

# TC-16 Series

High Performance High Precision CNC Lathe



## High Rigidity Spindle

- The spindle is designed with extra large hole through spindle: 6" or 8".
- With the utilization of the large diameter, double-row, cylindrical bearings, the spindle can stably carry axial and radial load. TC-16 is specially suited for high speed, high precision machining and heavy duty cutting.

## User-friendly Design

- 45° one-piece slanted bed design extends the space for removing chips.
- Telescopic cover and coolant shower system are designed for easy chip removal.
- TC-16 is combined with visual management. Its oil pressure gauge is set in the front, so the operators can easily check the oil pressure.

## High Speed and High Precision X/Z Axial Feedrate

- With low resistance and low friction, the linear guideway design elevates the machine, and fastens the movement of the headstock during non-cutting period.
- Direct drive motors on X/Z axis restrain backlash and achieve flawless positioning accuracy.

## High Efficiency Chip Disposal System

- The independent coolant tank isolates the base from heat exposure.
- A special design of the coolant tank prevents the chips from flowing into the machine.
- The design of main/sub coolant tank simplifies cleaning the chip conveyor. The filter and sub coolant tank can be drawn out separately for easy maintenance.





# SPECIFICATIONS

TC-16A TC-16LA TC-16B TC-16LB

## MACHINING CAPACITY

Swing Over Bed	ø550mm 21.65"			
Swing Over Carriage	ø320mm 12.6"			
Max. Turning Diameter	ø260mm 10.24"			
Max. Turning Length	370mm 14.57"	600mm 23.62"	370mm 14.57"	600mm 23.62"

## SPINDLE

Chuck	6"	8"
Spindle Motor	11/15kW 15/20HP	
Spindle Speed	5,000rpm	4,500rpm
Max. Spindle Torque	15.6kgf-m 112.8 lb-ft	17.3kgf-m 125.1 lb-ft
Spindle Nose	A2-5	A2-6
Spindle Front Bearing Inner Diameter	ø100mm 3.94"	ø110mm 4.33"
Hole Through Spindle	ø62mm 2.44"	ø77mm 3.03"
Hole Through Draw Bar	ø52mm 2.05"	ø66mm 2.6"

## MAIN TRAVEL

X-axis Travel	150mm (130+20mm) 5.91" (5.12"+0.79")			
Z-axis Travel	370mm 14.57"	600mm 23.62"	370mm 14.57"	600mm 23.62"

## TURRET

Turret Capacity	12T	10T
Turret Type	Servo Motor Drive (Hydraulic Clamp)	
Shank Height for Square Tool	□20mm (□¾")	□25mm (□1½")
Shank Diameter for Boring Bar	ø40mm ø1.57"	

## TAIL STOCK

Tail Stock Quill Diameter	ø75mm 2.95"			
Tail Stock Quill	MT-4			
Taper – Dead Center	100mm 3.94"			
Tail Stock Quill Stroke	270mm 10.63"	500mm 19.69"	270mm 10.63"	500mm 19.69"

## FEEDRATE

Rapid Feedrate (X/Z)	24/30 m/min. 945/1,181ipm	
Max. Axial Thrust Force (X/Z)	1,557kgf 3,433 lb	1,298kgf 2,862 lb

## GENERAL

Power Consumption (Transformer)	25kVA (30kVA)			
Machine Weight	3,400kg 7,496 lb	3,900kg 8,598 lb	3,400kg 7,496 lb	3,900kg 8,598 lb

Note: The manufacturer reserves the right to modify the design, specifications, mechanisms, etc. to improve the performance of the machine without notice. All the specifications shown above are just for reference.

## STANDARD ACCESSORIES

- Tool Kit
- Work Lamp
- Pilot Lamp
- Hydraulic System
- Hydraulic Hollow Chuck
- Chuck Switch Pedal
- Full Chip Enclosure
- Leveling Blocks and Bolts
- Hard Jaws and Soft Jaws 1 set
- Air Gun
- Coolant Equipment System
- Central Automatic Lubrication System
- Chip Conveyor (Right Side)
- Heat Exchanger for Electrical Cabinet
- Fanuc Oi-TD
- Tail Stock (TC-16LA/LB)

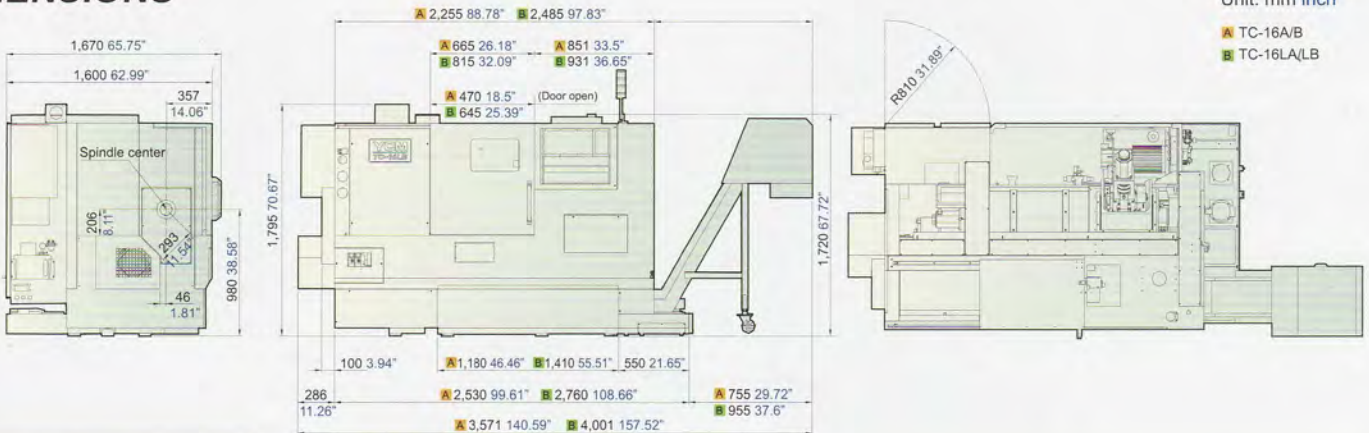
## OPTIONAL ACCESSORIES

- A/C. Cooler for Electrical Cabinet
- Automatic Door
- Safety Door
- Collets Chuck
- Foundation Screw Bolt
- Oil-mist Collector
- Additional Hard and Soft Jaws
- Oil Skimmer
- Paper Filter
- Soft Jaw Former
- Tail Stock Pedal
- Coolant Gun
- Work Length Setter
- Auto Tool Length Measurement System (RENISHAW HPM-A)
- Bar Feeder Hardware and Software
- Tail Stock (TC-16A/B)

# DIMENSIONS

Unit: mm inch

▲ TC-16A/B  
■ TC-16LA/LB



Agent



ISO14001 CERTIFIED MANUFACTURE

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