

CNC TURNING LATHE

VT-21 VT-23

SUPERIOR CUTTING

- ▶ 8 or 10-inch Chuck
- ▶ BMT Live Turret
- ▶ Box Ways



www.mightyviper.com

VIPER



*Fast
Set-up and
High Precision
Cutting*

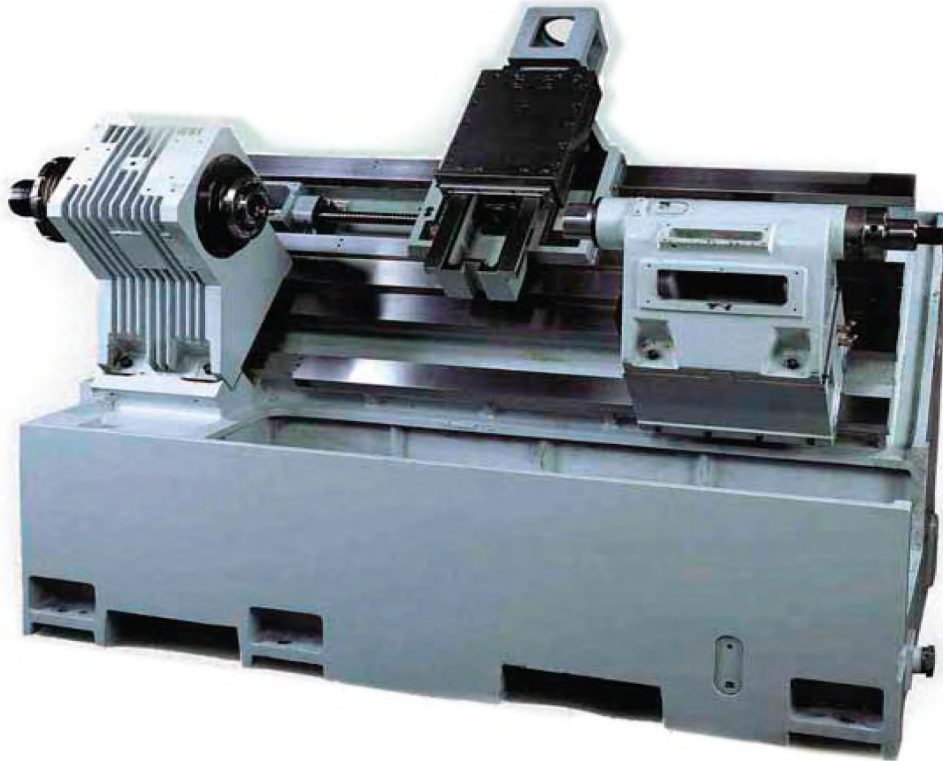
VT-SERIES

21

23

Superior Cutting

Performance and Better Surface Quality



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-21/23** 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

- BMT-55 Live Turret*
- Sub-Spindle
- Spindle Motor 20 hp / 35 hp*
- Fully Conventional Programming

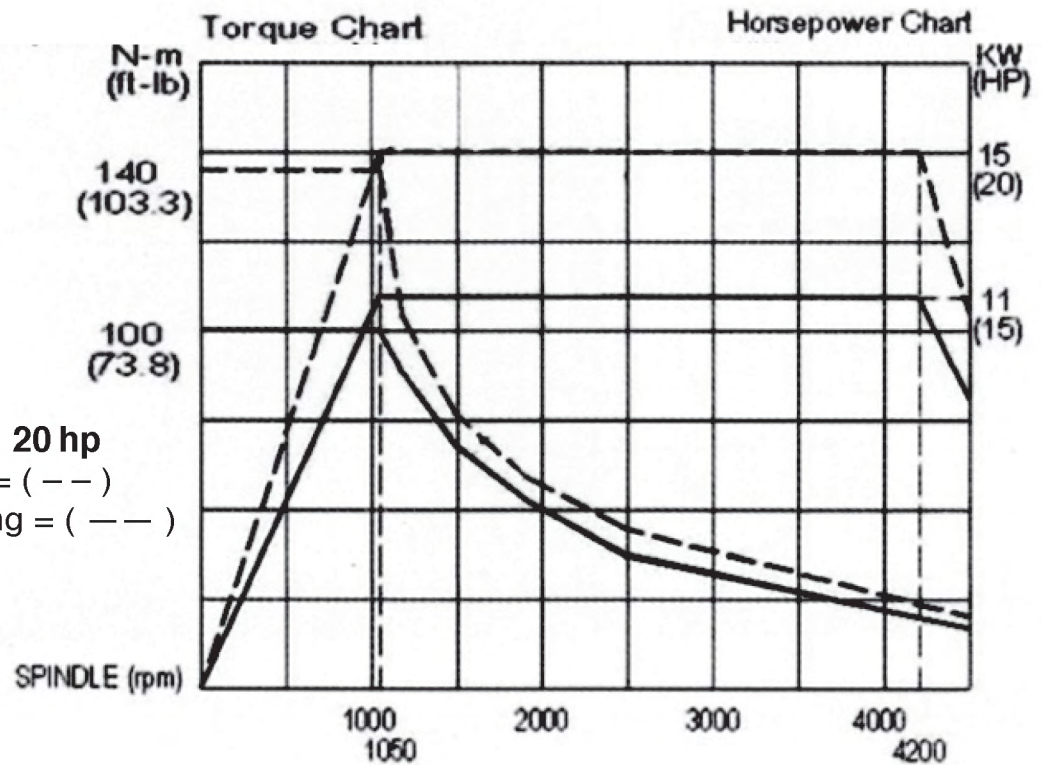
*Optional accessory.

TORQUE CHARTS

VT-21/23

Torque Chart

Spindle Motor: 20 hp
 30 Min. Rating = (- - -)
 Continuous Rating = (— —)

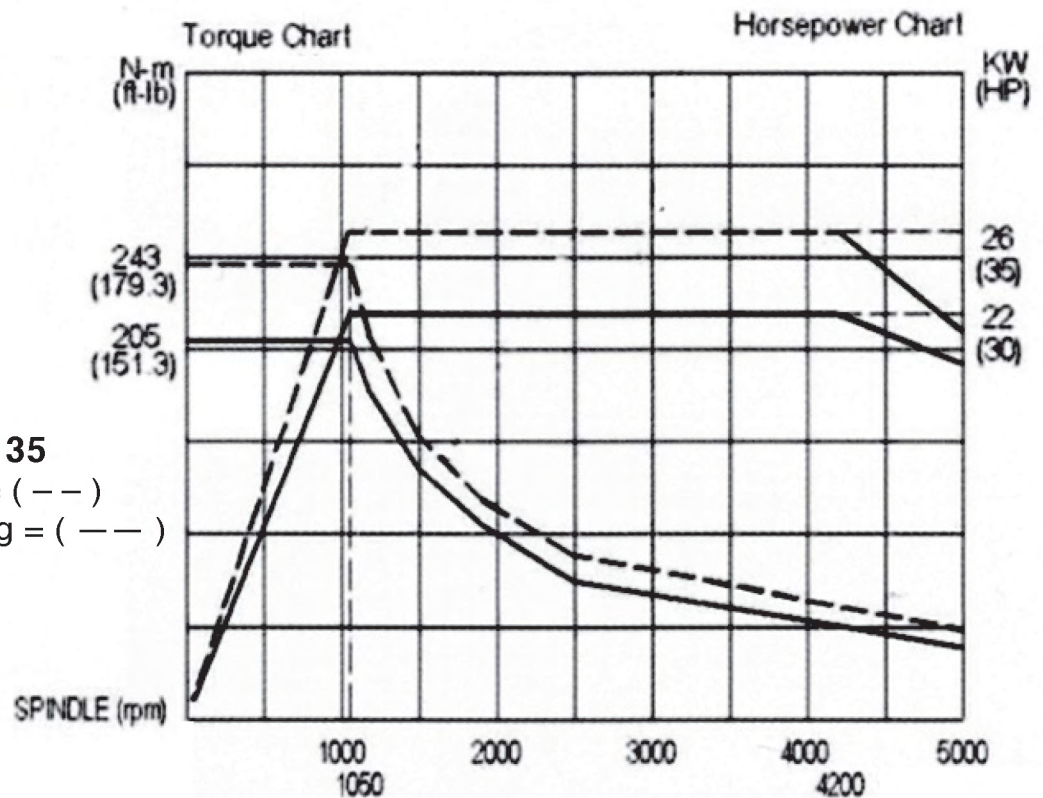


VT-21/23

Torque Chart

(option)

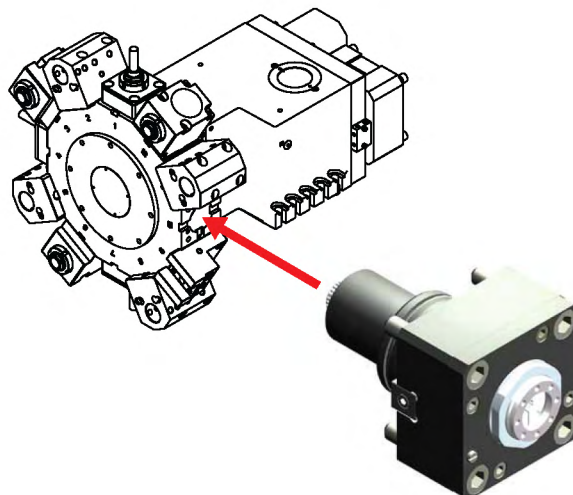
Spindle Motor: 35
 30 Min. Rating = (- - -)
 Continuous Rating = (— —)



Turret Tool Holder

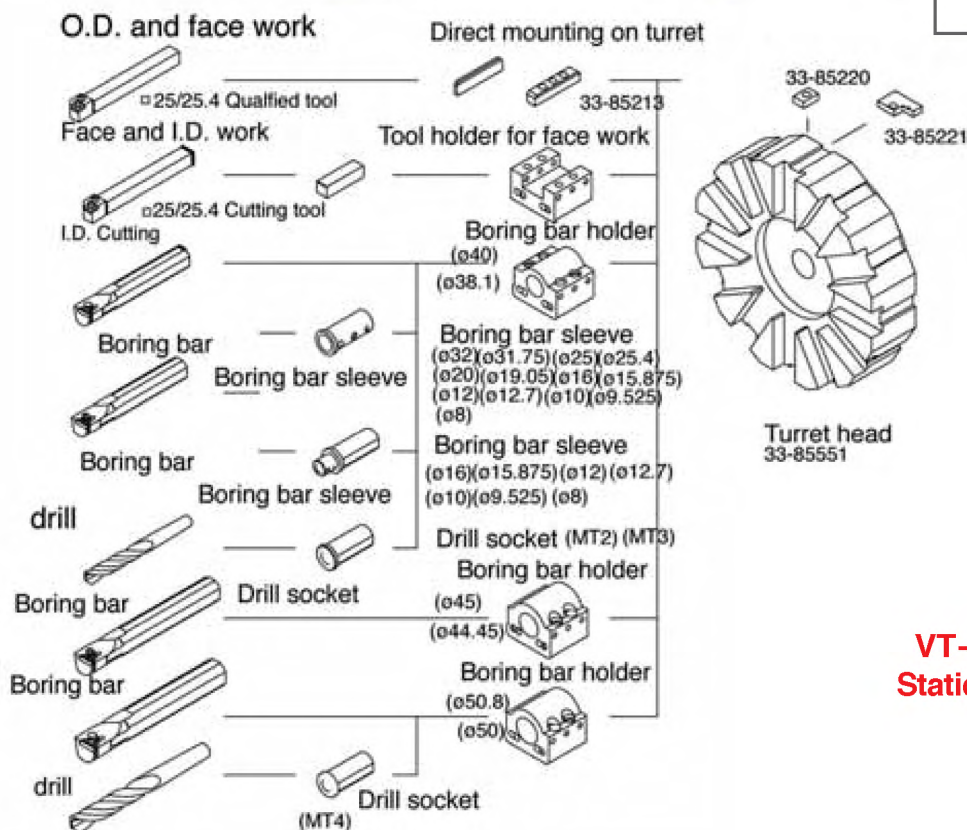
Bolt-On Mounting Tool (BMT)

- 4-bolt fitting system to maximize cutting rigidity.
- Turret holder rotates
- Keyways reference system to increase accuracy.
- Oversized tenon coupling to grant high torque power transmission.
- High precision preloaded spindle bearings.
- Advanced sealing system.
- Suitable for quick tool-change systems.



VT-21 and VT-23 use BMT-55 shank size.

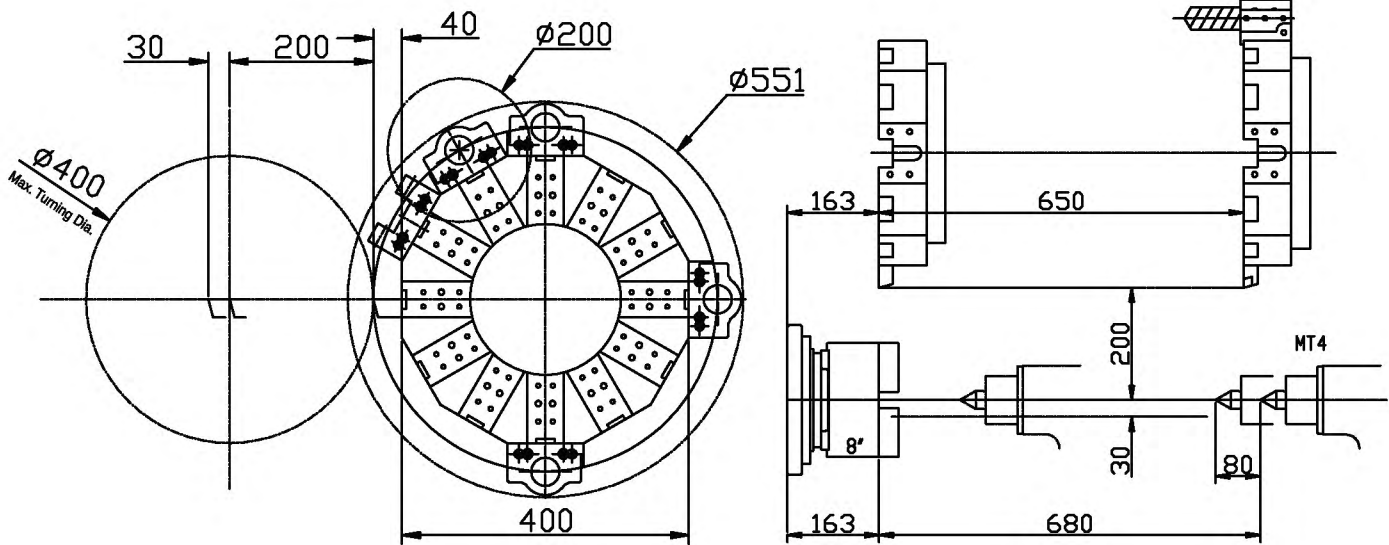
TURRET TOOLING



VT-21 / VT-23 Static Block Tool

TURRET CAPACITY

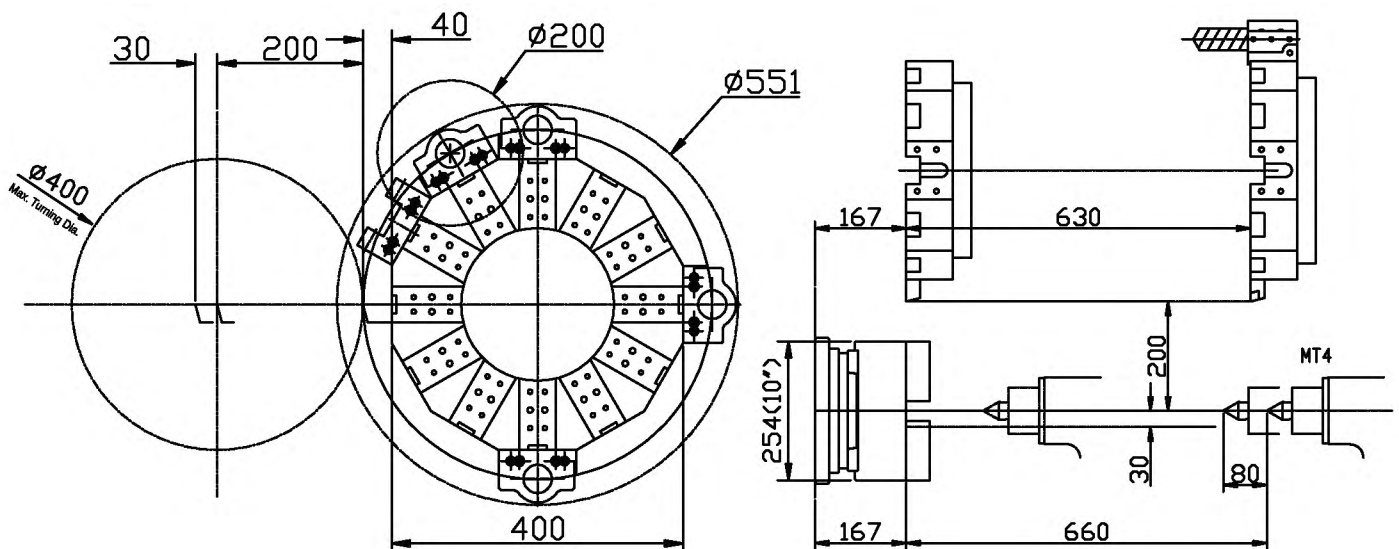
VT-21 • Static Block Tool



ISO A2-6

TURRET CAPACITY

VT-23 • Static Block Tool



ISO A2-8

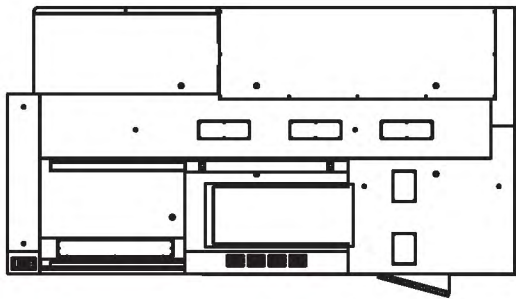
Units = mm

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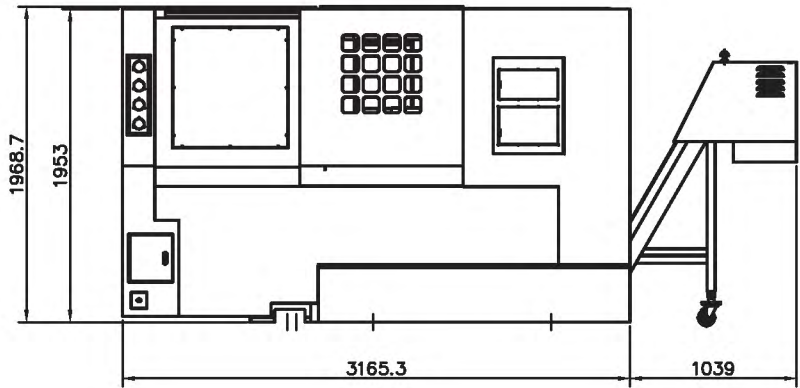
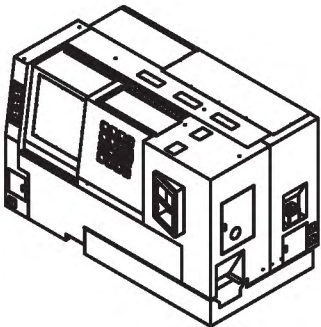
MACHINE DIMENSIONS

VT-21 ■ VT-23

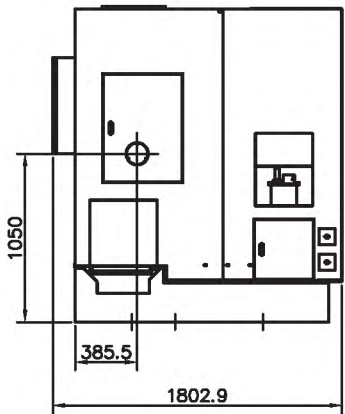
CNC Turning Lathe
with Guarding



Top



Front



Side

Units = mm

Machine Specifications

ITEM	UNIT	VT-21	VT-23
CAPACITY			
Swing Over Z Way Cover	in (mm)	25.6 (650)	25.6 (650)
Turning Diameter Maximum	in (mm)	15.7 (400)	15.7 (400)
Swing Over Cross Slide	in (mm)	17.7 (450)	17.7 (450)
Distance Between Centers	in (mm)	25.6 (650)	25.6 (650)
Turning Length Maximum	in (mm)	25.6 (650)	25.6 (650)
Slideway Slant Angle	degree	45	45
TRAVEL			
X-Axis Travel	in (mm)	8+ 1.18 (200+30)	8+ 1.18 (200+30)
Z-Axis Travel	in (mm)	25.6 (650)	25.6 (650)
SPINDLE			
Type of Spindle Nose	ISO	A2-6	A2-8
Chuck Diameter	in (mm)	8 (204)	10 (254)
Main Spindle Bearing Inner Diameter	in (mm)	4.3 (110)	4.7 (120)
Main Spindle Through Hole Diameter	in (mm)	2.4 (61)	3.2 (81)
Main Spindle Through Bar Capacity	in (mm)	2 (51)	2.6 (65)
Main Spindle Drive Motor (30 min.)	hp (kW)	20/35* (15/26*)	20/35* (15/26*)
Main Spindle Speed Range	rpm	5,000	4,500
TURRET			
Turret Type (Tool Number)	—	Static (12) BMT-55 (12)	Static (12) BMT-55 (12)
Turret Indexing Time	second	0.9	0.9
Shank Height of Square Tool	in (mm)	1 (25)	1 (25)
Shank Diameter for Boring Bar	in (mm)	1.6 (40)	1.6 (40)
FEEDRATE			
Rapid Traverse Rate X-Axis	ipm (M/min.)	787 (20)	787 (20)
Rapid Traverse Rate Z-Axis	ipm (M/min.)	945 (24)	945 (24)
Ballscrew Diameter of X-axis	in (mm)	32 (1.1)	32 (1.1)
Ballscrew Diameter of Z-axis	in (mm)	36 (1.26)	36 (1.26)
TAILSTOCK			
Tailstock Travel	in (mm)	20.5 (650)	20.5 (650)
Tailstock Spindle Diameter	in (mm)	3.34 (85)	3.34 (85)
Tailstock Spindle Travel	in (mm)	3.14 (80)	3.14 (80)
Taper Hole of Tailstock Spindle	—	MT-4	MT-4
OTHER			
Power Requirements	V (kVA)	208 (30), 3 Phase	208 (30), 3 Phase
Coolant Pump Motor	hp (kW)	0.75 (0.6)	0.75 (0.6)
Coolant Tank Capacity	gal (L)	61 (230)	61 (230)
Floor Space	in (mm)	107 x 65 (2,720 x 1,650)	107 x 65 (2,720 x 1,650)
Machine Weight	lbs (kg)	11,440 (5,200)	11,880 (5,400)

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

Optional Accessories

- Bar Feeder IEMCA V66e (5-Feet)
- Collect Chuck (20C)
- High Pressure Coolant Through Turret 300 psi (4 GPM)
- High Pressure Coolant Through Turret 1,000 psi (8 GPM)
- Manual Tool Presetter
- Parts Catcher
- Royal Accu-Length CNC Collect Chucks A2-6 S-20, 2-Inch
- 35 hp Spindle Motor (Upgrade)

Standard Features

- Auto Lubrication System
- Block for Base
- Cooling System and Chip Tray
- Coolant Tank Guard
- Chip Conveyor
- Foot Switch for Spindle Clamp / Unclamp
- Hard Jaw (1-Set)
- Heat Exchange for Control System
- Hydraulic Adjustment System
- Leveling Pads and Screws
- Lubrication Monitoring System
- Programmable Tailstock and Quill
- Soft Jaw (1-Set)
- Tool Box with Hand Tool
- Work Lamp

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Catalog. #VT21/23-02.11.V1