

MACTURN Series



		MACTURN 250			MACTURN 250-W		MACTURN 350		MACTURN 350-W		MACTURN 550		MACTURN 550-W	
CAPACITY	ITEM	UNIT	T	C x 1000	x 1000	T	C x 1500	x 1500	C x 2000 [3000]	x 2000 [3000]				
	Swing over bed	mm (in.)		ø550 (ø21.65)			ø550 (ø21.65)				-			
	Swing over saddle	mm (in.)		ø530 (ø20.87)			ø530 (ø20.87)				ø720 (ø28.35)			
	Distance between centers	mm (in.)	—	1,000 (39.37)		-	1,500 (59.06)		2,000 [3,000] (78.74 [118.11])	2,000 (78.74)				
	Max machining diameter	mm (in.)		ø550 (ø21.65)			ø550 (ø21.65)				ø720 (ø28.35)			
TRAVELS	X axis	mm (in.)		XA: 475 (18.70), XB: 160 (6.30)			XA:505 (19.88) XB: 210 (8.27)			XA: 660 (+527 - -133), <XB: 230 (+200 - -30)>				
				-						(XA: 25.98 (+20.75 - -5.24) <XB: 9.06 (+7.87 - -1.18)>)				
	Z axis	mm (in.)		ZA: 1,170 (40.06), ZB: 1,155 (45.47)			ZA: 1,670 (65.75), ZB: 1,655 (65.16)			ZA: 2,215 [3,125] <ZB: 2,100 [3,100] >				
				-						(ZA: 87.20 [126.57] <ZB: 82.68 [122.05] >				
	Y axis			160 (+80 to -80) [6.30(+3.15 to -3.15)]			180 (+95 to -95) [7.48 (+3.74 to -3.74)]							
C axis	degree		360° (rotary axis control angle 0.001°)			360° (rotary axis control angle 0.001°)								
	degree		210° (1°indexing)			210° (1°indexing)			1 <0.001>					
SPINDLE	Spindle speed	min ⁻¹		5,000			5,000			<35 - 3,500, 12~ 2,800>				
	Speed ranges			Auto 2-speed (coil switching)			Auto 2-speed (coil switching)			Auto 2-speed (coil switching)				
	Spindle nose			JIS A 2-6			JIS A 2-6			JIS A 2-8 <JIS A2-11>				
	Tapered bore	mm (in.)		ø62 (ø2.44)			ø62 (ø2.44)			90 <110> (3.54 <4.33>)				
	Bearing diameter	mm (in.)		ø100 (ø3.94)			ø100 (ø3.94)			120 <150> (5.12 <5.91>)				
2ND OPERATION SPINDLE	Spindle speed	min ⁻¹ (rpm)	-	6000		-	6000		-	14 - 3,800				
	Speed ranges		-	Auto 2-speed		-	Auto 2-speed		-	Auto 2-speed				
	Spindle nose		-	ø140 flat (5.51)		-	ø140 flat (5.51)		-	JIS A2-8				
	Tapered bore	mm (in.)	-	ø43 (1.69)		-	ø43 (1.69)		-	80 (3.15)				
	Bearing diameter	mm (in.)	-	ø80 flat (3.15)		-	ø80 flat (3.15)		-	120 (4.72)				
TURRET	Type		ATC						Upper: H1 ATC <Lower: V12 VDI 40>					
	No. of tool stations		1 for both L and M tools						Upper: 1 for both L and M tools <Lower: L- tools 12 and M- tools>					
	Tool shank/Boring bar shank dia	mm (in.)	□25 / ø40 (□1/ ø1.57)						Upper::25 / ø50 <Lower::25/ ø40> (Upper: 1/ø1.97 <Lower::1/ø1-1/2>)					
M-SPINDLE	Speed Range	min ⁻¹	6,000						-					
	Coolant		M-spindle thru coolant						-					
LIVE TOOL SPINDLE	Speed range	min ⁻¹ (rpm)	-						Upper: 40 - 5,000 <10,000> <Lower: 30 - 3,000>					
	N-m		-						Upper: 196/134/98 (3 min/20 min/cont). <Lower: 45,3/25.1 (15 min.cont)					
	Max torque	(ft-lbf)	-						(144/96/72) (33.3/18.5)					
FEEDRATE	Cutting feed command range	mm³/rev (ipr)	-						0.001 - 1,000.000 (0.0001 - 39.37)					
			X:30 Z:40 Y:26		X:30 Z:40 Y:26		X: 30 Z:40 Y:26		XA, <XB>: 30, ZA: 40 <ZB: 30>					
	Rapid Traverse	m/min (ipm)	C: 200 min ⁻¹ B: 30 min ⁻¹		C:200 min ⁻¹ B: 30 min ⁻¹		C: 200 min ⁻¹ B: 30 min ⁻¹		(XA, <XB>: 1181, ZA: 1575, <ZB: 1181>)					
								Y: 26 (1024), B: 14 min ⁻¹ , C: 200 min ⁻¹						
ATC	Tool Shank types		HSK-A63, KM63, CAPTO 6						BT40 BIG PLUS® <HSK-A63, KM63, CAPTO C6>					
	No. of Tools		30						30					
	Max tool dia	mm (in.)	ø90 / ø130 (ø3.54 / ø5.12)						ø90 / ø130 (ø3.54 / ø5.12)					
	Max tool length	mm (in.)	Axial/radial tools 250 (9.84)						Axial/radial tools 300 (11.81)					
	Max tool weight	kg (lb)	5 (11)						7 (15.4)					
	Max tool moment kg x mm (lb x in)	mm (in.)	5 x 100 (excluding shank) (11 x 3.94)						7 x 100 (excluding shank) 15 x 3.94)					
	Tool selection		Random address						Random address					
TAILSTOCK	Quill diameter	mm (in.)	-	ø90 (3.54)		-	ø90 (3.54)		-	ø120 (ø4.72)		-		
	Quill bore taper		-	MT 5 (live center)		-	MT 5 (live center)		-	MT5 built-in		-		
	Quill travel	mm (in.)	-	150 (5.91)		-	150 (5.91)		-	250 (9.84)		-		
	Programmable tailstock		-	Auto tow-along type		-	Auto tow-along type		-	Auto tow-along type		-		
MOTORS	Main spindle	kW (hp)	VAC 22/15 (30/20) (20 min/cont)						VAC 22/15 (30/20) (20 min/cont)					
	2nd Operation spindle	kW (hp)	-	VAC 7.5/5.5 (10/7.5)* ¹		-	VAC 11/7.5 (15/10)* ¹		-	VAC 22/15 (30/20)				
	M-spindle	kW (hp)	VAC 11/7.5/5.5 (15/10/7.5) (3 min/20 min/ cont)						VAC 11/7.5/5.5 (15/10/7.5) (3 min/20 min/ cont)					
	Live tool spindle		-						-					
	X, Y, Z axis		-						Upper: VAC 22/15/11 <Lower: VAC 7/3> (Upper:VAC 30/20/15 <Lower: VAC 9/4>)					
									XA, ZA: BL7.1, <XB:BL4, ZB: BL4.8> Y: BL7.1					
SIZE									(XA, ZA: BL9.6, <XB: BL5.4, ZB: BL6.5> Y: BL9.6)					
	Coolant	kW	0.25 x 1, 0.8 x 2; 25:0.25 x 2, 0.8 x 2						0.25 x 1, 0.8 x 2; 25: 0.25 x 2, 0.8 x 2					
									0.25 x 2<3>, 0.8 x 2 (0.34 x 2 <4>, 1.1 x 2)					
CNC	Height	mm (in.)	2,900 (114)						2,950 (116)					
	Floor space* ²	mm (in.)	4,320 x 2,645 (170 x 100)						5,110 x 2,964 (202 x 117)					
	Weight (w/ CNC system)	kg (lb)	11,500 (25,300)		12,500 (27,600)		12,700 (27,940)		13,700 (30,140)		28,000 (31,000) (61,600 [68,200])			
Okuma			OSP-P200L											

*1. 20 min/cont

*2. Includes optional coolant tank

< > Optional