



Engineering & Designing
Your Requirements...



CNC VTL / VTM VERTICAL TURNING LATHE / VERTICAL TURN-MILL CENTER

Jagdeep CNC (VTL) Vertical Turning Lathe / (VTM) Jagdeep Vertical Turn-mill Centre, machines are versatile machines generally used for large/heavy jobs with high accuracy and precision. Jagdeep CNC VTL/VTM machines are used for machining of jobs with less number of setups thus gives improved productivity. Designed and developed in-house for total quality control with high quality components. Machine structure is double columns construction with seasoned/stress relieved castings for heavy-duty machining with better stability and rigidity, while maintaining accuracy and finish.

Features/Accessories

Machine Model (S)	JVT C-1	JVT M-1	JVT C-1.2	JVT M-1.2	JVT C-1.5	JVT M-1.5	JVT C-2	JVT M-2	JVT C-2.5	JVT M-2.5	JVT C-3	JVT M-3	JVT C-4	JVT M-4	JVT C-5	JVT M-5
BT-50 Tool Holder Taper	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Machine Guarding	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Telescopic Covers for X-Axis	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Control Panel	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
MPG Wheel	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Coolant and Air Gun	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
One Ram Head on Cross-Slide	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Automatic Lubrication System	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Manual 4-Jaw Chuck with set of 4 Jaw	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Tri-Color LED tower Light	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Box-Guide Ways for X & Z Axis	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Hydraulic Counter Balance for Z-Axis	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Heavy-Duty Double Column Construction	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Panel AC	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Complete Electrical With Control Panel	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Chip Conveyor with 400 Litre Coolant Tank	O	S	O	S	O	S	O	S	O	S	O	S	O	S	O	S
10 Tools ATC	O	S	O	S	O	S	O	S	O	S	O	S	O	S	O	S
20 Tools ATC	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Rotary Encoder for Main Spindle (Table)	O	S	O	S	O	S	O	S	O	S	O	S	O	S	O	S
Coolant Through Spindle	O	S	O	S	O	S	O	S	O	S	O	S	O	S	O	S
Second Ram Head on Cross-slide	-	-	-	-	-	-	O	O	O	O	O	O	O	O	O	O
Linear Motion (LM) Guideways for X-Axis	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Contour Machining (Multi-Axis) Machining	-	S	-	S	-	S	-	S	-	S	-	S	-	S	-	S
Y-AXIS	-	O	-	O	-	O	-	O	-	O	-	O	-	O	-	O
Job Probing System	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Tool Probing System	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
PFBM (Power Failure Back-up Module)	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
90 Degree Angular Head (Manual)	-	O	-	O	-	O	-	O	-	O	-	O	-	O	-	O
90 Degree Angular Head (Automatic)	-	O	-	O	-	O	-	O	-	O	-	O	-	O	-	O
Automatic 2 speed Gear--Box for table	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Automatic 2 speed Gear--Box for Live-Spindle	-	O	-	O	-	O	-	O	-	O	-	O	-	O	-	O
Hydraulic Chuck	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Power Door	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Mist Collectors with Full Enclosures	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Hi-res. Encoder	-	O	-	O	-	O	-	O	-	O	-	O	-	O	-	O
Linear Scale for X-Axis	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Linear Scale for Z-Axis	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Moving Cross Rail	-	-	-	-	O	O	O	O	O	O	O	O	O	O	O	O
Paper-Coolant Filtration System	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O

S = Standard; O = Optional; - = Not Available Not Available



Operations

Facing	Turning ID & OD	Profile Machining	Taper Machining	PCD Drilling & Tapping (Turn-mill)	Offset Drilling /Thread Milling (Turn-mill)	Profile milling (Turn-mill)	Slotting (Turn-mill)	Multi-Axis Machining (Turn-mill)
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MODEL		JVTC/ JVTM - 1	JVTC/ JVTM - 1.2	JVTC/ JVTM - 1.5	JVTC/ JVTM - 2	JVTC/ JVTM - 2.5	JVTC/ JVTM - 3	JVTC/ JVTM - 3.5	JVTC/ JVTM - 4	JVTC/ JVTM - 5
DESCRIPTIONS	UNITS									
Table Diameter (Manual Chuck)	mm	1000	1200	1500	2000	2500	3000	3500	4000	5000
Max. Turning Diameter (*)	mm	1200	1500	1700	2200	2700	3200	3700	4200	5200
Max. Turning Height (*) (With Fixed Cross Rail)	mm	1000/1200								
Max. Turning Height (*) (With Moveable Cross Rail)	mm	NA	1500	1500	1500/2000	1500/2000/ 2500	Up to 3000			
Max. Work piece Weight (*)	Kgs	4000	5000	6000	8000	10000	15000	15000	20000	
TRAVEL										
X - Axis Rapid Rate	mm/min	10000								
Z - Axis Rapid Rate	mm/min	10000								
X Axis (Horizontal Travel) (*)	mm	+600 to -200	+750 to -200	+850 to -200	+1100 to -200	+1350 to -200	+1600 to -200	+1850 to -200	+2150 to -200	+2600 to -200
Z Axis (Vertical Ram Travel) (*)	mm	900/1100	900/1100	900/1100	900/1100	900/1100	900/1100	900/1100	900/1100	900/1100
ELECTRIC MOTORS										
X Axis Servo Motor (*)	N-m	40	40	40	53	53	53	53	75	75
Z Axis Servo Motor (*)	N-m	40	40	40	53	53	53	53	75	75
Main Spindle Servo Motor (Table) (*) (Continuous/30min.)	Kw	15/18	15/18	15/18	22/30	37/45	45/55	45/55	60/75	60/75
Range of Table Speeds (*)	RPM	05-250	05-250	05-250	05-200	05-150	01-70	01-40	01-15	01-10
Live Spindle Motor (***) (*) (Continuous/30min.)	Kw	11-15								
Live Spindle Speed (***) (*)	RPM	1500								
CNC Control (*)	-	FANUC / SIEMENS								
Positioning-Linear Axis	mm/m	±0.01								
Repeatability-Linear Axis	mm/m	±0.005								
C-Axis Positioning Accuracy (***) (*)	Arc sec.	±20 Arc Sec.								
C-Axis Repeatability (***) (*)	Arc sec.	±10 Arc Sec.								
Ovality (Turning)	mm/m	±0.01								
Taper (Turning)	mm/300mm	±0.01								

(*) Customization Available

(***) Only with JVTM – Vertical Turn-Mill Center

VTL (VERTICAL TURNING LATHE)



Jagdeep VTL Vertical Turning Lathe (Semi-Automatic) Machines are generally used for Turning and Boring of heavy & large dia circular jobs. Manufactured in house for total quality control with graded casting as per IS standards. Machine powered with servo motors for feed(s) with PLC, DRO and HMI touch screen, which increases productivity.



**(with coolant system and guarding)*

Standard Features/Accessories

- Complete Electrical
- Control Panel
- HDMI Touch Screen controller
- 2 Axis DRO
- PLC
- One Ram Head on Cross Slide
- Auto feed to Ram Head (Horizontal and Vertical)
- Automatic Lubrication System
- Set of 4 Jaws for work piece clamping

Optional Accessories

- Second Ram Head on Cross Slide (JVT-2 and above models)
- Hydro Static Guide Ways for table
- Side Ram Head on Column
- Coolant System with Machine Guarding
- Chip Conveyer

Operations

Facing

Turning ID & OD

Taper Machining

Application / Industries

- Railway
- Casting Industry
- Cone Crusher.
- Thresher /Farm Equipment Manufacturing

Model	Unit	JVT-1.5	JVT-2	JVT-2.5	JVT-3	JVT-3.5	JVT-4	JVT-5
Max. Turning Diameter (*)	mm	1700	2200	2700	3200	3700	4200	5200
Table Diameter	mm	1500	2000	2500	3000	3500	4000	5000
Max. Turning Height (*) (With Fixed Cross Rail)	mm			1000/1200				
Max. Turning Height (*) (With Fixed/Moveable Cross Rail)	mm	1500	1500/2000	1500/2000/ 2500		Up to 3000		
Max Vertical Travel of RAM (*)	mm			800				
Swivel Angle of Ram Head (*)	deg	±30°	±30°	±30°	±30°	±30°	±30°	±30°
No. of Table Speed		Stepless Infinitely Variable speeds with AC Variable Frequency Drive						
Range of Table Speed (*)	RPM	15-60	10-45	3-20	1.5-15	1-10	0.5-5	0.5-5
Feeds Vertical/ Horizontal (X/Z Axis)		Stepless infinitely Variable speeds with Servo Motors						
Feed/Rapid Traverse Vertical/Horizontal	(mm/min)	1-1000						
Main Motor	Hp	30	40	50	50	60	75	90
Vertical/Horizontal Feed Motor (*)	N-m	10	10	10	10	10	10	10

*Customization available for large sizes or different configuration

Other Products

CNC DOUBLE COLUMN VMC
(VERTICAL MACHINING CENTER)



CNC LATHE
MACHINES



CNC PLANO MILLER



HEAVY DUTY
LATHE MACHINE



CAST IRON T-SLOTTED
BED PLATE / TEST BED



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