

NR-3060S/EM-3060J C1 chamfer End mill Application (A5052P)

Motor Spindle NR-3060S/EM-3060J/E3000
 Machine Sodick MC (MC430L)
 Tools Single crystal diamond end mill $\phi 4.0$ (Special Ordered)
 Work Aluminum alloy A5052P $\square 50 \times 50 \times 15$
 Cutting C1 (chamfers of 45°) Mirror finishing for four sides
 Coolant Non-water-soluble cutting oil
 Cutting Condition Cutting Speed : 251–502m/min
 Spindle Speed : 40,000/27,000/20,000 min^{-1}
 Feed : 300/100/60/30 mm/min
 Depth of cut : Rough processing 0.1mm
 Finishing processing 0.005mm
 E3000 Controller: 1 load meter lighting
 (continuous duty operation)

Surface Roughness Rz [μm]

mm/min min ⁻¹	300	100	60	30
20,000	0.1566	0.3600	0.1731	0.3627
27,000	0.1304	0.2573	0.1689	0.3353
40,000	0.1692	0.3384	0.2277	0.2162

