切削参数参考表
Recommended Milling Conditions

加工材料 Work Material	高硬度钢 Hardened Steels STAVAX・SKD11(～60HRC)				高速钢 High Speed Steels SKH51・HAP40(～65HRC)				高速钢 High Speed Steels SKH57・HAP72(～70HRC)			
(R)球头半径 Radius	切深量 Depth of Cut		进给速度 Feed	主轴转速 Spindle Speed	切深量 Depth of Cut		进给速度 Feed	主轴转速 Spindle Speed	切深量 Depth of Cut		进给速度 Feed	主轴转速 Spindle Speed
	ap mm	ae mm	mm/min	min^{-1}	ap mm	ae mm	mm/min	min^{-1}	ap mm	ae mm	mm/min	min^{-1}
R0.1	0.005～0.007	0.005	400	40,000	0.003～0.005	0.003	300	40,000	0.003～0.005	0.003	220	40,000
R0.15	0.005～0.007	0.007	450	40,000	0.003～0.005	0.005	400	40,000	0.003～0.005	0.005	270	40,000
R0.2	0.02 ～0.03	0.03	1,100	40,000	0.008～0.012	0.02	850	40,000	0.008～0.012	0.02	650	35,000
R0.25	0.02 ～0.03	0.03	1,300	40,000	0.01 ～0.015	0.02	1,000	35,000	0.01 ～0.015	0.02	700	30,000
R0.3	0.03 ～0.045	0.06	1,500	40,000	0.02 ～0.03	0.05	1,100	30,000	0.02 ～0.03	0.05	800	25,000
R0.5	0.1 ～0.15	0.2	3,000	30,000	0.08 ～0.12	0.1	2,000	25,000	0.05 ～0.075	0.1	1,500	20,000
R0.75	0.1 ～0.15	0.3	3,800	30,000	0.1 ～0.15	0.2	3,000	25,000	0.06 ～0.09	0.2	2,200	20,000
R1	0.2 ～0.3	0.5	3,800	25,000	0.15 ～0.22	0.3	3,000	20,000	0.1 ～0.15	0.3	2,200	16,000

备 注 Notes

※1 切深量的ap 表示轴向切深量，ae表示径向切深量。
※2 请根据机床刚性和工件的夹持状态等调整切削参数。
※3 颈角为15°，设定倾斜角时请注意避免与颈部发生干涉。
※4 刀具、加工材料的倾斜角和刀具的行进方向导致切削阻力较大时，请根据需要调整切削参数。
※5 切深量 ap 是基于刀具、加工材料倾斜角的参考数值。
※6 发生振刀等情况时，请根据需要调整切削参数。
※7 R角等切削阻力大的部位，请特别注意参数设定和刀路轨迹等。
※8 请以相同的比率调整主轴转速和进给速度。
※9 排屑不佳可能会导致刀具崩刃和折断，敬请注意。
※10 建议使用油雾冷却方式。

※1 Depth of cut ap indicates Axial Depth of Cut, ae indicates Radial Depth of Cut.
※2 Adjust milling condition according to machine rigidity and clamp condition of work material.
※3 Since the neck angle is 15 °, please be careful to set the inclined angle to avoid interfering.
※4 Adjust milling condition with necessity when high cutting load occurred by angle of tool or work material and feed direction.
※5 The depth of cut ap is a guideline value according to the inclined angle of the tool or work material.
※6 In case of chattering etc., please adjust cutting conditions if necessary.
※7 At point where cutting load is high such as at corners, pay attention to setting cutting conditions and tool paths particularly.
※8 Adjust both spindle speed and feed at the same rate.
※9 Attention to a risk of chipping and breakage when insufficient chip flow.
※10 We recommend using oil mist coolant.