

RIGID XZ BOX WAYS

VT SERIES

TOUGH CUTTING

Stands Up To The Toughest Cutting Jobs

- ▶ 6" or 8" chuck
- ▶ Live BMT-45 turret
- ▶ Rigid box ways



*Perform
Hard Turning
On A Small
Footprint*

*Automatic
loading and
unloading
gantry system
available.*

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TOOLING & MACHINERY

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VIPER



ISO 9001:2008

VT Series

VT-15L

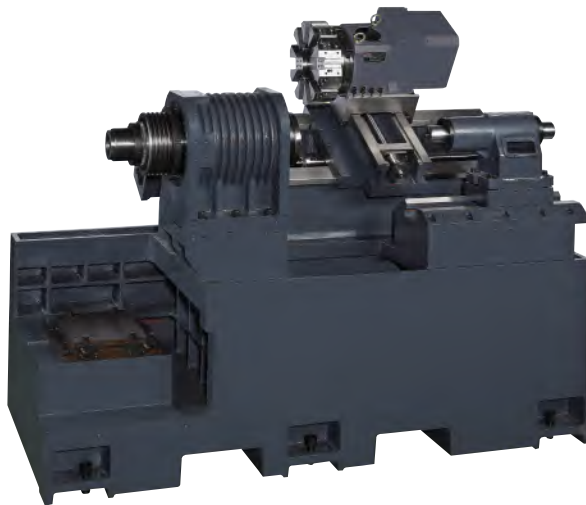
VT-17L

VT-18L

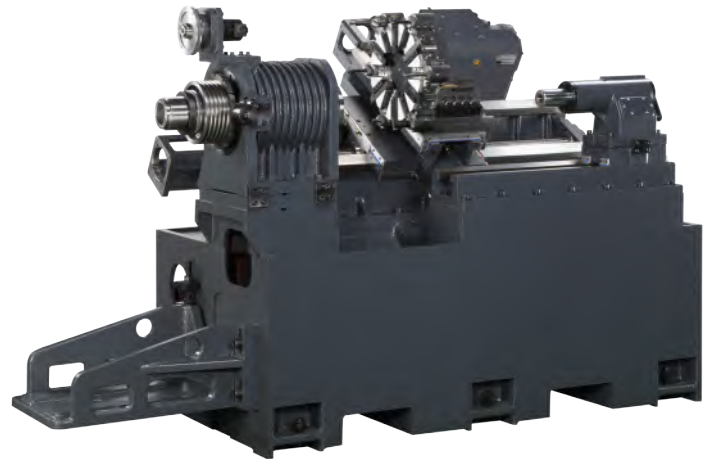
High Precision

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.

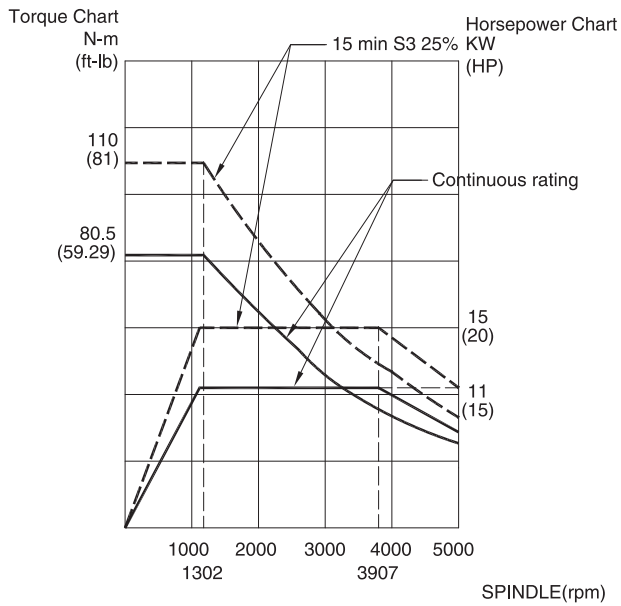
Performance Features

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

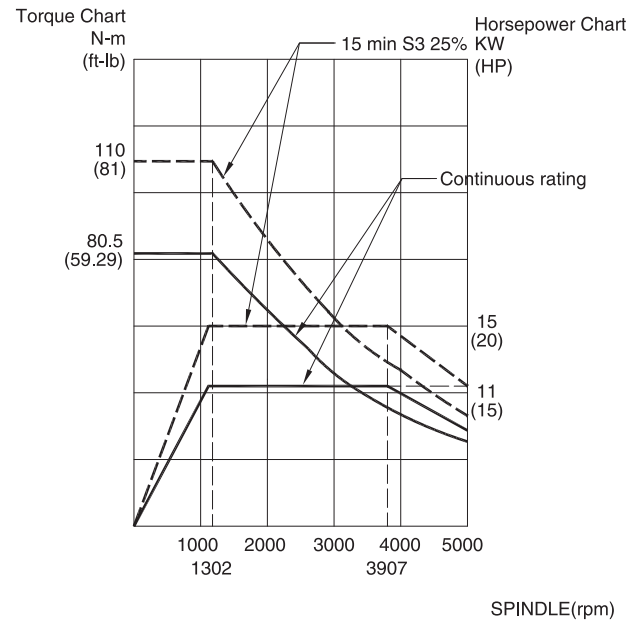
(*) Optional accessory

Torque Charts

VT-15L/17L Torque Chart



VT-18L Torque Chart



Optional Accessories



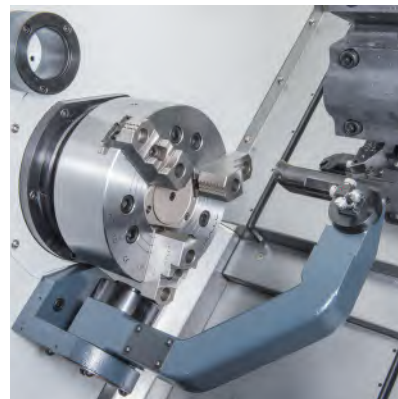
Part catcher



Oil Mist Collector



Oil skimmer

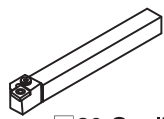


Manual presetter

Turret Tooling

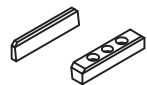
Static Block Tool

O.D. and face work

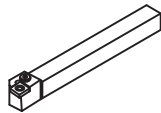


□ 20 Qualified tool

Direct mounting on turret

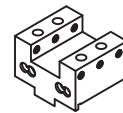


Face and I.D. work

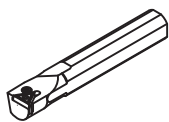


□ 20 Cutting tool

Tool holder for face work

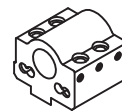


I.D. Cutting

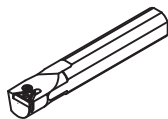


Ø32 Boring bar

Boring bar holder (U-drill)



Boring bar

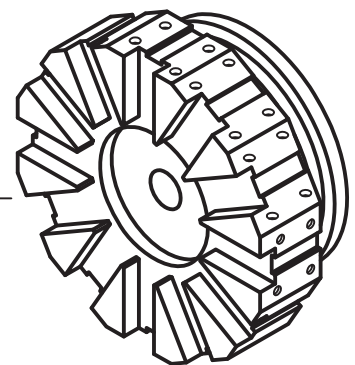


(Ø32)

Boring bar sleeve



Sauter 12T
Sw=340

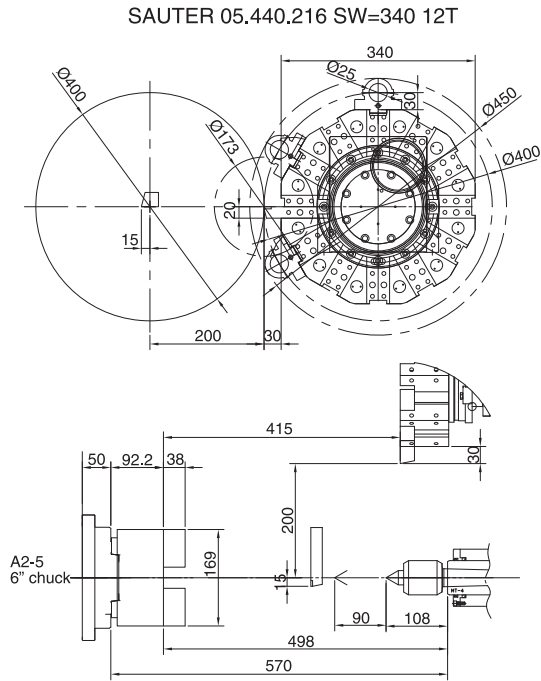


Turret Head

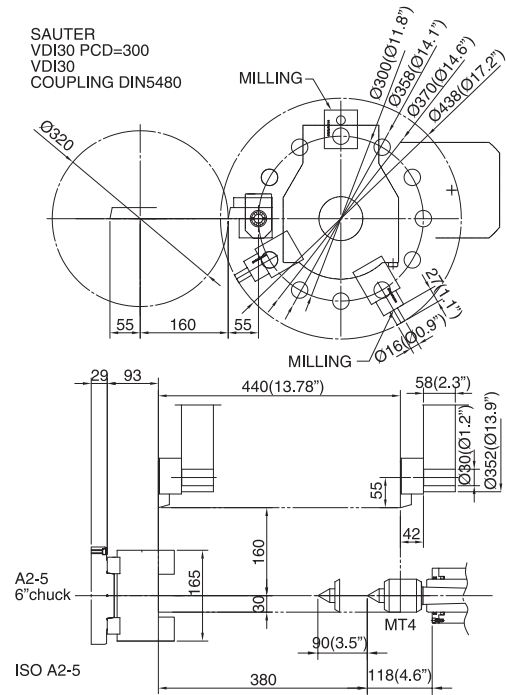
Units=mm

Turret Interference Drawing

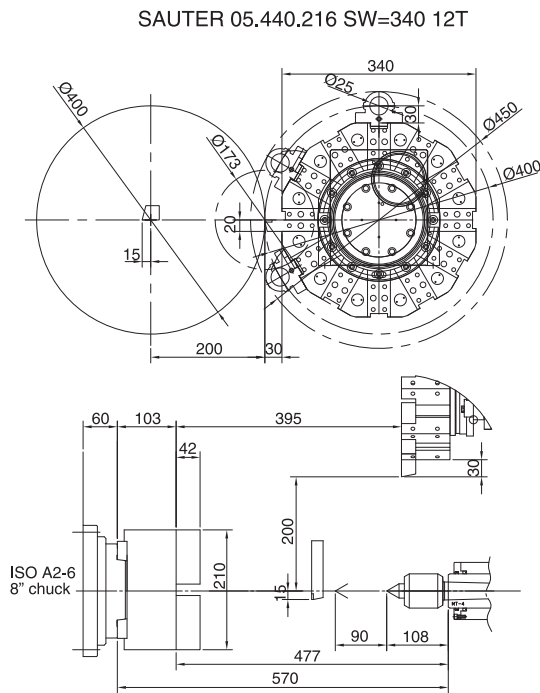
VT-15L Static Block Tool



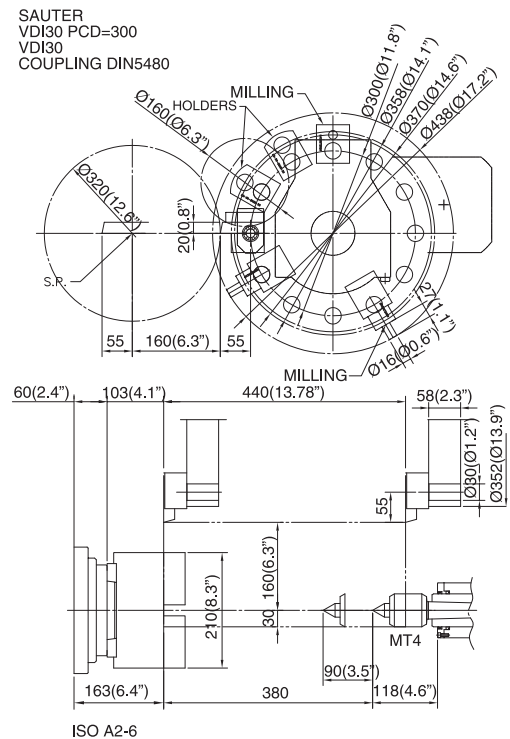
VT-15LM Live VDI 30



VT-17L Static Block Tool



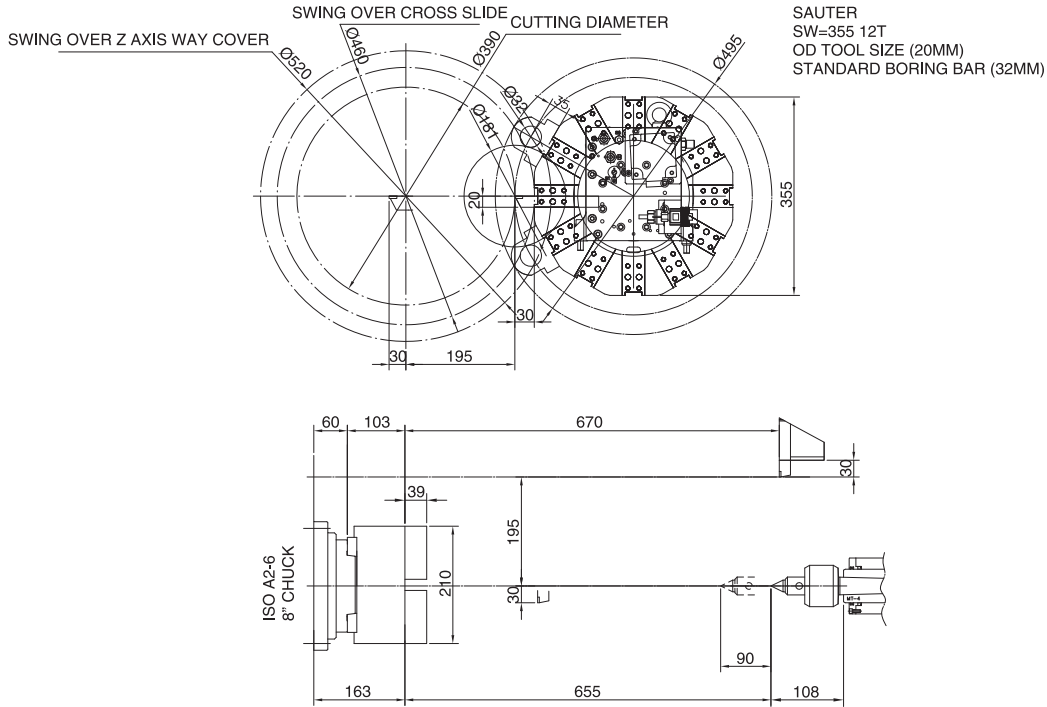
VT-17LM Live VDI 30



Turret Interference Drawing

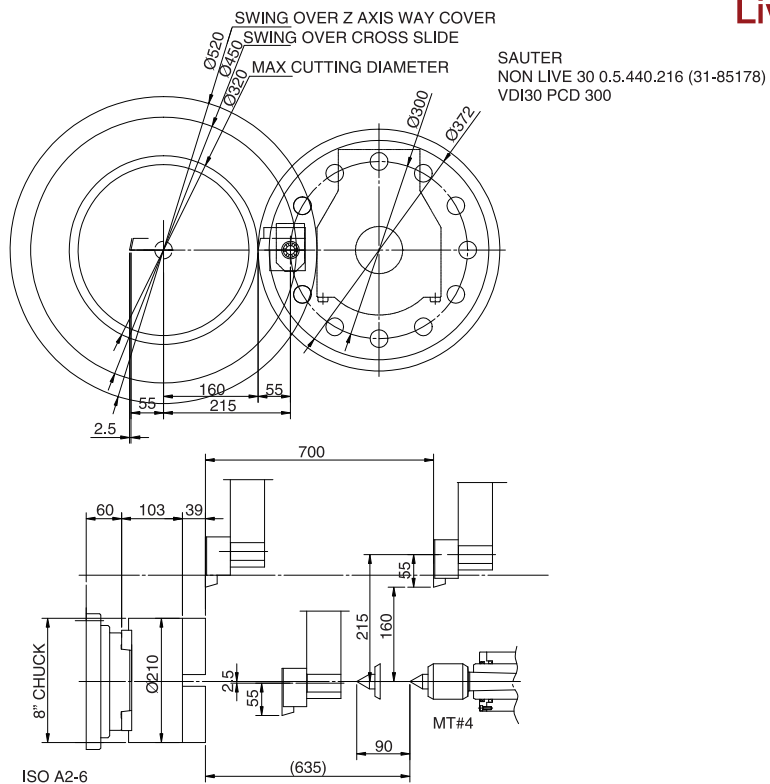
VT-18L

Static Block Tool



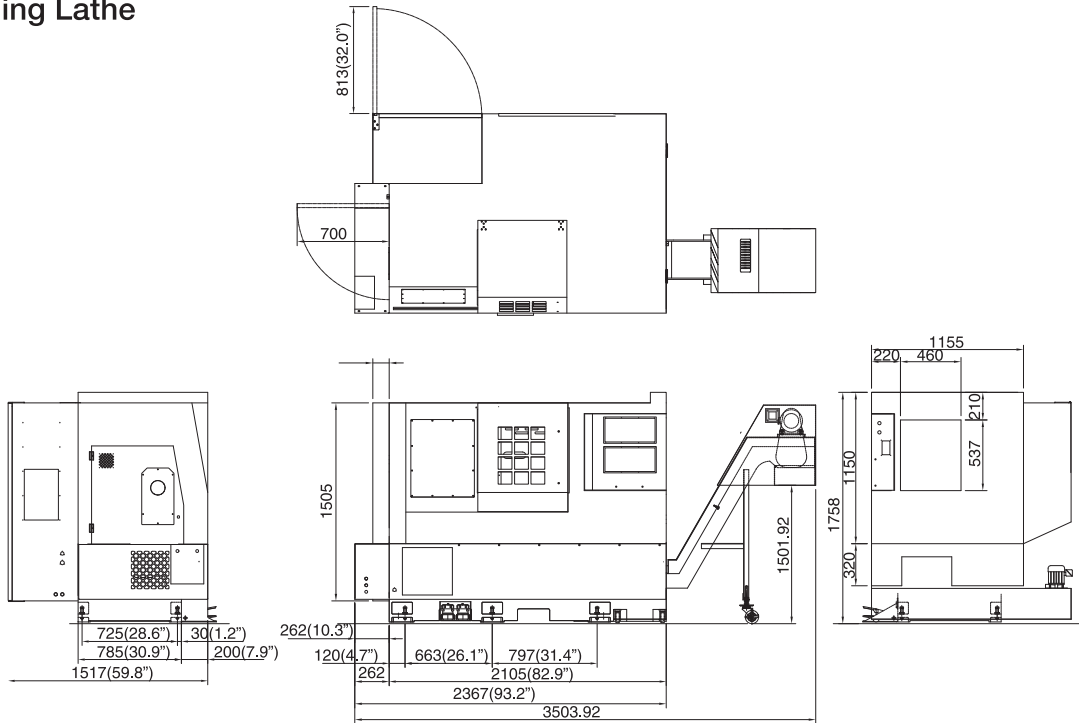
VT-18LM

Live VDI 30

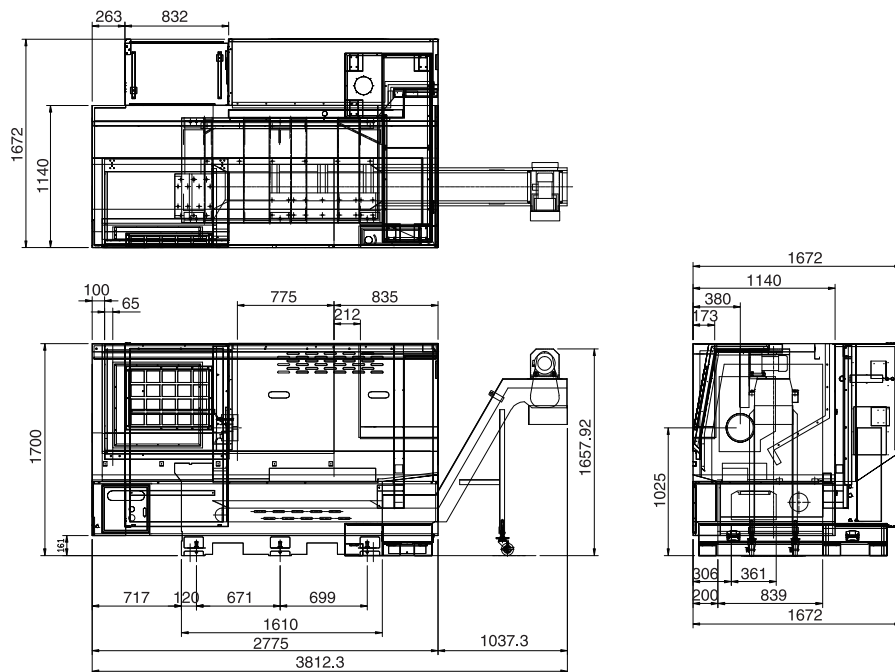


Machine Dimensions

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



VT-18L



Units=mm

Machine Specifications

SPECIFICATIONS	Unit	VT-15L	VT-17L	VT-18L
CAPACITY				
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
TRAVEL				
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)
SPINDLE				
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
TURRET				
Turret type (Tool number)	-	Static Block Tool (12)/(10)* BMT-45 (12)		
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)
FEEDRATE				
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)
TAILSTOCK				
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
OTHER				
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)	54 (205)
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