

**TOSHIBA MACHINE MACHINERY'S MODEL; BP-150.R22 PLANER TYPE
HORIZONTAL BORING & MILLING MACHINE with TOSNUC 999 CNC CONTROLLER**

MACHINE MAIN SPECIFICATIONS

TRAVEL

X-axis travel (Cross movement of table)	160"	4,064mm
Y-axis travel (Vertical movement of spindle head)	120"	3,048mm
Z-axis travel (Longitudinal movement of spindle head)	60"	1,524mm
W-axis travel (Spindle extension)	28"	711.2mm
Distance from table surface to spindle centerline	0 - 120'	0 - 2,540mm
Distance from table centerline to spindle gage plane	24 - 84"	609.6 - 2,133.6mm

TABLE

Table working surface	70.9x86.6"	1,800 x 2,200mm
Table loading capacity	44,000lbs	20,000kg
Table surface configuration	11T-slots, 0.87" width 6.3" pitch	11T-slots, 22mm width 160mm pitch
Minimum table indexing angle	0.0001 degree	

SPINDLE

Spindle diameter	5.9"	150mm
Spindle speed	5 - 2,500min-1	
Milling spindle nose diameter	9.8"	250mm
Type of spindle taper hole	7/24 Taper No. 50	

FEEDRATE

Rapid traverse X,Y and Z-axes	393.7ipm	10,000mm/min
W-axis	196.9ipm	5,000mm/min
B-axis	500degree/min	
Feedrate X, Y and Z-Axes	0.04 - 157.4ipm	1 - 4,000mm/min

AUTOMATIC TOOL CHANGER

Type of tool shank	MAS BT50 & ANSI V-Flange	
Type of retention knob	MAS P50T-1 (45 degree)	
Tool storage capacity	38 pots	
Maximum tool diameter		
* When pots are full	4.9"	125mm
* When adjacent pots are empty	9.4"	240mm
Maximum tool length	15.7"	400mm
Maximum tool mass	55lbs	25kg
Tool selection method	Pot-address random short-cut	

SPINDLE MOTOR

Spindle drive motor (30min./cont.)	50/40HP	AC37/30kW
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CNC system

TOSNUC 999

Power sources

Electric power supply	AC 208V, 60Hz	
Power capacity	85kVA	
Compressed air supply		
* Pressure	72.5 ~ 116psi	0.5 ~ 0.8MPa
* Flow rate	198.4Ngal/min	750NL/min

1) No oily, moist or dusty air shall be prepared by customer

Air dryer is recommended to prevent moisture contamination from air supply.

2) Customer needs to prepare either direct AC208V 60Hz or a transformer to meet the applicable power source requirement for the machine

MACHINE SIZE

Machine height	206.2"	5,238mm
Floor space	300x402"	7,620x10,210mm
Machine weight	96,800lbs	44,000kg

ACCURACY

Positioning accuracy of X, Y, Z	± 0.0003 " / full stroke	± 0.008 mm / full stroke
W	± 0.0005 " / full stroke	± 0.012 mm / full stroke
Repeatability of X, Y, Z	± 0.00016 "	± 0.004 mm
W	± 0.00031 "	± 0.008 mm
Table indexing accuracy		
* Any position	± 5 sec.	
Table indexing repeatability	± 3 sec.	
1) Accuracy under no-load and stable ambient condition		
2) Other accuracy as per the our standard test chart (testing method & tolerances)		

STANDARD ACCESSORIES

- 1) Numerical control TOSNUC 999
- 2) Machine operation box (Pendant type)
- 3) Automatic tool changer (Tool storage capacity; 38)
- 4) Automatic spindle clamping unit
- 5) Spindle orientation stop function
- 6) Spindle speed drop monitoring function
- 7) Constant volume mist unit for spindle bearing lubrication
- 8) Spindle head cooling unit (Main bearings, Motor flange oil jacket)
- 9) Hand wheel feed unit for X, Y, Z, W & B axes (Portable)
- 10) Scale feedback for X, Y and Z-axes
- 11) Automatic table indexing with Locator pin at every 90degree
- 12) Automatic table random angle indexing unit (every 0.0001 degree)
- 13) Automatic table clamping unit (Hydraulic)
- 14) Table reference piece
- 15) Table oil pan
- 16) Table bed slide-way cover
- 17) Column bed slide-way cover
- 18) BPL
- 19) Column front cover
- 20) Chip conveyor (Hinge plate type)
 - * Mainly used for cast and steel milling chips
 - * Processing capability; 0.8gal/min (3L/min)
- 21) Working light (Spotlight)
- 22) Hydraulic unit for spindle head hydraulic pressure and lubrication
 - * including cooling unit
- 23) Plug receptacle for external equipment (AC 100V, 1.5A)
- 24) Assembly and reassembly tools for maintenance
- 25) Installation parts
- 26) Auto power OFF unit
- 27) Operator call lamp (1color, Yellow)
- 28) Chip cover A (simple & detachable)
- 29) Continuous table indexing device
 - * 0.0001degree (NC Rotary milling operation)
- 30) B-axis rotary scale feedback