



510mm High Speed Mill-Drill-Tap Center

- + 12,000 RPM Inline Direct-Drive Beltless Spindle
- + 21-Tool Drum Turret
- + Tool Change Time 1.6-sec. tool-to-tool, Servo motor driven
- + 2,362 Inch per Minute Rapid Rates
- + BT#30 BBT Dual Contact Big-Plus Spindle
- + 6,000 RPM Synchronous Rigid Tapping
- + 7.5 HP Spindle Motor



Axis Travel

X-Travel	20.08" 510mm
Y-Travel	16.93" 430mm
Z-Travel	12.99" 330mm
Spindle Nose to Rotary Table Surface	5.1" – 18.1", 130 – 460mm
Spindle Center to Column	18.89" 480mm

Work Table

Table Surface Dimension (X, Y)	22.04" x 15.75", 560 x 400mm
T-Slot Dimension / Spacing	3-14mm T-slots / 125mm center distance spacing
Table Height	35" above floor, 890mm
Maximum Table Weight for Rated Accuracy	550 pounds, 250kg @ 60m/min (770 lbs. @ 48m/min.)

Spindle

Spindle Motor – Mitsubishi DJ-D5.5/120-01	7.5-HP, 3.7/5.5kw 25% Duty-Cycle
Spindle Motor Coupling	Inline Direct-Drive, Beltless Spindle Drive
Spindle Speed	12,000 rpm, 15,000 RPM optional
Synchronous Tapping Speed Limit	6,000 rpm
Tapping Performance in Production	M20x2.5 in aluminum, M14x2.0 in steel
Drilling Performance in Production	38mm in aluminum, 25mm in steel
Spindle Torque	26 ft-lb @ 1,500 rpm, 25% Duty-Cycle
Tool Type	BT #30, 4-bearing spindle – 2-top, 2-bottom
Spindle Bearing - Inner Diameter	40mm, P4 class-7, Steel Ball Bearings
Spindle Material / Hardness	SCM415 / HRC 58-62
Spindle Runout	≤ 0.000040" T.I.R.
Retention System / Holding Capacity	MAS-P30T-1 Bellville Spring Stack / 1650-1760 lbs.

Axis Feeds

Rapid Traverse – X/Y/Z	2,362 ipm 60/60/60 /minute
Rated Cutting Feedrate – X/Y/Z	0.04 - 1181 ipm 30/30/30m/minute
Mechanical Way System – X/Y/Z	Roller-Bearing Ways, Roller-Ways -30/30/35mm width
Axis Drive Motor Power – X, Y/Z	2.0-HP / 3.0-HP 1.5kw / 2.2kw with brake
Axis Thrust Force – X, Y/Z	3335 lbs. / 3692 lbs. 14840 N / 16430 N
Ballscrews – X, Y, Z	32mm Ballscrews, 16mm Pitch
Positioning Accuracy – X/Y/Z	±0.00015" ±0.004mm
Positioning Repeatability – X/Y/Z	±0.00008" ±0.002mm
Least Input Command Increment	0.0001" / 0.000040" 0.001mm / (40-millionths in metric)

Tool Changer

Tool Capacity	21-Tools, Drum Turret
Tool Shank	BT#30, MAS P30T-1 Pull-Stud
Tool Change Time	1.6-sec. tool-to-tool, Servo motor driven
Maximum Tool Diameter / with adjacent tool	2.36" / 3.15" 60mm / 80mm with no adjacent tool
Maximum Tool Length / Weight	7.87" / 6.6 lbs. 200mm / 3 kg
Tool Selection / Tool Access	Random access Bi-directional shortest path

Specifications

Air Service Requirements	85 psi @ 5-scfm 6 Kg/cm²
Connected Load Electrical Requirements	40 Amps / 220vac ±5%, 60-Hz
Coolant Tank Capacity	32-gallons / 120 liters
Coolant Pump (Cutting Tools) - HP / Pressure	1.0-HP / 45 PSI, .75kw Grundfos MTH4-30/3A
Coolant Pump (Chip Flush Pump)	1.0-HP .75kw
Floor space requirements (W x D x H)	50" x 87" x 95" 125x221x241cm (+ chip conveyor)
Machine Weight	6,110 pounds, 2,770 kg
Warranty – 1-year machine warranty	3-year Mitsubishi control, motors, & drive warranty