

CNC TURNING LATHE

VT-30 VT-33

HIGH PERFORMANCE

- ▶ 15 or 12-inch chuck
- ▶ Live Milling and Sub-Spindle
- ▶ 3000 rpm / 35 hp



Bed Lengths
up to 80.7" (2050mm)

*Ideal for Big
Diameter
and Long
Turning Jobs*

VIPER



VT-SERIES

30

33

FORTEX

www.alex-tech.com

Superior Performance

Large Bore with Heavy Duty Turret



PERFORMANCE FEATURES

- Live Milling
- Sub-Spindle
- Static VDI-40 Turret*
- 35 / 50 hp* Motor

YOUR MIGHTY VIPER EDGE

From micro-finishing to hard-turning, shaft and flange work pieces, Viper turning centers are known worldwide for their durability and affordability. They're rigid, high-performing, precision-cutting CNC lathes with multi-axis cutting capacity.

The Viper line offers a wide selection of choices, sizes, center distances, specifications and innovative enhancements. Ask for a Viper demo. Then, take your turn.

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-30 / VT-33** 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 ways which facilitate exceptionally fast cutting rates.

*Optional accessory.

MACHINE FEATURES

AXES DRIVE SYSTEMS AND BALL SCREW

Viper drives the axis with maximum radial torque through extremely accurate, zero backlash, large-diameter pretensioned

Powerful, robust, ultra-precise Viper ball screws, which are preloaded and double anchored, generate slide way movement in both axes for optimum drive conditions.

double-nut ball screws. Since the feed screws require high-speed feeding and a reverse capability, our VT-Series employs extremely accurate single-pitch ball screws.



TURRET SELECTION

STATIC BLOCK TOOL TURRET

A large, rigid, high speed, precision-ground 0.5 second turret-indexing from station to station, and shortest path indexing, makes Viper excellent for production turning. The turret is designed with 10 stations or 12 stations that accept OD tooling, ID tooling and bore tooling.



PROGRAMMABLE TAILSTOCK

Viper's highly-rigid tailstock is matched-ground to the headstock mounting surface establishing absolute alignment between the two. With a two-piece modular design and center of gravity in the horizontal plane, the heavy-duty tailstock eliminates machine-induced taper into the workpiece.

Viper's tailstock body is positioned by a drive bar which engages with the carriage. Drive bar and tailstock clamping are programmable and tow along. Which means quick setups.

THREE-JAW PRECISION HYDRAULIC CHUCK



VT-30 / VT-33 15" (380mm)

STATIC VDI-40 WITH BLOCK TOOL TURRET

Provides easy set up and heavy turning for any job requirement. Designed by Alex-Tech



Patent pending design.

STATIC VDI-40 TURRET

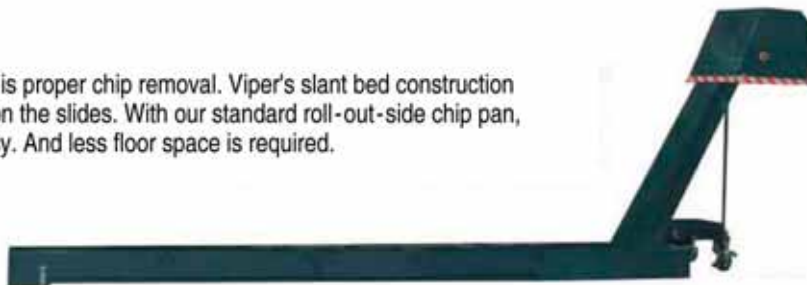
Provides quick and easy set up.



Tailstock for larger models with rotary quill.

CHIP REMOVAL

Essential in the production process is proper chip removal. Viper's slant bed construction prevents chips from accumulating on the slides. With our standard roll-out-side chip pan, Viper chip removal is quick and easy. And less floor space is required.



PERFORMANCE OPTIONS



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.

TORQUE LIMITER CLUTCH

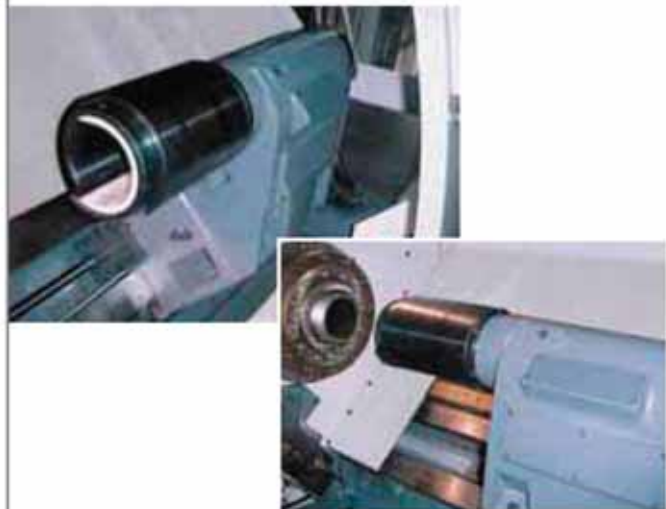
The clutch disengages when pre-set limiting torque is exceeded and axial movement stops immediately.



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

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).

BAR FEEDER*

IEMCA servo driven

| 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.



SELF-CENTERING STEADY REST (SMW AUTOBLOCK)

The installation for hydraulic Steady Rest consist of four pieces of M16x120mm bolt and two pieces of Ø10mm positioning pin makes operator job easier.

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")

Optional Equipment on Steady Rest:

- Spring loaded, self adjusting swarfguard to protect arm rollers against chips.
- Large capacity steady rest may require wider full length splash guard.
- Stroke control (without proximity switch).
- Central oil lubrication for heavy cutting.
- Safety valve



AUTOMATIC DOOR

Push button efficiency, open or close door automatically. VT-30 / VT-33 may be equipped with auto door for models with extended Z-axis travel of 62.6" (1590mm) / 82.2" (2090mm).

Maximum door opening width is 65" (1650 mm) / 85" (2159 mm)



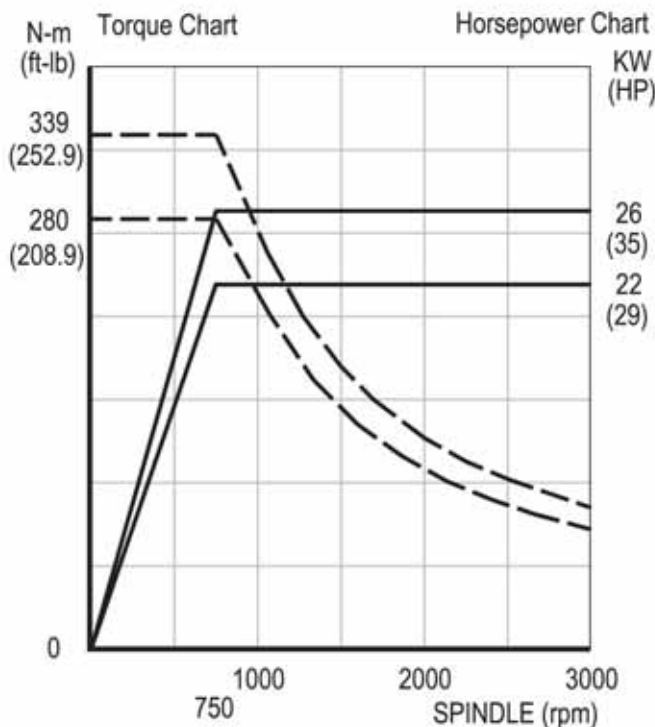
Patent pending door system design.

MORE OPTIONS

- Air Chuck
- Automatic gantry loading and unloading system.
- High pressure coolant pump and large capacity coolant tank.
- Tool socket sleeve, inner diameter (I.D.)
- Tool holder, inner diameter (I.D.)
- 1000 psi coolant thru the tool
- Static VDI-40 with block tool
- VDI-40 live turret

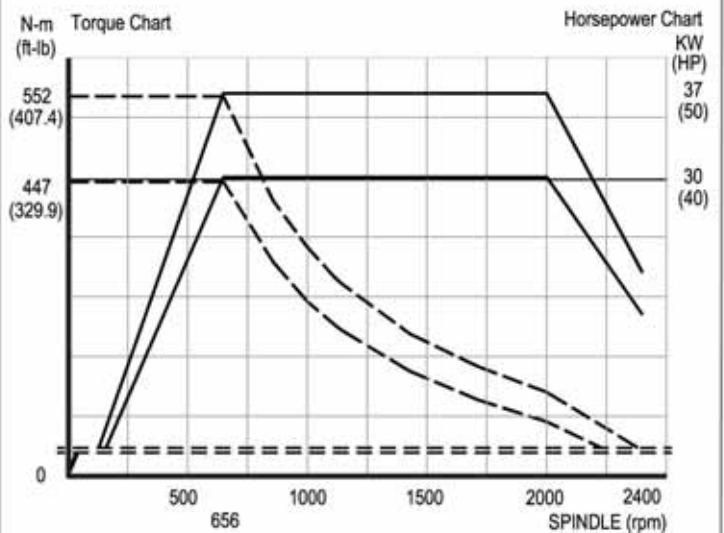
TORQUE POWER

VT-30 FANUC α22/7000i (35 hp)



30 Min. Rating = (- -) • Continuous Rating = (—)

VT-33 FANUC α30/6000i (50 hp)



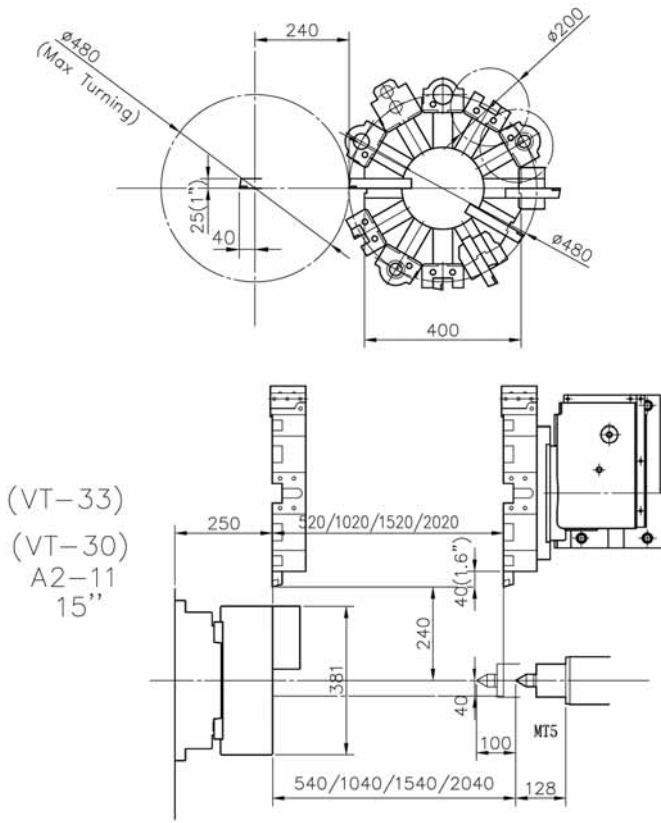
30 Min. Rating = (- -) • Continuous Rating = (—)

TURRET CAPACITY

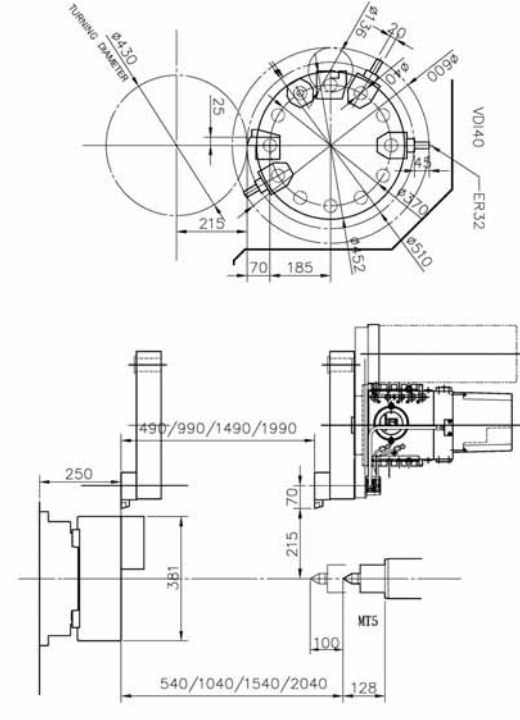
VT-30 / VT-33

Static Block Tool

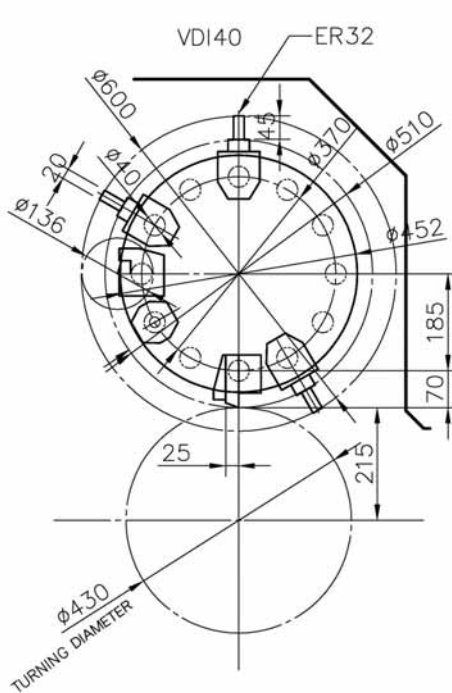
Static Block Tool / VDI-40



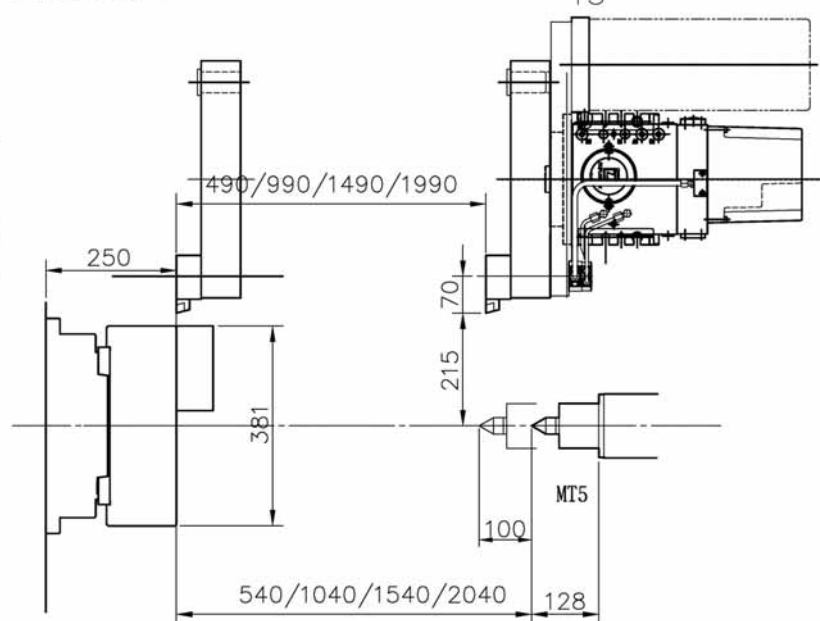
SAUTER VDI40 AXIAL TURRET
(NON LIVE)
0.5.436.220/12
P.C.D.370



Live VDI-40



SAUTER VDI40 axial live turret
0.5.436.220/12
P.C.D.370

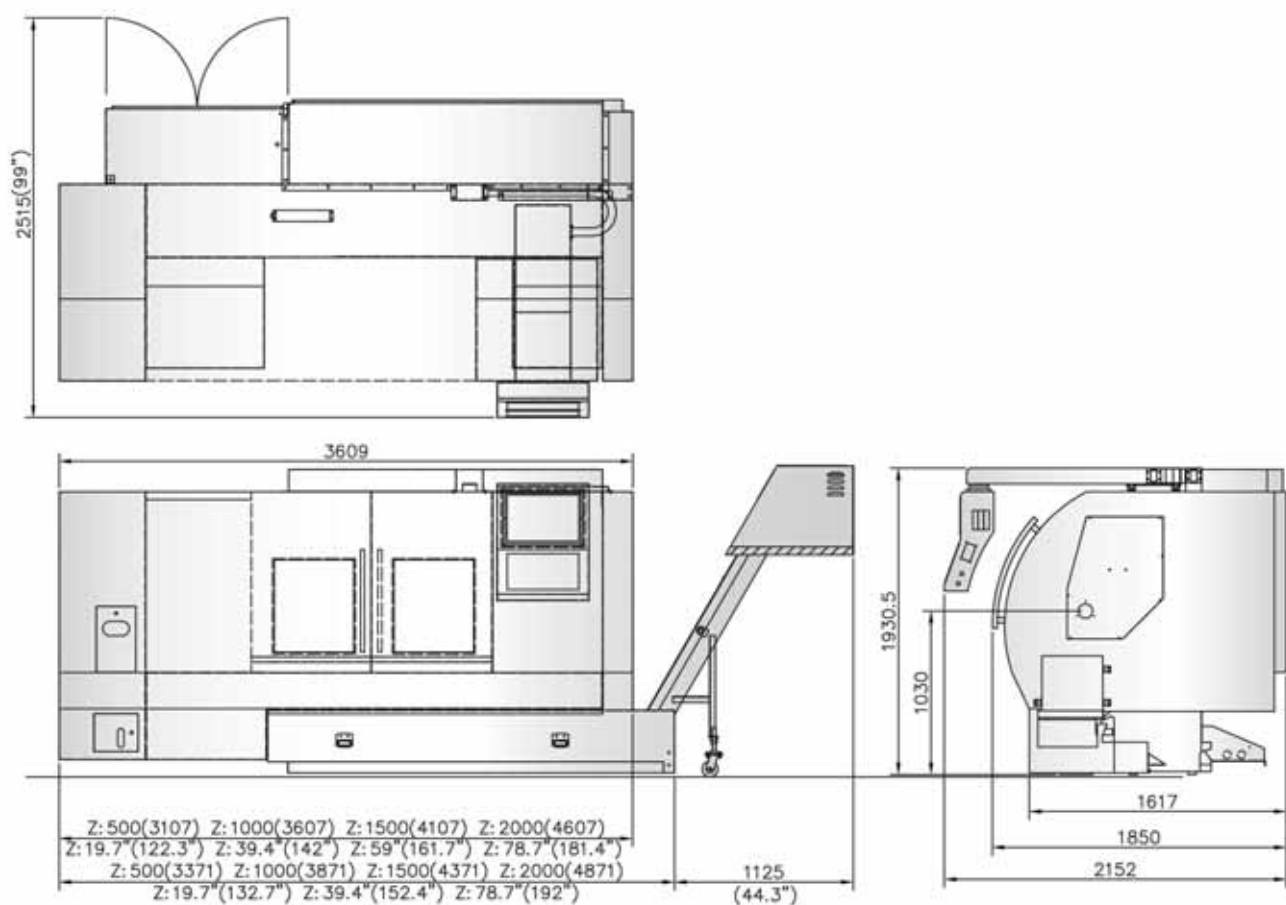


(VT-33)
(VT-30)
A2-11
15"

MACHINE DIMENSIONS

VT-30 • VT-33

CNC Turning Lathe



Units = mm (inch)

Machine Specifications

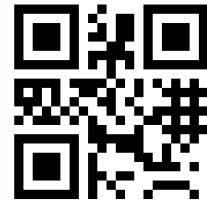
| ITEM | UNIT | VT-30 | VT-33 |
|---------------------------------------|--------------|---|---|
| CAPACITY | | | |
| Swing Over Z Way Cover | in (mm) | 26.8 (680) | |
| Max. Turning Diameter | in (mm) | 18.9 (480) | |
| Swing Over Cross Slide | in (mm) | 18.9 (480) | |
| Max. Turning Length | in (mm) | L500=20.5(520) / L1000=40.2(1020) L1500=59.8(1520) / L2000=79.5(2020) / L3000=118.9(3020) | |
| Slideway Slant Angle | degree | 45 | |
| TRAVEL | | | |
| X-Axis Travel | in (mm) | 9.4+1.57(240+40) | |
| Z-Axis Travel | in (mm) | 23.2 (590) / 42.9 (1090) / 62.6 (1590) / 82.3 (2090)/121.7(3090) | |
| SPINDLE | | | |
| Type of Spindle Nose | ISO | A2-11 | A2-11 |
| Chuck Diameter & Type | in (mm) | 12 (305) | 15 (380) |
| Main Spindle Bearing Inner Diameter | in (mm) | 7.08 (180) | 7.08 (180) |
| Main Spindle Through Hole Diameter | in (mm) | 4.33 (110) | 5.15 (131) |
| Main Spindle Through Bar Capacity | in (mm) | 3.54 (90) | 4.52 (115) |
| Main Spindle Drive Motor (30 min.) | hp (kW) | 35(26) | 35(26) |
| Main Spindle Speed Range | rpm | 3000 | 2400 |
| TURRET | | | |
| Tool Number | — | 12(SW=400) / 10* | |
| Turret Type | — | Static / VDI-40* | |
| Turret Indexing Time | second | 0.9 = Hydraulic Driven / 0.15 = Servo Driven | |
| Live Tool Speed | rpm | 6000 | |
| Live Tool Power (30 min.) | hp(kW) | 5.0 (3.5) | |
| FEEDRATE | | | |
| Rapid Traverse Rate X-Axis | ipm (M/min.) | 787 (20) | |
| Rapid Traverse Rate Z-Axis | ipm (M/min.) | 945 (24) | |
| Ballscrew Diameter of X-axis | in (mm) | 1.3 (32) | |
| Ballscrew Diameter of Z-axis | in (mm) | 1.6 (40) | |
| TAILSTOCK | | | |
| Tailstock Travel | in (mm) | 21.3(540)/40.9(1040)/60.6(1540)/80.3(2040)/122(3100) | |
| Tailstock Spindle Diameter | in (mm) | 4.33 (110) | |
| Tailstock Spindle Travel | in (mm) | 4 (100) | |
| Taper Hole of Tailstock Spindle | — | MT-5 | |
| SUB-SPINDLE | | | |
| For L=1000mm and L=1500 MODEL | | | |
| Type of spindle nose | ISO | A2-6 | |
| Chuck diameter and type | in (mm) | 8 (200) | |
| Spindle bearing inner diameter | in (mm) | 4.33 (110) | |
| Through spindle hole diameter | in (mm) | 2.4 (61) | |
| Through bar capacity | in (mm) | 2 (51) | |
| Spindle drive motor (cont. / 30 min.) | hp(kW) | 15 (11) | |
| Spindle speed range | rpm | 4000 | |
| REMARKS | | | |
| Coolant Pump Motor | hp(kW) | 0.75 (0.6) | |
| Coolant Tank Capacity | gal (L) | 75 (286) / 91 (345) / 106 (403) / 122 (462) | |
| Floor Space | in (mm) | Length = 185.2 (4704) / 204.88 (5204) / 144.88 (5704) / 244.25 (6204) x Width = 85 (2152) | |
| Machine Weight | lbs(kg) | L500 = 15,400 (7000) L1500 = 16,720 (7600) L1000 = 18,040 (8200) L2000 = 19,360 (8800) | L500 = 16,500 (7500) L1500 = 17,820 (8100) L1000 = 19,140 (8700) L2000 = 20,460 (9300) |

Design and specifications are subject to change without prior notice.

* Optional Accessory | ** Factory order only | L = Bed Length

Optional Accessories

- Air Chuck
- Automatic gantry loading and unloading system
- Bar feeder interface (Factory order only)
- Collect Chuck (16C)
- Heavy parts loader
- High pressure coolant pump and large capacity tank
- High pressure coolant thru turret 300 psi (4 gpm)
- High pressure coolant thru turret 1000 psi (8 gpm)
- Static VDI-40 turret, 12-tool
- 50 hp spindle motor
- Self-centering steady rest SMW autoblok
- Tool presetter
- Torque limiter clutch



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Catalog_VT-30/33-2012.12.v3

Standard Features

- Auto Lubrication System
- Block for Base
- Cooling System
- Coolant Tank Guard

- Chip Conveyor
- Fluid Bearing Way System
- Hard Jaws (1-Set)
- Heat Exchanger for Control System
- Hydraulic Adjustment System

- Lubrication Monitoring System
- Soft Jaws (1-Set)
- Tool box with Hand Tools
- Work Light