



Full 5-Axis Machining Capability

- + Ø 25.6" Worm-Gear Driven Tilting Rotary Table
- + Precision Glass-Scale Feedback on X, Y, Z, and B & C axis
- + 15,000 RPM Inline Direct-Drive Beltless "Big-Plus" Spindle
- + 1,417 IPM rapid rates in X, & Y axis for fast production
- + 60-Tool High-Speed Twin-Arm Tool Changer (54-tools optional)
- + Roller-bearing style heavy-duty linear way system use on all linear axes



Axis Travel

X-Travel	24.41" 620mm
Y-Travel	20.47" 520mm
Z-Travel	18.11" 460mm
Spindle Nose to Table Surface	5.51" – 23.62" 140 – 600mm
Spindle Center to Z-axis way covers	17.71" 450mm (throat dimension)
Maximum Workpiece Dimension	20.47" x 13" tall 520 x 330mm tall

Spindle

Spindle Motor – S1/S2/S3=11/15/18.5kw	25-Horsepower Peak 20-HP 30-minute duty-rating
Spindle Speed	15,000 rpm Direct-Drive (12,000 & 20,000 rpm optional)
Spindle Torque - Dual Winding Motor	70 ft-lb @ 0-1,500 rpm (95.5 N-m)
Tool Type	CAT #40 Taper BT #40, HSK-63 optional
Spindle Taper Material / Hardness	SCM415 / HRC 58-62
Retention System / Holding Capability	Bellville Spring Stack 1650-1760 lbs
Spindle Runout	≤ 0.000040" T.I.R.
Spindle Bearings - Front	110mm NSK 70BNR 2, P4 class-7 bearings
Spindle Bearings - Rear	110mm NSK 70BNR 2, P4 class-7 bearings

Axis Feeds

Rapid Traverse X, Y, Z	1,417 ipm 36m / minute
Cutting Feedrate	0.04 - 394 ipm 10,000 mm/min
Axis Drive Motor Power – X, Y	4.7-HP (3.5kw)
Axis Drive Motor Power - Z	4.7-HP (3.5kw) w/brake
Ballscrews – X, Y, Z	32mm ballscrews 12mm pitch
Thrust Force – X, Y, Z (maximum / constant)	8268 lbs. / 2862 lbs. 65nm / 22.5nm
Least Input Command Increment	0.0001" / 0.000040" 0.001mm / (40-millionths in metric)

Tool Changer

Tool Capacity (40+1) Hi-Speed Tool Changer	60-Tool Twin-Arm
Tool Shank	CAT#40 Taper BT#40, HSK 63 optional
Tool Change Time – Tool-to-Tool	1.9-sec. Tool-to-Tool
Tool Change Time – Chip-to-Chip	4.9-sec. Chip-to-Chip
Maximum Tool Diameter w/ adjacent tool	5" / 3" 127mm / 76mm
Maximum Tool Length (from gage line)	10" 250mm
Maximum Tool Weight	15lbs / 7kg
Tool Selection / Tool Access	Random access / Bi-directional

Specifications

Air Service Requirements	85 psi @ 14-scfm 6 Kg/cm ²
Electrical Requirements - connected load	55kva 220vac 5%, 60-Hz
Coolant Capacity / Pressure	106-gallons / 300 psi 400 liters / 20-bar
Floor space requirements (W x D x H)	160" x 130" x 119" 405x328x301cm
Shipping dimensions (W x D x H pallet #1)	92" x 170" x 100" 234x432x254cm - machine
Shipping dimensions (W x D x H pallet #2)	92" x 160" x 65" 234x407x166cm - accessories
Machine Weight	18,500 pounds 8,500 kg
Warranty – 1-year machine warranty	3-year Mitsubishi control, motors, & drive warranty