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NXV1020A

High Performance Vertical Machining Center

FANUC MXP-200FA



STANDARD FEATURES

POWERFUL 25 HP IDD SPINDLE BBT TYPE
MXP 200FA WITH MANUAL GUIDE I
12,000 RPM MAXIMUM SPINDLE SPEED
AICC II CONTOUR CONTROL
ABSOLUTE ENCODERS, 1 MILLIONTH RESOLUTION
200 BLOCK LOOK AHEAD, 2MS PROCESSING SPEED
RIGID TAPPING & HELICAL INTERPOLATION
CUSTOM MACRO B & SKIP FUNCTION
PCMCIA SLOT FOR FLASH MEMORY & MODEM CARD
10.4" LCD COLOR MONITOR W/ GRAPHICS
1280 METERS MEMORY & PCMCIA EXPANSION SLOT
RS 232C INTERFACE & ETHERNET CONNECTION
FULL ALPHANUMERIC KEYBOARD
ADDITIONAL WORK & TOOL OFFSETS

HIGH SPEED 24 TOOL SWING-ARM ATC SYSTEM
60 DEGREE CHIP AUGER
40mm THK® NR TYPE LINEAR GUIDE ON X, Y & Z
SERVO MOTORS DIRECT COUPLE TO BALLSCREWS
PRE-TENSIONED HARDENED & GROUND BALLSCREWS
OIL SKIMMER, CUTTING AIR BLAST
SPINDLE AIR BLAST, SPINDLE AIR SEAL
PISTON TYPE AUTO LUBRICATION SYSTEM
CIRCULAR COOLANT NOZZLE
COOLANT THROUGH SPINDLE PREPARATION
HANDHELD COOLANT GUN & AIR GUN
3 AUGER CHIP EVACUATION STANDARD
FULL CHIP & COOLANT GUARDS & TOP COVER
HIGH QUALITY & RIGIDITY MEEHANITE® CASTINGS



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BASIC SPECIFICATIONS

HEADSTOCK

Motor	FANUC αT8/12,000i AC Digital Spindle Motor
Horse Power	25 HP (18.5KW) H / L Shifting
Maximum Speed	12,000 rpm Big-Plus BBT40
Spindle Drive	Isolated Direct Drive Spindle
Spindle Nose to Table	5.51" ~ 26.77"
Spindle Center to Z-axis Way Cover	21.06"

TABLE

Size	44.0" x 20.47"
T-Slots number, width, pitch	5 x 0.71" x 3.94"
Maximum Load	1,102 lbs.
Table Height from floor	34.53"

ATC SYSTEM

Tool Type	CAT-40 (BBT-40)
Tool Selection	Bi-directional, Random Access
Maximum Tool Weight	13.2 lbs.
Maximum Tool Length	11.81"
Maximum Tool Diameter	3.15" / 5.5" (when adjacent pocket is empty)
Magazine Tool Capacity	24 Tools
Tool Change Time (Approx.)	1.7 sec. (T-T) / 3.5 sec. (C-C)

AXES SPECIFICATIONS

	<u>Travel</u>	<u>Positioning</u>	<u>Repeatability</u>	<u>Rapid Rate / Cutting Feed</u>
X Axis	40.16"	0.00012"	± 0.00008"	1890 ipm / 787 ipm
Y Axis	20.47"	0.00012"	± 0.00008"	1890 ipm / 787 ipm
Z Axis	21.26"	0.00012"	± 0.00008"	1260 ipm / 787 ipm

GENERAL

Machine Net Weight	11,795 lbs.
Shipping Weight	TBD
Power Consumption	31.3 KVA (subject to change with added options)
Floor Spacing (W x D x H)	124.02" x 120.87" x 118.11"
Shipping Dimensions (W x D x H)	TBD



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DETAILED SPECIFICATIONS

HEADSTOCK

Spindle Motor	FANUC α T8/12,000i AC Digital Spindle Motor
Horsepower	25 HP / 18.5KW
Spindle Drive	Inline Direct Drive Motor (patent pending)
RPM Range	45 ~ 12,000 rpm Two Windings H/L Shifting
Spindle Bearing Type	Angular Contact Ceramic Bearings
Bearing Class	ABEC Class 7 (P4)
Spindle Taper Hardness / Material	BBT Type, HRC62 \pm 1.5° / SCM21
Spindle Draw Bar Type	Collet Style
Retention System	Helical Disc Spring
Holding Force	2,025 ~ 2,700 lbs.
Counter Balance	None
Spindle Orientation	Built-in Positioning Encoder
Spindle Nose to Table	5.51" ~ 26.77"
Spindle Center to Z-axis Way Cover	21.06"

TABLE

Dimensions:	
Length	44"
Width	20.47"
T-Slots	5 x 0.71" x 3.94"
Maximum Table Load	1,102 lbs.
Height from Floor	34.53"

AUTOMATIC TOOL CHANGER

Changer	Dual Swing Arm Type
Tool Change Time	1.7 Seconds (tool to tool) 3.5 seconds (chip to chip)
Tool Selection Method	Bi-directional, Random Access
Maximum Tool Weight	13.2 lbs
Maximum ATC Weight	264 lbs.
Maximum Tool Length	11.8"
Magazine Tool Selection	Bi-directional, Random Access
Maximum Diameter of Tools	
Adjacent Pocket Tooled	3.54"
Adjacent Pocket Empty	5.51"
Standard Number of Tools	24 (Optional : 30 T)
Tool Shank	CAT-40 (BBT-40 optional)



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DETAILED SPECIFICATIONS (continue)

X AXIS

Ball screw:	Diameter	1.575"
	Class	JIS C3
	Pitch	0.63" [P16]
Feed Rate:	Rapid Traverse	1890 ipm
	Acceleration / Deceleration	1G
	Cutting Feed Rate	0.04 ~ 786 ipm
Travel:		40.2"
Accuracy:	Linear Positioning	± 0.00012" (JIS 6338)
	Repeatability	± 0.00008" (JIS 6338)
Motor Type		Fanuc βis22/3000
Horse Power		4 HP
Thrust Force:	Rated	1587 lbf.
Thrust Force:	Max	3,575 lbf.

Y AXIS

Ball screw:	Diameter	1.575"
	Class	JIS C3
	Pitch	0.63" [P16]
Feed Rate:	Rapid Traverse	1890 ipm
	Acceleration / Deceleration	.8G
	Cutting Feed Rate	0.04 ~ 786 ipm
Travel:		20.5"
Accuracy:	Linear Positioning	± 0.00012" (JIS 6338)
	Repeatability	± 0.00008" (JIS 6338)
Horse Power		4 HP
Motor Type		Fanuc βis22/3000
Thrust Force:	Rated	1587 lbf.
Thrust Force:	Max	3,575 lbf.

Z AXIS

Ball screw:	Diameter	1.575"
	Class	JIS C3
	Pitch	0.630" [P16]
Feed Rate:	Rapid Traverse	1260 ipm
	Acceleration / Deceleration	1G
	Cutting Feed Rate	0.04 ~ 786 ipm
Travel:		21.3"
Accuracy:	Linear Positioning	± 0.00012" (JIS 6338)
	Repeatability	± 0.00008" (JIS 6338)
Horse Power		4 HP
Motor Type		Fanuc βis30/3000
Thrust Force:	Rated	2,149 lbf.
Thrust Force:	Max	5,405 lbf.



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DETAILED SPECIFICATIONS (continue)

Coolant Tank Capacity 79.25 gal.

DIMENSIONS

Floor Spacing (W x D x H) 124.02" x 120.87" x 118.11"
Shipping (W x D x H) TBD

WEIGHT

Net 11,795 lbs.
Shipping TBD

POWER REQUIREMENTS

208 VAC Line Voltage AC 3 Phase
Breaker Size 100 AMPS
Power Consumption 31.3 KVA

AIR REQUIREMENTS

16 CFM @ 85 psi

MXP-200FA CONTROL SPECIFICATIONS

AICC II CONTOUR CONTROL
200 BLOCK LOOK AHEAD, 2MS PROCESSING SPEED
CUSTOM MACRO B & SKIP FUNCTION
RIGID TAPPING & HELICAL INTERPOLATION
10.4" LCD COLOR MONITOR W/ DYNAMIC GRAPHIC
PCMCIA SLOT FOR FLASH MEMORY & MODEM CARD
1280 METERS MEMORY
RS 232C INTERFACE & ETHERNET CONNECTION
MANUALGUIDE I SOFTWARE
I OPERATION PLUS SOFTWARE ENHANCEMENT EXCLUSIVELY FROM YCM
G-CODE MIRROR IMAGE



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ACCESSORIES

Standard

- CTS Preparation, No union
- LED Work Lamp
- Pilot Lamp
- Oil Skimmer
- Full Chip Enclosure
- Coolant Gun
- Air Gun
- Spindle Air Blast
- Cutting Air Blast
- Spindle Air Seal
- Central Lubrication System
- Guide way Cover (X/Y/Z)
- Leveling Blocks and Bolts
- Mechanical, Electrical, and Operating Manuals
- Heat Exchanger for Electrical Cabinet
- Single Chip Auger
- Circular Coolant Nozzle (USA market only)
- Safety Door
- CNC Control: FANUC MXP-200FA

Option

- Oil-mist Collector
- Chip Flush
- CE Cert
- Coolant Through Spindle
- Chip Conveyor
- Spindle Chiller Cooling
- 4th Axis Rotary Table
- Automatic Power Off Device
- Auto Tool Length Measurement
- Data Server
- Heavy Duty Coolant Pump



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OPTIONS	DESCRIPTIONS	MSRP
FACTORY ORDER ONLY		
	15000RPM Upgrade from 12000RPM	\$10,600
	12000RPM/HSK63A Spindle Upgrade	\$12,700
	18000 RPM upgrade from 12,000 rpm CT40 Spindle	\$27,000
	XYZ Scales (NXV1020A)	\$12,600
	30 Tools ATC Upgrade (NXV1020A/AM)	\$2,800
	40 Tools ATC Upgrade (NXV1020A/AM)	\$11,000
	Spindle Chiller (Hardware only, require field installation)	\$2,100
	Roller Type Linear Ways (NXV1020A Only)	\$2,700
	CTS Rotary Union 300 PSI 6 GPM, 4HP, Single Filter	\$4,000
	Quartz Machining Package w/Centrifuge	\$11,700
	Quartz Machining Package w/o Centrifuge	\$7,400
	Renishaw Optical Receiver Omi-2T Installed for Dual Probes (Probes not included) M16,M17,M18 Ready	\$1,600
	Probes Renishaw TS-27R wired Tool Setter factory Instalation	\$2,400
	OMP40 and OTS Dual Optical Probes(no receiver) CAT40 Calibration Ring and Calibration Tool	\$7,539
	250mm Raised Column	\$9,700
FIELD ADD OPTIONS		
	CTS Upgrade to 300 PSI Form A Package from Standard Prep	\$2,400
	CTS Rotary Union 1000 PSI (FOB YCMTech w/New Machine Purchase)	\$1,600
	CTS Chip Blaster D30-35 500 PSI, 8GPM, 5HP Single Filterv(FOB YCMTech w/New Machine Purchase)	\$6,400
	CTS Chip Blaster D30-70 1000 PSI,8 GPM,5HP,Dual Filters (FOB YCMTech w/New Machine Purchase)	\$7,950
	Chip Blaster J30 FOB YCMT,CA 1,000 PSI ,8GPM,5HP,Dual Filters100 Gallon Tank	\$10,050
	4 th Axis Wiring Only	\$1,800
	4 th Axis Interface w/SVM1 40i Amp Drive	\$5,100
	Chip Conveyor Steel Belt Hinge Types(NXV1020A) Rear Chip Exit for 3 Augers	\$5,800
	Chip Conveyor Scraper Types (NXV1020A) Rear Chip Exit for 3 Augers	\$6,400
	Chip Conveyor Drum Type Coolant Filter	\$12,600
FANUC OPTIONS		
	2GB Data Server	\$3,250
	4GB Data Server	\$4,625
	Hi Speed Skip Function	\$1,300
	Large Tool Function(Specified Tool Control Function)	\$4,900
	Spindle Load Monitoring	\$5,900
	5120M (2M byte) Memory	\$3,500
	Set of 4 M-Codes	\$1,500
	Fanuc Field Install (Not Including Travel + Accommodations)	\$1,300
	CNC Control Simulator w/i-Operation	\$4,590



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Quotation

Qty	Item #	Description	Price
1	NXV-1020A/Pro	NXV-1020A Vertical Machining Center----- MXP200FA, 12,000 RPM, 25HP, 24T, CT40, CTS/P, 3Auger, Factory Installed Spindle Chiller	\$87,600.00

FOB: Long Beach, California
Taxes: Any applicable taxes are not included in this quote and will be extra if required.
Warranty: Machine 1 Year
Control 2 Year

All features, benefits and specifications are subject to change. YCM is not responsible for any typographical errors, omissions or misprints.



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