

jig grinders

500 series jig grinder

The Moore Tool Company, a leader in precision machine tool design and manufacture, produces a complete line of jig grinding machines and accessories. The 500 is available in three models (CP, CPW and CPZ) to address your specific ultra-precision requirements. These four- or five-axis, CNC-controlled jig grinding machines have continuous path contouring capability for complex two- and three-dimensional operations.

features

- Base assembly providing expanded travels and increased stability
- GE Fanuc 16i multi-axis CNC

productivity options

- Moore Autosize®
- Moore Autogrind
- Automatic tool changer (up to 12 tools)
- Automatic tool changer spindle
- Flood coolant system
- Machine enclosure
- Optional rotary table
- Air spindles
 - 9,000 to 175,000 rpm (five spindles)
- Electric spindles
 - 15,000 to 80,000 rpm (three spindles)
- Fire suppression system
- Vapor extraction system



specifications

Capacity

Table working surface	12.0 x 24.0 in. (305 mm x 610 mm)	
Travel X longitude	19.6 in. (500 mm)	
Travel Y cross	11.8 in. (300 mm)	
Table top to wheel collet	2.0 to 18.0 in. (50 mm to 450 mm)	
Spindle housing travel	13.8 in. (350 mm)	
Quill travel Z vertical	CP & CPW: 3.5 in. (89 mm)	CPZ: 5.5 in. (140 mm)
Spindle angular adjustment	+/- 1.5 degrees	
Grinding hole diameter range	.016 to 5 in. (0,4 mm to 127 mm)	

Speeds and feeds

Traverse speed: X & Y axes	80 in./min. (2,000 mm/min.)	
Main spindle range	2 to 300 rpm	
Grinding wheel with air & electric heads	6,000 to 175,000 rpm	
Reciprocation @ 25 mm stroke length	CP & CPW: 2 to 175 cycles/min.	CPZ: 2 to 190 cycles/min.

Accuracy

Positioning: Step Gage

Deviation in full travel: X & Y axes	80 μ m. (2,0 μ m)
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Positioning: VDI/DGQ 3441

Positional uncertainty P: W, X & Y axes	80 μ m. (2,0 μ m)
Positional uncertainty P: Z axis	160 μ m. (4,0 μ m)
Positional deviation Pa: W, X & Y axes	60 μ m. (1,5 μ m)
Positional deviation Pa: Z axis	120 μ m. (3,0 μ m)

Contouring

X, Y & C at 250 mm/min., measuring a 200 mm (8 in.) ring gage	120 μ m. (3,0 μ m)
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Geometric: Squareness

Full travel: X to Y axes	32 μ m. (0,8 μ m)
Spindle housing travel: X-Y plane	80 μ m. (2,0 μ m)

Geometric: Alignment

Total spindle travel: Parallelism of spindle centerline to column guideways	80 μ m. (2,0 μ m)
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(All statements concerning accuracy are based on calibration temperature of 20 +/- 0.5 degrees C [68 +/- 1.0 degrees F])



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