

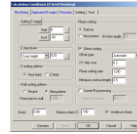
Product : Insulator
 Stock Size : 100mm x 100mm x 30mm
 Cutting Tool : NS TOOL CO., LTD.
 CPU : Xeon 3.4GHz
 Process Time : approx. 27 hours

- CAD Data Translation

approx. 1 min.

- CAM Condition Setting

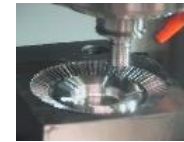
approx. 1 hour



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. 58 min.



- Machining

HIPM31 (HRC60) machined by HSM
 approx. 21 hours

Process	Cutting Mode	Tool Type (mm)	Step Over (mm)	Step Down (mm)	Rmax (μm)	Stock (mm)	Spindle S. (r.p.m)	Feed Rate (mm/min)	Length of Cut (mm)	Machining Time
Rough	Z-Level Roughing	3R BALL	1.5	0.25	-	0.05	12,000	1,200	63,701	56min.
1R-Semi_Rough-1	ZLR + Optimization	1R BALL	0.3	0.085	-	0.025	20,000	1,440	99,504	1hr. 12min.
1R-Semi_Rough-2	ZLR + Optimization	1R BALL	0.3	0.085	-	0.025	20,000	1,440	56,831	46min.
1R-Semi_Finish	Z-Level Finishing	1R BALL	-	-	2.5	0.025	20,000	1,600	88,889	1hr. 06min.
0.6R-Semi_Rough-1	ZLR + Optimization	0.6R BALL	0.3	0.04	-	0.02	30,000	1,200	95,504	1hr. 36min.
0.6R-Semi_Rough-2	ZLR + Optimization	0.6R BALL	0.3	0.04	-	0.02	30,000	1,200	96,417	1hr. 36min.
0.6R-Semi_Rough-3	ZLR + Optimization	0.6R BALL	0.3	0.04	-	0.02	30,000	1,200	92,486	1hr. 32min.
0.6R-Semi_Rough-4	ZLR + Optimization	0.6R BALL	0.3	0.04	-	0.02	30,000	1,200	96,448	1hr. 37min.
0.6R-Semi_Finish-1	Z-Level Finishing	0.6R BALL	-	-	2	0.02	30,000	1,440	25,428	26min.
0.5R-Semi_Finish-2	Z-Level Finishing	0.5RB (CBN)	-	-	2	0.015	30,000	1,440	304,126	3hr. 27min.
0.5R-Finish-1	Z-Level Finishing	0.5RB (CBN)	-	-	1	0	30,000	1,440	484,886	5hr. 42min.
0.5R-Finish-2	Z-Level Finishing	0.5RB (CBN)	-	-	1	0	30,000	1,440	42,520	31min.
3R-Finish	ZLF + Scanning	3R BALL	-	-	1	0	10,600	1,440	13,228	29min.
Total									1,559,968	20hr. 56min.