CLEVELAND

VERTICAL MACHINING CENTER MODEL: BM-780H

MACHINE FEATURES:

- Centroid M400 control with 15” LCD
- 20 tools ATC armless
- 20 HP spindle motor, BT40 or CAT40 spindle taper
- 8,000 rpm spindle speed
- 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
- Box ways design on Y axis to provide maximum rigidity & stability
- Telescopic steel way cover on 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

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table</td>
<td>32” x 108”</td>
</tr>
<tr>
<td>Longitudinal travel</td>
<td>98”</td>
</tr>
<tr>
<td>Cross travel</td>
<td>33”</td>
</tr>
<tr>
<td>Vertical travel</td>
<td>27.5”</td>
</tr>
<tr>
<td>Spindle nose to table top (D)</td>
<td>3.9” - 31.4”</td>
</tr>
<tr>
<td>Load capacity</td>
<td>4400 lbs (2000 kgs)</td>
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<tr>
<td>Spindle taper</td>
<td>BT40 or CAT40</td>
</tr>
<tr>
<td>Spindle speed</td>
<td>8000 rpm</td>
</tr>
<tr>
<td>Transmission of spindle &amp; motor</td>
<td>Belts</td>
</tr>
<tr>
<td>Spindle center to column front surface</td>
<td>35.4”</td>
</tr>
</tbody>
</table>

Feed Rate

- Rapid feed rate: 400 ipm AC
- Cutting feed rate: 100 ipm AC

Motor

- Spindle motor: 20 HP
- Feed motors on XYZ: 3 kW - AC
- Coolant pump: 1/4 Hp
- Lubrication pump: 150 W
- Power requirement: 30 KVA, 3 Phase 208V to 230V (Max)

Automatic Tool Changer

- No. of tools: 20
- Max tool diameter: 3.54” (90 mm)
- Max tool weight: 15.4 lbs (7 kgs)

Dimension & Weight

- Length x Width x Height: 91” x 185” x 102” (package size)
- Floor size: 194” x 185” x 118”
- Net weight: 22,320 lbs (10000 kgs)
Standard Accessories
Tools & box  Leveling bolts & plate  RS-232 interface
Operation manual  Splash guard  Air blast, coolant flush gun
Table guard  Halogen work light  120 GB solid state hard drive
USB 2.0 port  Auto lube/ coolant system  Shop floor programming/Conversational

Optional Machine Accessories
CK-105  52pcs Clamping Kit slot: 0.71" (18mm) stud: 5/8-11
CP-MIST  Mist Coolant System
VISE-6  6" Angle Vise W/ Swivel Base (Import)
C40RK-45  Retention Knob Cat40, 45degree 20pcs
ENCLOSURE  Full Enclosure
SEMI-ENCLOU  Semi Enclosure
CHIP  Chip Auger

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

Digitizing & Probing
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

Additional Accessories Information
Power requirement: 30 KVA 3 phase 208V to 230V (Max)
Air requirement: With opt. power draw bar 90 - 100 psi
Type of oil for way oil / pneumatic oil: Mobil Vectra #2/ Shell Tellus 32/ Air tool oil
Coolant capacity: 26 Gallons

**WE RESERVE THE RIGHT TO CHANGE DESIGN, COLOR, SPECIFICATIONS, OR PRICE WITHOUT NOTICE**

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