



MV-106A Vertical Machining Center

With FANUC MXP200i Control

STANDARD FEATURES

POWERFUL 20 HP SPINDLE OUTPUT
 AC DIGITAL SERVO & SPINDLE DRIVES
 10,000 RPM MAXIMUM SPINDLE SPEED
 HARDENED & GROUND BOX WAYS
 SERVO MOTORS WITH ABSOLUTE ENCODER
 HIGH SPEED RIGID TAPPING
 HELICAL INTERPOLATION & 640 METERS MEMORY
 CUSTOM MACRO B
 TOOL PATH GRAPHICS
 8.4" COLOR LCD MONITOR
 PCMCIA SLOT FOR MEMORY EXPANSION & MODEM
 RS 232C INTERFACE

HIGH SPEED 24 TOOL SWING-ARM ATC SYSTEM
 RANDOM ACCESS & BI-DIRECTIONAL TOOL MAGAZINE
 PRE-TENSIONED HARDENED & GROUND BALLSCREWS
 SERVO MOTORS DIRECT-COUPLE TO BALLSCREWS
 HANDHELD COOLANT GUN & AIR NOZZLE
 SPINDLE AIR CURTAIN
 AUTOMATIC CENTRAL LUBRICATION SYSTEM
 HEAT EXCHANGER FOR ELECTRICAL CABINET
 CUTTING AIR BLAST
 WAY COVER IN ALL THREE AXIS
 RUGGED MEEHANITE® CASTINGS
 WAY OIL/COOLANT SEPARATION DESIGNED CASTING

BASIC SPECIFICATIONS

HEADSTOCK

Motor	FANUC AC Digital Spindle Motor
Horse Power	20 HP (10 Min.)
Maximum Speed	10,000 rpm
Spindle Drive	Direct Belt Drive
Spindle Nose to Table	3.2" – 26.7"
Spindle Center to Z-axis Way Cover	25.5"

TABLE

Size	44.0" x 23.6"
T-Slots	0.71" x 5 x 3.94"
Maximum Load	1,760 lbs.

ATC SYSTEM

Tool Type	CAT-40 (optional BT-40)
Tool Selection	Bi-directional, Random Access
Maximum Tool Weight	15.4 lbs.
Maximum Tool Length	11.81"
Standard Tool Diameter	3.54"
Maximum Tool Diameter (adj. Pockets empty)	5.51"
Magazine Tool Capacity	24
Tool Change Time (Approx.)	2.5 seconds (T-T) / 5-6 seconds (C-C)



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AXES SPECIFICATIONS

	<u>Travel</u>	<u>Positioning</u>	<u>Repeatability</u>	<u>Rapid Rate / Cutting Feed</u>
X Axis	40.0"	± 0.00016"	± 0.00008"	945 ipm / 394 ipm
Y Axis	23.6"	± 0.00016"	± 0.00008"	945 ipm / 394 ipm
Z Axis	23.6"	± 0.00016"	± 0.00008"	590 ipm / 394 ipm

GENERAL

Machine Net Weight	14,300 lbs.
Shipping Weight	15,860 lbs.
Power Consumption	25 kVA
Floor Spacing (W x D x H)	102" x 121" x 108"
Shipping Dimensions (W x D x H – approx.)	120" x 123" x 114"

DETAILED SPECIFICATIONS

HEADSTOCK

Motor	Fanuc α8 AC Digital Spindle Motor
Horse Power	20 HP (10 min.)
Spindle Drive	Direct Belt Drive (Optl. 2 Speed Gear Box Trans.)
R.P.M. Range	10,000 RPM
Spindle Bearings Type	2 Double Sets
Lower Bearings	Angular Contact Ball Bearing ABEC Class 7
Upper Bearings	Cylindrical Roller Bearing ABEC Class 7
Spindle Taper Hardness / Material	HRC62 ± 1.5° / SCM21
Retention System	Beveled Springs
Holding Force	2,200 lbs.
Counter Balance	Mechanical Weight
Spindle Orientation	Positioning Encoder
Spindle Nose to Table	3.2" – 26.7"
Spindle Center to Z-axis Way Cover	25.5"

TABLE

Dimensions	
Length	44"
Width	23.6"
T-Slots	0.71" x 5 x 3.94"
Maximum Table Load	1,760 lbs.
Height from Floor	33.2"

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AUTOMATIC TOOL CHANGER

Changer	Dual Swing Arm Type
Tool Change Time	2.5 Seconds (tool to tool) 5~6 Sec. (chip to chip)
Maximum Tool Weight	15.4 lbs.
Maximum ATC Weight	264 lbs.
Maximum Tool Length	11.81"
Magazine	Bi-directional, Random Access
Maximum Diameter of Tools	
Adjacent Pocket Tooled	3.54"
Adjacent Pocket Empty	5.51"
Maximum Number of Tools	24
Tool Shank (Optional)	CAT-40 (BT-40)
Air Requirements	85 PSI Minimum

X AXIS

Ballscrew Diameter	1.575"
Class	JIS C3
Pitch	0.472"
Rapid Traverse Rate	945 IPM
Cutting Feed Rate	0.04-394 IPM
Travel	40.0"
Accuracy: Linear Positioning	± 0.00016" (JIS 6338)
Repeatability	± 0.00008" (JIS 6338)
Rated Thrust Force	1,265 lbs.
Max. Thrust Force	2,594 lbs.

Y AXIS

Ballscrew Diameter	1.575"
Class	JIS C3
Pitch	0.472"
Rapid Traverse	945 IPM
Cutting Feed Rate	0.04-394 IPM
Travel	23.6"
Accuracy: Linear Positioning	± 0.00016" (JIS 6338)
Repeatability	± 0.00008" (JIS 6338)
Rated Thrust Force	1,265 lbs.
Max. Thrust Force	2,594 lbs.

Z AXIS

Ballscrew Diameter	1.575"
Class	JIS C3
Pitch	0.472"
Rapid Traverse Rate	590 IPM
Cutting Feed Rate	0.04-394IPM
Travel	23.6"
Accuracy: Linear Positioning	± 0.00016" (JIS 6338)
Repeatability	± 0.00008" (JIS 6338)
Rated Thrust Force	2,783 lbs.
Max. Thrust Force	5,588 lbs.

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SHIPPING DIMENSIONS

Floor Spacing (W x D x H)	102" x 121" x 108"
Shipping (W x D x H)	120" x 123" x 114"

WEIGHT

Net	14,300 lbs.
Shipping	15,860 lbs.

POWER REQUIREMENTS

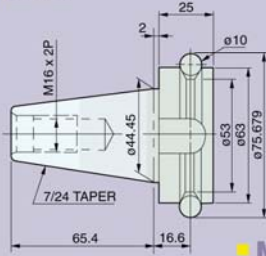
220 Volts AC 3 Phase / 58 AMPS / 25 KVA

MV-106A

VERTICAL MACHINING CENTER
With MXP-100i by FANUC

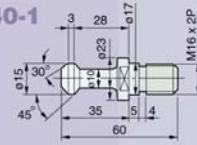
PULL STUD AND TOOL SHANK

■ BT-40

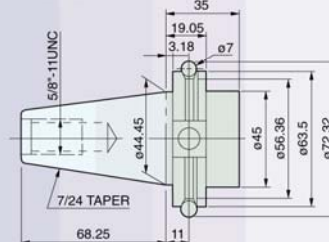


UNIT: mm

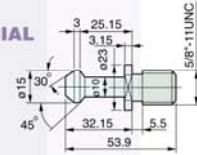
■ MAS-P40-1



■ CAT-40



■ SPECIAL



UNIT: Inch (mm)

