

INTRODUCING

The New **Diamond Cut Series**

Vertical Machining Center

DM Series



Integral Motor 20k Spindle

- Travel size range:
DM-800 (31.5 x 19.7 x 21.3)
DM-1600 (63.0 x 35.4 x 31.5)
- Super HSK-A63 Tool Taper
- 32-Position ATC standard

- **High Rigidity**

Robust structure design based on Meehanite cast iron with enhanced ribs in the major construction areas provide super rigidity for heavy duty cutting or high speed finishing.

- **High Speed**

Direct drive double anchored ball screws combined with heavy duty Roller Guide Type are used on all three axes to be able to withstand heavy loading, tolerate high acceleration with rapid movement, ensure precise positioning and provide the best surface finish.

- **High Accuracy**

The spindle is designed with an integral motor using angular contact ceramic bearing technology which operates with an oil mist lubrication system. For continuous high speed operation a surrounding jacket of oil circulated through a chiller system stabilizes spindle temperature.

- **High Efficiency**

The ATC is a very fast cam driven Arm Type and combined with rapid speeds of up to 945"/min. in the X, Y. axes and 787"/min. in the Z-axis, saves on non-cutting time.



DM Series

Standard Machine Features

Full Enclosure
 20,000-RPM Integral Motor Spindle
 Spindle Oil Chiller
 32-Position Automatic Tool Changer
 HSK-A63 Tool Taper
 X-Y-Z Linear Glass Scales
 Coolant Thru Spindle Prep. (1000psi)
 Roller Pack LM Guideways
 Auto Oil Lube System
 Chip Auger
 Air Gun
 Water Gun
 Oil / Coolant Separator
 Automatic Power Shut Down Circuit
 Three Stage Patrol Lamp
 Machine Lamp
 Leveling Bolts and Pads
 Instruction Manuals
 Electrical Schematics
 Accuracy Test Documentation
 Spindle Load Meter

Mitsubishi M720 Standard Package

600 Block Look Ahead
 Editable Data Server (Flashcard type)
 Ethernet with TCP/IP Protocol &
 RS232 Communications
 512 KB Machine Memory
 Parts Count & Run Hour Display
 Helical Interpolation
 Coordinate Rotation
 Rigid Tapping
 Tool Life Management
 Additional Work Offsets
 Workpiece Pickup Routines
 Graphic's Display
 Navi (Conversational)
 Programming
 Inch/Metric Switching



Linear Glass Scales Std.



Model Size	Axis Travels X-Y-Z inch	Table Size X-Y inch	Max Table Cap. lbs	Spindle Speed	Spindle HP (cont/30 min)	Spindle Nose to Table inch	Arm Type ATC Tool Count Tool Taper	Max Tool Dia. w / wo Adj. Tool	Max Tool Length / Weight	X, Y, Z Rapid Speed	Cutting Feedrate inch/min.	Machine Weight lbs.	Power KVA	Coolant Cap. Gal.	Mach Dimensions W-D-H inch
DM-800	31.5 x 19.7 x 21.3	35.8 x 19.6	1100	20,000	20 / 24	5.9 ~ 27.2	32 / HSK-A63	3.1 / 4.9	12.0 / 15.4	945 (787)	0.04 ~ 394	11,700	25	77	82.6 x 76.2 x 100.7
DM-1000	40.2 x 22.0 x 23.6	39.3 x 22.0	1650	20,000	20 / 24	5.3 ~ 28.9	32 / HSK-A63	3.1 / 4.9	12.0 / 15.4	945 (787)	0.04 ~ 394	15,400	25	77	88.2 x 76.2 x 103.0
DM-1200	47.2 x 23.6 x 26.6	48.0 x 24.4	2200	20,000	20 / 24	3.9 ~ 30.5	32 / HSK-A63	3.1 / 4.9	12.0 / 15.4	945 (787)	0.04 ~ 394	17,600	25	95	113.4 x 85.8 x 110.2
DM-1400	55.1 x 31.5 x 29.1	59.1 x 33.5	3520	20,000	20 / 24	3.9 ~ 33.1	30 / HSK-A63	3.3 / 5.9	12.0 / 15.4	787 (787)	0.04 ~ 315	29,800	40	132	136.6 x 110.8 x 126.4
DM-1600	63.0 x 35.4 x 31.5	66.9 x 33.5	4410	20,000	20 / 24	3.9 ~ 35.4	30 / HSK-A63	3.3 / 5.9	12.0 / 15.4	787 (590)	0.04 ~ 315	41,900	40	132	151.2 x 126.2 x 127.8

Optional Accessories

Automatic Centering Probe (Blum Infrared TC50 Probe)
 Tool Length Touch Pre-setter (Blum Z Nano)
 Tool Length Laser Pre-setter (Blum NT)
 Programmable Coolant Nozzle
 Paper Filter for CTS System
 Mist Collector
 Mist Pump (for hard milling)
 Chip Conveyor
 Chip Blaster (J30)
 Chip Blaster (JV40)
 Transformer – 30kVA
 *4th and 5th Axis Unit including interfacing
 Pallet Changer System



20,000-RPM Integral Motor Spindle



32-Position Arm Type ATC Standard



Spindle Oil Chiller



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