

切削参数参考表
Recommended Milling Conditions

全刃长

Full Cutting Length

长颈

Long Neck

无涂层

Non-Coating

球头

Ball

加工材料 Work Material			铝合金 Aluminium Alloy A2017 · A5052 · A7075							
			一般参数 Normal Speed				高速参数 High Speed			
刀具伸出量 Tool Overhung			L / D ≥ 10				L / D < 10			
(R)球头半径 Radius	刃长 Length of Cut	颈长 Under neck 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	
			min ⁻¹	mm/min	ap mm	ae mm	min ⁻¹	mm/min	ap mm	ae mm
0.3	0.45	3	20,000	1,000	0.1	0.2	40,000	2,000	0.1	0.2
0.4	0.6	4	20,000	1,000	0.1	0.2	40,000	2,000	0.1	0.2
0.5	2	—	20,000	2,000	0.3	0.3	40,000	4,000	0.3	0.3
	0.75	5	20,000	1,500	0.3	0.3	30,000	3,000	0.3	0.3
	0.75	10	10,000	1,000	0.2	0.2	20,000	2,000	0.2	0.2
0.75	3	—	20,000	2,000	0.3	0.5	40,000	4,000	0.3	0.5
	1.1	7.5	16,000	1,600	0.3	0.5	30,000	3,000	0.3	0.5
	1.1	15	10,000	1,000	0.2	0.3	20,000	2,000	0.2	0.3
1	4	—	20,000	2,000	0.5	0.5	30,000	4,000	0.5	0.5
	1.5	10	15,000	1,500	0.3	0.5	20,000	3,000	0.3	0.5
	1.5	20	12,000	1,200	0.2	0.5	15,000	2,000	0.2	0.5
1.5	6	—	18,000	2,000	0.6	1	25,000	4,000	0.6	1
	2.5	15	15,000	1,600	0.6	1	20,000	3,000	0.6	1
	2.5	30	12,000	1,200	0.3	1	15,000	2,000	0.3	1
2	8	—	14,000	2,000	0.5	1.5	20,000	4,000	0.5	1.5
	3	20	12,000	1,500	0.5	1.5	16,000	3,000	0.5	1.5
	3	40	8,000	1,000	0.3	1.5	12,000	2,000	0.3	1.5
2.5	10	—	12,000	3,000	0.8	1.8	20,000	5,000	0.8	1.8
	3.5	25	8,000	2,000	0.8	1.8	15,000	3,000	0.8	1.8
	3.5	50	5,000	1,500	0.5	1.8	10,000	2,000	0.5	1.8
3	12	—	12,000	3,000	1	2	20,000	5,000	1	2
	6	30	8,000	2,000	1	2	15,000	4,000	1	2
	6	60	5,000	1,200	0.6	2	10,000	2,000	0.6	2
4	16	—	10,000	2,000	1	2	15,000	3,000	1	2
5	20	—	8,000	2,000	2	3	12,000	3,000	2	3
6	24	—	6,000	2,000	3	4	10,000	3,000	3	4

备 注
Notes

※1 切深量的ap表示轴向切深量，ae表示步距量。

※2 请以相同的比率调整主轴转速和进给速度。
(机床主轴转速使用20,000转以上时，请进行相同的调整。)

※3 请使用刚性好的机床和夹具。

※4 因工件、机床或铣刀刀柄而导致出现振动或异响时，请变更切削参数。

※5 建议使用水溶性切削方式。

※1 Depth of Cut: ap=Axial Depth of Cut / ae=Radial Depth of Cut.

※2 Adjust both spindle speed and feed at the same rate.

(When using spindle speed 20,000 or more, the same adjustment is required.)

※3 Use a rigid and precise machine and chuck holder.

※4 Adjust milling conditions when vibration and abnormal sounds occur according to the rigidity of the machine and the chuck holder, or work clamping condition.

※5 Water-soluble fluid is recommended.

N 铝合金

Aluminium Alloy

N 铜合金

Copper

O 树脂

Resin