

INTRODUCING

The New **Diamond Cut Series**

Vertical Machining Center

MCV Series



Entry Level 8k Spindle

- Travel size range:
MCV-600 (24 x 16 x 21)
MCV-3000 (116 x 39 x 29)
- Available in both CAT-40 and CAT-50 tooling sizes
- 24-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 linear guide ways provide high rigidity, low noise and low friction.

- **High Accuracy**

The spindle is designed with super precision angular contact bearings and a belt drive to ensure high torque transmission, no slip and low rotational noise.

- **High Efficiency**

The ATC is a very fast cam driven Arm Type and combined with rapid speeds of up to 1417"/min. in the X, Y. axes and 945"/min. in the Z-axis, saves on non-cutting time. (MCV-600 & 800 size speeds)



MCV Series

Standard Machine Features

Full Enclosure
 8,000-RPM Belt Driven Spindle (6,000 w CAT-50)
 Spindle Oil Chiller
 24-Position Automatic Tool Changer
 CAT-40 / CAT-50 Tooling
 Coolant Thru Spindle Prep (1000psi)
 LM Guideways
 Auto Oil Lube System
 Chips Auger
 Air Gun
 Water Gun
 Automatic Power Shut Down Circuit
 Three Stage Patrol Lamp
 Machine Lamp
 Leveling Bolts and Pads
 Accuracy Test Documentation
 Instruction Manuals
 Electrical Schematics
 Spindle Load Meter

Mitsubishi M70-V Standard Package

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



24-Position Arm Type ATC

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
MCV-600	24.0 x 16.1 x 21.3	27.6 x 15.7	770	8,000	7.5 / 10	3.9 ~ 25.2	24 / Cat-40	3.1 / 4.7	7.9 / 15.4	1417 (945)	0.04 ~ 394	9,300	15	53	72.8 x 62.2 x 96.6
MCV-800	31.5 x 17.7 x 21.3	33.5 x 17.7	770	8,000	7.5 / 10	3.2 ~ 24.4	24 / Cat-40	3.1 / 4.7	10.2 / 15.4	1417 (945)	0.04 ~ 394	9,900	15	53	82.7 x 63.8 x 96.6
MCV-1000	40.2 x 20.1 x 21.3	39.4 x 19.7	1100	8,000	10 / 15	3.9 ~ 25.2	24 / Cat-40	3.1 / 4.9	12.0 / 15.4	945 (787)	0.04 ~ 394	12,760	15	63	88.2 x 76.2 x 100.7
MCV-1000B	40.2 x 22.0 x 23.6	39.3 x 22.0	1650	6,000	15 / 20	5.3 ~ 28.9	24 / Cat-50	4.9 / 9.4	12.0 / 33.1	945 (708)	0.04 ~ 394	16,500	25	77	88.2 x 76.2 x 103.0
MCV-1200	47.2 x 23.6 x 26.6	48.0 x 24.4	2200	8,000	15 / 20	3.9 ~ 30.5	24 / Cat-40	3.1 / 4.9	12.0 / 15.4	945 (708)	0.04 ~ 394	17,600	35	95	113.4 x 85.8 x 110.2
MCV-1200B	47.2 x 23.6 x 26.6	48.0 x 24.4	2200	6,000	15 / 20	3.9 ~ 30.5	24 / Cat-50	4.9 / 9.4	12.0 / 33.1	945 (708)	0.04 ~ 394	19,800	35	95	113.4 x 85.8 x 110.2
MCV-1400	55.1 x 25.6 x 26.6	55.1 x 24.4	2200	8,000	15 / 20	3.9 ~ 30.5	24 / Cat-40	3.1 / 4.9	12.0 / 15.4	945 (708)	0.04 ~ 394	18,700	35	95	128.7 x 85.8 x 110.2
MCV-1400B	55.1 x 25.6 x 26.6	55.1 x 24.4	2200	6,000	20 / 25	3.9 ~ 30.5	24 / Cat-50	4.9 / 9.4	12.0 / 33.1	945 (708)	0.04 ~ 394	20,900	35	95	128.7 x 85.8 x 110.2
MCV-1600	63.0 x 35.4 x 31.5	66.9 x 33.5	4410	8,000	20 / 25	3.9 ~ 35.4	30 / Cat-40	3.1 / 4.9	12.0 / 15.4	787 (590)	0.04 ~ 315	41,900	40	132	151.2 x 126.2 x 127.8
MCV-1600B	63.0 x 35.4 x 31.5	66.9 x 33.5	4410	6,000	20 / 25	3.9 ~ 35.4	24 / Cat-50	4.9 / 9.4	12.0 / 33.1	787 (590)	0.04 ~ 315	41,900	40	132	151.2 x 126.2 x 127.8
MCV-2000	78.7 x 35.4 x 31.5	82.7 x 33.5	6610	8,000	20 / 25	3.9 ~ 35.4	30 / Cat-40	3.1 / 4.9	12.0 / 15.4	787 (590)	0.04 ~ 315	46,300	40	145	187.4 x 126.2 x 127.8
MCV-2000B	78.7 x 35.4 x 31.5	82.7 x 33.5	6610	6,000	20 / 25	3.9 ~ 35.4	24 / Cat-50	4.9 / 9.4	12.0 / 33.1	787 (590)	0.04 ~ 315	46,300	40	145	187.4 x 126.2 x 127.8
MCV-3000B	118.1 x 39.4 x 29.5	128.0 x 31.5	6610	6,000	20 / 25	3.9 ~ 33.5	24 / Cat-50	4.9 / 9.4	12.0 / 33.1	787 (394)	0.04 ~ 315	54,000	45	105	291.7 x 190.5 x 150.7

Optional Accessories

Automatic Centering Probe (Blum Infrared TC50 Probe)
 Tool Length Touch Pre-setter (Blum Z Nano)
 Tool Length Laser Pre-setter (Blum NT)
 Spindle Coolant Ring
 Oil/Coolant Separator
 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
 Linear Glass Scales
 Mitsubishi M720 CNC Control Unit
 ZF Gear Box (High Torque)
 *4th and 5th Axis Unit including interfacing



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