Matsuura

5-Axis Multi-Tasking Machining Center

MX-520T

PC4

MAXIA
Innovation by Matsuura

Matsuura

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- Product specifications and dimensions are subject to change without prior notice.
- The photos may show optional accessories.

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MX Series

Matsuura's Globally Best Selling ***"5-Axis + Multi-pallet"***
thoroughly covering all key customer needs

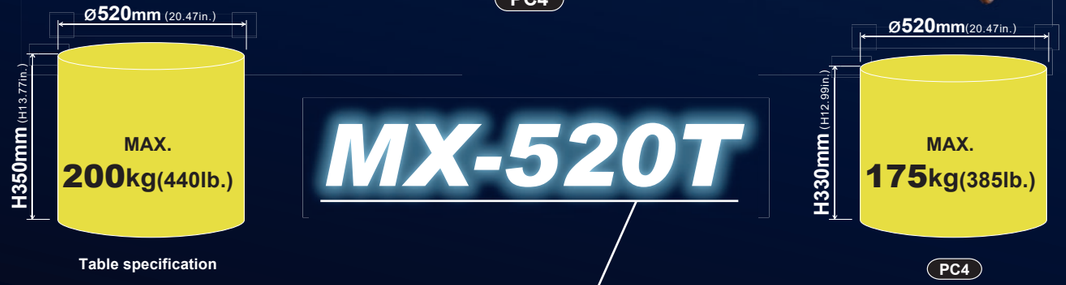
"Safe and Easy 5-Axis Machining"

MX Series + Turning

A multi-tasking machining center that combines 5-axis machining and turning processes, while retaining the user-friendliness of the MX series.

Process integration eliminates set-up time and accumulated errors between different operations.

Further productivity improvements are achieved through lights-out operations with the easy-to-use multi-pallet system (PC4).



MX-520T

MX-330 — MX-420 — MX-520 — MX-850

MX Series Line-up

Series ***Further Evolved, for Ease of Use and Automation***

Featuring the latest technological developments based on the Matsuura Slogan: "The Reason to be Chosen"

Advanced MIMS

Equipped with optimal functions developed based on real customer testimonials, addressing challenges of automated and unmanned operation.

Improve productivity and save on labor with safe and reliable extended unmanned operation.

The 5 Matsuura Intelligent Meisters

1 *Productivity Meister* ***Automation***

Improve Productivity in the face of Staffing Issues with Extended Unmanned Operation
- Extended unmanned operation support

2 *Operability Meister* ***Simple***

Fuss-free Simple Operation, Increased Work Efficiency
- Intuitive operability
- Simple & secure scheduling
- Reduced operator's burden
- Visualized machine operation status

MiOS 4

3 *Performance Meister* ***Accuracy***

Show Consistent Excellent Performance, Increased Machining Efficiency
- Stabilization of machining accuracy
- Cycle time reduction
- Reduced machining error

4 *Reliability Meister* ***Secure***

Reduction of Machine Downtime, Extended Stable Operation
- Reduced machine recovery time
- Reduced error-related downtime
- Resolved chip management issue

5 *ECO Meister* ***Environment***

Power Saving, Reduced Environmental Burden & Operation Cost
- Reduced power consumption
- Visualized power consumption

1 Productivity Meister **Automation**

Improve Productivity in the face of Staffing Issues with Extended Unmanned Operation

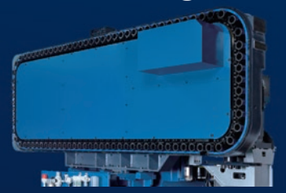
Capable of 24 hours continuous operation - Simple automation

The ***MX-520T*** comes 4 pallet system and 90 tool option, offering superb profit enhancing lights out production while utilizing minimal floorspace.

PC4 (Floor pallet system) Option

Pallet storage: Memory random system

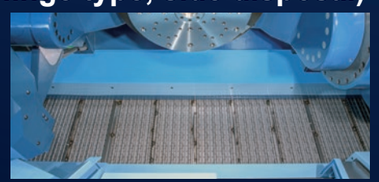
90-tool magazine Option

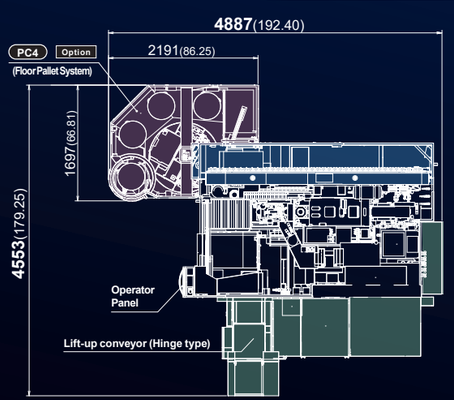


PC4 Work station (rotary) Option

Workstation can be rotated in 90-degree increments to assist set-up

Lift-up conveyor (Hinge type, side disposal) Standard

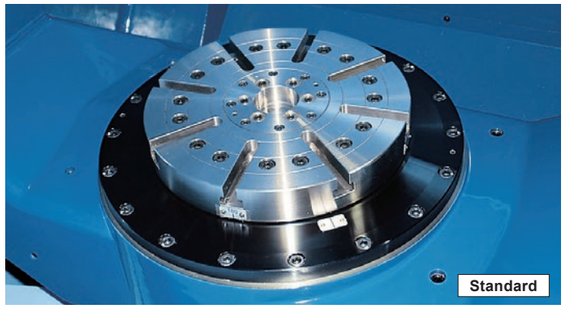




Small footprint saving valuable factory space

Table specification

Applying 3-axis machining know-how for a smooth transition to 5-axis machining



* The photo is a table of MX-520.

Robotic Automation

Interface for integration with external work transfer equipment.

▶Robot interface Option

Supports automation with a robot system. “FOCAS only", "FOCAS+I/O", and “ETHERNET/IP ADAPTER" options available for various types of robots.

▶Automatic door Option

Automatically opens and closes the operator door.

▶Pressure supply system to fixtures Option

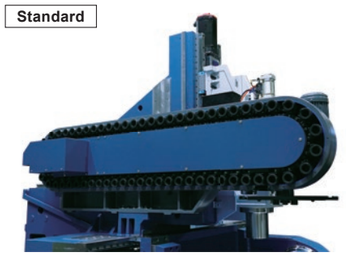
Equipped with pressure supply ports for through-pallet system fixtures. Supplies pressure to the auto clamping device and makes it possible to utilize an external workpiece transfer system.

* Only available for Table specification/hydraulic pressure.

Tool specification

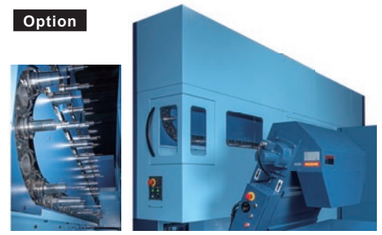
60-tool magazine

Standard



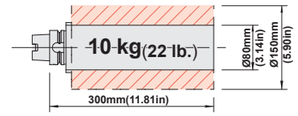
120-tool magazine

Option



Floor plan is the same as 90-tool magazine.

Tool specification



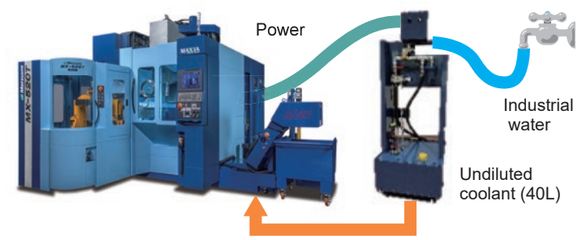
Type of tool shank	:	HSK-T63
Max. tool diameter	:	Ø80 mm (Ø3.14 in.) with adjacent tools Ø150 mm (Ø5.90 in.) without adjacent tools
*Storage pocket is limited for large diameter tools		
Max. tool length	:	300 mm (11.81 in.)
Max. tool mass	:	10kg (22 lb.)

Automated Coolant Management

Coolant supply unit Option

Checks the coolant amount in the tank, and automatically supplies the coolant to a specified level. Coolant replenishment work time reduced by 90% (compared to conventional).

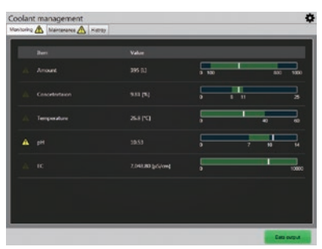
* Only available for water-soluble coolant.
* Industrial water arranged by customer.
* Supply to the undiluted coolant tank is manual.



Coolant management system Option

Prevents production halts caused by coolant shortage and reduces coolant replenishment work by automatically monitoring the coolant condition (level, concentration, temperature, pH, electrical conductivity) to allow for extended unmanned operation.
Visualizing coolant conditions also helps improve machined surface quality, reduce tool wear, and reduce maintenance time.

* Only available for water-soluble coolant.
* Industrial water arranged by customer.
* The coolant management system requires the operation status monitoring option (one year data storage capacity expansion).



2 Operability Meister **Simple**

Fuss-free Simple Operation, Increased Work Efficiency

Intuitive Operability for Secure and Reliable Unmanned Operation

MiOS 4 New Operating System
Matsuura Integrated Operating System

The newest update of the user interface offers intuitive operability regardless of operator experience. The improved icon layout provides easier workflow, and the larger main screen improves visibility by displaying important information at all times.

The home screen displays all necessary information for automatic operation

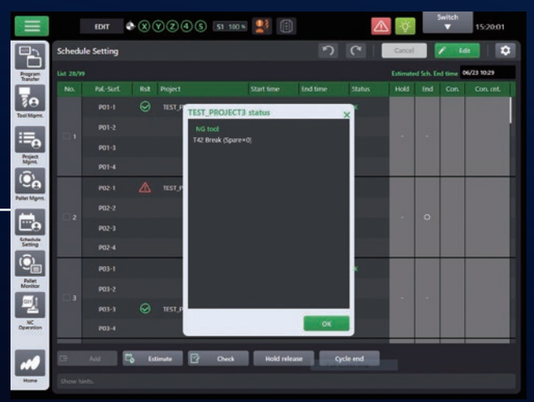
Machining schedule, machining progress (start/end time display), tool life, machining program and tool management pre check are all displayed on the main screen. Machine status can be seen at a glance, facilitating secure and reliable unmanned operation.

Home screen

Precheck function to notify missing setups

Set up support function to send notifications in event of a program setting error and tool shortage, ensuring secure schedule operation with reduced setup error and operator burden.

Check planned start and part completion times using the prediction function on the schedule setting screen.



Schedule setting screen

Switch layout with easy-to-follow operations

The side menu displays related switches in work order to make screen switching from set up to production more intuitive.

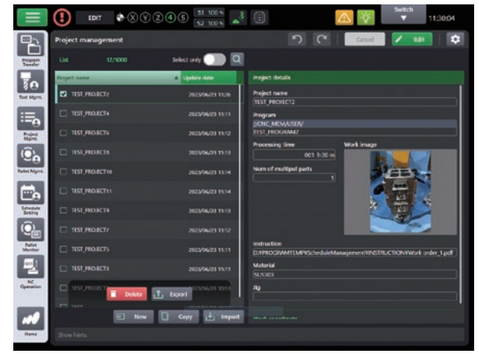
Reduces screen switching time by always displaying frequently used switches.

Program Preparation
▼
Tool preparation
▼
Workpiece preparation (pallet and schedule set-up)
▼
Programmed operation

*Switch layout can be customized.

Project management function

Enables bulk management of machining data(machining program, material / fixture / image data, work coordinate data, setup instruction data) as single project file (**up to 1000data points**). Easy and secure data transfer between machines with data input/output function, preventing delivery delays due to machine setup time or machine stops caused by human errors in schedule setups. Enables easy and reliable night/weekend unmanned operation.



Project management screen
* Image is for illustrative purposes.

Large capacity memory (16GB) Option

To support high-mix low-volume production and extended operation, program capacity has been increased to 16GB. Enables management of larger programs without stress by increasing program transfer speed.

User friendly tool management screen

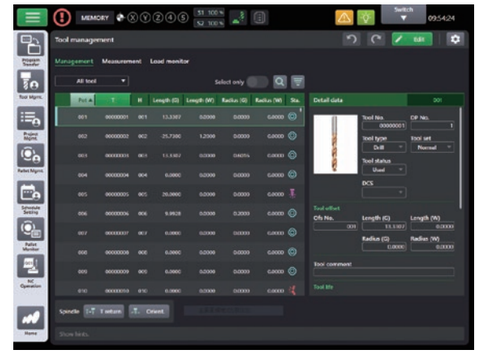
Equipped with tool life management as standard, enhancing the capability of unmanned operation.

- ▶Check and search specific tool data by creating tool lists.
- ▶Store tool data on a temporary basis with the load / unload function.

Tool pre-check function

- ▶Confirms tools are available before machining begins.
- ▶Prevents alarms and unplanned stops during unmanned operation.

* Installed as standard with multi-pallet system.



Tool management screen

Easy pallet management and scheduling

Continuous operation is made possible by setting all necessary information into the schedule table. Order or priority of machining can be easily changed to meet production requirements. Pallet reserve, interrupt, priority and repeat can be set for each pallet. After setting a project in a palette on the pallet management screen, you can create a schedule on the schedule setting screen.

Schedule operation	Machine according to the numbers on the schedule setting screen.
Interrupt setting	Interrupt the present schedule to give top priority to urgent parts.
Reserve setting	Set up pallets during the daytime for unmanned machining at night time.
Continue setting	Repeat the specified schedule continuously.
End setting	End automatic operation when the scheduled machining is completed.

Pallet management screen

Schedule setting screen

Pallet monitoring screen

Reduced Operator's Burden

Designed for sustained performance

Accessibility to workpiece and spindle

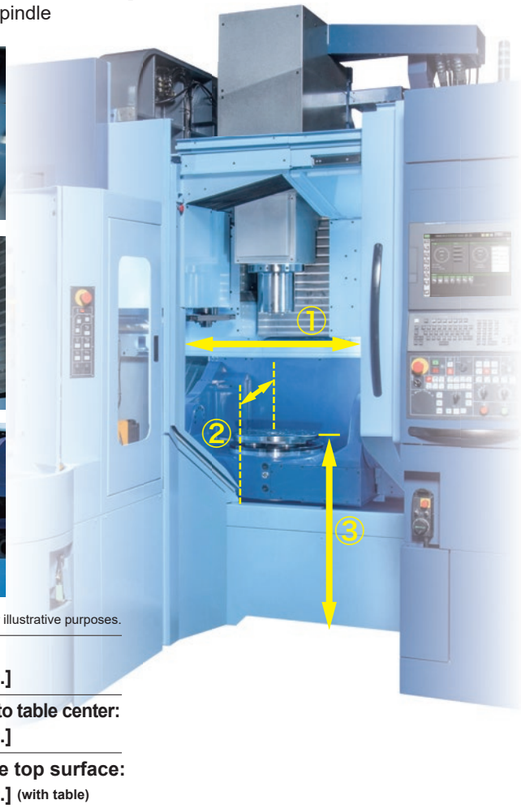


*Image is for illustrative purposes.

① Front door opening width:
800mm [31.49in.]

② Distance from machine front to table center:
385mm [15.15in.]

③ Distance from floor to table top surface:
950mm [37.40in.] (with table)
970mm [38.20in.] (with pallet)

Designed for easy crane access

A sliding roof cover, incorporating a proven Matsuura design, affords the operator a spacious 360mm roof opening for loading billets safely by crane.

Designed for easy maintenance

Improved work efficiency by centralizing daily maintenance devices in one place.

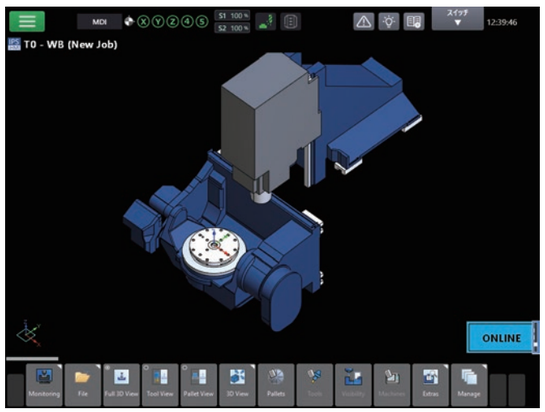
Intelligent Protection System

Collision prevention function Standard

The collision prevention function is developed specially by Matsuura. It prevents machine collisions due to programming errors in automatic operation, and also prevents human error in advance during manual operation and workpiece setup.

* With ***Intelligent Protection System***, interference check is available during cutting simulation.
* The ***Intelligent Protection System*** simulates your programming components (tools, workpiece, fixtures, etc.) in relation to the machine model, alerting you to any possible interference or collision before actual machining takes place.
* Model editing tool for model creation on an external PC is available. Model data of stock, tools, etc. can be created in a single software.

Installed on the NC screen as standard.
No external PC required.



Visual Management for Machines

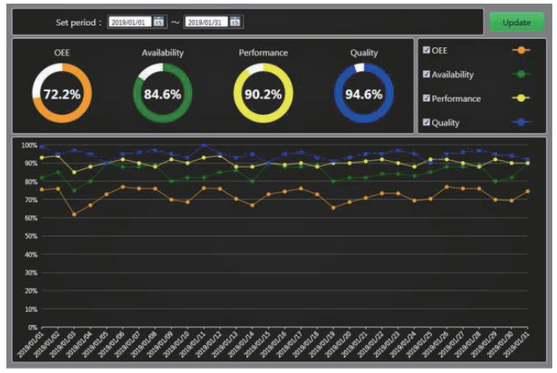
Operation status monitoring Standard

Machine availability and performance can be monitored to improve process planning.

- ▶Performance is monitored to check OEE.
- ▶Data can be output to process data acquisition (PDA) systems.

* Overall equipment efficiency (OEE) = availability x performance x quality
* Data is stored for two months. Upgrade to one year of data storage is optional.

Operational state display



Overall operation ratio display

Matsuura remote monitoring system Option

- ▶Monitor the operating status of multiple machines, even while off site.
- ▶Check machine operation history (machines can be displayed collectively or individually).
- ▶Edit the pallet schedule, even when away from the machine.

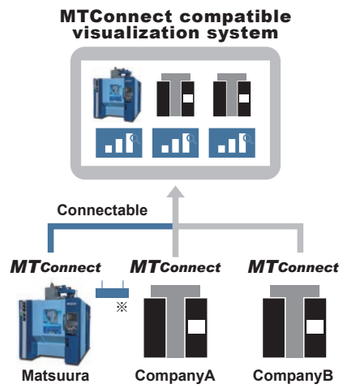
Multiple machines operating status

Individual machine operating status

MTConnect/OPC UA Option

MTConnect/OPC UA is an open communication protocol for the manufacturing industry. MTConnect/OPC UA enables low-cost visualization and oversight of all CNC machines in a factory, regardless of the machine manufacturer. Benefits include;

- ▶Optimization of production schedule
- ▶Identify and utilize free machine time
- ▶Early detection of abnormalities



* Support for both wireless and wired LANs

3 *Performance Meister*

Accuracy

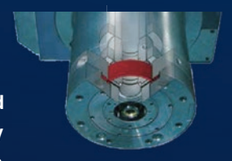
Show Consistent Excellent Performance, Increased Machining Efficiency

High-rigidity, high-precision MAXIA Spindle

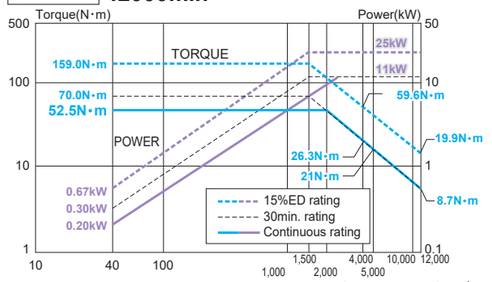
MAXIA Spindles – designed and built only by Matsuura, deliver maximum performance, accuracy and longevity of service for many, many years - even when continuously machining hard-to-cut materials. High torque, heavy duty and high speed are assured across the range of spindle options from Matsuura.

Proven spindle brake mechanism

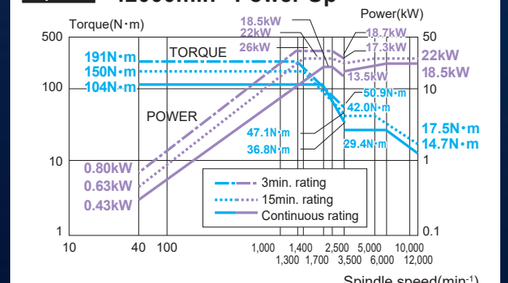
The Matsuura Spindle possesses an integrated and robust drum brake mechanism. The high-rigidity brake mechanism on the spindle contributes greatly to sustainable high accuracy turning.



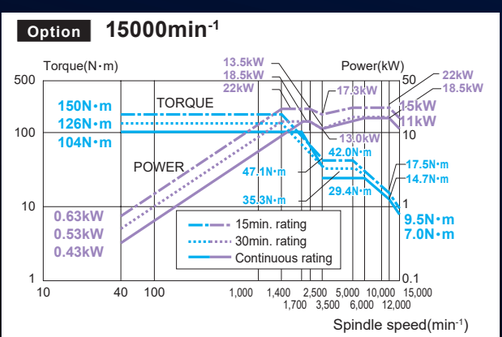
Standard 12000min^{-1}



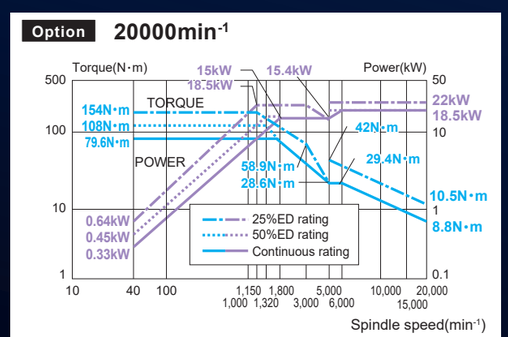
Option 12000min^{-1} Power Up



Option 15000min^{-1}



Option 20000min^{-1}

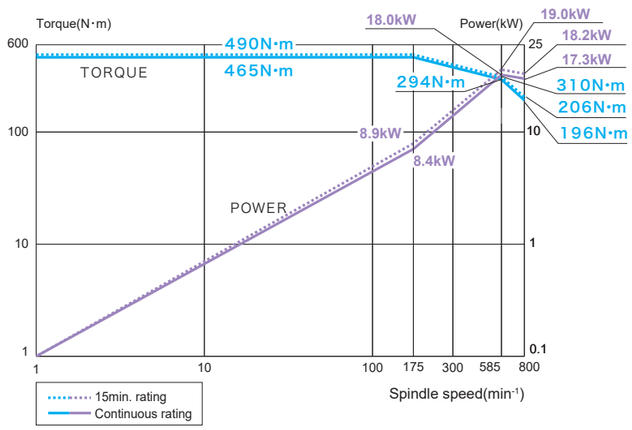


Test results (Machining center mode)

	Part material	Tool size (mm)	Cutting width Cutting depth (mm)	Spindle speed (min^{-1})	Cutting feed rate (mm/min)	Cutting capacity (cc/min)
Face mill	A5052	Ø80 (3.14) 3blades	W=70(2.75) D=4(0.15)	5,500	7,000 (275.59)	1,960
	S45C	Ø80 (3.14) 5blades	W=70(2.75) D=3(0.11)	1,120	1,400 (55.11)	294
End mill	A5052	Ø25 (0.98) 2 blades	W=22(0.86) D=7(0.27)	12,000	8,500 (334.64)	1,309
	S45C	Ø20 (0.78) 4 blades	W=3(0.11) D=30(1.18)	5,000	4,000 (157.48)	360

	Part material	Tool size (mm)	Spindle speed (min^{-1})	Cutting feed rate (mm/min)	Cutting capacity (cc/min)
U Drill	A5052	Ø33 (1.29)	1,500	500 (19.68)	427
	S45C	Ø33 (1.29)	1,200	220 (8.66)	188
Tap	A5052	M36 ×P4.0	120	480 (18.89)	–
	S45C	M24 ×P3.0	100	300 (11.81)	–

Turning spindle (C-axis) driven by a Direct Drive system



Test results (Turning mode)

	Part material	Outer dia. (mm)	Cutting depth(dia.) (mm)	Rotation speed (min^{-1})	Feed rate (per rotation) (mm/min)	Cutting capacity (cc/min)
Vertical turning	A5056	Ø250(Ø9.84)	8(0.31)	800	0.65(0.02)	1,632
		Ø120(Ø4.72)	9(0.35)	800	0.65(0.02)	881
	S45C	Ø520(Ø20.47)	4(0.15)	180	0.4(0.01)	235
		Ø120(Ø4.72)	9(0.35)	800	0.4(0.01)	542
Horizontal turning	A5056	Ø250(Ø9.84)	8(0.31)	800	0.65(0.02)	1,632
		Ø120(Ø4.72)	9(0.35)	800	0.65(0.02)	881
	S45C	Ø520(Ø20.47)	4(0.15)	180	0.4(0.01)	235
		Ø120(Ø4.72)	9(0.35)	800	0.4(0.01)	542

* No difference between the turning methods (vertical or horizontal)
* Actual measured data; these are not guaranteed values.

HSK-T standard, high-precision positioning of cutting edge during turning

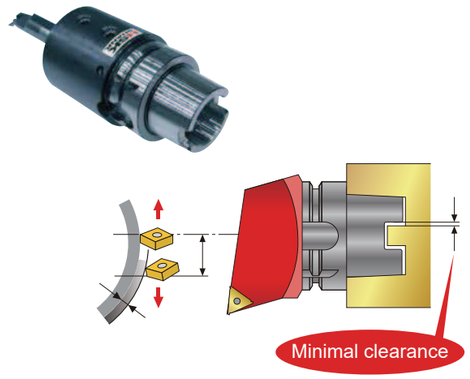
HSK-T interface was developed to maximize cutting ability of multi-tasking machines. HSK-T interface became ISO standard (ISO121 164-3:2008) in 2008.

Maintains high accuracy during turning

Reduced clearance between the spindle drive key & the tool holder keyway ensures sustained turning accuracy.

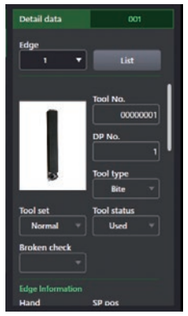
High flexural rigidity

Two face clamping assures high rigidity against the cutting force generated during turning.



Multi-faceted tooling

Because the spindle can be locked at any phase position, it is possible to utilize multi-faceted tooling. For example, when using a triple insert cutter, the spindle can be locked at 120-degree increments, enabling three kinds of turning operation within one operation setup. In addition, the amount of tool offset can be configured for each insert on the tool management screen. This reduces tool change times and the need for extra tool holders.



Imbalance check function

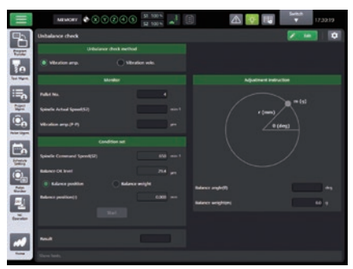
Ensuring perfect balance in relation to a component's rotation center is effortless with Matsuura's Imbalance Check Function – developed specially for ***MX-520T***. As well as maintaining perfect balance, this superb function will inform the operator of the safest rotational speed that can be utilized with any given component.

Scatter prevention function

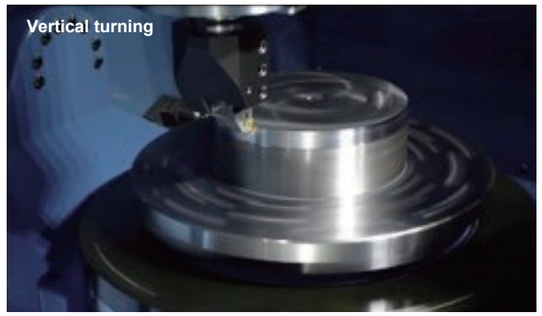
This function monitors the extent of imbalance during turning, and if exceeding the set level, stops the machine to avoid damaging the components.

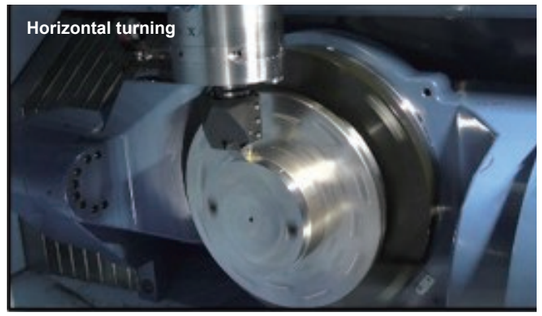
Imbalance check function

The extent of imbalance is measured and the correction information (balance weight / balancing position) is transmitted for feedback.



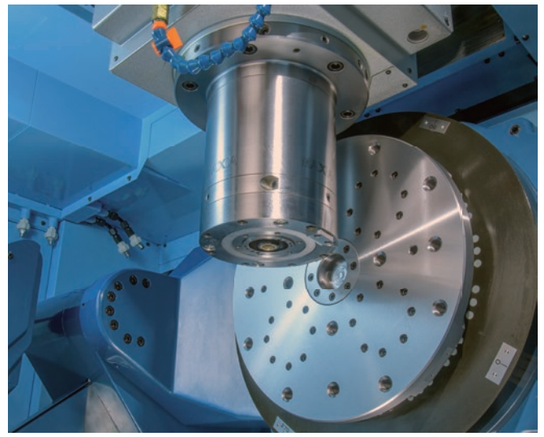
Can be used for both vertical and horizontal turning by rotating the A-axis

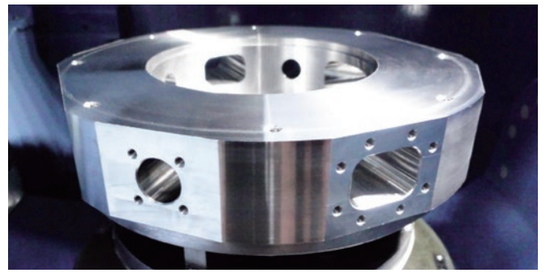




Lower costs, fewer set-ups, and eliminate accumulated load errors with 5-axis machining

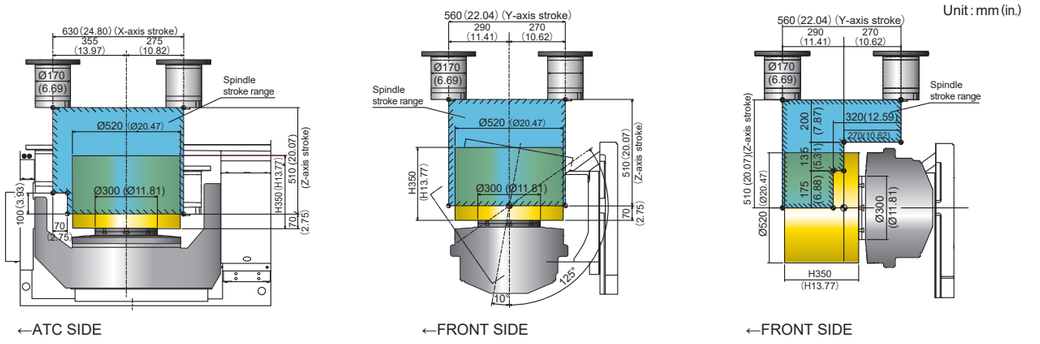
Specially designed 4th-/5th-axis table. The headstock & trunnion configuration have been designed in such a way as to minimize the possibility of collision, whilst maximizing tool access & reach.





Spindle Stroke Diagram (Table specification)

Unit : mm (in.)



* Table size: Φ300mm (Φ11.81 in.), X-axis 0 to -560 mm (-22.04 in.)
* In an actual machine, the X-axis moves when the table moves.

Thermal displacement compensation

Spindle Standard | Environment Option | Feed axes Option

The displacement compensation monitors the temperature of major machine components—such as the spindle, ball screws, bed or column—automatically calculates the amount of compensation, and feeds it back to the NC controller.

* The feed axis thermal displacement compensation can be used on the machine without scale feedback.

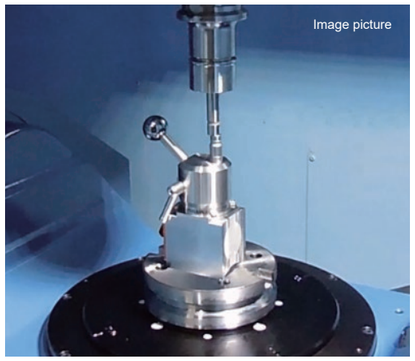
eZ-5 Advanced 5-axis error measurement and correction Option

Geometric error correction is essential for multi-axis machine tools. eZ-5 completes measurement, using a touch probe and calibration sphere, in a mere 3 minutes. The high accuracy of the machine is maintained through quick and simple operations.

eZ-5

Auto measure calibration support Option

With the advanced calibration sphere (ACS-1), anyone can perform calibration easily and accurately and reduce calibration time.

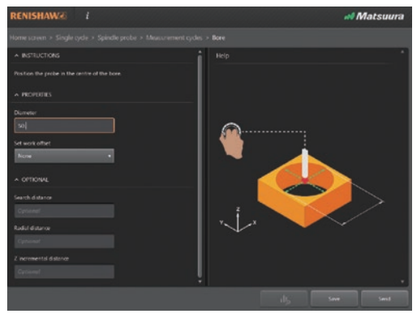


ACS-1

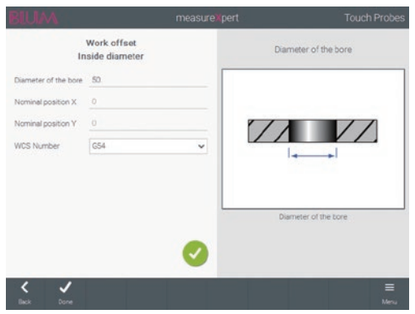
Automatic measurement (interactive) Option

Intuitive and user-friendly input support screens to guide operators through the process of automatic measurement and part setup.

* Automatic measurement (interactive) is available only when Blum macro or Renishaw macro is selected.



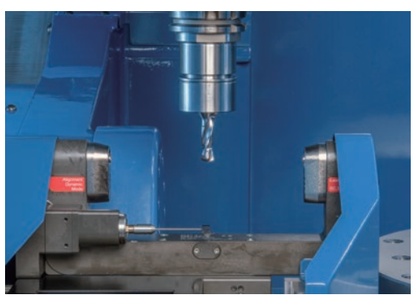
Renishaw



Blum

Tool breakage detection Option

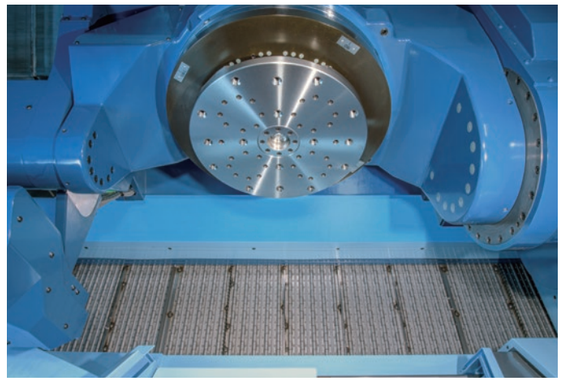
Achieve higher accuracy and accuracy stability by improving measurement accuracy and reducing measurement error. Available as mechanical type or hybrid type (Blum).


Hybrid type

4 Reliability Meister Secure — Reduction of Machine Downtime, Extended Stable Operation

Reliable chip removal

A hinge type lift-up chip conveyor is equipped as standard in the space directly below the 4th/5th axis table. Chip removal nozzles with an optimized coolant discharge method are also equipped as standard.



Lift-up conveyor (Hinge type, side disposal) Standard

Chip bucket Option

Sludge collection Option Patent No. 7233145

90% or more of the sludge in the tank is automatically collected. Reduced running costs by extending tool and coolant life, ensure a cleaner work environment by eliminating decay and unpleasant odor of coolant, and reduced time spent cleaning by improving maintenance intervals.

* Only available for casting & aluminum sludge.
* Only available for water-soluble coolant.


Before


After

5 ECO Meister Environment — Power Saving, Reduced Environmental Burden & Operation Cost

Equipped with a function that reduces power consumption during idle time and reduces environmental loading. The power monitor displays the power consumption of machines and the amount of power consumed per day, supporting customers in saving energy.

- ▶Power off function
- ▶Auto power off function
- ▶ECO drive function
- ▶ECO mode

Power monitor screen

MX-520T Specification / Equipment

Standard Machine Specifications

Movement and Ranges		
X-axis travel	[mm (in.)]	630 (24.80)
Y-axis travel	[mm (in.)]	560 (22.04)
Z-axis travel	[mm (in.)]	510 (20.07)
A-axis rotation angle	[deg]	-125 - +10
C-axis rotation angle	[deg]	360
Table		
Working surface	[mm (in.)]	Ø300(Ø11.81)
Loading capacity	[kg (lb.)]	200(440)
Max. workpiece size	[mm (in.)]	Ø520xH350 (Ø20.47xH13.77)
Spindle		
Spindle speed	[min^{-1}]	40 – 12000 (grease lubrication)
Spindle speed change comman		S5 digits direct command
Spindle taper		HSK-T63
Spindle bearing inner diameter	[mm (in.)]	Ø80 (Ø3.14)
Max. spindle torque	[N・m]	159/1500min^{-1}
Feedrate		
Rapid traverse rate X/Y/Z	[mm/min]	40000/40000/40000(1574.8)
A	[min^{-1}]	33
C	[min^{-1}]	100/800 (Machining center mode mode/Turning mode)
Feedrate X/Y/Z	[mm/min]	1 – 40000/1 – 40000/1 – 40000(0.03-1574.8)
A	[min^{-1}]	33
C	[min^{-1}]	100/800 (Machining center mode/Turning mode)
Automatic Tool Changer		
Type of tool shank		HSK-T63
Tool storage capacity	[tools]	60 (chain magazine)
Max. tool diameter (with adjacent tools)	[mm (in.)]	Ø80(Ø3.14)
(without adjacent tools)	[mm (in.)]	Ø150(05.90) Storage pocket is limited for large diameter tools
Max. tool length	[mm (in.)]	300 (11.81)
Max. tool mass	[kg (lb.)]	10(22)
Methods of tool selection		Memory random system
Power Sources		
Electrical power supply	[kVA]	62 (depends on the options provided)
Power supply voltage	[V]	AC 200/220±10% Transformer is required for the voltage except above
Power supply frequency	[Hz]	50/60±1
Tank Capacity		
Hydraulic unit oil tank capacity	[L]	40
Coolant tank capacity	[L]	990
Oil cooler tank capacity	[L]	14 (total capacity: 16) 7 (total capacity: 9)(20000min^{-1} option)
Machine size		
Machine weight	[kg (lb.)]	12800 (28220) *PC4, 90T
NC System		
Control system		***Matsuura G-Tech 31i***
Standard Accessories		
Operating system: ***MiOS 4***		***MIMS*** (Matsuura Intelligent Meister System)
AD-TAP function		Spindle thermal displacement compensation system
IPC function		***Intelligent Protection System***
Hydraulic oil cooler		Integrating spindle run hour meter
Auto grease supply unit for feed axes		Integrating auto run hour meter
Lift-up conveyor (Hinge type, water soluble, side disposal)		Operation status monitoring (Operating data storage period: 2 months)
M-code counter (20 kinds)		Power off function
Service tools and tool box		Auto power off function
Machine color paint		Power monitor
Leveling bolts, leveling plates		Tool pre-check function (Std only for machine with PC4)
Scale feedback A/C		* 2 years spindle warranty
Imbalance check function		

List of Fittings

○: Standard ▲: Option

Spindle			
12000min^{-1} (HSK-T63 grease lubrication)			○
12000min^{-1} Power Up (HSK-T63 grease lubrication)			
Spindle motor output	kW	18.5/22	▲
Max. spindle torque	N・m	191	
15000min^{-1} (HSK-T63 auto grease lubrication)			
Spindle motor output	kW	18.5/22	▲
Max. spindle torque	N・m	150	
20000min^{-1} (HSK-T63 auto grease lubrication)			
Spindle motor output	kW	15/18.5	▲
Max. spindle torque	N・m	108	
Tool Storage Capacity			
60 tools (chain type, memory random)			○
90 tools (chain type, memory random)			▲
120 tools (chain type, memory random)			▲
Table			
Ø300mm			○
Pallet Changer System			
PC4 (Floor pallet system) *1			▲
Work rotation system (manual) for PC4			▲
High Accuracy Control			
Scale feedback (X,Y,Z) Heidenhain			▲
Feed axis thermal displacement compensation			▲
Environmental thermal displacement compensation(12000min^{-1} or 15000min^{-1} or 20000min^{-1} spindle)			▲
Coolant			
Vacuum type coolant through A 7MPa			▲
Vacuum type coolant through B 7MPa			▲
Vacuum type coolant through C 2MPa or 7MPa			▲
Coolant flow checker			▲
Mist separator unit (without fire damper)			▲
Mist separator unit (with fire damper)			▲
Coolant temperature controller with tank 100L			▲
Coolant temperature controller with tank 200L			▲
Spindle coolant pump capacity			▲
Coolant supply unit (water soluble)			▲
Coolant management system (water soluble/Will-Fill)			▲
In-Process Measurement, Tool Breakage Detection			
I.p.measure/auto.centering(Renishaw, Matsuura macro or Renishaw macro)			▲
I.p.measure/auto.centering(Renishaw macro only)			▲
I.p.measure/auto.centering(Blum, Matsuura macro or Blum macro)			▲
I.p.measure/auto.centering(Blum macro only)			▲
Broken tool detection (mechanical)			▲
Hybrid broken tool detection (Blum)			▲
Broken tool detection in ATC (Metrol, 60/90/120tools)			▲

Auto measure calibration support (ACS-1/Ref. tool + Renishaw macro or Matsuura/Blum macro)	▲
Auto measure calibration support (ACS-1/without Ref. tool + Renishaw macro or Matsuura/Blum macro)	▲
Safety Device	
Automatic fire extinguisher	▲
Chip Removal	
Chip flush	○
Lift-up conveyor (Hinge type, oil soluble, side disposal)	▲
Chip bucket	▲
Air blow for chip swarf removal	▲
Workpiece cleaning gun (machine side)	▲
Workpiece cleaning gun (APC side)	▲
Sludge collection (water soluble)	▲
Operation/Maintenance Support	
Work light	○
Add optional block skip switch 2-9	○
Tool No.8 digits	○
Additional eight M function	▲
Spindle load monitoring function	▲
Weekly timer	▲
3 color signal light (red,yellow,green from top)	▲
AC100V outlet 3A	▲
External manual pulse generator	▲
eZ-5 (with calibration sphere)	▲
eZ-5 (without calibration sphere)	▲
Pressure supply system for fixtures (for table spec., hydraulic)	▲
Rotary wiper (air supply system)	▲
Rotary wiper (electrical system)	▲
Automation operator door	▲
Robot interface	▲
Operation status monitoring (storage capacity expansion: 1 year)	▲
Matsuura remote monitoring system	▲
Machine information output: MT connect/OPC UA	▲
Inside machine camera	▲
Large capacity memory (16GB)	▲
Processing Support	
Tool ID system (BALLUF)	▲
Tool IC system (BIG DAISHOWA)	▲
Optional Packages	
High-speed, high-precision package	▲
5-axis package	▲
High-speed, high-precision 5-axis package	▲

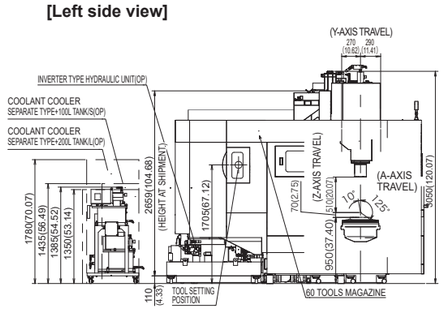
*1 Max. workpiece size for PC4 : Φ520xH330mm (Φ20.47xH12.99in.)

MX-520T External view

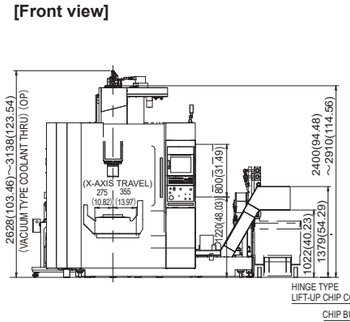
Standard

Unit : mm (in.)

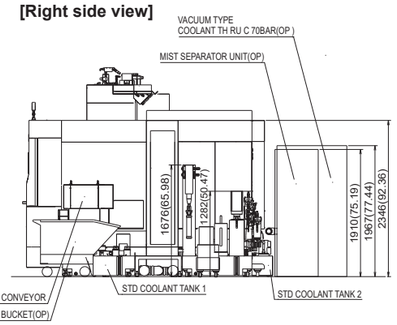
[Left side view]



[Front view]



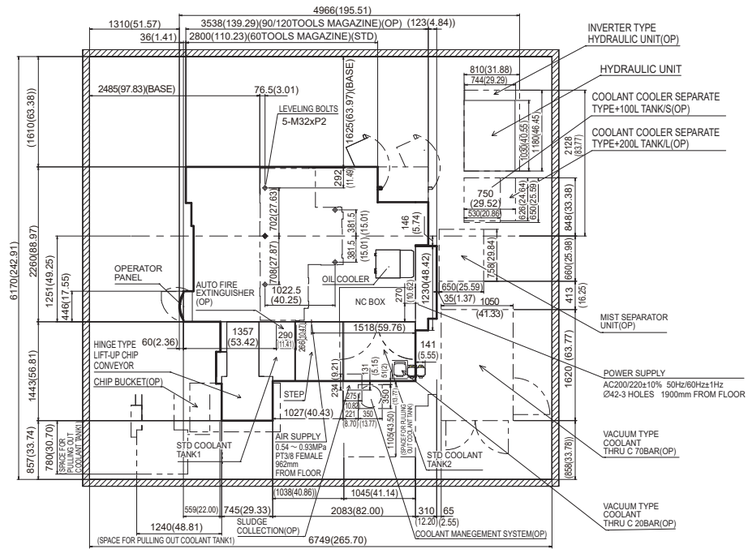
[Right side view]



MX-520T Floor plan

Standard

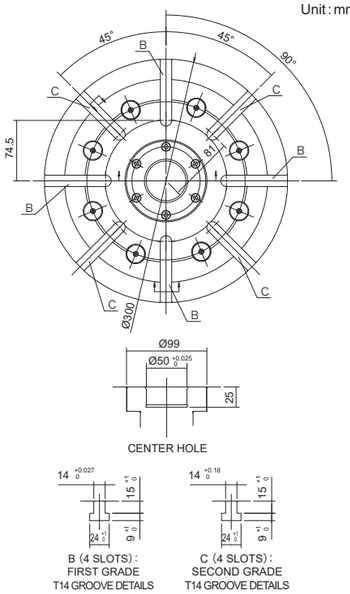
Unit : mm (in.)



Ø300mm Table top view

Standard

Unit : mm

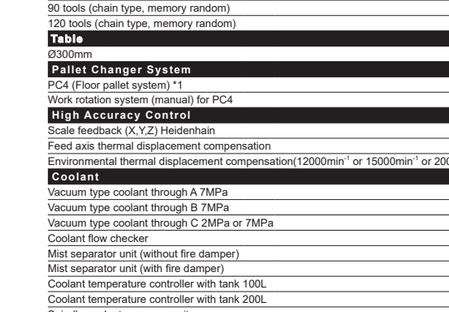


MX-520T PC4 External view

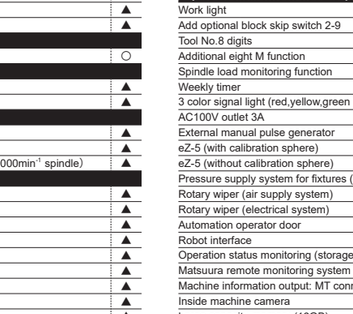
Option

Unit : mm (in.)

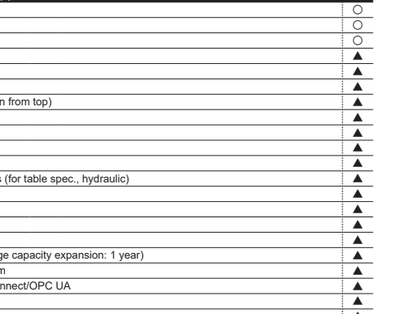
[Left side view]



[Front view]



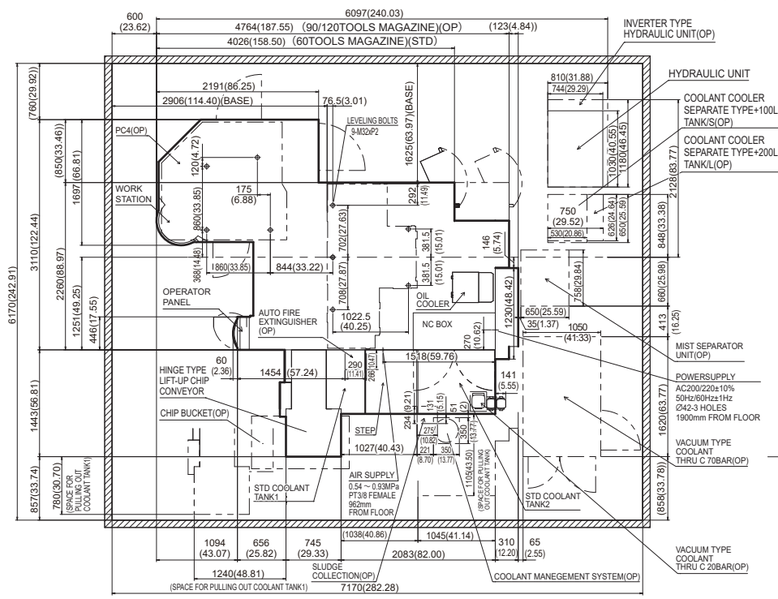
[Right side view]



MX-520T PC4 Floor plan

Option

Unit : mm (in.)



Pallet top view

Option

Unit : mm (in.)