

LU7000EX

SIMUL TURN

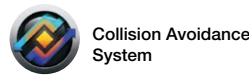
2-Saddle CNC Lathe



LU7000EX

SIMUL TURN

2-Saddle CNC Lathe



Best-in-class cutting capacity and workpiece load carrying capacity

With a large through-hole diameter of $\varnothing 560$ mm and a maximum turning diameter of $\varnothing 900$ mm, powerful heavy-duty machining is done with ease. The LU7000 EX has upper and lower turrets that can provide simultaneous cuts for highly efficient production in large component applications.

The high-performance of this two-saddle lathe includes process-intensive turning and milling. In addition to the strong lineup of spindle variations, power milling and long boring-bar specs are ready to improve productivity for the big workpieces.



SIMUL TURN LU7000EX (MY)



SIMUL TURN LU7000EX (M)

Photographs used in this brochure may show optional equipment.



How to innovate and be productive with heavy-industry applications

Meet the thoroughly redesigned, new and big smart machine with large working range, powerful turning, and process-intensive milling. For those heavy-industry, hard-to-cut jobs, Okuma offers a state-of-the-art workhorse to deliver the extra productivity you need today.

Applicable workpieces

The LU7000 EX is an excellent choice for oil well casings like this and the large components used in construction, shipbuilding, and other industries.



An oil-and-gas component (steel pipe)

Higher productivity for power machining

At 10 mm² turning, heavy-duty cutting is delivered with satisfying power. An option for the upper turret is power milling (15 kW, 190 N-m max torque) to achieve shorter cycle times for the large workpieces too.

For a wide range of machining requirements

The maximum machining size is ø900 mm. In addition to the huge work envelope, a wealth of spec extensions are available for a wide range of machining requirements.

Upper/lower turrets deliver superb productivity

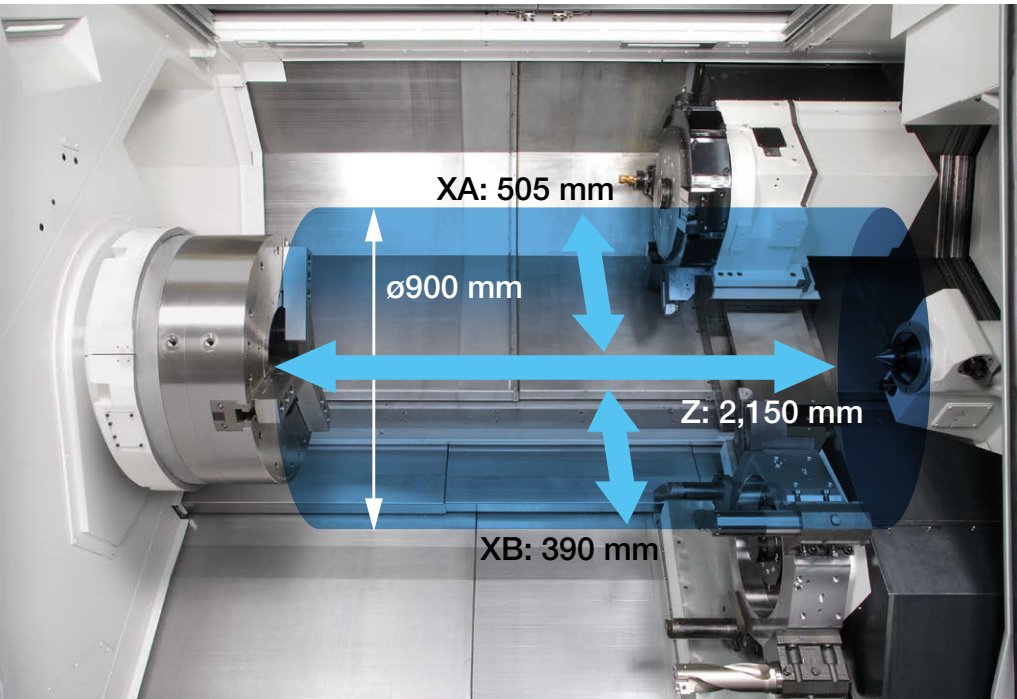
With highly efficient, simultaneous upper/lower turret applications, cycle times are minimized. Highly rigid wide lower turrets are available for even higher productivity. The upper/lower turrets move faster, so non-cutting times become even shorter.



For a wide range of machining requirements

Plenty of travel even for parts with extra large diameters and lengths

Largest-in-class cutting diameter (upper: ø900 mm, lower: ø670 mm), swing dia of ø1200 mm.
With a large work envelope to handle a wide range of applications.



Heavy cutting: 10 mm² (1,500 cm³/min) (Workpiece: S45C)

Turning, OD	● Upper turret
	Heavy cuts 10 mm ² (1,500 cm ³ /min)
	Cut speed 150 m/min
	Depth 10 mm
	Feed 1.0 mm/rev
Turning, drilling	● Lower turret
	Heavy cuts 8 mm ² (1,200 cm ³ /min)
	Cut speed 150 m/min
	Depth 10 mm
	Feed 0.8 mm/rev
	● Upper/lower turrets
	ø80 mm carbide throw-away drill
	Cut speed 126 m/min Feed 0.2 mm/rev

Faster operations for shorter non-cutting times

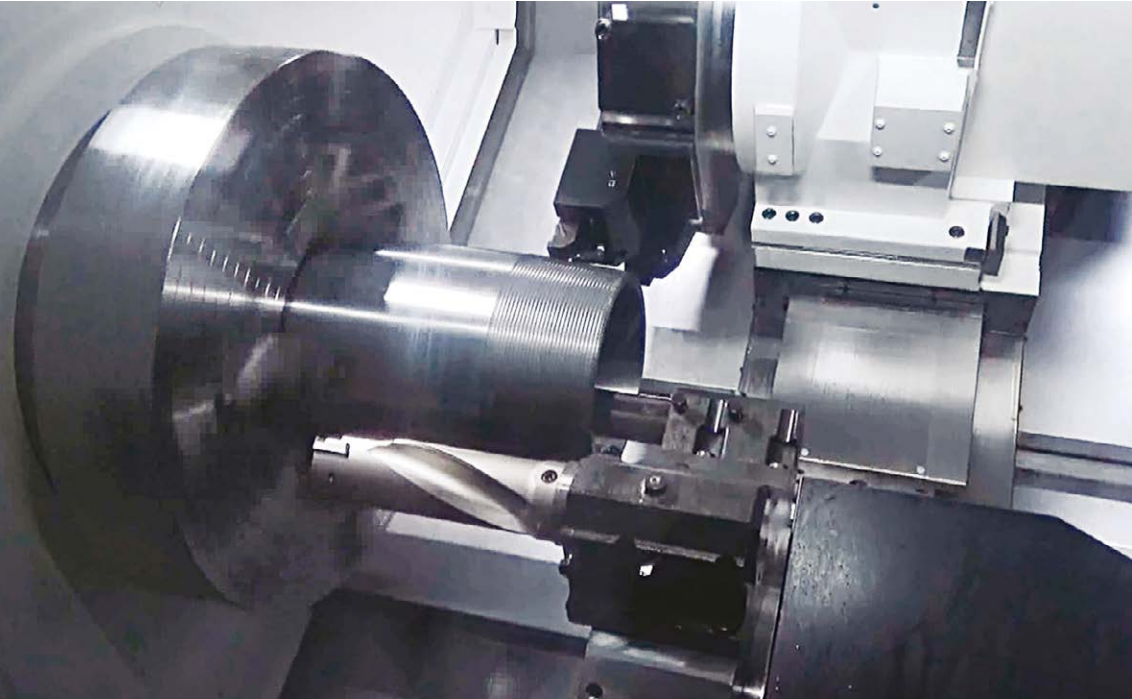
■ Rapids:	X-axis 20 m/min
	Z-axis 20 m/min
■ Turret indexing:	Upper 0.6 sec/index
	(rotation only) Lower 0.4 sec/index

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.

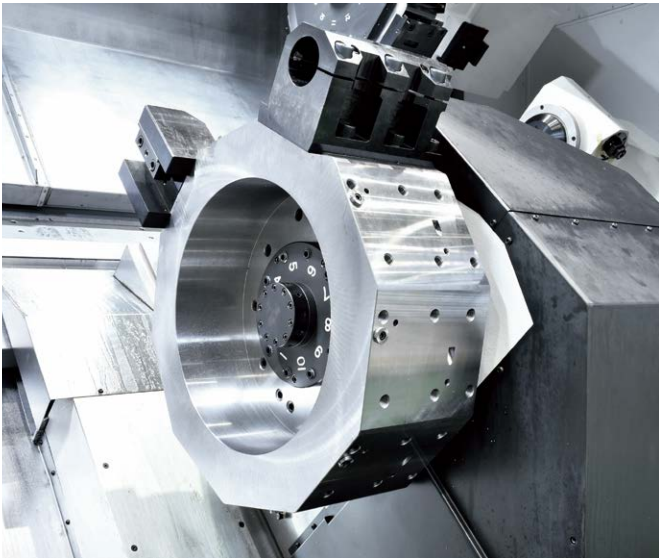
An innovation in 2-saddle machining

Simultaneous ID/OD cutting

Highly efficient turning with simultaneous outer diameter threading and internal diameter boring is made possible by using the upper and lower turrets with simultaneous 4-axis control.
The benefit of course is shorter cycle times for big pipes and other large components.



Wide lower turret with more rigidity (Optional)

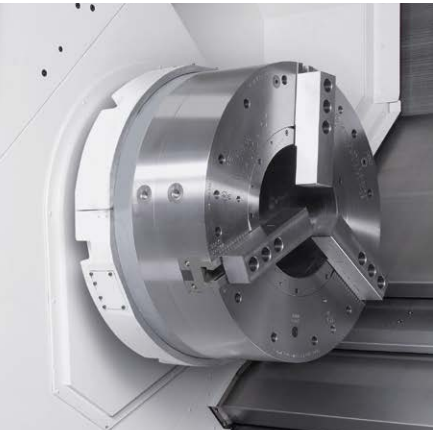


Highly rigid tailstock

The tailstock features a large diameter in its sturdy design. With high thrust, workpieces are firmly supported for steady, heavy-duty jobs. Moreover, the self-traveling feature (Optional) lightens operator work loads and drastically shorten setup times.



Higher productivity for power machining



Plenty of spindle variations

In four different sizes designed to fit a wide range of applications.

Spindle Size	B08	B12	B15	B22
Max spindle speed min ⁻¹	1,500	750	500	350
Spindle nose type	A2-15	A2-20	A2-20	ø725 flat
Spindle bore dia mm	ø200	ø320	ø375	ø560
Spindle bearing dia mm	ø280	ø440	ø480	ø700
Spindle motor (30 min/cont) kW	45/37 55/45 (Optional) 75/60 (Optional)	55/45 75/60 (Optional)	45/37 55/45 (Optional) 75/60 (Optional)	

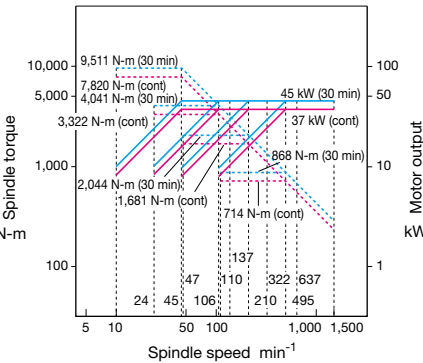
Spindle Output / Torque Diagram

● B08 ø280 spindle

Spindle speed: 1,500 min⁻¹

Max output: 45/37 kW (30 min/cont)

Max torque: 9,511/7,820 N-m (30 min/cont)

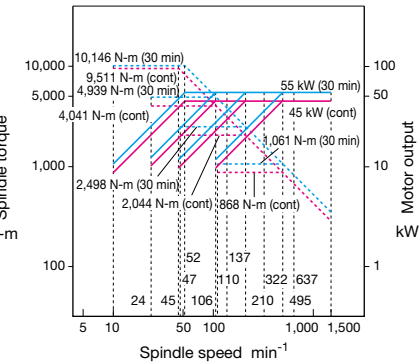


● B08 ø280 spindle

Spindle speed: 1,500 min⁻¹

Max output: 55/45 kW (30 min/cont)

Max torque: 10,146/9,511 N-m (30 min/cont)

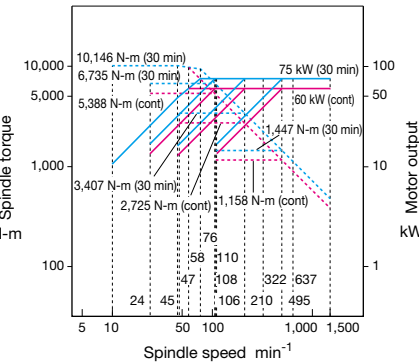


● B08 ø280 spindle

Spindle speed: 1,500 min⁻¹

Max output: 75/60 kW (30 min/cont)

Max torque: 10,146 N-m (30 min/cont)

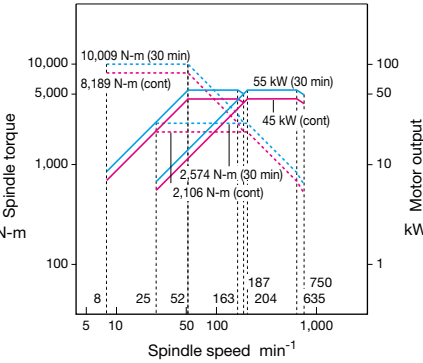


● B12 ø440 spindle

Spindle speed: 750 min⁻¹

Max output: 55/45 kW (30 min/cont)

Max torque: 10,009/8,189 N-m (30 min/cont)

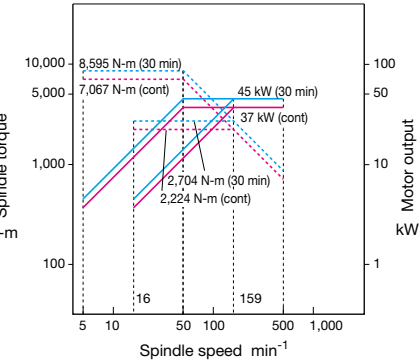


● B15 ø480 spindle

Spindle speed: 500 min⁻¹

Max output: 45/37 kW (30 min/cont)

Max torque: 8,595/7,067 N-m (30 min/cont)

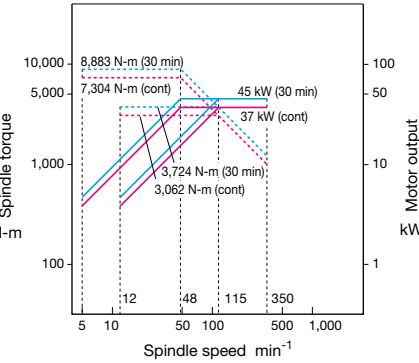


● B22 ø700 spindle

Spindle speed: 350 min⁻¹

Max output: 45/37 kW (30 min/cont)

Max torque: 8,883/7,304 N-m (30 min/cont)



Powerful milling possible on upper turret

(Optional)

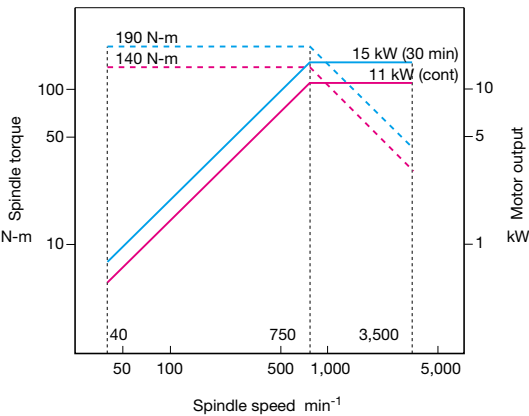
A high-power motor is mounted in the multitasking V12 radial turret. That greatly improves the productivity of multitasking machining.

Milling tool spindle

● Spindle speed: 3,500 min⁻¹

● Max output: 15/11 kW (30 min/cont)

● Max torque: 190/140 N-m (30 min/cont)



MY specifications

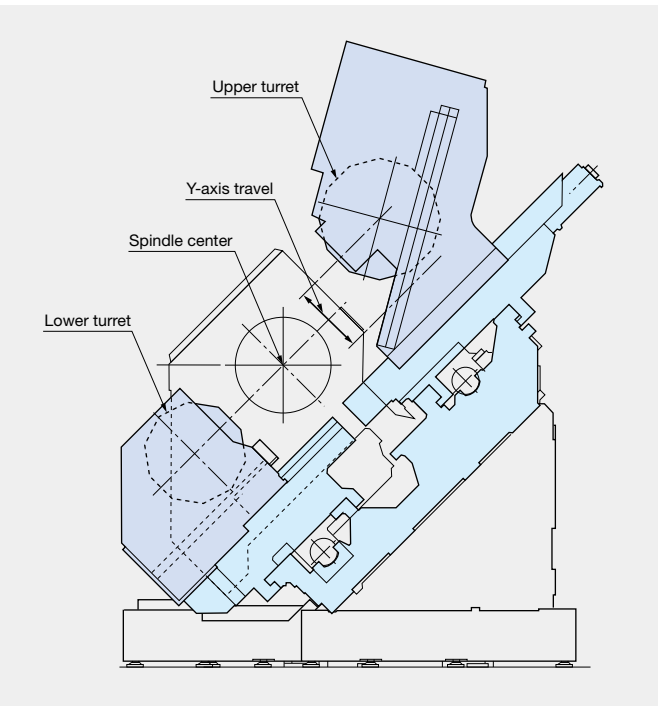
Complex shape process-intensive machining with Y-axis function

Highly accurate Y-axis control of a double slideway system over a wide travel range achieves one-chuck process-intensive machining of complicated shapes.

● Y-axis travel: 200 mm

(+100 to -100)

● Fast Y-axis rapid traverse: 10 m/min

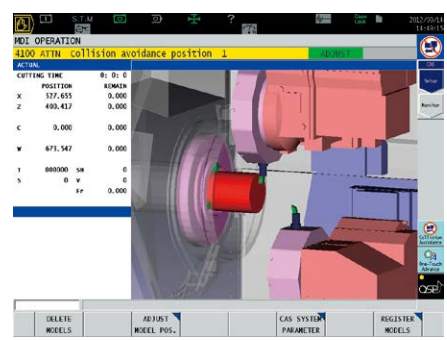


Okuma Intelligent Technologies deliver excellent performance

Collision Avoidance System (Option) Collision prevention

■ Allowing operators to focus on making parts

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.



■ Collision prevention during automatic operation

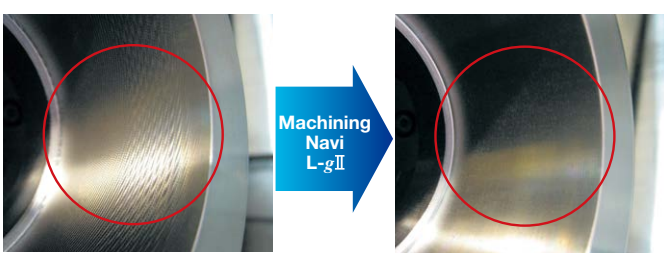
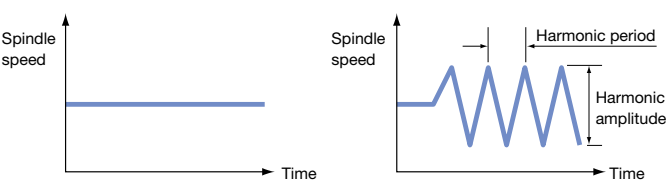
NC program is read in advance and axial travel commands are checked for interference with consideration of zero point and tool compensation values set in NC. Axial travel movement is stopped temporarily before collision occurs.

■ Collision avoidance in manual operation

Especially useful for machine operators setting up a job, collision avoidance in manual mode provides collision-free confidence and faster machining preparations.

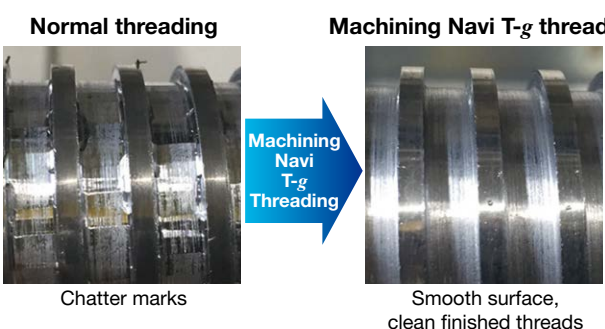
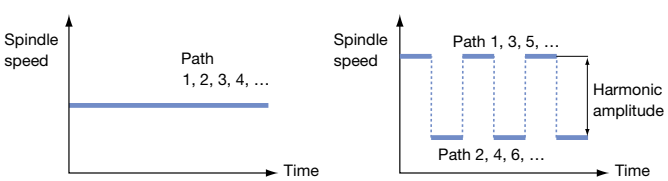
Machining Navi L-gII (Harmonic Spindle Speed Control) (Optional) Cutting condition search for turning

Varying the spindle speed in accordance with the best amplitude and period makes it possible to suppress chatter during turning operations. Tool life can be extended and cycles times reduced with use of the optimum cutting conditions, producing significant effects in deep-hole boring bar, and grooving applications.



Machining Navi T-g Threading (Optional) Cutting condition search in threading

When chattering occurred during threading, it was common to lower the cutting conditions or use special tools that resist chattering. Okuma's Machining Navi T-g (Threading) breaks the vibration periodicity with a different spindle speed for each threading pass, and suppresses chatter growth. The machining capacity of your normally used tools can be maximized for stable machining.



Achieves steady machining with high dimensional stability

Thermo-Friendly Concept Manageable Deformation—Accurately Controlled

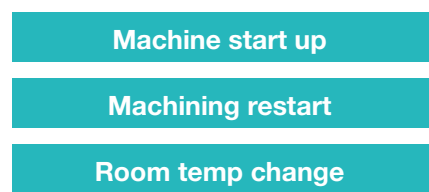
Okuma's Thermo-Friendly is a structurally designed system that provides astonishing machining accuracy. It frees the machinist from troublesome offsets and machine warm-ups—is superb for long runs, multitasking, front/backend work, plus Y-axis applications.

Machining dimensional change over time: $\phi 19 \mu\text{m}$

LU7000 EX turning actual data (8°C ambient temperature change)

■ Fewer tool compensation checks

Compensation due to ambient temperature changes and temporary midday or evening machine stops is performed fewer times thanks to outstanding dimensional stability. This leads to better machine utilization, improving efficiency especially for mass-production machining.



High dimensional stability

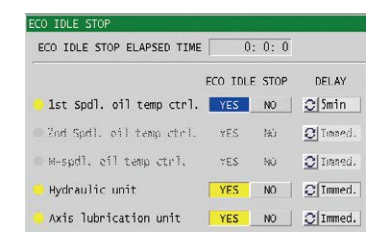
ECO suite Next-Generation Energy-Saving System

A suite of energy saving applications for machine tools

■ ECO Idling Stop

Operation only for the time required for each unit
Idling time can be set by individual unit for the spindle, feed shaft, and peripheral equipment. By reducing the idling time, power consumption can also be reduced.

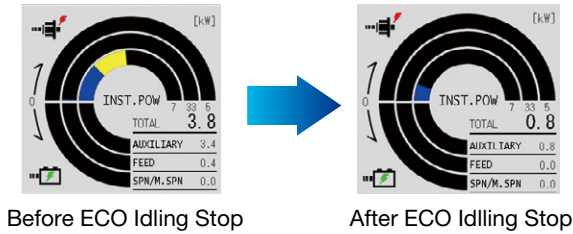
● Example of equipment that can use Idling Stop



■ ECO Power Monitor

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

● Example of Power Monitor check



● ECO Operation (Option)
Intermittent/linked operation of chip conveyor, or mist collector during machining

Machine Specifications

Model		Unit	LU7000 EX (L)		LU7000 EX (M)		LU7000 EX (MY)		
			1SC × 2000	2SC × 2000	1SC × 2000	2SC × 2000	1SC × 2000	2SC × 2000	
Capacity	Swing over bed	mm (in)	ø1,200 (ø47.24)* ¹						
	Swing over saddle	Upper turret	mm (in)	ø770 (ø30.31)					
		Lower turret	mm (in)	—	ø780 (ø30.71)	—	ø780 (ø30.71)	—	ø780 (ø30.71)
	Max turning diameter	Upper turret	mm (in)	ø900 (ø35.43)					
		Lower turret	mm (in)	—	ø670 (ø26.38)	—	ø670 (ø26.38) (L radial)	—	ø670 (ø26.38)
	Max work length	mm (in)	2,000 (78.74)						
	Max workpiece mass (including chuck)	Cantilever support	kg (lb)	B08: 1,850 (4,070) [B12: 4,000 (8,800), B15: 4,000 (8,800), B22: 11,000 (24,200)] (when L/D=1.0* ²) B08: 1,300 (2,860) [B12: 2,900 (6,380), B15: 2,900 (6,380), B22: 8,000 (17,600)] (when L/D=2.5* ²)		B08: 1,850 (4,070) [B12: 4,000 (8,800), B15: 4,000 (8,800)] (when L/D=1.0* ²) B08: 1,300 (2,860) [B12: 2,900 (6,380), B15: 2,900 (6,380)] (when L/D=2.5* ²)		B08: 1,850 (4,070) [B12: 4,000 (8,800), B15: 4,000 (8,800), B22: 11,000 (24,200)] (when L/D=1.0* ²) B08: 1,300 (2,860) [B12: 2,900 (6,380), B15: 2,900 (6,380), B22: 8,000 (17,600)] (when L/D=2.5* ²)	
Double-centered support			kg (lb)	2,600 (5,720)					
Travels	X-axis	Upper turret	mm (in)	505 (19.88)					
		Lower turret	mm (in)	—	390 (15.35)	—	390 (15.35)	—	390 (15.35)
	Z-axis	Upper turret	mm (in)	2,150 (84.65)				2,080 (81.89)	
		Lower turret	mm (in)	—	2,150 (84.65)	—	2,150 (84.65)	—	2,150 (84.65)
	Y-axis	mm (in)	—				200 (100 + 100) (7.87 (3.94 + 3.94))		
	C-axis	deg	—		360° (min control angle 0.001°)				
Spindle	Speed	min ⁻¹	B08: 10 to 1,500 [B12: 8 to 750, B15: 5 to 500, B22: 5 to 350]		B08: 10 to 1,500 [B12: 8 to 750, B15: 5 to 500]		B08: 10 to 1,500 [B12: 8 to 750, B15: 5 to 500, B22: 5 to 350]		
	Speed ranges		B08: Auto 4-speed (4 gears) [B12/B15/B22: Auto 2-speed (2 gears)]		B08: Auto 4-speed (4 gears) [B12/B15: Auto 2-speed (2 gears)]		B08: Auto 4-speed (4 gears) [B12/B15/B22: Auto 2-speed (2 gears)]		
	Spindle torque (30 min/cont)	B08	N-m (ft-lbf)	45 kW: 9,511/ 7,820 (6,993/5,750) [55 kW: 10,146/9,511 (7,460/6,993), 75 kW: 10,146/10,146 (7,460/7,460)]					
		B12	N-m (ft-lbf)	55 kW: 10,009/8,189 (7,360/6,021) [75 kW: 10,919/10,919 (8,029/8,029)]					
		B15	N-m (ft-lbf)	45 kW: 8,595/ 7,067 (6,320/5,196) [55 kW: 10,505/8,595 (7,724/6,320), 75 kW: 10,505/10,505 (7,724/7,724)]					
		B22* ³	N-m (ft-lbf)	45 kW: 8,883/7,304 (6,532/5,371) [55 kW: 10,857/8,883 (7,983/6,532), 75 kW: 11,567/11,567 (8,505/8,505)]				45 kW: 8,883/7,304 (6,532/5,371) [55 kW: 10,857/8,883 (7,983/6,532), 75 kW: 11,567/11,567 (8,505/8,505)]	
	Nose type		B08: JIS A2-15 [B12: JIS A2-20, B15: JIS A2-20, B22: ø725 flat]		B08: JIS A2-15 [B12: JIS A2-20, B15: JIS A2-20]		B08: JIS A2-15 [B12: JIS A2-20, B15: JIS A2-20, B22: ø725 flat]		
	Bore dia	mm (in)	B08: ø200 (ø7.87) [B12: ø320 (ø12.60), B15: ø375 (ø14.76), B22: ø560 (ø22.05)]		B08: ø200 (ø7.87) [B12: ø320 (ø12.60), B15: ø375 (ø14.76)]		B08: ø200 (ø7.87) [B12: ø320 (ø12.60), B15: ø375 (ø14.76), B22: ø560 (ø22.05)]		
Front bearing dia	mm (in)	B08: ø280 (ø11.02) [B12: ø440 (ø17.32), B15: ø480 (ø18.90), B22: ø700 (ø27.56)]		B08: ø280 (ø11.02) [B12: ø440 (ø17.32), B15: ø480 (ø18.90)]		B08: ø280 (ø11.02) [B12: ø440 (ø17.32), B15: ø480 (ø18.90), B22: ø700 (ø27.56)]			
Turret	Type	Upper turret	V12 wide		Multitasking V12				
		Lower turret	—	V10 wide	—	V10 (L radial)	—	V10 (L radial)	
	No. of tools	Upper turret	12		L, M: 12				
		Lower turret	—	10	—	L: 10	—	L: 10	
	OD tool shank dimensions	mm (in)	□40 (1.57)						
	ID tool shank diameter	mm (in)	ø63 (ø2.48)						
Milling tool	Speed	min ⁻¹	—		40 to 3,500				
	Speed range		—		Infinitely variable				
Feed rate	Rapid traverse X, Z-axis	m/min (fpm)	X: 20, Z: 20 (X: 66, Z: 66)				X: 20, Z: 20, Y: 10 (X: 66, Z: 66, Y: 33)		
	Rapid traverse C-axis	min ⁻¹	—		50				
Tailstock	Quill diameter	mm (in)	ø180 (7.09)						
	Quill bore taper		MT No. 6 (built-in)						
	Quill travel	mm (in)	350 (13.78)						
	Maximum tailstock thrust	kN	26						
Motors	Spindle (30 min/cont)	kW (hp)	B08, B15, B22: 45/37 [55/45, 75/60] (60/49 [73/60, 100/80]), B12: 55/45 [75/60] (75/60, [100/80])		B08, B15: 45/37 [55/45, 75/60] (60/49 [73/60, 100/80]), B12: 55/45 [75/60] (75/60, [100/80])		B08, B15, B22: 45/37 [55/45, 75/60] (60/49 [73/60, 100/80]), B12: 55/45 [75/60] (75/60, [100/80])		
	Milling tool spindle (30 min/cont)	kW (hp)	—		15/11 (20/15)				
	Axis drive motors	Upper turret X-axis	kW (hp)	5.2 (6.93)					
		Lower turret X-axis	kW (hp)	—	5.5 (7.33)	—	5.5 (7.33)	—	5.5 (7.33)
		Upper turret Z-axis	kW (hp)	7.3 (9.73)					
		Lower turret Z-axis	kW (hp)	—	7.3 (9.73)	—	7.3 (9.73)	—	7.3 (9.73)
	Coolant pumps (50/60 Hz)	kW (hp)	0.55/0.8 (0.73/1.1) (turret) 2.2/2.2 (3/3) (washing)						
Machine size	Height	mm (in)	3,300 (129.92)						
	Floor space (width × depth) (including tank)	mm (in)	7,842 × 3,256 (308.74 × 128.19)				3,810 (150.00)		
	Mass	kg (lb)	38,000 (83,600)	40,000 (88,000)	38,000 (83,600)	40,000 (88,000)	39,200 (86,240)	41,200 (90,640)	
CNC			OSP-P300LA						

Mountable chuck sizes example

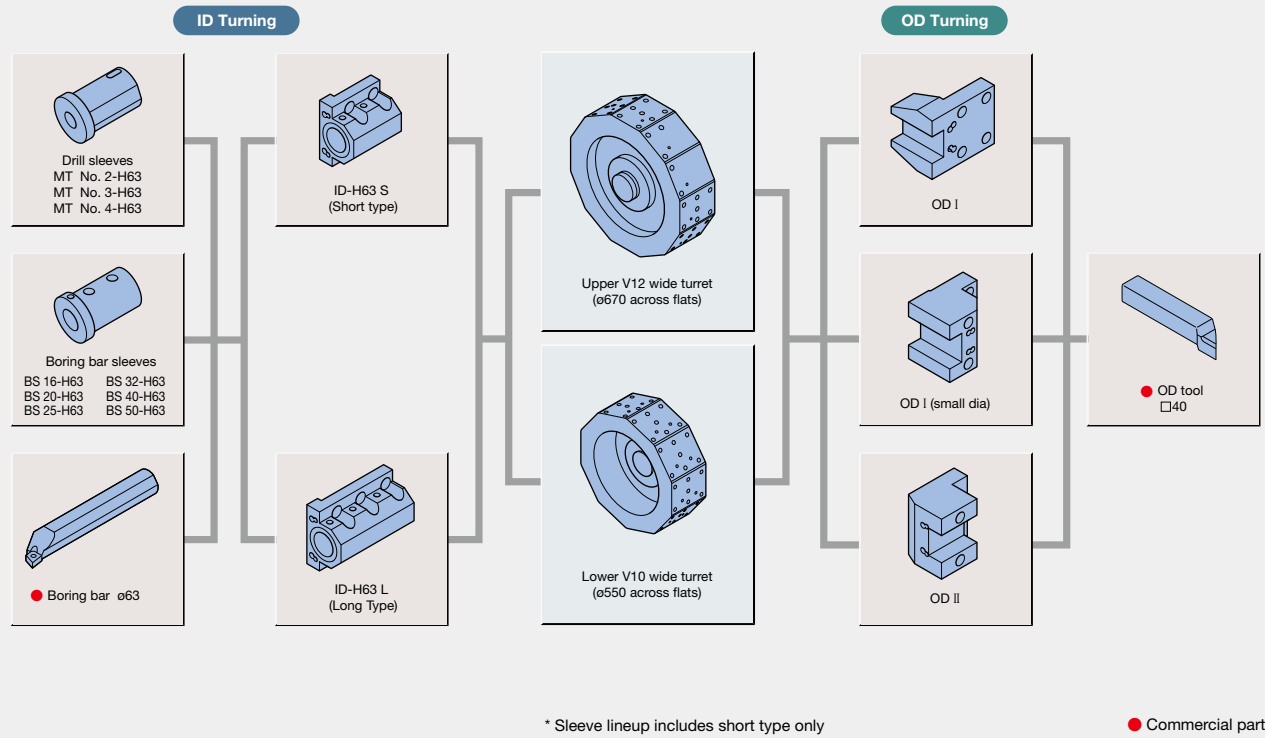
Solid/Hollow Chucks	18 inch, 21 inch, 24 inch
Pneumatic Chucks	ø500 mm OD, ø685 mm OD, ø850 mm OD, ø1,000 mm OD

For other chuck sizes, please consult your Okuma representative.

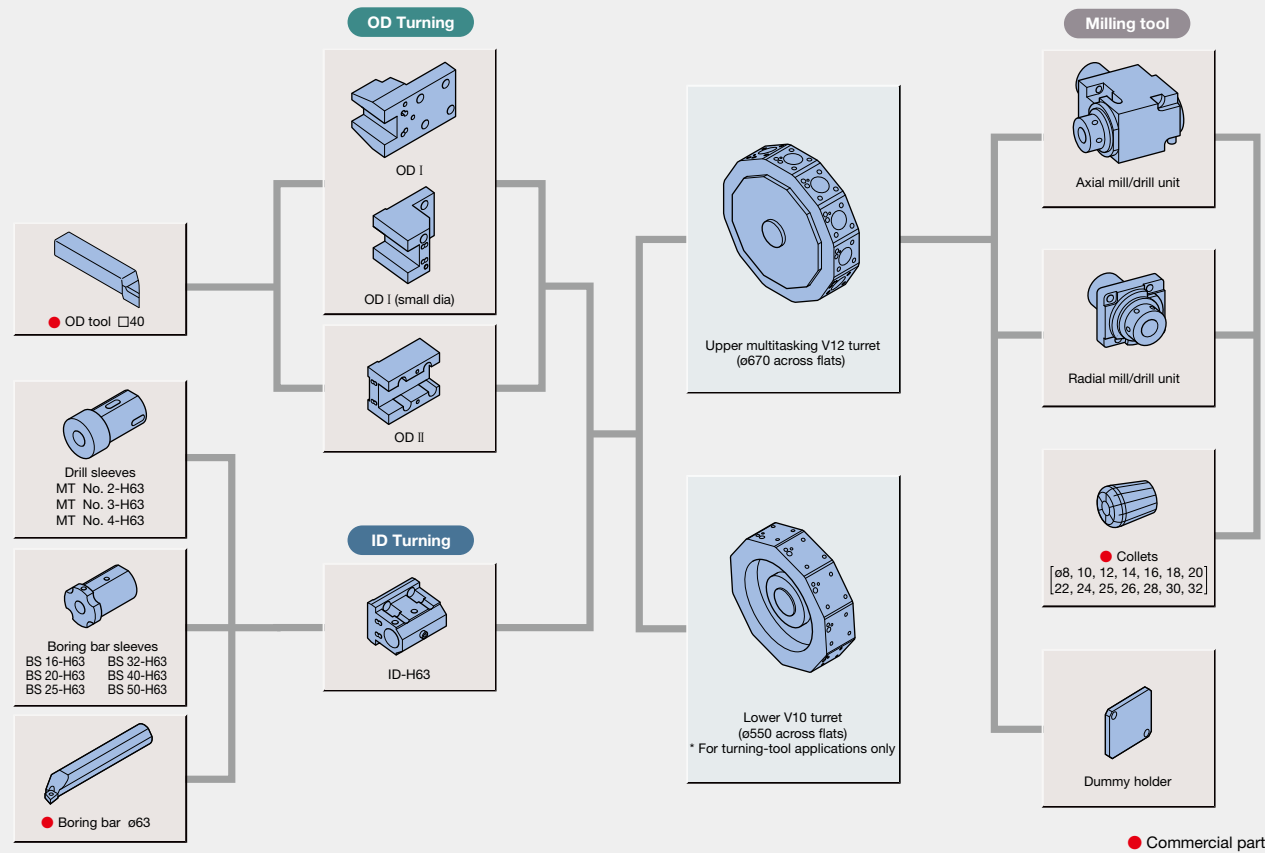
[]: Optional
*1. With Touch Setter mounted, the spindle nose to 30 mm range only is limited to ø1,030 mm.
*2. L: Workpiece length, D: Workpiece diameter
*3. B22 spindle is not available on M specification.

Tooling System

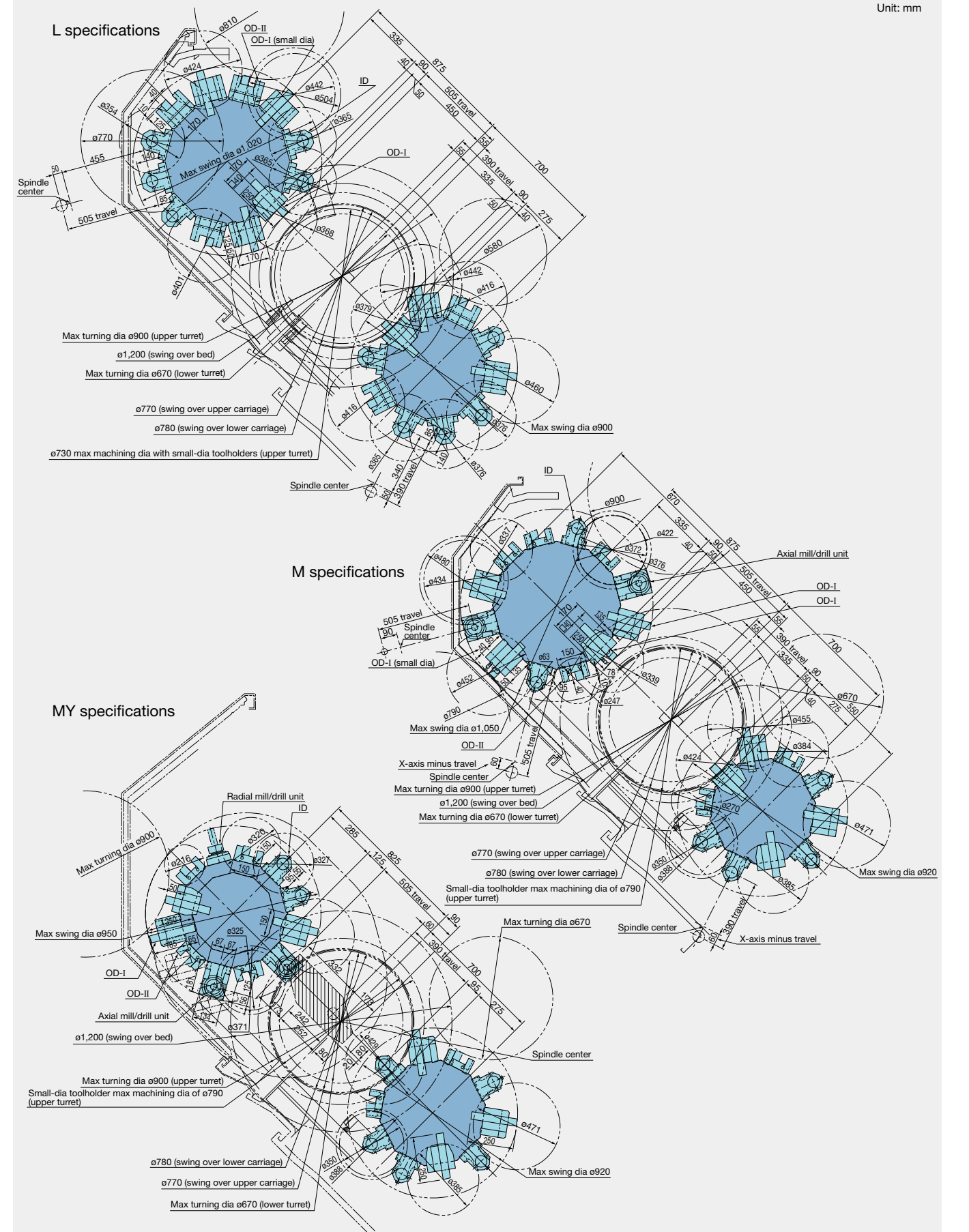
L specifications



M/MY specifications

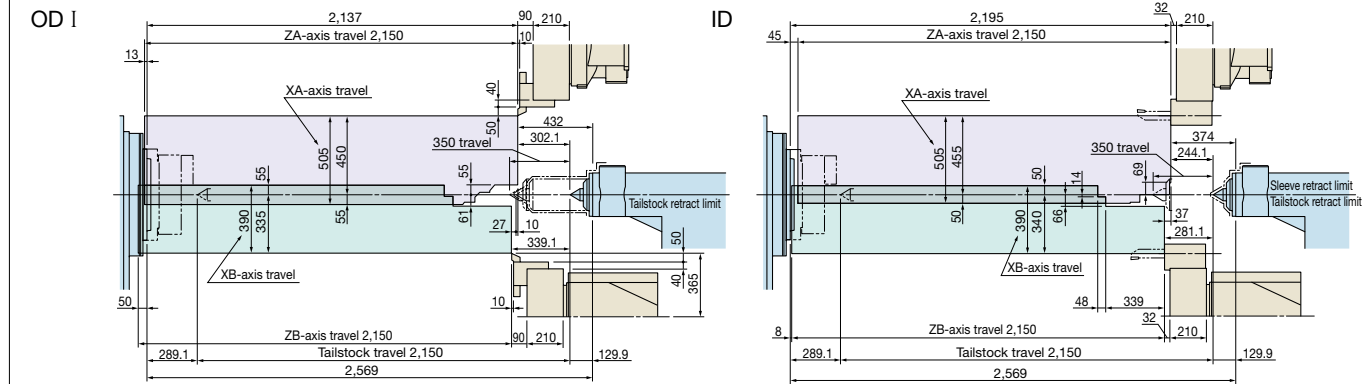


Turret Interference Diagrams

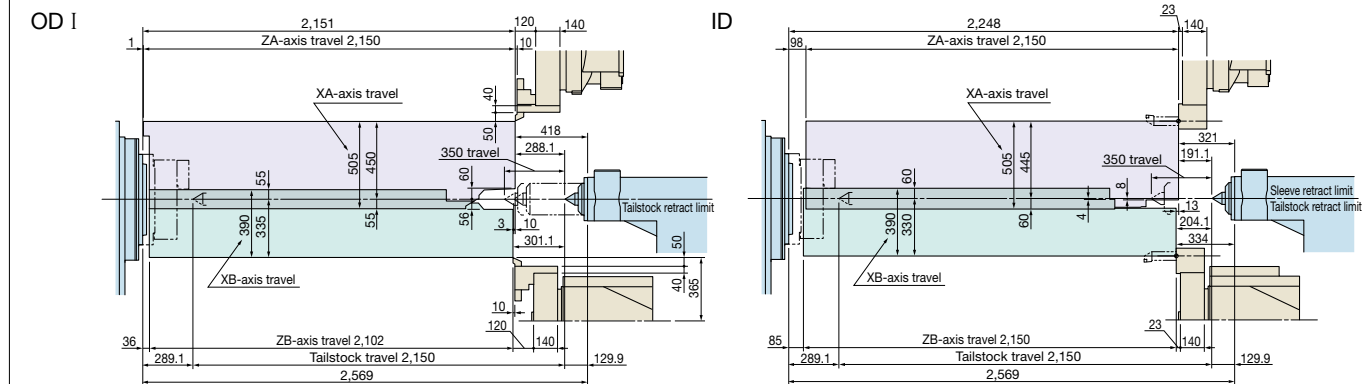


Working Ranges

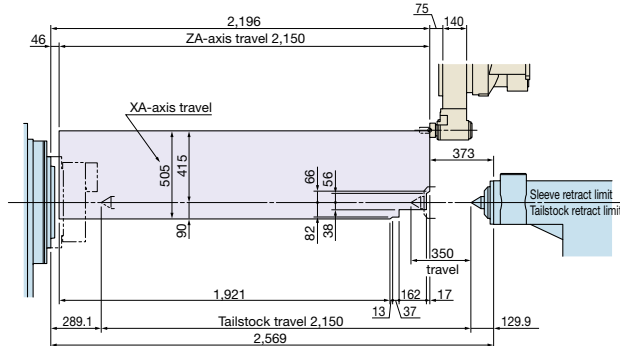
LU7000 EX (L)



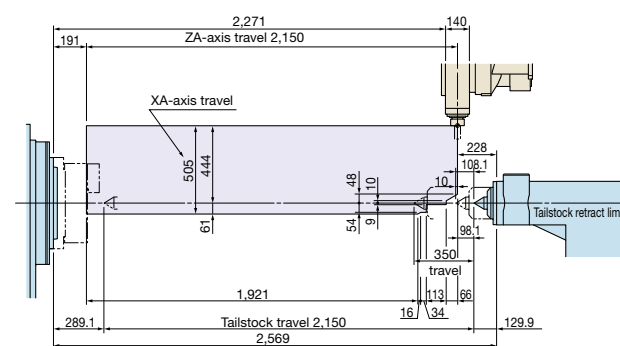
LU7000 EX (M)



Axial mill/drill unit

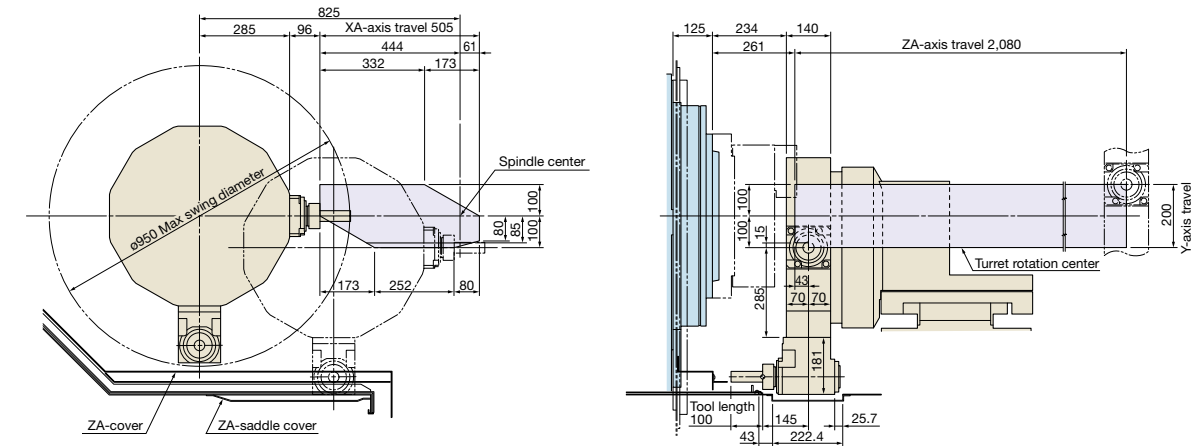


Radial mill/drill unit



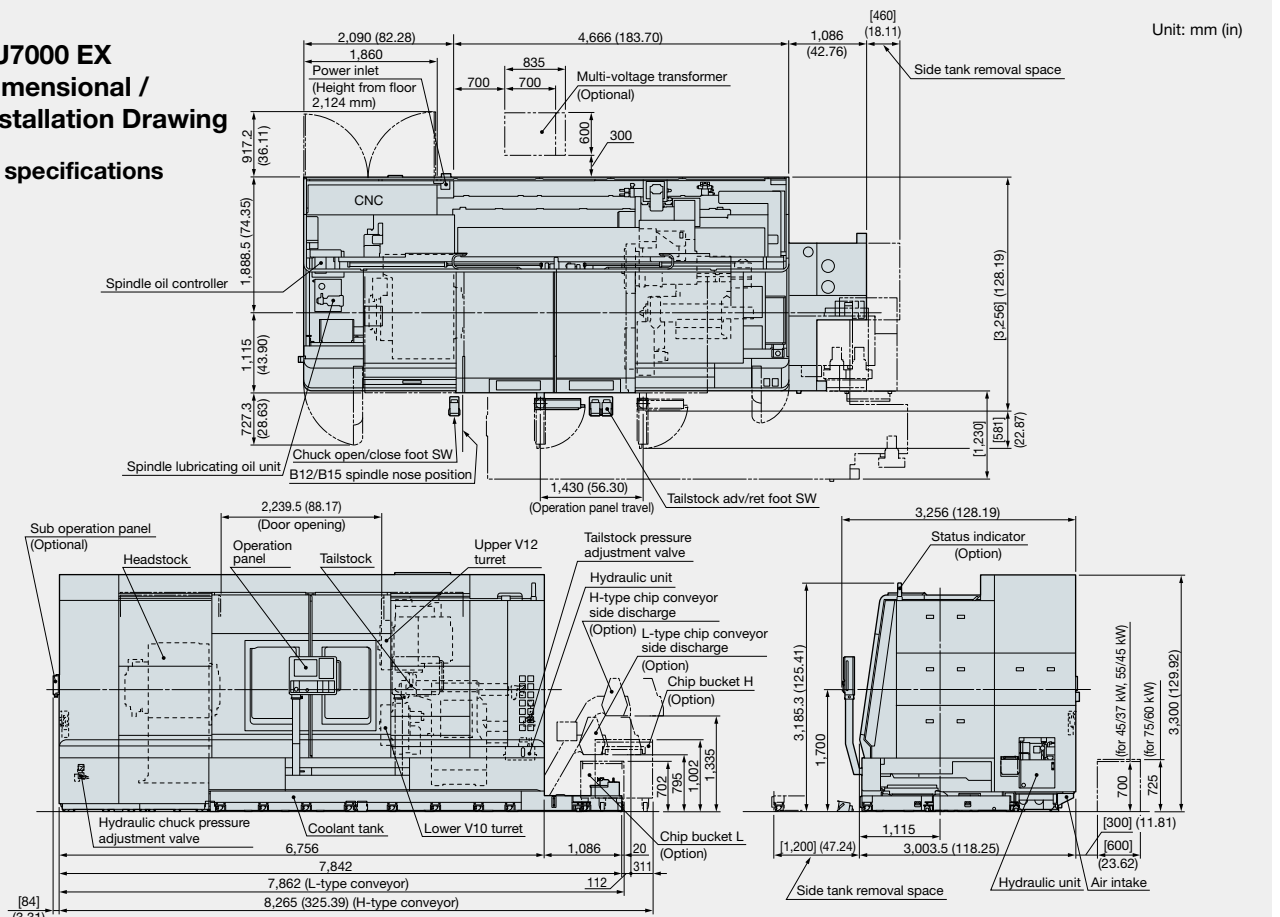
LU7000 EX (MY)

Radial mill/drill unit

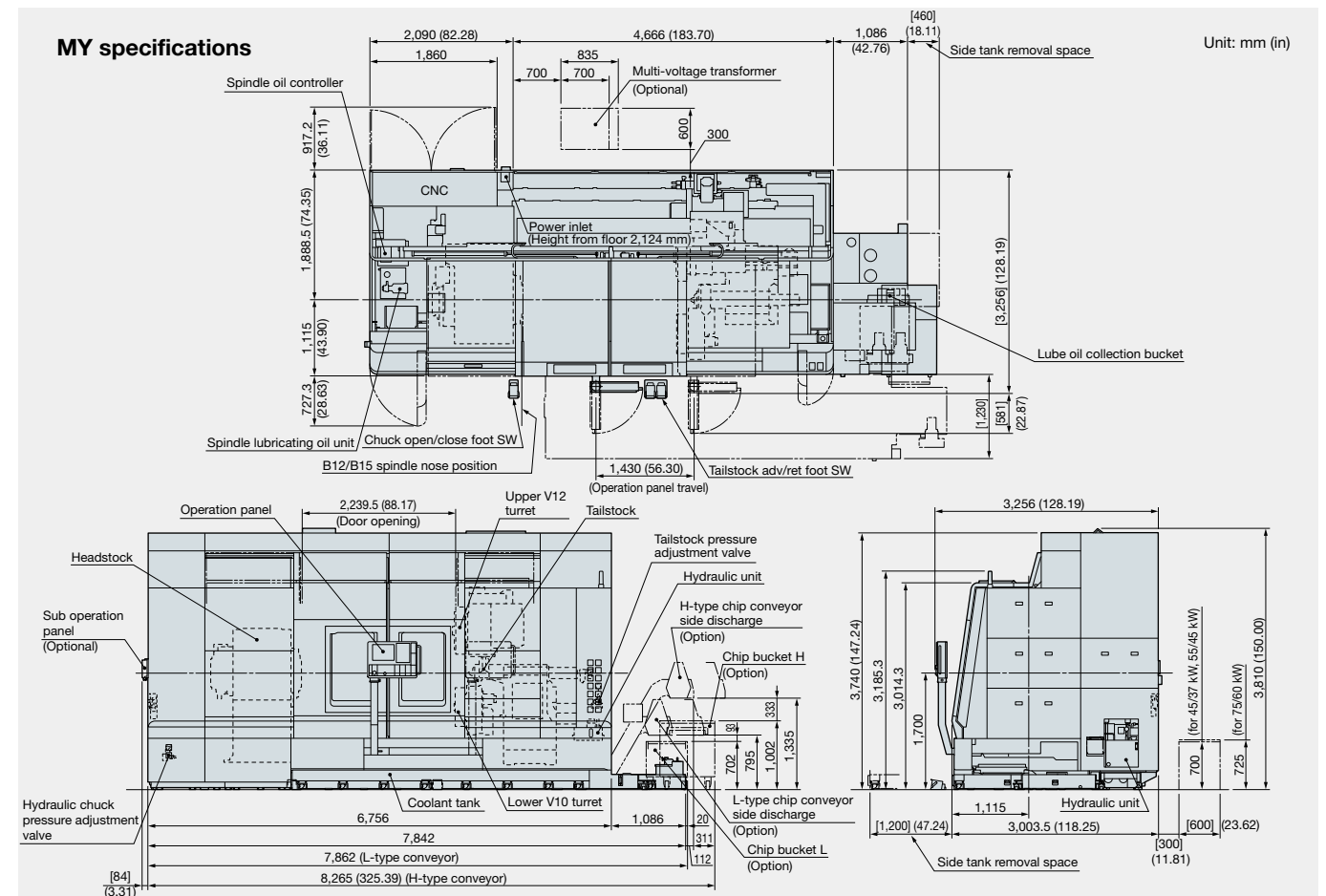


LU7000 EX Dimensional / Installation Drawing

L/M specifications



MY specifications

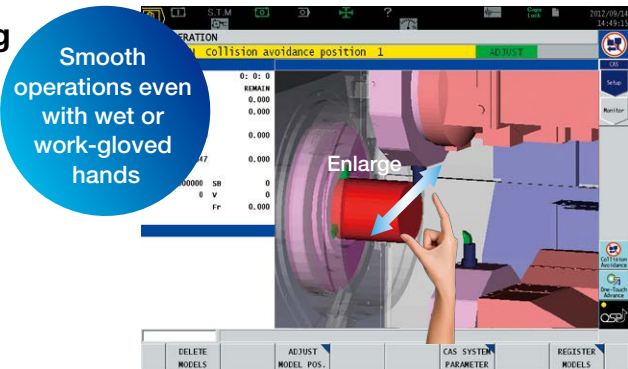


With revamped operation and responsiveness—
ease of use for machine shops first!

Smart factories are using advanced digitization and networking (IIoT) in manufacturing to achieve enhanced productivity and added value. The OSP has evolved tremendously as a CNC 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. The screen display layout on the operation screen can also be changed to suit operator preferences and customized for the novice and/or veteran machinists.



“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 a machine tool manufacturer, will “empower shop floor” management.



Spindle Output Monitor
Increased productivity through visualization of motor power reserve

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.





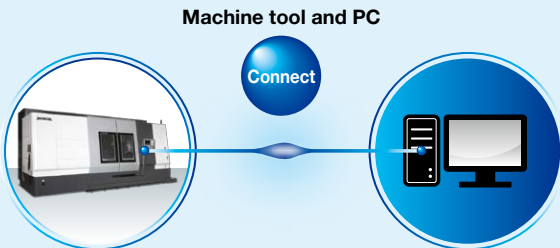
Scheduled Program Editor
Easy programming without keying in code



E-mail Notification
Monitoring utilization status even when away from the machine

Connect Plan Get Connected, Get Started, and Get Innovative with Okuma “Monozukuri”
Connect, Visualize, Improve

Okuma’s Connect Plan is a system that provides analytics for improved utilization by connecting machine tools and visual control of factory operation results and machining records. Simply connect the OSP and a PC and install Connect Plan on the PC to see the machine operation status from the shop floor, from an office, from anywhere. The Connect Plan is an ideal solution for customers trying to raise their machine utilization.



Standard Specifications

Basic Specs	Control	Turning: X, Z simultaneous 4-axis. Multitasking: X, Z, C simultaneous 3-axis
	Position feedback	OSP full range absolute position feedback (zero point return not required)
	Min / Max command	±99999.999 mm, 99,999.999° 8-digit decimal, command units: 0.001 mm, 0.01 mm, 1 mm, 0.001°, 0.01°, 1°
	Feed	Override: 0 to 200%
	Spindle control	Direct spindle speed commands (S4) override 50 to 200%, Constant cutting speed, optimum turning speed designate
	Tool compensation	Tool selection: 32 sets, tool offset: 32 sets
	Display	15-inch color display operational panel, touch panel
	Self-diagnostics	Automatic diagnostics and display of program, operation, machine, and NC system problems
	Program capacity	Program storage: 4 GB, operation buffer: 2 MB
	“suite apps”	Applications to visualize and digitize information needed on the shop floor
Operations	“suite operation”	Highly reliable touch panel suited to shop floors. One-touch access to suite apps.
	Easy Operation	“Single-mode operation” to complete a series of operations
	Programming	Program management, edit, multitasking, scheduled programs, fixed cycles, special fixed cycles, tool nose R compensation, M-spindle synchronized tapping, fixed drilling cycles, arithmetic functions, logic statements, trig functions, variables, branch statements, auto programming (LAP4), programming help
	Machine operations	MDI, manual (rapid traverse, portable pulse handle), load meter, operations help, alarm help, sequence, return, manual interrupt & auto return, data I/O, spindle orientation (electric), easy setting of cycle time reduction
	MacMan	Machining Management: machining results, machine utilization, fault data compile & report, external output
Communications/Networks		USB ports, Ethernet, DNC-T1
High speed/accuracy		Hi-G control
Energy-saving functions		ECO suite
		ECO Idling Stop, ECO Power Monitor

Optional Specifications

Item		Kit specs*1		NML		3D		OT-IGF		OTM	
				E	D	E	D	E	D	E	D
New Operations											
Advanced One-Touch IGF-L *2								●	●		
Advanced One-Touch IGF-L Multitasking *2										●	●
Programming											
Circular threading					●		●		●		●
Program notes					●		●		●		●
User task 2 I/O variables, 8 each											
Work coordinate system select	10 sets										
	50 sets										
	100 sets										
Tool compensation (Std: 32 sets)	Tool compensation 64 sets										
	Tool compensation 96 sets										
	Tool compensation 200 sets										
	Tool compensation 999 sets										
Common variables 1,000 sets (Std: 200 sets)											
Thread matching											
Threading slide hold (G34, G35)											
Variable Spindle Speed Threading (VSST)											
Inverse time feed											
Spindle synchronized tapping (rigid tapping)											
Milling machine specs	Coordinate convert			▲	▲	▲	▲			●	●
	Profile generate			▲	▲	▲	▲			●	●
	Flat turning										
	Coordinate calculation (with NCYL commands)										
	Coordinate shifting, rotation, copying										
Helical cutting (within 360 degrees)											
Helical Contour Generation											
C-axis torque skip function											
Monitoring											
Real 3D simulation						●	●	●	●	●	●
Cycle time over check				●	●	●	●	●	●	●	●
Load monitor (spindle, feed axis)						●	●	●	●	●	●
Load monitor no-load detection (load monitor ordered)											
Machine Status Logger											
AI machine diagnostics (feed axes)											
Tool life management					●		●		●		●
Tool life warning											
Operation end buzzer				Included in machine specs							
Chucking miss detection											
Work counters	Count only										
	Cycle stop										
	Start disabled										
Hour meters	Power ON										
	Spindle rotation										
	NC operating										
NC operation monitor (counter, totaling)				●	●	●	●	●	●	●	●
Status indicator (triple lamp) Type C [Type B]				●	●	●	●	●	●	●	●
Measuring											
Z-axis automatic zero offset by touch sensor											
C-axis automatic zero offset by touch sensor											
Y-axis gauging											
Gauge data output	File output										
Post-process work gauging interface	Set levels (5-level, 7-level)										
	BCD										
	RS-232C (dedicated channel)										
Touch Setter				Included in machine specs							

Item	Kit specs*1	NML		3D		OT-IGF		OTM	
		E	D	E	D	E	D	E	D
External Input/Output and Communication Functions									
RS-232C connector									
DNC link	DNC-T3								
	DNC-C/Ethernet								
	DNC-DT								
USB (additional)	2 additional ports possible								
Automation/Untended Operation									
Auto power shutoff M02, alarm									
Warmup function (by calendar timer)									
Tool retract cycle									
External program selections	A (pushbutton) 8 types								
	B (rotary switch) 8 types								
	C (digital switch) BCD, 2-digit								
	C2 (external input) BCD, 4-digit								
Okuma loader (OGL) interface		Including loader specs							
Third party robot and loader interface *3	Type B (machine)								
	Type C (robot and loader)								
	Type D								
	Type E								
Bar feeders		Interface							
Cycle time reduction *3	Operation time reduction	●	●	●	●	●	●	●	●
	Chuck open/close during spindle rotation								
	Tailstock adv/ret during spdl								
High-Speed/High-Accuracy Functions									
Thermo Active Stabilizer – Construction TAS-C									
0.1 μm control *3									
Pitch error compensation									
Hi-Cut Pro		▲	▲	▲	▲			●	●
Y-axis alignment compensation									
ECO suite Energy-saving function									
ECO Operation	Chip conveyor intermit/link op								
	Mist collector intermit/link op								
	Spindle Power Peak Limiter								
Other Functions									
Collision Avoidance System (CAS)									
One-Touch Spreadsheet									
Machining Navi L-gII, T-g (threading)									
Variable Spindle Speed Control (VSSC)		●	●	●	●	●	●	●	●
Spindle dead-slow cutting									
Spindle speed setting									
Manual cutting feed									
Short circuit breaker									
External M-signals [2 sets, 4 sets, 8 sets, 16 sets]									
Edit interlock									
OSP-VPS (Virus Protection System)									

*1. NML: Normal, 3D: Real 3D simulation, OT-IGF: One-Touch IGF, OTM: One-Touch M, E: Economy, D: Deluxe *2. Real 3-D simulation is included *3. Engineering discussions required.

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.
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