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With art: image of PJ812

New PJ812 Three-Axis CNC Precision Profile Center from Mitsui Seiki Is Engineered for High-Precision Contour Machining

[Franklin Lakes, NJ – January 2017] The new Mitsui Seiki PJ812 Precision Profile Center is a three-axis CNC vertical Jig Mill engineered to perform high-precision contour machining and ultra precise boring of components with critical tolerances. It is ideal for processing parts for the mold and die, optical, aerospace and medical industries.

The PJ812 machining center provides positioning accuracy and repeatability of +/- 1µm. A thermal compensation system employs sensors on the machine faceplate and inside the spindle to minimize the effects of temperature changes on part accuracy and cut temperature-generated displacement by 60 percent. This system also reduces Z-axis thermal growth and deflection by 30 percent. Cooling systems for slide way lubrication and ball screw cores stabilize axis feed precision.

Mechanical design features that maximize machine rigidity and accuracy include hardened and ground tool steel box slideways as well as contact elements that enhance acceleration, reduce stick-slip, and allow for feed accuracy of 0.1 µm. Another proprietary engineering detail drastically improves the static rigidity of the Z-axis to more than six times that of conventional Z-axis arrangements.

The PJ812 machining center spindle choices include 10,000 RPM with 50-Taper with 30/15 kW (40/20 hp) direct drive motors and up to 30,000 RPM, 18/15 kW (24/20 hp) with 40-Taper. X-, Y- and Z-axis travels are 1,200mm (48"), 800mm (32"), and 500 mm (20") respectively. The machine table can accommodate a maximum load of 1,500 kg (3,300 lbs) on its 1,200 mm (48") x 800 mm (32") work surface. Overall machine footprint is 4,720 mm (189") by 3,000 mm (120"). A 40-tool capacity ATC is standard.

The fully enclosed machine enclosure allows for complete containment of chips and coolant, while affording excellent work loading and set up ergonomics.

The PJ812 possesses an energy saving circuit that reduces electric power consumption by up to 90 percent and compressed air consumption by up to 40 percent. The latest FANUC 31iM-B CNC is equipped with a new HMI and a 500mm (19") LCD touch screen for ease of operation for set up and at-machine programming.

For more information, contact Mitsui Seiki USA, Inc., (201) 337-1300.

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