



October 12, 2016

Horizontal Machining Center *H.Plus-504*

Machine Release

Matsuura Machinery Corporation announces the launch of the *H.Plus-504* horizontal machining center and is pleased to accept orders from today.

The *H.Plus* Series of horizontal 4 axis machining centers has built a global reputation in all industry sectors served for high productivity, reliability and low cost of ownership with the standard Matsuura attributes of high speed, high rigidity and high precision. To the present day, over 1,700 *H.Plus* machines have been delivered globally to a wide spectrum of industrial fields, such as aerospace, automotive, medical equipment manufacturers and precision subcontractors. The *H.Plus-504* is a new addition to the lineup, and is equipped with 500-by-500-mm pallet and #40-taper spindle. In response to customer and market demand for the accommodation of larger workpieces, the *H.Plus-504* possesses the largest working envelope in its class and will handle a maximum workpiece size of D800 mm x H1,000 mm, weighing 750kg on each pallet.

Our renowned **MAXIA** spindle is installed as standard. In addition to the standard 12,000 min⁻¹ spindle, a 20,000 min⁻¹ (108.4 Nm) for high speed machining and 15,000 min⁻¹ (350.0 Nm) for high-torque, heavy duty machining are optionally available to deliver optimum performance working all materials, from aluminum to hard-to-cut materials.

A rotary indexing table (B axis) is provided as a standard feature, which is driven with a direct drive motor at the maximum feed rate of 100 min⁻¹. In addition, Matsuura's DCS (Dynamic Clamp System) and ADC (Automatic Acceleration & Deceleration Control) intelligently contribute to a shorter cycle/indexing time and higher productivity.

The standard Thermal Meister function and highly expandable ATC/APC options enable extended unmanned operation. [Tool storage capacity: max. 330 tools (matrix type magazine), pallet storage capacity: max. 6 pallets (floor pallet system)]

The NC Matsuura G-Tech 31i is installed with "MIMS: Matsuura Intelligent Meister System" and employs a newly developed operation system (with a 15-inch touch panel screen), which improves operability, reduces non-cutting time and facilitates setup, operation and maintenance whilst saving labor and energy.

The *H.Plus-504* is suited to all machining environments - from mass production to one-off prototype creation.

Matsuura will exhibit the *H.Plus-504* at JIMTOF2016 (The 28th Japanese International Machine Tool Fair) that is to be held from November 17 at Tokyo Big Sight.

H.Plus-504 Features

1. **MAXIA** spindle (from heavy duty machining to high speed machining)
 - 1.1. 12,000 min⁻¹/ 187.3 Nm (standard)
 - 1.2. 15,000 min⁻¹/ 350.0 Nm (option) High-torque type
 - 1.3. 20,000 min⁻¹/ 108.4 Nm (option) High-speed type
2. Direct drive rotary indexing table (B axis)
 - 2.1. Maximum feed rate of 100 min⁻¹
 - 2.2. Matsuura's unique DCS (Dynamic Clamp System) shortens machining time by dynamic clamping/unclamping.
 - 2.3. The ADC (Automatic Acceleration & Deceleration Control) function tunes acceleration/ deceleration according to loaded part weight and shortens indexing time by 35% maximum (in-house comparison).
3. Expandability (abundant options) to enable further extension of unmanned operation
 - 3.1. Matrix tool magazine
 - 120 to 240 tools : Space saving type
 - 164 to 294 tools : High-speed type
 - 120 to 330 tools : High-speed high-capacity type
 - 3.2. Multi-pallet PC6 (floor pallet system)
4. Operability / accessibility
 - 4.1. Operator assisting software "MIMS (Matsuura Intelligent Meister System)": Standard
 - 4.2. 15-inch touch panel screen
 - 4.3. Distance from floor to pallet top surface : 1,050 mm
 - 4.4. Distance from the operator door to the pallet center : 709 mm

Main Specifications

Item	Unit	<Reference> H.Plus-400	New! H.Plus-504	<Reference> H.Plus-500
Travel (X / Y / Z axis)	mm	560/ 640/ 640	730/ 730/ 800	800/ 800/ 800
Travel (B axis)	deg	360	360	360
Rapid traverse rate (X / Y / Z axis)	m/ min	60/ 60/ 60	60/ 60/ 60	60/ 60/ 60
Rapid traverse rate (B axis)	min ⁻¹	100 (OP.)	100	100
Feedrate (X / Y / Z axis)	m/ min	60/ 60/ 60	60/ 60/ 60	60/ 60/ 60
Spindle speed	min ⁻¹	BT40 15,000	BT40 12,000	BT50 12,000
Spindle motor power	kW	15 / 22	15 / 22	26 / 30
Spindle torque	N· m	150.0	187.3	451.0
Pallet size	mm	400 x 400	500 x 500	500 x 500
Max. workpiece size	mm	D630 x H900	D800 x H1000	D850 x H1050
Loading capacity	kg	400	750	750

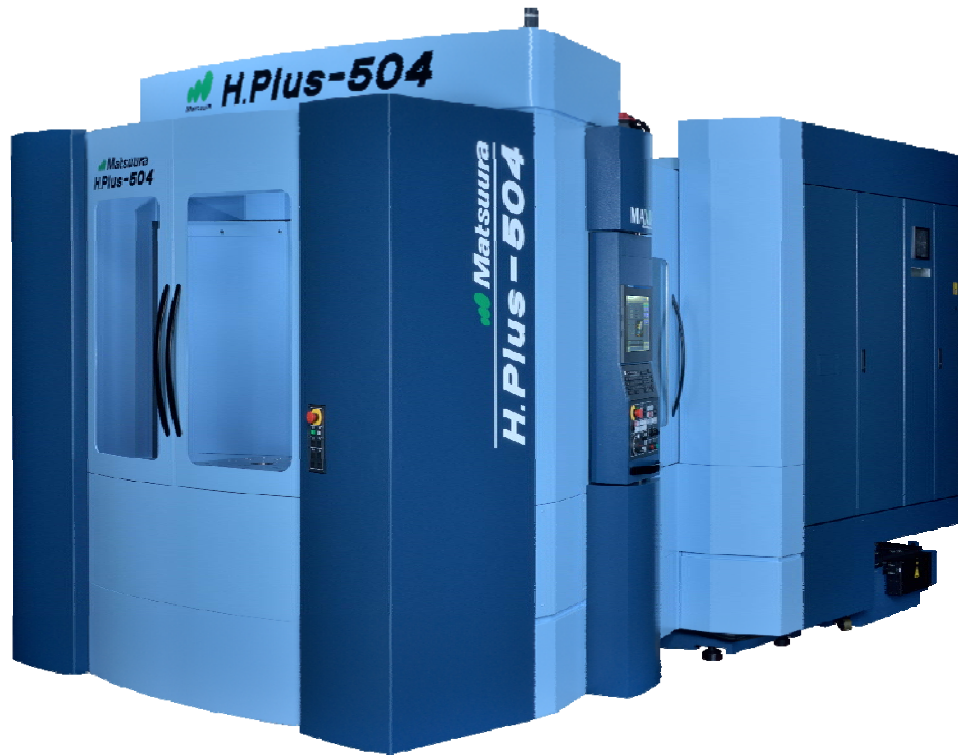


Figure: *H.Plus-504* External View (1)

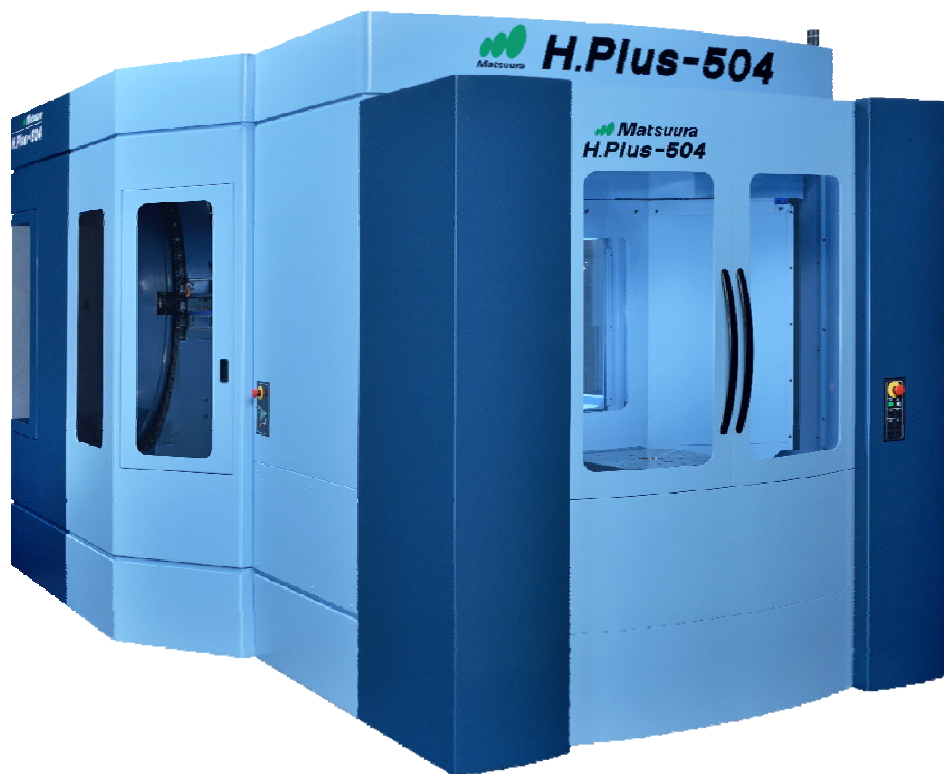


Figure: *H.Plus-504* External View (2)