Global sales & Service

ALEX-TECH

ALEX-TECH MACHINERY INDUSTRIAL CO., LTD.
No. 5, CHUN AN RD., SHENGANG DISTRICT,
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ACW2017.09.1000E

CNC TURNING LATHE

VT27/28/30/33

- Ideal for heavy cutting
- 40° slant bed.
- Box ways on X, Z-asix.
- Choice of gear-drive or belt-drive spindle head.

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VIPER POWER OF PRIDE

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ALEX-TECH VIPER POWER OF PRIDE

ALEX-TECH MACHINERY INDUSTRIAL CO., LTD.

VT-27/28/30/33 500-1000-1500-2000-2500-3000

45° Slant Bed CNC Lathe

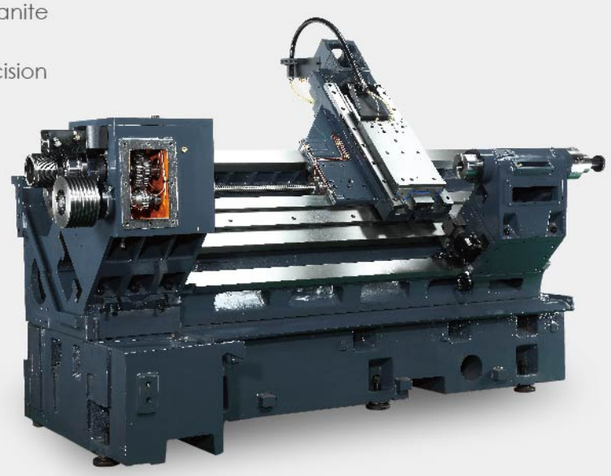
- Max. turning diameter: Ø480 mm
- Through spindle hole diameter: Ø87 mm
- VDI-40 live turret(optional)
- A2-8 spindle with speed of 3500 rpm.

Big Capacity Precision Cutting
Ruggedly Constructed Throughout

- Max. turning diameter: Ø470 mm
- Through spindle hole diameter: Ø110 mm(VT-30)
  Ø131 mm(VT-33)
- Chuck diameter: 15"
- VDI-40 live turret (optional)
- Programmable tailstock

Rigid Machine Structure
Fully Present Extraordinary Stability

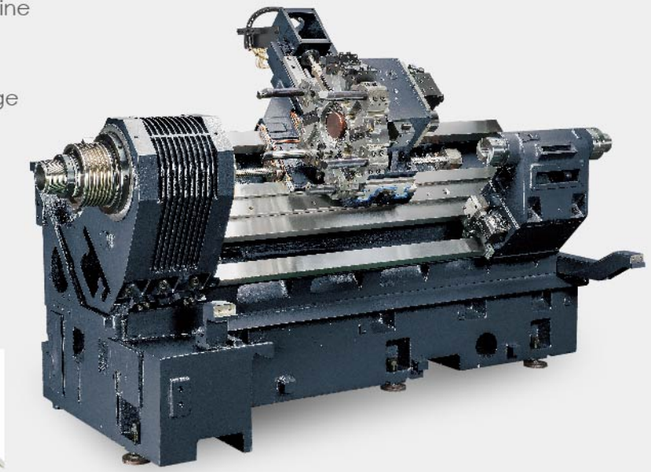
- 45° slant bed structure provides the optional machining stability and facilitates chip removal
- The bed is one-piece fabricated from meehanite cast iron with highly rigid structure.
- Box ways on x, z-axis are hardened and precision ground.
- Gear-drive spindle head(VT-27G)



VT-27 machine structure with gear-drive spindle head

No Structural Deformation!
Maximum Machining Stability!

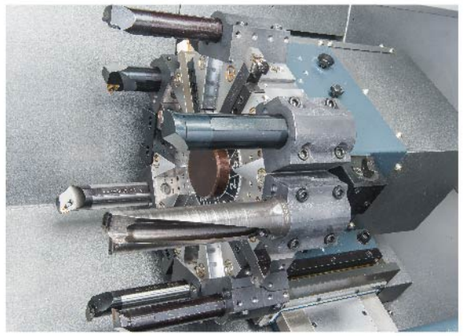
- 45° slant bed structure provides the optional machining stability and facilitates chip removal
- Robust machine structure makes the machine excellent for large workpiece machining.
- Ø110 mm of tailstock quill
- X, Z-axis transmission are driven through large diameter ball screws, which have been pretensioned to achieve no backlash, smooth transmission and high positioning accuracy.
- Programmable tailstock.
- Three-jaw precision hydraulic chuck.



VT-30 machine structure with belt-drive spindle head

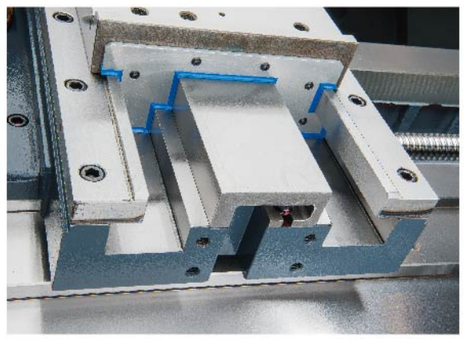
Alex-Tech Self-Made Turret

- The turret employs Japanese made curvic tooth clutch, hydraulic indexing motor.



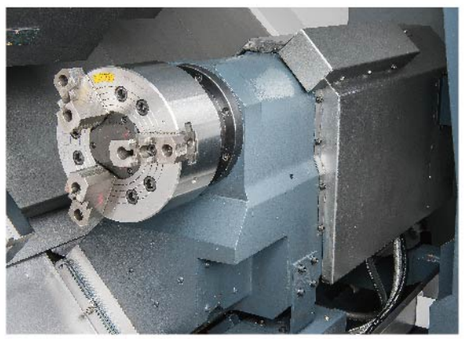
Box Ways on X,Z-Axis

- The X,Z-axis are designed with extra wide box ways in combination with great span between box ways, thus maximum stability can be obtained in heavy cutting.



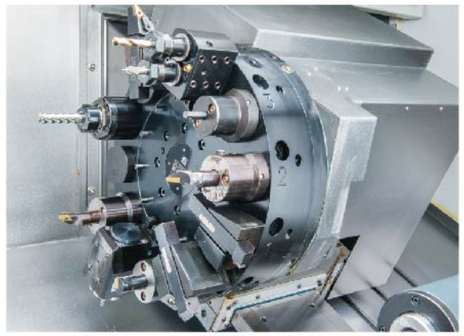
Sub-Spindle (Optional)

- The sub-spindle allows the machine to perform back side machining, thus a complicated part can be efficiently machined in one operation.



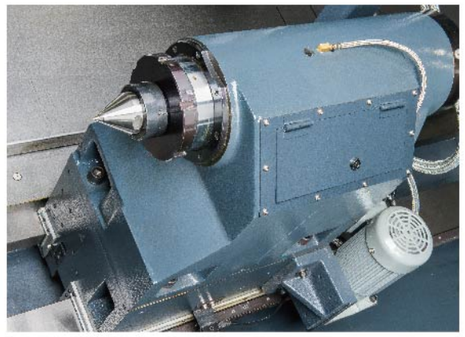
Hydraulic Power Unit

- The hydraulic power unit delivers hydraulic oil to the hydraulic chuck, turret and tailstock with extra smooth motions.
- With the feature of superior heat dissipation capability, the hydraulic power unit is ideal for long time continuous running.



VDI 40 Axial Live Turret

- Ac servo motor drive for indexing.
- High indexing accuracy.
- High repeatability accuracy.
- High speed indexing.
- Choice of hydraulic or pneumatic locking system.
- Compact and rigid construction.
- Superior thermal stability.
- Ideal for mass production environment.

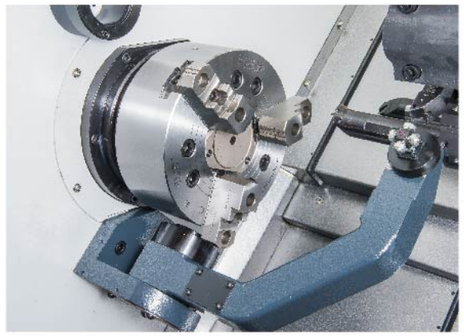


Hydraulic Tailstock

- The tailstock quill movement is driven by hydraulic power, providing convenience for holding various lengths of workpieces.

Powered Tailstock Movement

- The entire tailstock movement is driven by a motor for quick and convenient tailstock positioning.

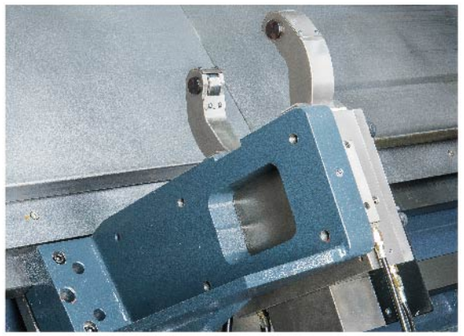


Tool Presetter (Optional)

- The use of tool presetter makes Alex-Tech CNC lathes ideal for both short-run and high production environments.
  The tool presetter assists in reducing set-up time, changing tools and ensures accurate measurement of tool offsets.

Optimal Parts Accuracy & Finish Through Tool Presetter

- 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.



Self-Centering Steady Rest (SMW AUTOBLOCK)

- The Self-centering steady rest is easy to install by using four bolts (Mlox120mm) and two positioning pins (Ø10mm).

Optional Equipment of Steady Rest

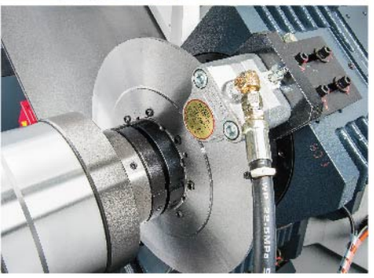
- Chip guard spring loaded, self adjusting guard to protect arm rollers against chips.
- Large capacity steady rest may require wider full length splash guard.
- Stroke control (no proximity switch).
- Central oil lubrication for heavy duty cutting.
- Safety valve.

Centering Range Without Chip Guard

CENTERING RANGE	MODEL
Ø12~Ø152mm(0.47"~5.98")	SLU3
Ø20~Ø165mm(0.79"~6.49")	SLU3.1
Ø50~Ø200mm(1.96"~7.87")	SLU3.2

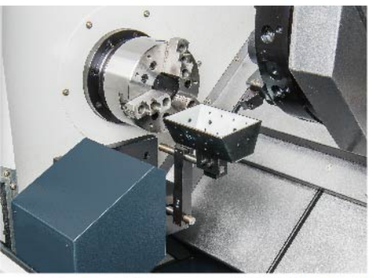
MPG Handwheel

- The control box is equipped with a MPG hand-wheel, providing convenience in setup and running test.



C-Axis Contouring Capability (Optional)

- The spindle features a C-axis function combined with the use of live tool turret, allowing the machine to perform turning milling complex machining.
- High indexing accuracy ensures high precision contouring.



Parts Catcher (Optional)

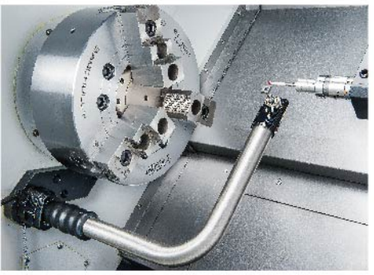
- Once part machining is completed, the parts catcher will collect the finished part. With the use of the parts catcher, parts collection becomes more convenient and parts scratching problem is avoided.

Oil skimmer(Optional)

- The disc type oil skimmer provides an efficient separation of oil that float on the cutting fluid. This will prevent cutting from deterioration or odor.

Oil Mist Collector (Optional)

- The oil mist collector features low noise and low vibration which does not affect the machining accuracy of CNC lathe.
- High efficiency oil mist collection and filtration.
- Easy to maintain minimum trouble. Long service life.

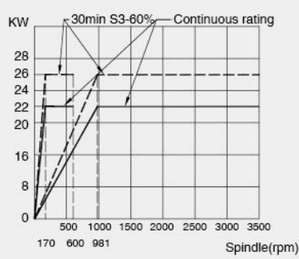


Tool Presetter (Optional)

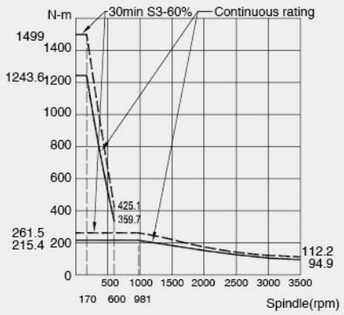
- The tool presetter has a touch sensor, which can be used for measuring varying lengths of tool. In addition, it also can detect if a tool is broken or not.
- The tool presetter can be programmed to store all tool information that many reduce tool change time.

VT-27G

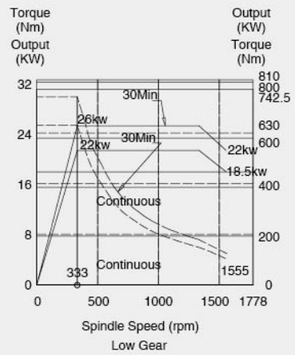
Horsepower Chart

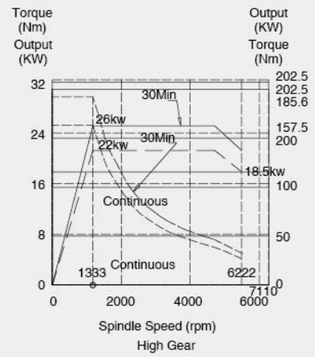


Torque Chart



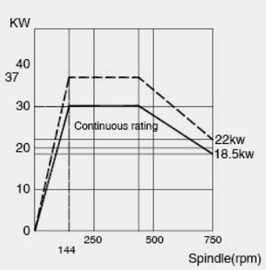
VT-28 & Fanuc A22 & Gear box 1:4



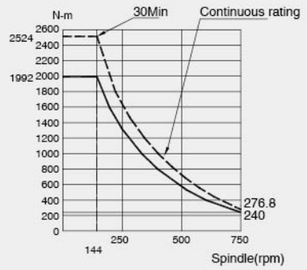


VT-30 Gear box (CE13 1:4)

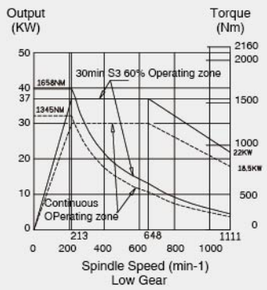
Horsepower Chart

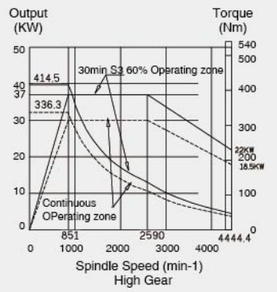


Torque Chart



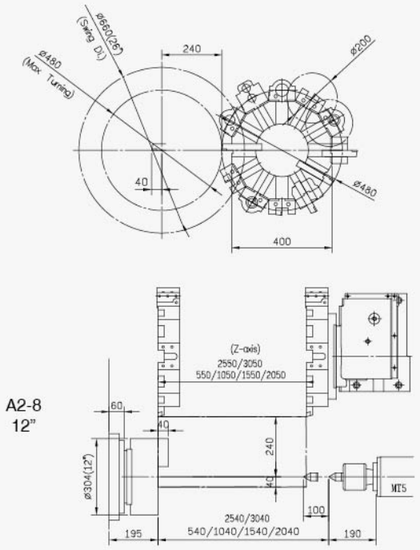
VT-33B & 1/4 Gear box torque chart





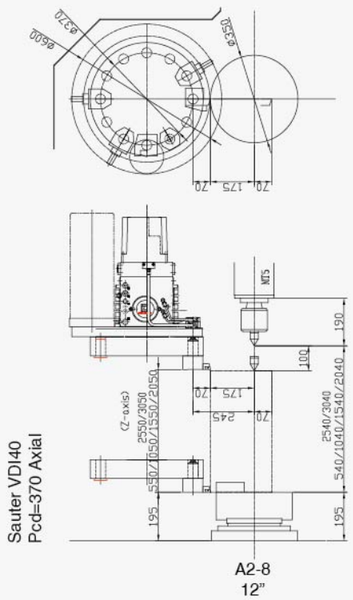
Cutting Area Interference

VT-27/28



A2-8
12"

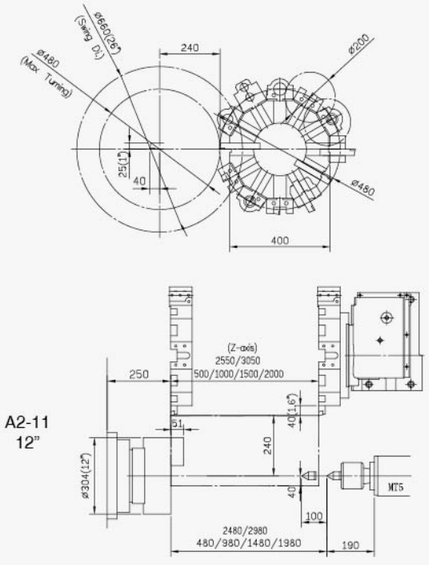
VT-27GM/28BM



Sauter VDI40
Pcd=370 Axial

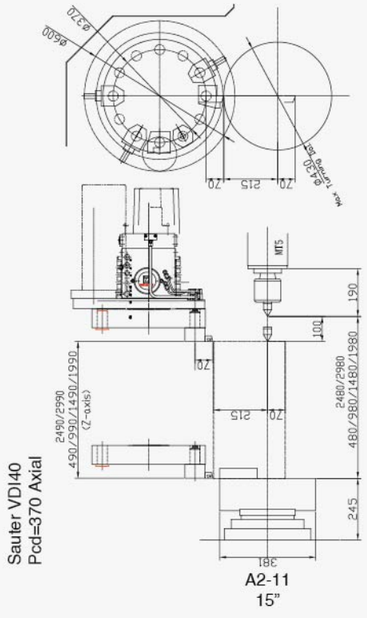
A2-8
12"

VT-30/33



A2-11
12"

VT-30BM/33BM



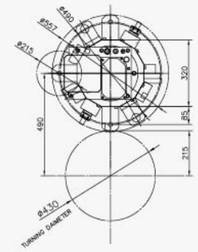
Sauter VDI40
Pcd=370 Axial

A2-11
15"

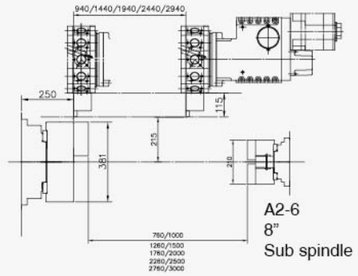
Cutting Area Interference

VT-30MS/33MS

Sauter 0.5450.420/12 SW=320mm
Sauter VDI40 Radial
Coupling 5480

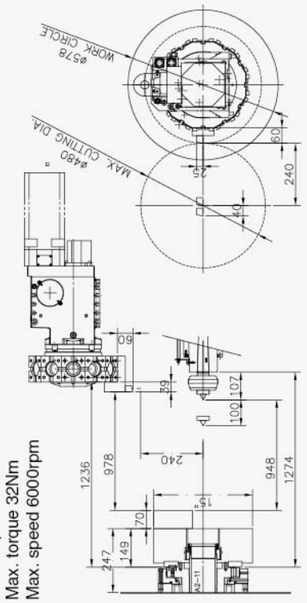


(VT-33)
(VT-30
A2-11
15"



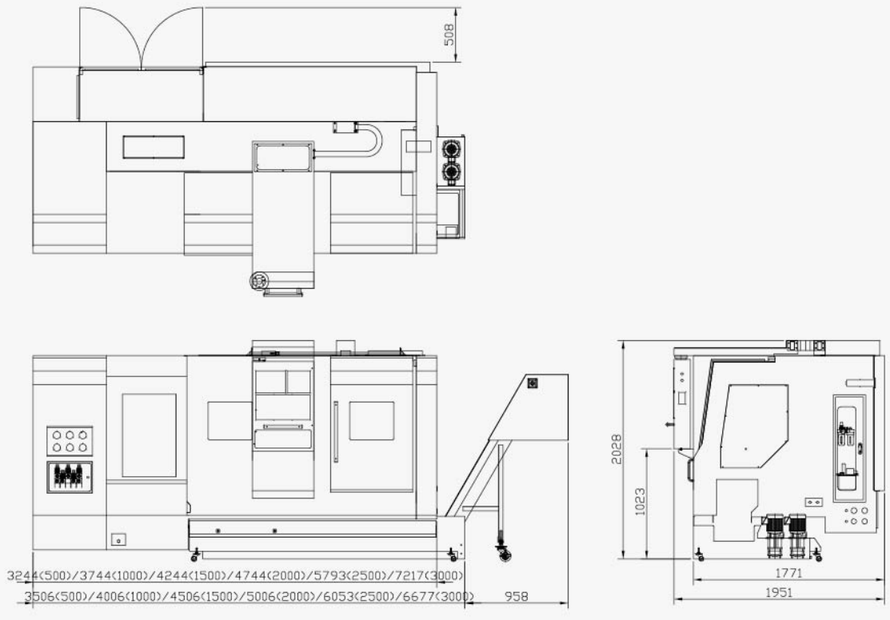
A2-6
8"
Sub spindle

VT-30BLM/33BLM



Sauter BMT55 (0.5.434.020)
Fanuc spindle motor A2
Max. torque 32Nm
Max. speed 6000rpm

Machine Dimensions VT-27/28/30/33



Specifications

Model	Unit	VT-27G (500/1000/1500/2000/2500/3000)	VT-28B (500/1000/1500/2000/2500/3000)
CAPACITY			
Swing over Z way cover	mm (inch)	680 (26.8")	680 (26.8")
Max. turning diameter	mm (inch)	480 (18.9")	480 (18.9")
Swing over cross slide	mm (inch)	480 (18.9")	480 (18.9")
Max. turning length	mm (inch)	"540 (21.25") L=500 1040 (40.9") L=1000 1540 (60.6") L=1500 2040 (80.3") L=2000 2540 (100") L=2500 3040 (119.6") L=3000	540 (21.25") L=500 1040 (40.9") L=1000 1540 (60.6") L=1500 2040 (80.3") L=2000 2540 (100") L=2500 3040 (119.6") L=3000
Slide way slant angle	degree	45	45
TRAVEL			
X-axis travel	mm (inch)	240+40 (9.44"+1.57")	240+40 (9.44"+1.57")
Z-axis travel	mm (inch)	550 (21.65") 1050 (41.33") 1550 (60.2") 2050 (80.7") 2550 (100.4") 3050 (120.")	550 (21.65") 1050 (41.33") 1550 (60.2") 2050 (80.7") 2550 (100.4") 3050 (120.")
W-axis travel (Sub)	mm (inch)	830 (32.7") L=1000	830 (32.7") L=1000
SPINDLE			
Type of spindle nose	ISO	A2-8	A2-8
Chuck diameter & type(option)	mm (inch)	305 (12")	305 (12")
Spindle bearing inner diameter	mm (inch)	130 (5.11")	130 (5.11")
Through spindle hole diameter	mm (inch)	87 (3.43")	87 (3.43")
Through bar capacity	mm (inch)	77 (3.03")	77 (3.03")
Spindle drive motor(cont/30min)	KW (Hp)	26 (35)	26 (35)
Spindle speed range	rpm	1-600;600-3500	3500
TURRET			
Number of tool stations		12 (SW=400)	12 (SW=400)
Turret type		STATIC	STATIC
Turret indexing time	sec	0.9 (Hydraulic) / 0.15 (Servo driver)	0.9 (Hydraulic) / 0.15 (Servo driver)
Shank height of square tool	mm (inch)	25 (1")	25 (1")
Shank diameter for boring bar	mm (inch)	50 (2")	50 (2")
FEEDRATE			
Rapid traverse rate X-axis	M/min	20	20
Rapid traverse rate Z-axis	M/min	24(0.5M) / 24(1M) / 22(1.5M) / 20(2M)/ 18(2.5M) / 16(3M)	24(0.5M) / 24(1M) / 22(1.5M) / 20(2M)/ 18(2.5M) / 16(3M)
Ballscrew diameter of X-axis	mm (inch)	32*P10	32*P10
Ballscrew diameter of Z-axis	mm (inch)	40*P10 50*P12 (3M)	40*P10 50*P12 (3M)
TAILSTOCK			
Tailstock travel	mm (inch)	540 (21.25") L=500 1040 (40.9") L=1000 1540 (60.6") L=1500 2040 (80.3") L=2000 2540 (100") L=2500 3040 (119.6") L=3000	540 (21.25") L=500 1040 (40.9") L=1000 1540 (60.6") L=1500 2040 (80.3") L=2000 2540 (100") L=2500 3040 (119.6") L=3000
Tailstock spindle diameter	mm (inch)	110 (4.33")	110 (4.33")
Tailstock spindle travel	mm (inch)	100 (4")	100 (4")
Taper hole of tailstock spindle		MT-5	MT-5
Sub-SPINDLE		For L=1000mm and L=1500 MODEL	For L=1000mm and L=1500 MODEL
Type of sub-spindle nose	ISO	A2-6	A2-6
Chuck diameter & type(option)	mm (inch)	200 (8")	200 (8")
Sub-Spindle bearing inner diameter	mm (inch)	110 (4.33")	110 (4.33")
Through spindle hole diameter	mm (inch)	61 (2.4")	61 (2.4")
Through bar capacity	mm (inch)	51 (2")	51 (2")
Sub-Spindle drive motor(cont/30min)	KW (Hp)	11 (15)	11 (15)
Sub-Spindle speed range	rpm	4000	4000
REMARKS			
Coolant pump motor	Kw (Hp)	0.6 (3/4)	0.6 (3/4)
Coolant tank capacity	L	203 /244 / 285 / 326 / 408 / 449	203 /244 / 285 / 326 / 408 / 449
Floor space	mm (inch)	4464 (175.7") (L) * 1951(76.8") (W) 4964 (195.4") (L) * 1951(76.8") (W) 5464 (215.1") (L) * 1951 (76.8") (W) 5964 (234.8") (L) * 1951 (76.8") (W) 7011 (276") (L) * 1951 (76.8") (W) 7635 (300.5") (L) * 1951 (76.8") (W)	4464 (175.7") (L) * 1951(76.8") (W) 4964 (195.4") (L) * 1951(76.8") (W) 5464 (215.1") (L) * 1951 (76.8") (W) 5964 (234.8") (L) * 1951 (76.8") (W) 7011 (276") (L) * 1951 (76.8") (W) 7635 (300.5") (L) * 1951 (76.8") (W)
Machine weight	Kg (lb)	5850 (12870) 6950 (15290) 8050 (17710) 9150 (20130) 10250 (22550) 11350 (24970)	5800 (12760) 6900 (15180) 8000 (17600) 9100 (20020) 10200 (22440) 11300 (24860)

Design and specifications are subject to change without prior notice.

Specifications

Model	Unit	VT-30 (500/1000/1500/2000/2500/3000)	VT-33 (500/1000/1500/2000/2500/3000)
CAPACITY			
Swing over Z way cover	mm (inch)	680 (26.8")	680(26.8")
Max. turning diameter	mm (inch)	480 (18.9")	480 (18.9")
Swing over cross slide	mm (inch)	480 (18.9")	480 (18.9")
Max. turning length	mm (inch)	480 (18.89") L=500 980 (38.58") L=1000 1480(58.26") L=1500 1980 (77.95") L=2000 2480 (97.63") L=2500 2980(117.3") L=3000	480 (18.89") L=500 980 (38.58") L=1000 1480(58.26") L=1500 1980 (77.95") L=2000 2480 (97.63") L=2500 2980(117.3") L=3000
Slide way slant angle	degree	45	45
TRAVEL			
X-axis travel	mm (inch)	240+40 (9.44"+1.57")	240+40 (9.44"+1.57")
Z-axis travel	mm (inch)	500 (19.7") 1000 (39.4") 1500 (59") 2000 (78.7") 2500 (98.4") 3000 (118.1")	500 (19.7") 1000 (39.4") 1500 (59") 2000 (78.7") 2500 (98.4") 3000 (118.1")
W-axis travel (Sub)	mm (inch)	760 (29.9") L=1000	760 (29.9") L=1000
SPINDLE			
Type of spindle nose	ISO	A2-11	A2-11
Chuck diameter & type(option)	mm (inch)	305 (12")	380 (15")
Spindle bearing inner diameter	mm (inch)	160 (6.29")	180 (7.08")
Through spindle hole diameter	mm (inch)	110 (4.33")	131 (5.15")
Through bar capacity	mm (inch)	90 (3.54")	115 (4.52")
Spindle drive motor(cont/30min)	KW (Hp)	26(35)	37(50)
Spindle speed range	rpm	3000	2400
TURRET			
Number of tool stations		12 (SW=400)	12 (SW=400)
Turret type		STATIC	STATIC
Turret indexing time	sec	0.9 (Hydraulic) / 0.15 (Servo driver)	0.9 (Hydraulic) / 0.15 (Servo driver)
Shank height of square tool	mm (inch)	25 (1")	25 (1")
Shank diameter for boring bar	mm (inch)	50 (2")	50 (2")
FEEDRATE			
Rapid traverse rate X-axis	M/min	20	20
Rapid traverse rate Z-axis	M/min	24(0.5M) / 24(1M) / 22(1.5M) / 20(2M)/ 18(2.5M) / 16(3M)	24(0.5M) / 24(1M) / 22(1.5M) / 20(2M)/ 18(2.5M) / 16(3M)
Ballscrew diameter of X-axis	mm (inch)	32*P10	32*P10
Ballscrew diameter of Z-axis	mm (inch)	40*P10 50*P12 (3M)	40*P10 50*P12 (3M)
TAILSTOCK			
Tailstock travel	mm (inch)	480 (18.89") L=500 980 (38.58") L=1000 1480(58.26") L=1500 1980 (77.95") L=2000 2480 (97.63") L=2500 2980(117.3") L=3000"	480 (18.89") L=500 980 (38.58") L=1000 1480(58.26") L=1500 1980 (77.95") L=2000 2480 (97.63") L=2500 2980(117.3") L=3000
Tailstock spindle diameter	mm (inch)	110 (4.33")	110 (4.33")
Tailstock spindle travel	mm (inch)	100 (4")	100 (4")
Taper hole of tailstock spindle		MT-5	MT-5
Sub-SPINDLE		L=1000mm	L=1000mm
Type of sub-spindle nose	ISO	A2-6	A2-6
Chuck diameter & type(option)	mm (inch)	200 (8")	200 (8")
Sub-Spindle bearing inner diameter	mm (inch)	110 (4.33")	110 (4.33")
Through spindle hole diameter	mm (inch)	61 (2.4")	61 (2.4")
Through bar capacity	mm (inch)	51 (2")	51 (2")
Sub-Spindle drive motor(cont/30min)	KW (Hp)	11 (15)	11 (15)
Sub-Spindle speed range	rpm	4000	4000
REMARKS			
Coolant pump motor	Kw (Hp)	0.6 (3/4)	0.6 (3/4)
Coolant tank capacity	L	203 / 244 / 285 / 326 / 408 / 449	203 / 244 / 285 / 326 / 408 / 449
Floor space	mm (inch)	4464 (175.7") (L) * 1951(76.8") (W) 4964 (195.4") (L) * 1951(76.8") (W) 5464 (215.1") (L) * 1951 (76.8") (W) 5964 (234.8") (L) * 1951 (76.8") (W) 7011 (276") (L) * 1951 (76.8") (W) 7635 (300.5") (L) * 1951 (76.8") (W)	4464 (175.7") (L) * 1951(76.8") (W) 4964 (195.4") (L) * 1951(76.8") (W) 5464 (215.1") (L) * 1951 (76.8") (W) 5964 (234.8") (L) * 1951 (76.8") (W) 7011 (276") (L) * 1951 (76.8") (W) 7635 (300.5") (L) * 1951 (76.8") (W)
Machine weight	Kg (lb)	5830 (12826) 6930 (15246) 8030 (17666) 9130 (20086) 10230 (22506) 11330 (24926)	6200 (13640) 7300 (16060) 8400 (18480) 9500 (20900) 10600 (23320) 11700 (25740)

Design and specifications are subject to change without prior notice.