

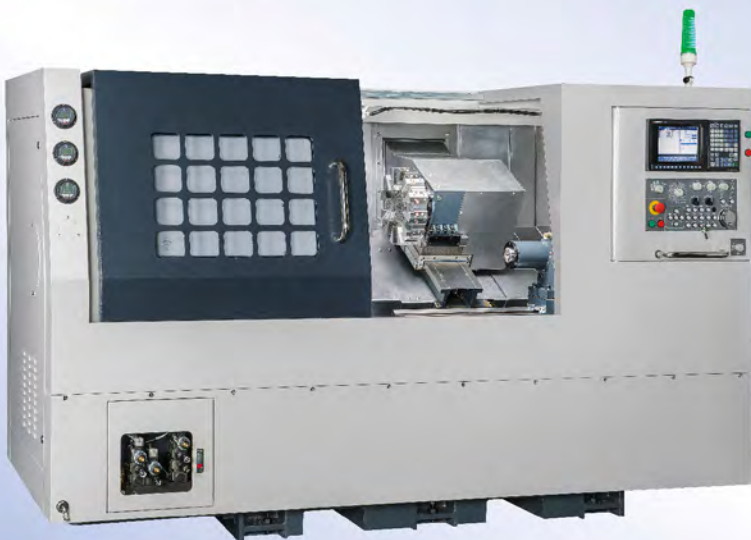
CNC · TURNING LATHE

# VT-15L VT-17L VT-18L

HIGH PRECISION



- ▶ 6 or 8-inch chuck
- ▶ Live VDI-30 turret
- ▶ Rigid box ways



# VIPER



*Perform  
Hard Turning  
on a Small  
Footprint*

VT Series

15L

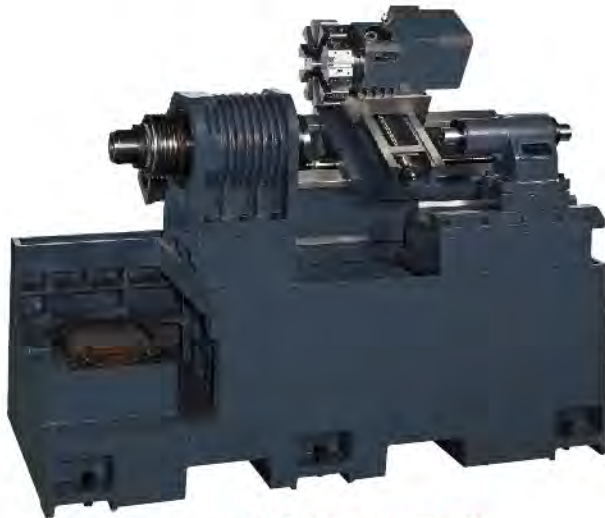
17L

18L

# High Precision

## Turning Centers For Micro-Finishing and Hard-Turning

*Z-axis ways are box-type design and the X-axis ways feature a box-type layout.*



▲ VT-15L / VT-17L



▲ VT-18L

### Solid Construction

With rigid, Meehanite cast iron bed, Viper turning center construction provides the ultimate in machine tool accuracy and reliability.

A 30° slant bed design for our **VT-15L**, **VT-17L**, and **VT-18L** gives Viper its exceptional cutting stability facilitating optimal chip removal. Cutting reaction forces are minimized, resulting in a high degree of precision. Both X and Y axes on Viper turning centers are supported by oversized hardened and ground box type ways which facilitate exceptionally fast cutting rates of 787 ipm (20 M/min) on the X-Axis and 787 ipm (20 M/min) on the Z-axis.

### Performance Features

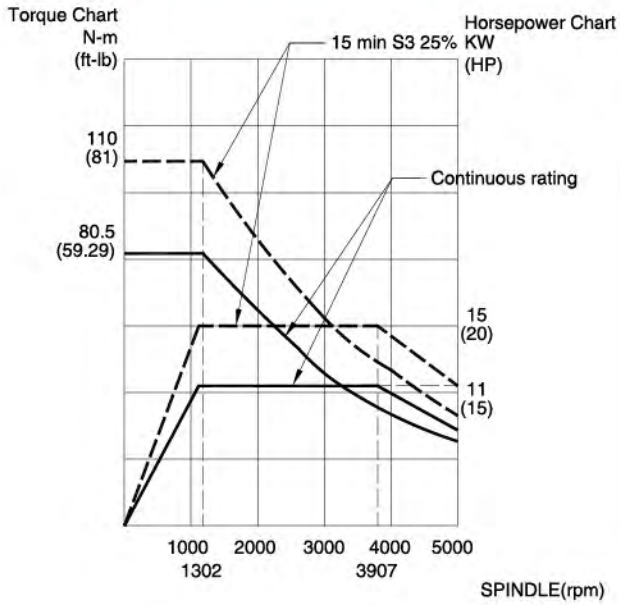
- ▶ 6000 rpm for Micro-Finishing
- ▶ High Speed Servo Turret\*
- ▶ 20 HP Spindle Motor\*
- ▶ VDI-30 Live Turret\*

(\*) Optional accessory

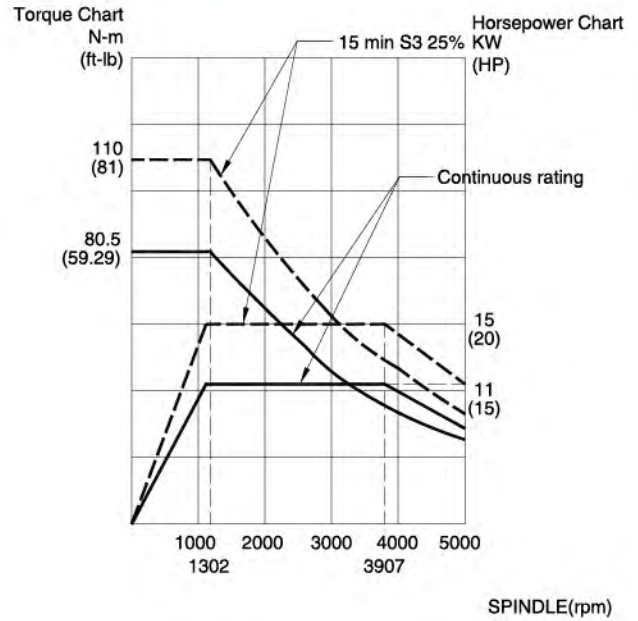


## Torque Chrts

### VT-15L/17L Torque Chart



### VT-18L Torque Chart



## Optional Accessories

Part catcher



Oil Mist Collector



Oil skimmer



Manual presetter



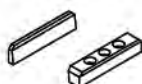
# Turret Tooling

Static Block Tool

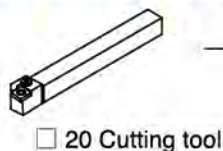
O.D. and face work



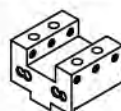
Direct mounting on turret



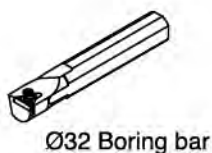
Face and I.D. work



Tool holder for face work



I.D. Cutting



Boring bar holder (U-drill)



(Ø32)

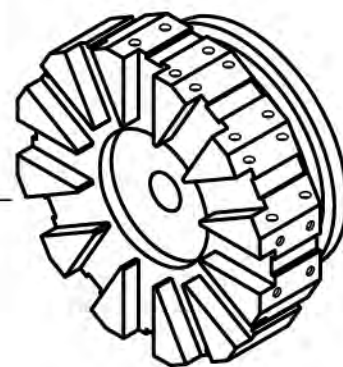
Boring bar



Boring bar sleeve



Sauter 12T  
Sw=340

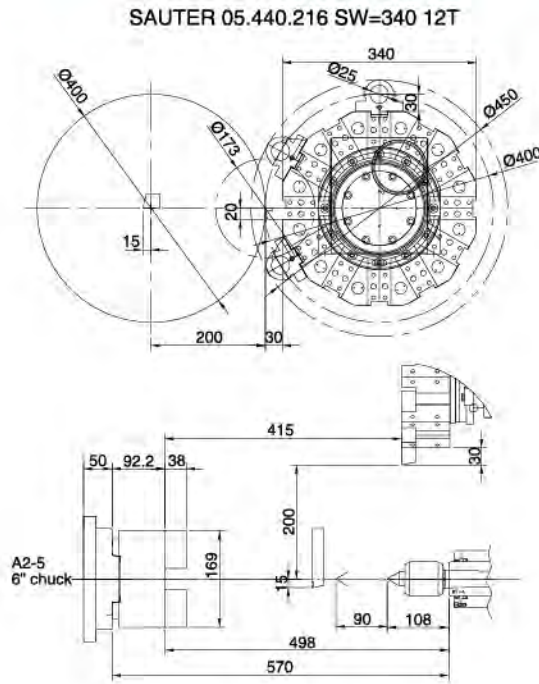


Turret Head

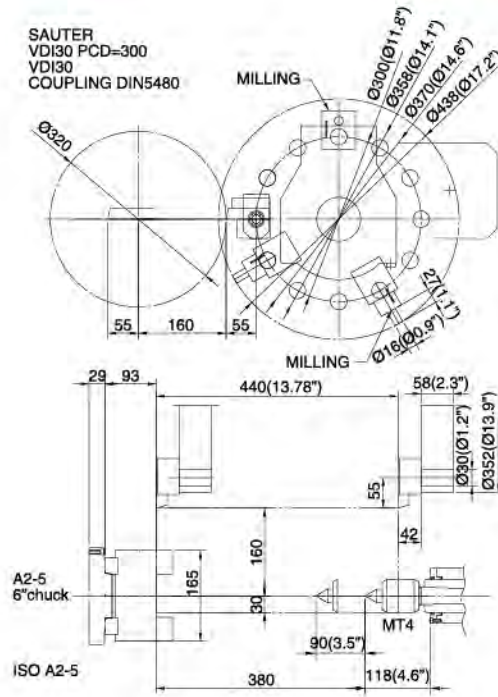
Units=mm

# Turret Interference Drawing

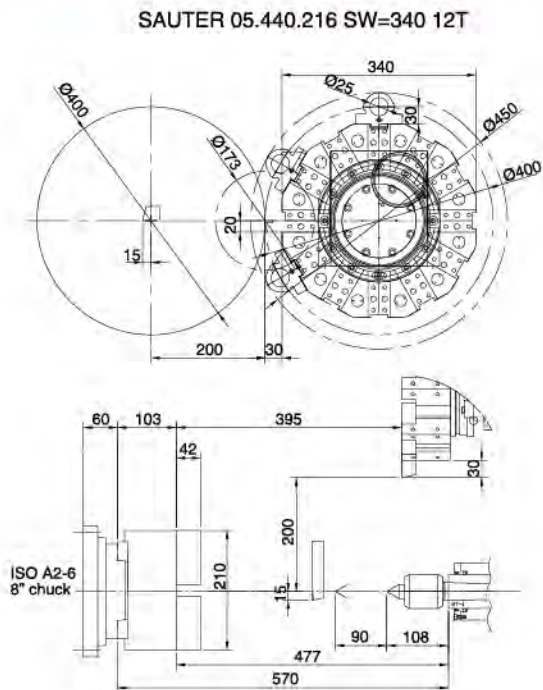
**VT-15L Static Block Tool**



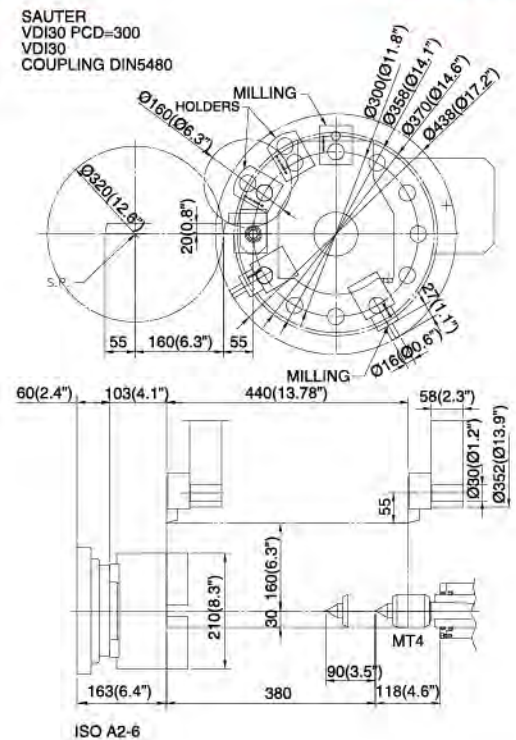
**VT-15LM Live VDI 30**



**VT-17L Static Block Tool**



**VT-17LM Live VDI 30**



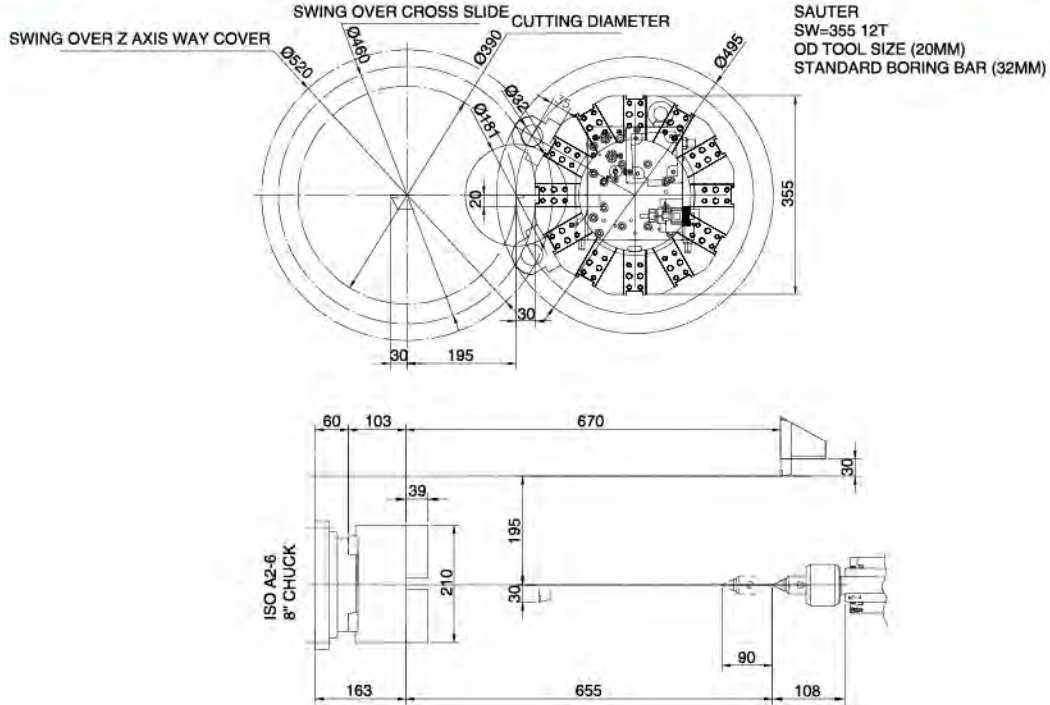




# Turret Interference Drawing

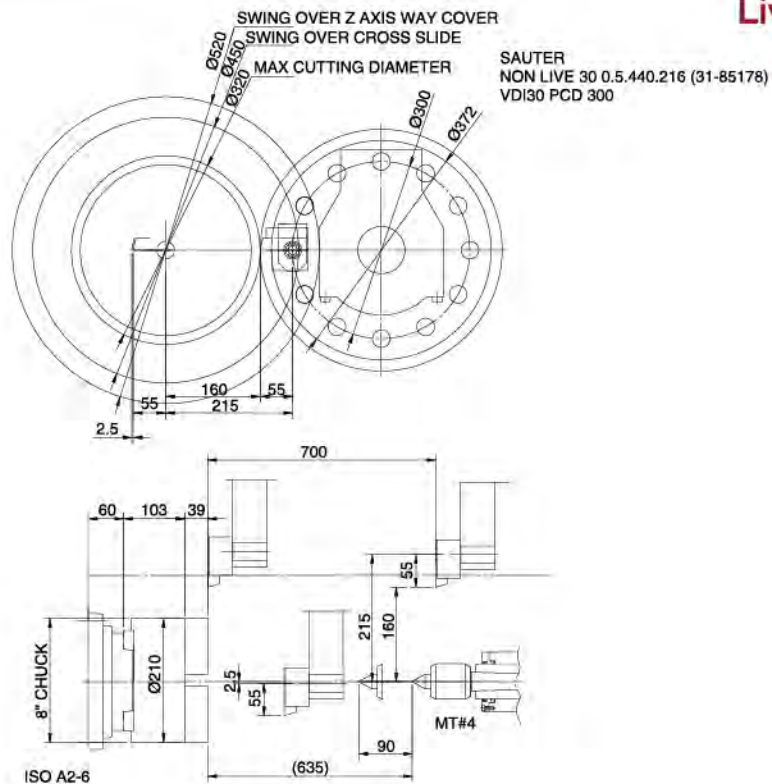
**VT-18L**

**Static Block Tool**



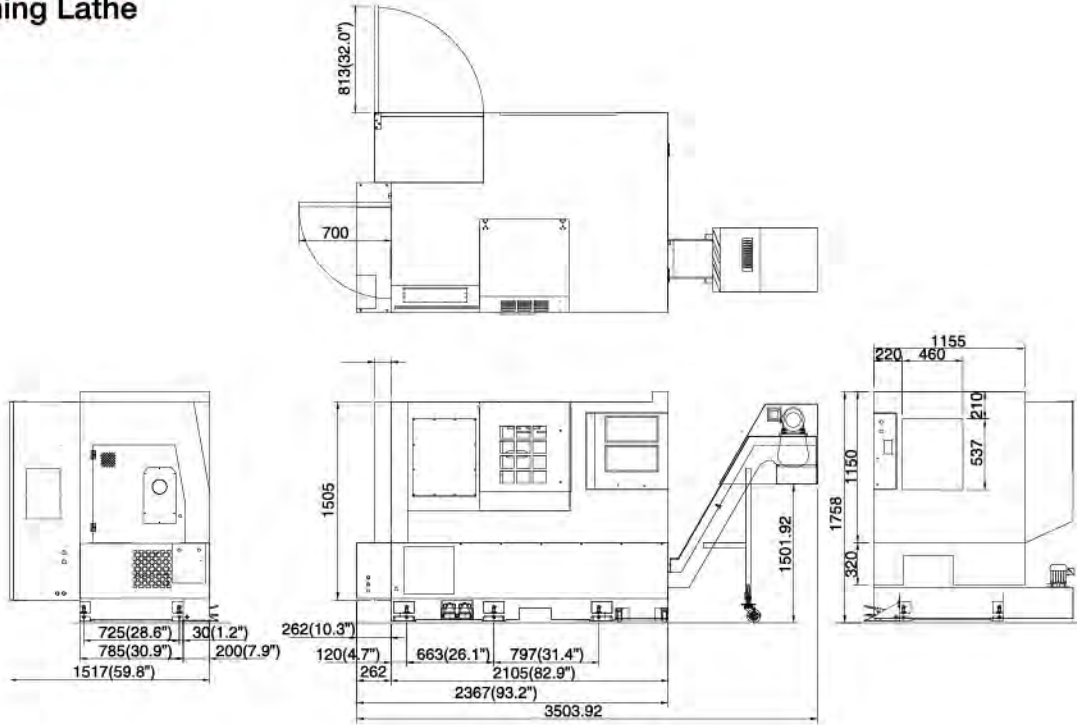
**VT-18LM**

**Live VDI 30**

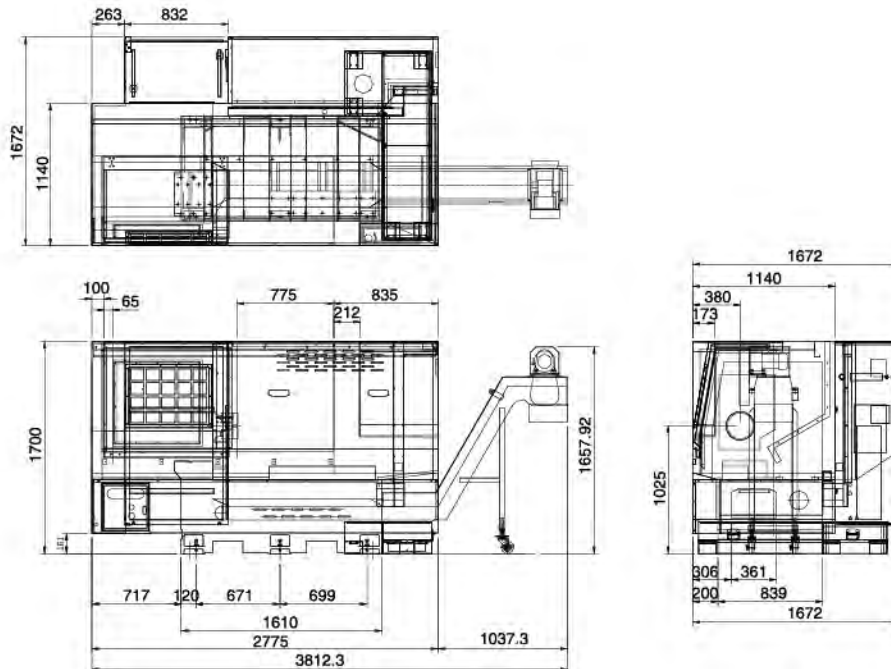


# Machine Dimensions

## VT-15L / VT-17L CNC Turning Lathe



## VT-18L





## Machine Specifications

| SPECIFICATIONS                      | Unit        | VT-15L   | VT-17L             | VT-18L               |
|-------------------------------------|-------------|--|--------------------|----------------------|
| <b>CAPACITY</b>                     |             |  |                    |                      |
| Swing over Z way cover              | mm (in)     | 480 (18.9)   | 480 (18.9)         | 520 (20.4)           |
| Max. turning diameter               | mm (in)     | 400 (15.7)   | 400 (15.7)         | 390 (15.3)           |
| Swing over cross slide              | mm (in)     | 300 (11.8)   | 300 (11.8)         | 450 (17.7)           |
| Max. turning length                 | mm (in)     | 415 (16.3)   | 395 (15.5)         | 670 (26.3)           |
| Slideway slant angle                | Degree      | 30   | 30                 | 30                   |
| <b>TRAVEL</b>                       |             |  |                    |                      |
| X-axis travel                       | mm (in)     | 200+15 (7.87+0.59)   | 200+15 (7.87+0.59) | 195+30 (7.67+1.18)   |
| Z-axis travel                       | mm (in)     | 440 (17.3)   | 440 (17.3)         | 750 (29.5)           |
| <b>SPINDLE</b>                      |             |  |                    |                      |
| Type of spindle nose                | ISO         | A2-5   | A2-6               | A2-6                 |
| Chuck diameter                      | mm (in)     | 152 (6")   | 204 (8")           | 204 (8")             |
| Main spindle bearing inner diameter | mm (in)     | 90 (3.5)   | 110 (4.3)          | 110 (4.3)            |
| Main spindle through hole diameter  | mm (in)     | 51 (2.0)   | 61 (2.4)           | 61 (2.4)             |
| Main spindle through bar capacity   | mm (in)     | 42 (1.7)   | 51 (2.0)           | 51 (2.0)             |
| Main spindle drive motor (S3 25%)   | HP (kW)     | 20 (15)  | 20 (15)            | 20 (15)              |
| Main spindle speed range            | rpm         | 6000   | 5000               | 5000                 |
| <b>TURRET</b>                       |             |  |                    |                      |
| Turret type (Tool number)           | -           | Static Block Tool (12)/(10)*OPT<br>Live VDI-30 (12)<br>0.8=Hydraulic Drive |                    |                      |
| Turret indexing time                | Second      | 0.8=Hydraulic Drive  |                    |                      |
| Live tool speed                     | rpm         | 6000   | 6000               | 6000                 |
| Live tool power (30 min.)           | HP (kW)     | 5.0 (3.5)  | 5.0 (3.5)          | 5.0 (3.5)            |
| <b>FEEDRATE</b>                     |             |  |                    |                      |
| Rapid traverse rate X-axis          | ipm (M/min) | 787 (20)   | 787 (20)           | 787 (20)             |
| Rapid traverse rate Z-axis          | ipm (M/min) | 787 (20)   | 787 (20)           | 787 (20)             |
| <b>TAILSTOCK</b>                    |             |  |                    |                      |
| Tailstock travel                    | mm (in)     | 300 (11.8)   | 300 (11.8)         | 655 (25.7)           |
| Tailstock quill diameter            | mm (in)     | 60 (2.4)   | 60 (2.4)           | 60 (2.4)             |
| Tailstock quill diameter travel     | mm (in)     | 90 (3.54)  | 90 (3.54)          | 90 (3.54)            |
| Taper hole of tailstock quill       | -           | MT-4   | MT-4               | MT-4                 |
| <b>OTHER</b>                        |             |  |                    |                      |
| Power requirements                  | V (kVA)     | 208 (20) 3 phase   | 208 (20) 3 phase   | 208 (20) 3 phase     |
| Coolant pump motor                  | HP (kW)     | 0.75 (0.56)  | 0.75 (0.56)        | 0.75 (0.56)          |
| Coolant tank capacity               | gal (L)     | 54 (205)   | 54 (205)           | 66 (250)             |
| Floor space                         | mm (in)     | 3503x1517 (138x60)   | 3503x1517 (138x60) | 3812 x 1672 (150x66) |
| Machine weight                      | lbs (kg)    | 8140 (3700)  | 8250 (3750)        | 8366 (3795)          |

Design and specifications are subject to change without prior notice.

\*Optional accessory \*\*Factory order only

## Standard Features

- ▶ Auto Lubrication System
- ▶ Block for Base
- ▶ Cooling System and Chip Tray
- ▶ Coolant Tank Guard
- ▶ Chip Conveyor
- ▶ Fluid Bearing Way System
- ▶ Hard Jaw (1 set)
- ▶ Heat Exchange for Control System
- ▶ Hydraulic Adjustment System
- ▶ Lubrication Monitoring System
- ▶ Soft Jaw (1 set)
- ▶ Tool Box with Hand Tool
- ▶ Work Lamp

## Optional Accessories

- ▶ Air chuck
- ▶ Automatic gantry loading and unloading system
- ▶ Bar feeder interface (Factory order only)
- ▶ Collet chuck (16C)
- ▶ Heavy parts loader
- ▶ High pressure coolant pump and large capacity tank
- ▶ High pressure coolant through turret 300 psi (4 gpm)
- ▶ High pressure coolant through turret 1000 psi (8 gpm)
- ▶ Parts catcher (2.5" x 6")
- ▶ VI-30 live turret: 12 station turret
- ▶ 20 HP spindle motor (for non-live turret)
- ▶ Self-centering steady rest SMW autoblok
- ▶ Tool presetter
- ▶ Torque limiter clutch