

MACHTOOL — **TCL - 100**

High - Precision CNC Turning Center

Salient Features

Slant - Bed CNC Turning Center Specially designed for high accuracy, small and medium sized components

Suitable for forged to finish operations in mass production of components like small and medium sized gear blanks, valve bodies, flanges and shafts upto 300 mm length

A2-5 Spindle with 3.7 kw / 5.5 kw spindle power

Eight position Tool Turret

Rapid Traverse Rate of 15 meters / min for both axes

Precision grade Linear Motion Guide-ways for both axes



IDEAL FOR A WIDE VARIETY OF PRECISION TURNING APPLICATION

Specifications

Capacity	
Swing over bed	: 300 mm
Swing over saddle	: 300 mm
Admit between centres	: 300 mm
Maximum turning diameter	: 250 mm
Spindle	
Spindle type	: Cartridge type
Spindle nose	: A2-5
Spindle taper	: Metric 50
Hole through spindle	: 42mm
Spindle bearings	: Four angular contact bearings, RHP make, set of two on front (7214) and set of two on rear (7212)
Spindle lubrication	: Grease packed for life
Spindle RPM	: 40-4000 rpm (Higher spindle RPM is optional)
CNC System	
	: FANUC 0i-TB Mate with Beeta 4i, Beeta 4i and Beeta 3i spindle. (Siemens 802D or any other CNC system is optional)
Spindle motor and drive	: Fanuc - 3.7/5.5 KW spindle drive and motor.
Tail - Stock	
Tail-stock stroke	: 225 mm
Quill stroke	: 75 mm
Tail-stock quill diameter	: 60 mm
Quill taper	: MT - 4

Slides	
Slides	: with LM Guide-ways
X axis travel	: 140 mm (Radial)
Z axis travel	: 325 mm (from spindle face)
X axis ball screw	: 25 mm, Dia x 10 mm Pitch (PMI / HIWIN) C-3 class
Z axis ball screw	: 28 mm, Dia x 10 mm Pitch (PMI / HIWIN) C-3 Class
X axis motor	: AC Servo, 4 Nm / 3000 rpm
Z axis motor	: AC Servo 4 Nm / 3000 rpm
Rapid Traverse	: 15 meters / min.
Tooling Arrangement	: Eight position Bi - Directional Turret
Standard shank size	: 20 mm x 20 mm
Recommended Chuck Size	: 165 mm Dia. Power Chuck (Closed or Hollow type along with suitable Hydraulic Power-Pack)

Bed	
Slant angle	: Slant Bed - 30 degree
Bed width	: 350 mm
Guide-ways	: Heavy duty precision grade Linear Motion Guide-ways

Over-all Dimensions	
Length	: 1800 mm + 1200 mm with Chip Conveyor
Width	: 1500 mm
Height	: 1600 mm
Gross weight	: 2350 kg (appx.)

Specifications are subject to change without prior notice.

Standard Accessories

- ▶ Coolant System
- ▶ Centralized Lubrication System
- ▶ Air Circulating Blowers for Electrical Panel
- ▶ Machine Lamp
- ▶ Chip Pan
- ▶ Fully Enclosed Chip-Guard
- ▶ Operation and Maintenance manual (1 set)
- ▶ 200 mm Closed Chuck with suitable closed Hydraulic Cylinder and Power Pack
- ▶ Electronic Hand Wheel
- ▶ Three Boring Holders and one Face Grooving Holder.

Optional Accessories

- ▶ Sleeves of Various Sizes
- ▶ Extra Tool Holders
- ▶ Cabinet Cooler
- ▶ 3 Phase Voltage Stabilizer
- ▶ Gear Box for Spindle
- ▶ Chip Conveyor
- ▶ Extra Chip Pan
- ▶ Hollow Chuck / Hollow Hydraulic Cylinder / Collet Chuck, any other Holding Fixture.

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