

Press Release

August 9, 2007

DIXI machines on Display at EMO Hannover 2007 — The JIG 1200 super-high-precision horizontal machining center, with positioning accuracy within 0.99 μm — September 17 (Mon.) ~ 22 (Sat.), 2007, Hannover Messe, Hannover, Germany

DIXI Machines will be exhibiting their **JIG 1200** super-high-precision horizontal machining center in the Mori Seiki booth (Hall 27 B-44) at the **EMO Hannover 2007** International Machine Tool Fair from September 17 (Mon.) ~ 22 (Sat.), 2007, at the Hannover Messe, Hannover, Germany.

The JIG 1200 is a large machine, with axis strokes of 1,200 mm (X-axis), 1,100 mm (Y-axis) and 1,100 mm (Z-axis), a 1,250 mm x 1,000 mm table and a maximum loading capacity of 2,500 kg. In this class of high-precision machines, **positioning accuracy** of about 5 μm is said to be very good, but the JIG 1200 achieves positioning accuracy of **0.99 μm** (990 nm: 1 nm = 1 millionth of 1 mm), which is 1/5 (Fig. 1). With volumetric accuracy for the tool tip of less than 15 μm anywhere in the machining area (Fig. 2), it is a horizontal machining center with precision better even than 3D measuring instruments.

To achieve stable machining accuracy throughout the entire machining area, nearly perfect flatness, straightness and squareness are required on and between all guideways and axes. DIXI machines pursue precision right from the development design stage, and produce super-high-precision machines which can't be built by machining alone, thanks to the several hundred hours of scraping during the final assembly process.

With a No. 50 taper 12,000 min^{-1} high-speed spindle as standard and a high-output motor (34/39 kW), it boasts the highest productivity in its class. This is the ideal horizontal machining center to meet the current needs of the market, which demands high precision for small lots.

At EMO, you can see not only extremely high-precision machining for fine manufacturing, but also heavy-duty cutting at high speeds, thanks to its high-rigidity structure. Please come and see this machine's unparalleled high precision and high rigidity for yourself.

We are looking forward to your visit.



JIG 1200

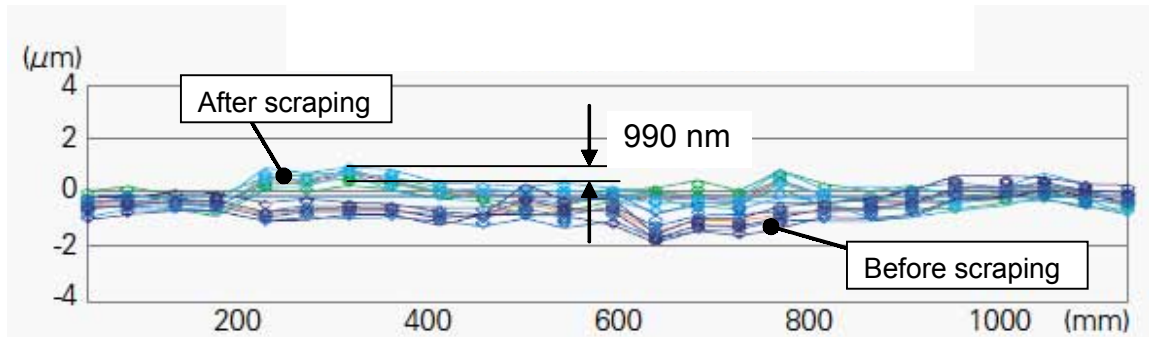


Fig. 1 Positioning accuracy and repeatability

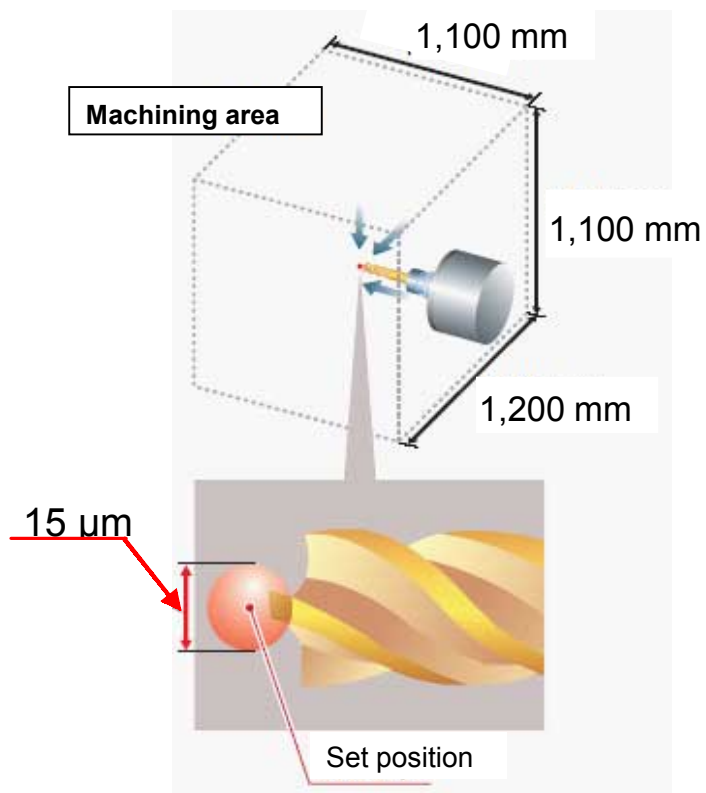


Fig 2 Volumetric accuracy over the whole machining area

■ **JIG1200 specifications**

Travel (X, Y, Z axes)	1,200 mm, 1,100 mm, 1,100 mm
Table working surface	1,250 × 1,000 mm
Max. spindle speed	12,000 min ⁻¹
Bidirectional positioning accuracy	0.99 μm
Positioning repeatability	0.9 μm