AW MILLER
TECHNICAL SALES, INC.

EAST AURORA, NY 716.652.8282 | HARMONY, PA 724.453.1690 | STE-LAURENT, QC 514.333.9174 | HARLEYSVILLE, PA 215.256.8281

MULTIPLEX W

Mazak

SERIES

[200 / 200Y / 300 / 300Y]

Improved Performance
for a Real Production Workhorse

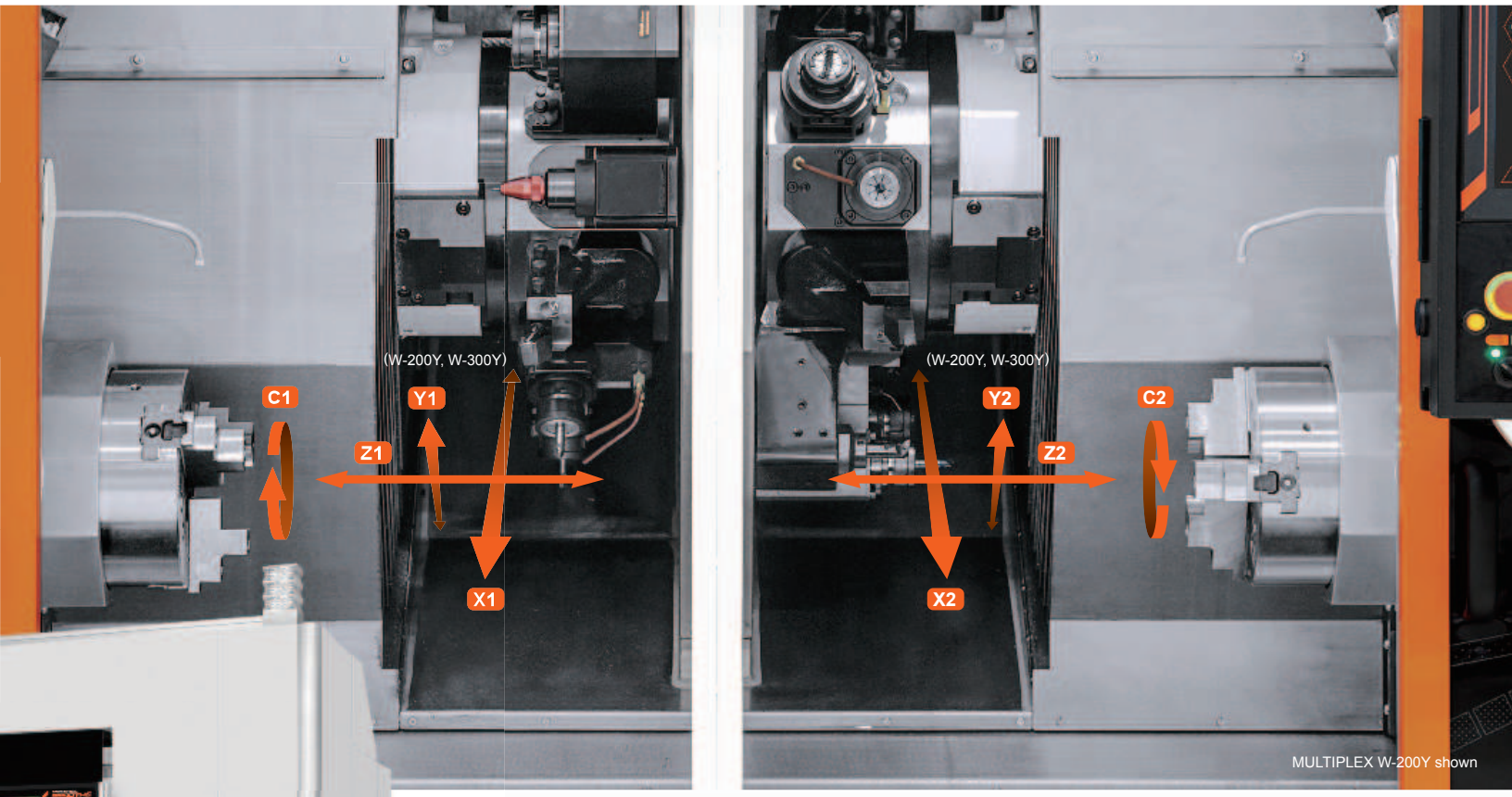
ergonomics

eco-friendly

MULTIPLEX W-300Y shown with optional gantry loader (GL-200) and status light

Symmetrical Machine Design with 2 Spindles and 2 Turrets

MULTIPLEX W SERIES



MULTIPLEX W-200Y shown

Continuous/simultaneous machining by both spindles thanks to automatic workpiece transfer from one spindle to the other

Innovative machine design for higher productivity

- Wedge bed design for improved chip flow and operator accessibility
- Faster operation for large lot production

New gantry loader system for improved efficiency

Wide range of factory automation equipment available for increased productivity

Innovative Machine Design for Higher Productivity

The MULTIPLEX began transforming manufacturing around the world almost 30 years ago. Many improvements have since been made for higher efficiency, productivity and ease of operation. The new MULTIPLEX W Series incorporates the extensive expertise accumulated over many years to provide unsurpassed productivity.

MULTIPLEX processing enables automatic and continuous workpiece machining on the same machine. This is done by transferring the workpiece from one headstock to the other while maintaining the in-phase radial positioning to ensure high accuracy. Workpiece transfer is made possible by having each headstock move towards the machine center along the Z-axis. For this reason, the MULTIPLEX was the first Mazak machine tool to utilize integral spindle/motors.

The first operation of a workpiece can be simultaneously machined by one spindle and turret while the second operation is being performed by the other spindle and turret. This independent operation capability maximizes the productivity of both tools, especially when compared with the efficiency of a single-spindle machine with two turrets.

1 Left & right integral spindle/motors

- High-efficiency and unsurpassed surface finishes
- Full 360° C-axis brake for high-accuracy C-axis positioning
- Faster chuck confirmation

2 Advanced turret design

- Direct drive motor is utilized for the turret milling spindle to minimize vibration/noise to ensure accuracy
  – No clutch for faster chip-to-chip times
- 12-position VDI turret

3 New machine design

- Wedge design for smooth flow of machined chips
- Higher rigidity
- High-speed positioning X / Y / Z

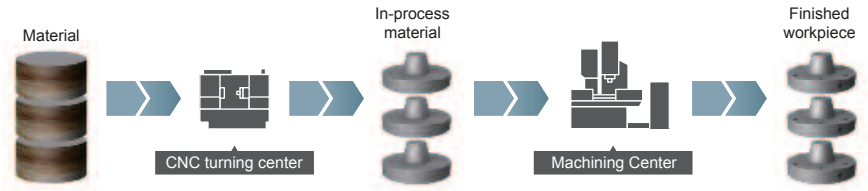
eco-friendly

High-efficiency lubrication system delivers the optimal amount of grease to the linear roller guides and ball screws, reducing lubricant consumption.

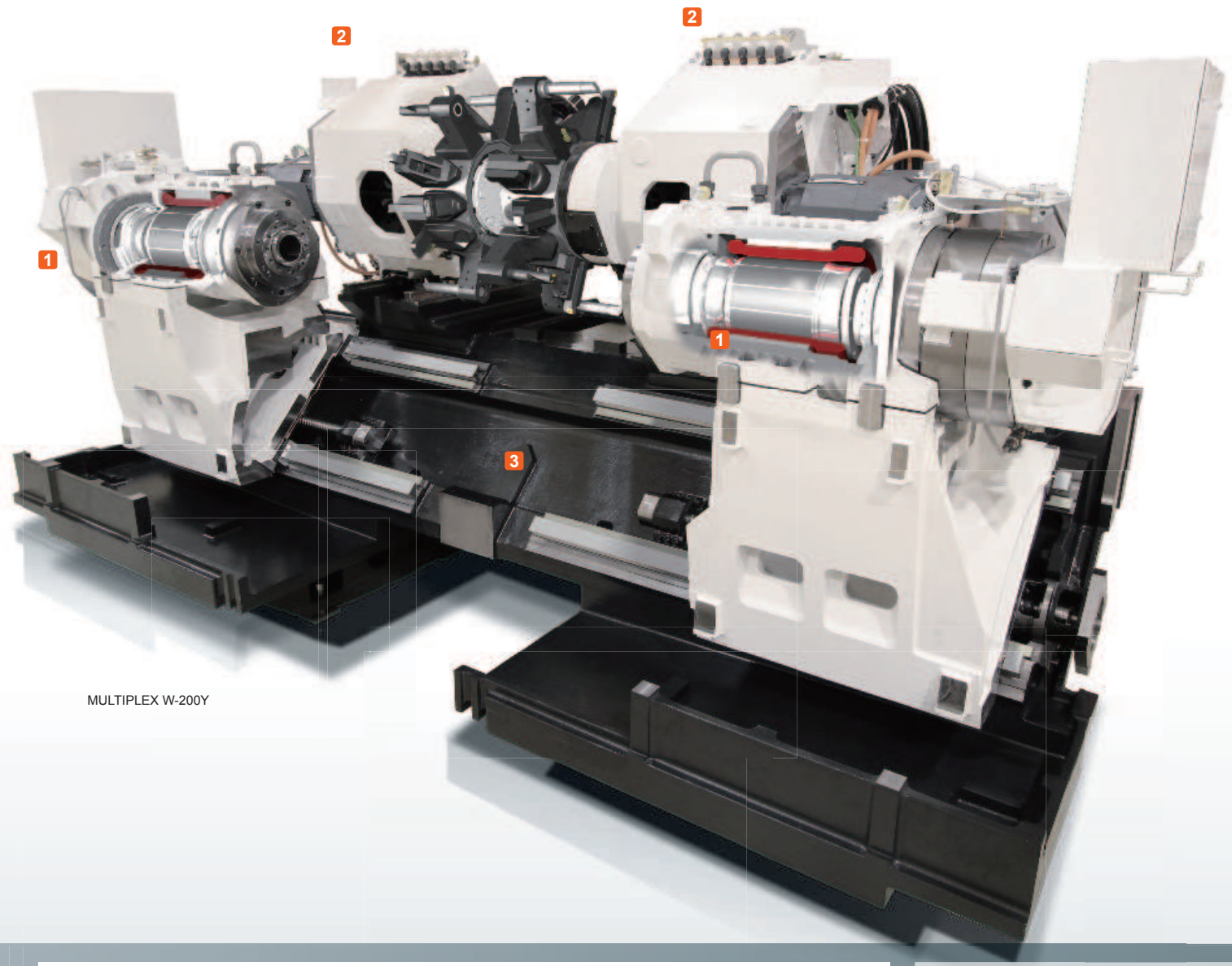
MULTIPLEX Processing for Higher Productivity

The MULTIPLEX W series is designed to reduce production lead time, improve machining accuracy, reduce floor space and initial cost, lower operating expenses, reduce operator requirements and improve the working environment.

Conventional Machining

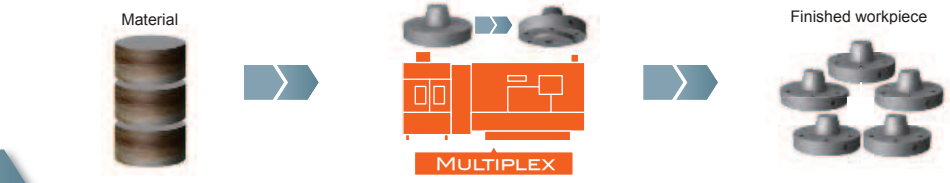


Operators	**2 Operators**	Setups	**4 Processes**
Machines	**2 Machines**	In-process inventory	**Large**
Programs	**4 Processes**	In-process time	**Long**



MULTIPLEX W-200Y

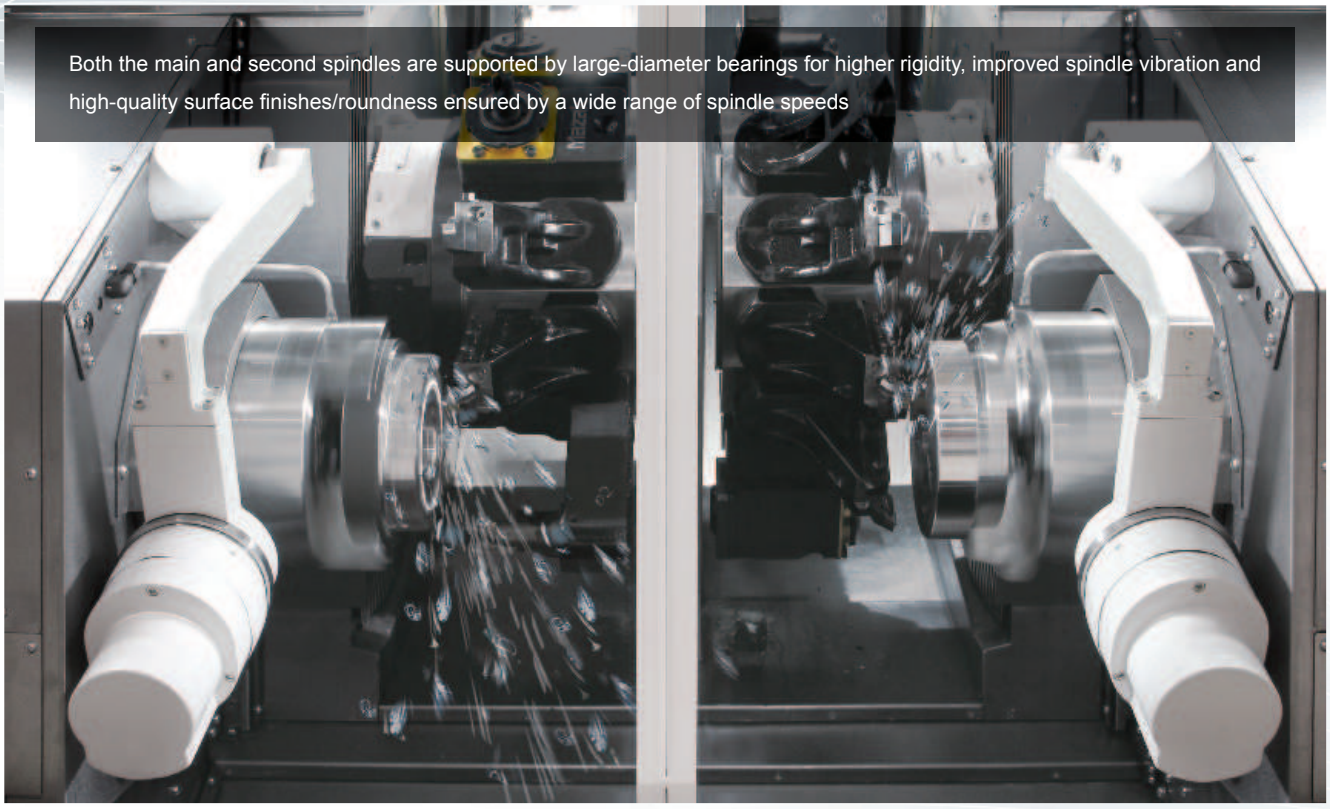
MULTIPLEX 1 Process



Operators	1 Operator	Setups	1 Process
Machines	1 Machine	In-process inventory	Minimum
Programs	1 Process	In-process time	Minimum

Higher Productivity

High-performance integral spindle/motors for high-speed, high-torque turning

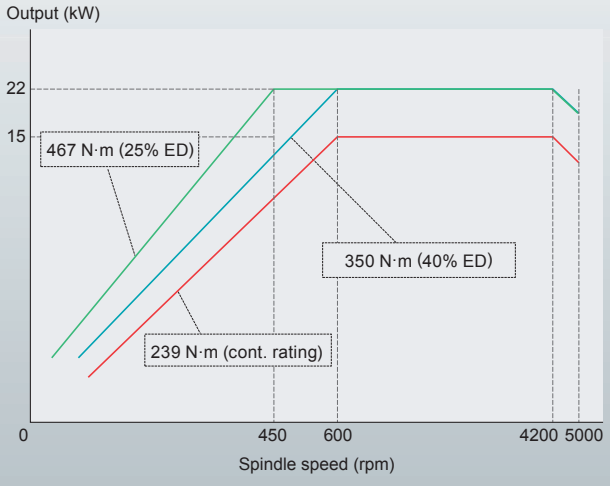


Both the main and second spindles are supported by large-diameter bearings for higher rigidity, improved spindle vibration and high-quality surface finishes/roundness ensured by a wide range of spindle speeds

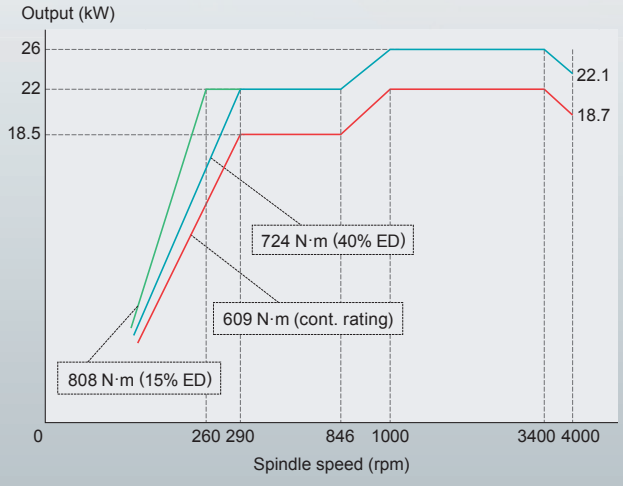
	W-200, W-200Y	W-300, W-300Y
Chuck size	8"	10"
Spindle speed	5000 rpm	4000 rpm
Spindle motor	22 kW (40% ED), 15 kW (cont. rating)	26 kW (40% ED), 22 kW (cont. rating)
Max. spindle torque	467 N·m (40% ED)	808 N·m (15% ED)

Output diagram

MULTIPLEX W-200, W-200Y 1st and 2nd spindle



MULTIPLEX W-300, W-300Y 1st and 2nd spindle



Turret with unsurpassed efficiency

High-speed indexing non-lift turrets located on both sides are equipped with VDI-type tool holders. The VDI-type holders can be quickly loaded/unloaded on the turret by tightening/loosening a single bolt with minimal tool setup time. Both turrets can mount either turning or milling tools on each of the 12 positions for convenient setup.

	W-200, W-200Y	W-300, W-300Y
Tool storage capacity	12 × 2	
Turning tool holder size	□25 mm × 150 mm (□1" × 5.91")	□25 mm × 150 mm (□1" × 5.91")
Tool size for boring bar	Φ40 mm (Φ1.57")	Φ50 mm (Φ1.57")
Turret clamping force	55.4 kN (5653 kgf)	82.5 kN (8418 kgf)

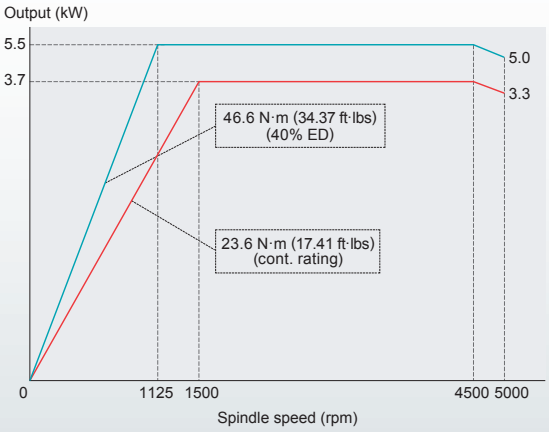
Milling spindle

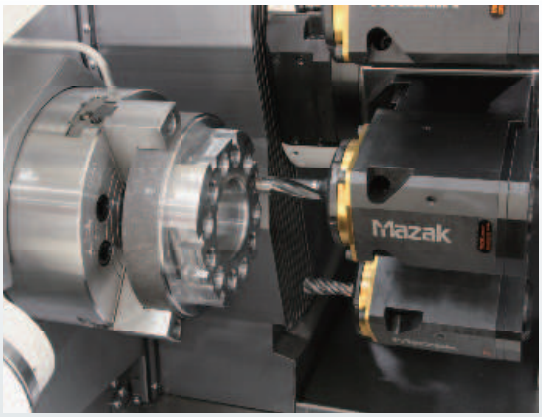
The milling spindle provides versatile performance, from powerful face milling to high-speed drilling. Standard 5000 rpm and optional 10000 rpm speeds meet the requirements of a wide variety of materials. (W-200, W-200Y)

		W-200, W-200Y		W-300, W-300Y
Spindle speed		5000 rpm	10000 rpm	5000 rpm
Spindle motor		5.5 kW [40% ED (30 min. rating)]		7.5 kW (25% ED)
Max. spindle torque		46.6 N·m [40% ED (30 min. rating)]	23.3 N·m [40% ED (30 min. rating)]	95.5 N·m (25% ED)
Cutting capability	Drill	Φ20 mm (Φ3/4")		Φ25 mm (Φ0.98")
	End mill	Φ20 mm (Φ3/4")		Φ25 mm (Φ0.98")
	Tap	M20 (3/4 UNC)	M16 (5/8 UNC)	M24 (1 UNC)

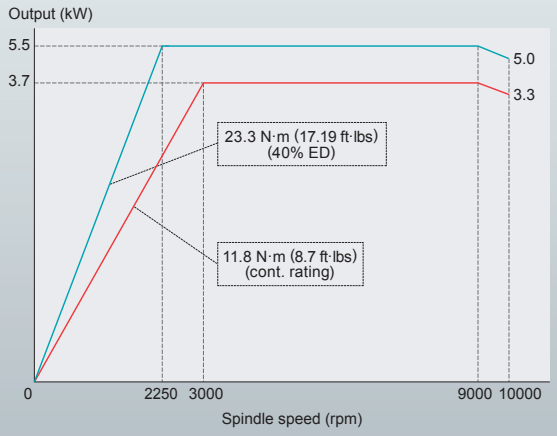
Output diagram

MULTIPLEX W-200, W-200Y 5000 rpm milling spindle (Standard)

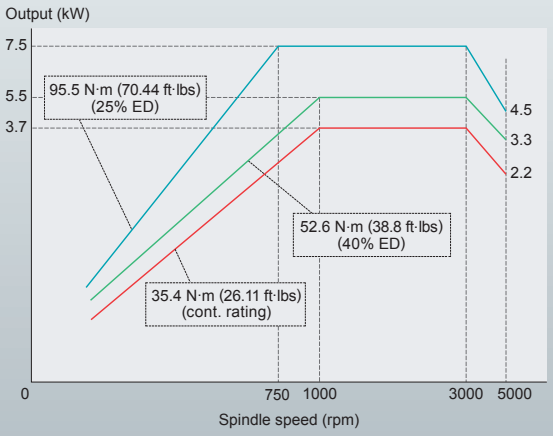




MULTIPLEX W-200, W-200Y 10000 rpm milling spindle (Option)



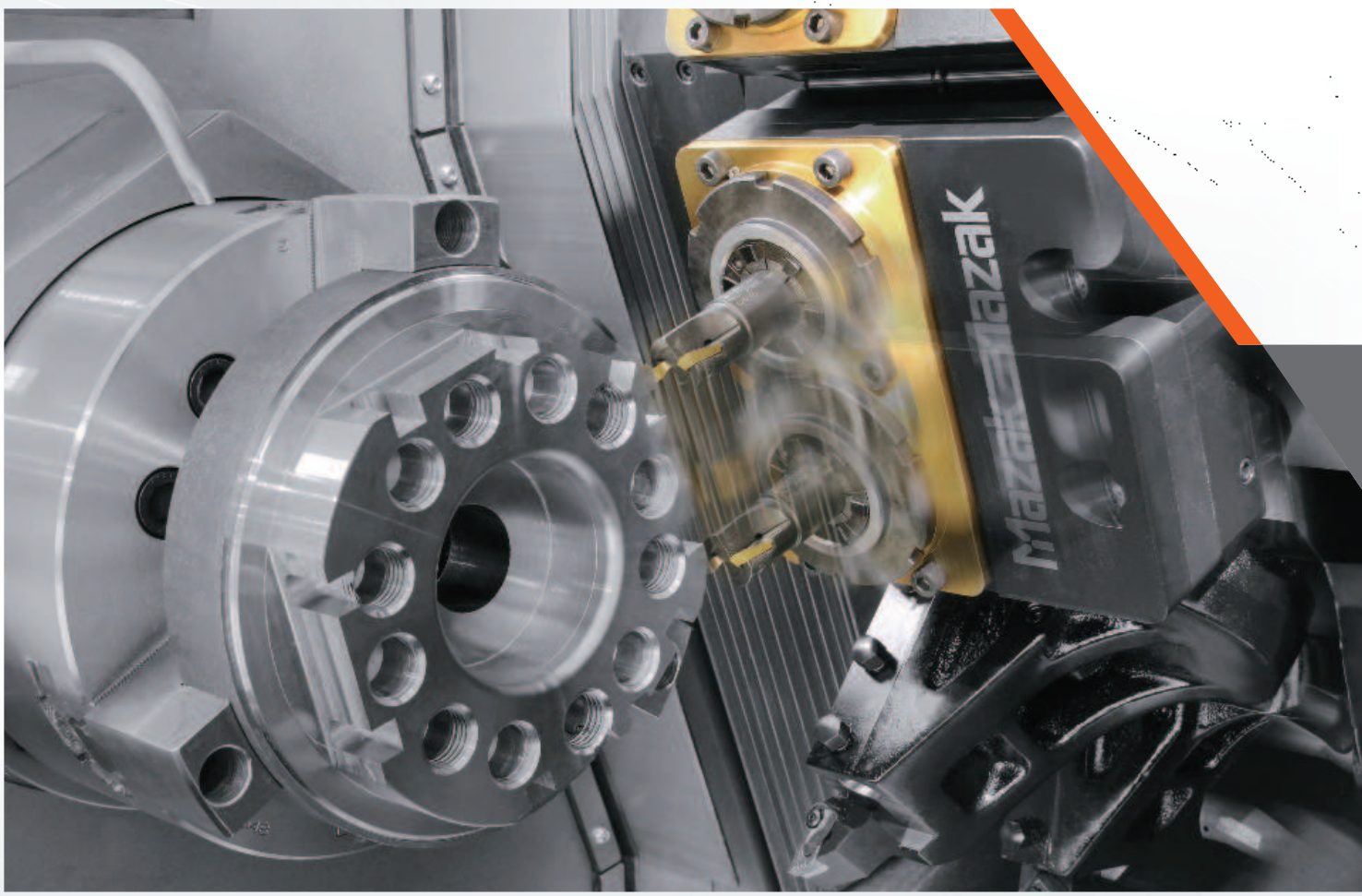
MULTIPLEX W-300, W-300Y 5000 rpm milling spindle



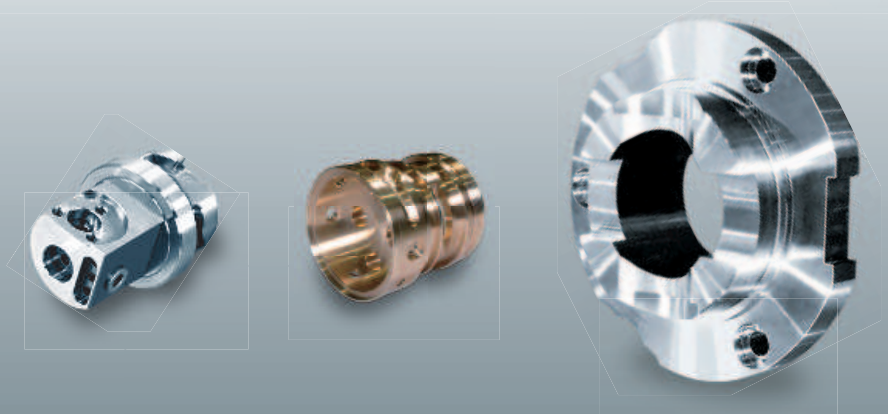
Higher Productivity

Y axis for process integration and higher productivity (W-200Y, W-300Y)

Large 100 mm (4") (W-200Y)/154 mm (6") (W-300Y) Y-axis stroke for a wide variety of cutting, such as milling flats and drilling off-center.



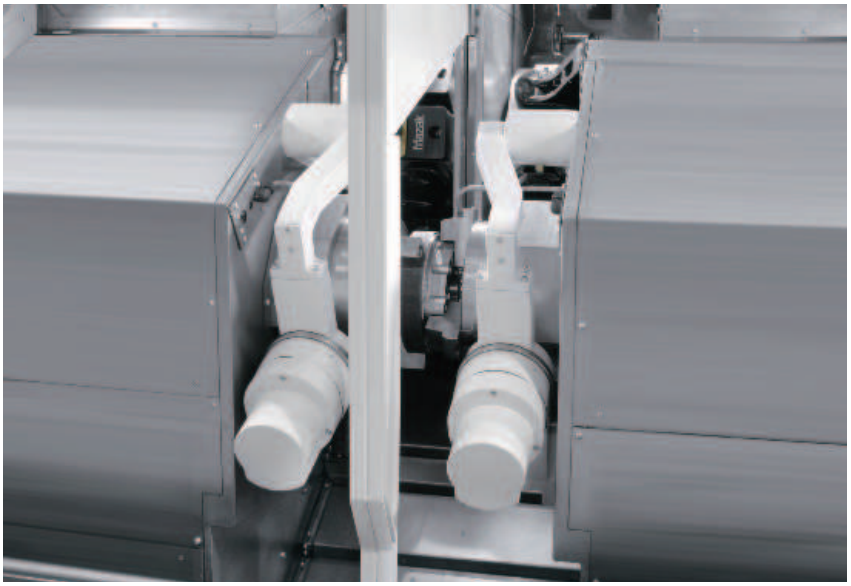
	W-200Y	W-300Y
Y-axis stroke	100 mm (4") (±50 mm) (±2")	154 mm (6") (±77 mm) (±3")



Designed for the Maximum Versatility

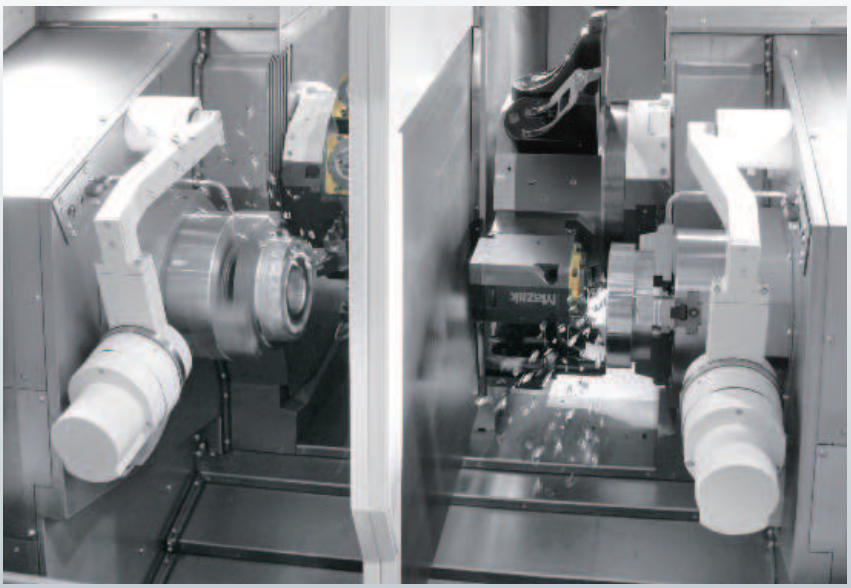
High-accuracy and high-speed workpiece transfer

Workpieces can be transferred from the left to right with high accuracy and high speed thanks to automatic in-phase C-axis orientation of both spindles.



Center partition

The center partition keeps machined chips and coolant contained, allowing the MULTIPLEX to be used as two separate machines. Setups can be performed and workpieces can be loaded/ unloaded on one spindle while machining is being performed on the other.



Higher Accuracy

Machine designed for higher accuracy

Integral spindle/motor

The integral spindle/motor provides high-accuracy machining, minimal heat generation and minimal vibration during spindle acceleration.

Full 360° C-axis brake

Full 360° C-axis brake for higher accuracy C-axis positioning (L&R)

Linear roller guides on all axes

Linear roller guides are utilized on all axes by the MULTIPLEX W Series for high rigidity and a long service life.

MULTIPLEX W-300Y

High rigidity

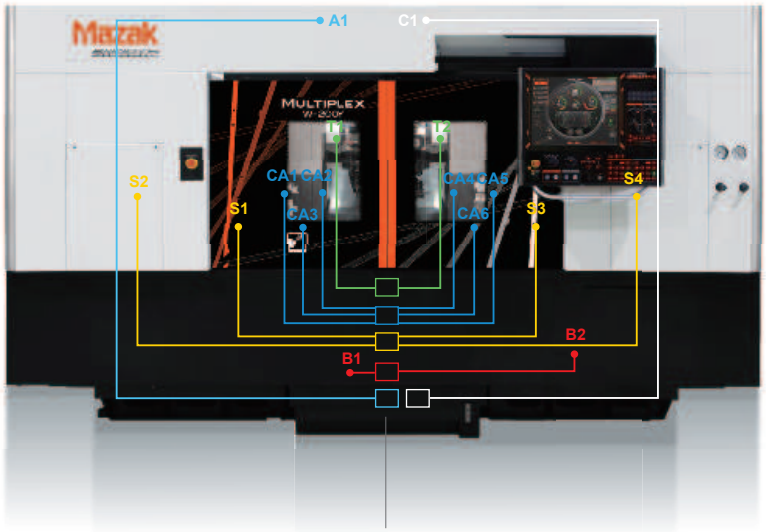
The rigid machine construction is designed to ensure high precision during heavy-duty machining.

Continuous machining accuracy

Heat Displacement Control
THERMAL SHIELD

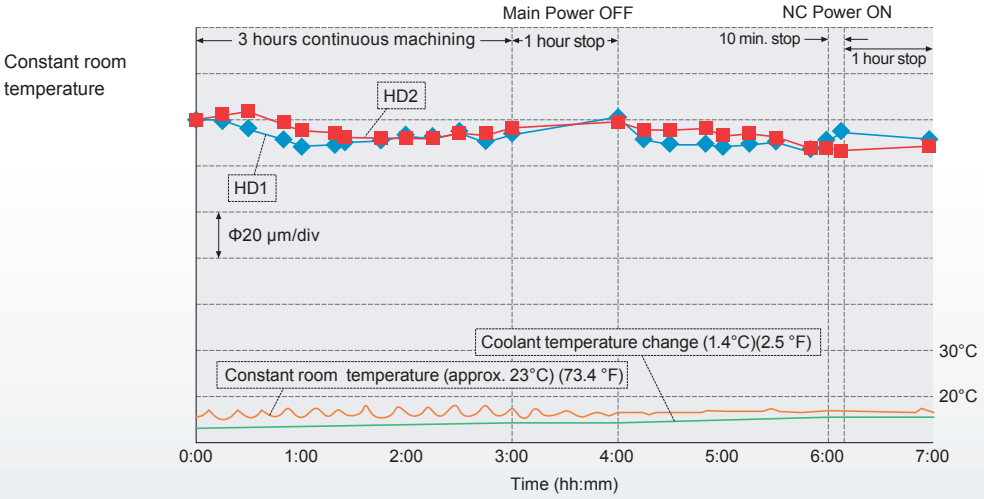
The THERMAL SHIELD is an automatic compensation system for room temperature changes, which ensures enhanced continuous machining accuracy.

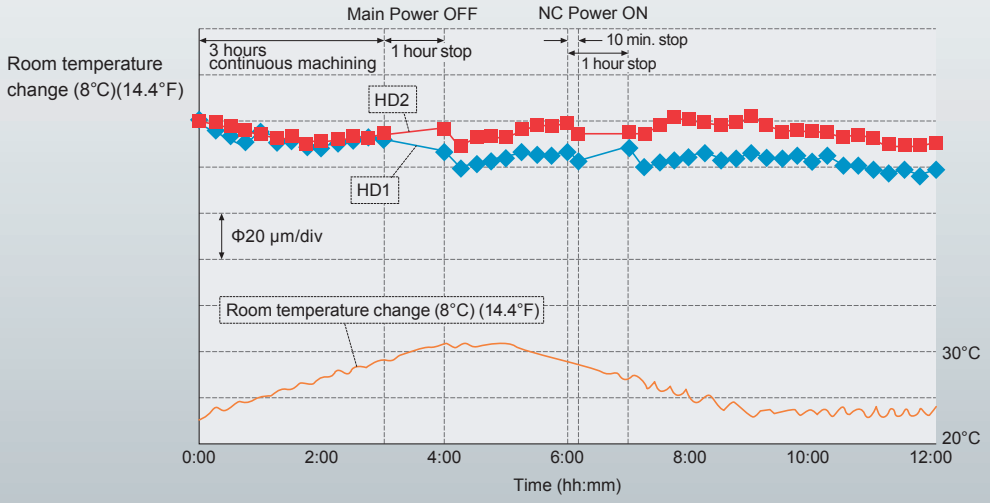
Mazak performed extensive testing in a variety of environments in a temperature-controlled room and used the results to develop a control system that automatically compensates for temperature changes in the machining area. Changes in room temperature and the resulting compensation data are shown visually.



THERMAL SHIELD sensor system – MULTIPLEX W Series

Heat displacement of the MULTIPLEX W-200Y





Factory Automation

Unmanned operation systems for improved productivity

Workpiece unloading system

Finished workpieces are automatically unloaded to the workpiece conveyor outside of the machine.

Option

Chuck jaw air blast	Work conveyor
Workpiece unloader	Workpiece stand

		W-200, W-200Y	W-300, W-300Y
Workpiece unloader	Workpiece diameter	Φ15.875 mm ~ Φ210 mm (Φ0.63" ~ Φ8.27")	Φ75 mm ~ Φ260 mm (Φ2.95" ~ Φ10.24")
	Workpiece length	20 mm ~ 152.4 mm (0.79" ~ 6")	25 mm ~ 225 mm (0.98" ~ 8.86")
	Max. load weight	Max. 7.5 kg (16.5lbs)	Max. 10 kg (22 lbs)

Gantry loader system

GL series for unmanned operation over extended periods of time
Also ensures high-speed transferring of heavy workpieces.

MULTIPLEX W-200Y with optional gantry loader (GL-100) with sampling unit and status light

Machine	W-200, W-200Y		W-300, W-300Y		
Type of gantry loader	GL-100	GL-150	GL-200	GL-300	GL-400
Workpiece diameter	Φ20 ~ 200 mm (Φ0.79" ~ 7.87")	Φ20 ~ 200 mm (Φ0.79" ~ 7.87")	Φ50 ~ 300 mm (Φ1.97" ~ 11.81")	Φ50 ~ 300 mm (Φ1.97" ~ 11.81")	Φ50 ~ 350 mm (Φ1.97" ~ 13.78")
Max. load weight	10 kg (22 lbs) × 2	15 kg (33 lbs) × 2	20 kg (44 lbs) × 2	30 kg (66 lbs) × 2	40 kg (88 lbs) × 2

Improved automation performance for gantry loader system

Workpiece loading/unloading time* 20% reduced compared to previous system (*Internal machine operation)

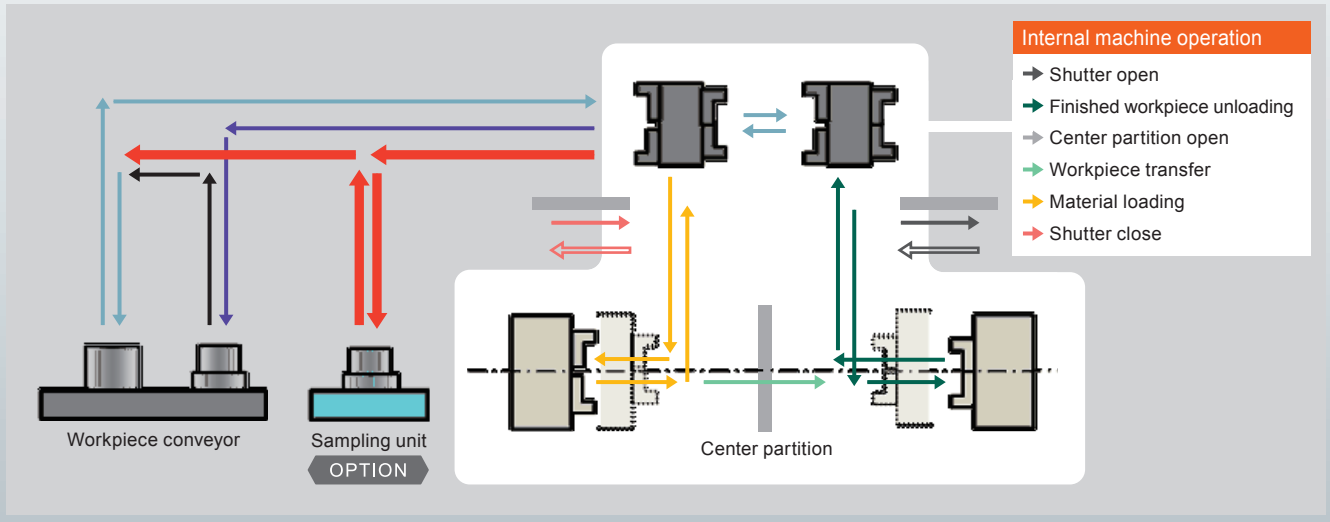
Previous gantry loader: **24.9** sec. → GL-100: **19.9** sec.

Faster traverse speed: A axis 100 m/min, B axis 180 m/min

Faster workpiece loading/unloading: improved workpiece seating in chuck by feeding headstock against workpiece

MULTIPLEX W-200 shown with optional gantry loader (GL-100) and sampling unit

- Positioning over pallet conveyor now done by simultaneous 2-axis motion
- 2-pallet workpiece conveyor positioned front and rear for next workpiece setting during current job OPTION
- Motion pattern editing function
  System changes such as an addition of measuring/cleaning/sampling process available



* Internal machine operation

Ergonomics

Convenient operation and maintenance thanks to ergonomic machine design

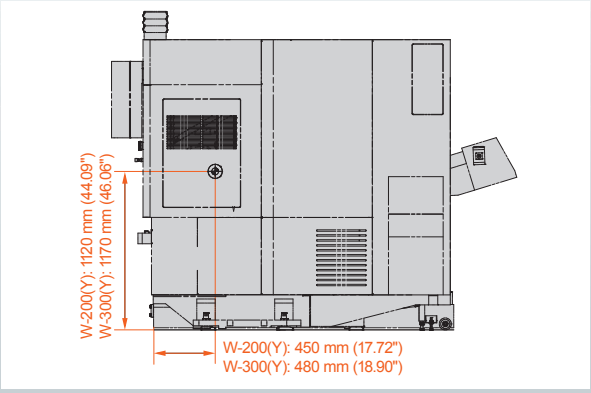
MULTIPLEX W-200Y

1 Wide door opening

The wide overhead door opening provides convenient workpiece loading/unloading when using an overhead crane.

2 Excellent accessibility for setup

The distance from the front cover to the spindle center line is small for convenient setup and workpiece loading/unloading.



3 CNC operation panel

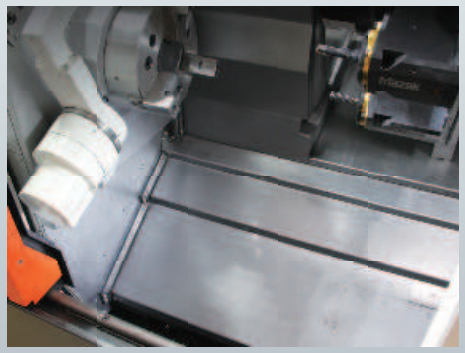
MAZATROL SmoothG operation touch panel is easily adjusted to the operator's desired position.

4 Large window

The large front door window allows the operator to easily monitor workpiece machining.

5 Smooth chip flow

Surfaces such as the Z-axis covers in the machining area are either slanted or vertical to prevent the accumulation of hot machined chips. The smooth chip flow prevents heat build-up in the machine to ensure consistent, high-accuracy operation and simplified machine cleaning.



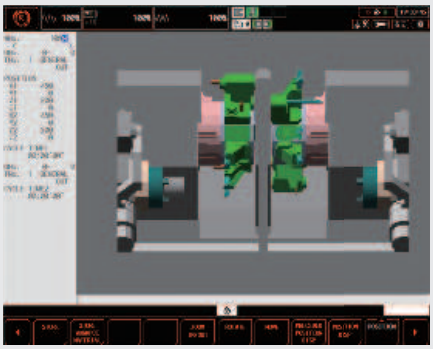
A variety of functions provide incomparable operator support for exceptional ease of operation and optimal machine efficiency.

Machine Interference Prevention

SAFETY SHIELD

When an operator manually moves the machine axes for setup, tool measurement or changing inserts, the CNC shows a synchronized 3D model on the display for checking machine interference.

If any machine interference occurs, the machine motion automatically stops. This function is optionally available for use during automatic operation.



Verbal Message System

VOICE ADVISER

Verbal support for machine setup and safe conditions confirmation

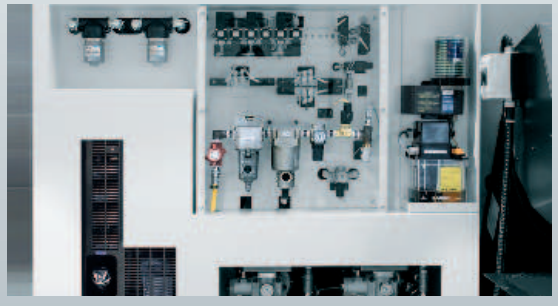
Comprehensive Maintenance Monitor

MAINTENANCE SUPPORT

Useful information for improved preventative maintenance to prevent unexpected machine downtime.

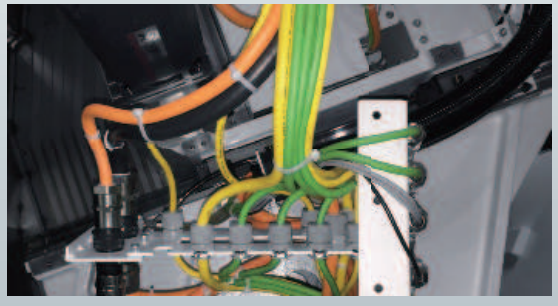
Convenient maintenance

All units requiring frequent access for maintenance are in a convenient central location.



Color-coded cables

Electric cables are color-coded for convenient maintenance.



MAZATROL CNC System

From set up to machining, designed for unsurpassed ease of operation

19" touch panel

Touch panel operation similar to your smart phone or tablet

USB port

Interface for peripheral equipment
USB 1.0 + 2.0

SD card slot

Transfer program and tool data

Dials

For frequently-used axes selection and feedrate changes

Operation switches

Large switches' color changes from orange to green when turned on

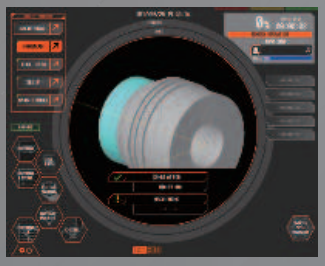
Unsurpassed ease of operation with touch screen

MAZATROL SMOOTH G

Process home screens

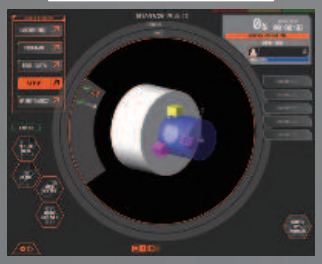
Five different home process screens each display the appropriate data in an easy-to-understand manner.
Icons can be touched in each process display for additional screen displays.

Programming



Tool data

Setup



Machining

Maintenance

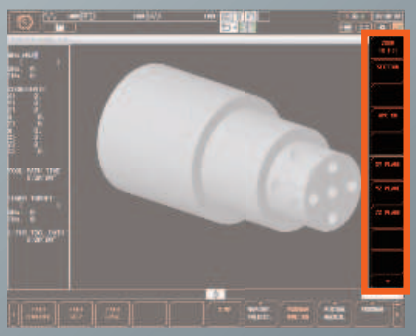
Pop-up windows

Values and items can easily be input/selected on pop-up windows.

Screen keyboard

List menu

Side menu

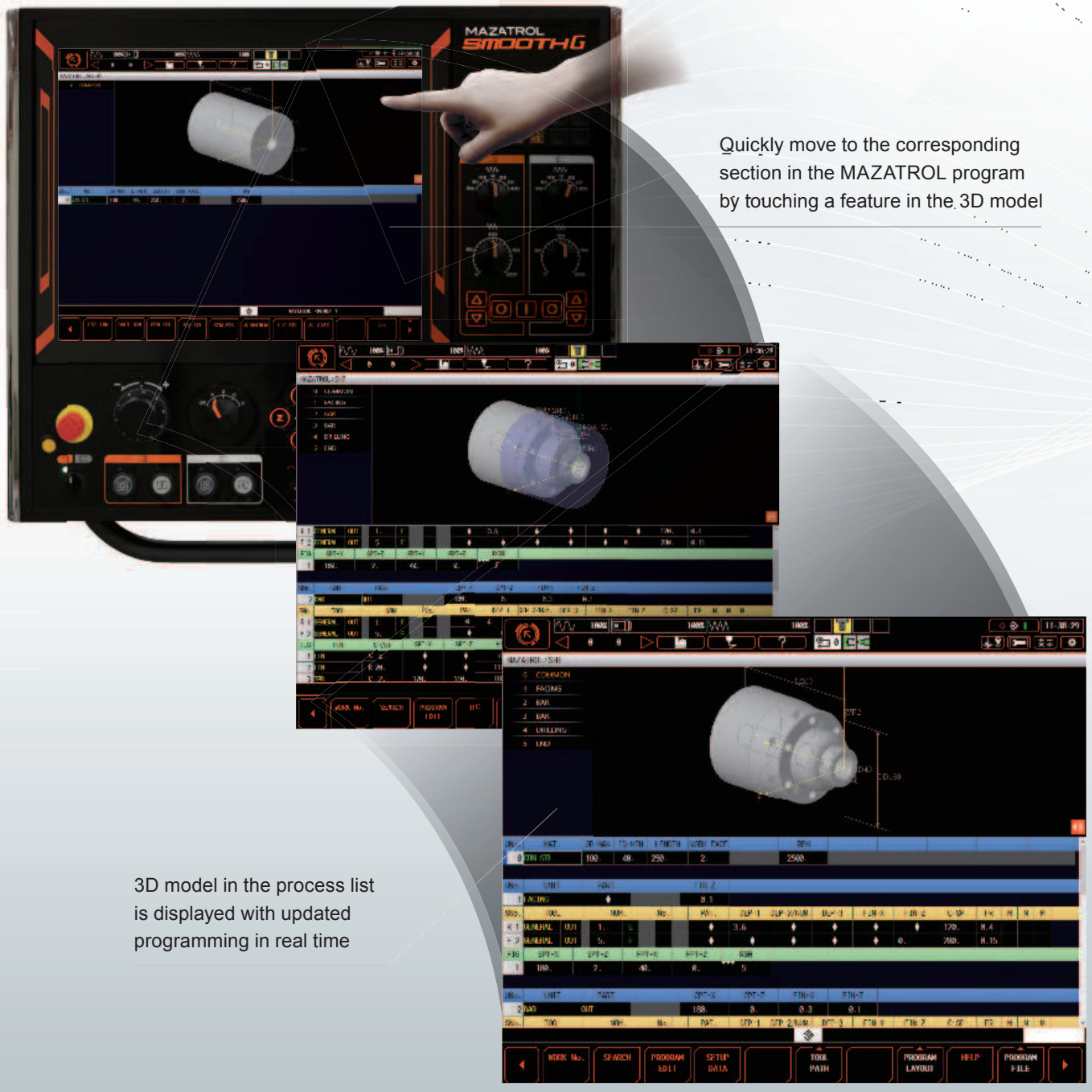


Ease of Programming

Programming screen links tool path, workpiece shape and programming to reduce programming time

QUICK MAZATROL

MAZATROL program, unit list and 3D workpiece shape are linked. After defining a machining unit in a MAZATROL program, the 3D shape is immediately displayed to easily and quickly check for any programming error.

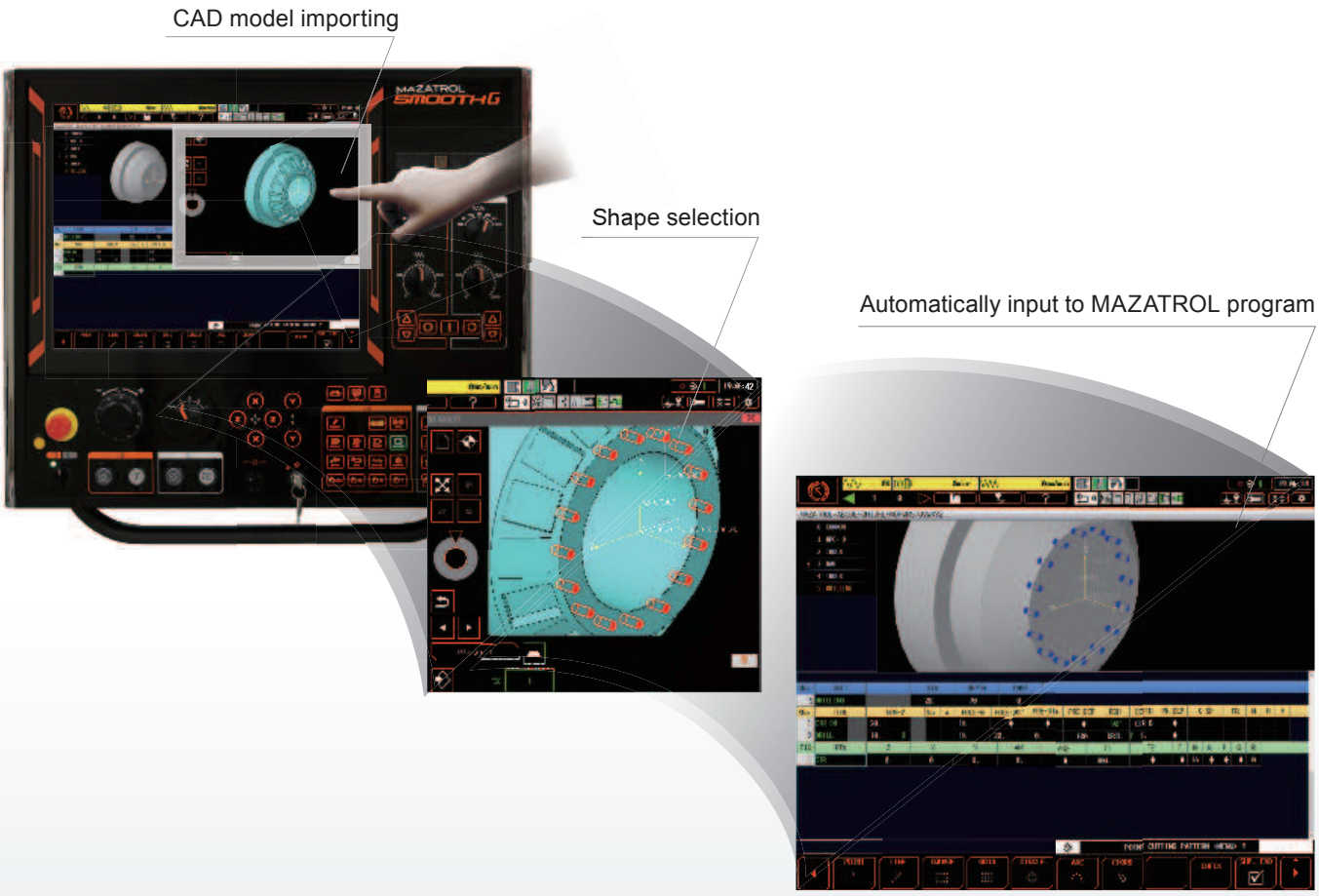


Quickly move to the corresponding section in the MAZATROL program by touching a feature in the 3D model

3D model in the process list is displayed with updated programming in real time

3D ASSIST

Workpiece and coordinates data can be imported from 3D CAD data to a MAZATROL program. No coordinate value inputs are required. Can reduce input errors and time for program checking.



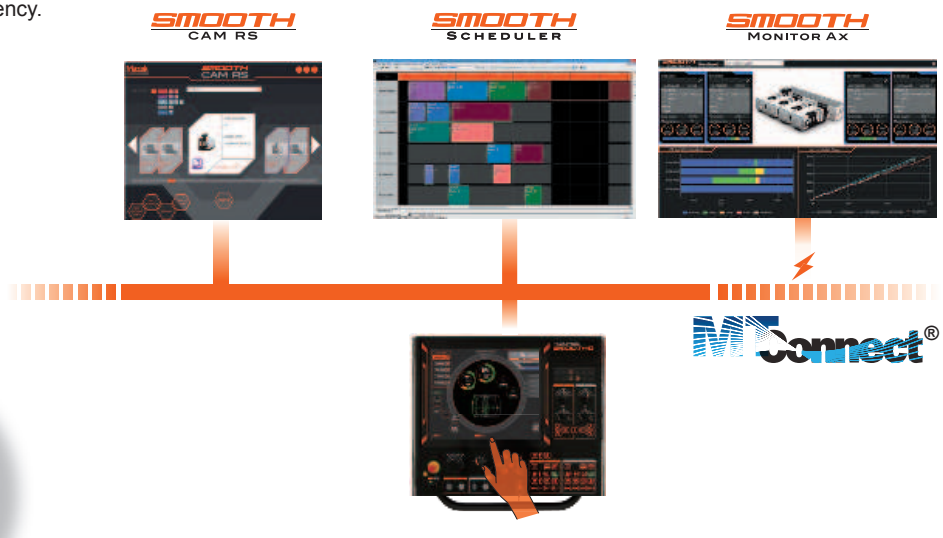
QUICK EIA

Network Integration

Convenient connection to automation equipment

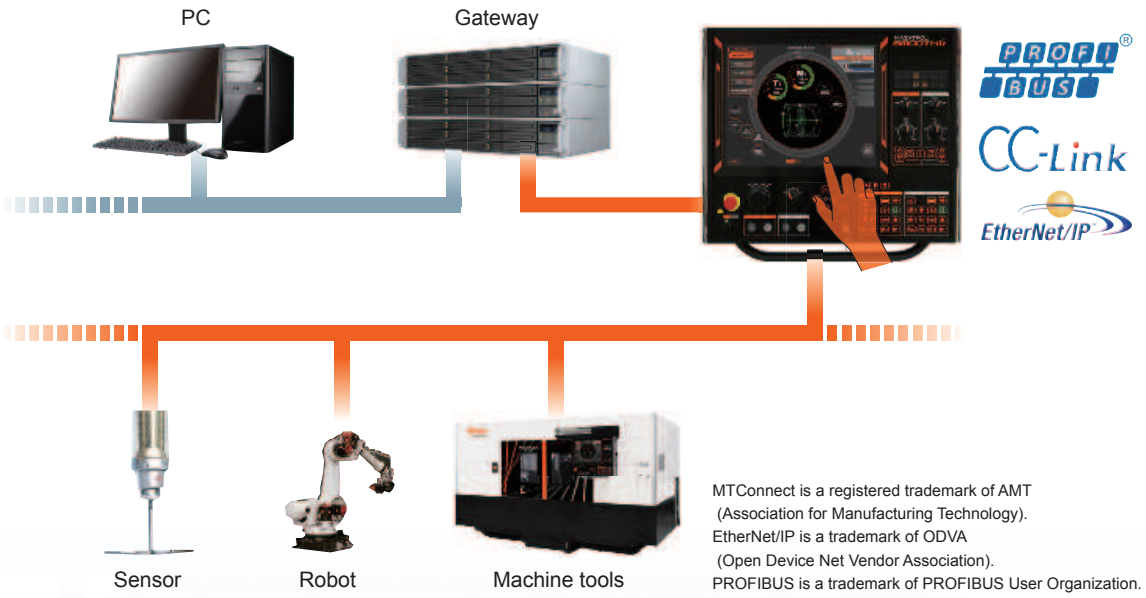
SMOOTH Process Support Software for efficient factory management OPTION

Data sharing between SmoothX CNC and office PCs
for improved production efficiency.



Networking to peripheral equipment OPTION

Convenient network connection to peripheral equipment thanks to industrial network standards.



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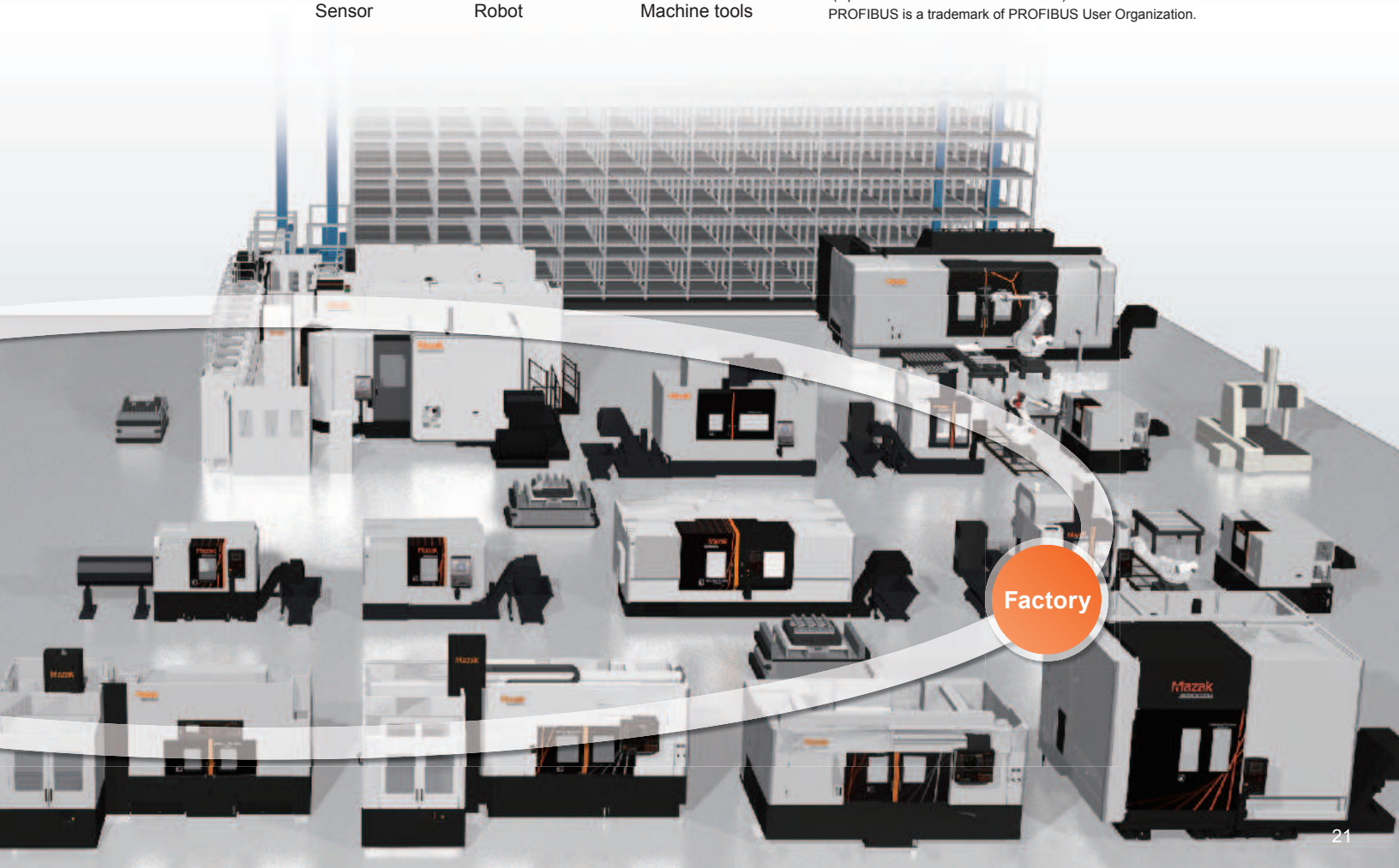
EtherNet/IP is a trademark of ODVA (Open Device Net Vendor Association).
PROFIBUS is a trademark of PROFIBUS User Organization.



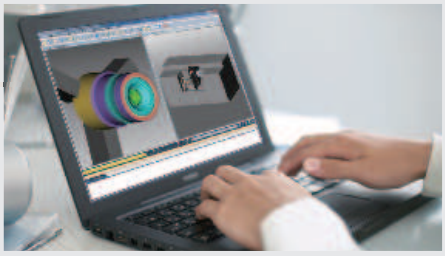
MAZATROL SmoothG Specifications

	MAZATROL	EIA
Number of controlled axes	Simultaneous 4 axes	
Least input increment	0.0001 mm, 0.00001 inch, 0.0001 deg	
High speed, high precision control	Shape compensation, Smooth corner control, Rapid traverse overlap	
Interpolation	Positioning (interpolation), Positioning (non-interpolation), Linear interpolation, Circular interpolation, Cylindrical interpolation, Polar coordinate interpolation, Constant lead threading, Re-threading*, Thread start point compensation*, Override variable threading, Synchronized milling spindle tapping	Positioning (interpolation), Positioning (non-interpolation), Linear interpolation, Circular interpolation, Spiral interpolation, Helical interpolation, Equal pitch threading, Variable pitch threading, Threading (C-axis interpolation type), Cylindrical interpolation*, NURBS interpolation*, Polar coordinate interpolation*, Re-threading*, Thread start point compensation*, Thread cut-speed override*, Synchronous tapping*
Feedrate	Rapid traverse, Cutting feed, Cutting feed (per minute), Cutting feed (per revolution), Dwell (time/rotation), Rapid traverse override, Cutting feed override, G0 speed variable control, Feedrate limitation, Variable acceleration control, G00 slope constant*	Rapid traverse, Cutting feed, Cutting feed (per minute), Cutting feed (per revolution), Inverse time feed, Dwell (time/rotation), Rapid traverse override, Cutting feed override, G0 speed variable control, Feedrate limitation, Time constant changing for G1, Variable acceleration control, G00 slope constant*
Program registration	Number of programs: 256 (Standard)/960 (Max.), Program memory: 2 MB, Program memory expansion: 8 MB*, Program memory expansion: 32 MB*	
Control display	Display: 19" touch panel, Resolution: SXGA	
Spindle functions	S code output, Spindle speed limitation, Spindle speed override, Spindle speed reaching detection, Multiple position orient, Constant surface speed, Spindle speed command with decimal digits, Synchronized spindle control, Max. speed control for spindle	
Tool functions	Number of tool offset: 4000, T code output for tool number, Tool life monitoring (time), Tool life monitoring (number of machined workpieces)	Number of tool offset : 4000, T code output for tool number, T code output for group number, Tool life monitoring (time), Tool life monitoring (number of machined workpieces)
Miscellaneous functions	M code output, Simultaneous output of multiple M codes	
Tool offset functions	Tool position offset, Tool length offset, Tool diameter/tool nose R offset, Tool nose shape offset, Tool wear offset, Fixed amount offset, Simple wear offset	
Coordinate system	Machine coordinate system, Work coordinate system, Local coordinate system, MAZATROL coordinate system, Additional work coordinates (300 set)	
Machine functions	—	Polygon machining, Hobbing*
Machine compensation	Backlash compensation, Pitch error compensation	
Protection functions	Emergency stop, Interlock, Pre-move stroke check, Barrier, SAFETY SHIELD (manual mode), SAFETY SHIELD (automatic mode)*, VOICE ADVISER	
Automatic operation mode	Memory operation	Memory operation, Tape operation, MDI operation, EtherNet operation
Automatic operation control	Optional stop, Dry run, Manual handle control, MD interruption, TPS, Restart, Single process, Machine lock	Optional block skip, Optional stop, Dry run, Manual handle control, MD interruption, TPS, Restart, Restart 2, Collation stop, Machine lock
Manual measuring functions	Tool-setting data teach, Tool length teach, Touch sensor coordinates measurement, Workpiece offset measurement, Tool eye measurement	Tool-setting data teach, Tool length teach, Tool offset teach, Touch sensor coordinates measurement, Workpiece offset measurement, Tool eye measurement
Automatic measuring functions	Workpiece measurement, Sensor calibration, Tool eye auto tool measurement, Tool breakage detection	
Interface	PROFIBUS-DP*, EtherNet/IP*, CC-Link*	
Card interface	SD card interface, USB	
EtherNet	10 M/100 M/1 Gbps	

*Option

3D machine model

A 3D machine model is available to perform program interference checks with other CAD/CAM simulation software.



eco-friendly

Designed with environmental considerations

The environment and our impact on natural surroundings have always been important concerns of Yamazaki Mazak.
This is shown by the fact that all factories in Japan where Mazak machine tools are produced are ISO 14001 certified,
an international standard confirming that the operation of our production facilities does not adversely affect air, water or land.

Automatic-off LED worklight and CNC screen are standard equipment for the MULTIPLEX W series.
The chip conveyor automatically stops operation 5 minutes after cycle completion for reduced electrical power consumption.

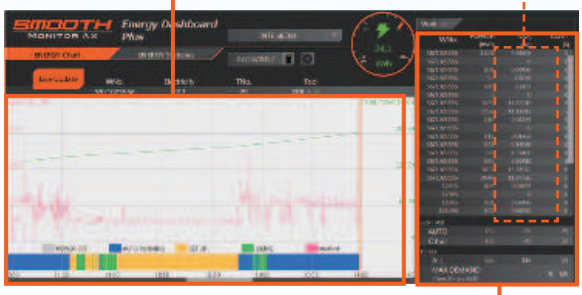
High-efficiency lubrication system delivers the optimal amount of grease to the linear roller guides and ball screws with lower lubricant consumption. The grease lubrication system eliminates tramp oil for extended service life of coolant.

Energy Dashboard Plus (MAZATROL SmoothG) OPTION

The Energy Dashboard Plus provides a convenient visual monitoring of energy consumption and analysis.

Energy consumption displayed on graph

Display approximate CO_2 emission and electrical power cost



Energy consumption by workpiece

MULTIPLEX W-200Y

Process screen display

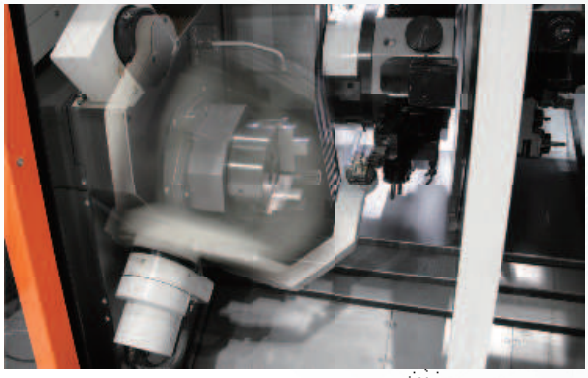
· Total energy consumption (of workpiece in operation)
· Current energy consumption

Standard and Optional Equipment

Automation

1 Tool eye

The tool eye can be programmed for automatic tool measurement and compensation as well as inspection for tool breakage. In addition, since tool setup is done by simply bringing the tool tip into contact with the tool eye, tool setup time is considerably reduced.



2 Automatic chuck jaw open/close L&R

This option automatically opens/closes the chuck jaws by program M-code such as when the machine is equipped with a bar feeder system or gantry robot.

3 Programmed chuck pressure control

Chuck pressure can be automatically changed with an M-code command, which is effective for machining various kinds of workpieces that need frequent chuck clamping pressure changes.

4 Double foot-pedal switch

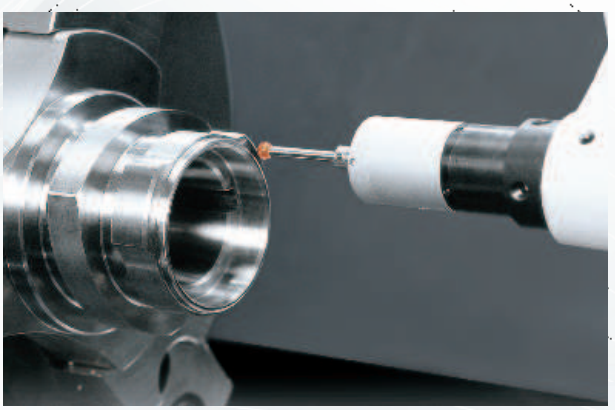
The double foot-pedal switch is used to open/close the chucks of the main and second spindles separately.

5 Automatic opening/closing front door

The automatic opening/closing front door operates in three speed steps. If an operator inadvertently places a hand in the opening, operation will automatically stop when the door makes contact.

6 Automatic workpiece measurement

This function uses a turret-mounted touch sensor to automatically measure the inside and outside diameters, surface irregularity, etc. of the machined workpiece to perform tool corrections and maintain machining accuracy during unattended operation. The swing-arm type automatic workpiece-measuring unit also allows highly accurate machining with a test-cutting macro (NC option) started using the first workpiece.

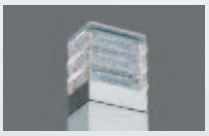


7 Calendar type automatic power ON/OFF + warm-up (standard)

Using timer setting, power can be automatically turned on/off and perform warm-up operations (standard equipment with MAZATROL SmoothG).

8 Status light (3 colors)

Consists of three lights: red for alarm yellow for machining completion and green for automatic operation.



9 Spindle orientation

This function is necessary to orient the spindle at a specified position in order to supply a square or hexagonal workpiece with a bar feeder, or to load/unload workpieces with other shapes with a robot.

10 Automatic center partition

The center partition installed in the machine allows the left and right sections of the machine to be used as completely separate machining systems without being affected by chips and coolant from the other side.

Coolant

11 Coolant system (standard)

The cutting fluid within the coolant tank is pumped up by the coolant pump, and is discharged from the nozzles of the turret.

12 Turret air blast

Air is discharged from a coolant nozzle of a tool holder mounted on the turret by an M-code command. This is effective for removing fine chips and cooling a workpiece (brass or similar material) if coolant is not used.

13 Additional coolant nozzle for headstock

Coolant is discharged from a nozzle located in the upper part of the machining area to remove chips from the chuck and workpiece and to minimize heat generated by cutting.

14 High-pressure coolant system SUPERFLOW V30C-J

SUPERFLOW V30C-J features improved chip control, lower tool-tip temperatures and longer tool life with faster spindle speeds and feedrates to realize higher productivity.

- Diaphragm pump with exceptional energy efficiency
- High-performance cyclone filter with minimal maintenance requirements
- Coolant pressure easily set by M-code (pressure range from 0 to 7 MPa)

15 Mist collector

Mist coolant or oil is removed from the machining area in order to maintain a safe and clean working environment.


SUPERFLOW V30C-J

16 Coolant temperature control

Coolant will become hot due to the heat generated by machining and may cause thermal displacement to machine components that can negatively affect machining accuracy. The coolant chiller unit maintains the coolant temperature to be the same as the room temperature, ensuring high-accuracy machining over extended periods of operation.

Chip disposal

17 Chip conveyor (rear disposal)

Chips are smoothly discharged outside of the machine (side disposal type is also available for MULTIPLEX W-300/W-300Y).

MULTIPLEX W-200, W-200Y Standard Machine Specifications

		MULTIPLEX W-200	MULTIPLEX W-200Y
Capacity	Max. swing	Φ320 mm (Φ12.6")	
	Max. machining diameter	Φ320 mm (Φ12.6")	
	Max. machining length	180 mm (7.09")	
	Distance between spindles at Z-axis home positions	1220 mm (48")	
	Max. weight*1: Chuck workpiece	300 kg (660 lbs)	
	Bar work capacity*2	Φ65 mm (Φ2.5")	
Travel	X axis	275 mm (10.75")	
	Z axis	Z1: 490 mm (19.125") Z2: 525 mm (20.625")	
	Y axis	—	±50 (2")
	C axis	360°	
Spindle	Chuck size	8"	
	Number of spindles	2	
	Speed*2	5000 rpm	
	Number of spindle speed ranges	1-Stepless	
	Max. torque (25% ED)	467 N·m (344 ft·lbs)	
	Spindle nose/spindle bore	A2-6/Φ76 mm (Φ3")	
	Minimum spindle indexing increment	0.0001°	
Turret	Number of turrets	2	
	Number of tools	12 position drum turret × 2	
	Tool shank holder	VDI	
	Tool shank height	25 mm (1")	
	Boring bar shank diameter	40 mm (1.57")	
	Turret indexing time	0.23 sec/1 step	
Rotary tool spindle	Speed	5000 rpm	
	Milling capacity	Drill: Φ20 mm (Φ0.79") End mill: Φ20 mm (Φ0.79") Tap: M20 x 2.5 (3/4 UNC)	
Feedrate	Rapid traverse rate: X axis	35000 mm/min (1378 IPM)	
	Rapid traverse rate: Y axis	—	15000 mm/min (591 IPM)
	Rapid traverse rate: Z axis	42000 mm/min (1654 IPM)	
	Rapid traverse rate: C axis	555 rpm	
Motors	Spindle motor (40% ED (30 min. rating)/cont. rating)	22 kW [30 HP]/15 kW [20 HP]	
	Turrets rotary tool spindle motor (40% ED (30 min. rating))	5.5 kW [7.5 HP]	
	Coolant pump motor	0.52 kW × 2	
Power requirement	Required power capacity (cont. rating)	54.6 kVA	56.7 kVA
	Air supply	0.5 MPa (71 PSI), 840 L/min (29.66 ft³/min)	
Coolant	Coolant tank capacity	260 L (68 gal)	
Machine size	Height	2050 mm (80.7")	
	Floor space requirement	3570 × 2170 mm (140.6" × 85.4")	
	Machine weight	11100 kg (24471 lbs)	11200 kg (24691 lbs)

*1 Chuck weight is included *2 Depends on chuck specifications

MULTIPLEX W-200, W-200Y Standard and Optional Equipment

Standard: ● Option: ○

Machine	8" non-through-hole chuck N08A615 + Y1225		○
	8" through-hole chuck B208A615 + SR1453C		●
	8" through-hole chuck BB208A615 + SR1566C		○
	Rotary tool spindle 10000 rpm		○
	Polygon tool holder		○
	Double foot pedal switch		○
Factory Automation	Gantry loader system (GL-100/GL-150)		○
	Gantry loader	Pallet conveyor	○
		Pitch feed conveyor	○
		Rotary conveyor	○
	Robot interface		○
	Automatic workpiece measurement		○
	Tool eye		●
	Chuck pressure program management		○
	Status light (1 color)		○
	Status light (3 colors)		○
	Machining end buzzer		○
	Calendar type automatic power ON/OFF + warm-up		●

Factory Automation	Automatic front door	○
	Spindle orientation	○
	Automatic chuck jaws open/close	●
	Chuck air blast	●
	Automatic center partition	●
	Absolute position detection	●
High Accuracy	Coolant temperature control	○
	Scale feedback	○
Coolant/ chip disposal	Chip conveyor (rear discharge/hinge)	○
	Chip bucket (rotary)	○
	Chip bucket (fixed)	○
	Powerful coolant 1.1 kW	○
	High pressure coolant 1.5 MPa (218 PSI)	○
	Superflow coolant system 7 MPa (1015 PSI)	○
	Turret air blast	○
	Additional coolant nozzle	○
	Mist collector	○
	Preparation for mist collector	○
Safety equipment	Overload detection sytem	○
	Chuck jaws open/close confirmation	●
CNC	MAZATROL SmoothG	●

MULTIPLEX W-300, W-300Y Standard Machine Specifications

		MULTIPLEX W-300	MULTIPLEX W-300Y
Capacity	Max. swing	Φ430 mm (Φ16.93")	
	Max. machining diameter	Φ430 mm (Φ16.93")	
	Max. machining length	225 mm (8.86")	
	Distance between spindles at Z-axis home positions	1470 mm (57.84")	
	Max. weight*1: Chuck workpiece	450 kg (992 lbs)	
	Bar work capacity*2	Φ80 mm (Φ3.15")	
Travel	X axis	310 mm (12.125")	
	Z axis	Z1: 615 mm (24.125") Z2: 615 mm (24.125")	
	Y axis	—	±77 mm (±3")
	C axis	360°	
Spindle	Chuck size	10"	
	Number of spindles	2	
	Speed*2	4000 rpm	
	Number of spindle speed ranges	1-Stepless	
	Max. torque (15% ED)	808 N·m (596 ft·lbs)	
	Spindle nose/spindle bore	A2-8/Φ91 mm (Φ3.58")	
	Minimum spindle indexing increment	0.0001°	
Turret	Number of turrets	2	
	Number of tools	12 position drum turret × 2	
	Tool shank holder	VDI	
	Tool shank height	25 mm (1")	
	Boring bar shank diameter	50 mm (1.97")	
	Turret indexing time	0.24 sec/1 step	
Rotary tool spindle	Speed	5000 rpm	
	Milling capacity	Drill: Φ25 mm (Φ0.98") End mill: Φ25 mm (Φ0.98") Tap: M24 x 3.0 (1 UNC)	
Feedrate	Rapid traverse rate: X axis	30000 mm/min (1181 IPM)	
	Rapid traverse rate: Y axis	—	14000 mm/min (551 IPM)
	Rapid traverse rate: Z axis	28000 mm/min (1102 IPM)	
	Rapid traverse rate: C axis	555 rpm	
Motors	Spindle motor (40% ED (30 min. rating)/cont. rating)	26 kW (35 HP)/22 kW (30 HP)	
	Turrets rotary tool spindle motor (25% ED)	7.5 kW [10 HP]	
	Coolant pump motor	0.52 kW × 2	
Power requirement	Required power capacity (cont. rating)	76.7 kVA	78.5 kVA
	Air supply	0.5 MPa (71 PSI), 840 L/min (29.66 ft³/min)	
Coolant	Coolant tank capacity	350 L (92.47 gal)	
Machine size	Height	2170 mm (85.4")	
	Floor space requirement	4260 mm x 2385 mm (167.7" × 93.9")	
	Machine weight	13500 kg (29762 lbs)	13800 kg (30432 lbs)

*1 Chuck weight is included *2 Depends on chuck specifications

MULTIPLEX W-300, W-300Y Standard and Optional Equipment

Machine	10" non-through-hole chuck N10A815 + Y1225		○
	10" through-hole chuck B210A815F + SR1677C		●
	10" through-hole chuck BB210A815 + SR1781C		○
	Polygon tool holder		○
	Double foot pedal switch		○
Factory Automation	Gantry loader system (GL-200/GL-300/GL-400)		○
	Gantry loader	Pallet conveyor	○
		Pitch feed conveyor	○
		Rotary conveyor	○
		Shuttle loop conveyor	○
	Robot interface		○
	Automatic workpiece measurement		○
	Tool eye		●
	Chuck pressure program management		○
	Status light (1 color)		○
	Status light (3 colors)		○
	Machining end buzzer		○
	Calendar type automatic power ON/OFF + warm-up		●

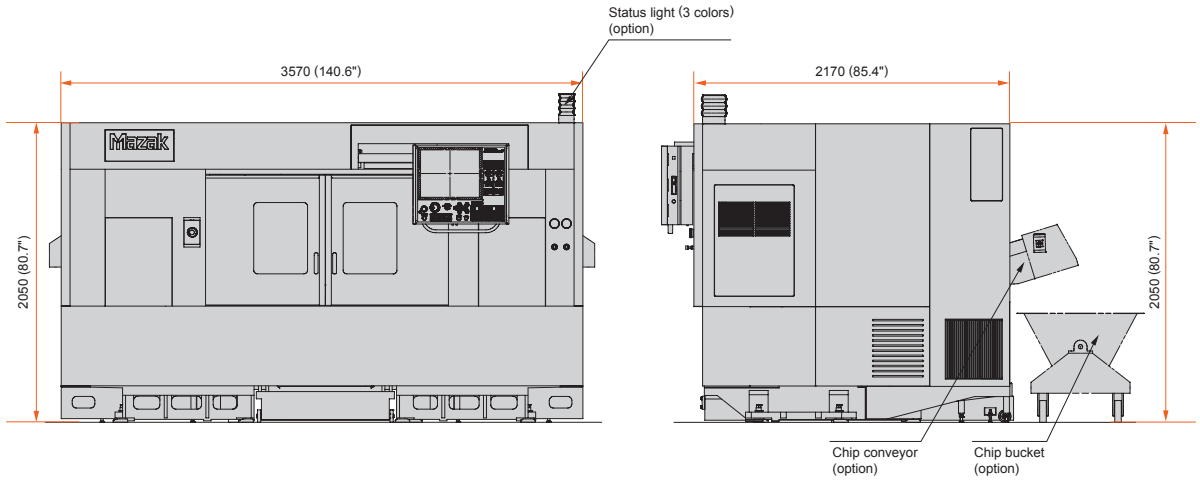
Standard: ● Option: ○

Factory Automation	Automatic front door	○
	Spindle orientation	○
	Automatic chuck jaws open/close	●
	Chuck air blast	●
	Automatic center partition	●
	Absolute position detection	●
High Accuracy	Coolant temperature control	○
	Scale feedback	○
Coolant/ chip disposal	Chip conveyor (rear, side discharge/hinge)	○
	Chip bucket (rotary)	○
	Chip bucket (fixed)	○
	Powerful coolant 1.1 kW	○
	High pressure coolant 1.5 MPa (218 PSI)	○
	Superflow coolant system 7 MPa (1015 PSI)	○
	Turret air blast	○
	Additional coolant nozzle	○
	Mist collector	○
	Preparation for mist collector	○
Safety equipment	Overload detection sytem	○
	Chuck jaws open/close confirmation	●
CNC	MAZATROL SmoothG	●

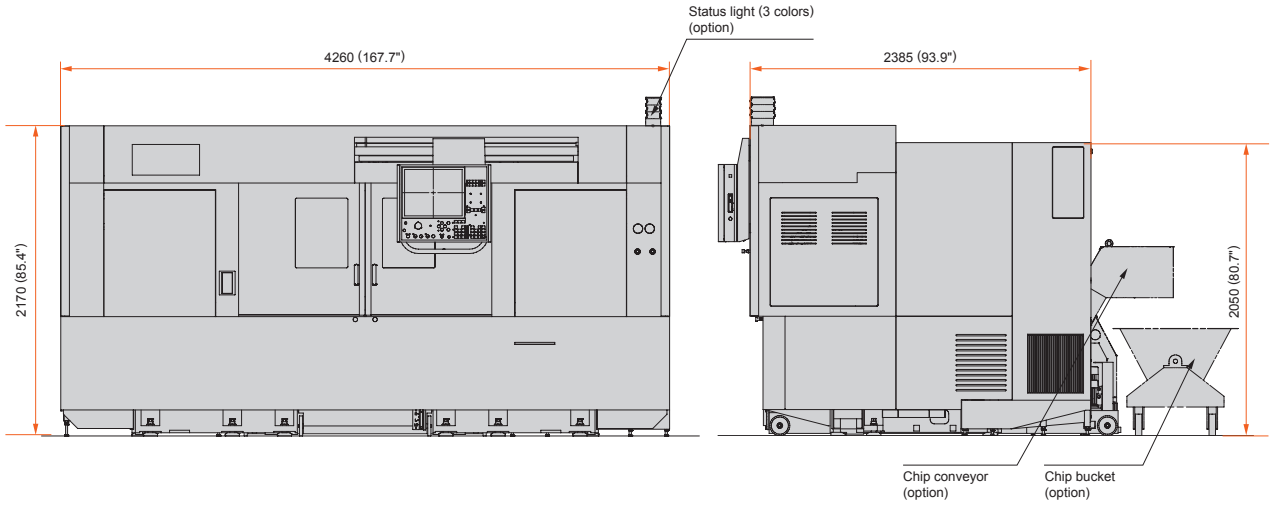
Machine Dimensions

Unit : mm (inch)

MULTIPLEX W-200, W-200Y



MULTIPLEX W-300, W-300Y



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