

October 12, 2021

Nidec Machine Tools Launch “MVR-Hx”
New Series of Double-Column Machining Centers
To accelerate the expansion of its Large-Scale Machine Tool Business

- Lineup to cover a wide range of large parts processing for ease of choice
- Ideal for users who pursue high precision and high efficiency

Ritto City, Japan - Nidec Machine Tool Corporation (President: Kenichi Wakabayashi, Head Office: Ritto City, Shiga Prefecture) will launch the MVR-Hx Series of double-column machining centers on October 12. Following the MVR-Cx series released earlier this month, the MVR-Hx series has been expanded to meet various needs in large parts machining. We will expand our business by continuously launching new products that cover a wide range of markets both in Japan and overseas and by accelerating our sales activities.

The MVR-Hx series was developed based on the concept of a machine that is easy to use without thermal displacement for users who pursue high precision and high efficiency. It is equipped with thorough thermal countermeasures, such as an internal spindle cooling system that suppresses thermal expansion of the spindle and the main structure that is less susceptible to environmental temperature changes. It can also be used for a wide range of processes, from dies and molds or other machining that require high surface quality to general parts machining, and for all types of materials from light to heavy cutting.

The internal spindle cooling system that cools the spindle from the inside comes as a standard feature. The tooltip position can be stabilized even at high speed of 8,000 revolutions per minute, and the step between tools during finish machining is now reduced to less than 3.5 µm. On the other hand, for the machining range for heavy-duty cutting at 4,000 revolutions per minute, the gear-driven spindle (opt.) enables machining at a maximum torque of 3,430 N·m, as the main structure made of cast metal enhances the rigidity for stable machining even at high torque. The rapid traverse speed is 35m/min for the Y-axis and 20m/min for the Z-axis. Both are one of the highest in the industry, improving productivity.

In addition, to thoroughly eliminate the effects of heat and aging on machining accuracy, we have adopted a thermostabilizer column filled with a temperature control medium, heat insulation measures for the crossrail, optimal placement of scales for positioning each axis, and a spatial error correction function. These technologies enable us to accurately grasp the position of the machine, resulting in a higher level of high-precision machining for our users.

Furthermore, a wide range of functions have been incorporated to enhance operator work efficiency; a more comprehensive operating range for the operation panel to allow operation close to the machining point and the newly developed operation support function, NidecNavi, for easy operation. Our proprietary IoT platform, DIASCOPE, installed as a standard feature, will also provide quick and reliable support. A wide variety of package options are available to enable customization according to each customer's processing objectives.

The MVR-Hx will be unveiled at the "New Product Preview" from Tuesday, October 12 to Friday, October 15, and from Monday, October 18 to Wednesday, October 20 at the newly built large machine tool showroom at the main plant.

Since its launch in 2003, the MVR series has been well received for its high accuracy and productivity. It has been delivered for various purposes such as dies and molds, industrial machinery, construction machinery, semiconductor manufacturing equipment, etc. Based on this experience, the MVR-Hx will be developed and introduced to the market to become "a product that enables more freedom in all types of processing in all kinds of industries.

Nidec Machine Tools will continue to contribute to customers' productivity improvement through machine tools, which is what makes "MONOZUKURI," manufacturing, possible.



MVR-Hx

Specification of the New MVR-Hx series

Item / Model			MVR25Hx	MVR30Hx	MVR35Hx	MVR40Hx	MVR45Hx		
Table	Working Area	Width (mm)	1,500	2,000	2,500	3,000	3,500		
		Length (mm)	3,000 (opt. 4,000, 5,000, 6,000, 8,000)	3,000 (opt. 4,000, 5,000, 6,000, 8,000, 10,000)	4,000 (opt. 5,000, 6,000, 8,000, 10,000)		6,000 (opt. 8,000, 10,000)		
	Loading Capacity(ton/m)		12/3.0 (opt. 15/4.0, 18/5.0, 20/6.0, 20/8.0)	20/3.0 (opt. 25/4.0, 30/5.0 to 10.0)	25/4.0 (opt. 30/5.0 to 10.0)		35/6.0 (opt. 30/8.0, 25/10.0)		
Throat clearance between columns(mm)			2,050	2,550	3,250	3,750	4,250		
Distance from spindle end to table surface(mm)			1,650 (opt. 2,010)		1,850 (opt. 2,150)		2,150		
Spindle	Ram Size(mm)		□350						
	Spindle Speed (min-1)		20~8,000 (opt. 17~6,000, 11~4,000, 40~12,000)						
	Spindle motor output (continuous) (kW)		Cont. 22/30 : Low/High (opt. 18.5/26 : Low/High, 22/30 : Cont./30min, 22/30 : Cont./30min)						
ATC tool storage capacity (pcs)			60 (opt. 80, 100, 120, 180)						