

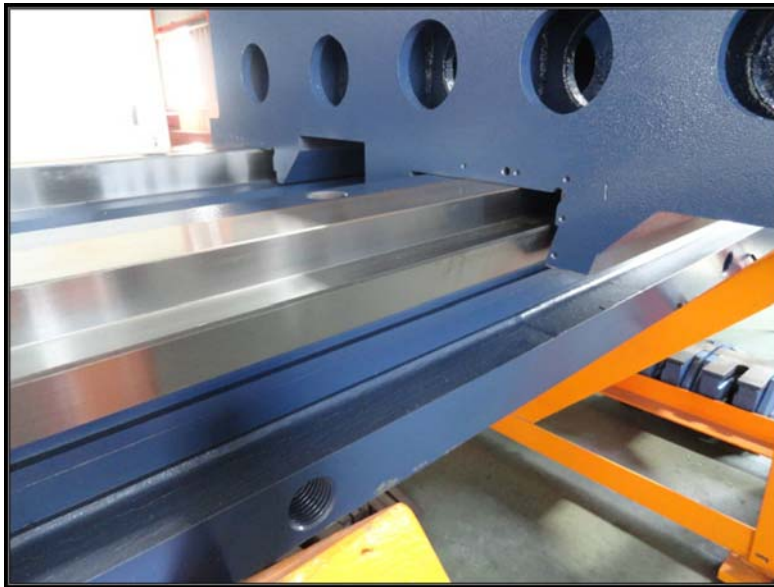
## Valid VT-1000 CNC Vertical Lathe



The Valid VT-1000 CNC Vertical Lathe is the result of several years of collaboration between Valid Machinery of the United States and Precursor Tech Co. LTD. of Taiwan. The VT-1000's ram-type fixed-rail design is inspired by the strength and durability of vertical turret lathes and boring mills from around the world with a special focus on the U.S. models. The latest manufacturing methods are utilized in building Valid machines and we believe them to be among the most advanced and rugged in the world, as well as affordable.

## MACHINE CONSTRUCTION:

The Valid VT-1000's cross-ribbed castings are stress relieved meehanite. The cross rail box-type ways are hardened and ground and tapered gibs are utilized. Composite is applied to the mating surfaces in order to reduce friction and increase longevity.



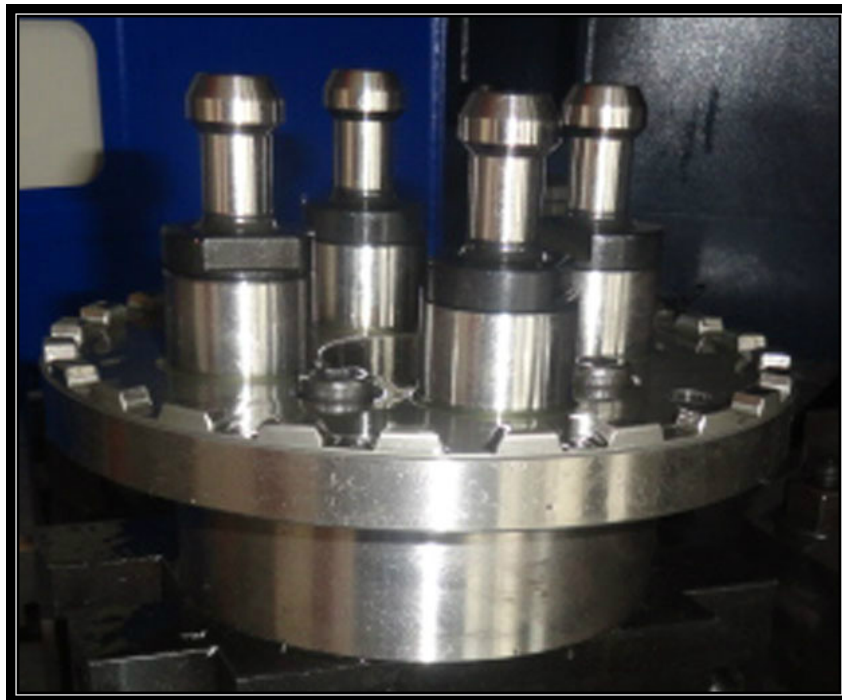
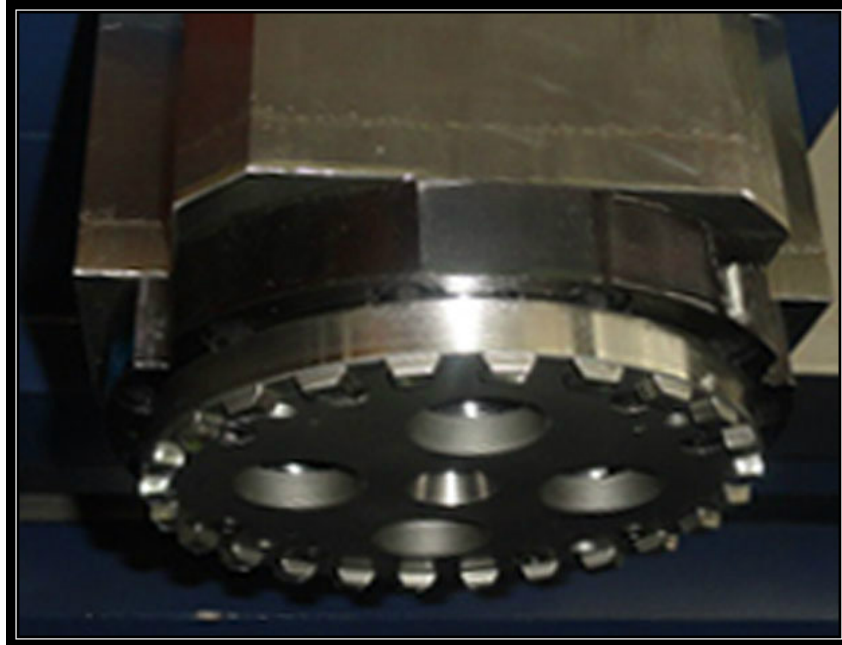
The table spindle has an A2-15 spindle nose and the spindle bearings are NN-type precision. Surrounding the spindle nose is the excellent NSK model 610TMP 7102A thrust bearing that provides tremendous stability for the 39.3" chuck and 19,800 lb. table load capacity.



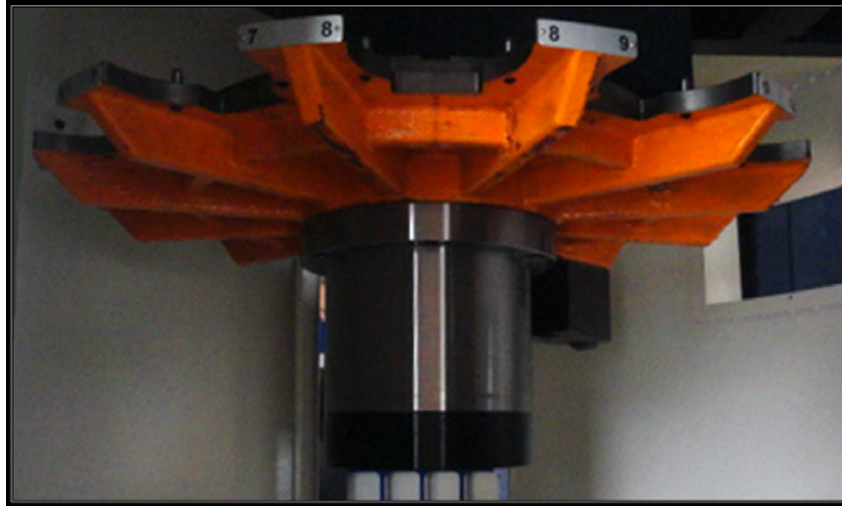
The unique multi-faceted ram is designed for rigidity and precision. The massive ram saddle is lined with composite to insure smooth operation of the Z-axis and the dual gib arrangement provides additional strength.



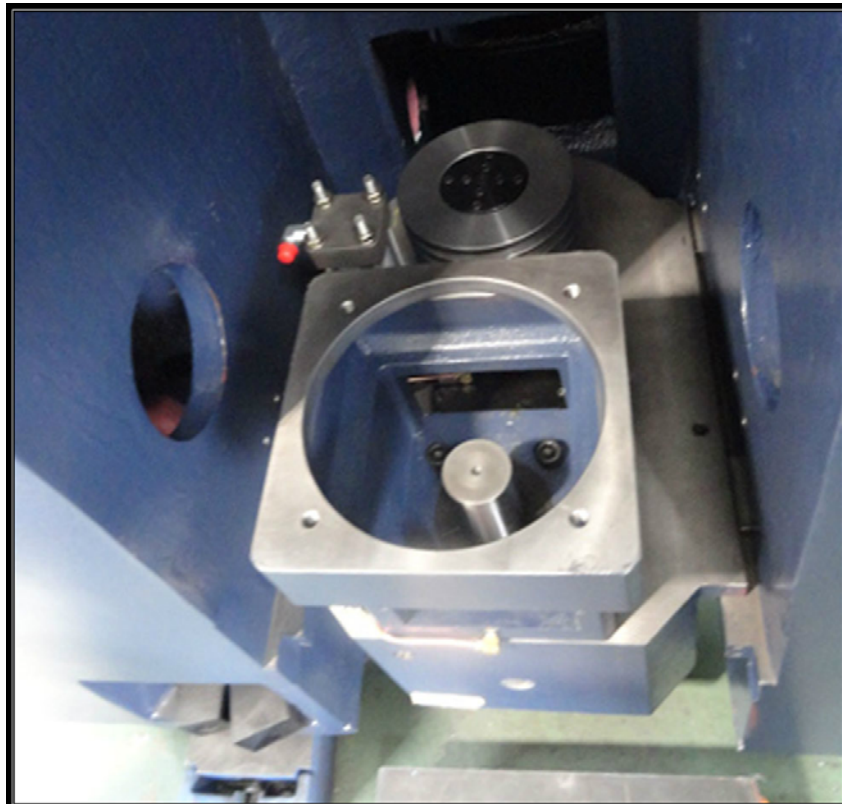
Many thousands of pounds of retention force are generated by the quad-pin tool retention system and interlocking teeth between the ram and tool holder plate.



The Automatic Tool Changer System has 12 stations and is attached to the cross-rail. Tool changes are fast and vibration-free.



The table spindle-drive transmission has a 1:2 ratio for high and a 1:6 ratio for low. Torque output is increased three and nine times respectively. Timing belts are used to transmit power to the table on the standard model. A ring-gear and pinion drive is available as an option. Transmission oil temperature is stabilized by a chiller unit.



## SPECIFICATIONS:

### **CAPACITY**

Max. swing diameter	47.24" (1200 mm)
Max. turning diameter	47.24" (1200 mm)
Max. turning height	39.37(1000 mm)
Max. distance bottom ram to chuck	51" (1295 mm) (without tool holder)
Table diameter	Ø39.37(Ø1000mm)
Max. table load	19,800 lbs (9,000 KGS)

### **SPINDLE**

Spindle motor type	FANUC $\alpha$ 30i/6000
Motor output (30 min.)	183.9 ft-lb(249.1 NM)
Horsepower	50 HP
Gear ranges	2
Spindle speed range	1-250; 2-500 RPM
Thrust Bearing	NSK 610TMP7102A

### **X & Z AXIS**

Max. X-axis travel	45.28" (1,150 mm)
Max. Z-axis travel	39.7" (1,000 mm)
X axis rapid	393 IPM(10 m/min)
Z axis rapid	590 IPM(15 m/min)
X-axis servo motor	FANUC $\alpha$ 40i; 6 KW (8 HP)
Z-axis servo motor	FANUC $\alpha$ 40i; 6 KW (8 HP)

### **TOOL MAGAZINE**

Magazine capacity	12
Tool holder	coupling
Driven type	Servo motor indexing
Maximum tool length	19.7" (500 mm)
Maximum tool weight	88 lbs (40 kgs)
Tool change time pocket to pocket	1 Sec

### **GENERAL**

Coolant tank capacity	50 gallons
Power requirement	220/3/60 +/- 10%
Machine weight	33,000 lbs (15,000 KGS)
Dimension L x W x H	98"x138"x177" (2500x3,500x4500 mm)

## STANDARD EQUIPMENT:

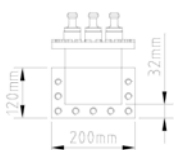
### ACCESSORIES

Auto lubrication with pressure detection sensor  
C3 class ball screws with pretension on all axes  
145 PSI Coolant pump (Walrus)  
(2) Additional coolant pumps for chip wash down and removal  
Coolant through ram  
Chip conveyor  
Door interlock  
Enclosed splash guards  
Air conditioner for electrical cabinet  
Precision leveling kit  
High intensity work light  
Hydraulic system  
M code controlled air blower  
M code automatic power off  
Maintenance tool kit  
Water spread gun  
Way covers for all axes  
Operation & maintenance manuals  
Gear box & Oil chiller  
Oil coolant separator  
3 color cycle lights  
4 Boring mill jaws  
39.3" 4-Jaw manual chuck

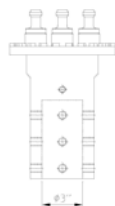
### TOOL HOLDER PACKAGE

Tool Type	Dimension	Quantity
OD tool holder	32 mm (V1081104)	4
ID tool holder	Ø3" (V1085012)	1
ID tool holder	Ø2.5" (V1085020)	2
ID tool holder	Ø2" (V1085021)	1

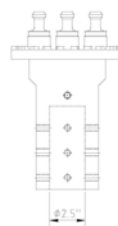
V1081104



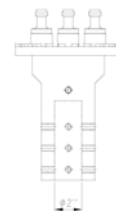
V1085012



V1085020



V1085021



## CONTROL:

### FANUC Oi-TD CONTROL FEATURES

- Fanuc AC  $\alpha$  servo drive & motors
- Front memory card slot
- 10.4" color LCD monitor
- 640 M (256 KB) Part program memory
- 400 set register program no.
- 64 sets tool offset
- Auto power off
- Custom Macro B
- Canned cycle
- Run hour and parts counter
- Rigid tapping
- RS-232 interface
- Skip signal G31
- Tool life management
- Multiple language support
- Servo HRV3 control



Optional 39.3" 3-Jaw Power Chuck



## PRICING:

**VALID VT-1000 CNC VERTICAL LATHE:**

P.O.R.

### **AVAILABLE OPTIONS:**

39.3" 3-Jaw Power Chuck

P.O.R.

CNC side head<sup>1</sup>

P.O.R.

Live Spindle, C axis and Coolant through the spindle<sup>2</sup>

P.O.R.

Geared Table Drive

P.O.R.

Double Z-axis<sup>3</sup>

P.O.R.

800mm Z axis (to replace standard 1000mm) for low profile work

P.O.R.

### **WARRANTY:**

1 Year limited warranty on machine

2 Years limited warranty on Fanuc control & components

### **TERMS:**

30% down; 60% prior to shipment; 10% upon completion of installation

THANK YOU.

SINCERELY,

STEVE KRENZEL

<sup>1</sup> The optional CNC Side Head has a horizontal ram travel of 21.6" and its saddle has a vertical stroke of 31.4". The square tool post is 7.5" x 7.5".

<sup>2</sup> The optional CT-50 Live Spindle for the ram has sufficient power for drilling a 2.5" hole in mild steel. The c-axis and 2-piece braking system provide accurate indexing of the work-piece and coolant through the spindle is available.

<sup>3</sup> The optional Double Z-axis allows up to 57" ram height & boring bar clearance.

Price and specifications are subject to change without prior notice.

Valid Machinery USA, subsidiary of D & S Equipment, is the exclusive North American importer for the Valid Machinery line.

Valid Machinery USA warehouse is located in Oklahoma City, OK.

## MACHINE FOOTPRINT:

