



# CNC TURNING LATHE

VT27/28/30/33

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

  
ALEX-TECH

  
VIPER  
POWER of PRIDE

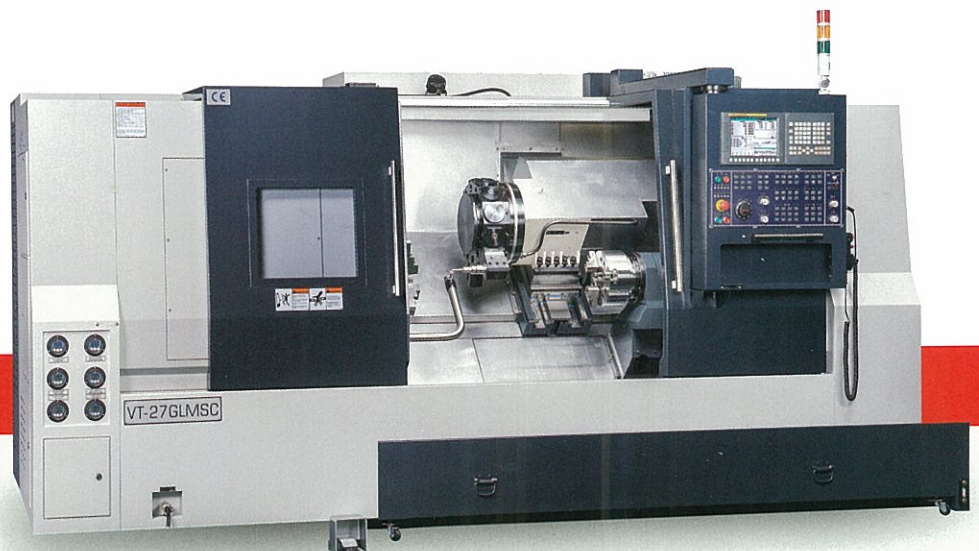
ALEX-TECH MACHINERY INDUSTRIAL CO., LTD.



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

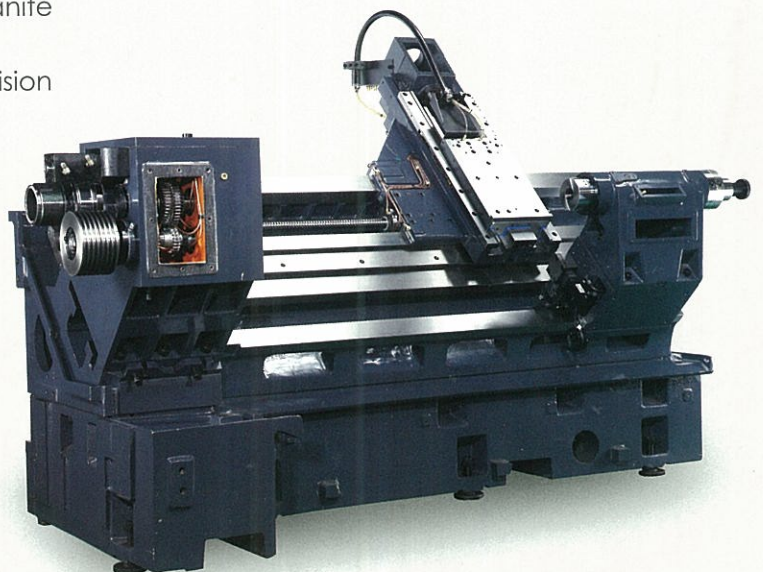
## 45° Slant Bed CNC Lathe

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



## 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**



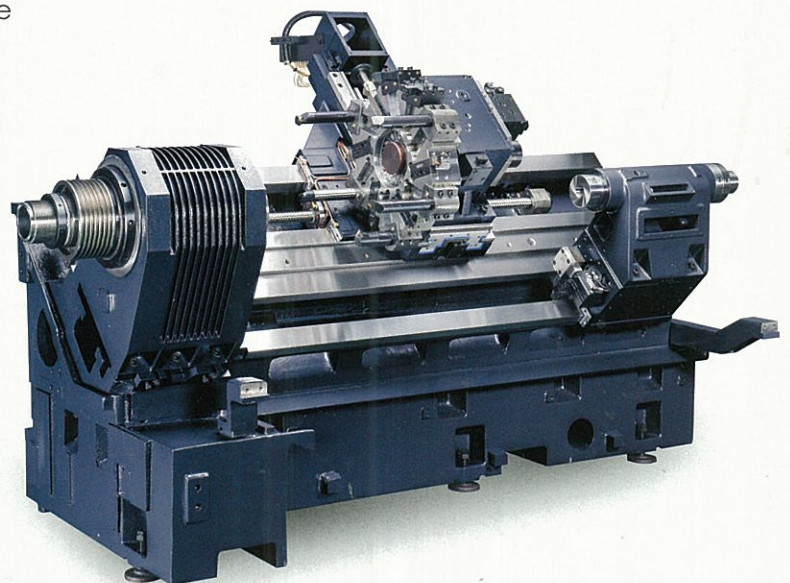
## Big Capacity Precision Cutting Ruggedly Constructed Throughout

- Max. turning diameter:  $\text{\O}470$  mm.
- Through spindle hole diameter:  $\text{\O}110$  mm(VT-30).  
 $\text{\O}131$  mm(VT-33).
- Chuck diameter: 15".
- VDI-40 live turret (optional).
- Programmable tailstock.



## 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.
- $\text{\O}110$  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.

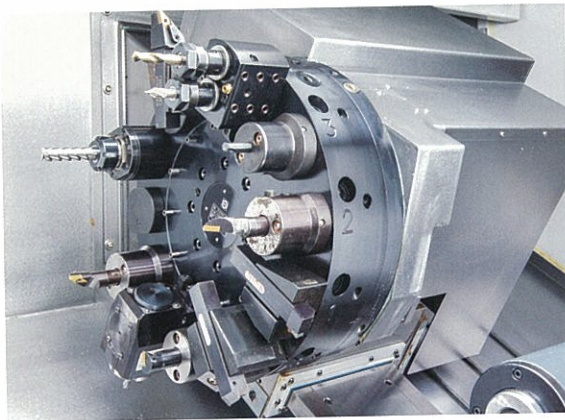
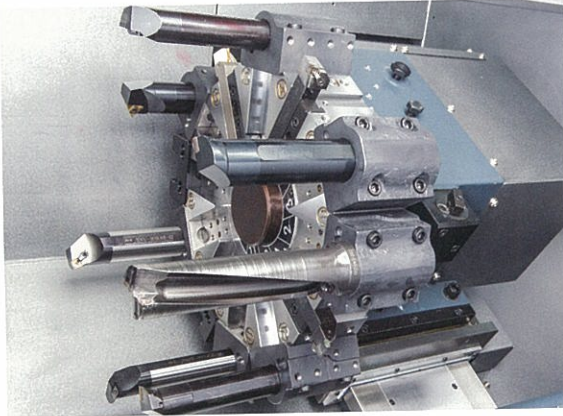


**VT-30 machine structure with  
belt-drive spindle head**



### Alex-Tech Self-Made Turret

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

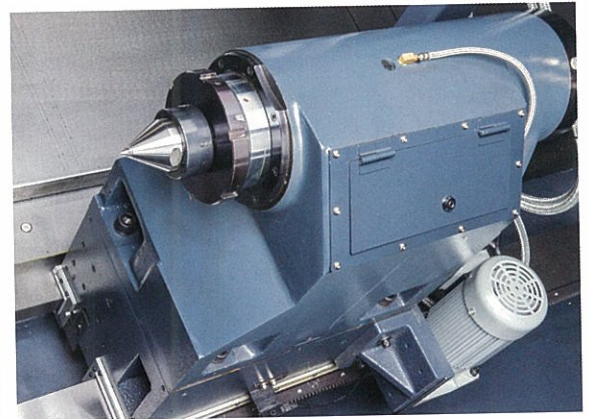
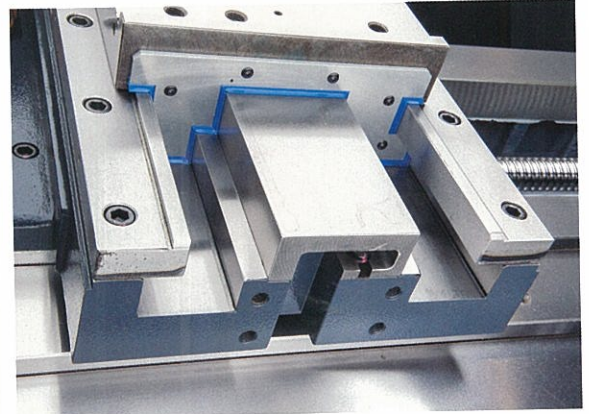


### VDI 40 Axial Live Turret

- 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.

### 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.



### Hydraulic Tailstock

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

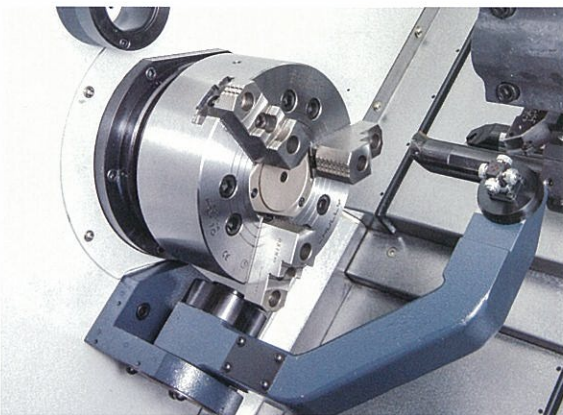
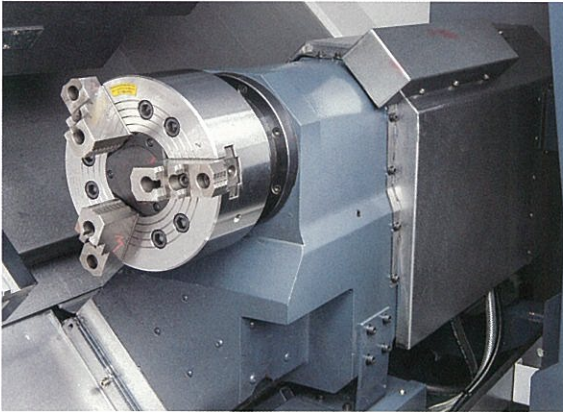
### Powered Tailstock Movement

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



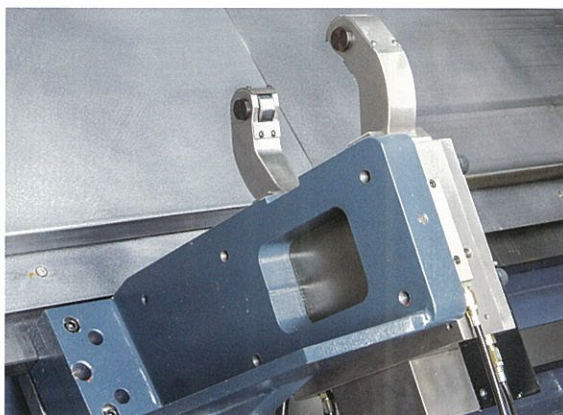
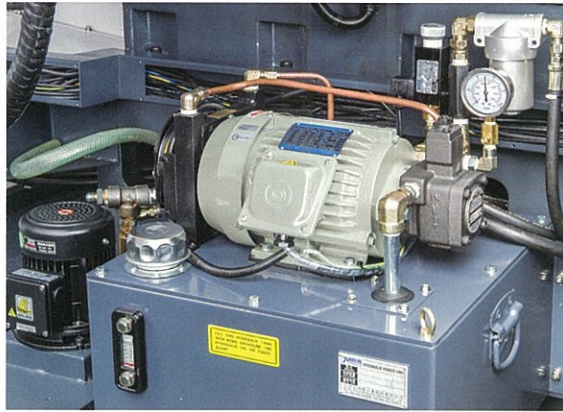
### Sub-Spindle (Optional)

- 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.



### 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 (M10x120mm) 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

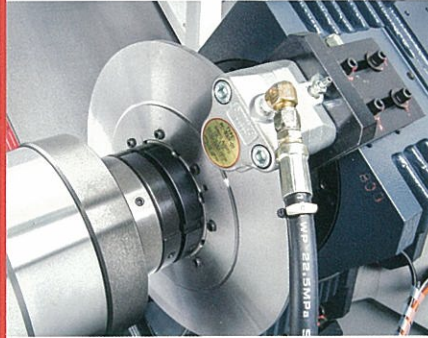
CENTERING RANGE	MODEL
Ø12~Ø152mm(0.47"~5.98")	SLU3
Ø20~Ø165mm(0.79"~6.49")	SLU3.1
Ø50~Ø200mm(1.96"~7.87")	SLU3.2





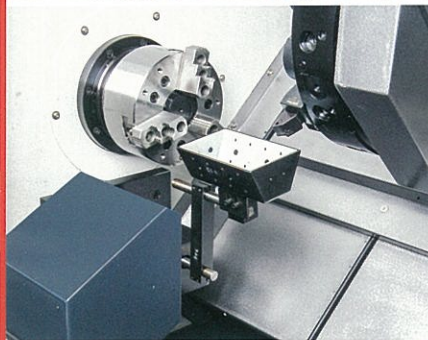
### MPG Handwheel

- 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.



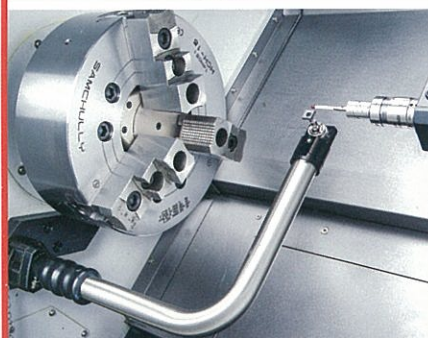
### Oil skimmer(Optional)

- 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.

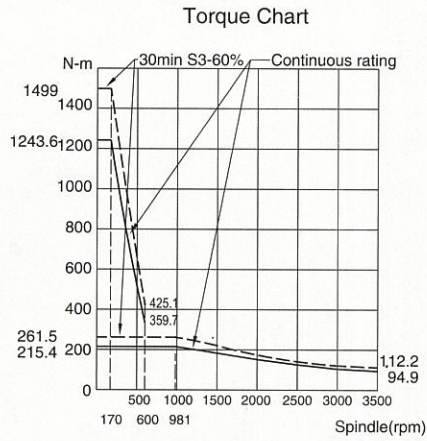
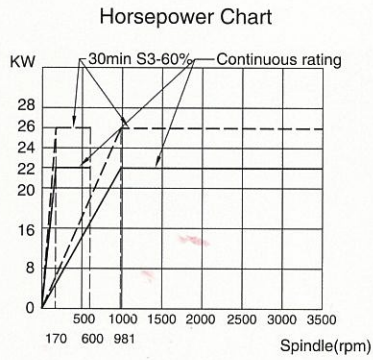


### Tool Presetter (Optional)

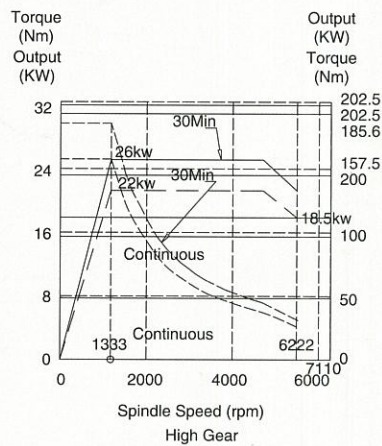
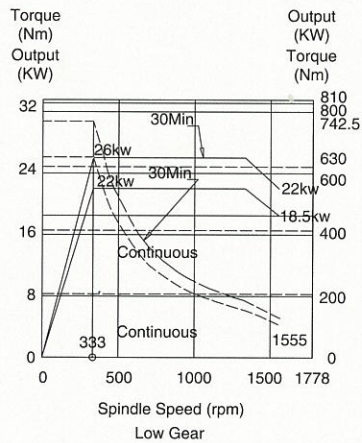
- The tool presetter has a touch sensor, which can be used for measuring varying lengths of tool. In addition, it also can detect if a tool is broken or not.
- The tool presetter can be programmed to store all tool information that many reduce tool change time.



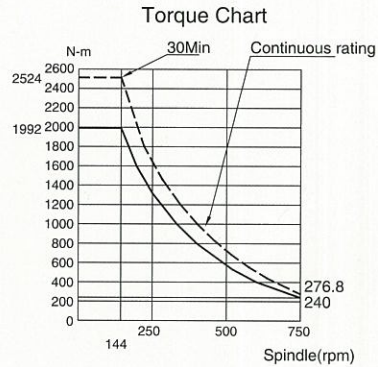
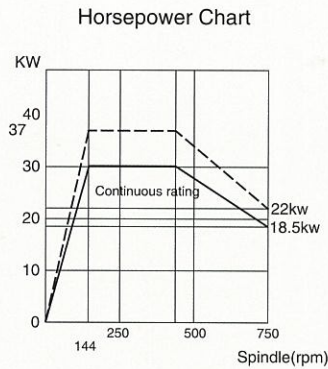
# VT-27G



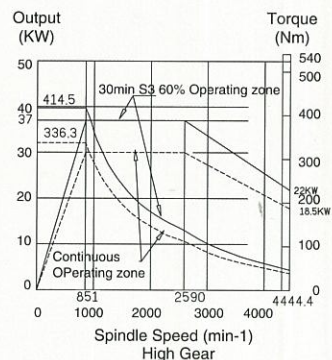
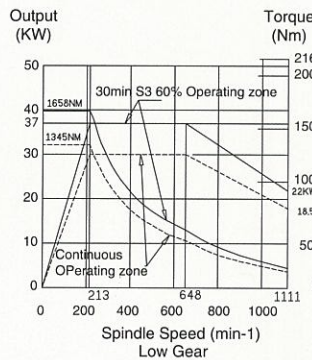
## VT-28 & Fanuc A22 & Gear box 1:4



## VT-30 Gear box (CE13 1:4)

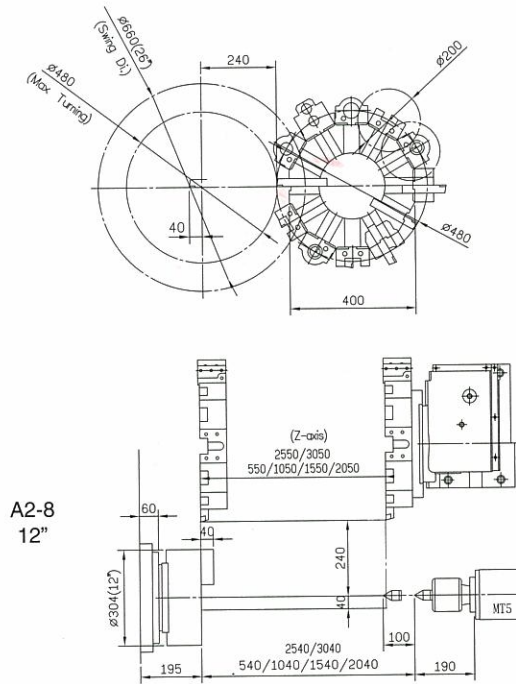


## VT-33B & 1/4 Gear box torque chart



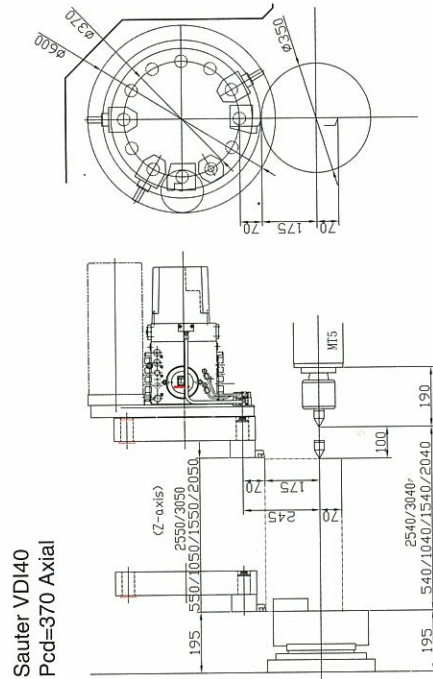
Cutting Area Interference

VT-27/28



A2-8  
12"

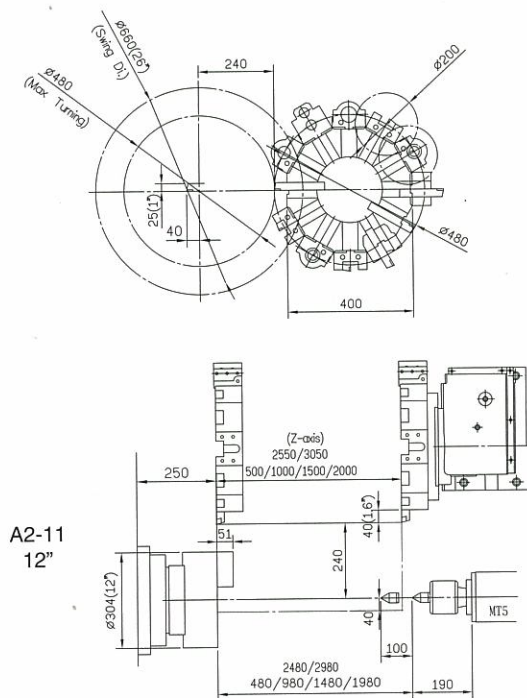
VT-27GM/28BM



Sauter VDI40  
Pcd=370 Axial

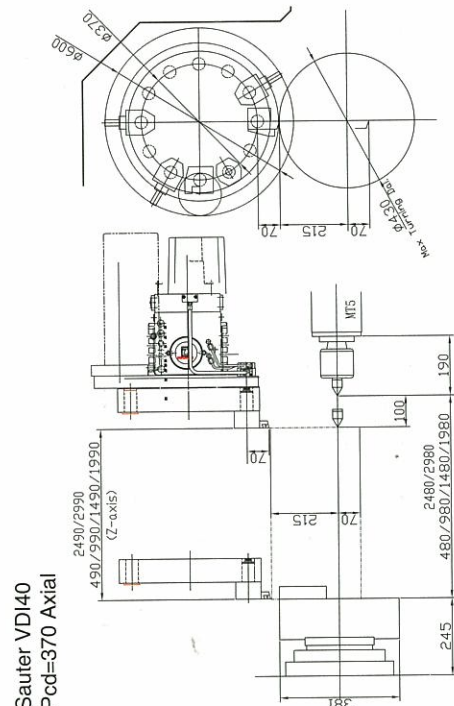
A2-8  
12"

VT-30/33



A2-11  
12"

VT-30BM/33BM



Sauter VDI40  
Pcd=370 Axial

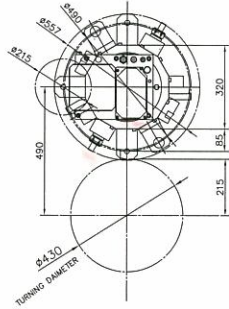
A2-11  
15"



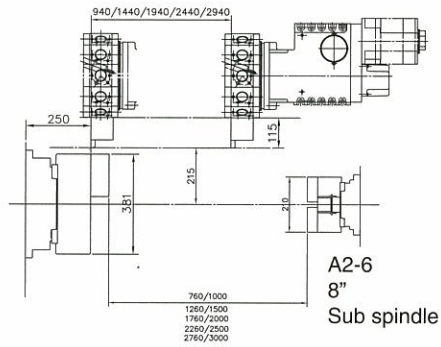
# Cutting Area Interference

## VT-30MS/33MS

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

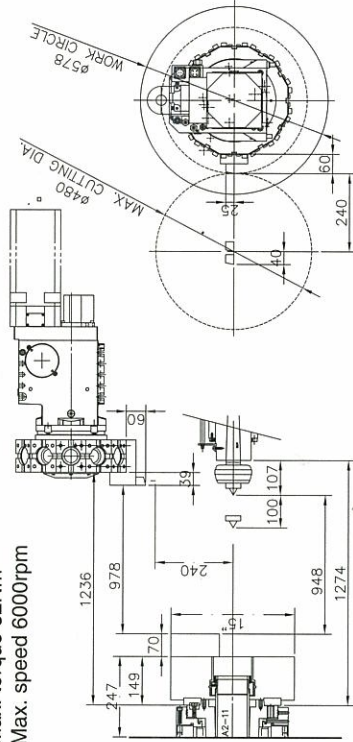


(VT-33)  
 (VT-30)  
 A2-11  
 15"

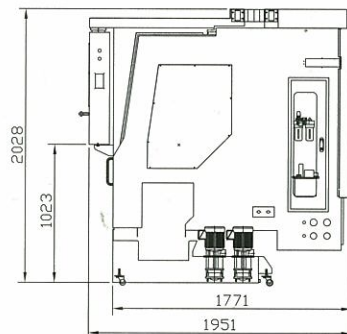
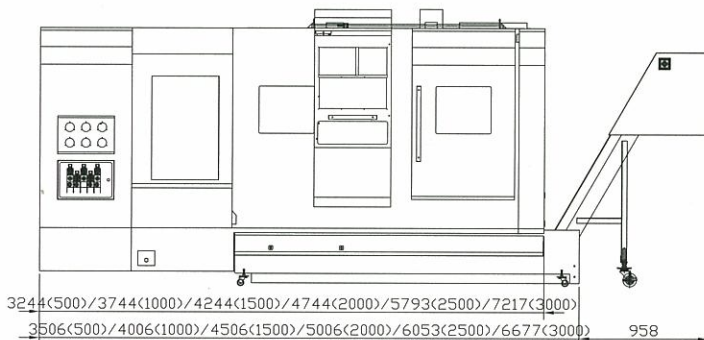
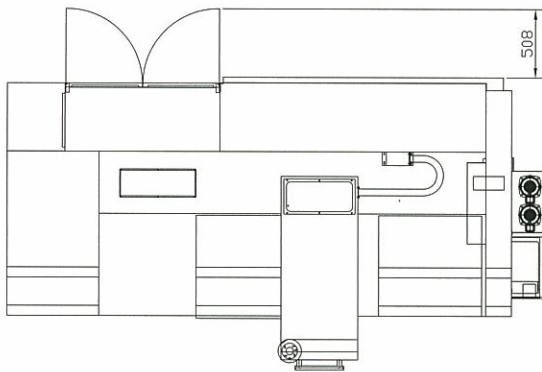


## VT-30BLM/33BLM

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)
<b>CAPACITY</b>			
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
<b>TRAVEL</b>			
X-axis travel	mm (inch)	240+40 (9.44"+1.57") 550 (21.65") 1050 (41.33")	240+40 (9.44"+1.57") 550 (21.65") 1050 (41.33")
Z-axis travel	mm (inch)	1550 (60.2") 2050 (80.7") 2550 (100.4") 3050 (120.)	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
<b>SPINDLE</b>			
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
<b>TURRET</b>			
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")
<b>FEEDRATE</b>			
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 40*P10	32*P10 40*P10
Ballscrew diameter of Z-axis	mm (inch)	50*P12 (3M)	50*P12 (3M)
<b>TAILSTOCK</b>			
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
<b>REMARKS</b>			
Coolant pump motor	Kw (Hp)	0.6 (3/4)	0.6 (3/4)
Coolant tank capacity	L	203 / 244 / 285 / 326 / 408 / 449 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)	203 / 244 / 285 / 326 / 408 / 449 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)
Floor space	mm (inch)	5850 (12870) 6950 (15290) 8050 (17710) 9150 (20130) 10250 (22550) 11350 (24970)	5800 (12760) 6900 (15180) 8000 (17600) 9100 (20020) 10200 (22440) 11300 (24860)
Machine weight	Kg (lb)	8050 (17710) 9150 (20130) 10250 (22550) 11350 (24970)	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)
<b>CAPACITY</b>			
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")
		480 (18.89") L=500	480 (18.89") L=500
		980 (38.58") L=1000	980 (38.58") L=1000
Max. turning length	mm (inch)	1480(58.26") L=1500	1480(58.26") L=1500
		1980 (77.95") L=2000	1980 (77.95") L=2000
		2480 (97.63") L=2500	2480 (97.63") L=2500
		2980(117.3") L=3000	2980(117.3") L=3000
Slide way slant angle	degree	45	45
<b>TRAVEL</b>			
X-axis travel	mm (inch)	240+40 (9.44"+1.57")	240+40 (9.44"+1.57")
		500 (19.7")	500 (19.7")
		1000 (39.4")	1000 (39.4")
Z-axis travel	mm (inch)	1500 (59")	1500 (59")
		2000 (78.7")	2000 (78.7")
		2500 (98.4")	2500 (98.4")
		3000 (118.1")	3000 (118.1")
W-axis travel (Sub)	mm (inch)	760 (29.9") L=1000	760 (29.9") L=1000
<b>SPINDLE</b>			
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
<b>TURRET</b>			
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")
<b>FEEDRATE</b>			
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	40*P10
		50*P12 (3M)	50*P12 (3M)
<b>TAILSTOCK</b>			
Tailstock travel	mm (inch)	480 (18.89") L=500	480 (18.89") L=500
		980 (38.58") L=1000	980 (38.58") L=1000
		1480(58.26") L=1500	1480(58.26") L=1500
		1980 (77.95") L=2000	1980 (77.95") L=2000
		2480 (97.63") L=2500	2480 (97.63") L=2500
		2980(117.3") L=3000"	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
<b>REMARKS</b>			
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
		4464 (175.7") (L) * 1951(76.8") (W)	4464 (175.7") (L) * 1951(76.8") (W)
		4964 (195.4") (L) * 1951(76.8") (W)	4964 (195.4") (L) * 1951(76.8") (W)
Floor space	mm (inch)	5464 (215.1") (L) * 1951 (76.8") (W)	5464 (215.1") (L) * 1951 (76.8") (W)
		5964 (234.8") (L) * 1951 (76.8") (W)	5964 (234.8") (L) * 1951 (76.8") (W)
		7011 (276") (L) * 1951 (76.8") (W)	7011 (276") (L) * 1951 (76.8") (W)
		7635 (300.5") (L) * 1951 (76.8") (W)	7635 (300.5") (L) * 1951 (76.8") (W)
		5830 (12826)	6200 (13640)
		6930 (15246)	7300 (16060)
Machine weight	Kg (lb)	8030 (17666)	8400 (18480)
		9130 (20086)	9500 (20900)
		10230 (22506)	10600 (23320)
		11330 (24926)	11700 (25740)

Design and specifications are subject to change without prior notice.



# Global sales & Service



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No. 5, CHUN AN RD., SHENGANG DISTRICT,  
TAICHUNG CITY 42955, TAIWAN  
Tel. 886-4-25626039 Fax. 886-4-25626040

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

E-mail. alextech@ms24.hinet.net