

Intelligent Multitasking Machines

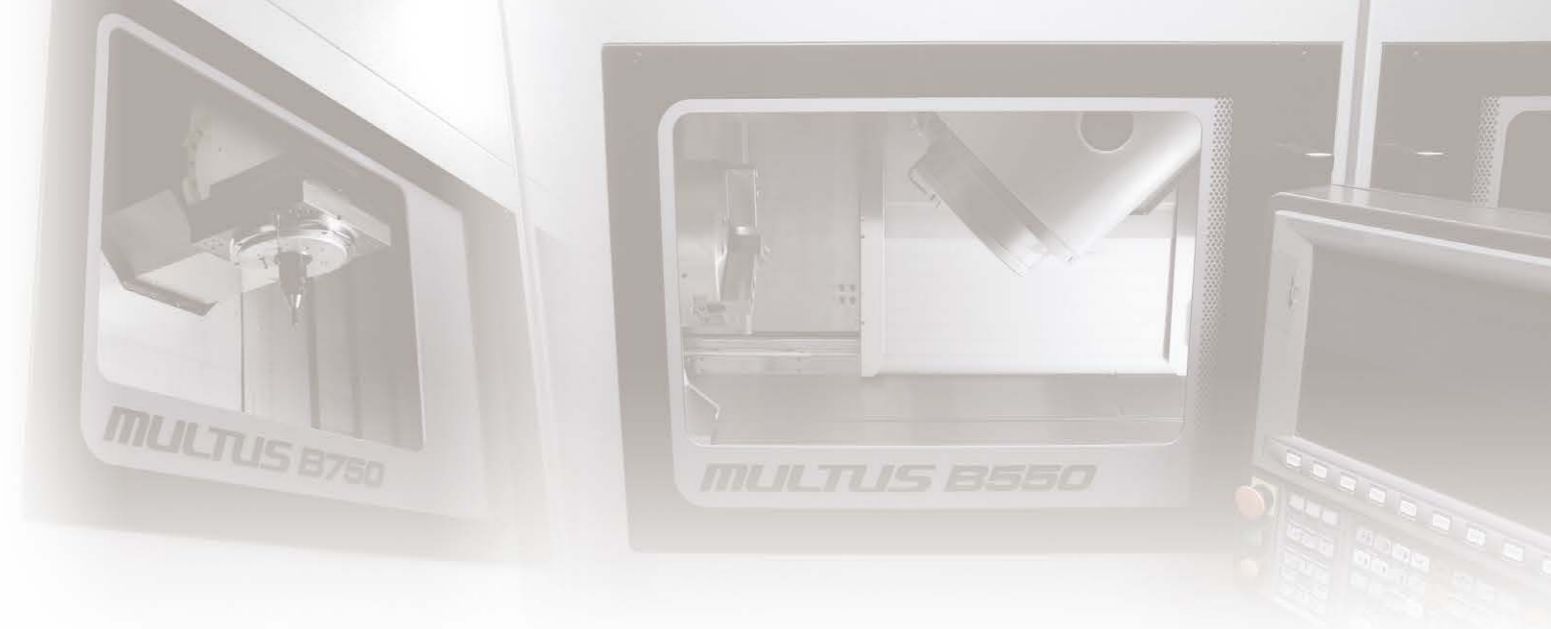
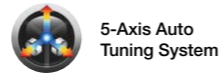
# ***MULTUS Bseries***

***MULTUS B550 / MULTUS B750***



Intelligent Multitasking Machines  
**MULTUS Bseries**

**MULTUS B550/MULTUS B750**



**See the future of intelligent machining—  
with multitasking and  
Okuma Intelligent Technologies**

Process-intensive machining that exceeds expectations  
with excellent structural design and a next-generation CNC system.

- All processes for large-diameter, long workpieces done on a single machine with a wide array of applications
- Higher productivity than a large lathe and machining center
- Outstanding operability achieved with a control made by machine tool manufacturer



**MULTUS B550**

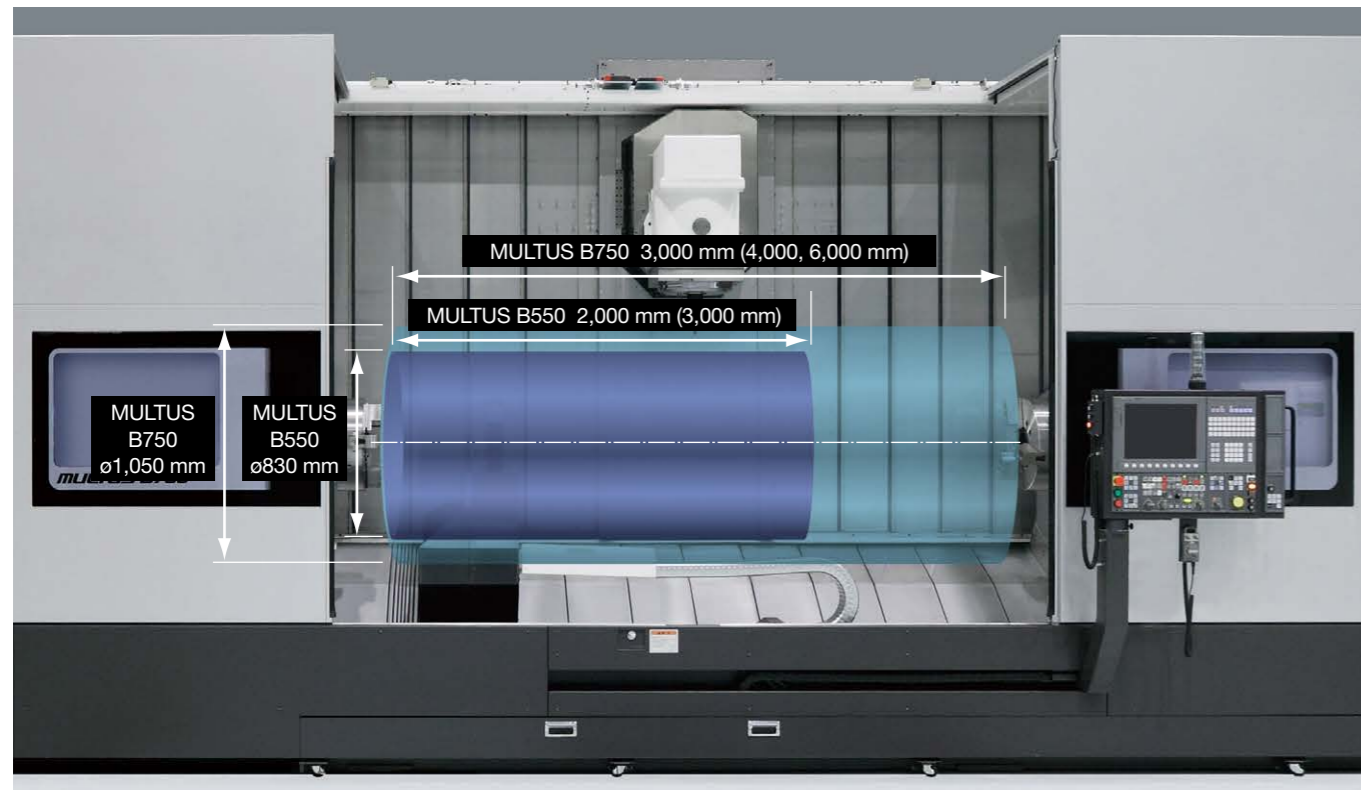


**MULTUS B750**

Photos shown in this brochure include optional equipment.

# Full process-intensive machining of large-diameter, long workpieces

A large working range that can handle large or long workpieces up to  $\phi 1,050$  mm and 6,000 mm in length is ensured with an orthogonal 3-axis machine configuration (MULTUS B750). Rigidity essential for the machining of large parts is achieved with use of diagonal rib structured columns and high-accuracy, high-rigidity spindles. Turning capacity is equivalent to that of a large NC lathe, while milling capacity corresponds to that of a horizontal machining center.



## Largest working range in class

Even large parts can be machined without difficulty thanks to a wide working range produced by large Y-axis travel and strong support capacity.

### Maximum support weight

	MULTUS B550	MULTUS B750
Double-centered support weight	1,500 kg	8,000 kg
Double-sided support weight	1,600 kg	5,000 kg

Note: Support weight may differ depending on specifications

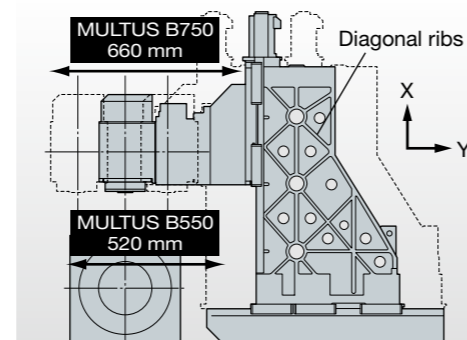


Illustration shows MULTUS B750

### X-axis rigidity maintained during Y-axis movement

A column feed system is used for Y-axis travel. With a rigid and highly stable X-axis structure, the ram extension remains constant at any Y-axis position.

## Performs full-fledged milling

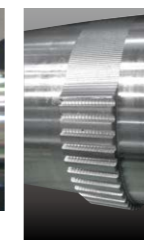
With an orthogonal 3-axis structure, full-fledged milling that exceeds the capacity of multitasking machines is achieved in milling difficult right angles or drilling with high pitch accuracy.

# A single machine performs all the machining operations for a wide variety of applications

## Fully integrated operations for long parts—from inner diameter, outer diameter, and gear machining to high-speed contour shaping

### Flute milling of gears with hob cutter

Gear section machining by mounting a hob cutter on the milling tool spindle and synchronizing (hobbing function: optional) with the C axis at a fixed ratio. If the Gear Machining Package (optional) is used, programming can be done simply by inputting the tool and gear specifications and cutting conditions.



Gear section

### High-speed contour shape machining

With Super-NURBS (optional), high speed machining of curved surfaces is achieved in accordance with machine characteristics, based on fine control of tool travel position, speed, acceleration, and changes in acceleration to draw out the maximum performance of the machine.



- Product name: Landing gear model
- Cycle time: 9 h 40 min



Machining with left spindle

### ID super deep hole machining

Long boring bar (optional) can be used on either left or right spindle. Handles even deep hole machining of 1 m without interference.



Machining with right spindle

## Full use of opposing spindle and long boring bar for process-intensive boring

### High-accuracy machining with steadyrest

The use of steadyrests suppresses workpiece bending from its own weight and workpiece distortion from cutting force, thus enabling high-accuracy machining.

- Product name: Valve body (hydraulic part)
- Material: S45C
- Cycle time: 1 h 40 min
- Size:  $\phi 270 \times 1,000$  mm
- Machining portion: Inner diameter dome, inner diameter finishing, dome milling, window milling



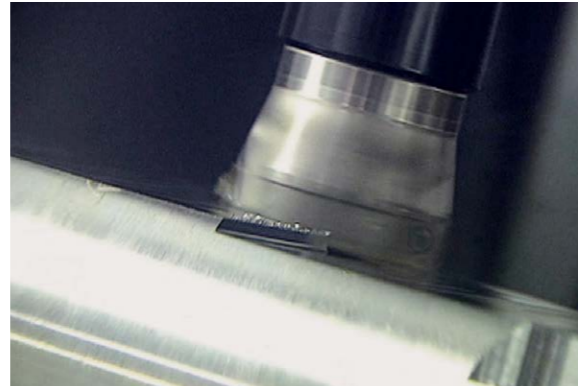
# Cycle times shortened with powerful machining

Equipped with high-power, high-torque turning spindle and milling tool spindle, achieves powerful machining equivalent to a large lathe or machining center. Even large workpieces with much removal stock can be machined with ease. Also handles various types of machining with its abundant product variants, including big-bore spindle and milling tool high speed specifications.





## Turning spindle

Spindle with highly rigid structure combining roller bearings and angular bearings. All types of machining processes can be done, from heavy-duty cutting to processes that demand high quality surface roughness.



## Milling tool spindle

Milling tools with integral motor/spindle offer powerful cutting with high torque output (MULTUS B550: 321N-m, MULTUS B750: 505N-m). Ensures optimum rigidity in turning and milling with a roller bearing and angular bearing construction.

Turning		Milling																																												
MULTUS B550	MULTUS B750	MULTUS B550	MULTUS B750																																											
Spindle: $\phi 160$ spindle: integral motor	Spindle: $\phi 220$ spindle: 4-spd gear	Milling tool spindle	Milling tool spindle																																											
																																														
Spindle speed: 3,000 min <sup>-1</sup>	Spindle speed: 2,000 min <sup>-1</sup>	Milling tool spindle speed: 10,000 min <sup>-1</sup>	Milling tool spindle speed: 10,000 min <sup>-1</sup>																																											
Power: 37/30 kW (30 min/cont)	Power: 37/30 kW (30 min/cont)	Power: 37/30/22 kW (3 min/30 min/cont)	Power: 37/30/22 kW (3 min/30 min/cont)																																											
•Heavy cutting: 6.5 mm <sup>2</sup>	•Heavy cutting: 6.5 mm <sup>2</sup>	•Chip volume: 1,000 cm <sup>3</sup> /min	•Chip volume: 1,000 cm <sup>3</sup> /min																																											
<ul style="list-style-type: none"> <li>OD (Material: S45C)           <table border="1"> <tr><td>Cutting</td><td>150 m/min</td><td>150 m/min</td></tr> <tr><td>Depth</td><td>10 mm</td><td>10 mm</td></tr> <tr><td>Feedrate</td><td>0.65 mm/rev</td><td>0.65 mm/rev</td></tr> </table> </li> <li>Insert drill (Material: S45C)           <table border="1"> <tr><td>Tool</td><td><math>\phi 63</math> carbide drill</td><td><math>\phi 63</math> carbide drill</td></tr> <tr><td>Cutting</td><td>180 m/min</td><td>180 m/min</td></tr> <tr><td>Feedrate</td><td>0.25 mm/rev</td><td>0.25 mm/rev</td></tr> </table> </li> </ul>	Cutting	150 m/min	150 m/min	Depth	10 mm	10 mm	Feedrate	0.65 mm/rev	0.65 mm/rev	Tool	$\phi 63$ carbide drill	$\phi 63$ carbide drill	Cutting	180 m/min	180 m/min	Feedrate	0.25 mm/rev	0.25 mm/rev	<ul style="list-style-type: none"> <li>Face mill (Material: S45C)           <table border="1"> <tr><td>Tool</td><td><math>\phi 80</math> face mill, 8 blades</td><td><math>\phi 100</math> face mill, 10 blades</td></tr> <tr><td>Cutting</td><td>300 m/min</td><td>300 m/min</td></tr> <tr><td>Depth</td><td>5.5 x 56 mm</td><td>5 x 70 mm</td></tr> <tr><td>Feedrate</td><td>2.72 mm/rev</td><td>3.0 mm/rev</td></tr> <tr><td>Chips</td><td>1,000 cm<sup>3</sup>/min</td><td>1,000 cm<sup>3</sup>/min</td></tr> </table> </li> <li>Insert drill (Material: S45C)           <table border="1"> <tr><td>Tool</td><td><math>\phi 63</math> carbide drill</td><td><math>\phi 63</math> carbide drill</td></tr> <tr><td>Cutting</td><td>180 m/min</td><td>180 m/min</td></tr> <tr><td>Feedrate</td><td>0.25 mm/rev</td><td>0.25 mm/rev</td></tr> </table> </li> <li>TAP (Material: S45C)           <table border="1"> <tr><td></td><td>M36 P4</td><td>M42 P4.5</td></tr> </table> </li> </ul>	Tool	$\phi 80$ face mill, 8 blades	$\phi 100$ face mill, 10 blades	Cutting	300 m/min	300 m/min	Depth	5.5 x 56 mm	5 x 70 mm	Feedrate	2.72 mm/rev	3.0 mm/rev	Chips	1,000 cm <sup>3</sup> /min	1,000 cm <sup>3</sup> /min	Tool	$\phi 63$ carbide drill	$\phi 63$ carbide drill	Cutting	180 m/min	180 m/min	Feedrate	0.25 mm/rev	0.25 mm/rev		M36 P4	M42 P4.5
Cutting	150 m/min	150 m/min																																												
Depth	10 mm	10 mm																																												
Feedrate	0.65 mm/rev	0.65 mm/rev																																												
Tool	$\phi 63$ carbide drill	$\phi 63$ carbide drill																																												
Cutting	180 m/min	180 m/min																																												
Feedrate	0.25 mm/rev	0.25 mm/rev																																												
Tool	$\phi 80$ face mill, 8 blades	$\phi 100$ face mill, 10 blades																																												
Cutting	300 m/min	300 m/min																																												
Depth	5.5 x 56 mm	5 x 70 mm																																												
Feedrate	2.72 mm/rev	3.0 mm/rev																																												
Chips	1,000 cm <sup>3</sup> /min	1,000 cm <sup>3</sup> /min																																												
Tool	$\phi 63$ carbide drill	$\phi 63$ carbide drill																																												
Cutting	180 m/min	180 m/min																																												
Feedrate	0.25 mm/rev	0.25 mm/rev																																												
	M36 P4	M42 P4.5																																												

# Highly rigid structure shows its power in machining difficult-to-cut materials

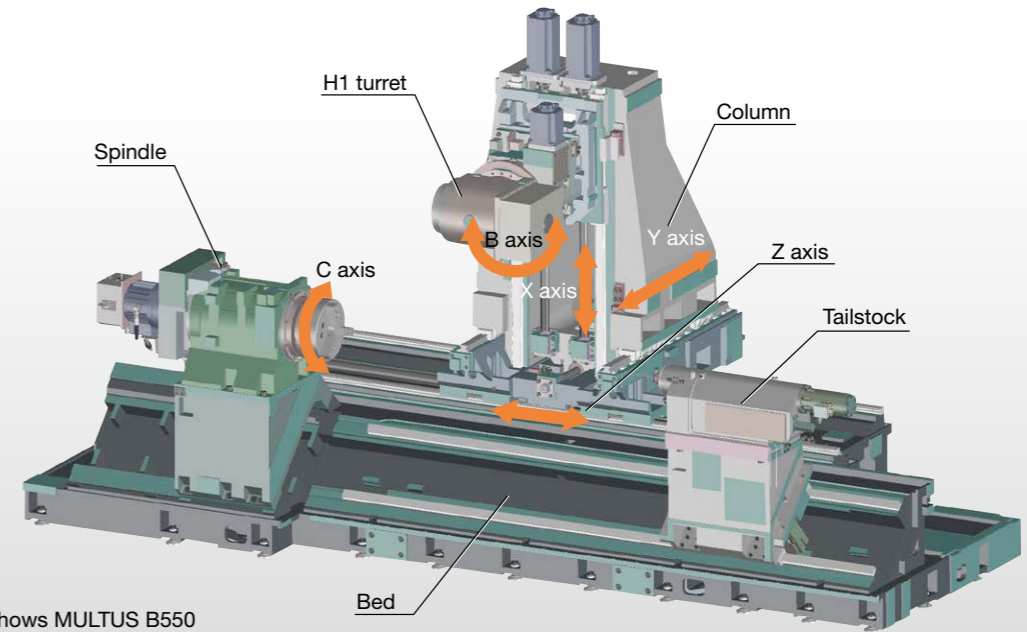


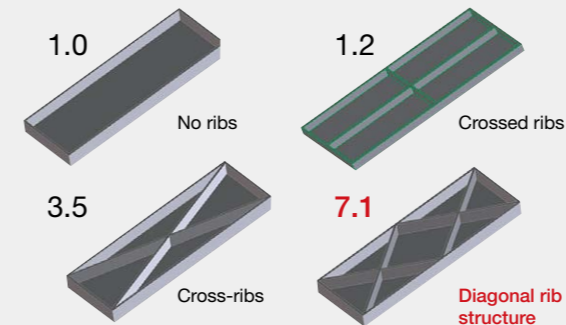
Illustration shows MULTUS B550

## Maintains high accuracy over the long term

Diagonal rib structure used on bed and column. This rigidity is 7 times greater than without ribs. It strongly resists bending and torsion, remaining rigid even with large loads from heavy-duty cutting so that high accuracy is maintained over the long term.

### Diagonal rib structure casting

• Rigidity comparison sample (rigidity per weight)



## High follow-up accuracy with no positioning error

Large roller guides used on X, Y, and Z axes for superior rigidity, wear resistance, and vibration damping, smooth movement, and accurate positioning. Double ball screws on X axis eliminate positioning errors from movement direction and provide superb follow capability. In addition, a 3-way guide is used on the MULTUS B750, and straightness is maintained long-term with long travel.

## Highly rigid tailstock

The tailstock has a large-diameter, highly rigid structure. The workpiece is supported with high thrust for stable support of even massive workpieces.



Photo shows MULTUS B750

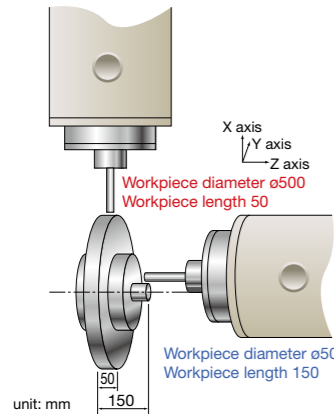
	MULTUS B550	MULTUS B750
Built-in quill	MT No. 5	MT No. 6
Quill stroke	250 mm	350 mm
Quill diameter	$\phi 130$ mm	$\phi 180$ mm
Movement system	Auto tow-along	Auto tow-along
Thrust	15 kN	26 kN

# Large machine with extraordinarily high accuracy

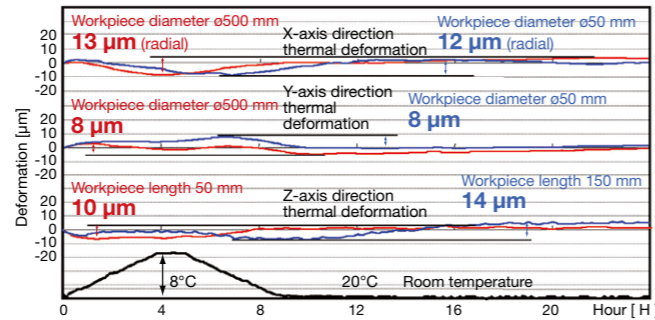


## Thermal Deformation—Accurately Controlled Thermo-Friendly Concept

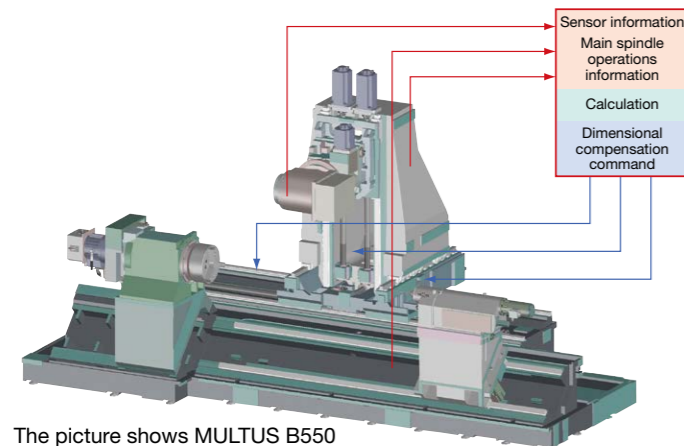
With thermal deformation control matched to the controlled axis position and machining point, dimensional changes from thermal deformation can be minimized regardless of workpiece size. Accurate control is also provided in various usage conditions, such as coolant use or downtime during lunch breaks.



### Thermal deformation over time $\leq 14 \mu\text{m}$ (actual data with MULTUS B750)



- Running conditions: Spindle rotation  $500 \text{ mm}^{-1} \cdot 24 \text{ h}$
- Room temperature change: Rise of  $8^\circ\text{C}$  from  $20^\circ\text{C}$  over 4 hours. After 1 hour, decline of  $8^\circ\text{C}$  over 4 hours. Coolant added

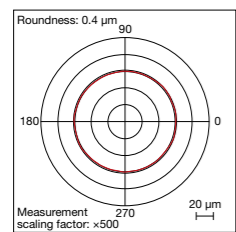


Sensor information  
Main spindle operations information  
Calculation  
Dimensional compensation command

- **TAS-S [Thermo Active Stabilizer – Spindle]**  
X-Y-Z axes control thermal deformation of the milling tool spindle
- **TAS-C [Thermo Active Stabilizer – Construction]**  
Overall control of thermal deformation on headstock, bed, column, and turret

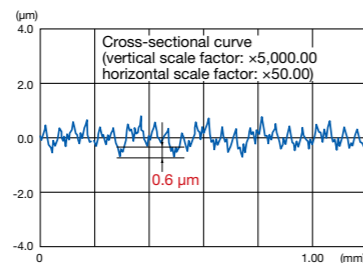
The picture shows MULTUS B550

### Roundness $0.4 \mu\text{m}$ MULTUS B550 (actual turning data)



- Material : BsB
- Cutting conditions : Spindle speed  $2,500 \text{ min}^{-1}$   
Feedrate  $0.05 \text{ mm/rev}$

### Surface roughness $0.6 \mu\text{m}$ (uniformity at tool edge) MULTUS B550 (actual data)



- Material : BsB
- Cutting conditions : Spindle speed  $2,000 \text{ min}^{-1}$   
Feedrate  $0.05 \text{ mm/rev}$

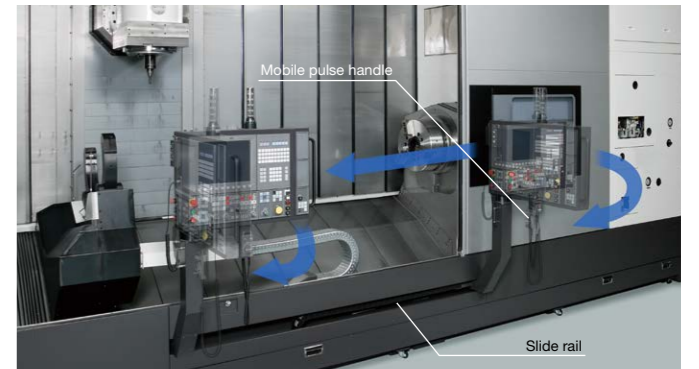
### B-axis positioning accuracy $\pm 0.0025^\circ$ MULTUS B750 (actual data)

### B-axis repeatability $\pm 0.0005^\circ$ MULTUS B750 (actual data)

# Machine construction with superior operability and maintainability

## Mobile operation panel with outstanding ease-of-use

Swivel and slide type operation panel and mobile pulse handle are used. The operation panel can be moved freely on a slide rail that spans the entire front of the machine. The use of a mobile pulse handle enables smooth movement while checking the tool edge in any location.



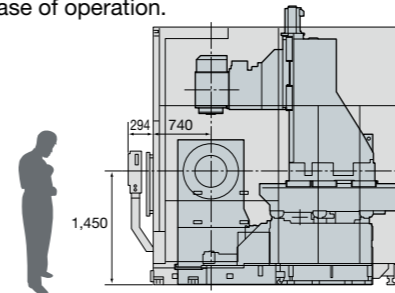
## Ease of use at operator's line of sight

### Bed and spindle layout for easy accessibility to spindle

Easy workpiece mounting and dismantling. Reduced operator burden, including chip cleaning

### Vertical X-axis with superior tool edge visibility

Tool edge comes to eye line height for ease of visibility and ease of operation.



(with MULTUS B750 and distance between centers of 3000)

## Front maintenance

To make regular maintenance easy to perform, the major oil supply locations are concentrated on the front of the machine. Maintenance is also possible by pulling the chip conveyor out the front.



Note: May not be available for certain specifications.

## Next-Generation Energy-Saving System

### ECO suite

A suite of energy saving applications for machine tools

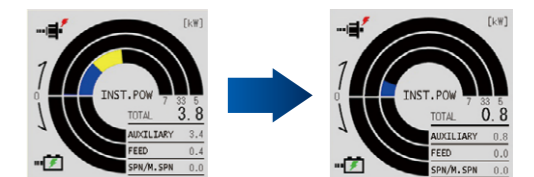
## Accuracy ensured, cooler off ECO Idling Stop

Intelligent energy-saving function with the Thermo-Friendly Concept. The machine itself determines whether or not cooling is needed and cooler idling is stopped with no loss to accuracy. (Standard application on machines with Thermo-Active Stabilizer—Spindle)

## On-the-spot check of energy savings ECO Power Monitor

Power is shown individually for spindle, feed axis, and peripheral equipment on the OSP operation screen. The energy-saving effect from peripheral equipment stopped with ECO Idling Stop can be confirmed on the spot.

- Power Monitor confirmation example



Before ECO Idling Stop

After ECO Idling Stop

The indicated values are one example.

Note: The "actual data" referred to above for this brochure represent examples, and may not be obtained due to differences in specifications, tooling, cutting, and other conditions.

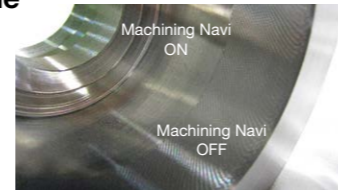
# Maximizing machine tool performance



**With optimal cutting conditions: longer tool life, shorter cycle time**

## Cutting condition search: Machining Navi (Optional)

Machining Navi, with clear visuals of complex cutting conditions, is a breakthrough tool that enables the machine operator to navigate the machine and tool capabilities to their best performance levels.



### For turning

**Chatter-free applications for lathes**  
**Machining Navi L-g** (guidance)

Chatter in a lathe can be suppressed by changing spindle speeds to the ideal amplitude and wave cycle.

**Threading chatter can be easily controlled by anyone**  
**Machining Navi T-g** (threading)

In the threading cycle, chatter during threading is controlled through appropriate change of the spindle speed in each pass.

### For milling

**Adjust cutting conditions while monitoring the data**  
**Machining Navi M-g II+**  
(Optimum spindle speed/harmonic spindle speed control)

From chatter noise picked up by the microphone, Machining Navi will display the best options for chatter-free spindle speed. The operator can select a recommended speed and immediately confirm the result.

**Simple, auto-mode—leave it to the machine**  
**Finding optimum cutting conditions quickly**  
**Machining Navi M-i**  
(intelligently optimized spindle speed control)

Chatter vibration is measured by built-in sensors, and spindle speed is automatically changed to the optimum speed. In addition, advanced graphics of the optimal cutting conditions represent effective alternatives to suppress various chatter characteristics throughout the low to high speed zones.



## Gauging and compensation of geometric error 5-Axis Auto Tuning System (Optional)

On multitasking machines there is "geometric error," such as spindle runout, that have huge effects on machining accuracy. The 5-Axis Auto Tuning System measures geometric error with a touch probe and datum sphere, and tunes multitasking machines for better operating accuracy through compensation control using the measurement results. This helps to achieve a higher level of 5-axis machining accuracy.

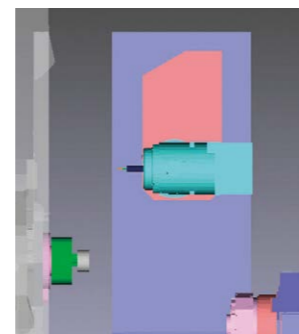
**Anyone can automatically check for geometric error quickly and easily**

Manual measurement and adjustment of geometric error is bothersome and time-consuming. The 5-Axis Auto Tuning System conducts automatic tuning to correct geometric error in a short time.



## Setup/trial cut time: reduced by 40% Preventing collisions Collision Avoidance System

NC controller (OSP) with 3D model data of machine components—workpiece, tool, chuck, fixture, headstock, turret, tailstock—performs real time simulation just ahead of actual machine movements. It checks for interference or collisions, and stops the machine movement immediately before collision. Machinists (novice or pro) will benefit from reduced setup and trial cycle times, and the confidence to focus on making parts. Troublesome settings eliminated. With easy tool preps, you can use the preset tool data just as it is.



Virtual machine (advance simulation)

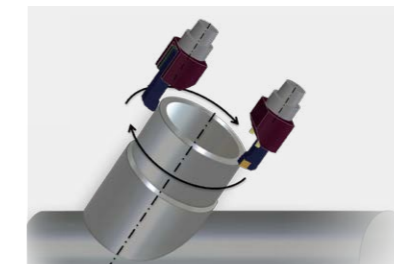


Actual machine

# Achieves process-intensive machining beyond the framework of multitasking machines

## Tilted axis turning Turn-Cut (Optional)

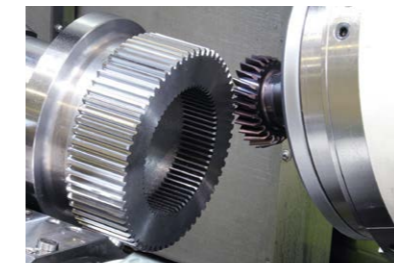
Turn-Cut is an original Okuma technology that enables turning from a milling spindle. The circular motion of the feed axis and the spindle indexing angle are simultaneously controlled so that the tool edge is always perpendicular to the milling spindle circular motion. Tilted axis turning can also be done by tilting the B axis. Moreover, machining of any diameter can be done with a single tool, enabling inside and outside diameter machining that is larger than the maximum tool diameter. For setting cutting conditions, the machine will recommend the optimum spindle speed if the diameter and roundness of the portion to be machined are specified with the Turn-Cut Guide app (optional).



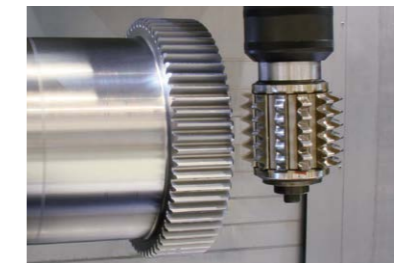
Turning can be done from a tilted axis

## High accuracy gear cutting with a multitasking machine Gear Machining Package (Optional)

Gear cutting that previously required complex programming can now be done with ease. With easy programming, simply input the tool type, gear data, and cutting conditions to achieve highly accurate machining, reducing programming time to about one-tenth that of manual input. Process-intensive machining is achieved, including the gear cutting that used to be done on expensive special-purpose machines.



Skiving (OD/ID splines)



Hobbing



Input screen

## 3D measuring for multitasking machines NC Gage (Optional)

Twenty types of geometrical accuracy, such as hole position and flatness, can be measured on the machine, greatly reducing lead time. A program to measure the positional relationship between geometric tolerance and workpiece shape is automatically produced by teaching. Data storage of the measurement results is possible.



# Machine Specifications

Item	MULTUS B550				MULTUS B750						
	C x 2000	C x 3000	W x 2000	W x 3000	C x 3000	C x 4000	C x 6000	W x 3000	W x 4000	W x 6000	
Capacity	Swing over saddle mm (in.) $\phi 830$ (32.68)				Swing over saddle mm (in.) $\phi 1,050$ (41.34)						
	Distance between centers (C), distance between noses (W) mm (in.)				Distance between centers (C), distance between noses (W) mm (in.)						
	2,000 (78.74)	3,000 (118.11)	2,544 (100.16)	3,544 (139.53)	3,000 (118.11)	4,000 (157.48)	6,000 (236.22)	3,544 (139.53)	4,544 (178.90)	6,544 (257.64)	
	Max machining dia mm (in.) $\phi 830$ (32.68)				Max machining dia mm (in.) $\phi 1,050$ (41.34)						
Travels	X axis mm (in.) 925 (36.42)				X axis mm (in.) 1,080 (42.52)						
	Z axis mm (in.) 2,215 (87.20)	3,215 (126.57)	2,215 (87.20)	3,215 (126.57)	3,215 (126.57)	4,215 (165.94)	6,215 (244.69)	3,215 (126.57)	4,215 (165.94)	6,215 (244.69)	
	Y axis mm (in.) 520 ( $\pm 260$ ) (20.47 ( $\pm 10.24$ )))				Y axis mm (in.) 660 ( $\pm 330$ ) (25.98 ( $\pm 12.99$ )))						
	W axis mm (in.) -		2,100 (82.68)	3,100 (122.05)	-			3,100 (122.05)	3,395 (133.66)	4,595 (180.91)	
	C axis degree 360 (Min controlled angle 0.001)				C axis degree 360 (Min controlled angle 0.001)						
	B axis indexing angle degree -30 to +210 (Min controlled angle 0.001)				B axis indexing angle degree -30 to +210 (Min controlled angle 0.001)						
Spindle	Spindle speed min <sup>-1</sup> 30 to 3,000 [12 to 2,400]				Spindle speed min <sup>-1</sup> 11 to 2,000 [14 to 1,500, 10 to 1,000]						
	Speed ranges 2 auto ranges (2-step motor coil switching) [4 auto ranges (4 speed gear)]				Speed ranges 4 auto ranges (4 speed gear) [2 auto ranges (2 speed gear)]						
	Spindle nose JIS A2-11				Spindle nose JIS A2-11 [JIS A2-15, A2-20]						
	Tapered bore / Bearing dia mm (in.) $\phi 112/\phi 160$ [ $\phi 130/\phi 180$ ] ( $\phi 4.41/6.3$ [ $\phi 5.12/\phi 7.09$ ]))				Tapered bore / Bearing dia mm (in.) $\phi 142/\phi 220$ [ $\phi 185/\phi 280$ , $\phi 275/\phi 380$ ] ( $\phi 5.59/8.66$ [ $\phi 7.28/\phi 11.02$ , $\phi 10.83/\phi 14.96$ ]))						
Opposing spindle	Spindle speed min <sup>-1</sup> -				Spindle speed min <sup>-1</sup> 11 to 2,000 [14 to 1,500]						
	Speed ranges -				Speed ranges 4 auto ranges (4 speed gear)						
	Spindle nose -				Spindle nose JIS A2-11 [JIS A2-15]						
	Tapered bore / Bearing dia mm (in.) -				Tapered bore / Bearing dia mm (in.) $\phi 142/\phi 220$ [ $\phi 185/\phi 280$ ] ( $\phi 5.59/\phi 8.66$ [ $\phi 7.28/\phi 11.02$ ]))						
Turret	Type H1				Type H1						
	No. of tools 1 for both L and M				No. of tools 1 for both L and M						
	Tool shank dimensions / ID tool shank diameter mm (in.) $\square 25/\phi 50$ ( $\square 0.98/\phi 1.97$ )				Tool shank dimensions / ID tool shank diameter mm (in.) $\square 32/\phi 63$ ( $\square 1.26/\phi 2.48$ )						
	Speed range min <sup>-1</sup> 40 to 10,000				Speed range min <sup>-1</sup> 40 to 10,000						
	Milling tool speed range 2 auto ranges (2-step motor coil switching)				Milling tool speed range 2 auto ranges (2-step motor coil switching)						
	Milling tool spindle torque N-m 321/260/191 (3 min/30 min/cont)				Milling tool spindle torque N-m 505/300/205 (3 min/30 min/cont)						
Feedrates	Rapid traverse X, Z, Y axis m/min X, Z, Y: 40				X, Z, Y: 40		X, Y: 40, Z: 30		X, Z, Y: 40		X, Y: 40, Z: 30
	Rapid traverse W axis m/min -				20		15		15		12 10
	Rapid traverse C, B axis min <sup>-1</sup> C: 200, B: 30				C: 100, B: 20						
Tailstock	Quill diameter mm (in.) $\phi 130$ (5.12)				Quill diameter mm (in.) $\phi 180$ (7.09)						
	Center taper MT No. 5 (Built-in)				Center taper MT No. 6 (Built-in)						
	Quill travel mm (in.) 250 (9.84)				Quill travel mm (in.) 350 (13.78)						
ATC	Tool shank / Pull stud HSK-A100 [CAPTO C8, BT50/P50T II]				Tool shank / Pull stud HSK-A100 [CAPTO C8, MAS BT50/P50T II]						
	No. of tools tool 40 [80, 160]				No. of tools tool 40 [80, 160]						
	Max tool dia mm (in.) $\phi 130$ (5.12) (w/o adjacent tools: $\phi 260$ (10.24))				Max tool dia mm (in.) $\phi 135$ (5.31) (w/o adjacent tools: $\phi 300$ (11.81))						
	Max tool length mm (in.) 600 (23.62) (from the gauge line)				Max tool length mm (in.) 600 (23.62) (from the gauge line)						
	Max tool weight kg (lb) 30 (66)				Max tool weight kg (lb) 30 (66)						
Motors	Spindle motors kW (hp) 37/30 (50/40) (30 min/cont)				Main/opposing: 37/30 (50/40) (30 min/cont)		37/30 (50/40) (30 min/cont) [45/37 (30 min/cont)]		Main/opposing: 37/30 (50/40) (30 min/cont) [45/37 (30 min/cont)]		
	Milling tool spindle kW (hp) 37/30/22 (50/40/30) (3 min/30 min/cont)				Milling tool spindle kW (hp) 37/30/22 (50/40/30) (3 min/30 min/cont)						
	X, Z, Y, B axis kW (hp) X: 5.2 x 2, Z: 5.2, Y: 5.1, B: 4.6 (X: 7 x 2, Z: 7, Y: 7, B: 6)				X, Z, Y, B axis kW (hp) X: 5.2 x 2, Z: 5.2, Y: 5.1, B: 4.6 (X: 7 x 2, Z: 7, Y: 7, B: 6)						
	W axis kW (hp) -				4.2 (5.6)		-		5.2 (6.63)		
	Coolant motor (50/60 Hz) kW (hp) 0.25/0.25 x 1, 0.55/0.75 x 4 (0.3/0.3 x 1, 0.7/1 x 4)				Coolant motor (50/60 Hz) kW (hp) 0.25/0.25 x 1, 0.55/0.75 x 4 (0.3/0.3 x 1, 0.7/1 x 4)						
Machine size	Height mm (in.) 3,307 (130.20)				3,557 (140.04)		3,607 (142.01)		3,610 (142.13)		3,557 (140.04) 3,607 (142.01) 3,610 (142.13)
	Floor space (tank included) mm x mm (in.) 8,030 x 3,258 (316.14 x 0.13)				9,130 x 3,258 (359.45 x 128.27)		8,430 x 3,758* (331.89 x 147.95)		9,730 x 3,758* (383.07 x 147.95)		(359.45 x 139.06) (415.55 x 139.06) (531.69 x 149.49) (383.07 x 158.35) (439.17 x 158.35) (531.69 x 168.78)
	Weight (with CNC) kg (lb) 29,500 (64,900)				33,000 (72,600)		31,000 (68,200)		34,000 (74,800)		40,000 (88,000) 43,500 (95,700) 50,000 (110,000) 44,000 (96,800) 47,500 (104,500) 54,500 (119,900)
CNC	OSP-P300SA				OSP-P300SA						

\*Depth includes opposing spindle cooler [ ]: Optional

\*Depth includes opposing spindle cooler [ ]: Optional

## Standard Specifications and Accessories

	MULTUS B550	MULTUS B750
Headstock	JIS A2-11 (37/30 kW 3,000 min <sup>-1</sup> ) Integral spindle/motor	JIS A2-11 (37/30 kW 2,000 min <sup>-1</sup> ) Gear spindle
Milling tool spindle	37/30/22 kW 10,000 min <sup>-1</sup>	
Turret	H1 ATC	
Tailstock	Built-in quill MT 5 Auto tow-along	Built-in quill MT 6 Auto tow-along
Auto tool changer	40-tool magazine HSK-A100	
Coolant system	Detachable coolant tank, pump motor: 0.25/0.25 (50/60 Hz) kW x 1, 0.55/0.75 (50/60 Hz) kW x 4, Milling tool spindle, through spindle specifications	
Full-enclosure shielding	DBC 2000: manual, DBC 3000: front door auto open/close	Auto front door open/close (safety tape SW included)
In-machine work lamp	LED	
Foundation pads, jack screws	O	
Hand tools	O	
CNC	OSP-P300SA	
Operating panel	15-inch color TFT display	
Pulse handle	1 pc, portable (electronic handwheel)	
Other	Thermo Active Stabilizer - Spindle (TAS-S), Thermo Active Stabilizer - Construction (TAS-C), Collision Avoidance System B-axis NC control, C-axis control, Synchronized Tapping	

## Standard chuck sizes

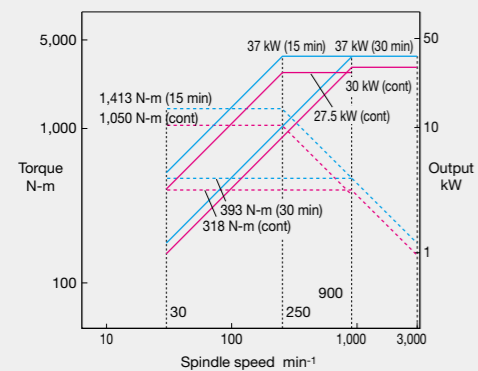
	Chuck OD	Main / Opposing spindle									
		12-inch		15-inch		18-inch		21-inch		24-inch	
	Chuck type	Hollow	Solid	Hollow	Solid	Hollow	Solid	Hollow	Solid	Hollow	Solid
MULTUS B550	Standard spindle A2-11	●		●	●	●	●		●	●	●
	Big bore spindle A2-11			●	●	●	●	●	●	●	●
MULTUS B750	Standard spindle A2-11				●	●	●				
	Big bore spindle A2-15					●	●				●

Please consult with regard to boxes with no ● dots.

# Standard Spindle Torque/Output Diagrams

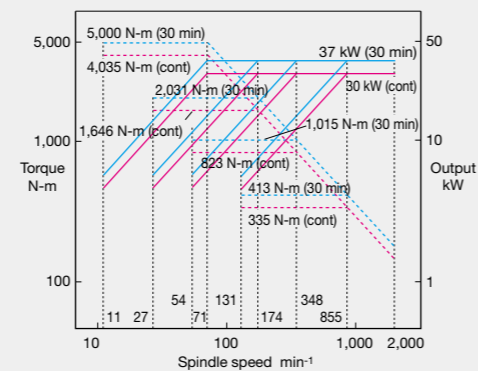
## 《MULTUS B550》

■ **Standard spindle** (MULTUS B550 Main, Opposing)  
 Spindle speed 3,000 min<sup>-1</sup>  
 Output 37/30 kW (30 min/cont)  
 Torque 1,413/1,050 N-m (15 min/cont)



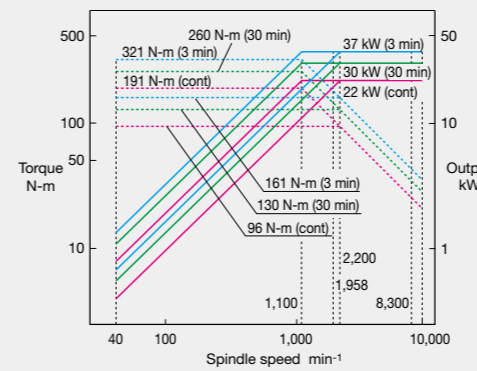
## 《MULTUS B750》

■ **Standard spindle** (MULTUS B750 Main, Opposing)  
 Spindle speed 2,000 min<sup>-1</sup>  
 Output 37/30 kW (30 min/cont)  
 Torque 5,000/4,035 N-m (30 min/cont)



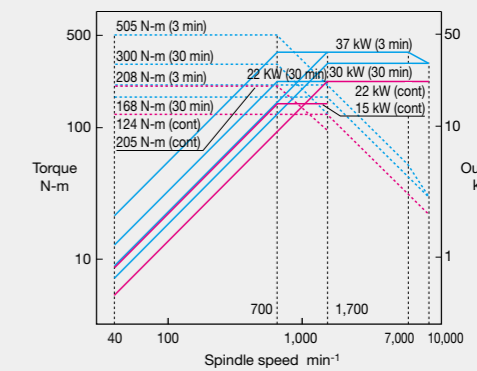
## 《MULTUS B550》

■ **Milling tool spindle**  
 Spindle speed 10,000 min<sup>-1</sup>  
 Output 37/30/22 kW (3 min/30 min/cont)  
 Torque 321/260/191 N-m (3 min/30 min/cont)



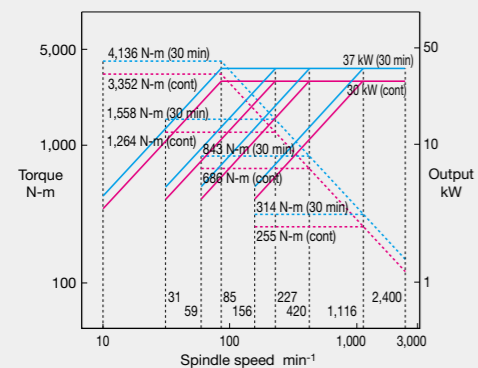
## 《MULTUS B750》

■ **Milling tool spindle**  
 Spindle speed 10,000 min<sup>-1</sup>  
 Output 37/30/22 kW (3 min/30 min/cont)  
 Torque 505/300/205 N-m (3 min/30 min/cont)



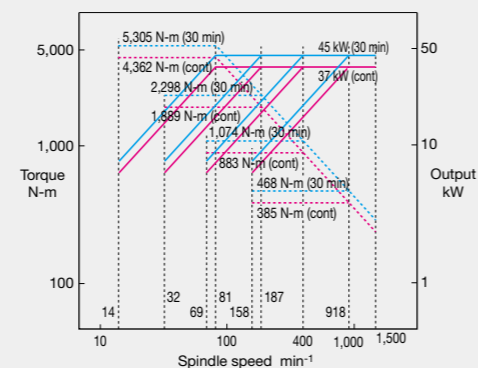
## ■ **Big-bore spindle** (MULTUS B550 Main, Opposing)

Spindle speed 2,400 min<sup>-1</sup>  
 Output 37/30 kW (30 min/cont)  
 Torque 4,136/3,352 N-m (30 min/cont)



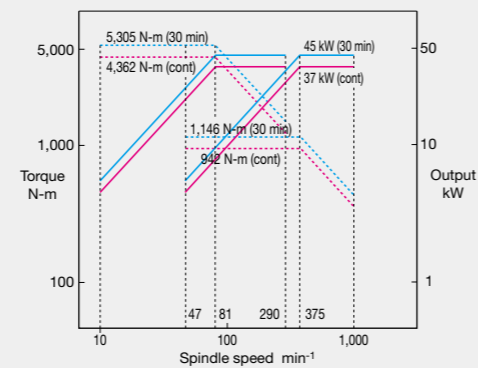
## ■ **Big-bore spindle** (MULTUS B750 Main, Opposing)

Spindle speed 1,500 min<sup>-1</sup>  
 Output 45/37 kW (30 min/cont)  
 Torque 5,305/4,362 N-m (30 min/cont)

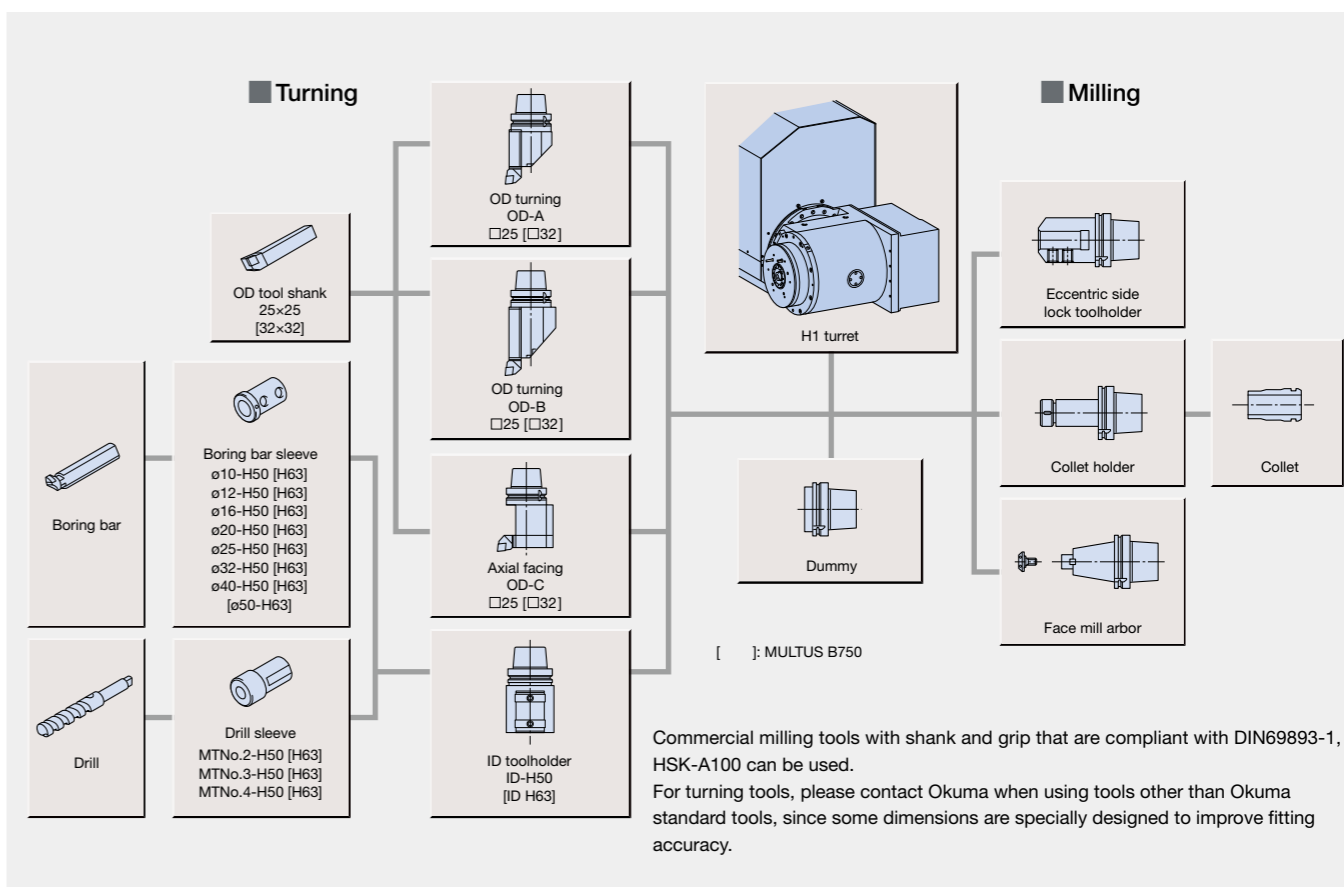


## ■ **Super big-bore spindle** (MULTUS B750 Main)

Spindle speed 1,000 min<sup>-1</sup>  
 Output 45/37 kW (30 min/cont)  
 Torque 5,305/4,362 N-m (30 min/cont)



## Tooling System (HSK-A100)



## Optional Specifications and Accessories

	MULTUS B550	MULTUS B750
Big-bore spindle	ø180 A2-11 2,400 min <sup>-1</sup> 37/30 kW (30 min/cont)	ø280 A2-15 1,500 min <sup>-1</sup> 45/37 kW (30 min/cont)
Super big-bore spindle	—	ø380 A2-20 1,000 min <sup>-1</sup> 45/37 kW (30 min/cont)
Opposing spindle	ø160 A2-11 3,000 min <sup>-1</sup> 37/30 kW (30 min/cont)	ø220 A2-11 2,000 min <sup>-1</sup> 37/30 kW (30 min/cont)
Opposing big-bore spindle	ø180 A2-11 2,400 min <sup>-1</sup> 37/30 kW (30 min/cont)	ø280 A2-15 1,500 min <sup>-1</sup> 45/37 kW (30 min/cont)
High-power spindle motor	—	45/37 kW (30 min/cont)
Tool shank	CAPTO C8, MAS BT50 BIG-PLUS®	
High pressure coolant	7 MPa	
Turret high/low pressure switch	L/M thru high/low pressure switch, M peripheral low pressure	
Lubrication monitor	B-1, B-2 (w/ warning lamp), C-1, C-1 (w/ warning lamp)	
ATC magazine capacity	80, 160 tools	
Chip conveyor	Hinge type, scraper type, drum filter type	
Chip bucket		
Coolant sludge prevention	Oil skimmer attachment, magnetic separator attachment	
Touch Setter	A (Auto)	
In-process work gauging		
AbsoScale	X, Y, Z axes	
Air blower (air blast)	Chuck, tailstock, turret, and spindle bore	
Coolant blower	Shower coolant system, within spindle	
Coolant sensor	Level sensor, pressure sensor, flow sensor	
Coolant tank	With line filter, with reverse wash filter, with thickener bag filter	
Mist collector		
Steadyrest		
Long boring bar specifications	—	ATC or manual
High-accuracy C-axis control		
Dust-proofing	Spindle air purge	
5-Axis Auto Tuning System	Standard kit, High spec kit	
NC Gage	Standard kit, High spec kit	
Temperature regulator	Coolant, hydraulic oil, spindle temperature	
Hydraulic chuck	Solid chuck, hollow chuck	
Work stopper in spindle		
Auto chuck open/close	With confirmation	
Chuck high/low pressure switch		
Chuck error sensor		
Chuck internal sizing stopper		
Front door auto open/close	Tape SW, area sensor	—
Dual palm start buttons (door close interlock)		
Auto tailstock quill advance/retract	With confirmation	
Tailstock thrust high/low pressure switch		
Movable tailstock	Self-travelling	
Coolant gun		
Workrest		
Loader		

### Opposing spindle

Powerful machining is achieved with opposing spindle capacity equivalent to main spindle.

	MULTUS B550	MULTUS B550 (Big-bore specs)	MULTUS B750	MULTUS B750 (Big-bore specs)
Spindle speed	3,000 min <sup>-1</sup>	2,400 min <sup>-1</sup>	2,000 min <sup>-1</sup>	1,500 min <sup>-1</sup>
Spindle nose	JIS A2-11	JIS A2-11	JIS A2-11	JIS A2-15
Spindle/bore dia	ø160/ø112	ø180/ø130	ø220/ø142	ø280/ø185
Spindle motor	37/30 kW	37/30 kW	37/30 kW	45/37 kW

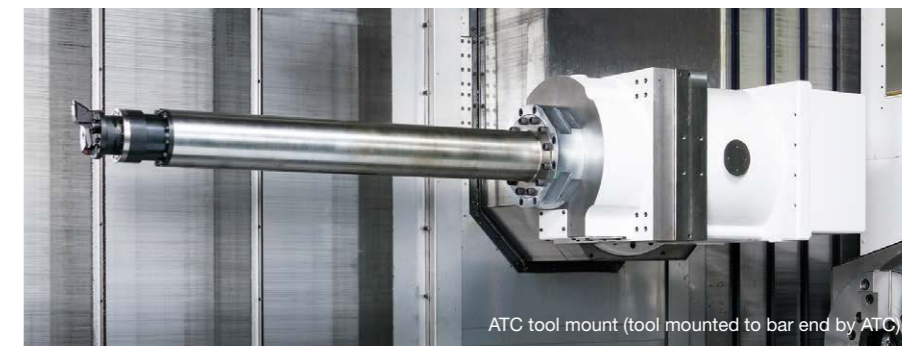
## Optional Specifications and Accessories

### Long boring bar specifications

#### (MULTUS B750)

With B-axis rotation for main /opposed spindle applications.

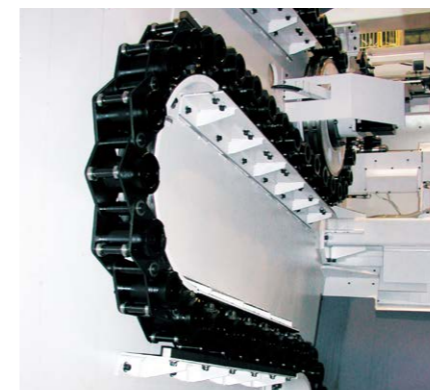
- Boring bar diameter × length
  - Manual tool end ø130 mm × 1,270 mm changes: (ø5.12 in. × 50 in.)
  - Auto tool end ø120 mm × 1,000 mm changes: (ø4.72 in. × 39.37 in.)



ATC tool mount (tool mounted to bar end by ATC)

### Large capacity ATC

Standard 40 tools. 80-tool, 160-tool capacity optional.



### Hydraulic NC steadyrest

High efficiency machining of long workpieces.



### AbsoScale/DD encoder

[AbsoScale]  
High speed, high resolution optical positioner. Not affected by ball screw thermal expansion or backlash, for improved finishing accuracy.



[DD encoder]  
High accuracy, high resolution rotary encoder for high accuracy C axis control.



### Various chip conveyors

#### ■ Chip conveyor types and applications

Name	Hinge	Scraper	Magnetic scraper	Hinge scraper (with drum filter)
Application	● For steel	● For castings	● For castings	● For steel, castings, nonferrous metal
Features	● General use	● Easy for maintenance ● Blade scraper	● Suitable for sludge ● Not suitable for nonferrous metals	● Filtration of long and short chips and coolant
Shape				

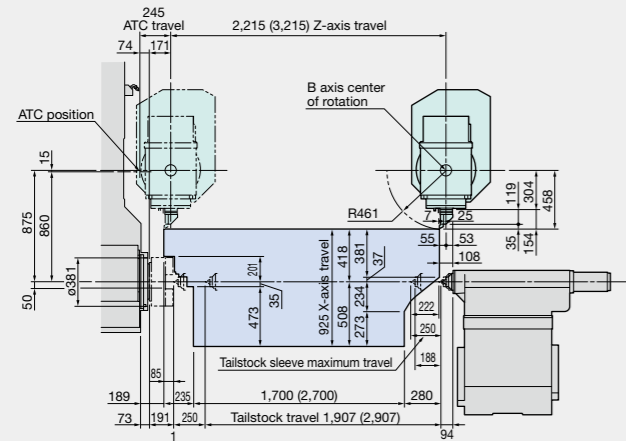
Note: The machine may need to be raised (platform) depending on the type of chip conveyor.

**MULTUS B550 Tailstock Specifications**

Unit: mm

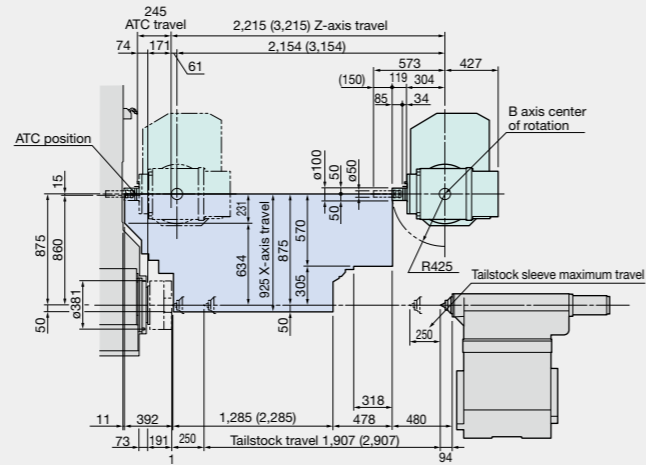
**OD-A, B axis 90°**

Distance between centers: 2,000 (3,000)



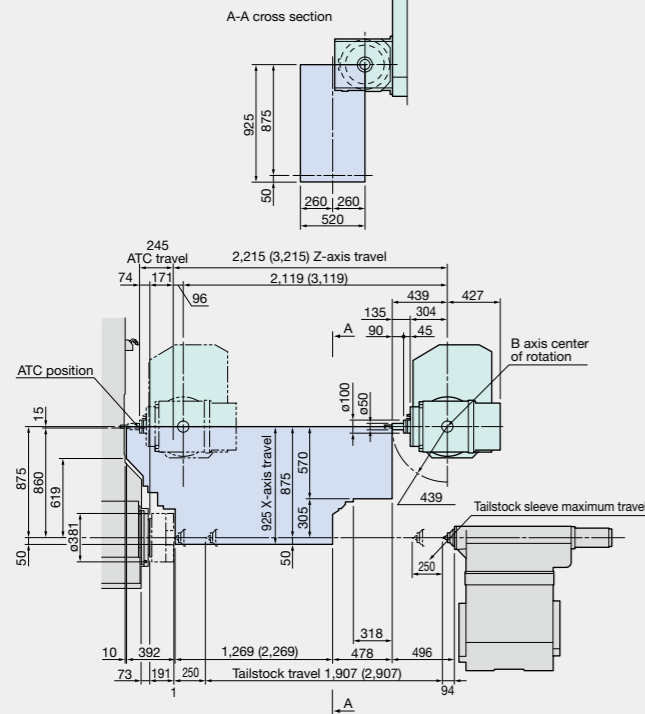
**ID-A, B axis 0°**

Distance between centers: 2,000 (3,000)



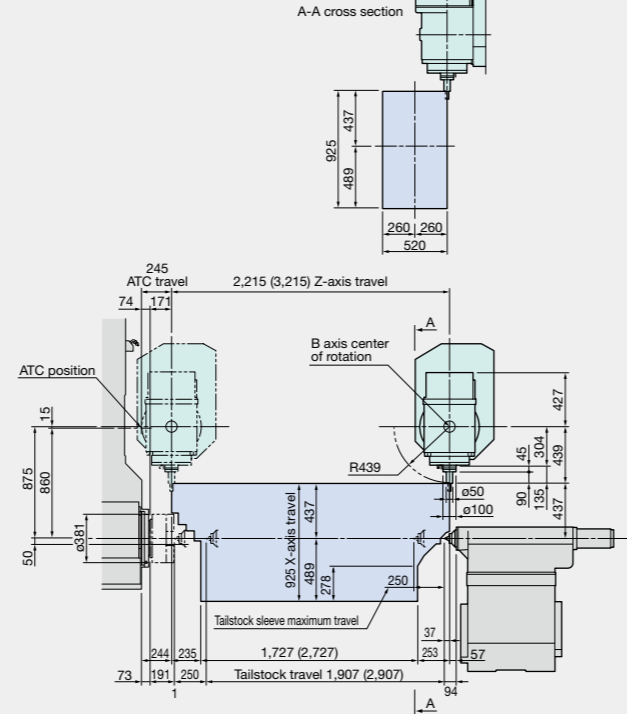
**End mill toolholder, B axis 0°**

Distance between centers: 2,000 (3,000)



**End mill toolholder, B axis 90°**

Distance between centers: 2,000 (3,000)

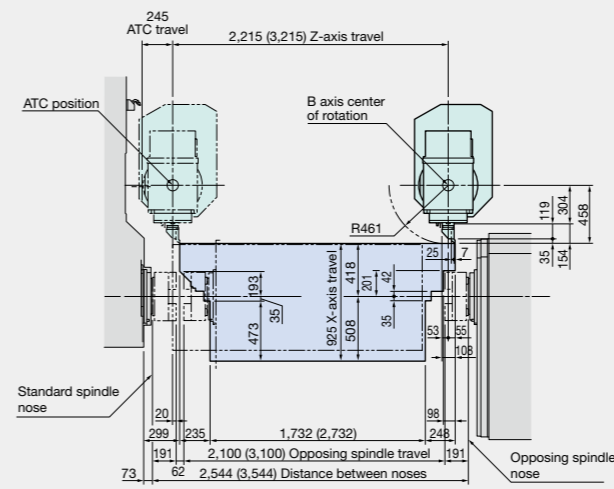


**MULTUS B550 Opposing spindle specs**

Unit: mm

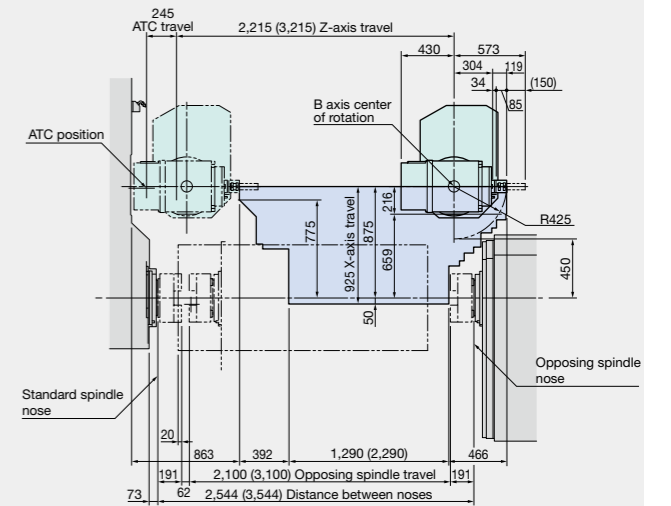
**OD-A, B axis 90°**

Distance between noses: 2,544 (3,544)



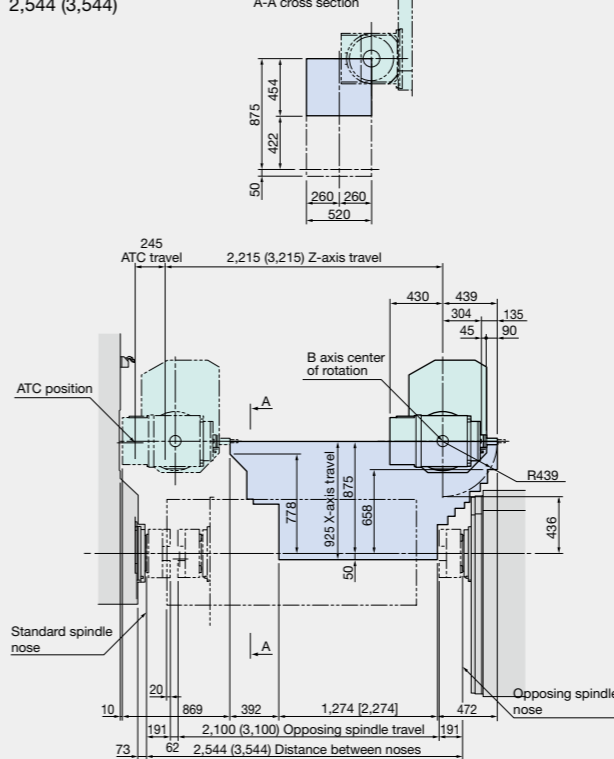
**ID, B axis 180°**

Distance between noses: 2,544 (3,544)



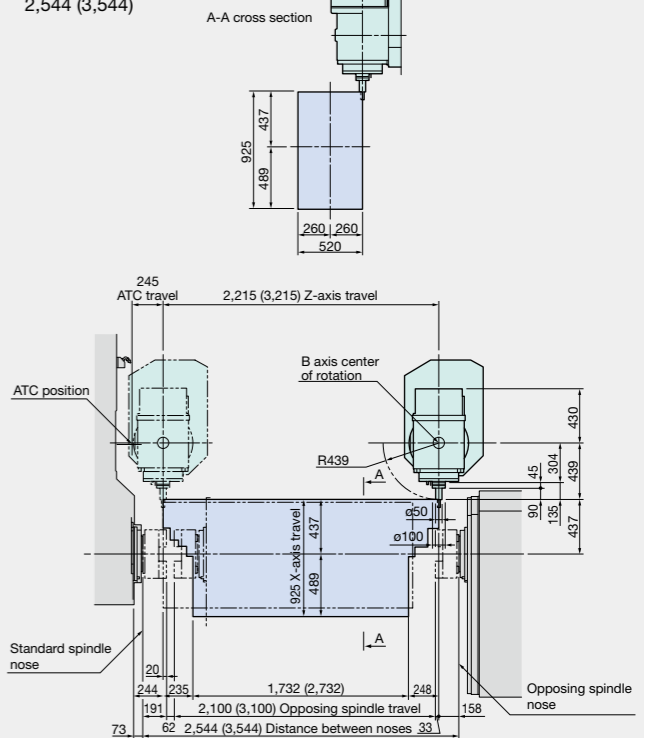
**End mill toolholder, B axis 180°**

Distance between noses: 2,544 (3,544)



**End mill toolholder, B axis 90°**

Distance between noses: 2,544 (3,544)

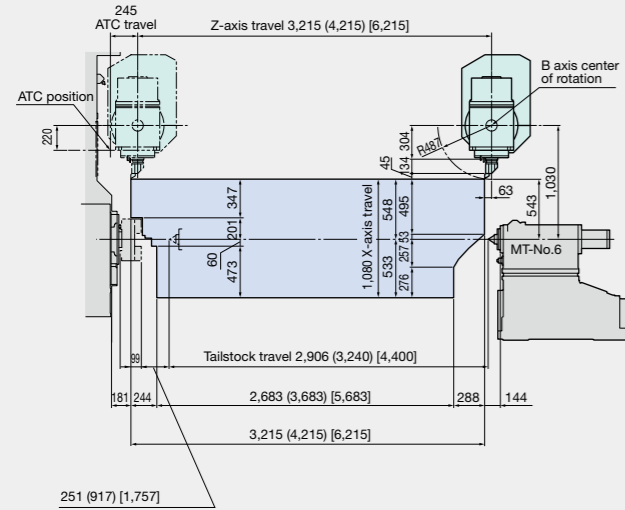


## MULTUS B750 Tailstock Specifications

Unit: mm

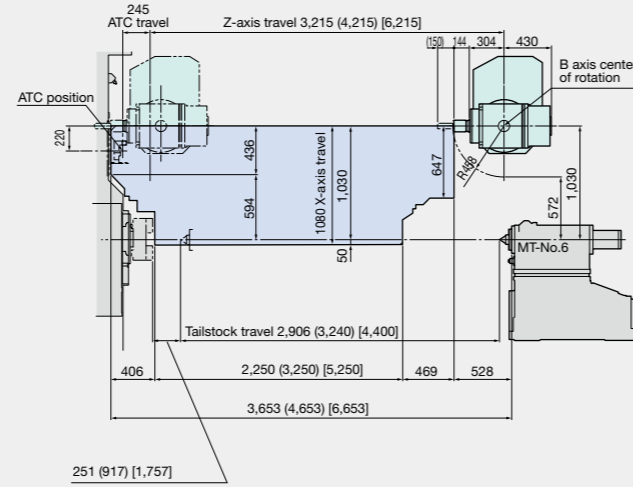
### OD-A, B axis 90°

Distance between centers 3,000 (4,000) [6,000]



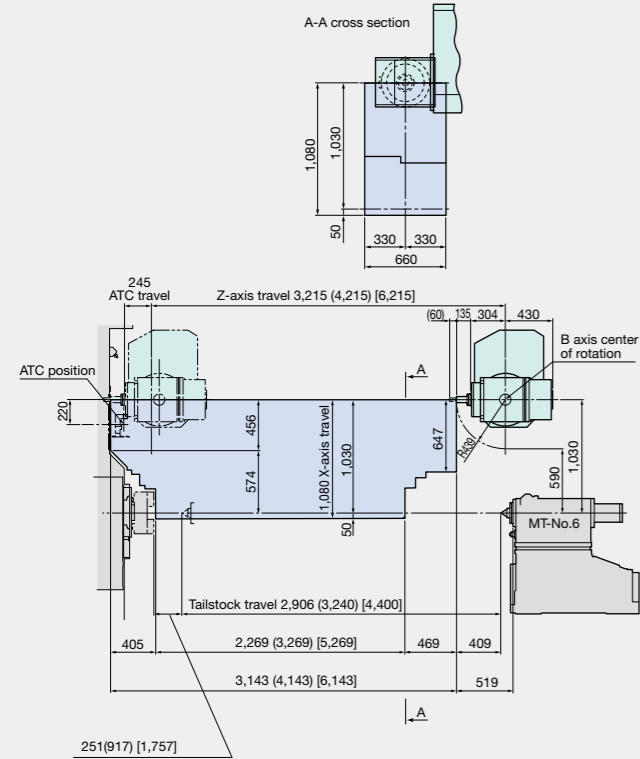
### ID, B axis 0°

Distance between centers 3,000 (4,000) [6,000]



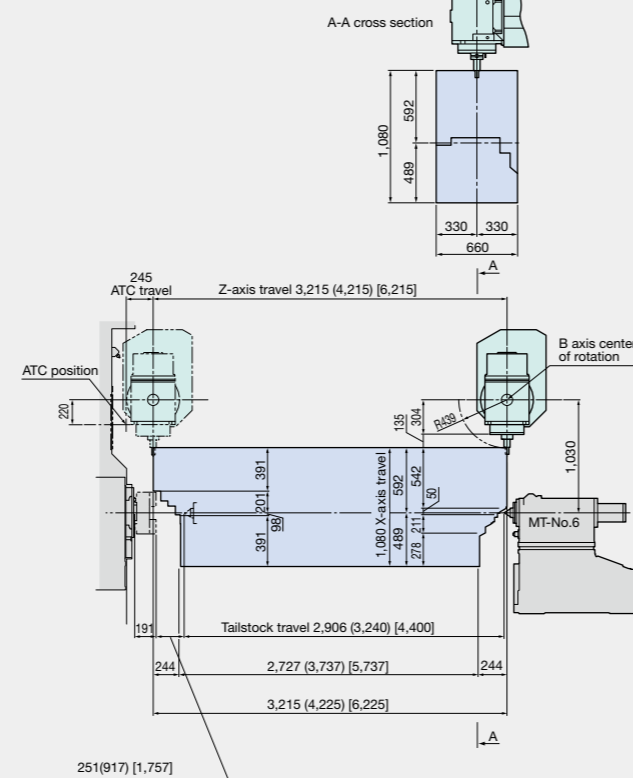
### End mill toolholder, B axis 0°

Distance between centers 3,000 (4,000) [6,000]



### End mill toolholder, B axis 90°

Distance between centers 3,000 (4,000) [6,000]

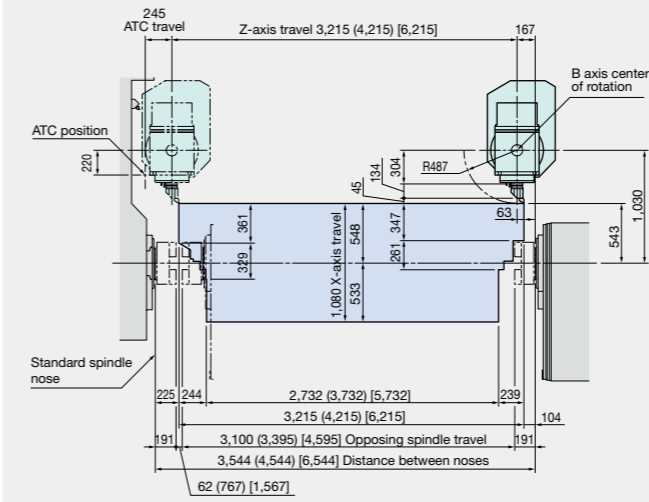


## MULTUS B750 Opposing spindle specs

Unit: mm

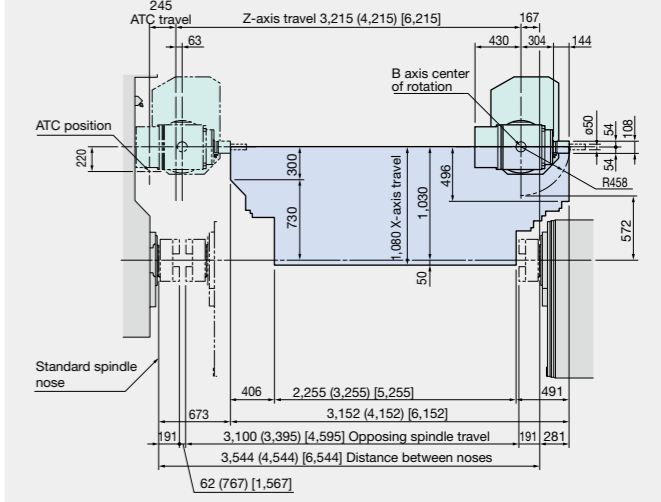
### OD-A, B axis 90°

Distance between noses 3,544 (4,544) [6,544]



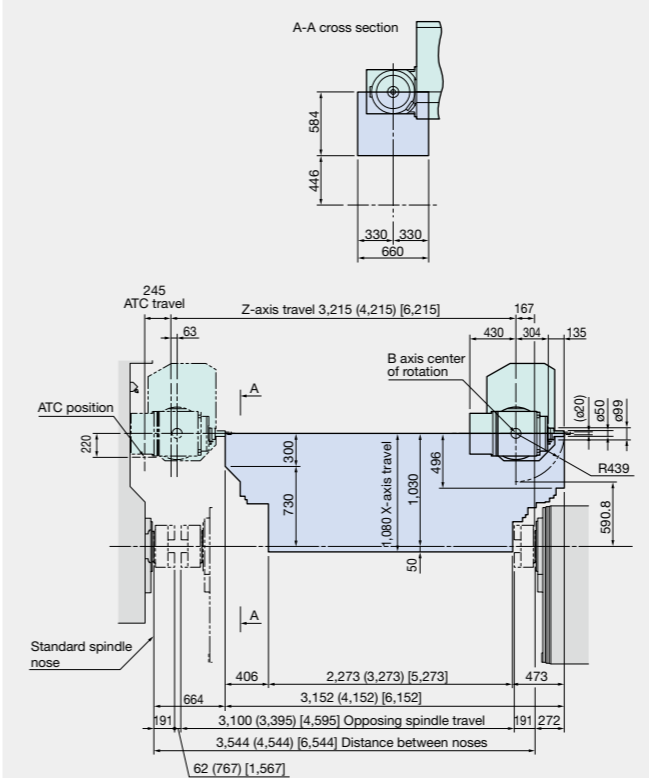
### ID, B axis 180°

Distance between noses 3,544 (4,544) [6,544]



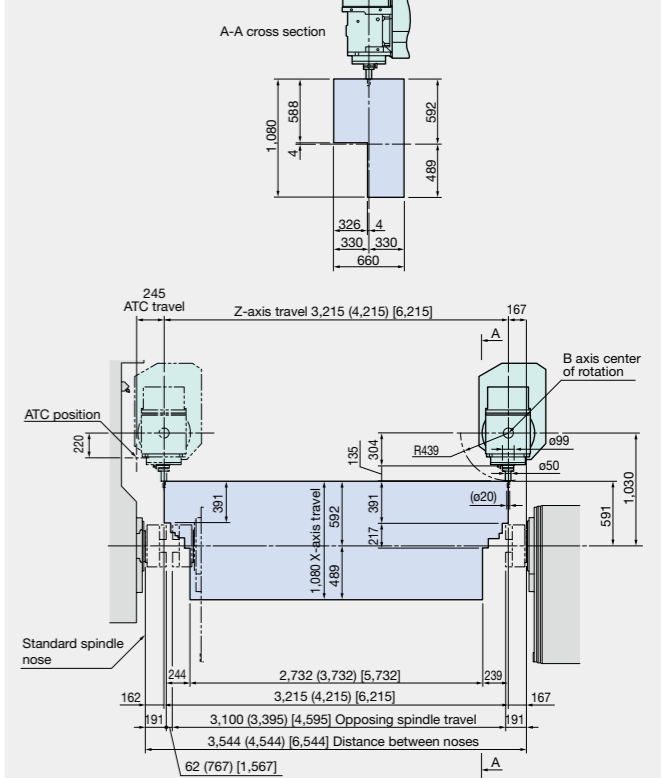
### End mill toolholder, B axis 180°

Distance between noses 3,544 (4,544) [6,544]



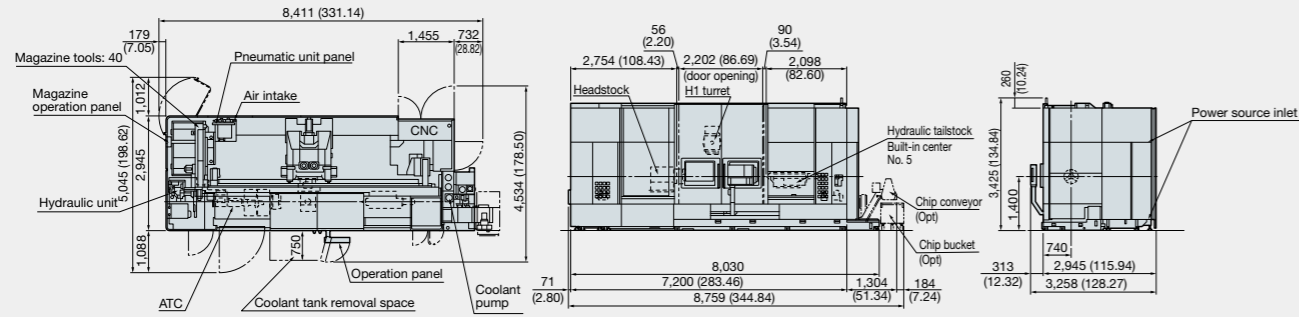
### End mill toolholder, B axis 90°

Distance between noses 3,544 (4,544) [6,544]



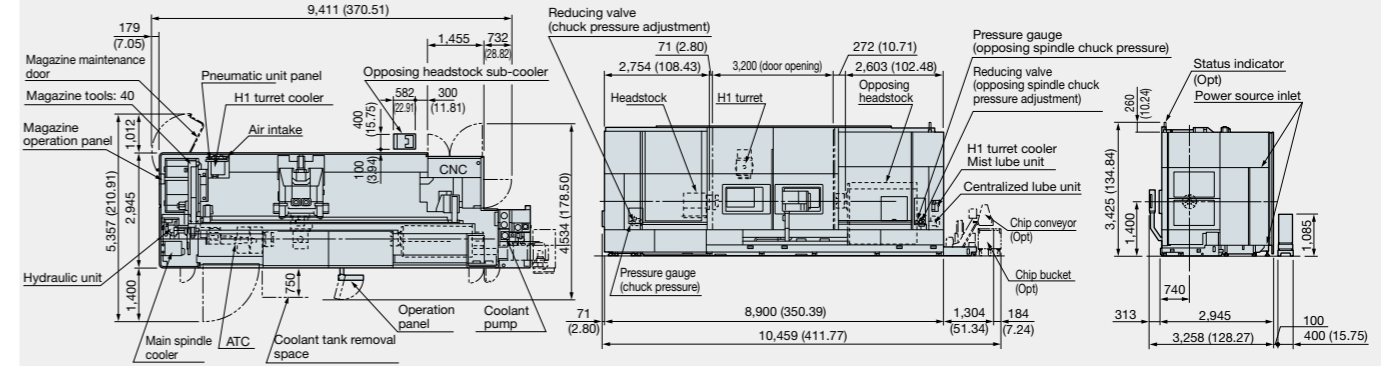
# Dimensional and Installation Drawings

## MULTUS B550 C x 2000



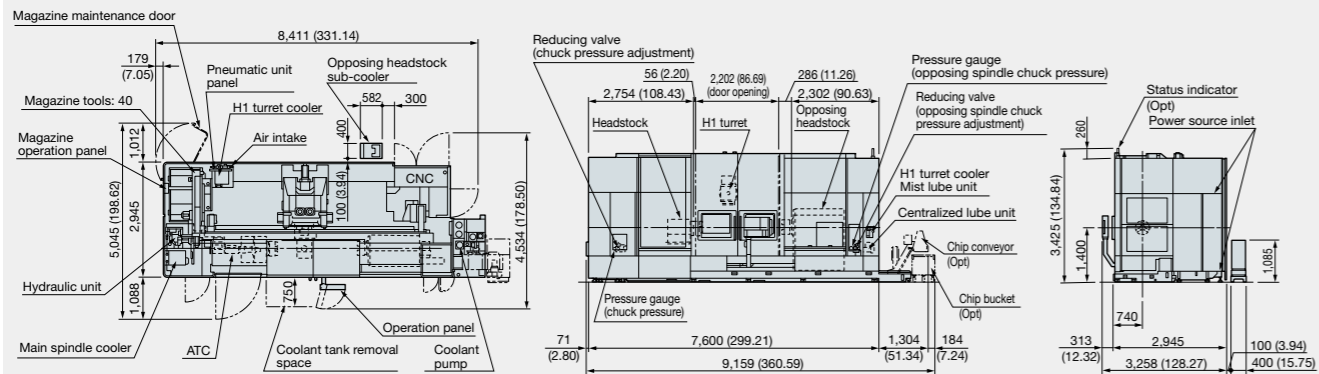
Unit: mm (in.)

## MULTUS B550 W x 3000



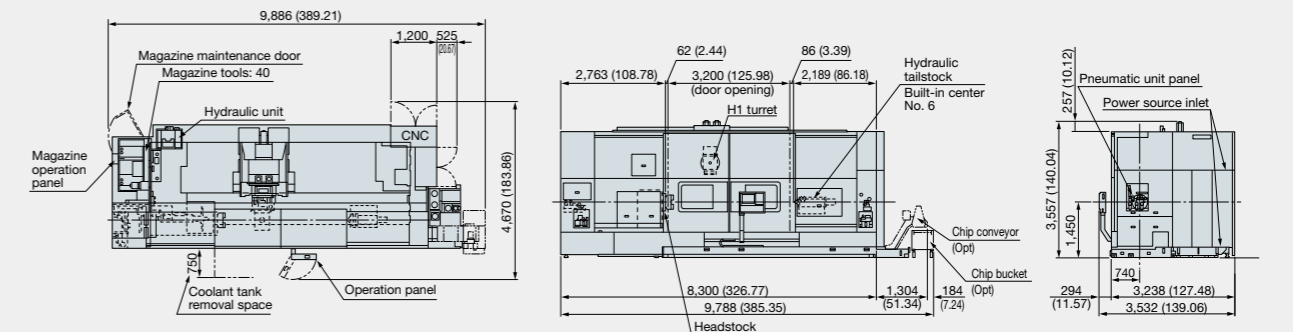
Unit: mm (in.)

## MULTUS B550 W x 2000



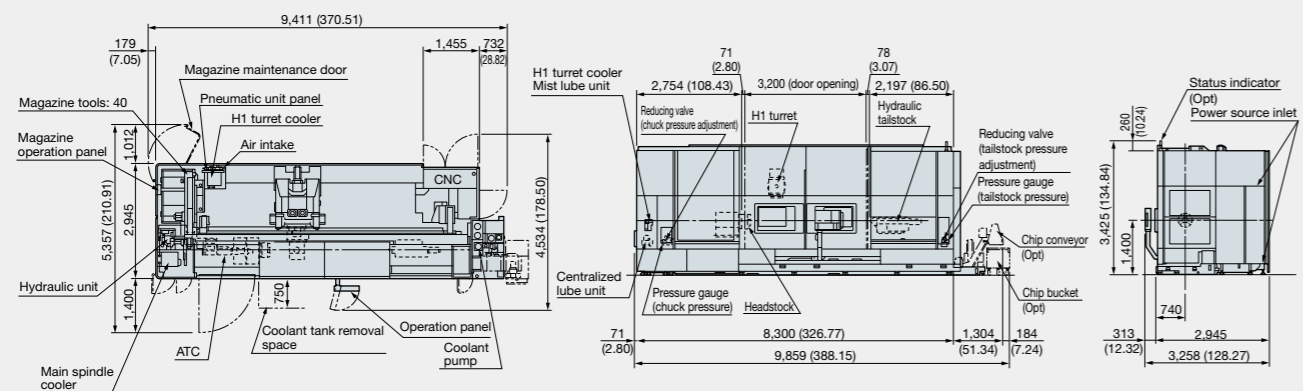
Unit: mm (in.)

## MULTUS B750 C x 3000



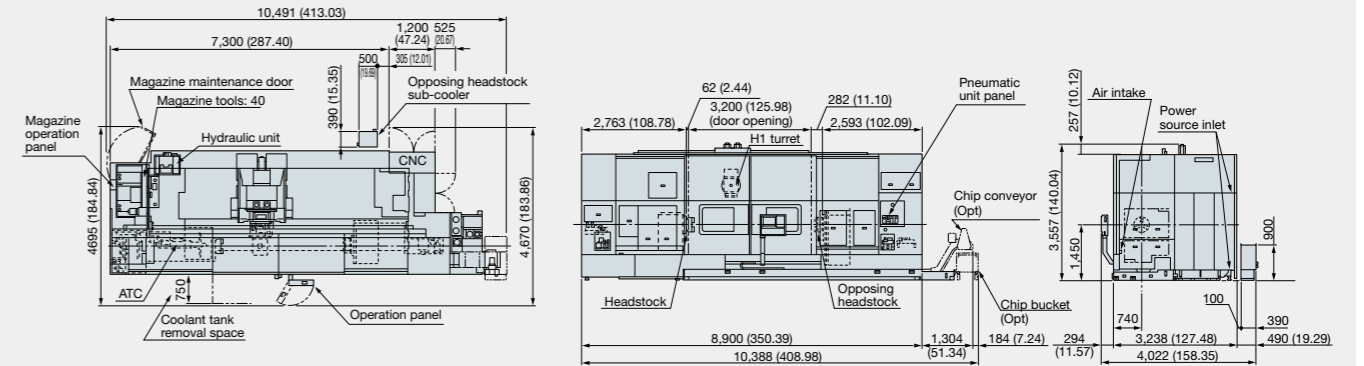
Unit: mm (in.)

## MULTUS B550 C x 3000



Unit: mm (in.)

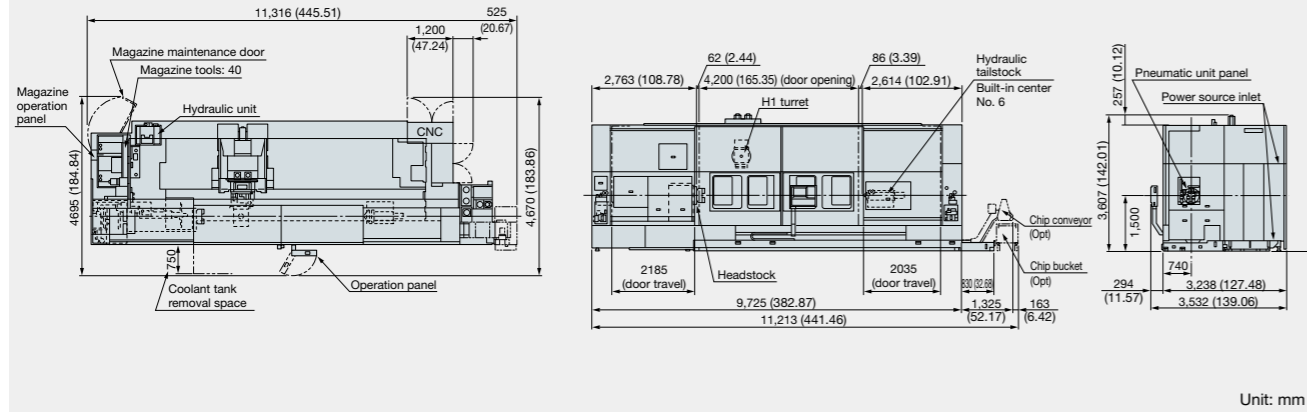
## MULTUS B750 W x 3000



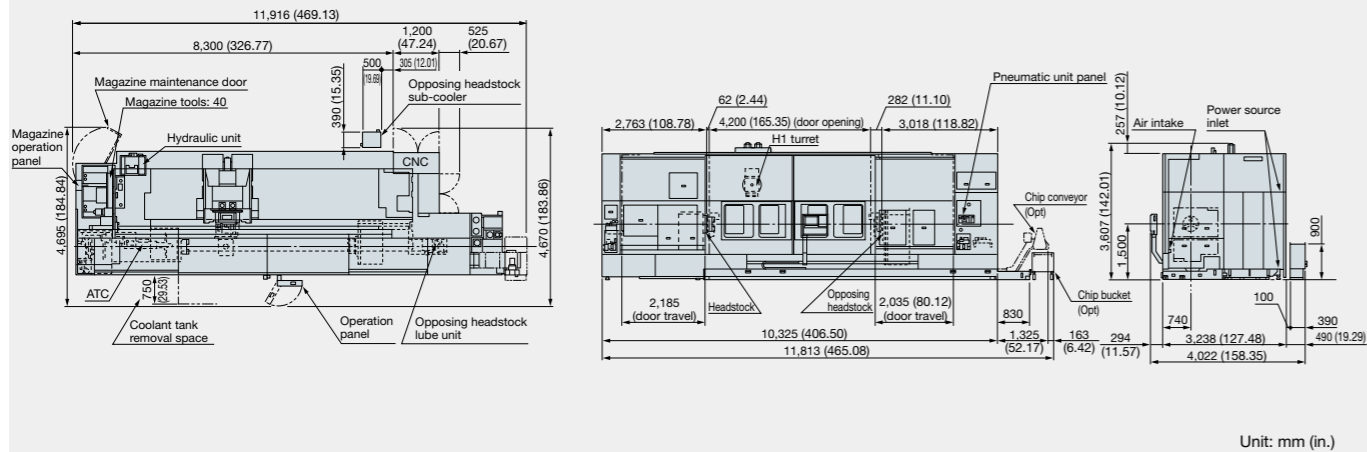
Unit: mm (in.)

## Dimensional and Installation Drawings

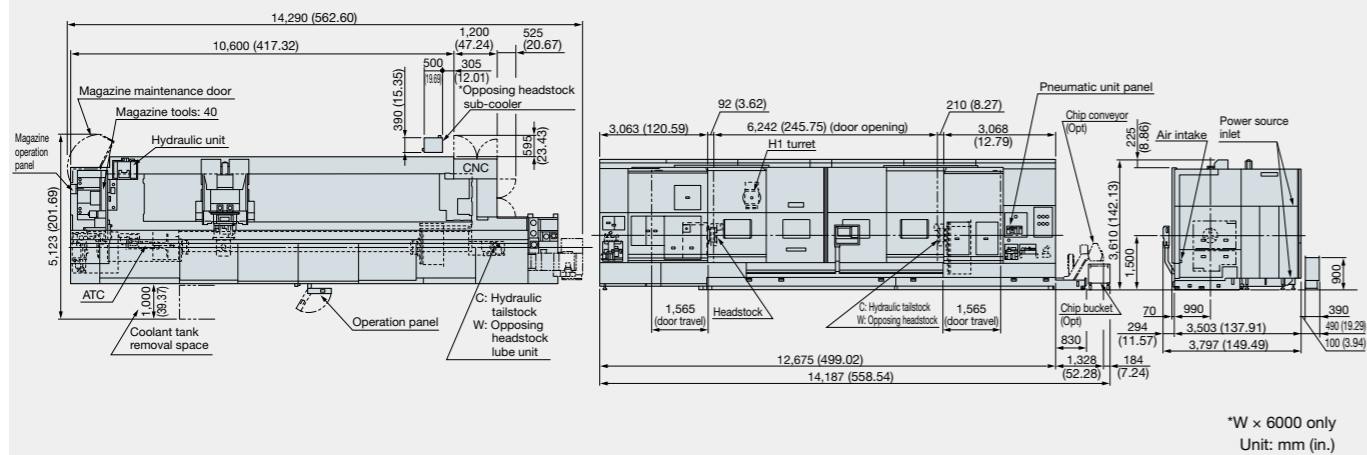
### MULTUS B750 C x 4000



### MULTUS B750 W x 4000



### MULTUS B750 C x 6000, W x 6000



The Next-Generation Intelligent CNC

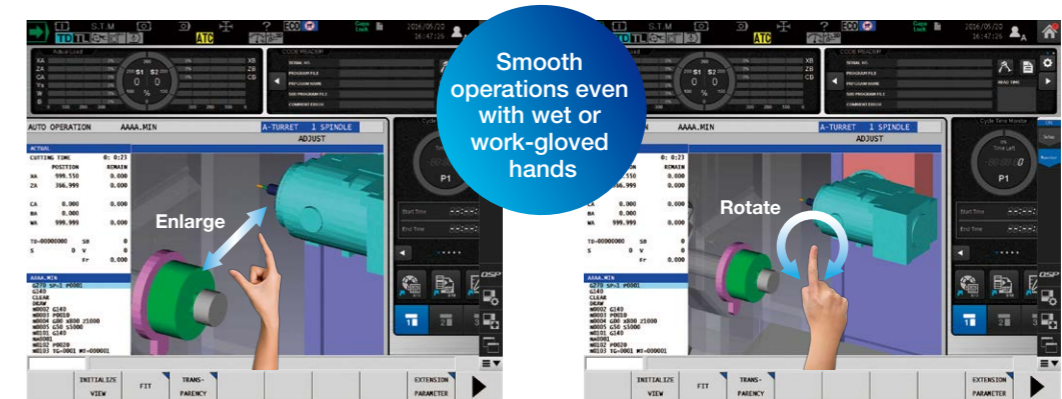
**OSP suite** *OSP-P300SA*

## With revamped operation and responsiveness—ease of use for machine shops first!

Smart factories implement advanced digitization and networking (IoT) in "Monozukuri," (manufacturing) achieving enhanced productivity and added value. The OSP has evolved tremendously as a CNC control suited to advanced intelligent technology. Okuma's new control uses the latest CPUs for a tremendous boost in operability, rendering performance, and processing speed. The OSP Suite also features a full range of useful apps that could only come from a machine tool manufacturer, making smart manufacturing a reality.

## Smooth, comfortable operation with the feeling of using a smart phone

Improved rendering performance and use of a multi-touch panel achieve intuitive graphical operation. Moving, enlarging, reducing, and rotating 3D models, as well as list views of tool data, programs, and other information can be accomplished through smooth, speedy operations with the same feel as using a smart phone.



## "Just what we wanted."— Refreshed OSP suite apps

This became possible through the addition of Okuma's machining expertise based on requests we heard from real, machine-shop customers. The brain power packed into the CNC, built by machine tool manufacturer, will "empower shop floor" management.



Increased productivity through visualization of motor power reserve

### Spindle Output Monitor

The specified spindle output (red line: short time rating, green line: continuous rating) and the spindle output in current cutting (blue circle) are simultaneously displayed on the screen, for real-time view of power reserve during cutting. This allows speeding up cutting by increasing the spindle speed or feed rate while monitoring the graph to ensure that the blue circle does not cross the lines.



Easy programing without keying in code

### Scheduled Program Editor



Monitoring utilization status even when away from the machine

### E-mail Notification

## Standard Specifications

Control	
5-axis machining	Multitasking X-Y-Z-B-C simultaneous: 5 axes
Spindle axis	Max 4 axes (= 2 axes + 2 rotary tool axes)
Position feedback	OSP full range absolute position detection
No. of control systems	Max 4 systems (= 2 spindles + 2 turrets)
2-spindle independent control	Each spindle executes an independent part program
Y axis control	X-Y-Z simultaneous 3 axes, orthogonal Y axis
Override structure	Spindle override 50 to 200%
	Milling tool override 30% to 200% (max 300% possible)
	Feed override 0 to 200%
Programmable units	0.0001 mm, 0.001 mm, 0.01 mm, 1 mm, 0.0001°, 0.001°, 0.01°, 1°
Min input	0.0001 mm, 0.0001°
Max input	Decimal 9 digits, ±99999.9999 mm

Display/Operating functions	
Suite operation	Shop floor suitable; pointing device not required
Suite apps	Instruction manual viewer
	Maintenance application
Operation panel	15-inch liquid crystal display
	Multi touch panel operations
Program editing	Simultaneous edit 2 files in 1 screen
	Selected part program edit
	A/B turret simultaneous editing (2 turret specs)
	Selected range copy, paste, delete
	Adds files
	Moves edit pointer (designates top, end and number of lines)
File name index display	2 file name indexes displayed in 1 screen
	Sorting (by file names, date and size)
	Program editing exceeds editing backup capacity
Programming operations	Copies, renames, deletes, protects and verifies programs
	Memory initializing, formatting
	Memory available display (pie graph)
	Multi-level directory
Scheduled programs	Run several programs in a sequence
Sequence number search	Machine from the specified sequence no.
Manual interrupt, auto return	After manual operations, auto mode restarted from interrupted position
Sequence return	Return to specified sequence, auto restart from returned point
PLC monitor	Supports maintenance work after machine shutdown Ladder display, data trace, etc
Parameter I/O	Parameter file input/output, verify

Easy Operation	
Single-mode operation	Series of tasks completed on a single screen
Tool information management	Integrated management of collective tool data for each tool no.
	Setup data shared between machining operation, Advanced One-Touch IGF (Optional), and Collision Avoidance System
	Multiple tool management for each turret station
Setup data save	Setup data saved together with machining program
Soft jaw machining	Automatic machining of soft jaws with set shape, tools, and conditions
Easy zero setting	Auto calculation of zero point offset from jaw and workpiece length
ServoNav	Inertia auto setting
Tool position compensation	Dimensional errors corrected with cutting conditions
Tool command (TD command)	Tool orientation, tool comp command based on tool information
Machine operation panel	Clear, straightforward machine operation

Programming	
Basic interpolation	Linear/circular interpolation
Tool compensation	No. of registered tools: Max. 1,000 sets
	Tool offset, tool edge R, amount of wear: 20 sets per tool
Nose-radius comp (2B)	Auto correct of tool nose error (No. of comp sets same as tool comp)
Tool wear compensation	Blade tip position compensation due to tool wear amount (No. of comp sets same as tool comp)
Automatic programming (LAP4)	From roughing to finishing Generates cutting paths according to material shape
Taper fixed cycles	Taper machining with 4 patterns: ID, OD/longitudinal, axial face
mm/min programming	Combined mm/rev & mm/min feed rates
Chamfering, corner R	Chamfering, corner R instructions on drawing commanded in program
Arbitrary angle chamfering	Easy any-angle chamfering (C, R)
Taper angle designate	With command for angle from starting point

Threading	Lead thread ridge designate, variable lead thread Chamfering while threading, threading cycle
Threading slide hold	Temporary stop during threading, excluding G34/G35
User Task 1	GOTO IF statements, arithmetic operations
	Local variables, system variables
	Common variables (Standard: 200 sets)
User Task 2	Sub-programs, functional operation, logical operation
Zero shift	Zero offset calculation, and shift according to G code

Milling programming (milling applications only)	
Hole drilling fixed cycles	Drilling, boring and tapping
	Fine boring, back boring
	Deep bore drill cycle gradually decreasing movement
Synchronized tapping	High speed, high accuracy tapping with synchronized control of rotation angle and feed axis position
	Synchronized tapping torque monitor
	Synchronized deep bore tapping
C-axis synchronized control	Cutting with C axis on both main and opposing spindles

Programming capacities	
Program storage capacity	4 GB
Operation backup capacity	2 MB

Machining management (data aggregates, displays)	
Machining records	Of machining status per selected main program
Operating records	Machine operating times (power ON, cutting, etc) Input of reasons for non-operation
Operating history	Time charts of machine operating status
Trouble information	Auto totaling of data required for troubleshooting (alarm history, etc)
Records, trouble information output	Machining, operating, operating history, trouble info

Monitoring	
Collision Avoidance System	Prevents interference during manual operation
	Prevents interference during auto operation
	Easy modeling of shape data New path assurance: Prevents interference due to sagging paths
Load meter display	Feed and spindle axis loads (With peak value hold)
Chuck barrier	Set up tool off-limit area depending on chuck shape
Tailstock spindle barrier	Set up tool off-limit area depending on tailstock shape
User regular maintenance	Management of maintenance period with respect to any item

External input/output and networking	
Ethernet interface	Ethernet (1000 Mbps)
USB interface	USB 2.0 interface 2 ch
DNC-T1	Ethernet part program transfers

High-speed/high-accuracy functions	
Hi-G control	Positioning acceleration/deceleration conforming to motor's speed/torque characteristics
Rapid traverse droop	Droop control at feedrate command
Lost motion compensation	Dead zone, elastic deformation compensation during travel direction reversal
Pitch error compensation	Compensates for ball screw pitch error
TAS-S/H1 (spindle)	Thermal deformation from heat generated during milling tool spindle rotation is compensated
TAS-C (construction)	Corrects thermal deformation error generated during shop temperature changes affecting machine construction

Pocket manual functions (online help)	
Programming help	Explains part program G, M codes, cycle commands, etc
Operation help	Screen menu functions explained Menu selected operation procedures explained
Alarm help	Alarm causes and remedies explained

Energy saving ECO suite	
ECO Idling Stop	Accuracy remains stable with cooler idling stop
ECO Power Monitor	Visualization of power usage

Other functions	
Tool compensation function for multi control system	Management of compensation for base, vertical and L-tool index position (when using a turret with B axis control or tool index)

\* Ethernet is a registered trademark of Xerox Corp., USA.

## Ergonomically-based, operator-friendly operation panel (Optional)

### Large 19-inch monitor

Large, easy-to-use 19-inch monitor available. "Single-screen operation," which lets you see and do all you want on a single operation screen, has even greater visibility with larger monitor.

### Adjustable-tilt keyboard

The keyboard angle can be adjusted for ease of use, and reduced work-related stress on the operator.

- Four tilt angle positions from 0° to 45°

### OSP suite is even more convenient with large screen

Greater amounts of information on screen makes OSP suite even easier to use.



Ergonomic control panel (Optional)

· 19" display · Adjustable-tilt keyboard

\* Standard in certain markets.

## Optional Specifications

Optional	Kit spec * 1	NML		3D		AOT-M	
		E	D	E	D	E	D
<b>Interactive Programming</b>							
Advanced One-Touch IGF-L Multitasking (w/Real 3D)							
<b>Programming</b>							
Circular threading							
Program notes							
User task 2 I/O variables, 8 each							
Work coordinate system select	10 sets						
	50 sets						
	100 sets						
1,000 common variables (200 is standard)							
Thread matching							
Threading slide hold (G34, G35)							
Variable spindle speed threading (VSST)							
Inverse time feed							
Spindle synchronized tapping							
Coordinate convert							
Profile generate							
Flat turning							
Coordinate calculation (with NCYL commands)							
Coordinate shifting, rotation, copying							
Helical cutting							
Slope machining							
Profile helical cutting							
Hobbing							
Multi-flute cutter function							
3-dimensional coordinate conversion							
<b>Monitoring</b>							
Real 3-D simulation							
Cycle time over check							
Load monitor (spindle, feed axis)							
Load monitor no-load detection (load monitor ordered)							
Machine Status Logger							
Tool life management							
Tool life prior notice							
Operation end buzzer							
Work counters	Count only						
	Cycle stop						
	Start disabled						
Hour meters	Power ON						
	Spindle rotation						
	NC operating						
NC operation monitor (counter, totaling)							
NC work counter (Stops at full count with alarm)							
Status indicator (3-color C type) [A type, B type]							
<b>Measuring</b>							
In-process work gauging							
Z-axis automatic zero offset by touch sensor							
C-axis automatic zero offset by touch sensor							
Y-axis gauging							
Gauge data output	File output						
	Quantitative compensation (five level, seven level)						
Post-process work gauging interface	BCD						
	RS-232-C (w/dedicated channel)						
	Touch setter [M, A]						

\*1. NML: Normal, 3D: Real 3D simulation, E: Economy, D: Deluxe, AOT-M: Advanced One-Touch IGF-L Multitasking

\*2. Engineering discussions required.

Optional	Kit spec	NML		3D		AOT-M	
		E	D	E	D	E	D
<b>Energy saving ECO suite</b>							
ECO operation	Chip conveyor intermittent/linked operation						
	Mist collector intermittent/linked operation						
	Spindle power peak cutting						
<b>External Input/Output and Communication Functions</b>							
RS-232-C connector							
DNC links	DNC-T3						
	DNC-C / Ethernet *2						
	DNC-DT						
	FL-Net *2						
USB	2 additional ports possible						
<b>Automation / Untended Operation</b>							
Auto power shutoff M02, alarm							
Warmup function (by calendar timer)							
Tool retract cycle							
External program selections	A (pushbutton), 8 types						
	B (rotary switch), 8 stages						
	C1 (digital switch), 2-digit BCD						
	C2 (external input), 4-digit BCD						
Okuma loader (OGL) interfaces							
Third party robot and loader interface *2	TYPE B (machine)						
	TYPE C (robot and loader)						
	TYPE D						
	TYPE E						
Bar feeders	Bar feeder						
	Interface only						
Cycle time reduction*2	Operation time reduction						
<b>High-Speed/High-Accuracy Functions</b>							
NC-B axis							
Simultaneous 5-axis kit	Super-NURBS						
	Tool center point control II						
	Inverse time feed						
	DNC-DT						
	Tool posture command						
Hi-Cut Pro	3-dimensional coordinate conversion						
	Helical cutting						
	Slope machining						
Super-NURBS	Linear axes						
	Linear and rotational axes						
<b>Other Functions</b>							
One-Touch Spreadsheet							
Gear Machining Package							
Machining Navi [M-gII+, M-i]							
Machining Navi [L-g, T-g threading]							
Harmonic spindle speed control (HSSC)							
Spindle dead-slow cutting							
Tool center point control II							
Tool tilt command							
Synchronized C-axis control							
Y-axis alignment compensation							
Short circuit breaker							
External M signals [2 sets, 4 sets, 8 sets, ( )]							
Edit interlock							
OSP-VPS (Virus Protection System)							
19-in. display ergonomic control panel							

When using Okuma products, always read the safety precautions mentioned in the instruction manual and attached to the product.

●The specifications, illustrations, and descriptions in this brochure vary in different markets and are subject to change without notice.  
Pub.No. MULTUS B550/750-E-(6a)-200 (Dec 2018)



**OKUMA Corporation**

Oguchi-cho, Niwa-gun,  
Aichi 480-0193, Japan  
TEL: +81-587-95-7825 FAX: +81-587-95-6074

---

This product is subject to the Japanese government Foreign Exchange and Foreign Trade Control Act with regard to security controlled items; whereby Okuma Corporation should be notified prior to its shipment to another country.