



**DUGARD**

**EAGLE**

**Maxi Mill 1500**

**Vertical Machining Centre**



**EAGLE Maxi Mill 1500 Gives  
You Competitive Edge in  
Quality and Price.**



# **EAGLE 1500**

***Increase Your Profits with Eagle***

For high efficiency machining with maximum accuracy, Eagle Maxi Mill 1500 provides the perfect solution.

It is ruggedly constructed, assuring optimum rigidity and stability for years of reliable, trouble-free operation. The Maxi Mill 1500 has superior design and construction features, that reflect Eagle's tradition of quality excellence.



# Maxi Mill 1500



## Inspection By Sophisticated Instrument

### Laser Calibration

*After assembly, all machines are inspected and calibrated using state-of-the-art laser equipment. This system ensures all axes are verified and compensated for any backlash or mechanical error, ensuring the best possible accuracy and repeatability.*

### Ball Bar Testing

*Again after assembly all machines are tested with the latest 'ball bar' equipment which can measure down to 1 micron, this is attached to the spindle and table then put through a series of circular moves in all axes to allow the technicians to validate the geometric alignments of the machine. A chart is supplied with every machine showing these results.*



# Heavy Duty Rugged Construction Throughout

## Assure Lifetime Accuracy and Stability!

### Meehanite Cast Irons

- All major parts are built with Meehanite cast irons, featuring high tensile strength and long term wearing resistance.
- All slide ways are completely covered to prevent coolant and chips damaging and to extend machine service life.

### Massive Base

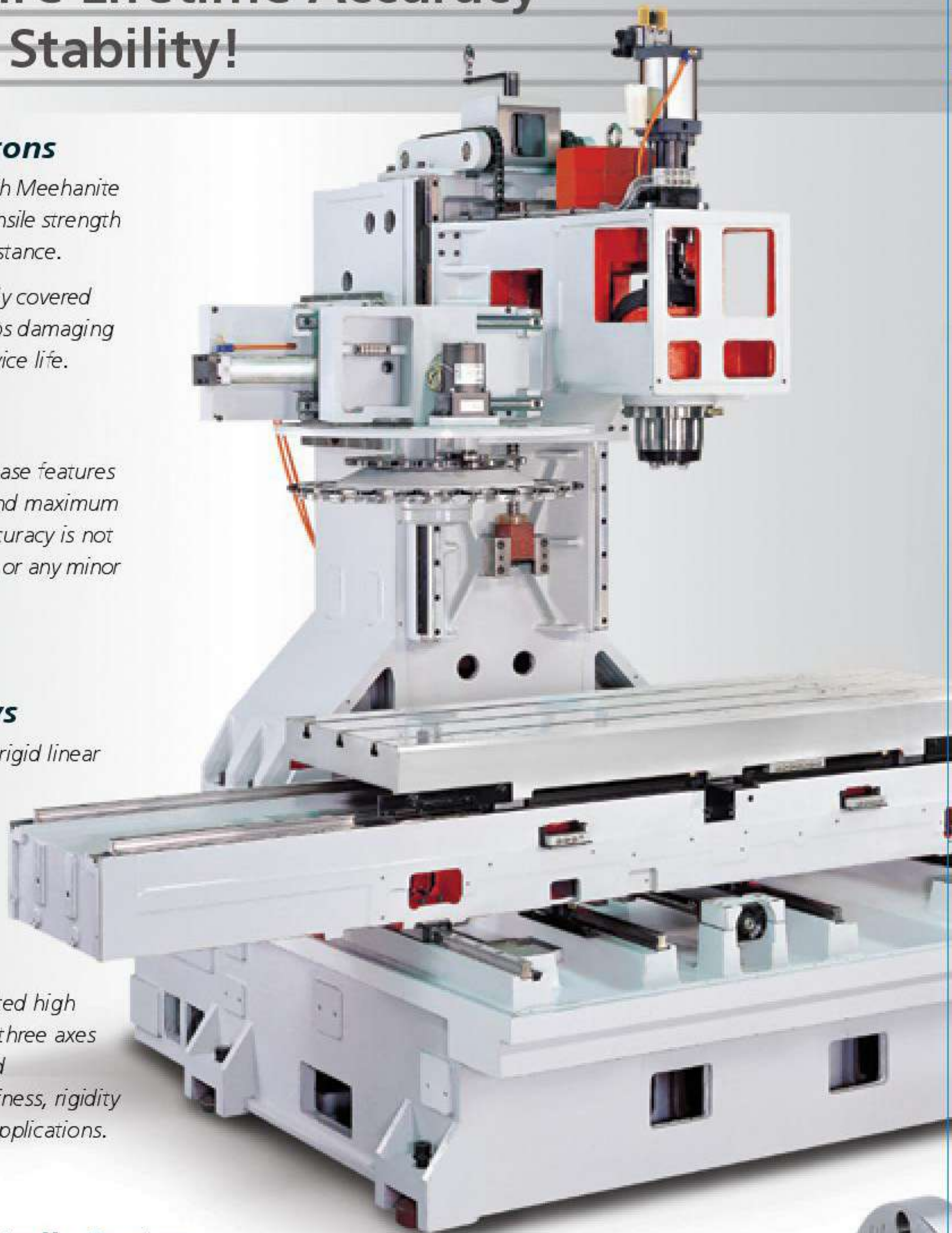
- The ruggedly constructed base features uniform load distribution and maximum stability, which machine accuracy is not affected by floor foundation or any minor leveling variation.

### Three Axes Linear Guide Ways

- High precision and Super rigid linear guides on all 3 axes give longer sustaining accuracy and long service life.
- Z-axis is counter-weight balanced for extremely smooth movement.
- Pre-tensioned, dual supported high precision ball screws on all three axes are driven by direct-coupled servomotors to provide stiffness, rigidity for all kinds of machining applications.

### High Accuracy Spindle Design

- The advanced spindle is designed for durability and easy maintenance, providing high axial thrust capacity, generating minimum thermal growth.
- P4 class pre-load angular contact high precision spindle bearings provide standard spindle speed 8000R.P.M.
- Powerful spindle is driven through high torque slip-free timing belt.
- Optional 10000R.P.M. & 12000R.P.M. spindle employs high precision bearings for high speed machining.
- The labyrinth packing design on front end of spindle to prevent coolant or fine particle contamination during machining. It also ensures spindle accuracy and service life.





### Powerful Clip Flush Nozzles (Optional)

Flush nozzles provide at both sides of splashguard, efficiently remove chips during operation.



### Chip Conveyor and Cart (Optional)

#### Choice of Spiral or Chain Type

- Provides a convenient and time saving chip removing.



### CNC controller

- Fanuc Oi-MB/21i-MB
- Mitsubishi 64S/65S



### A.T.C. Mechanism

- The carousel type A.T.C. is standard. It accommodates 20 tools.
- The **disk** type A.T.C. is optional. It accommodates 24 tools.



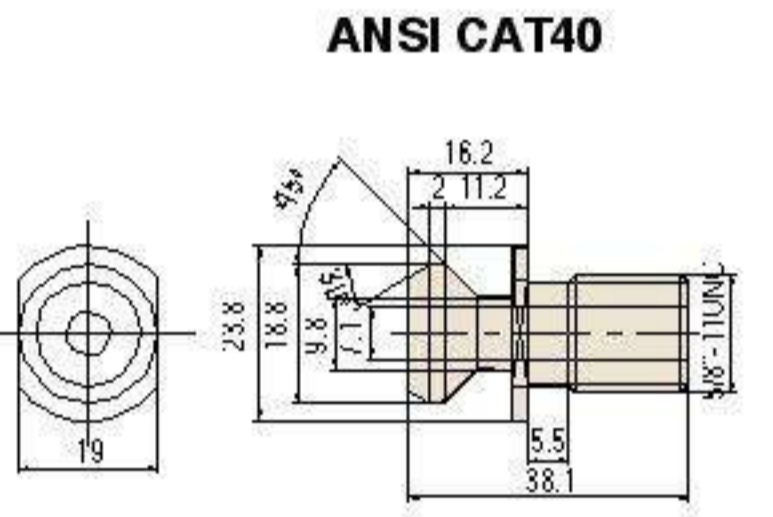
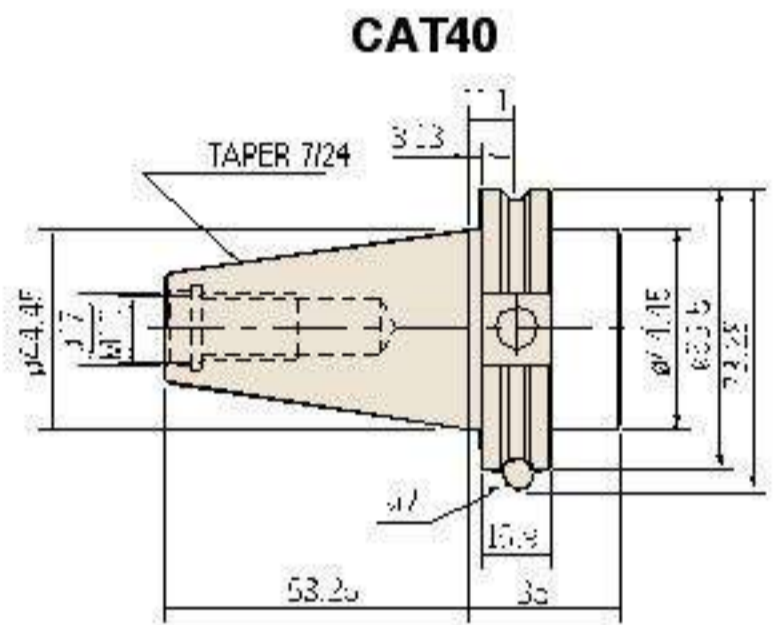
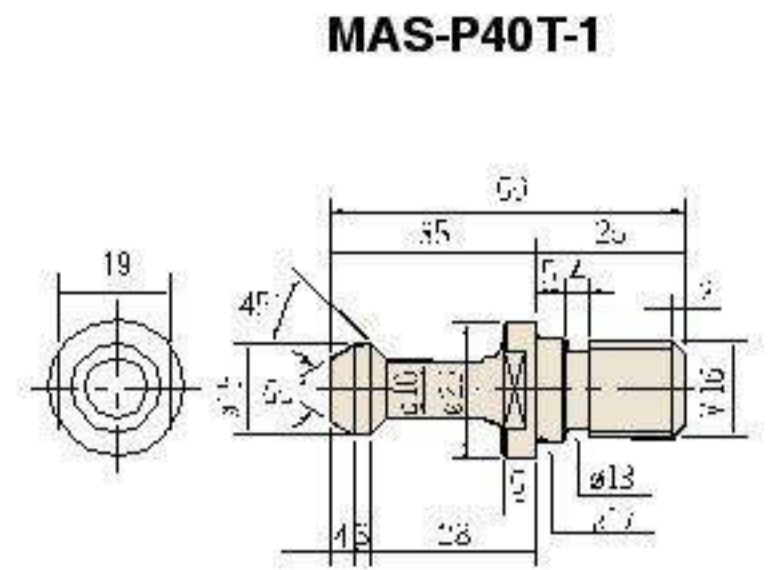
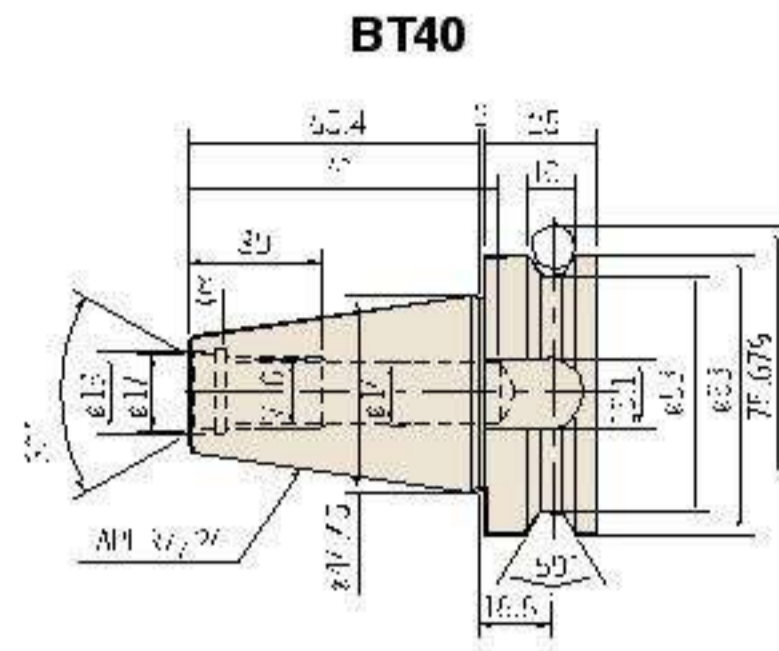
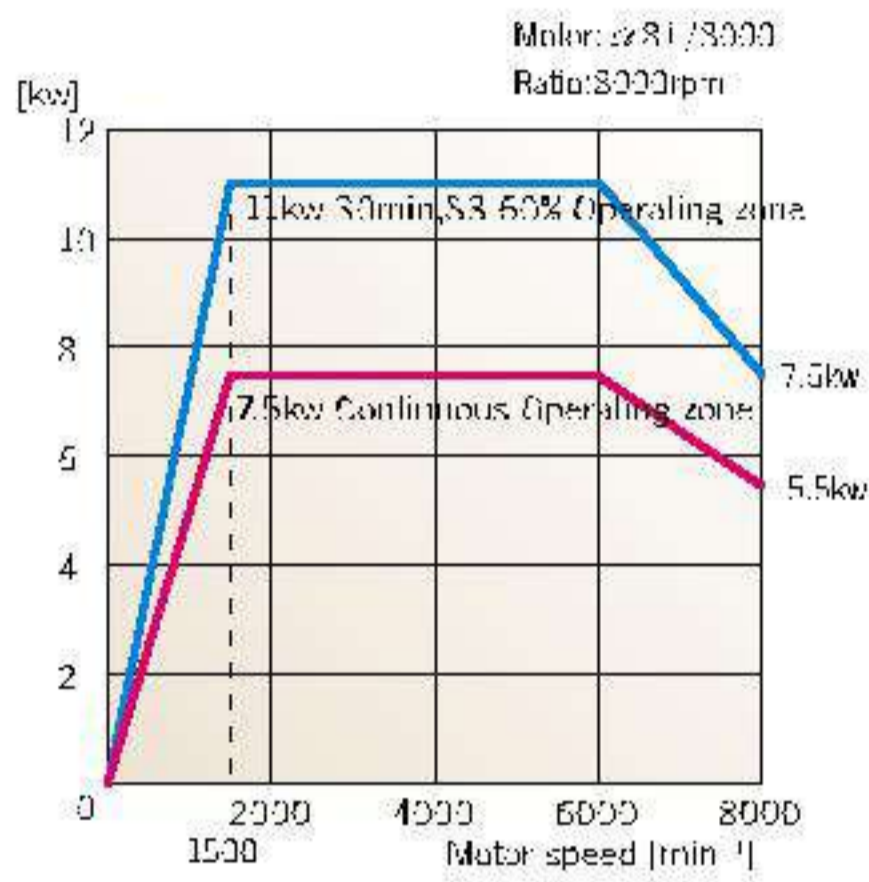
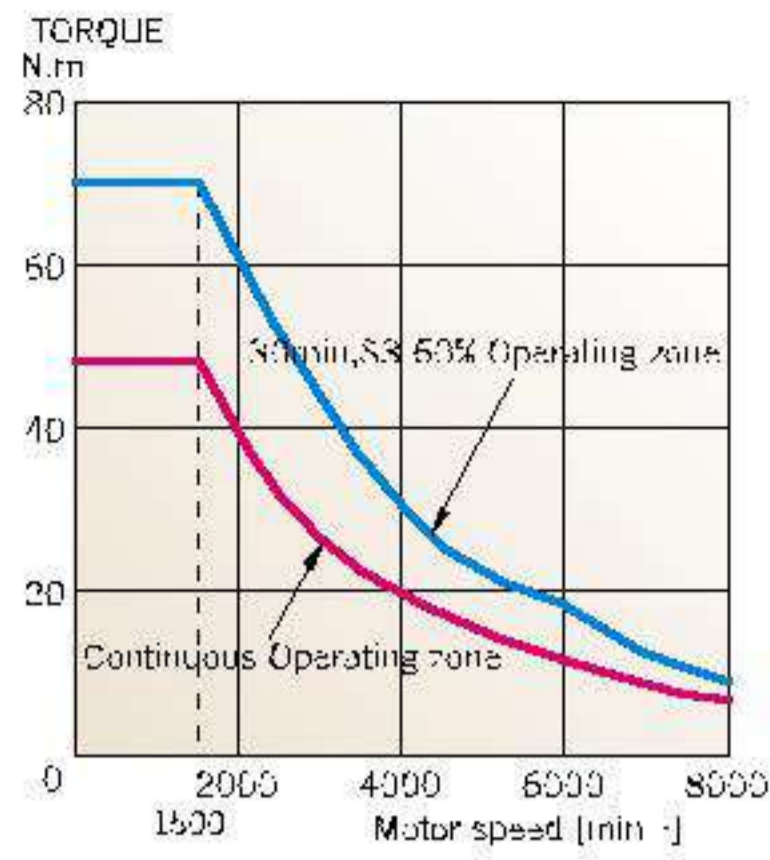
### Choice of Magazine Type

Tool Magazine Capacity	20 tool	24 tool
ATC Type	Carousel	Disk
Max. Tool Dia.	80mm 125mm	80mm 125mm
Max. Tool Weight	7kg	7kg
Max. Tool Length	300mm	300mm

# Spindle Motor

# Tool Shank & Pull Stud

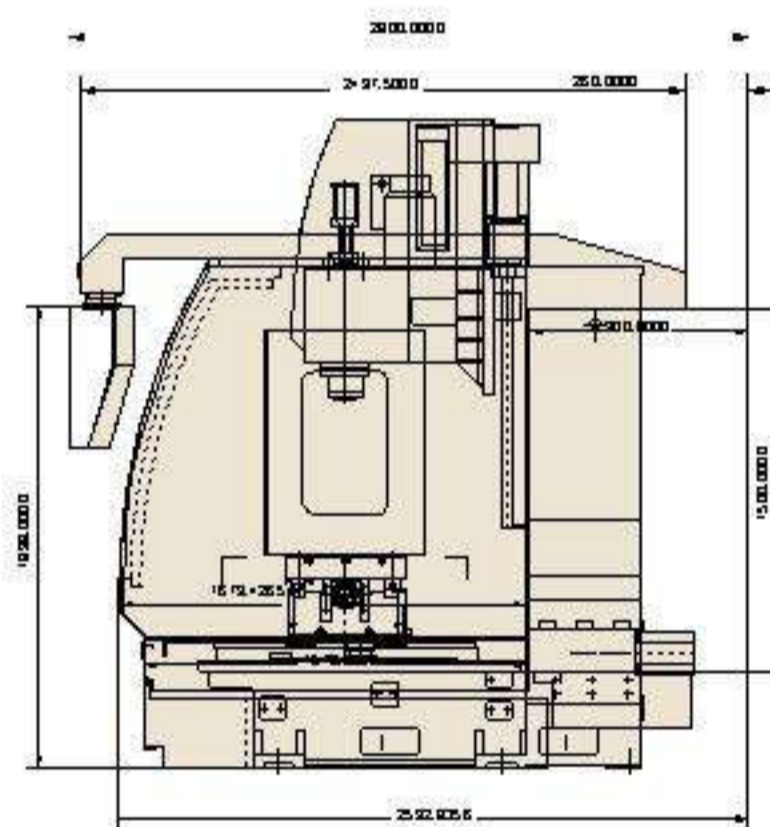
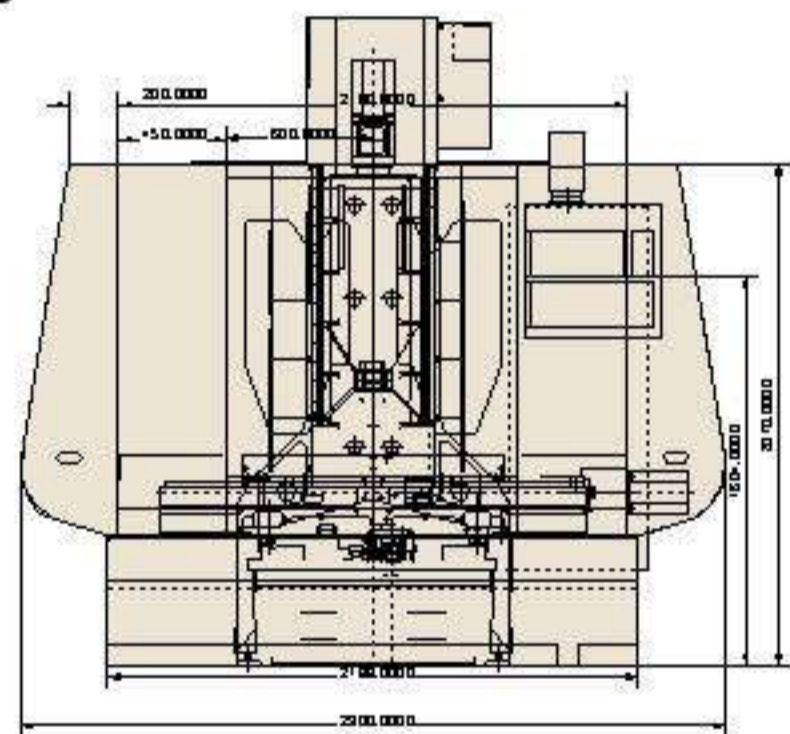
unit : mm



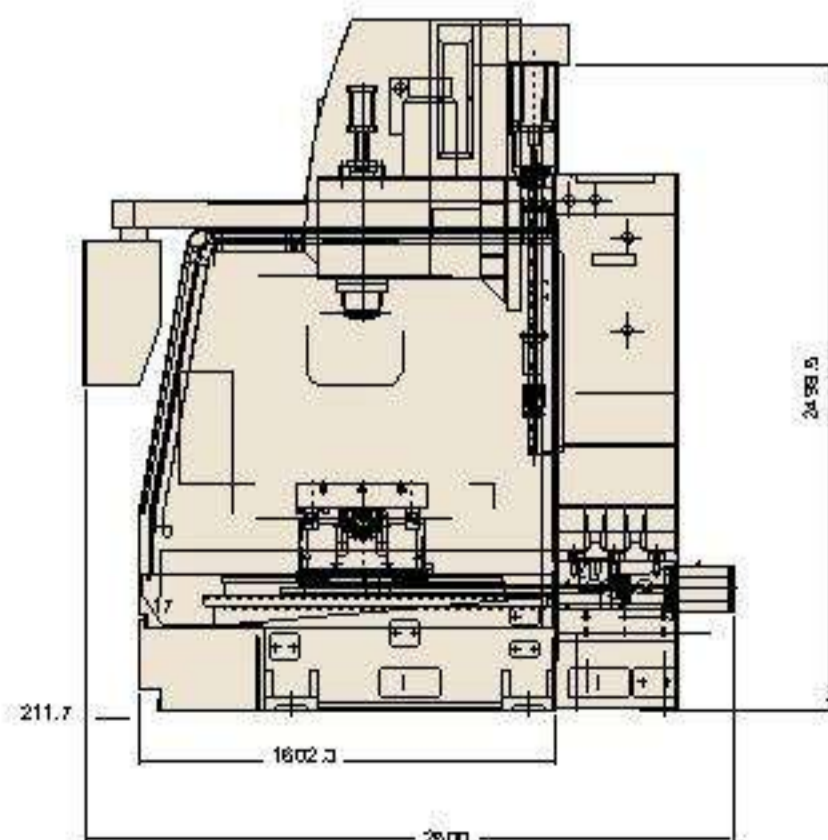
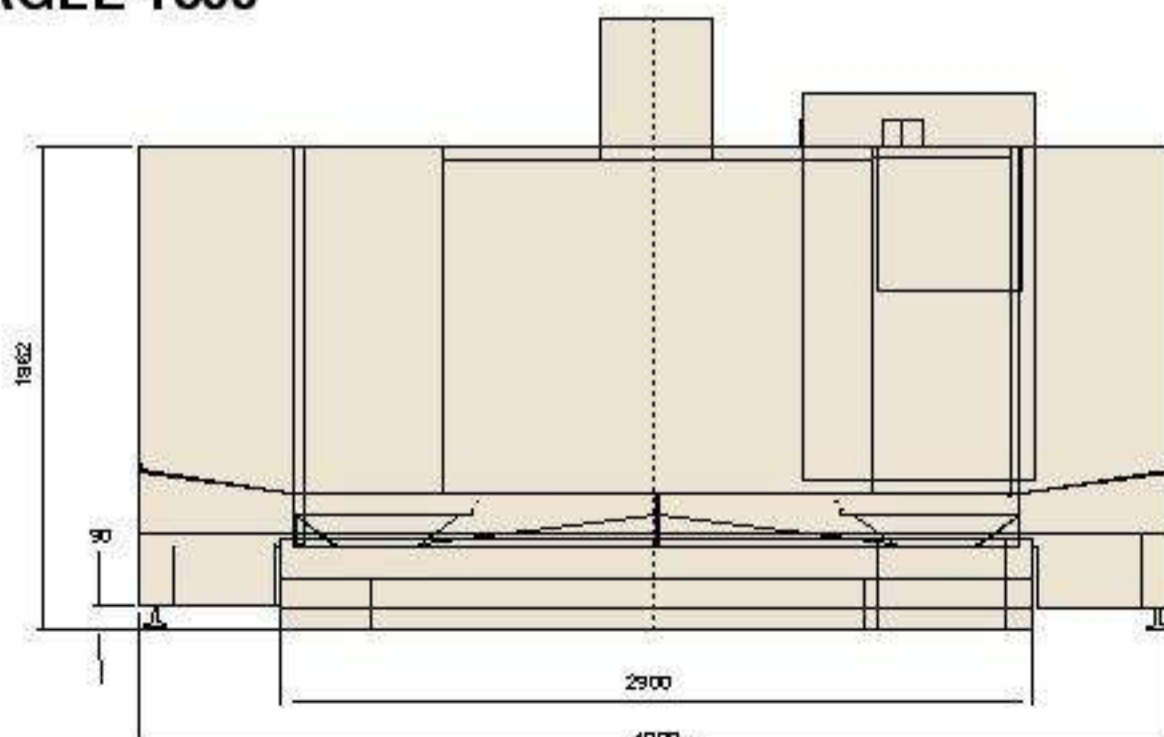
# Machine Dimensions

unit : mm

EAGLE-1020



EAGLE-1500




MODEL	EAGLE-1020	EAGLE-1500
<b>Travel</b>		
X Axis	1020 (40.2")	1500 (59")
Y Axis	510 (20")	
Z Axis	510 (20")	
Spindle Nose to Table	120-630 (4.7-24.8")	
Spindle Center to Column Front	627 (24.6")	
Column Rail Face to Table Center	353-863 (13.8-33.9")	
<b>Axis Feed</b>		
Rapid Feedrate X & Y Axis	24000 (945")	
Rapid Feedrate Z Axis	24000 (945")	
Cutting Feed	5000 (197")	
<b>Table</b>		
Table Size	1070 x 500 (42x19.7")	1570 x 500 (62x19.7")
Max. Load Permissible	600 (1322 lb)	
T-Slot Number	3	
T-Slot Pitch	150 (5.9")	
T-Slot Wide	18 (0.7")	
<b>Head Stock</b>		
Spindle Speed	60-8000	
Spindle Diameter	ø65 (ø2.55")	
Spindle Taper	BT40 / CAT40	
Spindle Motor	15 HP	
<b>ATC</b>		
Max. Tool Diameter	ø80 (ø3.1")	
Max. Tool Length	300 (11.8")	
Max. Tool Weight	7 (15.4 lb)	
<b>General Information</b>		
Machine Weight(approx.)	5000 (11023 lb)	6000 (13216 lb)
Floor Space(W x D)	1827x1120 (71.9x44")	
Size(W x D x H)	2900x2500x2500 (114x98.8x98.8")	4200x2600x2600 (165x102x102")
Positioning	0.005/300 (0.00019/11.8")	
Repeatability	± 0.003 (0.0001")	
Air Pressure Required	6 bar (85 psi)	

• Specifications are subject to change without prior notice.

## Standard Accessories

- Coolant system
- Work lamp
- Carousel type ATC system (20 Tools)
- Enclosed splash guard
- Leveling bolts and pads
- Automatic power off(M30)
- Rigid tapping
- Floating tool unclamp
- Manual grease lubrication system
- Tool box with adjustment tools
- RS-232 interface
- Remote MPG

## Optional Accessories

- 10000 R.P.M. spindle
- 12000 R.P.M. spindle
-  m type ATC (24 tools)
- Spindle oil cooler
- Coolant through spindle with filter system
- Coolant through tool holder
- 4th axis rotary table
- chip conveyor and cart (spiral type)
- chip conveyor and cart (chain type)
- Heat exchanger for electrical cabinet
- Powerful chip flush nozzle
- Transformer

-  Certified equipment & finish
- CNC controller  
Fanuc Oi-MB/21i-MB  
Mitsubishi 64S/65S
- Siemens

# *Other Eagle Products*

## *CNC Lathes*



EAGLE - 100



EAGLE - 400

## *Vertical Machining Centres*



EAGLE - 1000



EAGLE - 1300

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