

VIPER

V T L

CNC
VERTICAL
TURNING
LATHE

16/20 (M) • 20/24 (M)



www.alex-tech.com

伍將機械工業股份有限公司
ALEX-TECH MACHINERY INDUSTRIAL CO., LTD.
NO. 5 CHUN AN RD., SHEN KANG HSIANG
TAICHUNG HSIEN, TAIWAN R.O.C.
TEL. 886.4.25626039 FAX. 886.4.25626040
E-MAIL. alextech@ms24.hinet.net

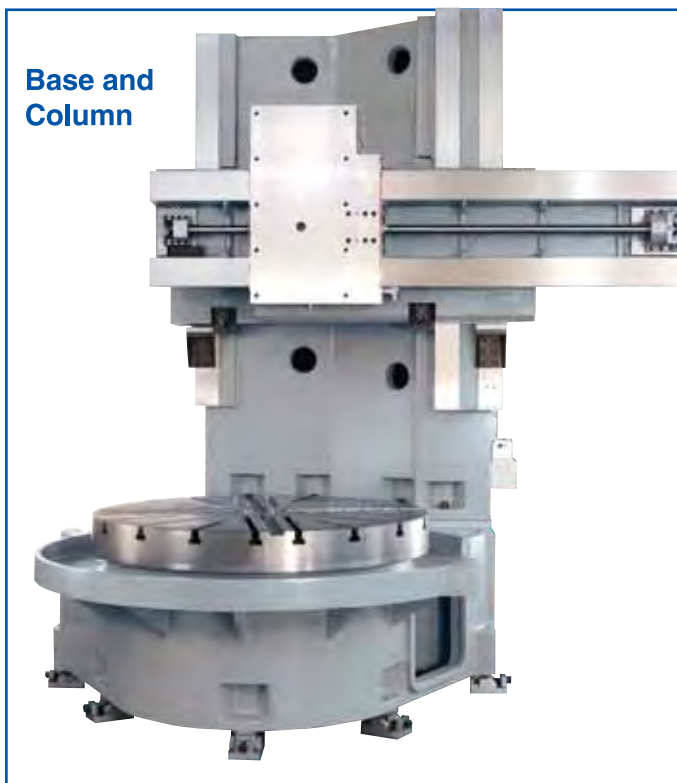



www.mightyusa.com

MIGHTY USA, INC.
19706 S. Normandie Ave., Torrance, CA 90502
Tel. 310.516.7478 Fax. 310.516.0368
E-mail. sales@mightyusa.com

VTL-16/20 (M) • VTL-20/24 (M)

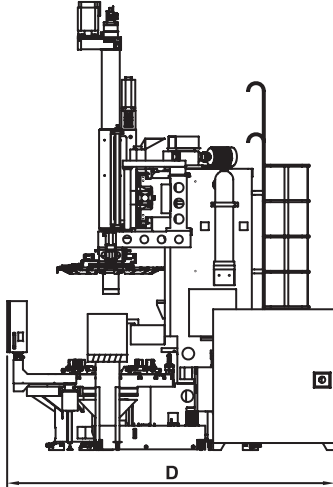
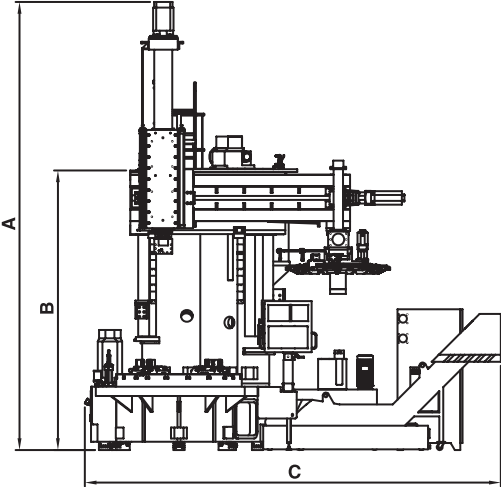
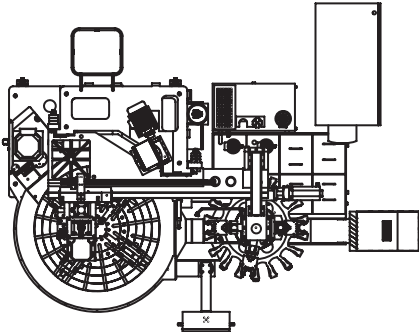
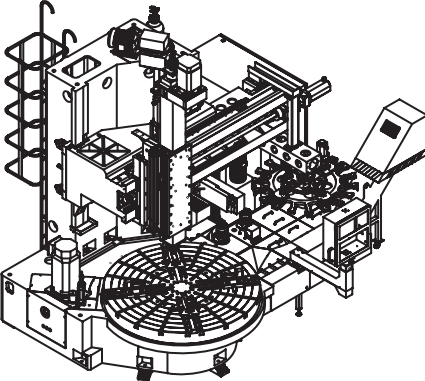
State-of-the-art design and manufactured with premium materials.



VTL-20/24 Cutting Chip		Width of Chip: 11~12mm
	Material of Workpiece: SS41	Thickness of Chip: 1.5mm (max.)
	Thickness of Workpiece: 300mm	Table Speed: 140m/min
Tool Shank: MCLNL3232P12	Dia. of Workpiece: Ø1600mm	Feedrate: 0.35mm/rev.



Machine Dimensions



ITEM	16/20(M)	20/24(M)
A	5700	5750
B	3600	3600
C	5300	5400
D	4200	4300

units = mm

Machine Specifications

ITEM	Unit	VTL-16/20 (M)	VTL-20/24 (M)
Machine Capacity			
Table Diameter	mm/ inch	φ 1,600/ 63	φ 2,000/ 78.75
Max. Turning Diameter	mm/ inch	φ 2,000/ 78.75	φ 2,400/ 94.50
Max. Swing	mm/ inch	φ 2,000/ 78.75	φ 2,400/ 94.50
Max. Turning Height	mm/ inch	1,500/ 59.2	1,500/ 59.2
Max. Mass of Workpiece	kg/ lbs	13,000/ 28,600	20,000/ 44,000
Max. Torque of Table	NM/ lbs-ft	20,000/ 14,750	24,600/ 18,150
Max. Cutting Force	N/ lbf	25,000/ 5,620	26,500/ 5,950
Movement			
X axis Stroke	mm/ inch	1,635/ 64.37	1,835/ 72.25
Z axis Stroke	mm/ inch	1,000/ 39.37	1,000/ 39.37
Ram			
Ram Size	mm/ inch	230x230/ 9.06x9.06	230x230/ 9.06x9.06
Min. I.D. for Ram Pass	mm/ inch	φ 330/ 13	φ 330/ 13
Speed			
Table Speed (2 steps)	rpm	0~91, 86~250	0~55, 53~200
Rapid traverse (X axis)	mm/min	12,000	12,000
	inch/min	472.5	472.5
Rapid traverse (Z axis)	mm/min	10,000	10,000
	inch/min	393.7	393.7
Manual feed rate (X, Z axes)	mm/min	0~3,600	0~3,600
	inch/min	0~141.75	0~141.75
Cutting feed per rev.	mm/inch	0.01~500/0.0001~20	0.01~500/0.0001~20
	inch/min	0.04~141.75	0.04~141.75
Cutting feed rate	mm/min	1~3,600	1~3,600
	inch/min	0.04~141.75	0.04~141.75
Elevating speed of crossrail	mm/min	300(50Hz) 360(60Hz)	300(50Hz) 360(60Hz)
	inch/min	12(50Hz) 14(60Hz)	12(50Hz) 14(60Hz)
Crossrail Stroke	mm/ inch	800/ 31.5	800/ 31.5
Crossrail Step	mm/ inch xStep	200x5/ 7.874x5	200x5/ 7.874x5
Motor			
Table Main Motor	hp	50/60(cont'd/30min)	
X Axis Motor(AC Servo)	hp	8.0	
Z Axis Motor(AC Servo)	hp	5.9	
Crossrail Elevating Motor	hp	5.0x4P	
For Standard Tooling			
ATC Magazine Capacity	Tool	12/ 18*	12/ 18*
Max. Tool Length	mm/ inch	450/ 17.72	450/ 17.72
For Live tool			
ATC Magazine Capacity	Tool	18(Turning:9, Milling:9)	18(Turning:9, Milling:9)
Max. Tool Length	mm/ inch	450/ 17.72	450/ 17.72
Max. Drill Diameter	mm/ inch	Ø50.8/ 2 (Carbon Steel Workpiece)	
Max. Tap Diameter	mm/ inch	Ø30/ 1.181 (Carbon Steel Workpiece)	
Max. Torque for Drilling	NM/ lbs-ft	196/ 145	
Live Spindle Speed	rpm	30~2000	
Table Index Speed (C)	Min ⁻¹	3	
Live Spindle Motor	hp	10/ 15(30 min.)	15/ 20(30 min.)
	kw	7.5/ 11(30 min.)	11/ 15(30 min.)
Tool Shank Size	mm/ inch	32x32/ 1.26x1.26	32x32/ 1.26x1.26
Max. Tool Projection	mm/ inch	For turning, Both I.D. & O.D. 175/ 6.89	
Tool Taper		No. 50 (Big-Plus)	
Pull Stud		P50T-2	
Max. weight of tool holder	kg/lbs	50/110(1pc)	50/110(1pce)
Tank Capacity			
Hydraulic Unit Capacity	L	86	86
Coolant Tank Capacity	L	570	570
Lubrication Tank Capacity	L	5	5
Power Specification			
Total Power Capacity	kVA	60 (3 phase, 208V)	
Dimension (LxWxH)	mm	5300 x 4200 x 5700	5400 x 4300 x 5750
	inch	208.66 x 165.35 x 224.41	212.60 x 169.29 x 226.38
Machine Weight	kg/ Lbs.	32200 / 70840	38200 / 84040

Specifications are subject to change without prior notice. • *Optional Accessory

Machine Features

- AC Main Drive Motor for Table 60 Horsepower (30 min. rating)
- Adjustable Cross Rail, with Five (5) Auto Cross Rail Positions
- Automatic Forced Lubrication System
- Chip Conveyor System
- Chip cover / Splash Guards / Sliding Doors
- Control Warranty Two (2) Years

- Coolant System and Coolant Through the Ram
- Fanuc System OiTC CNC Controller
- 4-Jaw Independent 63" / 1600mm Dia. for VTL-16/20(M) and 78.75" / 2000mm Dia. VTL-20/24(M) Manual Chuck Table with Top Jaws
- Foundation Parts Kit One (1) Set
- High Quality Cast Iron Construction

- Machine Warranty One (1) Year
- Standard 12 Tools [VTL-16/20 and 20/24] or 18 Station [VTL-16 20(M), 20 24(M)] (Option) Auto Tool Changer System
- Square Carbon Steel Ram 9" (228.6 mm) w/ Vertical Ram Travel 39 3/8" (974.725mm)
- Telescopic Steel covers For Cross Rail
- Standard Features and Accessories

VTL-16/20~20/24M

(M = Milling Function):

- C-Axis Live Spindle
- Eighteen (18) Tool ATC
- AC 10/15 hp (VTL-16/20M) and 15/20 hp (VTL-20/24M)
- Spindle Taper (BT50)
- Pull stud (MAS403) P50T-2
- Max. Drilling Diameter 2" [Tool cemented carbide work: S45C, cutting feed rate: 0.15 mm (0.006 inch)/rev., cutting speed 120m (394 ft) / min.]
- Max. Tap Drill Diameter (Tools: HSS; Work: S45C) M30 x 3.5
- Live Spindle Speed 30~2000 rpm
- Table Index Speed 3 min⁻¹
- C-Axis Feed Rate 0~800 deg/min

Additional FANUC Options:

- Controlled Axis (Each path) 3-Axis (X, Z and C)
- Simultaneous controllable Axis 3-Axis (X, Z and C)
- Least input Increment C-Axis 0.001 Degree
- Control Axis Detach
- Simultaneous Controlled Axis Expansion
- Canned Cycles for Drilling
- Connectable Position Detector
- C-Axis Pulse Coder