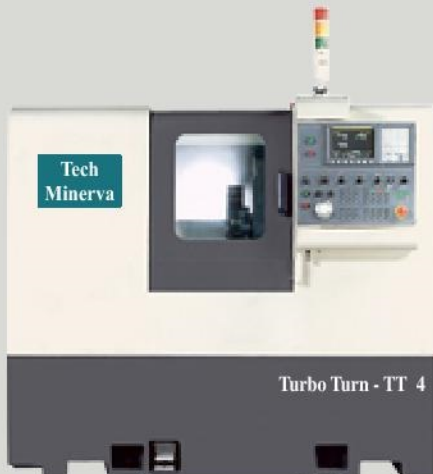
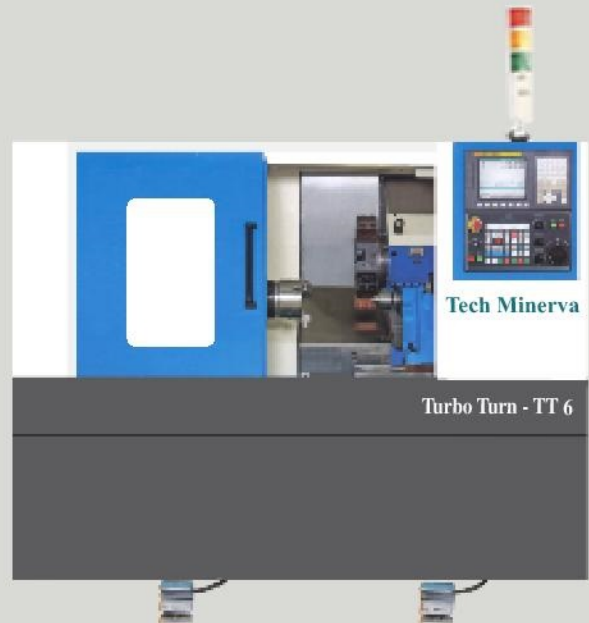




## CNC- SLANT BED TURNING CENTERS



Models TT-4 & TT-4 ECO



Models TT-5, TT-6 & TT-6XL



Model TT-8

Designed for high rigidity factors for consistent accuracies with better productivity.

# CNC-Slant Bed Turning Center Technical Specification

			Turbo-Turn	Turbo-Turn	Turbo-Turn	Turbo-Turn	Turbo-Turn
			TT-4	TT-5	TT-6	TT-6XL	TT-8
<b>CAPACITY</b>	Turning Diameter Max/Std Tr. Dia	mm	100	200	350	450	500
	Turning Length Max	mm	350	350	600	600	800
	Swing Clearance Over Carriage Dia/CS	mm	150	275	375	475	550
	Swing Over Bed	mm	350	400	500	500	650
	Admit Between Center	mm	400	400	650	650	850
<b>SPINDLE</b>	Spindle Size Nose	mm	A2-4	A2-5	A2-6	A2-6	A2-8
	Hole Dia. Through Spindle	Type	38	45	65	65	85
	Front Bearing Bore Nose	mm	75	80	100	100	120
	Rear Bearing Bore Nose	mm	65	75	90	90	110
	Max Bar Capacity	mm	31	35	55	55	75
<b>S. D.</b>	Spindle Speed Range	rpm	50-4000	50-4000	50-4000	50-4000	50-3000
	Spindle power (15/30Mins/Contd.)	Kw	3.7/5.5	5.5/7.5	7.5/11	7.5/11	11/15
<b>CHUCK</b>	Chuck Size	mm	135/165	165/200	200/250	300	400
<b>TOOLING</b>	Tool Shank Size	mm	20X20	20X20	25X25	25X25	32X32
<b>TURRET</b>	Model	-	BTP-63/80	BTP-80	BTP-80	BTP-80	BTP-100
	Index Mechanism	-	EM	EM	EM	EM	EM
	No. Of Tool Station	No.	8	8	8	8	8
	Turning Tool Shank Size	mm	20X20X125	20X20X125	25X25X150	25X25X150	25X25X150
	Boring Bar Dia max	mm	32	32	40	40	40
<b>FEED DRIVE</b>	Slant Bed with Guide	-	45°	45°	45°	45°	45°
	Rapid Traverse Z & X	mm/min	25000	25000	25000	25000	20000
	Programmable Travel X	m/min	200	200	200	250	300
	Programmable Travel Z	m/min	400	450	650	650	850
	Axis Ball Screw Dia X & Z	mm	32	32	32	32	40
	Axis Ball Screw Pitch X & Z	mm	10	10	10	10	10
	Guide Ways X & Z	-	L M G	L M G	L M G	L M G	L M G
	Guide ways width X & Z	mm	25x25	25x25	30x30	30x30	40x30
Z & X Motor Torque	Nm	4/4	6/8	6/8	6/8	8/8	
<b>TAIL STOCK</b>	Quill Diameter	mm	70	80	80	80	100
	Quill Taper Size	mm	MT3	MT4	MT4	MT4	MT5
	Tail Stock Base Travel	mm	150	200	300	300	400
<b>MOTOR</b>	Main Motor Power	Kw	3.7/5.5	5.5/7.5	7.5/11	7.5/11	11/15
	Coolant Pump Motor Power	Kw	0.20	0.20	0.20	0.20	0.20
	Power	kva	8/10	10/12.5	12/15	12/15	15/20
	CNC Control	-	Fanuc/Siemens	Fanuc/Siemens	Fanuc/Siemens	Fanuc/Siemens	Fanuc/Siemens
<b>ACCUR.</b>	Max Spindle Run Out At Nose	mm	0.005	0.005	0.005	0.005	0.008
	Positioning Accuracy X & Z	mm	+/-0.01	+/-0.01	+/-0.01	+/-0.01	+/-0.01
	Repeatability X:Y	mm	+/-0.005	+/-0.005	+/-0.005	+/-0.005	+/-0.005
<b>HYD DATA</b>	Pump Capacity	LPM	12	12	14	14	14
	Tank Capacity	Ltr.	35	35	35	35	40
	Systems Pressure BAR	Kg/cm2	30	30	30	30	30
	Coolant Tank	Ltr.	60	70	70	70	80
<b>M.S.</b>	Length / Height / Width	Mtr.	1.5x2x1.5	2x1.6x1.5	2.3x1.8x1.6	2.3x1.8x1.6	2.5x2x1.8
	Weight	Kgs	2000	2800	4000	4300	5200

## Standard Control Features

- Manual data input
- Simultaneously controllable 2 axes
- Part program storage & editing
- Tool nose radius compensation
- Self diagnostics
- Constant surface speed control
- Multiple repetitive cycles
- Thread cutting cycles
- Feed rate override
- Circular interpolation
- Direct drawing dimension programming
- Absolute / incremental programming
- Memory card / RS232C
- Pitch error & backlash compensation
- Program memory 256k
- Inch metric switchable.
- Electronic hand wheel [MPG]

## Standard Features

- 8 Station bi-directional turret
- Hydraulic chuck and actuator
- Hydraulic tail stock
- Hydraulic power pack
- Precession ball screws
- Precession linear motion guide ways
- Mounting Pads
- Centralised lubrication system
- Electricals with quality devices.
- Machine lamp
- Patrol lamp.

## Optional Features :

- Chip conveyor
- Bar feeding attachment
- Bar puller
- Part catcher
- Hydraulic study rest
- 12 Station turret
- Voltage stabilizer
- Isolation transformer

\* TT 4-ECO Economy models available against customer specific requirements with different specifications & CNC controllers

\* TMPEPL reserve the rights of design and specification change without any prior information.

**Manufactured by :**  
**Techminerva Machine Tools Pvt.Ltd.**

(MACHINE TOOL DIVISION)  
An ISO 9001-2008 Certified Company

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