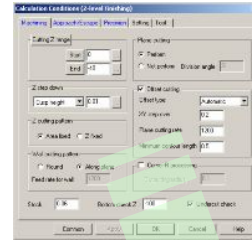


Product : Precision Electronic Parts
 Stock Size : 25mm x 17mm x 23mm
 Cutting Tool : UNION TOOL CO.
 CPU : Xeon 3.4GHz
 Process Time : approx. 19 hours



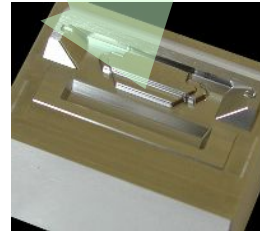
- CAM Condition Setting

approx. 4 hr. 30 min.

Z-level Rough Cutting	D6 R3	0.1
Z-level Finishing	D2 R1	0.06
Scanning-line Area	D2 R1	0.06
Re-machining	D1 R0.5	0.04

- CAM Calculation

4 hr. 12 min.



- Machining

HPM31 (HRC58) machined by HSM
 approx. 9 hours

Process	Cutting Mode	Tool Type (mm)	Step Over (mm)	Step Down (mm)	Rmax (µm)	Stock (mm)	Spindle Speed (rpm)	Feed Rate (mm/min)	Cutting Length (mm)	Machining Time
Rough + Finish (PL)	Contour Cutting	D3 FLAT	2.5	0.1	-	0	6,000	360	3,390	13min.
Roughing (Whole)	ZLR + Scanning	R0.5 BALL	0.08	0.05	0	0.03	28,000	700	36,590	1hr. 20min.
Semi Finishing (1)	ZLR + Scanning	R0.3 BALL	0.06	0.035	-	0.01	28,000	580	12,470	33min.
Semi Finishing (2)	ZLF + Re-machining	R0.2 BALL	-	-	15	0.01	30,000	360	12,280	54min.
Finishing (1)	Scanning + CCAP	R0.2 BALL	0.018	-	-	0	30,000	360	15,760	1hr. 22min.
Finishing (1)	Re-machining	R0.15 BALL	-	-	12	0.012	33,000	330	24,720	1hr. 48min.
Finishing (Whole)	Re-machining	R0.1 BALL	-	-	9	0.01	33,000	162	9,590	1hr. 08min.
Rough + S-Finish (Slots)	Curve Cutting + ZLF	R0.1 BALL	-	0.006	-	0	33,000	90	9,120	1hr. 23min.
Finishing (Slots)	Scanning + CCAP	R0.1 BALL	-	-	9	0.002	33,000	150	3,510	35min.
Total									127,430	9hr. 16min.