

Matsuura

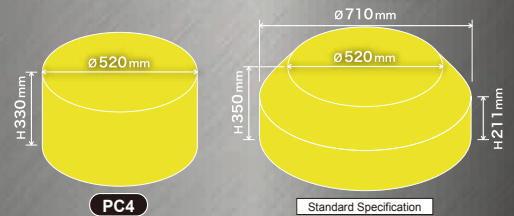
5-Axis Vertical Machining Center

MX-520

New!

PC4

Unmanned and Reliable 5 Axis Production
4 Pallet Automation for the Market Leading MX-520



Entry Level 5 Axis Automation for Matsuura's Best Selling 5 Axis Future Proof Design – Ready for Industry 4.0 and the IoT

“Simple Automation” Option

Since its debut in 2010, the **MX-520** has sold in substantial numbers globally to a myriad of industries, machining all known materials. Many customers automated their MX-520 machines with aftermarket made pallet pools. The demand for a 4 pallet and 90 tool Matsuura OEM automation solution for the **MX-520** has arisen directly from our customers.



MAXIA BT#40 High-rigidity Spindle

Standard 12,000 min⁻¹ 120 N·m spindle - renowned for its machining capability
New, optional 12,000 min⁻¹ 187 N·m powerful spindle for hard-to-cut materials
Optional 20,000 min⁻¹ 108 N·m spindle for high-speed aluminum machining



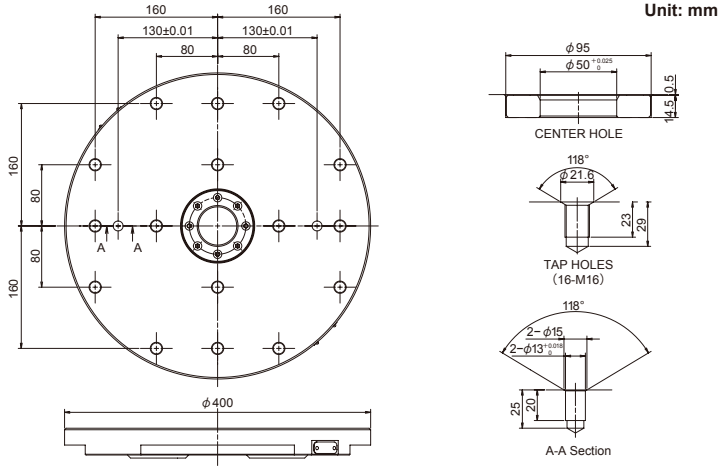
Ergonomic operation with a new Windows™ based OS.

FANUC 31i (iHMI, 15-inch touch panel type)
Touch screen with context-sensitive screen icons and quick screen displays assures fast operation and access to data.



MX-520 Pallet top view

Option

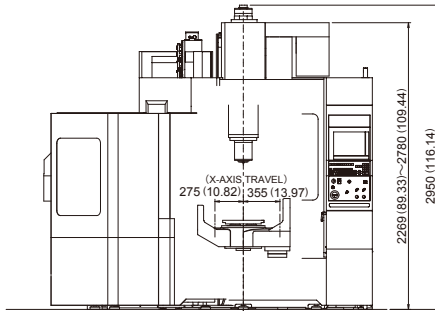


MX-520 PC4 External view

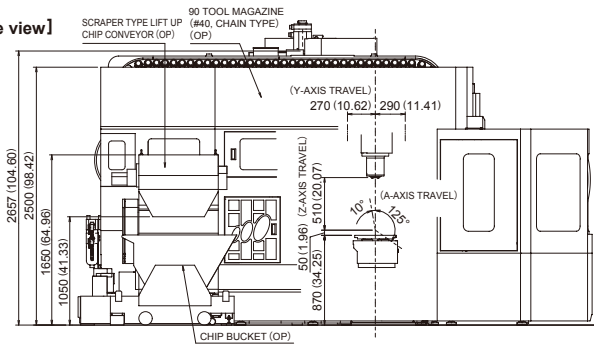
Option

[Front view]

Unit: mm (in.)



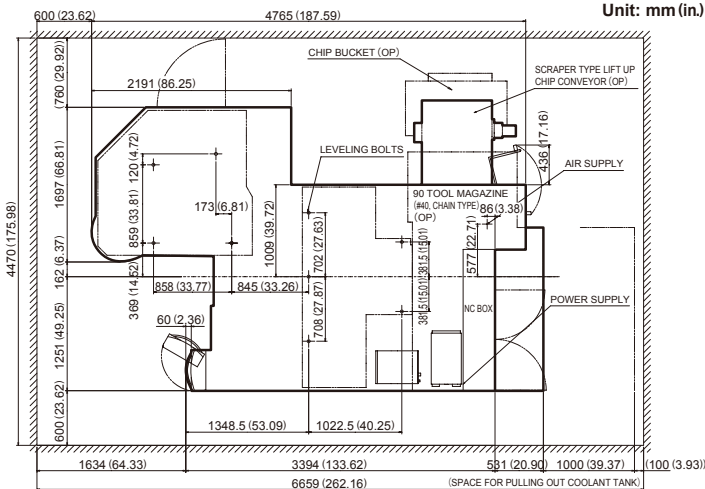
[Left side view]



MX-520 PC4 Floor plan

Option

Unit: mm (in.)



MX-520 Machine Specifications

■ Movement and Ranges

X-axis stroke	mm (in.)	630 (24.80)
Y-axis stroke	mm (in.)	560 (22.04)
Z-axis stroke	mm (in.)	510 (20.07)
A-axis rotation angle	deg	-125~+10
C-axis rotation angle	deg	360

■ Table

Standard

Working surface	mm (in.)	$\phi 300$ ($\phi 11.81$)
Loading capacity	kg	200
Max. workpiece size	mm	$\phi 520 \times H350$ ($\phi 20.47 \times H13.77$) $\phi 710 \times H350$ ($\phi 27.95 \times H13.77$) (with restrictions)

■ Spindle

Spindle speed	min ⁻¹ (kW,N·m)	12000 (7.5/11,120)	Standard
	min ⁻¹ (kW,N·m)	12000 (15/22,187)	Option
	min ⁻¹ (kW,N·m)	20000 (15/18.5,108)	Option
Spindle speed change command	—	S5 digits direct command	
Type of spindle taper hole	—	7/24 taper #40 (BT double contact type)	
Spindle bearing inner diameter	mm (in.)	$\phi 80$ ($\phi 3.14$)	
Spindle motor output	kW	AC7.5 / 11	
Max. spindle torque	N·m	120/880min ⁻¹	

■ Feedrate

Rapid traverse rate X / Y / Z	mm/min	40000/40000/40000
A / C	min ⁻¹	17/33
Feedrate X / Y / Z	mm/min	1~40000/1~40000/1~40000
A / C	min ⁻¹	17/33

■ Automatic Tool Changer

Type of tool shank	—	JIS B 6339 tool shank 40T	
Pullstud	—	JIS B 6339 pullstud 40P	
Tool storage capacity	tools	60 (Chain type)	Standard
	tools	90 (Chain type)	Option
Max. tool diameter	mm (in.)	$\phi 80$ ($\phi 3.14$) (With adjacent tools) $\phi 150$ ($\phi 5.90$) (Without adjacent tools)	
Max. tool length	mm (in.)	300 (11.81)	
Max. tool mass	kg	10	
Method of tool selection	—	Memory random system	

■ Pallet Specification

Option

Working surface	mm (in.)	$\phi 400$ ($\phi 15.74$)
Max. workpiece size	mm (in.)	$\phi 520 \times H330$ ($\phi 20.47 \times H12.99$)
Loading capacity	kg	175
Number of pallets	—	1 (Single pallet) 4 (Floor pallet system)

■ Robot interface

Option

Robot interface + auto door	—	Only an interface added
Robot + auto door	—	Robot details to be discussed individually.

■ Power Sources

Electrical power supply	kVA	44 (Depends on the options provided)
Power supply voltage	V	AC200 / 220 $\pm 10\%$ Transformer required for the voltage except above
Power supply voltage	Hz	50 / 60 ± 1

■ Tank Capacity

Coolant tank capacity	L	560
Oil cooler tank capacity	L	14 (Total capacity:16)

■ NC System

Control system	—	Matsura G-Tech 31i
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* Product specifications and dimensions are subject to change without prior notice. This product is subject to all applicable export control laws and regulations

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