

## Tornado T8MSY 6 Axis Turning

The Tornado T8MSY 6 Axis CNC Lathe is the ultimate turning center. The addition of with Y-axis machining, allows the operator to take full advantage of the machine's milling capability by providing 'off center line' machining controlled by the state-of-the-art G.E. Fanuc 18i TB control. The T8MSY has all the machine design features of the 2, 3 & 5 axis models.



- The T8MSY turning center offers Y-axis machining, allowing you to take full advantage of the machines milling capability by providing 'off center line'  $\pm 1.57"$  ( $\pm 40\text{mm}$ ) milling for the accurate machining of keyways, flat and contoured surfaces
- The sub spindle is driven by a powerful 10 hp (7.5kW) drive motor
- Tornado T8MSY offer milling power for both radial and axial milling, drilling, boring and tapping operations on either spindle
- High speed turning, up to 5000 rpm
- Sub-spindle has 6.7" (170mm) chuck and 1.69" (43mm) collet capacity
- Tornado 'MSY' is fitted with a linear scale on the X axis to maintain high accuracy even during 'off center' operations
- Twelve station high speed bi-directional turret with 12 power stations
- B & C axis positioning increment of  $0.001^\circ$  is fully programmable
- Quick changeover and set-up with VDI 30 tooling
- Optional CAM system software package, designed to run on virtually any PC, developed for more complex 5 axis programming
- Available in Chucker, Barfeed and Unmanned 'Lights-Out' models
- Ethernet Link allows remote access to the CNC control for part program transfer, supervisory control, data acquisition, diagnostic and maintenance functions.

# Specifications

Tornado 6 Axis T8MSY	
<b>Sub-Spindle Linear Pos. (A-axis)</b>	
Width across cross guide ways	9.52"(242mm)
Guide way type	35mm roller guide
Min/max jaw to jaw travel	0"-23.62"(0/600mm)
Travel	24.60"(625mm)
A-axis ballscrew	32 x 10 mm
A-axis rapid traverse	1,181 in/min(30m/min)
<b>Sub-Spindle Rotational (B-axis)</b>	
Spindle	DIN 6353
Chuck dia.	6.7"(170mm)
Optional collet chuck	CDC42
Spindle bore	2.165"(55mm)
Drawtube (diameter x length)	1.57"x17.08"(40x370mm)
Spindle speed	6000 rpm
Spindle motor	10 hp(7.5kW)
Spindle speed @ full Hp	1500 rpm
B-axis min increment	.001°
<b>Y Axis Specification</b>	
Y axis stroke	±1.57" (40mm)
Tooling type	VDI 30
Tooling stations	12 power driven
Max power tool speed	5000 rpm
Y-axis ballscrew	32 x 5 mm
Y-axis rapid traverse	393 ipm(10mpm)

Tornado 6 Axis T8MSY	
<b>Capacity</b>	
Swing over bed cover	20.07"(510mm)
Max. turned diameter	10.23"(260mm)
X axis travel	6.69"(170mm)
Max. turning length	21.26"(540mm)
<b>Spindle</b>	
Spindle nose	A2-6
Power chuck (type A/B)	8.26"/10"(210/254mm)
Front bearing ID	4.33"(110mm)
Spindle bore	3.05"(77.5mm)
Bar capacity	2.59"(65mm)
Max. spindle speed (A/B) (rpm)	5000/3500
Spindle motor (Cont./30 min.)	25/30 hp(19/22kW)
Min spindle speed for full power	1250/880 rpm
<b>Axes</b>	
Rapid traverse X/Z-axis	984/1181 ipm(25/30mpm)
X/Z-axis thrust (continuous)	1,330/1,610 lbf(5.73/1.15 kN)
X/Z-axis ballscrew	32x8/40x10 mm
X/Z-axis encoder feedback	linear/rotary
Positioning accuracy	±0.0002(0.005mm)
Repeatability	±0.0001(0.002mm)
<b>Construction</b>	
Carriage inclination	60°
Spindle center height	38.45"(977mm)
Cross slide width	10.23"(259mm)
Cross slide type	35mm roller guide
Width across cross guide ways	8.9"(226mm)
Z-axis type	35mm roller guide
Bed width - linear guide rails	15.31"(389mm)
<b>Tool Turret</b>	
Turret disc diameter	10.63"(270mm)
Tooling system	VDI 40
No. of turret tool stations	12 bi-directional
Index time	0.33 sec
Tool shank size	.75" x .75"(20x20mm)
Max. boring bar	1.57"(40mm)
Travel past center line	1.06"(27mm)
<b>Live Tooling</b>	
C-axes min. increment	.001°
Power driven stations	12
Power station servo motor	5 hp
Rotating tool shank size	DIN5480 16x0.8
Maximum tool speed	5000 rpm
Maximum collet size	0.625(16mm)
<b>Coolant, Space &amp; Weight</b>	
Coolant tank capacity	40 gal.(150 litres)
Coolant pump delivery	6.6 gal/min(25 litres/min)
Maximum power consumption	35kVA
Dimensions: L x W	115"x66"(2616x1651mm)
Approx. net weight	11,023 lbs.(5000kg)

Model No.	Chuck Type	rpm	Max Bar
T8MSYA	8.26" Hyd	5000	2.59"(66mm)
T8MSYB	10" Hyd	3500	2.59"(66mm)
T8MSYAB Bar Feed	Collet	5000	2.59"(66mm)
T8MSYBB Bar Feed	Collet	3500	2.59"(66mm)
T8MSYAL Lights-Out	Collet	5000	2.59"(66mm)
T8MSYBL Lights-Out	Collet	3500	2.59"(66mm)