

ALB225 · ALB225-DLC

切削参数参考表 Recommended Milling Conditions

技术资料 K-026

| 加工材料 Work Material | | | 铝合金 A2017·A5052·A7075 | | | | | | | |
|------------------------|---------------------|-------------------------|--|------------------------|---------------------------------------|-----|--|------------------------|---------------------------------------|-----|
| | | | 一般切削参数 General Milling Conditions | | | | 高速切削参数 High Speed Milling Conditions | | | |
| 刀具伸出量 Tool Overhang | | | L/D ≥ 10 | | | | L/D < 10 | | | |
| (R)球头半径 Radius | 刃长 Length of Cut | 有效长 Effective Length | 主轴转速 Spindle Speed min ⁻¹ | 进给速度 Feed mm/min | 切深量 Depth of cut ap mm ae mm | | 主轴转速 Spindle Speed min ⁻¹ | 进给速度 Feed mm/min | 切深量 Depth of cut 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 | 0.75 | 10 | 10,000 | 1,000 | 0.2 | 0.2 | 20,000 | 2,000 | 0.2 | 0.2 |
| | 3 | — | 20,000 | 2,000 | 0.3 | 0.5 | 40,000 | 4,000 | 0.3 | 0.5 |
| 1 | 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 |
| 1.5 | 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 |
| 2 | 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 |
| 2.5 | 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 |
| 3 | 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 |
| 4 | 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 |
| 5 | 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 |
| 6 | 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 | | | ※ 切深量的ap表示轴向切入量, ae表示步距。 ※ 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。) ※ 请使用刚性好、精度高的机床和夹具。 ※ 因工件、机械或铣刀刀柄而导致出现振动或异响时, 请变更切削参数。 ※ 建议使用水溶性切削方式。 ※ Depth of Cut: ap=Axial Depth of Cut / ae=Radial Depth of Cut. ※ Adjust both spindle speed and feed at the same rate. (When using spindle speed 20,000 or more, the same adjustment is required.) ※ Use a rigid and precise machine and chuck holder. ※ Adjust milling conditions when vibration and abnormal sounds occur according to the rigidity of the machine and the chuck holder, or work clamping condition. ※ Water soluble cutting fluid is recommended. | | | | | | | |