



October 13, 2021

## 5-Axis Vertical Machining Center

# **MX-420 PC10** Product Release

Matsuura Machinery Corporation is pleased to announce the launch of new 5-axis vertical machining center, the **MX-420 PC10**, and is accepting orders from today.

The **MX-Series** was launched to the market in 2010 with the keywords "Security" and "Ease-of-use" for simple and reliable 5-axis machining. Since its debut in 2010, the line-up has been expanded to three models with the **MX-520**, **MX-850**, **MX-330** (release order), all of which have gained high reputation due to their use-friendly operability, competitive machining capability and excellent cost performance. This series has built solid customer base in various industries all over the world as 5 axis machining entry models.

With the growth of customer demand for unmanned operation, floor pallet system options were added (**MX-330 PC10**, **MX-520 PC4**, and **MX-850 PC4**), and fulfil customer requests for extended unmanned operation and high-mix & low-volume production (total sales of 1,603 machines as of the End of September 2021).

The **MX-420 PC10** features a standardization of the floor pallet system (PC10) to support extended unmanned operation and high-mix & low-volume production.

This new 5-axis vertical machining center achieves large work envelop with a small foot print. With a larger work envelop: D420 mm x H300 mm (90 mm increase in diameter to that of D330mm x H300mm for the **MX-330 PC10**), the **MX-420 PC10** can machine wider variety of workpieces. On the other hand, the footprint increase is only plus 483 mm in Width and 371 mm in length compared to the **MX-330 PC10**, and contributes to floor space saving at customers' facilities.

Inheriting the basic concept "Security" and "Ease-of-use" of the **MX-Series**, the **MX-420 PC10** features a standardization of "Operation Status Monitoring Function" for visualizing operation status on NC screen as IoT support. As an option, outputting machine operation data to a host system by using an open communication protocol, "MTConnect" designed for machine tools is also available.

## **MX-420 PC10** Features

1. Max. workpiece size: D420 mm × H300 mm [D16.53 × H11.81 in.] (Bullet shaped)
2. Loading capacity: 80 kg [176 lb.]
3. **MAXIA** Spindle (from heavy duty machining to high speed machining)
  - 3.1 15,000 min<sup>-1</sup>/ 65 Nm (Standard)
  - 3.2 15,000 min<sup>-1</sup>/ 119 Nm (Option) High-torque type
  - 3.3 20,000 min<sup>-1</sup>/ 108 Nm (Option) High-speed type
4. Operability / accessibility
  - 4.1 Distance from floor to table top surface: 1,020 mm [40.16 in.]
  - 4.2 Distance from machine front to pallet center: 385 mm [15.16 in.]
  - 4.3 Front door opening width: 650 mm [25.59 in.]  
(Opening width sufficient for the maximum workpiece depth 420 mm [16.53 in.]
5. Automation & Unmanned Package Option
  - 5.1 Floor pallet system: PC10 (Standard)
  - 5.2 Tool storage capacity: 30 tools (Standard)  
60 / 90 tools (Option)
  - 5.3 Chip removal system: Spiral chip conveyor (Standard)  
Lift-up chip conveyor rear disposal (Option)  
Lift-up chip conveyor side disposal (Option)

## **Main Specifications** \* **MX** series (with pallet changer)

Item		<Reference>	<New>	<Reference>	<Reference>
		<b>MX-330 PC10</b>	<b>MX-420 PC10</b>	<b>MX-520 PC4</b>	<b>MX-850 PC4</b>
Travel (X / Y / Z axis)	mm [in.]	435/ 465/ 560 [17.13/ 18.31 /22.05]	435/ 465/ 560 [17.13/ 18.31 /22.05]	630/ 560/ 510 [24.80/ 22.04 /20.07]	900/ 780/ 650 [35.43/ 30.70 /25.59]
Travel (A / C axis)	deg	-125 ~ +10/ 360	-125 ~ +10/ 360	-125 ~ +10/ 360	-125 ~ +30/ 360
Rapid traverse rate (X / Y / Z axis)	m/min [ipm]	40/ 40/ 40 [1574.8]	40/ 40/ 40 [1574.8]	40/ 40/ 40 [1574.8]	40/ 40/ 40 [1574.8]
Rapid traverse rate (A/C axis)	min <sup>-1</sup>	17/ 33	17/ 33	17/ 33	17/ 33
Feedrate (X / Y / Z axis)	m/ min [ipm]	40/ 40/ 40 [1574.8]	40/ 40/ 40 [1574.8]	40/ 40/ 40 [1574.8]	40/ 40/ 40 [1574.8]
Spindle speed	min <sup>-1</sup>	15,000	15,000	12,000	12,000
Spindle motor power	kW	5.5 / 7.5	5.5 / 7.5	7.5 / 11	15 / 22
Spindle torque	N·m	65	65	120	187
Pallet type	pallets	PC10	PC10	PC4	PC4
Max. workpiece size	mm [in.]	D330 x H300 [D12.99 x H11.81]	D420 x H300* [D16.53 x H11.81]	D520 x H330 [D20.47 x H12.99]	D850 x H385* [D33.46 x H15.15]
Loading capacity	kg [lb.]	80 [176]	80 [176]	175 [385]	400 [880]

\* Bullet shaped

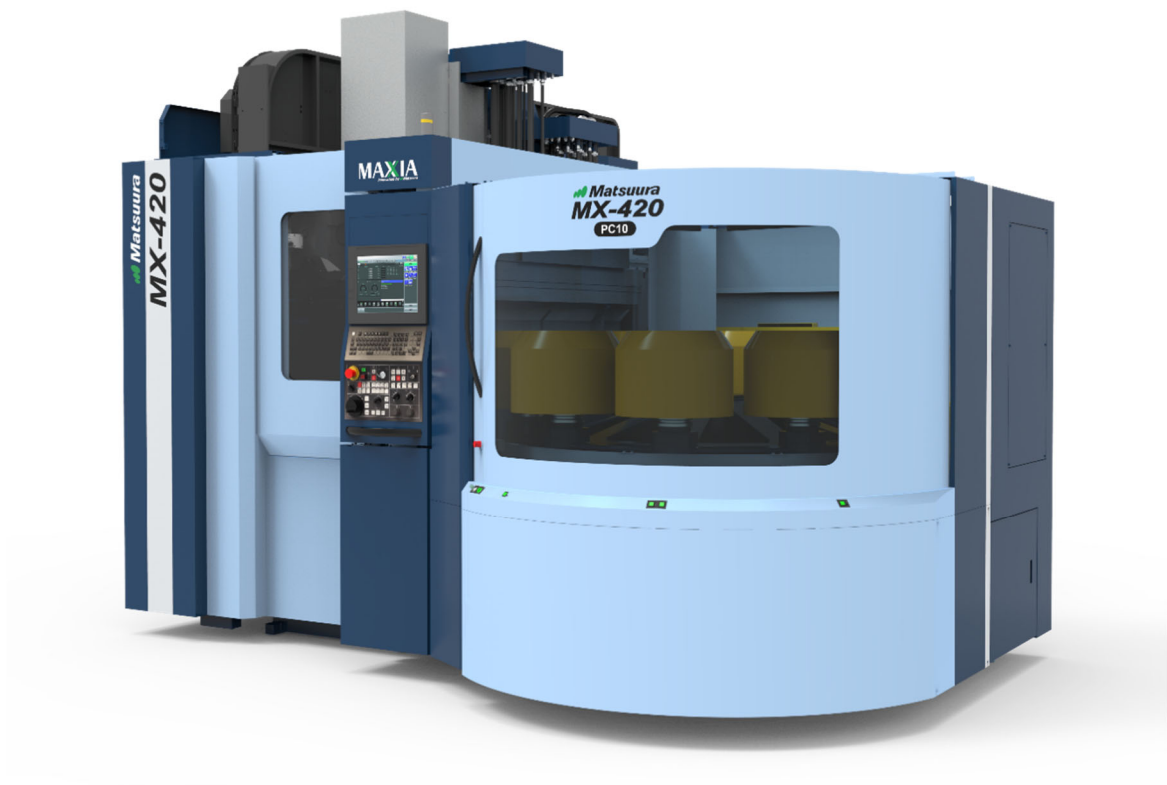


Fig. Appearance of ***MX-420 PC10***