排屑不佳，请调整轴向切深量和进给速度。 ※ 7 排屑不佳可能会导致刀具崩刃和折断，敬请注意。 ※ 8 建议使用刚性较大的铣刀刀柄和机床。 ※ 9 请尽量缩短刀具的伸出量。</p> <p>※ 1 Please choose the short end tooth when measure the tool length. ※ 2 Adjust milling condition conforming with machine rigidity and clamping condition. Final milling conditions are subject to machining profile, purpose and machine status. ※ 3 Adjust both Spindle Speed and Feed at the same rate. ※ 4 Water-soluble fluid is recommended. ※ 5 Please increasing the coolant flow rate and pressure as much as possible, and supply it sufficiently to the machining point and flute. ※ 6 Please change the Depth of Cut or Feed when chips could not remove smoothly during plunging. ※ 7 Please be noted there would be a possible tool chipping or breakage when the chip removal is insufficient. ※ 8 Use a rigid and precise machine and chuck holder. ※ 9 Overhang of end mill should be as short as possible from spindle nose.</p>											

M 不锈钢
Stainless SteelS 钛合金
耐热合金
Titanium Alloy
Heat Resistant Alloy