

CLEVELAND

VERTICAL MACHINING CENTER MODEL: M1320

MACHINE FEATURES:

- **Centroid M400 control with 15" LCD**
- **20 HP spindle motor, BT40 / CAT40 spindle taper**
- **8,000 rpm spindle speed with spindle oil cooler**
- **Armless type 20 tool ATC**
- Hardened & ground with Turcite-B coating guide way
- Double nut precision ball screws hardened & ground for high accuracy and long lasting
- FC30 Meehanite casting main frame with annealed & stress relieved for long term reliability
- 100% laser tested for positioning accuracy & repeatability
- 4 Box ways design on Y axis to provide maximum rigidity & stability
- Telescopic steel way covers on all three axes
- Tool box & tools
- Coolant system and air blast system
- Central lubrication system
- Built-in Quartz work light
- **Rigid tapping (opt)**
- **Portable hand wheel (opt)**



Specification

X / Y / Z travel: 52" / 28" / 27.5"

Distance from spindle to column: 29.7"

Distance from spindle to table top: 5.9" ~ 33.4"

Working Table

Size (X / Y): 59.8" / 27.5"

T-slot: 0.7" x 5 x 5.7"

Load capacity: 3300 lbs

Spindle

Motor: 20 HP

Speed: 8,000 rpm

Taper: CAT40 / BT40

Feed Rate

Rapid X / Y / Z: 640 / 640 / 480 ipm

Cutting: 300 ipm

ATC

Tool magazine capacity: Armless 20 tool

Max. tool dia. / adj. pocket empty: Ø 3.1" / Ø 5.9"

Max. tool length: 11.8"

Max. tool weight: 15.4 lbs

General

Power requirement: 42 KVA

Pneumatic tank requirement (min.): 5 ~ 8 (5) kg/cm²

Coolant tank capacity: 63.4 gal

Dimension & Weight

L X W X H: 155" x 113" x 116"

Weight: 18,700 lbs

Standard Accessories

Booster (unclamp) cylinder	Auto lube	Air gun & spindle air blast
Full enclosure	Coolant system	Halogen work light
Telescoping way cover	Power chain	Operation manual
Tools & box	Spindle chiller	Encoder set
Screw type chip auger	Electric cabinet set w/ bracket	

Optional Machine Accessories

CK-105	52pcs Clamping Kit slot: 0.71" (18mm); stud: 5/8-11
CP-MIST	Mist Coolant System
UG-RPM100	Upgrade to 10000 rpm (need to be finished in factory)
UG-MT15	Upgrade to high torque Y and Delta Motor
WISE-6	6" Angle Vise W/ Swivel Base (Import)
C40RK-45	Retention Knob Cat40, 45degree 20pcs
CP-SP	Coolant Through Spindle

Optional Software Accessories

10620	Compression tapping
10610	User definable Macros and sub programs [M98 & G65]
10851	Cutter compensation
10360	4th axis software
10630	Unlimited part program size
10730	Intercon off-line conversational program (for your desktop PC)
10810	Rigid tapping [G74 & G 84] (includes 10620)
10850	Coordinate system rotation (CSR)
10625	Scaling and mirroring [G50 & G51]
10814	DXF in, CAD drawing input software
10660	BCD tool change output
10740	Engraving software
<u>Digitizing & Probing</u>	
10405	DP-4 probing package w/ CSR (10850)
12486	DP-7 probing package w/ CSR (10850)
10770	2D & 3D digitizing software (requires 10405)
10220	TT-1; Tool touch off kit
12468	TT-2; Tool touch off kit
10772	Tool room package (10405 & 10220 & 10600 work coordinate)

Manual Pulse Generators (MPG)

11069	100 Step MPG
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**** WE RESERVE THE RIGHT TO CHANGE DESIGN, COLOR, SPECIFICATIONS, OR PRICE WITHOUT NOTICE ****

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