

## Product Brochure For M633D

# Industrial Turret Milling Machine - Horizontal - Vertical - BM-90HV

Table Travel: (X) - 1120mm (Y) - 520mm (Z) - 440mm

Includes Digital Readout System, Servo Driven Ball screw System X & Y-Axis & Pneumatic Draw bar System

**On Sale - Back In Stock Soon**

Ex GST

Inc GST

**\$56,426.00**

**\$64,889.90**

**\$54,000.00**

**\$62,100.00**



ORDER CODE:	M633D
MODEL:	BM-90HV
Digital Readout:	3-Axis Digital Readout
Type:	Vertical & Horizontal
Table Size (mm):	1470 x 370
Column Type:	~
Spindle Taper - Vertical:	NT40
Spindle Taper - Horizontal:	NT40
Longitudinal Travel (X-Axis) (mm):	1120
Cross Travel (Y-Axis) (mm):	520
Vertical Travel (Z-Axis) (mm):	440
Type of Slides:	Dovetail (X), Square (Y & Z)
Ram Travel (mm):	600
Spindle to Table (mm):	505
Spindle to Base:	~
Spindle Travel / Diameter (mm):	140 / 110
Throat Depth (max.) (mm):	785
Tilting Head (Left ~ Right):	±90°
Tilting Head (Forward ~ Back):	Fixed
Drilling Capacity (mm):	~
End Milling Capacity (mm):	~
Face Milling Capacity (mm):	~
Power Feed - Quill (mm/rev):	0.035 / 0.07 / 0.14
Power Feed - Longitudinal (X-Axis) (mm/min):	30 - 3000
Power Feed - Cross (Y-Axis) (mm/min):	30 - 3000
Power Feed - Vertical (Z-Axis) (mm/min):	Rapid
Table T-Slot Size (inch / mm):	18
Work Table Load Capacity (kg):	600
Spindle Speeds Vertical (No./ rpm):	Inverter (60 - 3600)
Spindle Speeds Horizontal (No./ rpm):	9 (65 - 1500)
Spindle Speeds - Universal Head:	~
Motor Power - Vertical Spindle (kW / hp):	3.75 / 5
Motor Power - Horizontal Spindle (kW / hp):	3.75 / 5
Motor Power - Universal Head:	~
Voltage / Amperage (V / amp):	415
Nett Weight (kg):	2725



## Description

The BM-90HV industrial horizontal & vertical turret milling machine is manufactured in Taiwan to a strict precision engineering ultra-high tolerance & superior excellence to cope with many jobs from small to big that is set out by the professional machinist, and importantly to deliver many years of valuable & reliable service.

This magnificent milling machine is very similar to the BM-90VE, however the BM-90HV model is built with a vertical & horizontal NT40 spindles to give you much more scope & usability. It also has a generous range in all X, Y & Z travels, X-axis 1120mm, Y-axis 520mm & Z-axis 440mm. The large 1470 x 370mm hardened & ground table is controlled by servo driven feed motors coupled to hardened ballscrew system in X & Y-Axis providing smooth & accurate positioning. The 5hp vertical spindle motor speed is regulated via a Japanese quality Yaskawa inverter control unit and designed to achieve maximum torque in all speed ranges. In addition, the large vertical spindle measure 110mm in diameter and helps provide greater rigidity when side loading with large diameter cutters. The 5hp horizontal spindle motor is coupled to a gearbox mounted on the side for quick access speed changes.

This milling machine package is also complete with a few of the most desirable features for example, NT40 spindle taper, Z-axis powered

## Product Brochure For M633D

---

elevating motor, pneumatic operated draw bar to easily & quickly change tool holders with a push of a button and automatic operated oil pump to keep slides in perfect working order.

The BM-90HV machine also includes features like, 3-axis digital readout system fitted, turcite B coated X & Y slide-ways that reduces friction to provide smooth table movement even when loaded up with a heavy job, square constructed slideways on X & Z-Axis, Steel slideway cover on Y-Axis for maximum protection & an electric fan installed on the milling head to reduce excessive heat & maintain accuracy.

Another reliable feature in this range of precision milling machines is the manufacturing process of the main body & supports, it is made up from the highest quality Meehanite® cast iron. The key to the undisputed success of Meehanite® metals is the rigid application of its patented manufacturing process to provide ultimate strength & durability performance.

### Features

- 3-Axis Digital Readout fitted
- 5HP 415V motor on vertical spindle, Inverter control variable speed system (BM-90HV)
- 5HP 415V motor on horizontal spindle, Speeds control by gear selection levers
- Hardened ballscrew X & Y-Axis providing smooth and accurate operation
- Japanese Quality Yaskawa Spindle speed control
- NT40 vertical spindle taper with a 110mm chrome & ground quill
- NT40 horizontal spindle taper
- Servo controlled feed motors on X & Y-Axis ensures response, accuracy and consistent feed
- Hardened & ground work table & slide-ways
- Square construction slides for X & Z-Axis to maximise rigidity
- Turcite B coated X & Y-Axis slide-ways reduces friction for smooth operation
- Pneumatic operation drawbar system for quick and effortless tool change
- Powered elevating motor for Z-Axis
- Large 1470mm x 370mm work table
- Electric fan incorporated in milling head to reduce heat
- Meehanite casting for high strength & minimal deformation
- Quality electrics & overload protection in an easy access enclosure
- Horizontal travelling ram mounted on a solid base allowing repositioning of spindle
- High / neutral and low gear selection lever to maximise torque
- Micro switch on the manual knee handle for additional operator safety
- Metric dial graduations @ 0.02mm for X, Y & Z-Axis
- Automatic quill feed 0.35, 0.07, 0.14mm/rev
- Automatic cut off depth stop on quill
- Automatic oil lubrication pump and reservoir
- Table trays each end of work table
- Clutch hand wheels X & Y-Axis
- Steel slide-way cover Y-Axis
- Mill head tilts to  $\pm 90^\circ$  left and right
- Manual quick action quill lever
- Low voltage LED work light
- Toolbox and Manual

### Includes

- 3-Axis digital readout fitted
- 1" horizontal arbor & support
- Hardened ballscrew X & Y-Axis
- Automatic oil lubrication pump and reservoir
- Pneumatic drawbar system M16 thread
- Coolant system
- Steel slide-way cover
- Z axis powered elevating motor
- X & Y-Axis servo controlled power-feed
- LED work light
- Safety cutter guard
- Swarf tray
- Drawbar M16 thread

Product Brochure For M633D

Specific Features



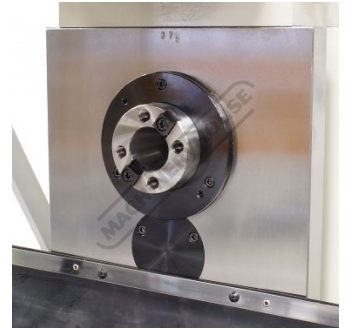
Pendant Control



3 Axis Digital Read Out



Control Panel



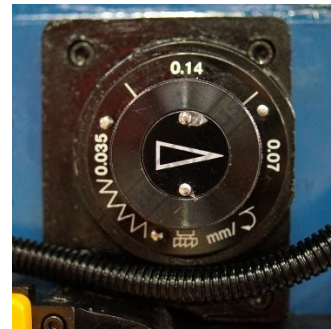
NT40 Horizontal Spindle Taper



Horizontal Spindle Speed Selectors



Low Height Selector Dial



Quill Power Feed Dial



Engage Disengage Quill Feed Dial



Air Power Drawbar



Power Drawbar Switch



Knee Elevating Motor for Z Axis



Tilting Head Scale



Adjustable Swivel and Sliding Ram



Safety Cutter Guard

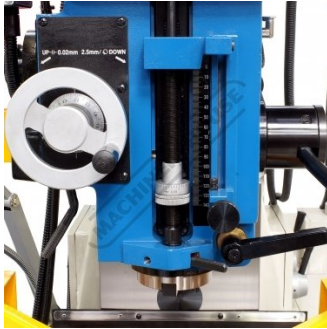


Head Left View

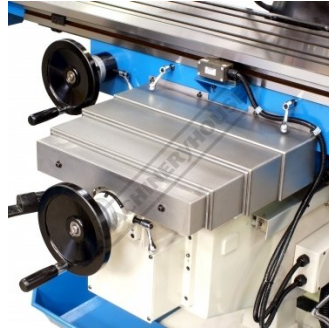


Head Right View

Product Brochure For M633D



Quill Feed Depth Stop



Concertina Slide Way Cover



Cross Feed Handle



Knee Feed Handle



Knee Feed Graduations



X Axis Handle



Horizontal Spindle Supports



Horizontal Cutting Safety Guards Up Position



Horizontal Cutting Safety Guards



Auto Lubrication System



Align Air Operated Draw Bar System



LED Work Light and Coolant Hose



RPM Meter

Product Brochure For M633D

**Recommended Accessories**

C097

Clamp Kit 58 piece - Industrial Series



C966

Collet & Chuck Set - 25 Piece



M3301

Metric HSS Slot Drill & End Mill Set - 10 Piece



M3321

Imperial HSS Slot Drill & End Mill Set - 10 Piece



M184

Precision Boring Head



M185

Precision Universal Facing & Boring Head



M197A

Boring Head Shank



C290

Heavy Duty Drill Chuck - Keyed Type



Product Brochure For M633D

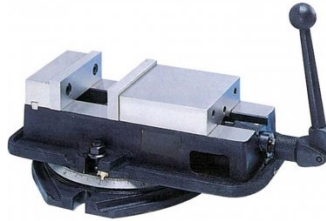
**C294**  
Industrial Drill Chuck - Keyless Type



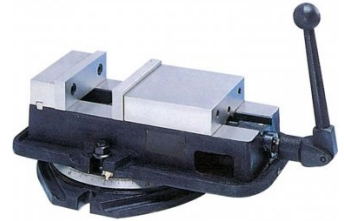
**D448**  
NT40 x JT3 Drill Chuck Arbor - M16 Threaded Shank



**V306**  
Vertex Anglock Machine Vice



**V307**  
Vertex Anglock Machine Vice



**R010**  
Vertex Rotary Table



**D002**  
Vertex Dividing Head - Semi Universal



**C2806**  
3 Jaw Self Centring Lathe Chuck



**R002**  
Vertex Super Indexing Head



**M512**  
Face Mill 90° - Positive Rake



**M503**  
Face Mill 90° - Positive Rake



**M517**  
Face Mill 45° - Super High-Rake



**M518**  
Face Mill 45° - Super High-Rake



Product Brochure For M633D

L065  
KYOCERA Carbide Inserts -  
Milling

L066  
KYOCERA Carbide Inserts -  
Milling

M552  
Face Mill Arbor

M554  
Face Mill Arbor



M555  
Face Mill Arbor

S090A  
Soluble Metal Cutting Fluid - 1  
Litre

S090  
Soluble Metal Cutting Fluid - 5  
Litre

S076  
Cutting Tool Lubricant Fluid -  
500ml



S077  
Drilling, Tapping & Cutting Tool  
Lubricant Spray - 400g

S074  
Cutting Tool Lubricant Paste -  
500g

M2295  
Power Feed Unit

L300  
Magnetic Swarf Remover



Product Brochure For M633D

---

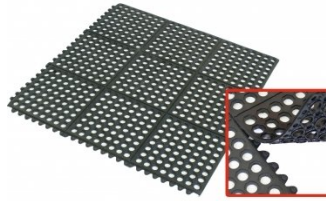
M9991  
Magnetic Floor Sweeper



M800  
Rubber Mat - Anti-Fatigue



M805  
Rubber Mat - Anti-Fatigue



O043  
Rust & Corrosion Preventive



O042  
General Purpose Lubricant &  
Corrosion Inhibitor



O044  
Rust & Corrosion Preventive

