



March 24, 2015

Horizontal Machining Center

H.Plus-400, H.Plus-500 Order Intake Start

Matsuura Machinery Corporation has developed horizontal machining center models, *H.Plus-400* and *H.Plus-500*, and starts to accept orders from today.

The horizontal machining center *H.Plus* series is a highly productive machine tool with high speed, high rigidity and high precision. Since its debut in 2000, over 1,650 machines have been delivered globally in various industrial fields, such as aircraft, automobile, and medical equipment. A new addition of the *H.Plus-400* equipped with a 400x400 mm pallet and the *H.Plus-500* which has undergone a full model change for the first time in 10 years fills out the *H.Plus* series lineup ranging from compact size to large size to meet customers' extensive needs.

The *H.Plus-400* machine, equipped with a #40 spindle taper and 400x400 mm pallet, realizes the best balance of productivity, operability and cost, which is most required in the target markets of automobile and medical industries.

The *H.Plus-500* machine, equipped with a #50 spindle taper and 500x500 mm pallet, is targeted for aircraft and energy industries by greatly enhancing capabilities from the existing model.

The standard **MAXIA** spindle at 15,000 min⁻¹ (*H.Plus-400*) / 12,000 min⁻¹ (*H.Plus-500*), optionally 20,000 min⁻¹ (*H.Plus-400*) / 15,000 min⁻¹ (*H.Plus-500*), is available with all-around applications from high-speed aluminum machining to hard-to-cut material machining. The rotary table (*H.Plus-400*: option, *H.Plus-500*: standard) driven by a direct drive motor achieves a maximum feed rate of 100 min⁻¹, and when combined with Matsuura's unique DCS (Dynamic Clamp System) and new ADC (Automatic Acceleration & Deceleration Control), the indexing and machining time can be reduced drastically to ensure high productivity. In addition, Thermal Meister (spindle/feed/environmental thermal displacement compensation system) provided as a standard feature and versatile expandable optional features for ATC/APC help to further extend unmanned operation. The footprint is 15% reduced (*H.Plus-500*) by reviewing basic machine structure and optimizing component layout compared to the existing model.

The operator assisting software, *MIMS* (Matsuura Intelligent Meister System), is featured with fault diagnosis and program analysis functions to help your setup, machining and maintenance while saving labor and energy.

Matsuura is planning to exhibit the *H.Plus-400* and *H.Plus-500* at EMO2015 (European International Machine Tools Fair) that will be held from October 5 in Milano, Italy.

H.Plus-400, H.Plus-500 Capabilities and Features

<Basic specifications>

Item	<i>H.Plus-400</i>	<i>H.Plus-500</i>
Travel (X / Y / Z axis)	560/ 640/ 640 mm (22.04/ 25.19/ 25.19 in.)	800/ 800/ 800 mm (31.49/ 31.49/ 31.49 in.)
Pallet size	400 x 400 mm (15.74 x 15.74 in.)	500 x 500 mm (19.68 x 19.68 in.)
Max. part size	D630 x H900 mm (D24.8 x H35.43 in.)	D850 x H1050 mm (D33.46 x H41.33 in.)
Loading capacity	400 kg (800 lb.)	750 kg (1650 lb.)
Rapid traverse rate (X / Y / Z axis)	60 m/min (2362.20 imp)	60 m/min (2362.20 imp)
Feedrate (X / Y / Z axis)	1 ~ 60,000 mm/min (0.01 ~ 2362.20 imp)	1 ~ 60,000 mm/min (0.01 ~ 2362.20 imp)
MAXIA Spindle	15,000 min ⁻¹ (Std.) 20,000 min ⁻¹ (Op.)	12,000 min ⁻¹ (Std.) 15,000 min ⁻¹ (Op.)
Type of spindle taper	7/24 taper #40	7/24 taper #50
Spindle motor power	15/22 kW	26/30 kW
Tool storage capacity	60 tools	60 tools

* HSK type spindle available as an option: HSK-A63 [*H.Plus-400*] / HSK-A100 [*H.Plus-500*]

<Features>

1. Random angle indexing rotary table with direct drive motor [*H.Plus-400*: Op] [*H.Plus-500*: Std.]
 - 1.1. Maximum feed rate of 100 min⁻¹
 - 1.2. Matsuura's unique DCS (Dynamic Clamp System) shortens machining time by dynamic clamping/unclamping.
 - 1.3. The ADC (Automatic Acceleration & Deceleration Control) function tunes acceleration/deceleration according to loaded part weight and shortens indexing time by 40% maximum (in-house comparison).
2. Expandability (abundant options)
 - 2.1. Matrix tool magazine
New-design magazine reduces part transfer time by 50% maximum.

	[<i>H.Plus-400</i>]	[<i>H.Plus-500</i>]
High speed type	: 164 to 294 tools	114 to 209 tools
Large capacity type	: 120 to 330 tools	120 to 245 tools
 - 2.2. Multi-pallet system for extended unmanned operation

Floor pallet system (PC6)	[<i>H.Plus-400</i>] [<i>H.Plus-500</i>]
Tower pallet system (PC12)	[<i>H.Plus-400</i>]
3. Excellent operability
 - 3.1. Distance from operator door to pallet center: 500 mm (19.68 in.) [*H.Plus-400*]/ 730 mm (28.74 in.) [*H.Plus-500*]
 - 3.2. Operator assisting software *MIMS* (Matsuura Intelligent Meister System) installed
15-inch touch panel provided, fault diagnosis function, program analysis function, electronic manual available