The Moore Tool Company, a leader in precision machine tool design and manufacture, produces a complete line of jig grinding machines and accessories.

The 1280 Series Jig Grinder is available in three models (CPZ, CPZ-E and CPWZ) to address your specific precision grinding requirements. These CNC-controlled jig grinding machines have multiple, programmable axes (four simultaneously controlled) for complex two- and three-dimensional features.

Features
- Large travels for large work or multiple part setups
- Fanuc multi-axis control and PC front-end with customized touchscreen user interface
- Moore ProGrind® for improved tool and labor cost savings

Moore ProGrind® Options
- State-of-the-art sensor technology (Moore AutoSize® and Moore AutoGrind)
- Automatic tool changer (up to 20 tools)
- Automatic tool changer electric spindle: 10,000 to 60,000 rpm
- Air spindles: 9,000 to 175,000 rpm (five spindles)
- Electric spindles: 15,000 to 80,000 rpm (three spindles)
- Flood coolant system with chiller
- Machine enclosure
- Single-axis or two-axis rotary tables
- Fire suppression system
- Vapor extraction system
- On-machine inspection/probing
Moore ProGrind® Electric Grinding Spindle

With today’s electric grinding spindle technology, constant torque is maintained throughout the speed range of 10,000 to 60,000 rpm. Superior spindle taper and high accuracy radial run-out, and repeatability tool to tool, helps ensure accuracy when using the 20 tool ATC. The hybrid ceramic ball bearings provide long life and less downtime.

### Specifications

#### Capacity
- **Table working surface**: 812 mm x 1219 mm (32.0 x 48.0 in.)
- **Inside distance between risers**: 965 mm (38.0 in.)
- **Tabletop to bottom of bridge**: 520 mm (20.5 in.)
- **Travel (X axis)**: 1320 mm (51.97 in.)
- **Travel (Y axis)**: 820 mm (32.3 in.)
- **U-axis travel (programmable)**: 3.5 mm (0.140 in.)
- **U-axis travel (main coarse adjustment)**: 11 mm (0.43 in.) behind centerline of main spindle to 28.5 mm (1.125 in.) beyond centerline.
- **Table top to U-axis mounting flange**: 431,8 mm to 924 mm (17.0 in. to 36.39 in.)
- **Table top to bottom of ATC electric grinding spindle**: 264 mm to 757 mm (10.4 in. to 29.8 in.)
- **W-axis spindle housing vertical travel**: 350 mm (13.8 in.)
- **Z-axis vertical slide travel**: 140 mm (5.5 in.)
- **Taper adjustment range**: 0 to 1.5º from centerline (3º included angle over full vertical travel.)
- **Grinding hole diameter range**: 0.4 to 127 mm (0.016 to 5.0 in.); or to 343 mm (13.5 in.) with optional extension plates
- **Load carrying capacity**: 1360 kg (3000 lbs)

#### Speeds and Feeds
- **Traverse speed**: X, Y, W, Z axis: 0.0001 – 2000 mm/min. (0.00001 – 80.0 in./min.)
- **Spindle speeds (planetary mode)**: 2 to 300 rpm
- **Air turbine and electric grinding spindle speeds**: 6,000 to 175,000 rpm
- **Reciprocation stroke rate (25,4 mm / 1 in.)**: 0 – 190 cycles/min.

#### Accuracy

**Positioning: Step Gauge**
- Deviation in full travel: X axis: 2.5 µm (100.0 µin.)
- Deviation in full travel: Y axis: 2.0 µm (80.0 µin.)

**Positioning Accuracy: VDI/DGQ 3441**
- **Positional uncertainty P: X axis**: 2.5 µm (100.0 µin.)
- **Positional uncertainty P: Y axis**: 2.0 µm (80.0 µin.)
- **Positional uncertainty P: W axis**: 2.0 µm (80.0 µin.)
- **Positional uncertainty P: Z axis**: 4.0 µm (160.0 µin.)
- **Positional deviation Pa: X axis**: 1.5 µm (60.0 µin.)
- **Positional deviation Pa: Y axis**: 1.5 µm (60.0 µin.)
- **Positional deviation Pa: W axis**: 1.5 µm (60.0 µin.)
- **Positional deviation Pa: Z axis**: 3.0 µm (120.0 µin.)

**Contouring Accuracy**
- X, Y & C at 250 mm/min., measuring a 200 mm (8 in.) ring gauge: 3.0 µm (120.0 µin.)

**Geometric: Squareness (Full Travel)**
- X-axis table to Y-axis carriage: 1.5 µm (60.0 µin.)
- Spindle housing travel: X-Y plane: 3.0 µm (120.0 µin.)

**Geometric: Alignment**
- Total spindle travel: Parallelism of spindle centerline to column guideways: 3.0 µm (120.0 µin.)

(All statements concerning accuracy are based on calibration temperature of 20 +/- 0.5 degrees C [68 +/- 1.0 degrees F])

1 Not applicable to CPZ and CPZ-E Models
2 Not applicable to CPZ Model