

Press Release

September 10, 2010

The NVX5000 Series of vertical machining centers makes a debut as the X-class

Mori Seiki Co., Ltd. has announced the debut of the X-class, which fills the needs of the times.

The **NVX5000 Series** of vertical machining centers, which has evolved from the NV5000 Series as a result of a full model change, is Mori Seiki's second series launched as the X-class. We start taking orders for the NVX5000 Series on September 10, 2010.

The NVX5000 Series uses the same options and applications with the NV5000 Series that sold more than 8,000 units, and is designed to reflect current market needs and 1,000 feedback from our customers. The machine is packed with extensive features including (1) high rigidity, (2) measures against thermal displacement, (3) variations, (4) energy saving, (5) MAPPS IV + ESPRIT, and (6) compliance with safety standards.

(1) High rigidity

By using slideways for all axes, the NVX Series offers improved vibration damping performance and dynamic rigidity. It also offers longer tool life and capabilities for heavy-duty cutting. Additionally, it achieves a rapid traverse rate of 30 m/min in all axes.

(2) Measures against thermal displacement

The NVX Series uses a spindle in which air and cooling oil pipes are arranged symmetrically relative to the center of the spindle. The heat-symmetrical structure minimizes thermal displacement in the spindle by dispersing heat evenly. In addition, coolant circulation inside castings (a bed and column), which is available as an option, allows the machine to achieve active control over thermal displacement caused by cutting heat and changes in the ambient temperature.

(3) Variations

Three variations, for different workpiece sizes, are available for the NVX5000 Series: the NVX5060 (X-axis stroke: 600 mm), NVX5080 (800 mm) and NVX5100 (1,050 mm). We have also prepared a No. 40 and No. 50 taper spindles to meet our customers' different needs.

(4) Energy saving

The NVX Series is designed to reduce the environmental burden and running costs. It saves power consumption by stopping the spindle motor, servo motors, and fans inside the control panel during standby, as well as by using LED lighting. The total power consumption has been reduced by approximately 35% compared to the conventional NV5000 Series.

(5) MAPPS IV + ESPRIT

The NVX Series uses the MAPPS IV high-performance operating system for its operation panel. In addition to automatic programming software (standard), ESPRIT CAM software is available as an option. The combination of MAPPS IV and ESPRIT allows the machine to handle complex machining programming and to flexibly meet customer needs.

(6) Compliance with safety standards

The NVX Series conforms to safety standards all over the world, including CE Standards, UL Standards and ANSI.

Mori Seiki will continue to provide highly-functional and affordable products that satisfy the needs of our customers.

Type	High-Precision Vertical Machining Center
Model	NVX5060, NVX5080, NVX5100
Market	Automobiles, dies and molds, general parts, etc.
Orders start	September 10, 2010
Production	100 units/month

■Major specifications

Item	NVX5080/40
Axis travel (X/Y/Z) (mm)	800/530/510
Table working surface (mm)	1,100 × 600
Max. table loading capacity (kg)	1,000
Max. spindle speed (min ⁻¹)	12,000 [8,000] [12,000]
Rapid traverse rate (mm/min)	30,000
Type of tool shank	BT40 [CAT40/DIN40/HSK A63]
Tool storage capacity (tools)	30 [60]
Spindle drive motor (kW)	15/11 (10%ED/cont)
Floor space (width × depth) (mm)	2,180 × 3,718

[] Option



Fig. 1. Exterior



Fig. 2. Interior



Fig. 3. MAPPSSIV + ESPRIT