

切削参数参考表 Recommended Milling Conditions

(D)刃径 Dia.	(R)角半径 Corner Radius	(L1)有效长 Effective Length	硬质合金 Cemented Carbide			
			主轴转速 Spindle Speed	进给速度 Feed	精加工切深量 Depth of Cut for Finish	
					a _p mm	a _e mm
0.3	R0.05	0.3	50,000	50	0.001	0.005
0.4	R0.05	0.4	50,000	100	0.001	0.01
0.5	R0.05	0.5	50,000	100	0.001	0.01
	R0.1	0.5	50,000	150	0.001	0.015
0.6	R0.05	0.6	50,000	100	0.001	0.01
	R0.1	0.6	50,000	150	0.001	0.015
0.8	R0.05	0.8	50,000	150	0.001	0.015
	R0.1	0.8	50,000	200	0.001	0.03
1	R0.05	1	50,000	150	0.001	0.015
	R0.1	1	50,000	200	0.001	0.03
备 注 Notes			※ 尽量将刀具的偏摆量抑制到最小，以免引起刀具的崩损、折断而影响加工精度。 ※ 因为切深量a _p 极小，建议加工前充分掌握主轴的伸缩量和机床的特性。 ※ 建议使用切削油。 ※ Minimal tool runout is required to avoid the tool breakage and to increase the work accuracy. ※ Due to infinitesimal depth of cut (a _p), recommend to assess the machine characters, such as expansion of the spindle and others before using the tool. ※ Water-insoluble cutting fluid is recommended.			

加工案例 1 Technical Data 1

加工材料：硬质合金（硬度：92.5HRA）
Work Material: Cemented Carbide (92.5HRA)

工件尺寸：φ15mm 加工深度：0.924mm
Work Size Machining Depth



表面粗糙度(R_a): 0.0192 μm
Surface Roughness

刀具规格：φ0.3×R0.05×0.3
Tool Size

加工工序 Process	精加工 Finishing	
	等高线 Contour Line Milling	扫描线 Scanning Line Milling
主轴转速 [min ⁻¹] Spindle Speed	40,000	
进给速度 [mm/min] Feed	70	
切深量 a _p ×a _e [mm] Depth of Cut	0.002~0.006×0.002	0.001×0.005~0.01
精加工余量 [mm] Stock Allowance	0.002	0.001
加工长度 Cutting Length	28m	12m
加工时间 Time	6小时23分钟 6hr23min	3小时25分钟 3hr25min
冷却方式 Coolant	切削油 Water-insoluble Cutting Oil	