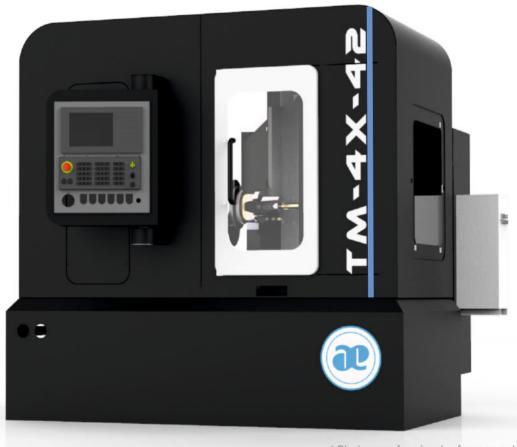


**Experience the Best Combo of Turning and Milling** 

# TM-4X-42

# **CNC Turn Mill Center Machine**



\* Photos are for visual reference only

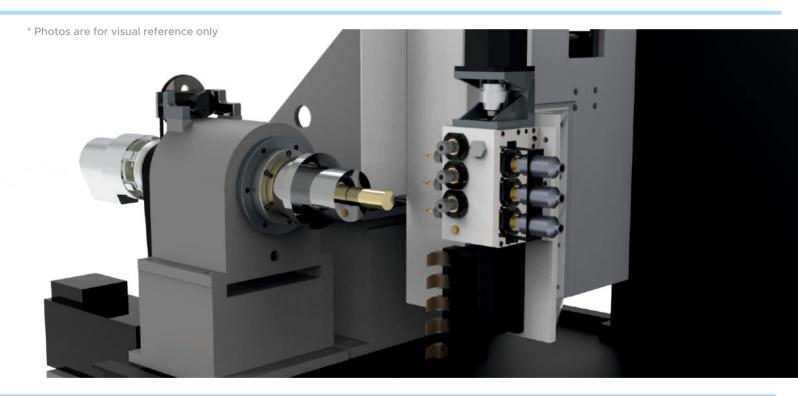
- Aesthetic and Ergonomic Design
- Idle Time Saver
- Excellent Combination of Rotary and Linear Tools
- High Productivity
- 6 Live tool Spindles
- Best for Complex Parts

## TM-4X-42

This is a 4 Axis Linear tooling Turn Mill CNC Lathe. It's the most economical alternative to a turret type C axis Lathe. The Tooling System comprises of five turning, five boring and Six Live tools, giving a capacity of 15 tools. Its Unique Design Allows Rapid Chip to Chip time and enables reduction in cycle time. About 25% of processing time can be reduced and economical efficiency of the machine is increased. The rigid structure provides heavy duty cutting operations as well. Six Live tool spindles with both C axis and Y axis can complete most complex work pieces in single setup. The 90 degree vertical design of slides enable direct chips to fall into the tray without any accumulation on slides. The machine can also be configured with a bar feeder, Chip conveyer or a Part Catcher as well.

#### Structure

The Machine Base and Slides are ribbed rigidly to impart Stability and robustness. They are accurately machined & ground for optimum performance, minimum distortion, superior vibration control, and cutting stability. The machine is aesthetically and ergonomically designed to provide easy access to working area and HMI panel. Well dimensioned spaces for flow of chips and circulation for cutting fluids is provided with through coolant system as well.



### **Tooling System**

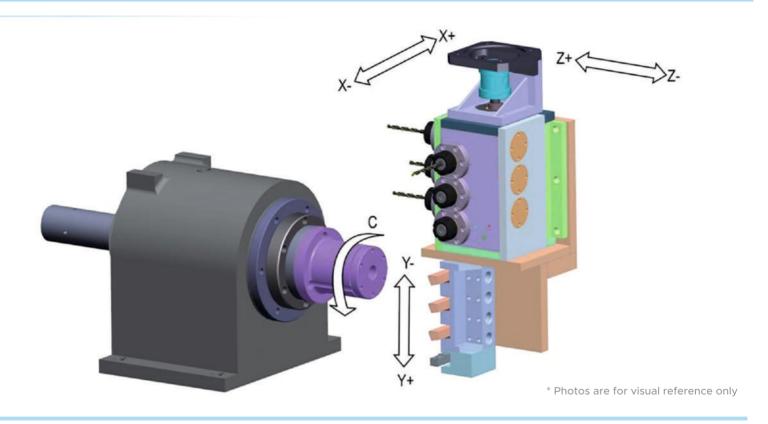
The Gang tooling system allows fast chip to chip time as the travel of tool is very less while changing tool position. The Addition of Y axis allows complex "Off-Centered" milling operations to be done, and with full C axis control many complex shapes can be machined Thus, the machine can be used as a turn mill centre. Tool holding of live tools is achieved by EF2O collets, enabling the use of economic standard tools. The Slides have X,Y & Z axis movements and hence drilling or milling on face or PCD or on Diameter, Spanner flat on Shaft Diameter, Helical Grooving, Polygonal Milling, Square or Hexagonal Shape cutting, etc. are easily possible on this Machine.

### TM-4X-42

#### Spindle

The Cartridge type case hardened alloy steel spindle runs on P4 high precision bearings sustaining high radial and axial forces to allow heavy duty cutting. The Coolant is circulated in the headstock for better cooling effect for the spindle. The Spindle is assembled and tested in a temperature controlled sealed room and requires no maintenance.

#### **TM-4X-42 Livetool Arrangement**



### **CNC System**

- No of Axis 5 ( X,Y,Z,C and Rotary tools)
- Manual Data Input
- Part Programme Storage and Editing
- Constant Surface speed Control
- Thread Cutting Cycles
- Linear and Circular Interpolation
- Backlash Compensation
- Rigid Tapping





TM-4X-42 Specifications			
1.	Spindle Capacity		
	Bar - Max Dia	mm	42
	- Max Hex	mm	34 A/F
	- Max Square	mm	28 A/F
	Turning Length	mm	160
2.	Main Spindle		
	Collet Type		A42
	Spindle Motor	KW	5.5
	Spindle Speed	RPM	4000
	Spindle Nose		A2-5
	Max. Chuck Dia.	mm	135
3.	Motorized tools		
	No. of Motorized Tools		6 (3 Axial & 3 radial)
	Motorized tool Speed	RPM	4000
	Max. Drilling Dia. (For MS)	mm	10
	Max. tapping Size (For MS)	mm	8
	Collet Size		ER 20
4.	Tooling		
	OD Tools		5
	ID Tools		5
	Tool Shank Size	mm	20x20
	Boring Bar	mm	20
5.	Feed		
	X axis Travel	mm	160
	Y axis Travel	mm	470
	Z axis Travel	mm	190
	Rapid Transverse	m/min	20 ( all Axis)
6.	Spindle Through Bore Dia.	mm	43
7.	Machine Weight	Kg	2500 approx.
8.	M/C Size L*b*h	mm	2050x1475x2125
9.	Power Requirement	KVA	17

Note: We reserve all rights to modify Specifications in accordance with the improved designs. Although every effort will be made to maintain the accuracy, in the figures must be taken as approximate and in no way binding.

#### **Basic Machine Consists of:**

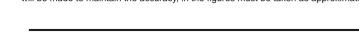
- Spindle Assembly supported in pre-loaded precision class bearings of P4 Class Accuracy.
- Coolant Cooled Cartridge
- External Encoder Feedback
- Servo Spindle and Axes Drives
- Rigid Structure
- Fully Supported tool carrier gearbox on Y axis and Aligned Linear Tool Slides.
- 6 Rotary and 5 Linear tools
- Hydraulic Collet Chucking
- Coolant System and Chip Tray.
- Machine Lamp and Panel Lamp.
- Centralized automatic lubrication system
- Leakproof Enclosure with single Sliding Door
- Tool Kit and Machine Manual
- Advanced and Ergonomic Controller

#### **Optional Machine Feature**

- Tower Lamp
- Chip Conveyer
- Part Catcher
- Hydraulic Bar Feeding System
- 3 Jaw Chuck
- Auto Loading System
- Voltage Stabilizer

Components proved on machine





EQUIPMENTS PVT. LTD

#### Office & Works

19/4, Molacha Odha, Satara- 415002, Maharashtra, India Contact: +91-2162-250196/250596, +919561116444 Email: info@abhijatequipments.com/cnc@abhijatequipments.com Visit us:www.abhijatequipments.com

Pune Office: 308, 'A' wing, Jay Ganesh Vision, Akurdi, Chinchwad, Pune

