

1-Saddle CNC Lathes

LB35III/LB45III



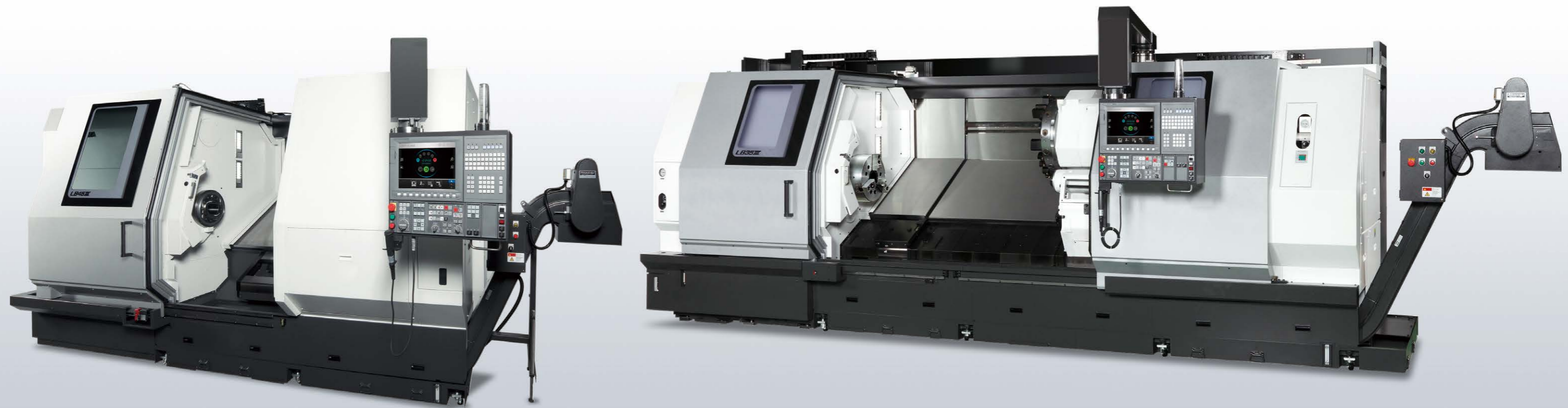
1-Saddle CNC Lathes

LB35III/LB45III



Produce more with heavy-duty turn/mill operations! Large, 1-saddle CNC lathes meet the demands of the times

Okuma's world-class technology in 1-saddle CNC lathes and turning centers at your service...
With more speed, accuracy and power than ever, plus rotary tooling and long-bed capacities.
Big chucking and between-centers performance with a truly competitive price tag.



LB45III DBC 1000

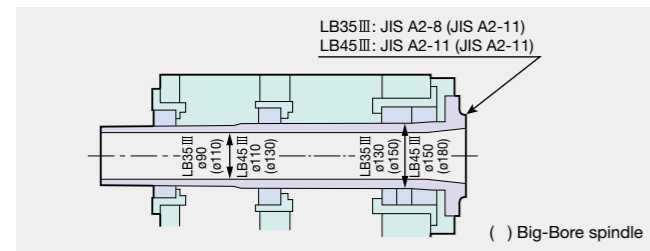
LB35III DBC 2000

Number of doors differs depending on DBC.
Photographs used in this brochure may show optional equipment.

Spindle and motor with extra rigidity and power

Rigid spindle for fast, heavy-duty turning

- 3-point bearing support for steady, powerful cutting (double-row cylindrical roller bearings plus highspeed duplex angular contact ball bearings)
- Housing cooled for minimal thermal deformation
- Unique labyrinth construction keeps coolant from penetrating spindle bearings

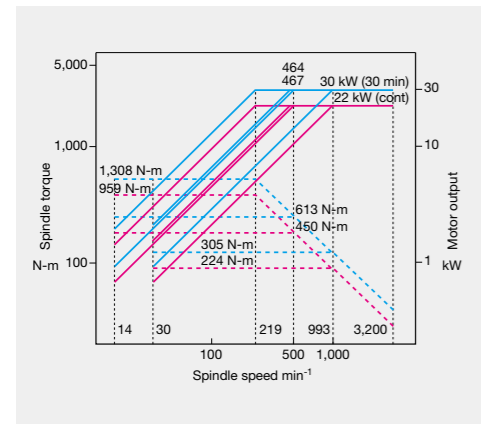


Wide-range, full power cutting

Full-power cutting over a wide range—from low to high speed ranges—is possible with gear shift system

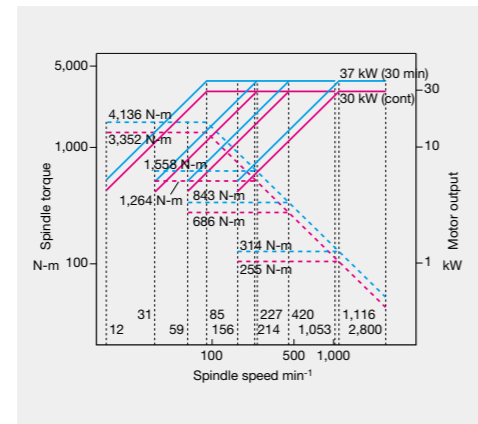
Turning spindle LB35III

4 auto ranges (2 gears x 2 range motor coil switching)
Spindle speed 3,200 min⁻¹
Max output 30/22 kW (30 min/cont)
Max torque 1,308/959 N-m (30 min/cont)



Turning spindle LB45III

4 auto ranges (4 gears)
Spindle speed 2,800 min⁻¹
Max output 37/30 kW (30 min/cont)
Max torque 4,136/3,352 N-m (30 min/cont)



*See pages 11 and 12 for options.

High-speed, high-accuracy C-axis headstock

- Direct C axis control with VAC motor
X/Z-axis generation is possible
- Quick rapids/positioning: Max 100 min⁻¹

- C-axis geometric accuracies (ex):
Indexing: LB35III (M): ±0.01°
LB45III (M): ±0.015°
Repeatability: LB35III (M): ±0.003°
LB45III (M): ±0.007°

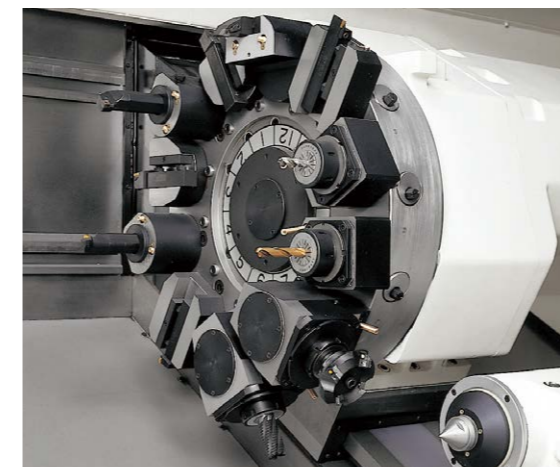
Higher production efficiency with fast machine movement

Multitasking V12 turret gives rise to highly efficient machining

L (lathe) and M (milling) tools can be mounted in all stations

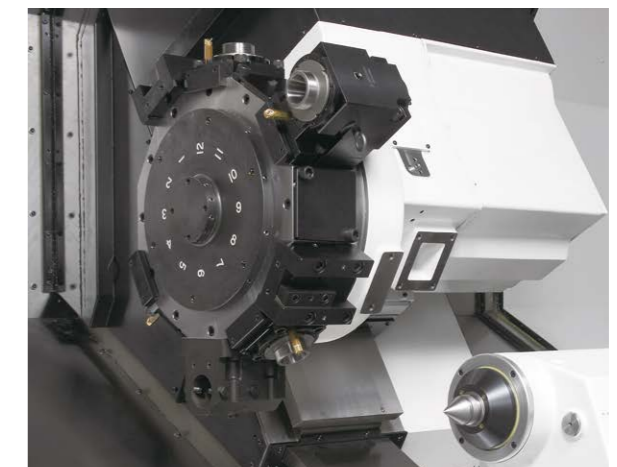
LB35III (M), LB45III (M) VDI specs

- Quick change tooling system used



LB45III (MY) radial tooling specs

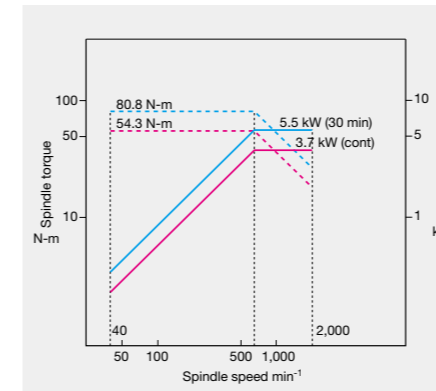
- Powerful milling with high power, high torque motor



High speed, high power milling tool spindle

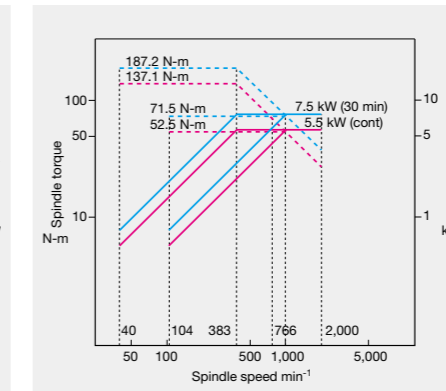
Milling tool spindle LB35III(M)

Spindle speed 2,000 min⁻¹
Max output 5.5/3.7 kW (30 min/cont)
Max torque 80.8/54.3 N-m (30 min/cont)



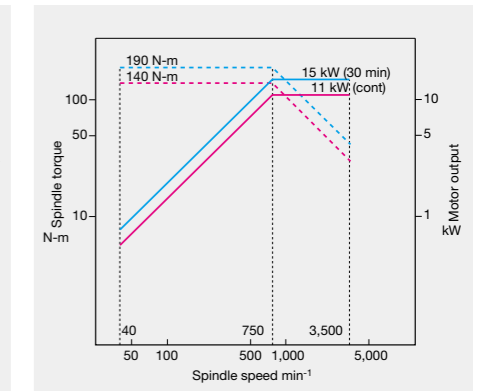
Milling tool spindle LB45III(M)

Spindle speed 2,000 min⁻¹
Max output 7.5/5.5 kW (30 min/cont)
Max torque 187.2/71.5 N-m (30 min/cont)



Milling tool spindle LB45III(MY)

Spindle speed 3,500 min⁻¹
Max output 15/11 kW (30 min/cont)
Max torque 190/140 N-m (30 min/cont)



*See pages 11 and 12 for options.

Faster machine movement reduces non-cutting time

- Fast turret rotation of 0.3 sec/1 index (LB35III)
Rotation speed is also unaffected by unbalanced tooling
* LB45III is 0.7 sec/1 index
- Further reduction in non-cutting time with high-speed rapid traverse of X axis: 15 m/min, Z axis: 20 m/min
Uses backlash-free, direct drive mechanism on X axis

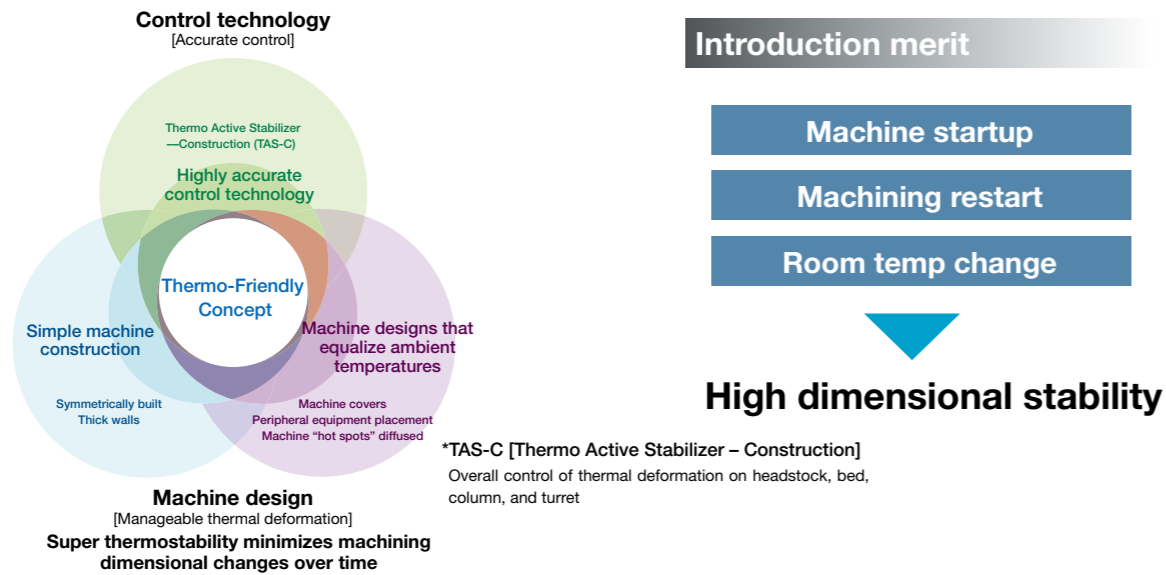
Powerful clamping to match heavy-duty turning

- Big coupling [LB35III: ø354 (ø13.94), LB45III: ø460 (ø18.11)] for powerful hydraulic clamping on turret
- Large turret but minimal interference [LB35III: 570 mm (22.44 in.), LB45III: 700 mm (27.56 in.)] across flats
- NC turret with servo motor drive

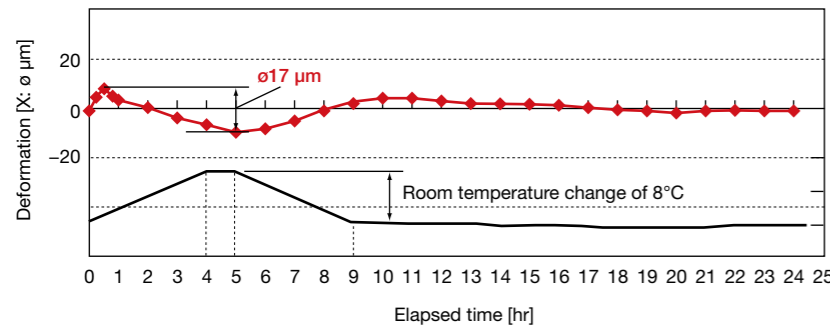
Achieves steady machining with high dimensional stability

Machining dimensional change over time of $\phi 17 \mu\text{m}$ (LB35III actual data) Thermo-Friendly Concept

In addition to maintaining high dimensional accuracy when room temperature changes, Okuma's Thermo-Friendly Concept provides high dimensional accuracy during machine startup and machining restart.
To stabilize thermal deformation, warming-up time is shortened and the burden of dimensional correction during machining restart is reduced.



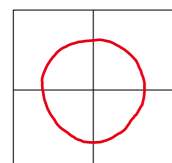
Machining dimensional change over time $\phi 17 \mu\text{m}$ (LB35III actual data)



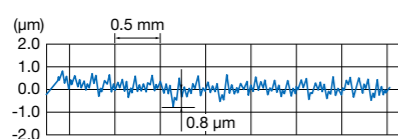
- Room temperature changes: Rise of 8 °C from 20 °C over 4 hr. After 1 hr, decline of 8 °C over 4 hr.
 - Spindle speed: 2,340 min⁻¹
 - Tool extension: 40 mm
 - Coolant: On
 - Cold start
- * Data listed in the catalog are actual data. These values may not be obtained depending on specifications, tooling, and cutting conditions and other factors.

Machining accuracy

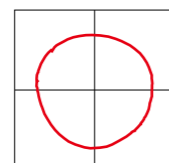
LB35III actual data
Roundness
 $\phi 0.8 \mu\text{m}/2,000 \text{ min}^{-1}$



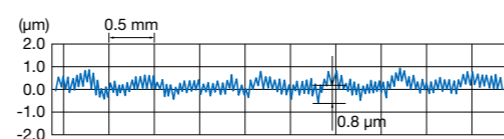
Surface roughness (tip uniformity)
Workpiece material: BsB
Spindle: 2,500 min⁻¹



LB45III actual data
Roundness
 $\phi 0.9 \mu\text{m}/2,000 \text{ min}^{-1}$



Surface roughness (tip uniformity)
Workpiece material: BsB
Spindle: 2,000 min⁻¹



Wide-range of variations and greatest ease of use

Process-intensive machining with the Y axis 1-chuck machining even with complex-shaped workpieces (LB45III MY specs)

- A wide range of milling based on highly precise, wide-ranging Y axis travel with a double slide system
- Achieves process-intensive machining with 1-chucking



The best tailstock with built-in center for machining shafts

- Highly-rigid built-in center (standard); Quill diameter LB35III: $\phi 120 \text{ mm}$, LB45III: $\phi 130 \text{ mm}$ Built-in tailstock MT. No. 5)



Superior chip discharge

- Smooth chip discharge
 - Large outlet directly beneath chuck
 - Saddle cover with good chip flow
- Sealed cover construction including tailstock guideway
- Improved workplace environment with sophisticated appearance and covering with no water leakage



A low-maintenance machine — that helps the operator

- VAC motor (spindle) and brushless servo motors (servo axes) require no brush changing
- NC Torque Limiter on servos minimizes any damage from possible operator error and makes it easy to resume processing.
- All ordinary maintenance from machine front: chuck pressure adjustment, tailstock pressure adjustment, way lubrication etc.

Ensuring smooth machining preparations

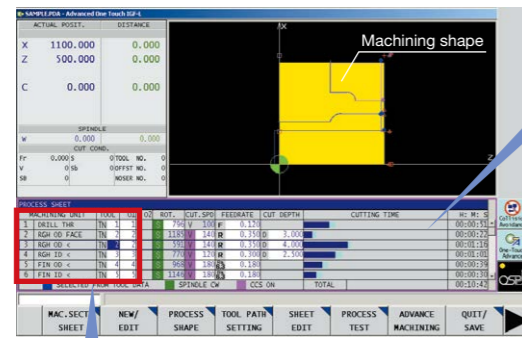
Interactive operations Advanced One-Touch IGF-L (Optional)

Part program create

After simple cutting data inputs (interactively), the required machining processes are determined and a part program is created (automatically).

Advanced run

To run the machine directly from the interactive part program screen. When a problem is detected it can be quickly corrected and checked, speeding up first part machining.



Directly change cutting conditions for each process with this process sheet

Tables make it easy to make mid-cycle or individual process starts

MACHINING UNIT	TOOL
1 DRILL THR	TN 1
2 RGH OD FACE	TN 2
3 RGH OD <	TN 2
4 RGH ID <	TN 3
5 FIN OD <	TN 4
6 FIN ID <	TN 5

Continuous run

MACHINING UNIT	TOOL
1 DRILL THR	TN 1
2 RGH OD FACE	TN 2
3 RGH OD <	TN 2
4 RGH ID <	TN 3
5 FIN OD <	TN 4
6 FIN ID <	TN 5

Mid-cycle start
(finishing repeated)

MACHINING UNIT	TOOL
1 DRILL THR	TN 1
2 RGH OD FACE	TN 2
3 RGH OD <	TN 2
4 RGH ID <	TN 3
5 FIN OD <	TN 4
6 FIN ID <	TN 5

Individual run
(machining repeated with this tool only)



Easy to operate

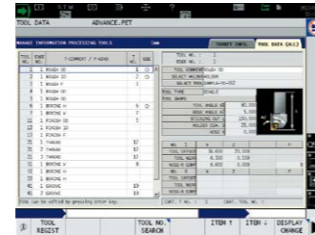
Operation screen split into four displays

Simultaneous display includes setup work, current position needed in confirming movement in trial machining, NC program, and graphic simulation.



Tool registration

Register data for all of your tools. Since the registered tool data is also used by Okuma auto programming (Advanced One-Touch IGF) and a collision check function (Collision Avoidance System), this screen will complete the entire registering process. When loading a tool in the machine, simply select it from among the registered tools. ATC manual operation does not require inputting the tool number. Just select the tool from the list and press the function key.



Forming soft jaws

Templates like this make it easy to set required jaw shape, tool, and cutting conditions. Part programming not required to do this.



Zero offsets

A simple function key operation is all it takes to shift a zero offset to either the left or right end of a workpiece. The required zero offset will be calculated automatically based on jaw and workpiece lengths. (when the tool offset is set with reference to the turret tool mounting surface)

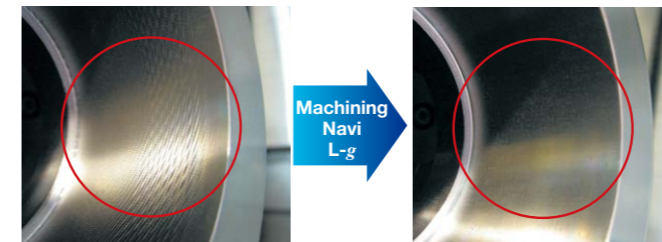
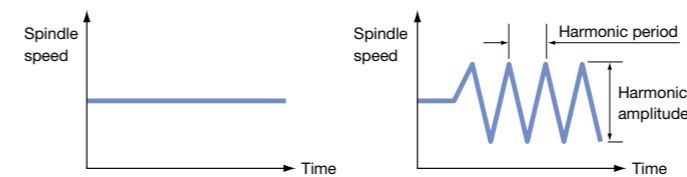


Okuma's Intelligent Technology reduces operator burden



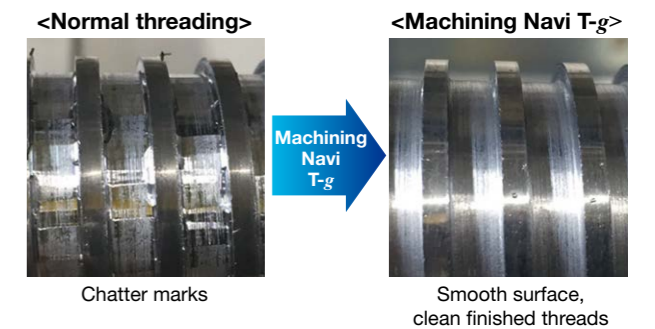
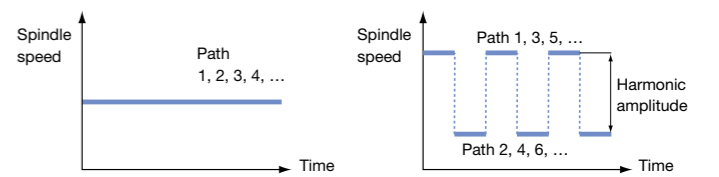
Cutting condition search function for turning Machining Navi L-g (guided, harmonic spindle speed control) (Optional)

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 machining time reduced with use of the optimum cutting conditions, producing significant effects in drilling/boring bar, threading, and grooving applications.



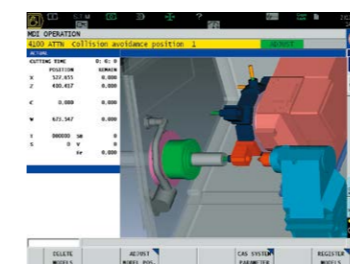
Cutting condition search in threading Machining Navi T-g (Optional)

When chatter occurs in threading, general methods to resolve the problem have been to either lower cutting conditions at the expense of productivity, or to use special chatter-resistant tools at some cost. Machining Navi T-g (threading) provides optimum control, increasing or decreasing spindle speed on each pass to inhibit the periodic vibrations that are a cause of chatter.



Collision prevention Collision Avoidance System (Optional)

World's first "Collision-Free Machine"
CAS prevents collisions in automatic or manual mode, providing risk-free protection for the machine and great confidence for the operator.



Virtual machine (collision check)

All energy-saving technologies that can be used by a machine are available ECO suite

- "ECO Idling Stop" for operation of necessary units only
- "ECO Power Monitor" for visual graphic of power
- Intermittent/continuous operation of chip conveyor and mist collector during operation — "ECO Operation" (optional)

Machine Specifications

Model		LB35III				LB35III (M)				LB45III				LB45III (M)				LB45III (MY)							
		T	Cx850	Cx1500	Cx2000	T	Cx850	Cx1500	Cx2000	T	Cx1000	Cx2000	Cx3000	Cx4000	T	Cx1000	Cx2000	Cx3000	Cx4000	T	Cx1000	Cx2000	Cx3000	Cx4000	
Capacity	Swing over bed	mm (in.)																							
	Swing over carriage	mm (in.)																							
	Distance between centers	mm (in.)																							
	Max turning dia	mm (in.)																							
	Max turning length	mm (in.)																							
Travels	X axis travel	mm (in.)																							
	Z axis travel	mm (in.)																							
	Y axis travel	mm (in.)																							
	C axis travel	deg																							
Spindle	Spindle speed	min ⁻¹ {rpm}																							
	No. of spindle speed ranges																								
	Spindle nose shape																								
	Thru-spindle hole dia	mm (in.)																							
Turret	Type																								
	No. of tools																								
	Tool shank height	mm (in.)																							
	Boring bar shank dia	mm (in.)																							
Milling Tool	Spindle speed & range	min ⁻¹ {rpm}																							
	No. of speeds & ranges																								
Feedrates	Rapid traverse speed	mm/min (ipm)																							
	Tailstock																								
Motors	Spindle drive (30 min/cont)	kW (hp)																							
	Rotary tool motor (30 min/cont)	kW (hp)																							
	Feed axis drive	kW (hp)																							
	Coolant pump	kW (hp)																							
Machine Size	Height	mm (in.)																							
	Floor space	mm×mm																							
	Width × Depth (tank included)	mm (in.)																							
	Weight	kg (lb)																							
CNC system		OSP-P300LA																							

[]: Big-Bore specs < >: Super Big-Bore specs * : High power motor specs

[]: Big-Bore specs < >: Super Big-Bore specs * : High power motor specs

Standard Accessories

Model		LB35III		LB35III (M)		LB45III		LB45III (M)		LB45III (MY)
		T	C	T	C	T	C	T	C	C
Machine Specs	Spindle motor*	30/22 kW (40/30 hp)		●		-		-		-
		37/30 kW (50/40 hp)		-		-		●		●
	Spindle speed	14 to 3,200 min ⁻¹		●		-		-		-
		12 to 2,800 min ⁻¹		-		●		●		●
	M tool motor*	5.5/3.7 kW (7.5/5 hp)		-		●		-		-
		7.5/5.5 kW (10/7.5 hp)		-		-		●		●
		15/11 kW (20/14.7 hp)		-		-		-		●
	M tool speeds	40 to 2,000 min ⁻¹		-		●		-		-
		40 to 3,500 min ⁻¹		-		-		-		●
	Turret	V12		●		-		-		-
Multitasking V12		-		●		●		●		
Hydraulic tailstock	Built-in center, MT 5		-		●		-		●	
	Standard Equipment	Hydraulic unit		●		-		-		●
		Coolant system		●		-		-		●
		Chip shield		●		-		-		●
		Work lamp (LED)		●		-		-		●
Standard Accessories	Foundation washers		●		-		-		●	
	Levelling jack bolts		●		-		-		●	
	Hand tools		●		-		-		●	
CNC		OSP-P300LA		●		-		●		

* 30 min / cont

Chucking / Tooling Kit

Model		LB35III			LB35III (M)			LB45III			LB45III (M)		
		Std Chucking Kit	Std Tooling E Kit	Std Tooling E Kit	Chucking Kit	Std Chucking Kit	Tooling Kit	Std Tooling E Kit	Chucking Kit	Std Chucking Kit	Tooling Kit	Std Tooling E Kit	
Hydraulic chuck	12" Solid		12" Solid		12" Solid		15" Solid		15" Solid		15" Solid		
	Solid		Hollow		Solid		Solid		Hollow		Solid		
Standard soft jaws, A	5		5		5		5		5		5		
	3		3		3		3		3		3		
Standard hard jaws	1		1		1		1		1		1		
	4		6		2		4		6		2		
OD	2		3		4		2		3		4		
	2		2		2		2		2		2		
ID	6		6		4		6		6		4		
	2		2		2		2		2		2		
Boring bar sleeve	2		2		2		2		2		2		
	2		2		2		2		2		2		
	2		2		2		2		2		2		
	2		2		2		2		2		2		
	2		2		2		2		2		2		
Drill sleeve	1		1		1		1		1		1		
	1		1		1		1		1		1		
	1		1		1		1		1		1		
Axial drill/mill unit	2		2		2		2		2		2		
Radial drill/mill unit	2		2		2		2		2		2		
Dummy holder	3		3		3		3		3		3		

Optional Equipment & Accessories

Spindle High power motor specs	Cover
LB35III 37/30 kW (30 min/cont)	Auto front cover open/close*1
LB45III 45/37 kW (30 min/cont)	Chucking
Big-Bore spindle	Chuck auto open/close confirm
LB35III A2-11 2,800 min ⁻¹	Chuck high/low pressure switch
Front bearing ø150, Spindle bore ø110	Air blower
LB45III A2-11 2,400 min ⁻¹	Chuck, turret, Tailstock
Front bearing ø180, Spindle bore ø130	Coolant blower
Big-Bore spindle High power motor specs	Shower type, in-machine chip washer
LB35III A2-11 2,800 min ⁻¹	Dust-proof
Front bearing ø150, Spindle bore ø110	Spindle air purging, turret air purging,
37/30 kW (30 min/cont)	X-axis double wiper, Z-axis double wiper
LB45III A2-11 2,400 min ⁻¹	Gauging
Front bearing ø180, Spindle bore ø130	In-process work gauging
45/37 kW (30 min/cont)	Touch Setter M (manual), A (automatic)
Super Big-Bore spindle specifications	Chip discharge
LB35III JIS A2-15 1,400 min ⁻¹	Chip conveyor, (Side discharge, Rear discharge)*2, chip bucket, chip pan
Front bearing ø220, Spindle bore ø180	Coolant pump
30/22 kW (30 min/cont)	0.8 kW, high-pressure coolant unit, coolant sensors
LB45III JIS A2-20 900 min ⁻¹	High accuracy optional specifications
Front bearing ø320, Spindle bore ø260	Turcite® lining (X axis, Z axis)
45/37 kW (30 min/cont)	AbsoScale (X axis, Z axis, Y axis)
Tailstock	Temperature regulators (coolant, spindle temperature, hydraulic oil)
Dead center, threaded, MT 5	Other
Auto tailstock quill advance/retract confirm	Mist collector
Low tailstock thrust	High-speed NC double-column loader OGL
Tailstock thrust high/low switch	Raised machine height
Tailstock quill position detection (multi-sizing, high-accuracy sizing)	*1. LB45III Standard with distance between centers of 3000, 4000
Steadyrest*	*2. For LB45III, rear discharge available only with distance between centers 1,000.
Fixed steadyrest	
Hydraulic steadyrest (Auto-centering)	

Chip conveyor types and application

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

Note: Machine platform may be necessary depending on the type of conveyor.

Chuck preparation specs per chuck size

Chuck OD	Solid/hollow chuck					
	12 inch	Big bore 12 inch	15 inch	18 inch	21 inch	24 inch
LB35III	●	●*1	●			
LB45III	●	●*1	●	●	●	●
Hollow chuck through-hole diameter	ø91	ø106	ø117.5 *2	ø117.5	ø140	ø165

*1: Hollow only *2: ø100 with standard spindle

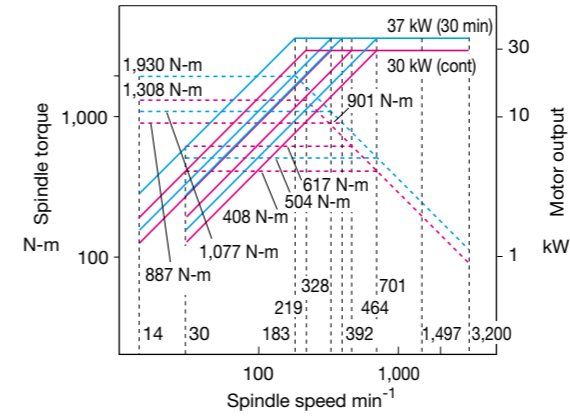
Technical consultation necessary for columns with no "●" mark

Torque diagram

— 30 min duty rating
— Continuous duty rating

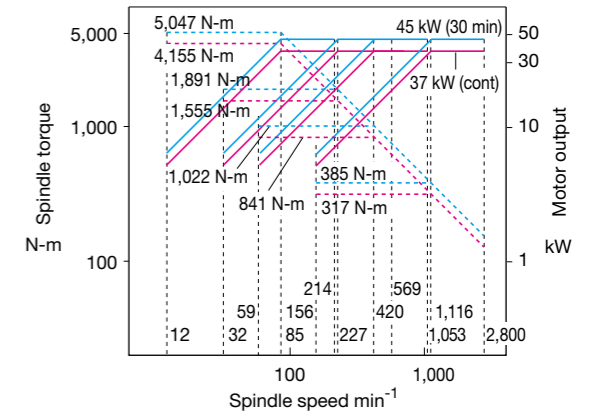
LB35III High power standard spindle

- Spindle speed 3,200 min⁻¹
- Max output 37/30 kW (30 min/cont)
- Max torque 1,930/1,308 N-m (30 min/cont)



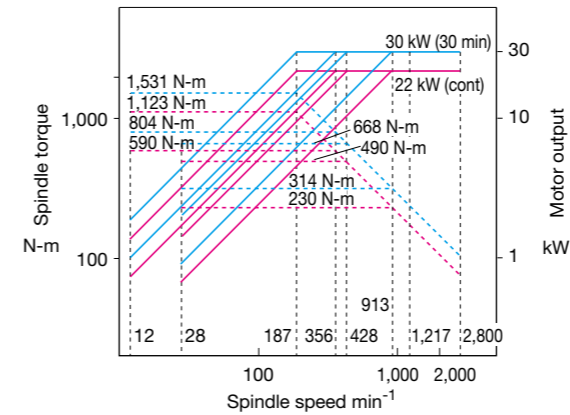
LB45III High power standard spindle

- Spindle speed 2,800 min⁻¹
- Max output 45/37 kW (30 min/cont)
- Max torque 5,047/4,155 N-m (30 min/cont)



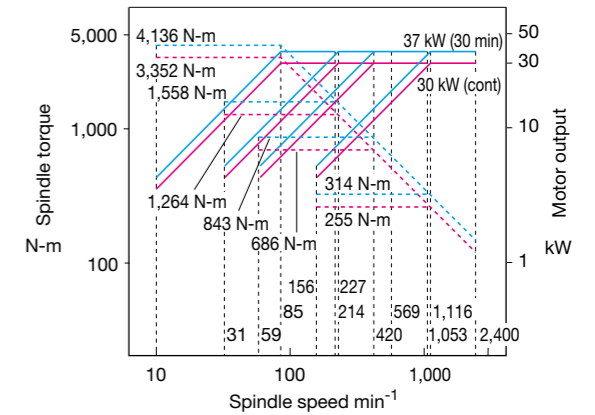
LB35III Big-Bore spindle

- Spindle speed 2,800 min⁻¹
- Max output 30/22 kW (30 min/cont)
- Max torque 1,531/1,123 N-m (30 min/cont)



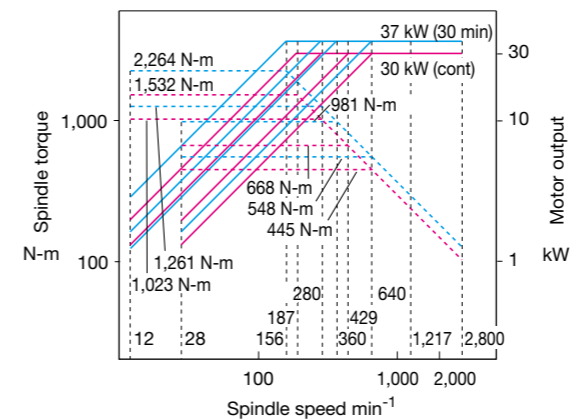
LB45III Big-Bore spindle

- Spindle speed 2,400 min⁻¹
- Max output 37/30 kW (30 min/cont)
- Max torque 4,136/3,352 N-m (30 min/cont)



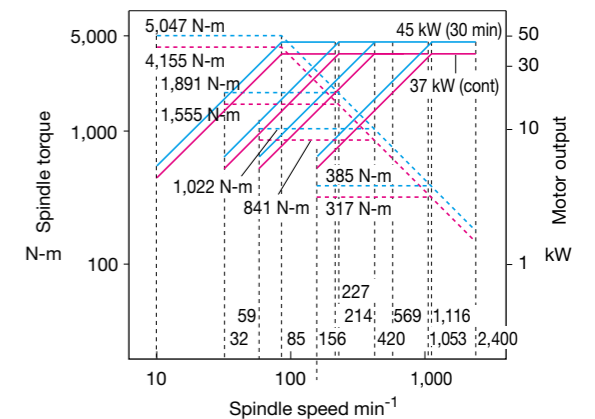
LB35III High power Big-Bore spindle

- Spindle speed 2,800 min⁻¹
- Max output 37/30 kW (30 min/cont)
- Max torque 2,264/1,532 N-m (30 min/cont)



LB45III High power Big-Bore spindle

- Spindle speed 2,400 min⁻¹
- Max output 45/37 kW (30 min/cont)
- Max torque 5,047/4,155 N-m (30 min/cont)



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

Smart factories implement advanced digitization and networking (IoT) 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 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 programming without keying in code
Scheduled Program Editor

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

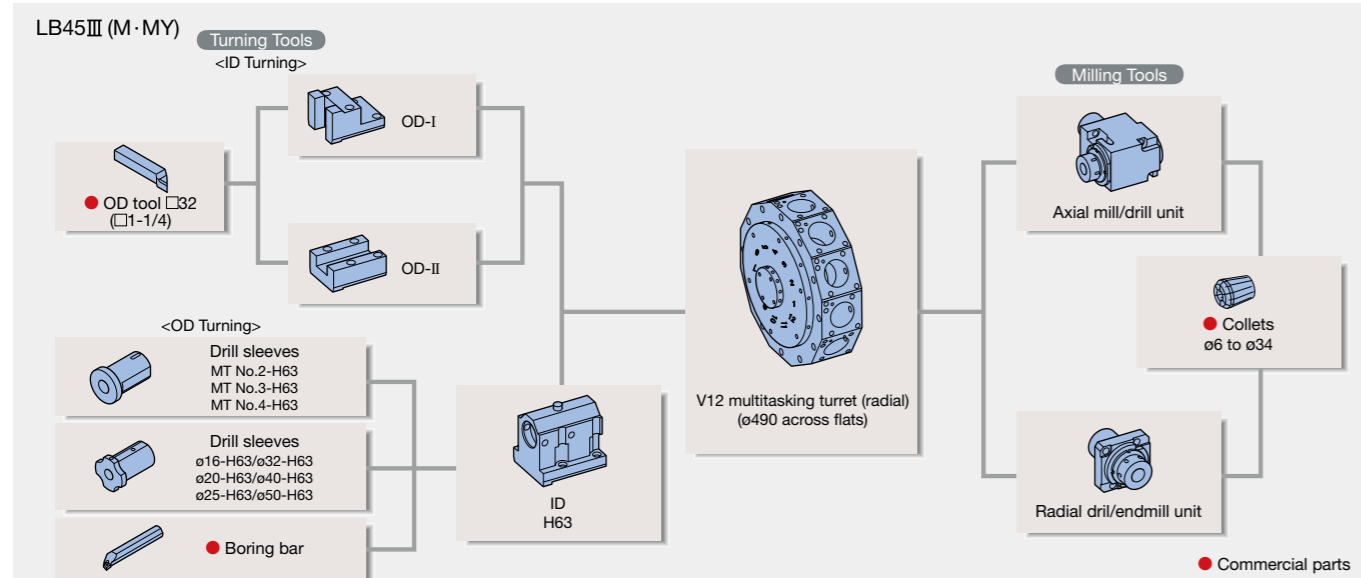
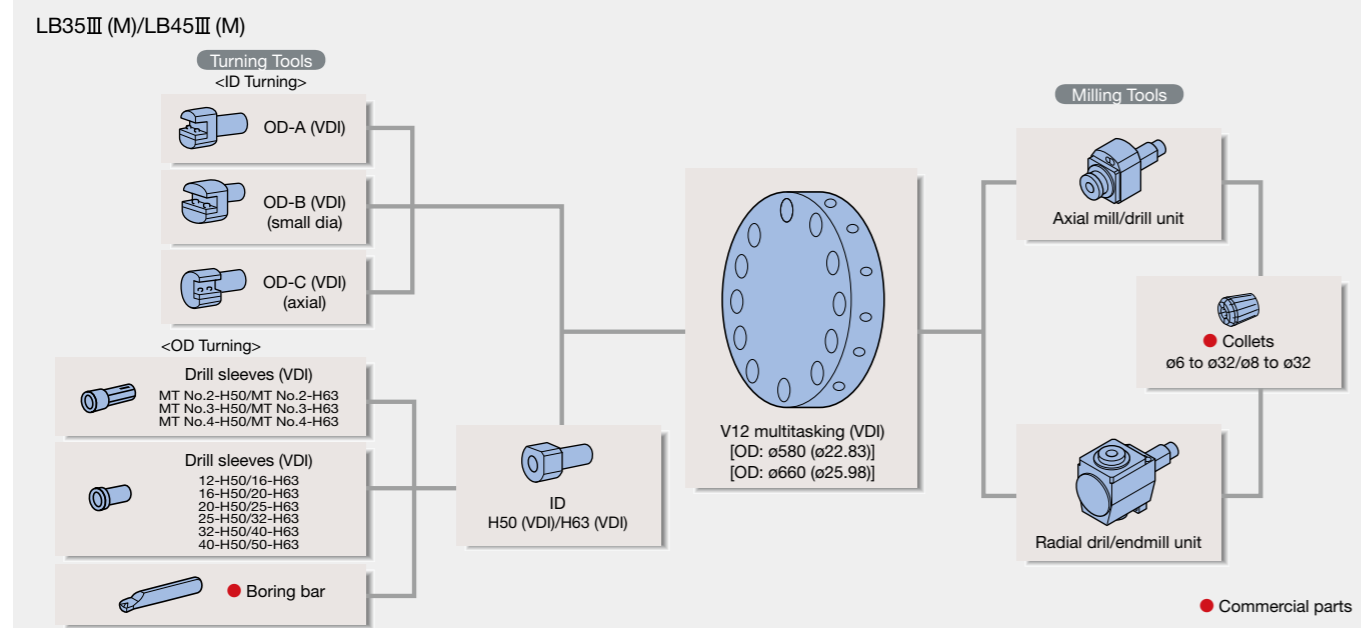
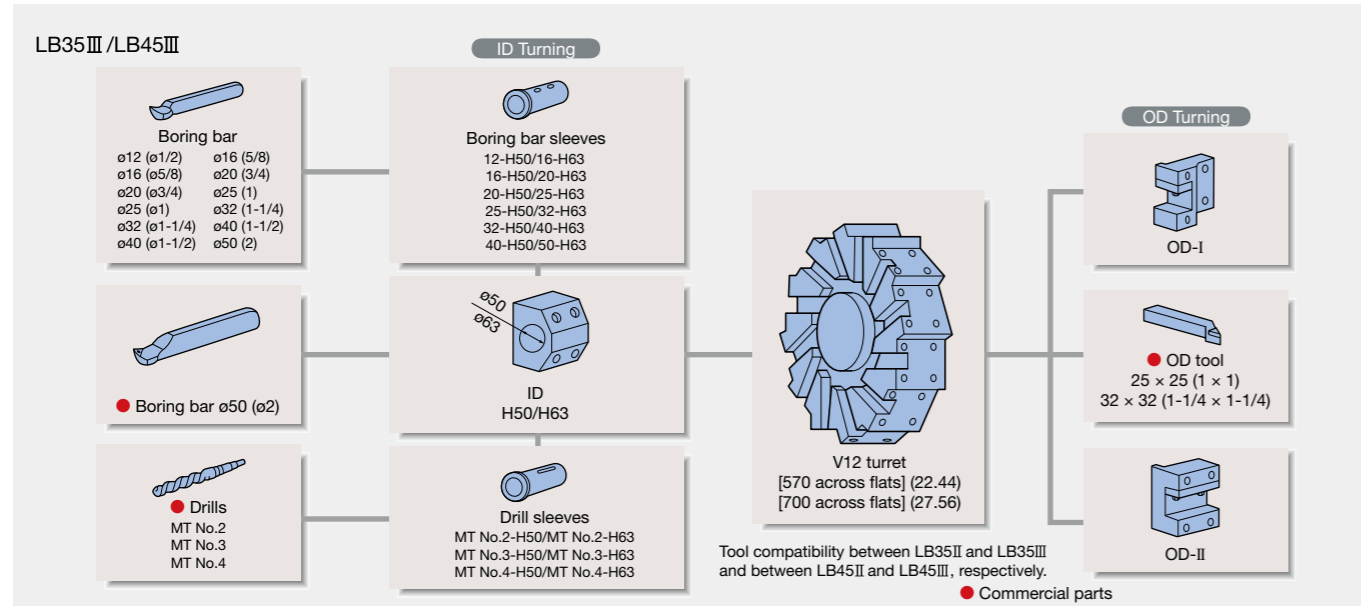
Standard Specifications

Basic Specs	Control	Turning: X, Z simultaneous 2-axis, Multitasking: X, Z, C simultaneous 3-axis
	Position feedback	OSP full range absolute position feedback (zero point return not required)
	Min / Max inputs	8-digit decimal, ±99999.999 to 0.001 mm (±3937.0078 to 0.0001 in.), 0.001" Decimal: 1 μm, 10 μm, 1 mm (0.0001, 1 in.) (1", 0.01", 0.001")
	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 LCD + multi-touch panel operations
	Self-diagnostics	Automatic diagnostics and display of program, operation, machine, and NC system problems
Operations	Programing	Program management, edit, multitasking, scheduled programs, fixed cycles, special fixed cycles, tool nose R compensation, branch statements, auto programming (LAP4), programming help
	Easy Operation	"Single-mode operation" to complete a series of operations Advanced operation panel/graphics facilitate smooth machine control
	Machine operations	MDI, manual (rapid traverse, pulse handle), load meter, operations help, alarm help, sequence, return, manual interrupt & auto return, threading slide hold, data I/O, spindle orientation (electric)
	MacMan	Machining Management: machining results, machine utilization, fault data compile & report, external output
Communications/Networks	USB ports, Ethernet	
High speed/accuracy	Hi-G control, TAS-C (Thermal Active Stabilizer-Construction), ServoNavi (Inertia Auto Setting) *LB45III only	
Energy Saving	ECO suite	ECO Idling Stop, ECO Power Monitor

Optional Specifications

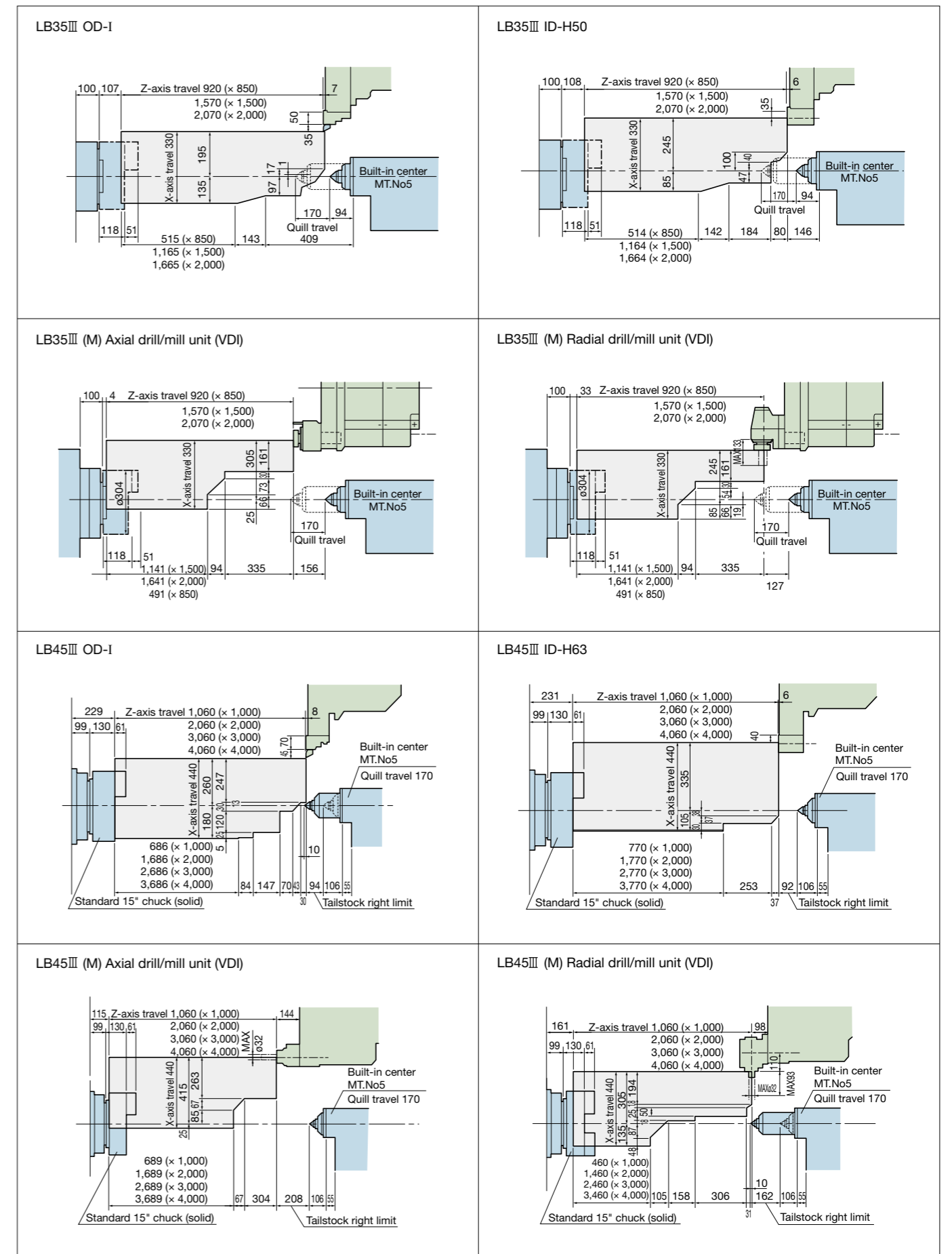
Item	Kit Specs	NML				3D				OT-IGF				OTM			
		E	D	E	D	E	D	E	D	E	D	E	D	E	D		
New Operations																	
Advanced One-Touch IGF-L *1																	
Advanced One-Touch IGF-L Multitasking *1																	
Programming																	
Circular threading																	
Program notes																	
User task 2 I/O variables, 8 ea																	
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 (spindle orientation required)																	
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 Helical profile cutting Flat turning																
Monitoring																	
Real 3-D simulation																	
Cycle time over check																	
Load monitor (spindle, feed axis)																	
Load monitor no-load detection (load monitor ordered)																	
Tool life management																	
Tool life warning																	
Operation end buzzer																	
Chucking miss detection	Included in machine specs																
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 (triple lamp) Type C [Type A, Type B]																	
Measuring																	
In-process work gauging	Included in machine specs																
Z-axis automatic zero offset by touch sensor																	
C-axis automatic zero offset by touch sensor																	
Gauge data output	File output																
Post-process work gauging interface	Set levels (5-level, 7-level) BCD RS-232-C (dedicated channel)																
Touch setter [M, A]	Included in machine specs																
External Input/Output and Communication Functions																	
RS-232-C connector																	
DNC link	DNC-T3 DNC-C/Ethernet DNC-DT																
USB (additional)	2 additional ports possible																
Automation/Untended Operation																	
Auto power shutoff MO2, 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	Type B (machine) Type C (robot and loader) Type D Type E																
Cycle time reduction *2	Operation time reduction Chuck open/close during spindle rotation Tailstock advance/retract during spindle rotation																
High-Speed/High-Accuracy Functions																	
1/10 μm control *2																	
AbsoScale detection *2																	
Hi-Cut Pro																	
Energy saving ECO suite																	
ECO Operation	Power monitoring (On-machine wattmeter) Chip collector and mist collector during operation Spindle power peak cutting																
Other Functions																	
Collision Avoidance System (CAS)																	
One-Touch Spreadsheet																	
Machining Navi L-g																	
Machining Navi T-g threading																	
Harmonic spindle speed control (HSSC)																	
Spindle dead-slow cutting																	
Spindle speed setting																	
Manual cutting feed																	
Short circuit breaker																	
External M signals [2 sets, 4 sets, 8 sets, ()]																	
Edit interlock																	
OSP-VPS (Virus protection system)																	

Tooling System



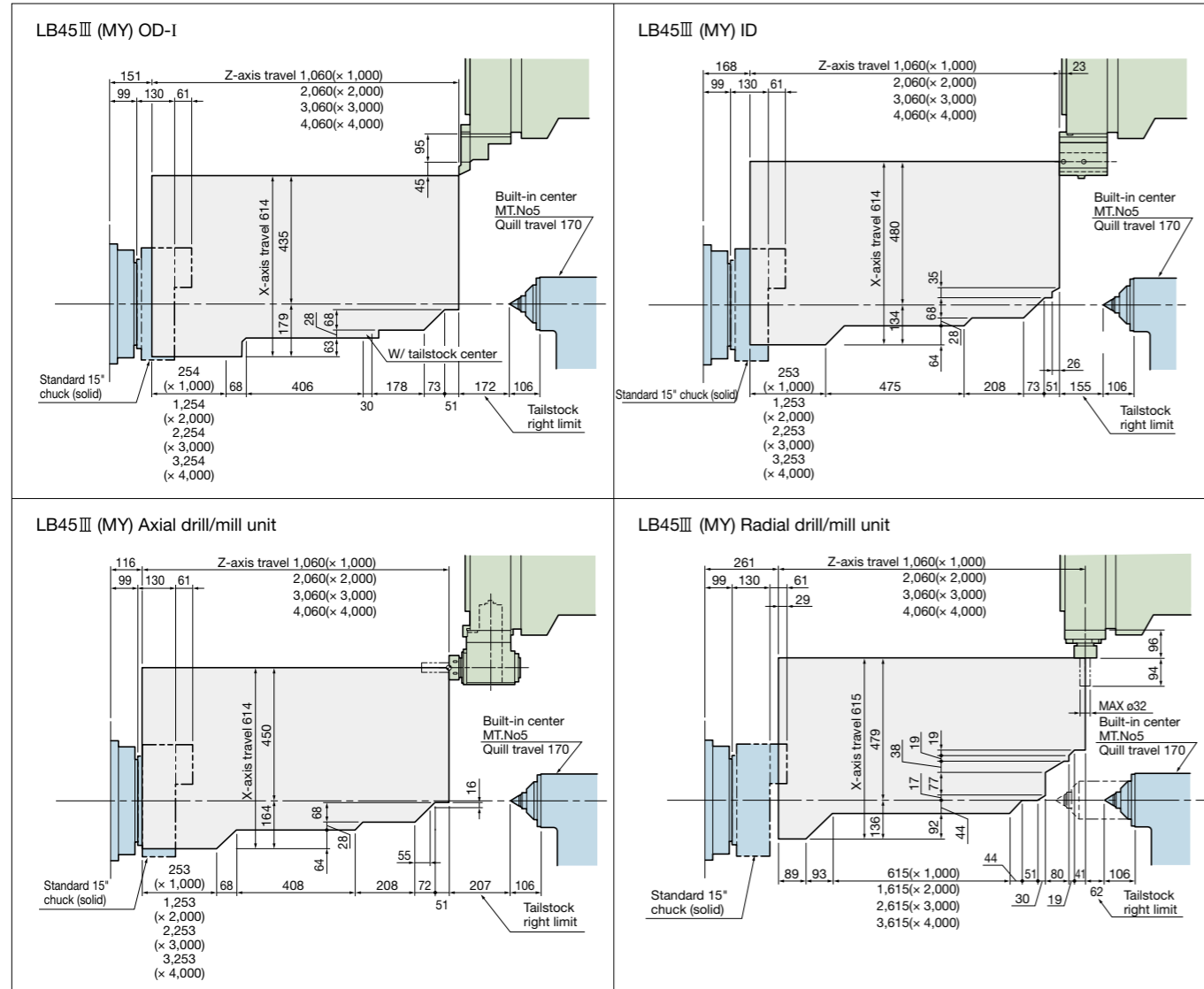
Working ranges

Unit: mm



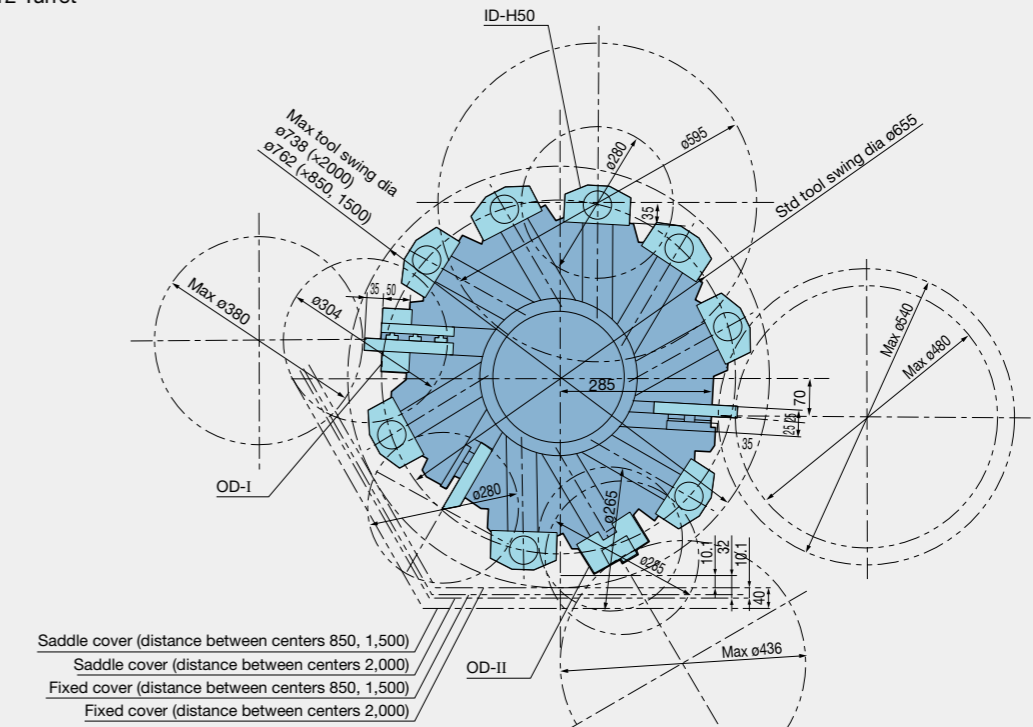
Working ranges

Unit: mm



Tool Interference Drawings

LB35 III V12 Turret

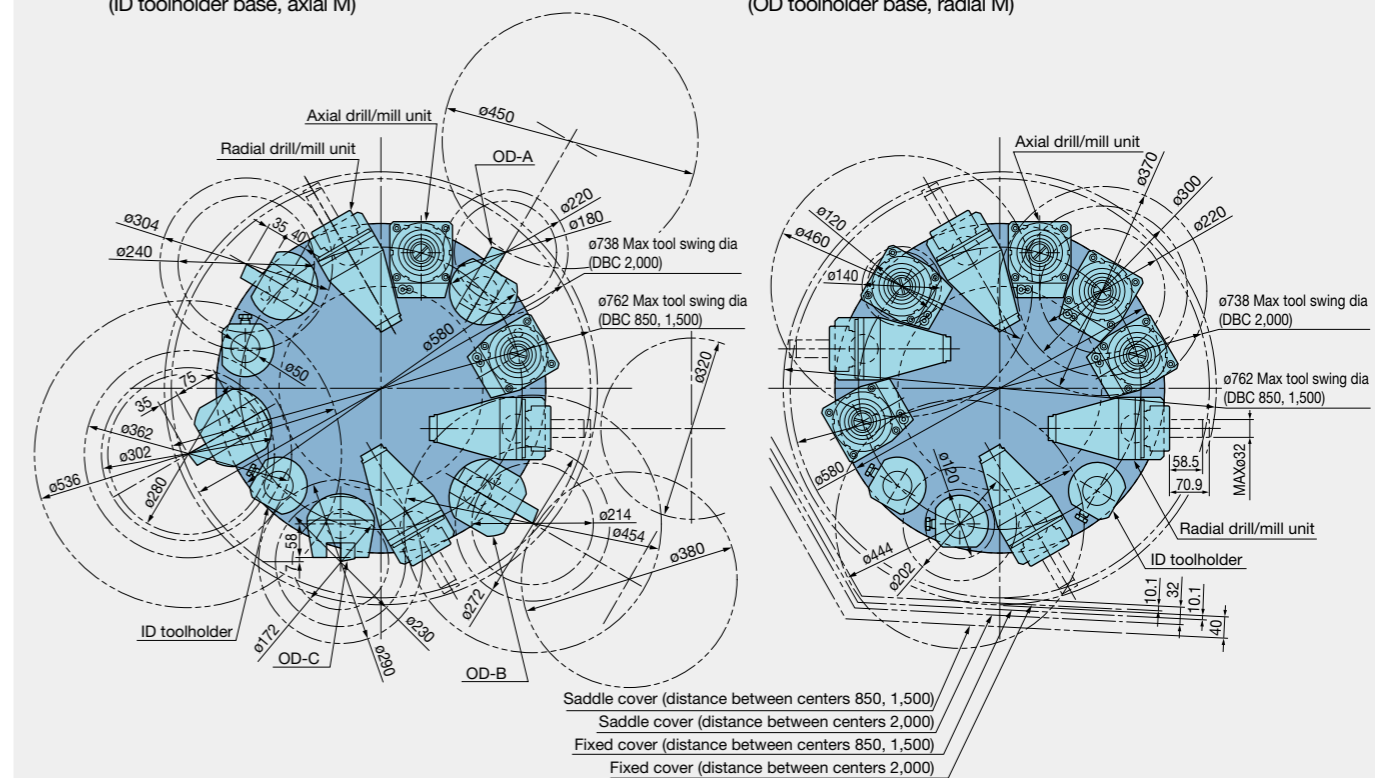


Unit: mm

LB35 III (M) Multitasking V12 Turret (VDI)

Axial tools
(ID toolholder base, axial M)

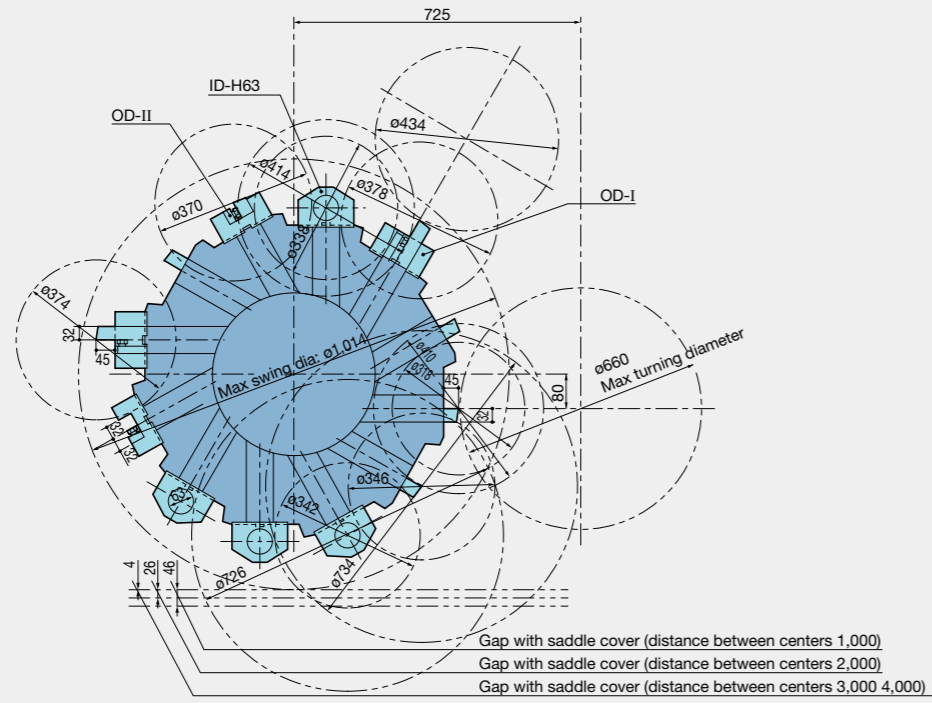
Radial tools
(OD toolholder base, radial M)



Unit: mm

■ Tool Interference Drawings

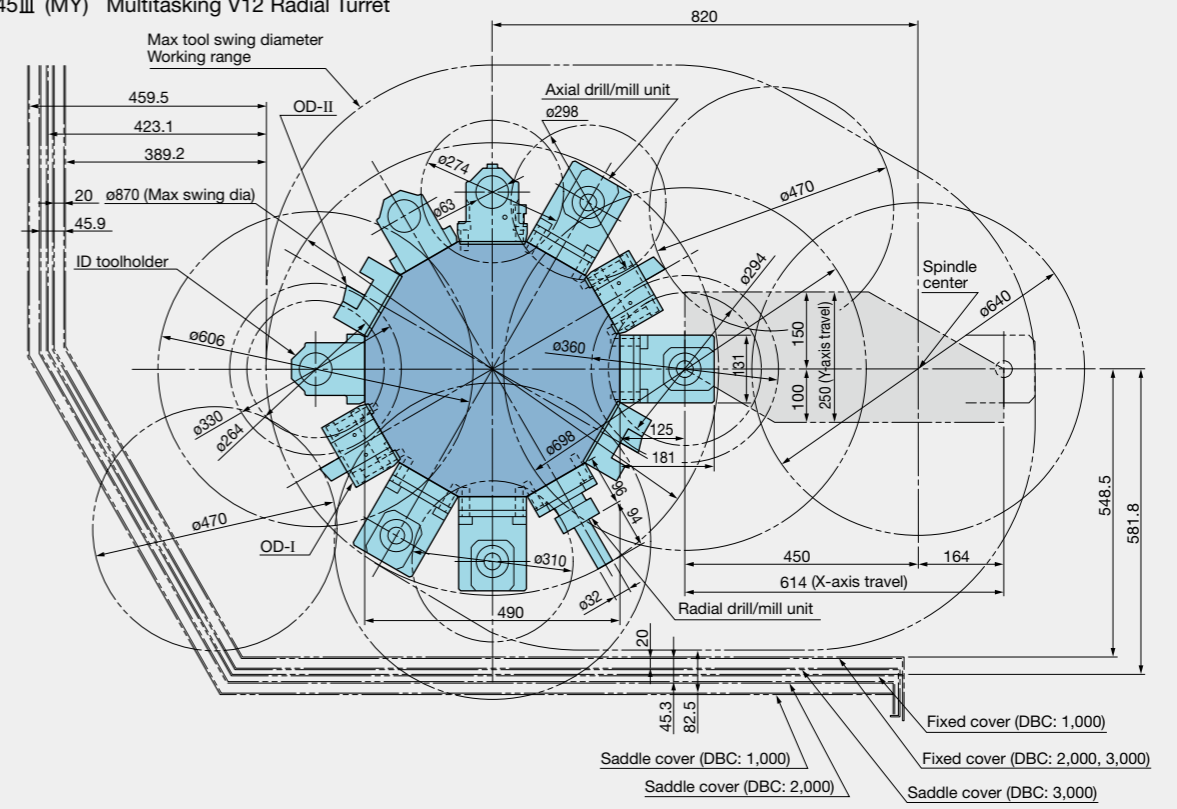
LB45III V12 Turret



Unit: mm

■ Tool Interference Drawing

LB45III (MY) Multitasking V12 Radial Turret

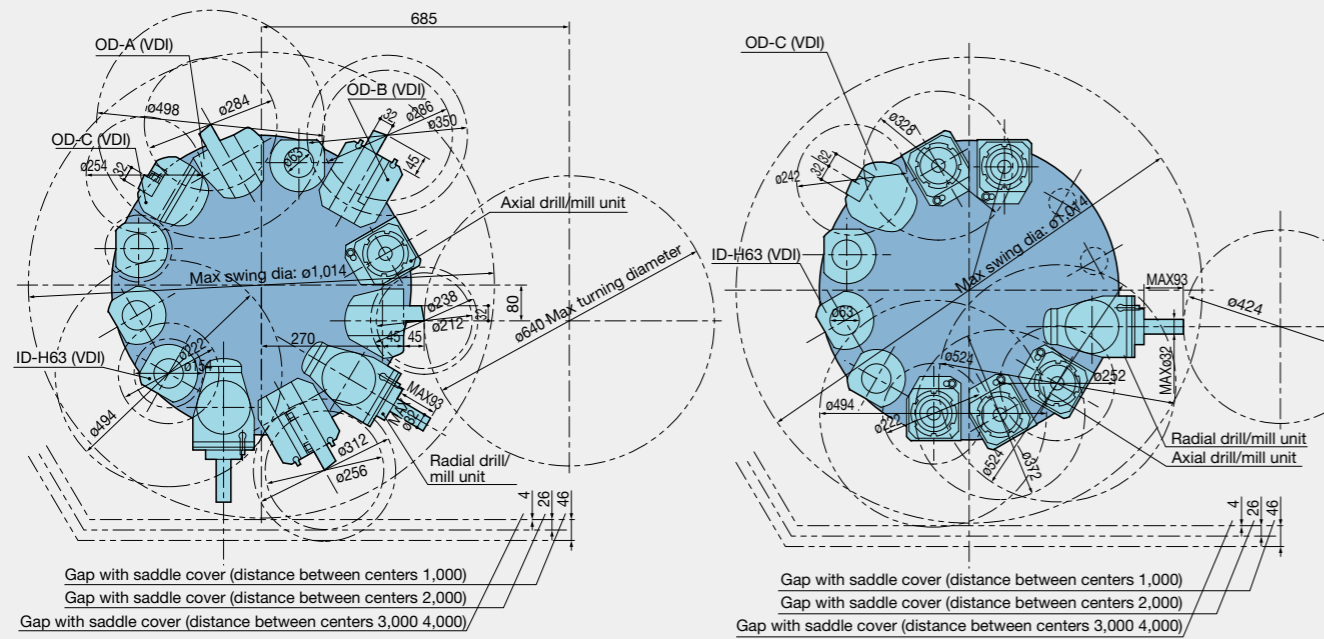


Unit: mm

LB45III Multitasking V12 Turret (VDI)

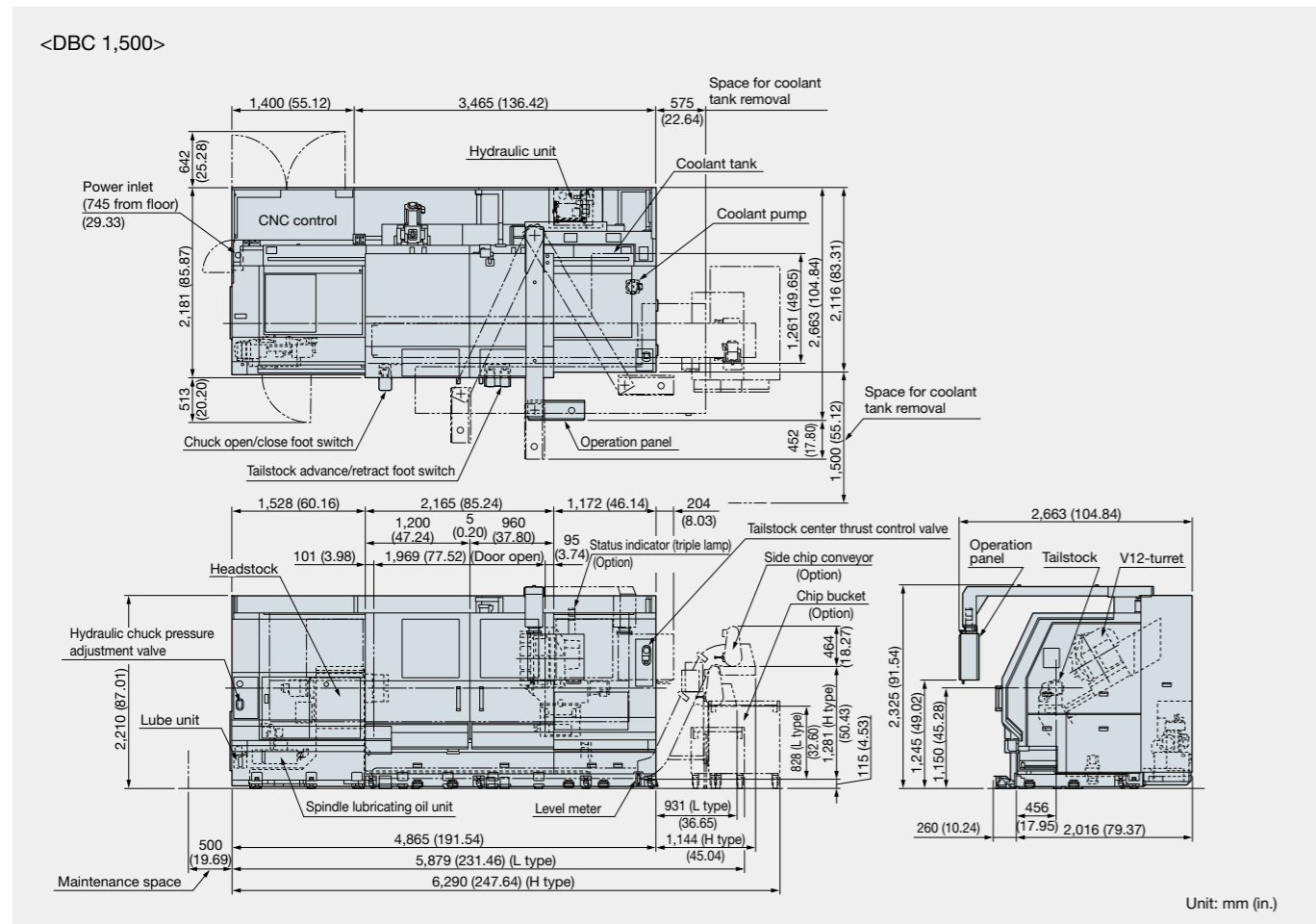
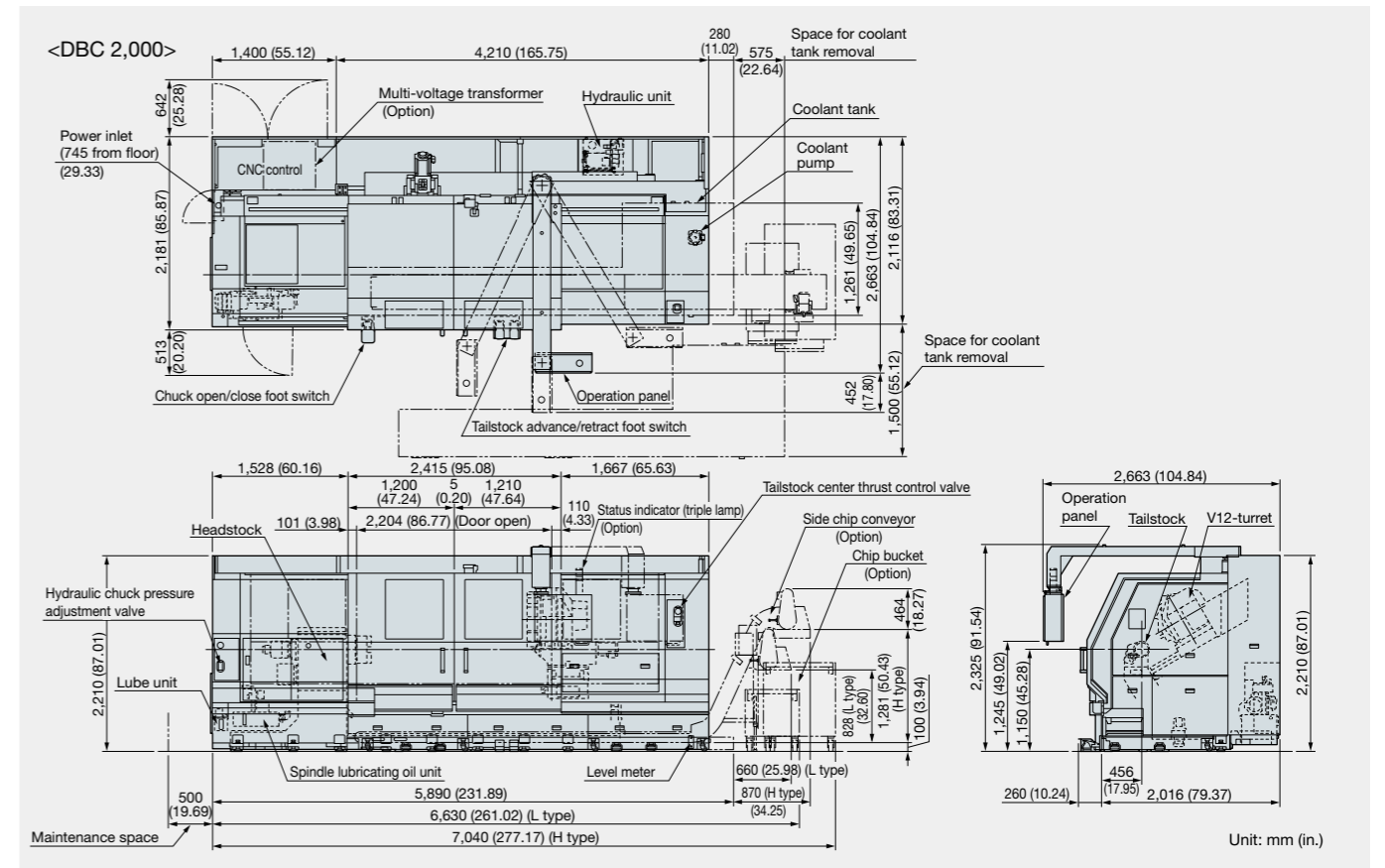
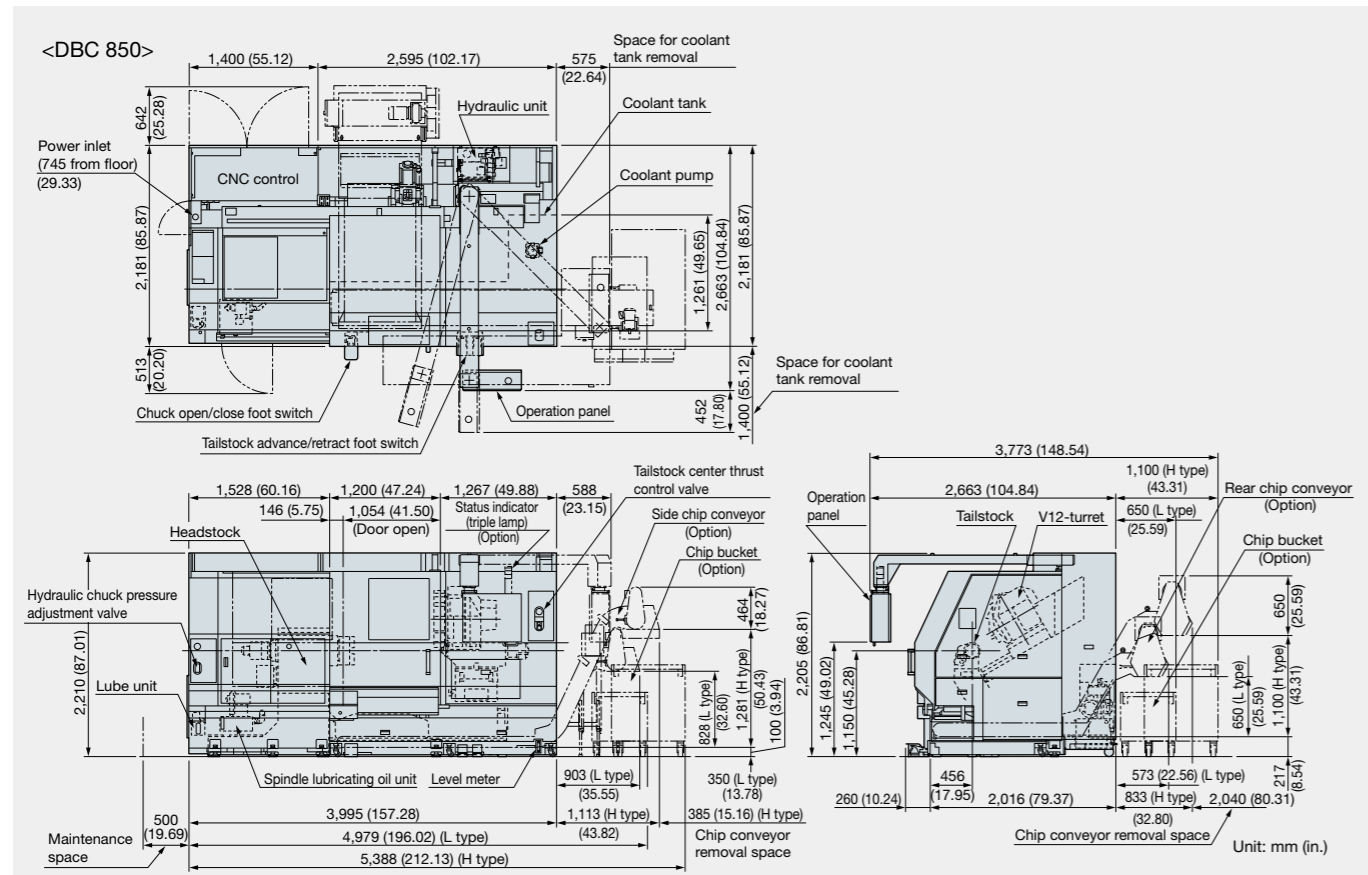
Axial tools
(ID toolholders base, axial M)

Radial tools
(OD toolholder base, Radial M)

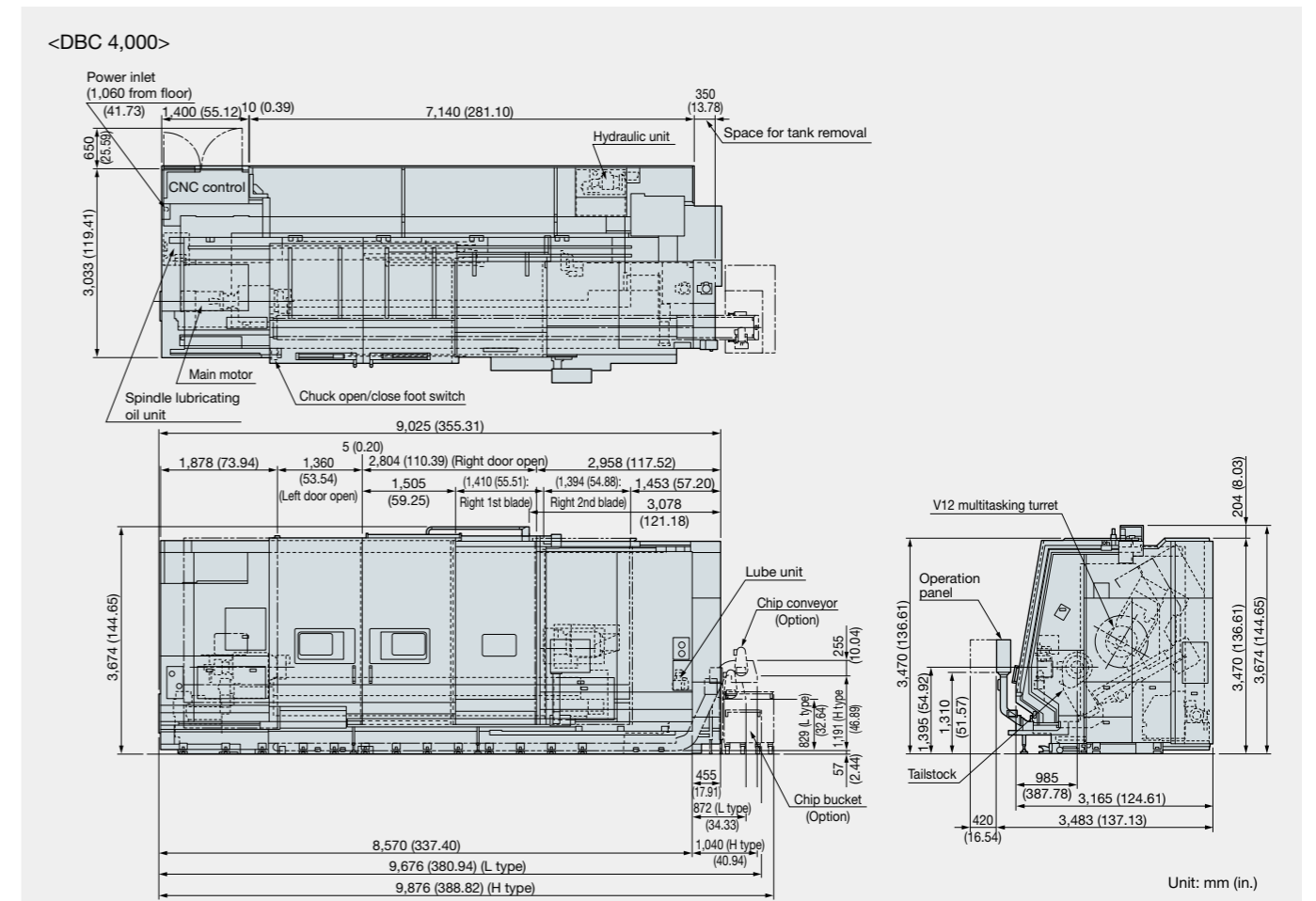
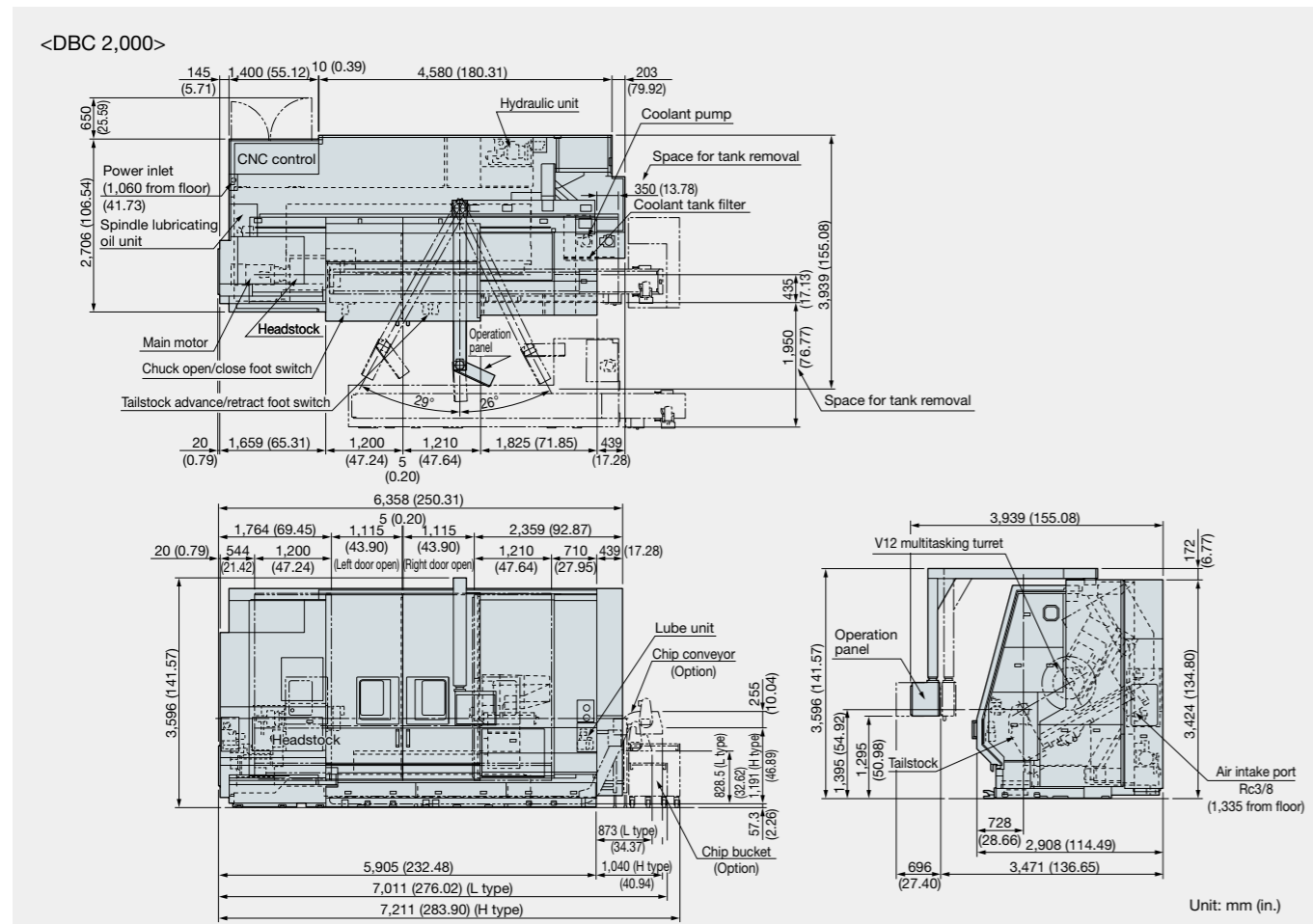
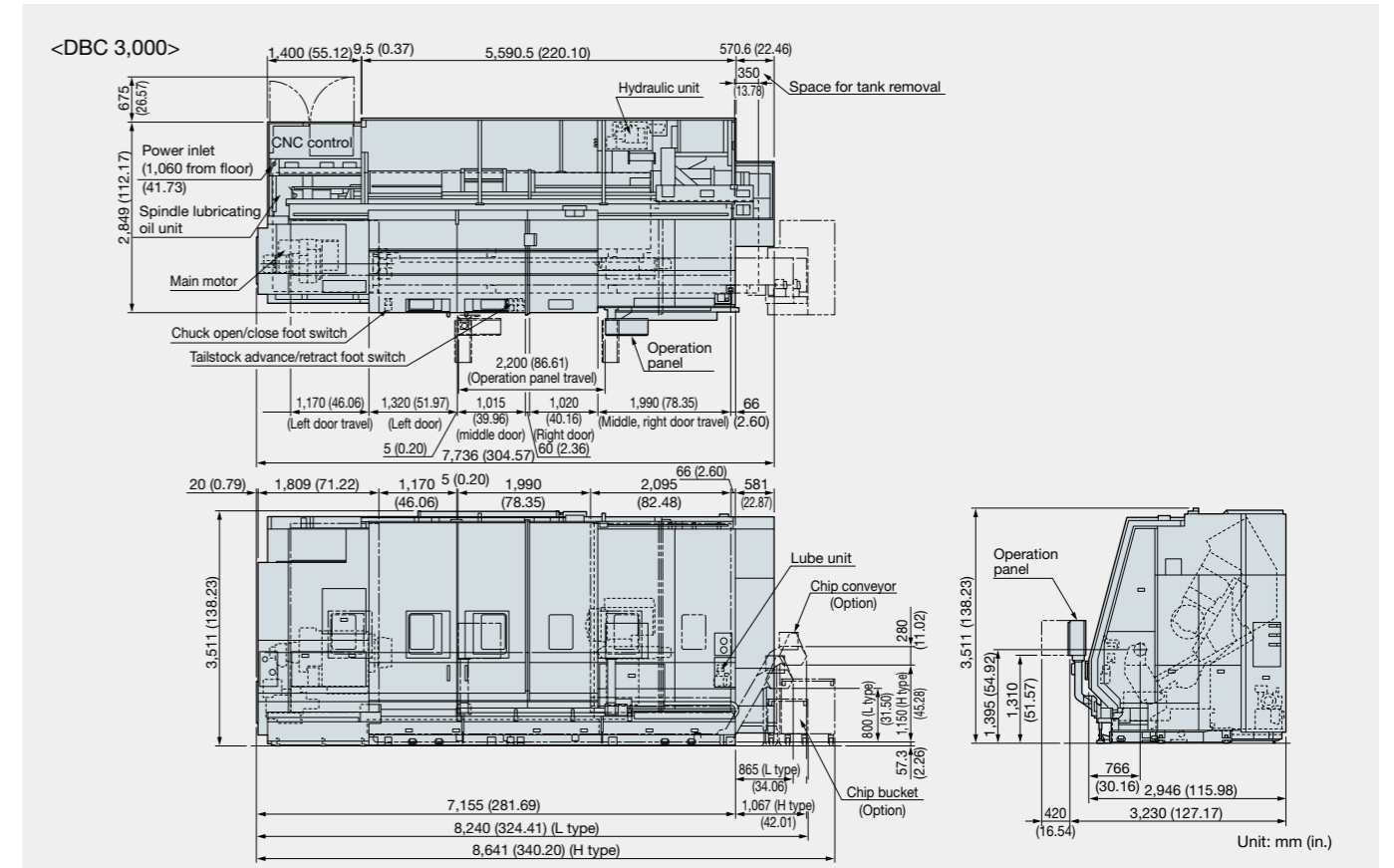
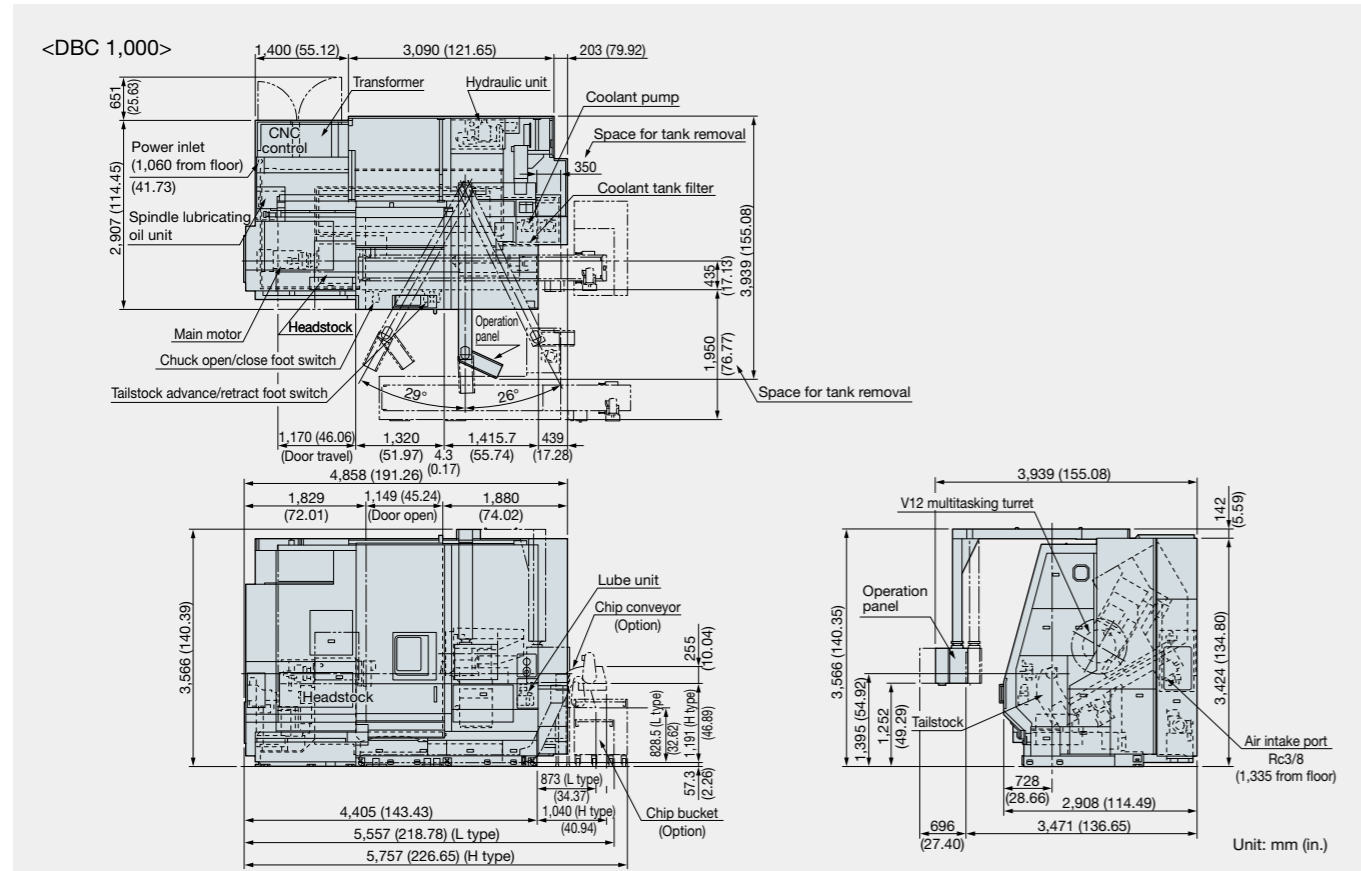


Unit: mm

■ Dimensional / Installation Drawings LB35Ⅲ / LB35Ⅲ (M)



Dimensional / Installation Drawings LB45III (MY)



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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