

# LB300



**Acceleration 0.6 G**  
(1.5x faster than the previous model)

**Rapid traverse**  
X: 20 m/min (787 ipm),  
Z: 25 m/min (984 ipm)

**Turret index time: 0.1 sec**

**Wide-range VAC built-in motor/spindle**

- Super speed Max 4,500 min<sup>-1</sup>
- Increased 15 / 11 kW (20 / 15 hp)  
[20 min/cont]
- Beefy torque 328 N·m (242 ft-lbf)

## Machine Specifications

Machine Type		LB300T		LB300C		LB300T-M	LB300C-M		LB300T-MY	LB300C-MY		LB300-W		LB300-MW		
		x 500	x 1000	x 500	x 1000		x 500	x 1000		x 500	x 1000	x 500	x 1000	x 500	x 1000	
<b>Capacity</b>	Swing over bed	mm (in) $\phi$ 530 ( $\phi$ 20.87)														
	Swing over saddle	mm (in) $\phi$ 420 ( $\phi$ 16.54)				mm (in) $\phi$ 410 ( $\phi$ 16.14)				mm (in) $\phi$ 420 ( $\phi$ 16.54)						
	Distance between centers	—	520 (20.47)	1,020 (40.16)	—	520 (20.47)	1,020 (40.16)	—	500 (19.69)	1,000 (39.37)	—					
	Distance between noses	mm (in) —														
	Max turning dia	mm (in) $\phi$ 370 ( $\phi$ 14.57)				mm (in) $\phi$ 340 ( $\phi$ 13.39)				mm (in) $\phi$ 340 ( $\phi$ 13.38)				Main: 370 (14.57) / Sub: 260 (10.24)		
<b>Travels</b>	Max work length	250 (9.84)	500 (19.69)	1,000 (39.37)	250 (9.84)	500 (19.69)	1,000 (39.37)	240 (9.45)	480 (18.90)	980 (38.58)	—					
	X-axis	mm (in) 260 (185 + 75) [10.24 (7.28 + 2.95)]		mm (in) 260 (170 + 90) [10.24 (6.69 + 3.54)]		mm (in) 280 (210 + 70) [11.02 (8.27 + 2.76)]		mm (in) 260 (185 + 75) [10.24 (7.28 + 2.95)]								
	Y-axis	mm (in) —														
	Z-axis	520 (20.47)	1,020 (40.16)	520 (20.47)	1,020 (40.16)	500 (19.69)	1,000 (39.37)	520 (20.47)	940 (37.01)	520 (20.47)	940 (37.01)	520 (20.47)	940 (37.01)			
	W-axis	mm (in) —														
<b>Spindle</b>	C-axis	mm (in) —														
	Spindle speed	min <sup>-1</sup> 45 ~ 4,500 [38 ~ 3,800]						min <sup>-1</sup> 45 ~ 4,500 [38 ~ 3,800]				Main: 45~4,500 [38~3,800]/Sub: 45~4,500				
	Speed step	2 auto ranges (VAC motor coil switching)														
	Spindle nose	JIS A2-6 [JIS A2-8]						JIS A2-6 [JIS A2-8]				Main: JIS A2-6 [JIS A2-8] / Sub: $\phi$ 140 flat				
	Spindle bore dia	mm (in) $\phi$ 62 [ $\phi$ 80] ( $\phi$ 2.44 [ $\phi$ 3.15])						mm (in) $\phi$ 62 [ $\phi$ 80] ( $\phi$ 2.44 [ $\phi$ 3.15])				Main: $\phi$ 62[80] ( $\phi$ 2.44 [ $\phi$ 3.15]) / Sub: $\phi$ 53 ( $\phi$ 2.09)				
<b>Turret</b>	Diameter at front bearing	mm (in) $\phi$ 100 [ $\phi$ 120] ( $\phi$ 3.94 [ $\phi$ 4.72])						mm (in) $\phi$ 100 [ $\phi$ 120] ( $\phi$ 3.94 [ $\phi$ 4.72])				Main: 100[120] ( $\phi$ 3.94 [ $\phi$ 4.72]) / Sub: 80 ( $\phi$ 3.15)				
	Type	V 12 NC turret			V 12 NC M-turret			V 12 NC M-turret			V 12 NC turret		V 12 NC M-turret			
	No. of tools	L: 12			L, M: 12			L, M: 12			12		L, M: 12			
	Tool shank height	mm (in) 25 (0.98)														
	Boring bar shank diameter	mm (in) $\phi$ 40 ( $\phi$ 1.57)						mm (in) $\phi$ 40 ( $\phi$ 1.57)				MAIN only $\phi$ 40 ( $\phi$ 1.57) / Sub $\phi$ 20 ( $\phi$ 0.79)				
<b>M-spindle</b>	Indexing time	s 0.1 / index														
	Spindle speed	min <sup>-1</sup> —						min <sup>-1</sup> 45 ~ 4,500				min <sup>-1</sup> —		min <sup>-1</sup> 45~4,500		
	Speed step	—						2 auto ranges (VAC motor coil switching)				—		2 auto ranges (VAC motor coil switching)		
	Rapid traverse	X: 20 (787) Z: 25 (984)		X: 20 (787) Z: 25 (984) C: 200 min <sup>-1</sup>		X: 20 (787) Z: 25 (984) C: 200 min <sup>-1</sup>		X: 20 (787) Z: 25 (984) C: 200 min <sup>-1</sup>		X: 20 (787) Z: 25 (984) W: 25 (984)		X: 20 (787) Z: 25 (984) W: 25 (984) C: 200 min <sup>-1</sup>				
	Y-axis Rapid traverse	m/min (ipm) —														
<b>Feedrate</b>	Cutting feedrate	mm/rev (ipr) X, Z: 0.001 (0.00004) ~ 1,000.000 (39.37)						mm/rev (ipr) X, Z: 0.001 (0.00004) ~ 1,000.000 (39.37)				mm/rev (ipr) X, Z, W: 0.001 (0.00004) ~ 1,000.000 (39.37)				
	Y-axis cutting feedrate	mm/rev (ipr) —														
	Y-axis cutting feedrate	mm/rev (ipr) Y: 0.001 (0.00004) ~ 1,000.000 (39.37)														
<b>Tailstock</b>	Quill dia	mm (in) $\phi$ 90 ( $\phi$ 3.54)		mm (in) $\phi$ 90 ( $\phi$ 3.54)		mm (in) $\phi$ 90 ( $\phi$ 3.54)		mm (in) $\phi$ 90 ( $\phi$ 3.54)		mm (in) $\phi$ 90 ( $\phi$ 3.54)		mm (in) $\phi$ 90 ( $\phi$ 3.54)		mm (in) $\phi$ 90 ( $\phi$ 3.54)		
	Tapered bore type	MT No. 5 (live center)		MT No. 5 (live center)		MT No. 5 (live center)		MT No. 5 (live center)		MT No. 5 (live center)		MT No. 5 (live center)		MT No. 5 (live center)		
	Quill travel	mm (in) 120 (4.72)		mm (in) 120 (4.72)		mm (in) 120 (4.72)		mm (in) 120 (4.72)		mm (in) 120 (4.72)		mm (in) 120 (4.72)		mm (in) 120 (4.72)		
<b>Motors</b>	Main spindle	kW (hp) VAC 15 / 11 (20 / 15) [20 min/cont] [22 / 15 (30 / 20) [20 min/cont]]						kW (hp) VAC 15 / 11 (20 / 15) [20 min/cont] [22 / 15 (30 / 20) [20 min/cont]]				kW (hp) VAC 15 / 11 (20 / 15) [20 min/cont] [22 / 15 (30 / 20) [20 min/cont]]		kW (hp) VAC 15 / 11 (20 / 15) [20 min/cont] [22 / 15 (30 / 20) [20 min/cont]]		
	M-spindle	kW (hp) —						kW (hp) PREX 5.5/3.3 (15 min/cont)				kW (hp) PREX 5.5 / 3.3 (7.5 / 4.4) (15 min/cont)		kW (hp) PREX 5.5 / 3.3 (7.5 / 4.4) (15 min/cont)		
	Axis drive	kW X: BL3 Z: BL4						kW X: BL4 Z: BL6 YS: BL3				kW X: 3 Z: 4 W: 3		kW X: 3 Z: 4 W: 3		
	Coolant pump	kW (hp) Side discharge: 0.25, Back discharge: 0.8														
<b>Power requirements</b>	kVA	23 [28.2]						25 [30]				25, 34 [30, 49]				
<b>Machine size</b>	Height	mm (in) 1,745 (68.70)		mm (in) 1,925 (75.79)		mm (in) 1,745 (68.70)		mm (in) 1,925 (75.79)		mm (in) 2,200 (86.61)		mm (in) 2,420 (95.28)		mm (in) 2,195 (86.42)		
	Floor space	mm x mm (in x in) 2,200 x 1,720 (86.61 x 67.72)		mm x mm (in x in) 3,300 x 1,885 (130.31 x 74.61)		mm x mm (in x in) 2,200 x 1,720 (86.61 x 67.72)		mm x mm (in x in) 3,300 x 1,885 (130.31 x 74.61)		mm x mm (in x in) 2,200 x 1,720 (86.61 x 67.72)		mm x mm (in x in) 3,300 x 1,885 (130.31 x 74.61)		mm x mm (in x in) 2,750 x 1,700 (107.28 x 67.0)		
	Mass (w/ CNC system)	kg (lb) 4,000 (8,800)		kg (lb) 4,200 (9,240)		kg (lb) 5,900 (12,980)		kg (lb) 4,100 (9,020)		kg (lb) 4,300 (9,460)		kg (lb) 6,000 (13,200)		kg (lb) 6,000 (13,200)		
<b>CNC</b>	OSP-U100L															

[ ] Indicate big-bore spindle and increased horsepower specs (option)