

CNC TURNING LATHE

# VT-27 VT-28

**POWERFUL CUTTING**

- ▶ *45° Slant Bed Design*
- ▶ *Large Spindle Bore 3.43"*
- ▶ *3500 rpm Spindle*
- ▶ *35 hp / 50 hp Motor*



*Ideal for the  
Toughest Hard  
Turning Jobs*

# VIPER



VT-SERIES

**27**

**28**

[www.alex-tech.com](http://www.alex-tech.com)

# Superior Performance

Powerful Universal CNC Turning Center

VT-27G



VT-28



## SOLID CONSTRUCTION

Rigid, one-piece Meehanite cast-iron-bed. Viper turning center construction provides the ultimate in machine tool accuracy and reliability.

A 45° slant bed design for our **VT-27G** and **VT-28** 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 facilitates exceptionally fast cutting rates.

## PERFORMANCE FEATURES

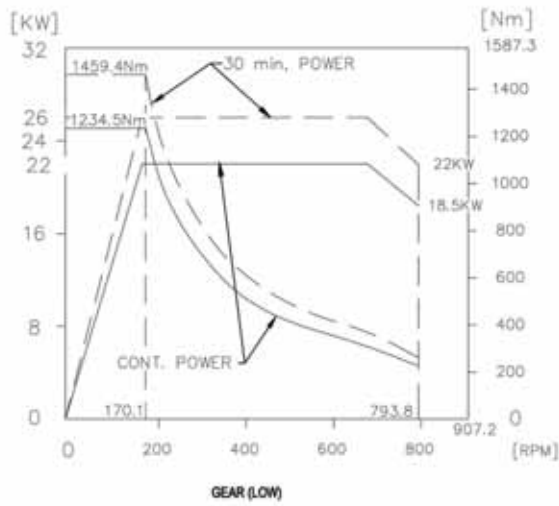
- Live Milling and Sub-Spindle
- Main Spindle 35 hp / 50 hp\*
- Fully Conventional Programming
- VDI-40 Live Turret

\*Optional accessory.

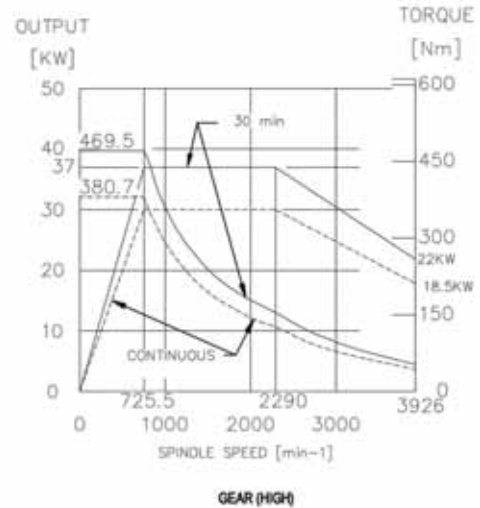
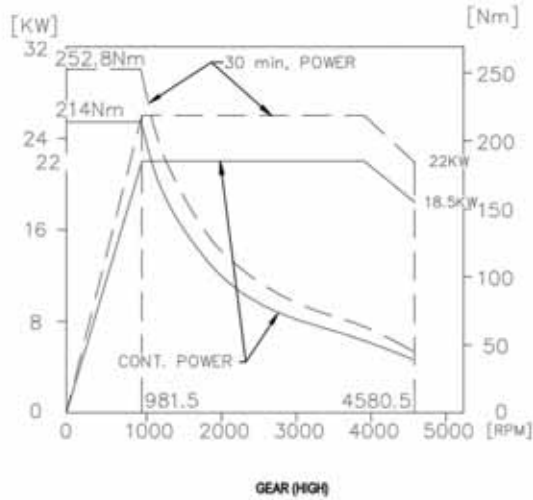
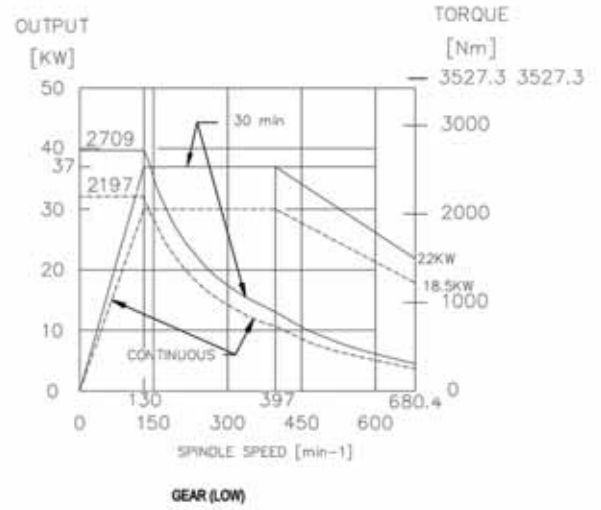
# TORQUE CHARTS

Legend ■ 30 Min. Rating = (---) | Continuous Rating = (—)

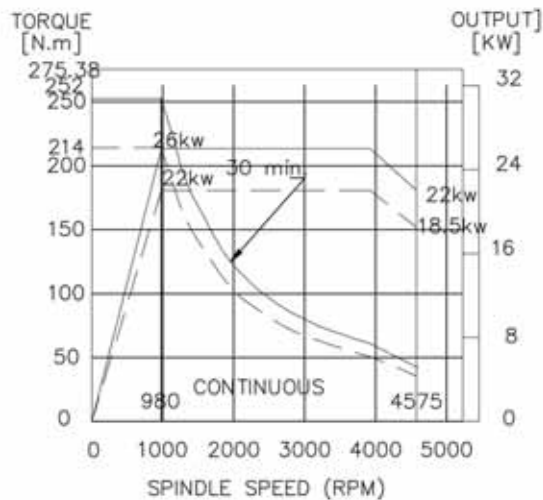
## VT-27G Torque Chart



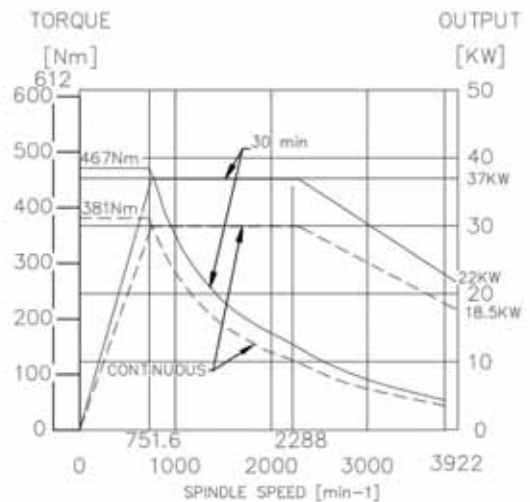
## VT-27G Torque Chart (Option)



## VT-28 Torque Chart



## VT-28 Torque Chart (Option)



## PERFORMANCE OPTIONS



### TORQUE LIMITER CLUTCH

The clutch disengages when pre-set limiting torque is exceeded and axial movement stops immediately.

A fitted limit switch detects the clutch disengaging movement and signals the drive off. After removal of the overload, the clutch re-engages automatically.

### SELF-CENTERING STEADY REST (SMW AUTOBLOCK)

Easy installation, Steady Rest consist of four bolts (M16x 120mm) and two positioning pins (Ø10 mm).



### HEAVY PARTS LOADER

An Alex-Tech design, a large capacity parts loader that picks up and unloads parts up to 12" (300mm) / 25 lbs (11kgs).

Available for machines with a chuck size range of 10" (250mm) to 15" 375mm).



### TOOL PRESETTER

With its tool presetter system, Viper is an ideal machine for both short-run and high production environments.



Its tool presetting system assists in reducing set-up time, changing tools and ensures accurate measurement of tool offsets.

The tool presetter allows for various checkpoints throughout the program to obtain optimal part accuracy and finish. These tool offsets are quickly and accurately measured by the tool presetter probe system.



Centering range without chip guard:

- **SLU3** Ø12 ~ Ø152 (0.47" ~ 5.98")
- **SLU3.1** Ø20 ~ Ø165 (0.79" ~ 6.49")
- **SLU3.2** Ø50 ~ Ø200 (1.96" ~ 7.87")

Steady Rest optional equipment

- Swarfguard — Spring loaded, self adjusting guard to protect arm rollers against chips.
- Large capacity steady rest may require wider full length splash guard.
- Stroke control (no proximity switch).
- Central oil lubrication for heavy duty cutting.
- Safety valve

### BAR FEEDER\*\*

IEMCA Servo Driven

Units = inch (mm)

| Model         | Bar Capacity  | Stroke         |
|---------------|---------------|----------------|
| V66E .....    | 2.59" (65mm)  | ..49" (1244mm) |
| V66EL .....   | 2.59" (65mm)  | ..61" (1550mm) |
| VIP-80 .....  | 3.15" (80mm)  | ..61" (1550mm) |
| VIP-100 ..... | 3.93" (100mm) | 63" (1600mm)   |



\*\*Factory order with machine only.

### AUTOMATIC DOOR

Push button efficiency, open or close door automatically. The **VT-27G** and **VT-28**, may be equipped with auto door function.



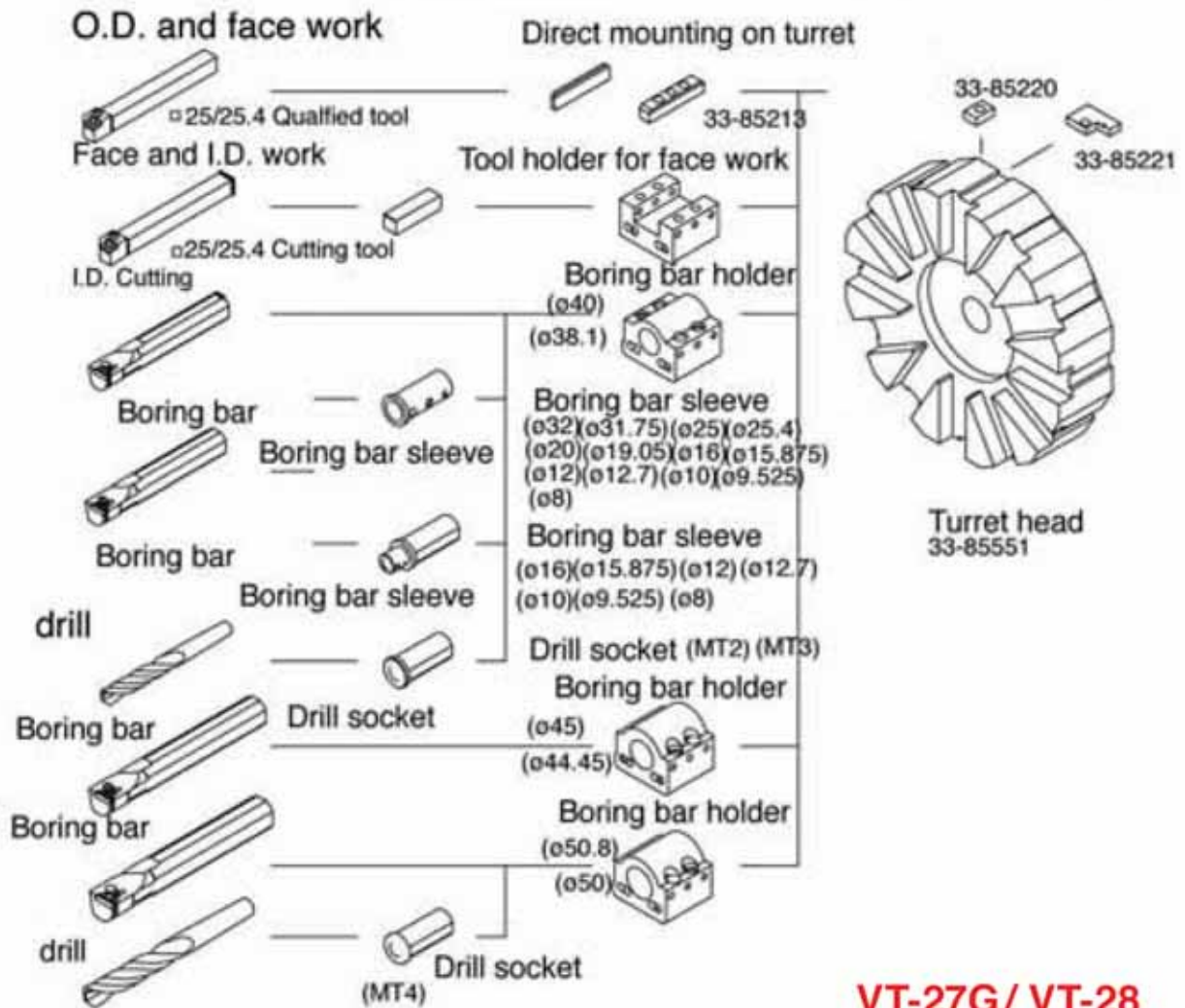
Patent pending door design.

Available on models with extended Z-axis travel up to 61.0" (1550mm). Maximum door opening is 65" (1650mm) and 85" (2159mm) wide.

### MORE OPTIONS

- Air Chuck
- Automatic gantry loading and unloading system
- Collet chuck, 3", A2-8 S-30
- Glass scale XY-axes
- High pressure coolant pump and large capacity coolant tank
- Interior diameter (I.D.) tool socket sleeve
- Interior diameter (I.D.) tool holder
- 1000 PSI coolant through the tool
- VDI-40 Live Turret

## Turret Tooling

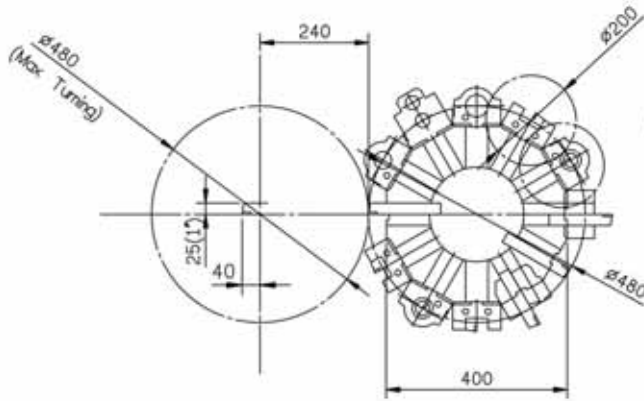


**VT-27G/ VT-28**  
Static Block Tools

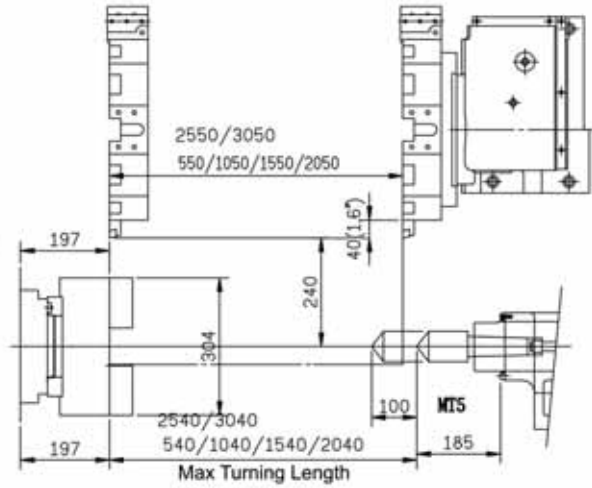
# TURRET INTERFERENCE DRAWING

## VT-27G / VT-28

### Static Block Tool



(VT-27)  
(VT-28)  
A2-8  
12"



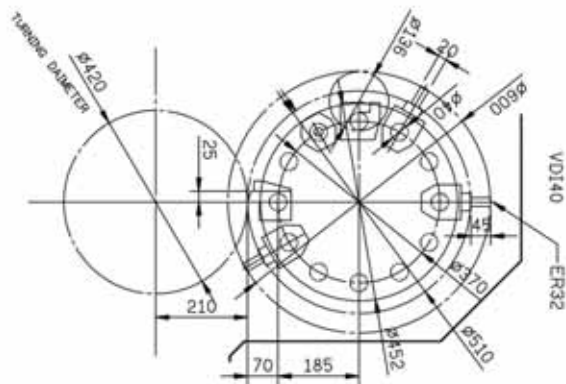
Spindle Nose  
ISO A2-8

Units = mm (inch)

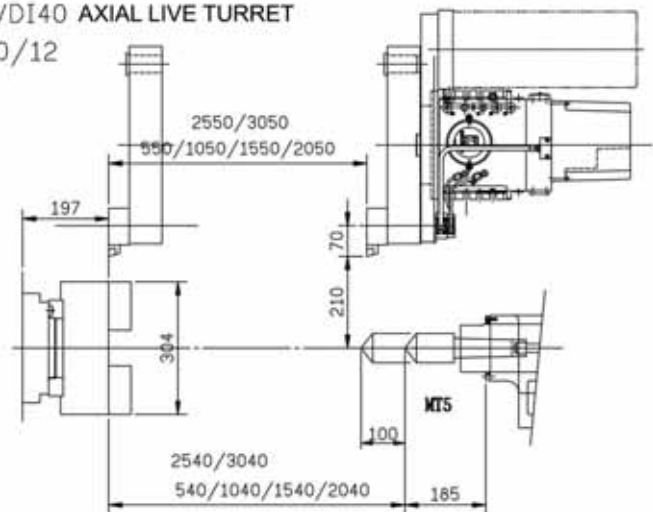
## VT-27G / VT-28

### Live VDI-40

SAUTER VDI40 AXIAL LIVE TURRET  
0.5.436.220/12  
P.C.D.370



(VT-27)  
(VT-28)  
A2-8  
12"

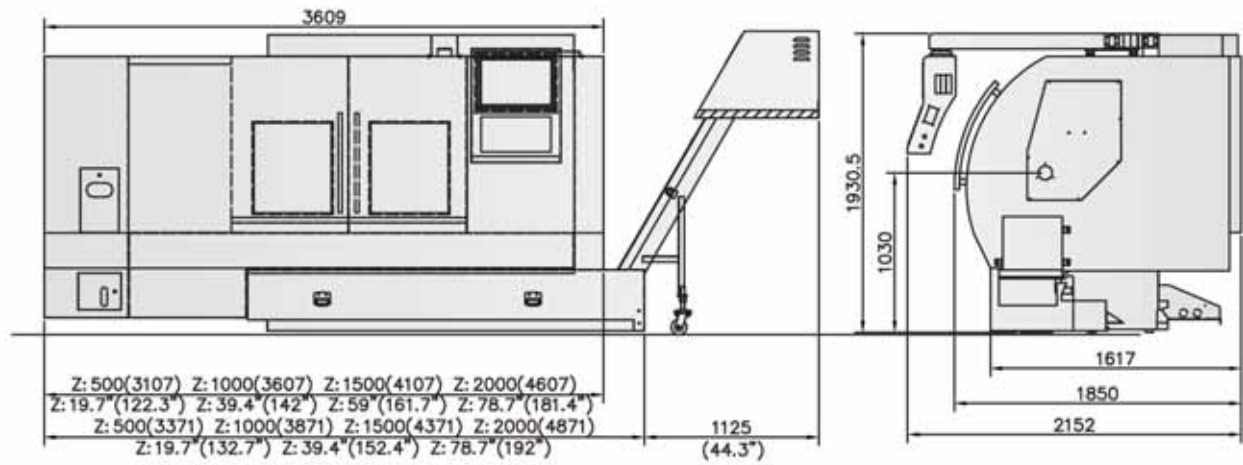
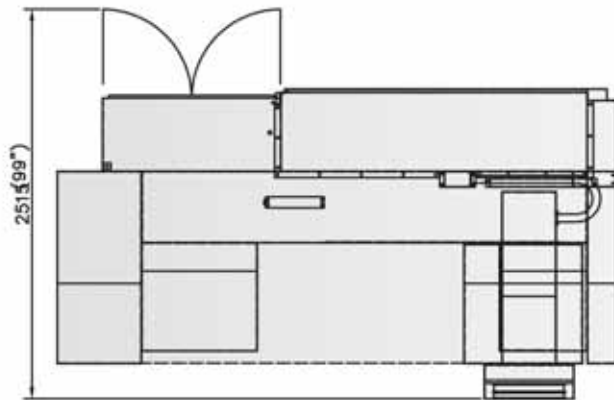


Spindle Nose  
ISO A2-8

# MACHINE DIMENSIONS

## VT-27 ■ VT-28 CNC Turning Center Full Guarding • Chip Conveyor

Top View



Front View

Side View

Units = mm (inch)

## Machine Specifications

| ITEMS                                | UNIT         | VT-27G   |  | VT-28B                       |  |
|--------------------------------------|--------------|--|--|------------------------------|--|
|                                      |              | 500/1000/1500/2000/2500/3000   |  | 500/1000/1500/2000/2500/3000 |  |
| <b>CAPACITY</b>                      |              |  |  |                              |  |
| Swing Over Z Way Cover               | inch (mm)    | 26.8 (680)   |  |                              |  |
| Max. Turning Diameter                | inch (mm)    | 18.9 (480)   |  |                              |  |
| Swing Over Cross Slide               | inch (mm)    | 18.9 (480)   |  |                              |  |
| Distance Between Centers             | inch (mm)    | 21.25(540) / 40.9(1040) / 60.6(1540) / 80.3(2040) / 100(2540) / 119.6(3040)  |  |                              |  |
| Max. Turning Length                  | inch (mm)    | 21.25(540) / 40.9(1040) / 60.6(1540) / 80.3(2040) / 100(2540) / 119.6(3040)  |  |                              |  |
| Slideway Slant Angle                 | degree       | 45   |  |                              |  |
| <b>TRAVEL</b>                        |              |  |  |                              |  |
| X-Axis Travel                        | inch (mm)    | 9.4 (240) + 1.57 (40)  |  |                              |  |
| Z-Axis Travel                        | inch (mm)    | 23.2(590) / 42.9(1090) / 62.6(1590) / 82.3(2090) / 101.9(2590) / 121.7(3090)   |  |                              |  |
| W-Axis Travel (Sub Spindle )         | inch (mm)    | 41.3 (1050) L=1000 / 80.7 (2050) L=2000  |  |                              |  |
| <b>MAIN SPINDLE</b>                  |              |  |  |                              |  |
| Type of Spindle Nose                 | ISO          | A2-8   |  | A2-8                         |  |
| Chuck Diameter & Type                | inch (mm)    | 12 (305)   |  | 12 (305)                     |  |
| Main Spindle Bearing Inner Diameter  | inch (mm)    | 5.11 (130)   |  | 5.11 (130)                   |  |
| Main Through Spindle Hole Diameter   | inch (mm)    | 3.43 (87)  |  | 3.43 (87)                    |  |
| Main Through Bar Capacity            | inch (mm)    | 3.03 (77)  |  | 3.03 (77)                    |  |
| Main Spindle Motor (cont. /30 min.)  | hp (kW)      | 35 (26) / 50 (37)*   |  | 35 (26) / 50 (37)*           |  |
| Main Spindle Speed Range             | rpm          | 1~600, 600~3500  |  | 3500                         |  |
| <b>SUB SPINDLE</b>                   |              |  |  |                              |  |
| <i>For 1000 and 1500 bed lengths</i> |              |  |  |                              |  |
| Sub-Spindle Nose                     | ISO          | A2-6   |  | A2-6                         |  |
| Standard Chuck Size                  | inch (mm)    | 8 (200)  |  | 8 (200)                      |  |
| Sub-Spindle Motor (cont. /30 min.)   | hp (kW)      | 15 (11)  |  | 15 (11)                      |  |
| Sub-Spindle Speed range              | rpm          | 4000   |  | 4000                         |  |
| Sub-Spindle Through Bar Capacity     | inch (mm)    | 2.0 (51)   |  | 2.0 (51)                     |  |
| <b>TURRET</b>                        |              |  |  |                              |  |
| Number of Tool Stations              | —            | 12(SW=400)/10*   |  |                              |  |
| Turret Type                          | —            | STATIC   |  |                              |  |
| Turret Type (Optional)               | —            | Live VDI-40*   |  |                              |  |
| Turret Indexing Time                 | sec          | 0.9 (Hydraulic) / 0.15 (Servo Driver)*   |  |                              |  |
| Shank Height of Square Tool          | inch (mm)    | 1.0 (25)   |  |                              |  |
| Shank Diameter for Boring Bar        | inch (mm)    | 2 (50)   |  |                              |  |
| <b>FEEDRATE</b>                      |              |  |  |                              |  |
| Rapid Traverse Rate X-Axis           | ipm (M/min.) | 787 (20)   |  |                              |  |
| Rapid Traverse Rate Z-Axis           | ipm (M/min.) | 944(24)  |  |                              |  |
| Ballscrew Diameter of X-axis         | inch (mm)    | 1.26(32)   |  |                              |  |
| Ballscrew Diameter of Z-axis         | inch (mm)    | 1.58(40)   |  |                              |  |
| <b>TAILSTOCK</b>                     |              |  |  |                              |  |
| Tailstock Travel                     | inch (mm)    | 21.3(540) / 40.9(1040) / 60.6(1540) / 80.3(2040) / 100(2540) / 119.6(3040)   |  |                              |  |
| Tailstock Spindle Diameter           | inch (mm)    | 4.33 (110)   |  |                              |  |
| Tailstock Spindle Travel             | inch (mm)    | 4.0 (100)  |  |                              |  |
| Taper Hole of Tailstock Spindle      | —            | MT-5   |  |                              |  |
| <b>REMARKS</b>                       |              |  |  |                              |  |
| Coolant Pump Motor                   | hp (kW)      | 0.75 (0.6)   |  |                              |  |
| Coolant Tank Capacity                | gal (L)      | 75 (286) / 91 (345) / 106 (403) / 112 (462)  |  |                              |  |
| Floor Space                          | inch (mm)    | L=185.2(4704)/204.88(5204)/224.56(5704)/244.25(6204)/263.9(6704)/283.6(7204) x W=85(2152)  |  |                              |  |
| Machine Weight                       | lbs (kg)     | VT-27 = 12,870 (5850) / 15,290 (6950) / 17,710 (8050) / 20,130 (9150) / 22,550 (10250) / 24,970 (11350)<br>VT-28 = 12,760 (5800) / 15,180 (6900) / 17,600 (8000) / 20,020 (9100) / 22,440 (10200) / 24,860 (11300) |  |                              |  |

Design and specifications are subject to change without prior notice. | \*Optional Accessory. | \*\*Factory order only.

## Optional Accessories

- Auto Door (L1500 or L2000)
- Bar Feeder: IEMCA V66e (5')
- Collect Chucks, 3" A2-8 S-30: Royal Accu-Length CNC
- Coolant Through Turret, High Pressure 300 psi (4GPM)
- Coolant Through Turret, High Pressure 1000 psi (8GPM)
- Glass Scale X and Y axes: Heidenhain, 5 Micron
- Manual Tool Presetter
- Manual Steady Rest, Roller Bearing Style, 1.97"~9.84" range or 9.84"~15.75" range
- Mounting Bracket and Hydraulic Control Kit for SLU-B-Z-3
- Programmable Tailstock and Programmable Quill
- Side Mounted Cylinder, Central Lube, with Mounting Bracket and Hydraulic Kit: SMW SLU-B-Z-3, gripping range 0.473" to 5.98" \*\*
- Steady Rest Bracket with Hydraulic Clamp and Unclamp Solenoid Valve
- Upgrade Spindle Motor: 50 hp
- Upgrade Control: Siemens 828D with Shopturn

### Standard Features

- Auto Lubrication System
- Cooling System
- Chip Conveyor
- Foot Switch for Spindle
- Fluid Bearing Way System
- Hard Jaw (1-Set)
- Heat Exchanger for Electrical Cabinet
- Hydraulic Adjustment System
- Lubrication Monitor System
- Soft Jaws (1-Set)
- Tool Box
- Work Lights



伍將機械工業股份有限公司  
**ALEX-TECH MACHINERY INDUSTRIAL CO., LTD.**  
 No. 5, Chun An Rd., Shengang District, Taichung City 429, Taiwan  
 Tel:886-4-25626039 Fax:886-4-25626040  
 http://www.alex-tech.com E-mail:alextech@ms24.hinet.net

**MIGHTY USA, INC.**  
 19705 Normandie Ave.  
 Torrance, CA 90502  
 Tel. 310.516.7478  
 Fax. 310.516.0368  
 E-mail. sales@mightyusa.com  
 Web. www.mightyviper.com

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