



Precision CNC forming grinding machine Amada Machine Tool (MEISTER G3)



Grinding Wheel: SDC200 Φ 200 x 10T x 31.75
 Workpiece Material: Cemented Carbide, 50 x 20 (length x width)
 Lubricant: Water Soluble

	Without SIO	With SIO	
Total Rough Grinding (mm)	0.300	0.300	
Total Fine Grinding (mm)	0.030	0.030	
Rough Cut per single cut (mm)	0.005	0.030	6 times more than current
Fine Cut per single cut (mm)	0.002	0.010	5 times more than current
Spark Out	3 times	3 times	
Processing Time	18 min	4 min	about 78% reduction in time

- Machining time greatly shortened due to increased cut (highly improved efficiency)
- Reduced damage to the grinding wheel and abrasion loss (cost reduction)
- Warping of workpiece is reduced through better heat reduction

KURODA

Precision molding grinder Kuroda Seiko GS-30FL II

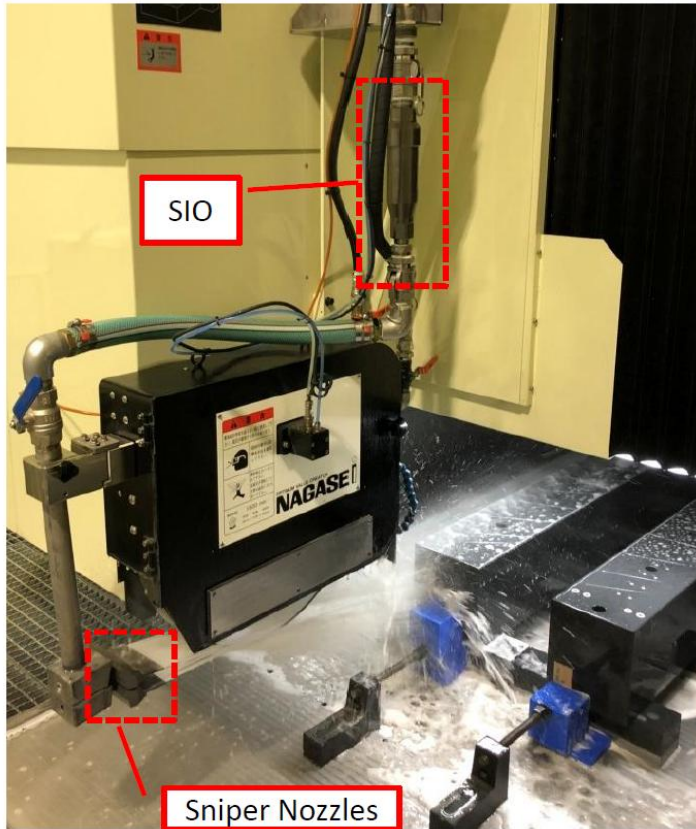


Grinding Wheel: SD400
 Workpiece Material: Si₃N₄ 50 × 50 × 4

	Without SIO	With SIO	
Total Grinding Amount (mm)	0.17	0.17	
Total Fine Grinding Amount (mm)	0.02	0.02	
Rough Cut per single cut (mm)	0.002	0.005	
Spindle Speed (rpm)	1480	2300	
Grinding Amount (mm)	0.154	0.17	
Wheel Abrasion (mm)	0.016	0	Negligible wheel abrasion
Processing Time	74 min	17 min	about 77% reduction in time

- Increased depth of cut and shorter processing time (highly improved efficiency)
- Reduced damage to the grinding wheel and abrasion loss (cost reduction)
- High precision machining is possible even with difficult-to-cut materials

Nagase Origin 4515 - Granite Surface Grinding



Nagase Origin 4515 - granite surface grinding

After SIO and Sniper Nozzle installation:

- Increased Depth of Cut each pass from 15 μm without SIO to 20 μm with SIO (over 33% improvement)
- Increased operation between Dressing Cycles from 0.08 mm without SIO to 0.1 mm with SIO (25% improvement)