

# HYTECH

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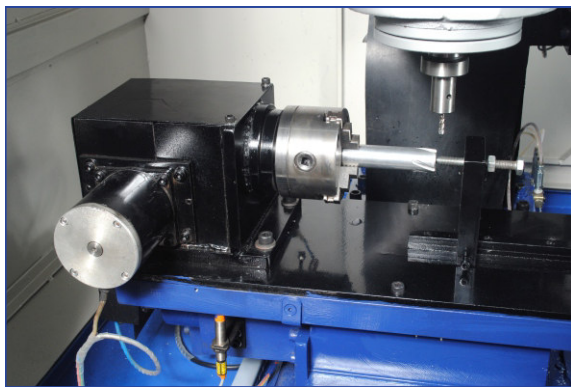


## CNC MILL TRAINER MACHINE

# Detailed Specifications of CNC Mill Trainer Machine

	MT 250	SMT 250S_Servo
<b>Axis</b>		
Axis Motor and Drive	Servo Motor with Servo Drives	Servo Motor with Servo Drives
X Axis	300 mm	300 mm
Y Axis	225mm	225mm
Z Axis	250mm	250mm
Ball Screw X / Y / Z	Ø25 x 5 - C4 Class	Ø25 x 5 - C3 Class
4th Axis Provision (Optional)	Provided	Provided
Distance between Table top and Spindle Nose	70 - 370 mm	70 - 370 mm
Distance between Spindle to Column	270 mm	270 mm
Feed Rate	0 to 1,200 mm/min	0 to 10,000 mm/min
Rapid Travel	0 to 1,200 mm/min	10,000 mm/min
<b>Table</b>		
Table Size	600 X 160 mm	600 X 160 mm
T Slot	3 x 10 x 50	3 x 10 x 50
Load On Table	120 Kg	120 Kg
<b>Spindle</b>		
Spindle Motor Capacity	2 HP (AC)	2 HP (AC)
Motor Type	AC Motor with VFD	AC Motor with VFD
Spindle Nose Taper	ISO 30 / BT 30	ISO 30 / BT 30
Spindle RPM	100 to 3000 RPM	100 to 3000 RPM
<b>CNC Controller Details:</b>		
Controller	CutViewer-United Kingdom with Emulation of Fanuc, Siemens , Traub and Heidenhain	CutViewer-United Kingdom with Emulation of Fanuc, Siemens , Traub and Heidenhain
Control System	PLC Based Control System	PLC Based Control System
Operating Software	CutViewer - United Kingdom	CutViewer - United Kingdom
Keyboard Type	Fanuc Emulated / Standard	Fanuc Emulated / Standard
<b>Accuracy</b>		
Positioning	0.015 mm	0.005 mm
Repeatability	+/- 0.010 mm	+/- 0.010 mm
Resolution	0.010 mm	0.001 mm
4th Axis Resolution (Optional)	0.02 Degrees	0.02 Degrees
<b>Tool Changer (ATC)</b>		
Tool Changer	Automatic	Automatic
No. of Tools	8	8
Maximum Tool Length	40 mm	40 mm
Maximum Tool Dia.	16 mm	16 mm
Type of ATC	Umbrella Type	Umbrella Type
Actuation	Pneumatic / Hydraulic	Pneumatic / Hydraulic
<b>Machine Details</b>		
Run Speed Control	Computer Controlled with Software	Computer Controlled with Software
Real Time tool path simulation	Provided	Provided
Vice Type	Pneumatic/ Manual	Pneumatic/ Manual
Compatible Softwares	MasterCAM, EDGE CAM, Solid Edge, BobCAD	MasterCAM, EDGE CAM, Solid Edge, BobCAD
Dimension in mm	1540 x 1200 x 1700 mm	1540 x 1200 x 1700 mm
Power Supply	230V, Single Phase	415V, +-2% 50 Cycles, 3 Phase

- ▶ PLC based technology which is much more advances than PC (I/O Card) based technology generally used in trainer machines
- ▶ Emulation of Fanuc, Siemens , Traub as well as Heidenhain controller
- ▶ CAM Programs (NC Codes) Generated from any leading CAD CAM Software such as MasterCAM, NX CAM, Solidworks, Solid EDGE, EDGE CAM can bedirectly executed on the Hytech CNC Trainer Machines
- ▶ Servo Motors and Servo Drives from Mitsubishi / Siemens



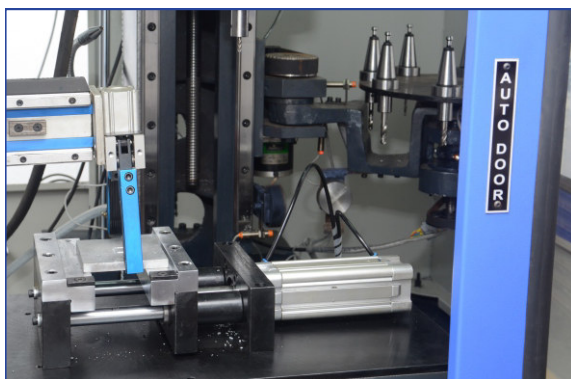
*Pic: 4th Axis Arrangement with 4 axes interpolation*

- ▶ Indigenously designed & manufactured patterns & high quality FG32 grade castings
- ▶ Ergonomically designed machine
- ▶ 8 Station ATC (Automatic Tool Changer) with Pmeumatic Actuation
- ▶ Option of Linear Motion Guideways
- ▶ 4th axis arrangement with 4 axes interpolation

- ▶ Floor mounted machine with minimum weight of 1100 Kg
- ▶ C3 class ground ball screws
- ▶ Option of Pneumatic Vice
- ▶ Automatic Lubrication and Automatic Coolant
- ▶ Fanuc Emulated Industrial grade MOP



*Pic: Pneumatic vice with 8 station ATC*

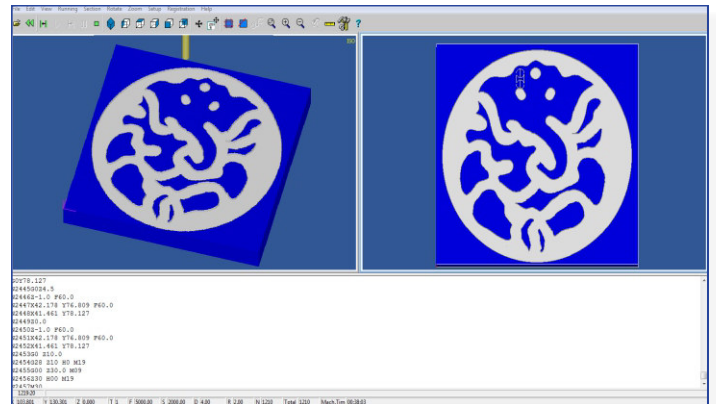
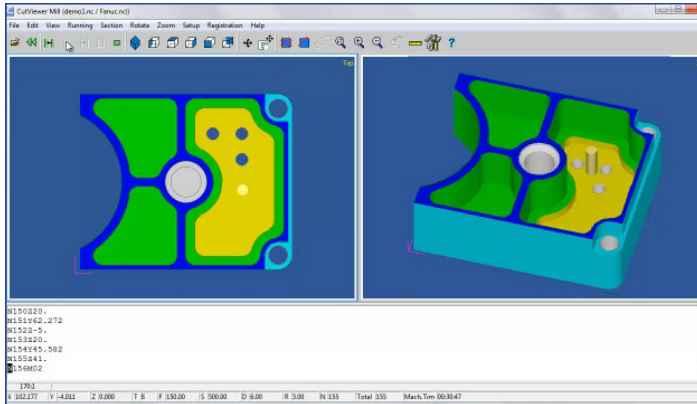


*Pic: Automatic Loading - Unloading Arm (Three Axis Robotic Arm)*

- ▶ Option of Metallic telescopic bellows
- ▶ Option of MPG (Manual Pulse Generator)
- ▶ AC Motor spindle with power ranging from 2HP to 5HP
- ▶ Air Mist Lubrication
- ▶ Provision of software as well as hardware overtravel limits to avois any accident
- ▶ Option of Automatic loading and unloading Arm (3 Axis Robotic Arm)

# You don't really learn g code without simulating it do you?

Whether you have a mill or a lathe, Cutviewer shows you exactly what your part will look like. Hytech CNC Trainer machines are developed in collaboration with CutViewer. Whichever program is simulated on CutViewer software, will definitely work on Hytech CNC Machines. Hytech Automation are exclusive distributors for CutViewer software in India. CutViewer is the best solution to learn CNC programming.



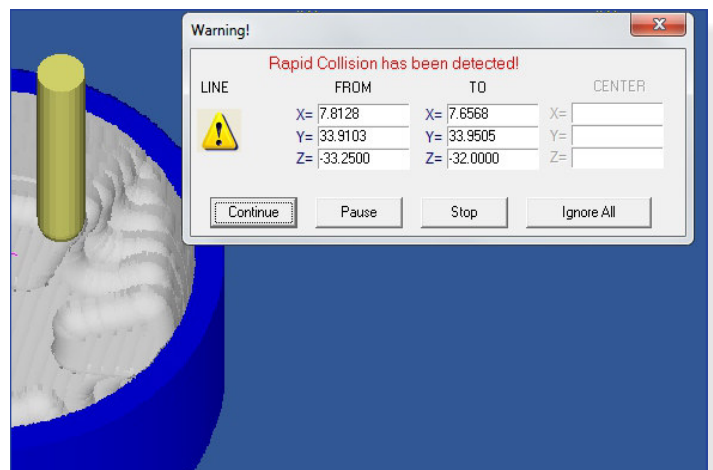
## How many students are actually familiar with NC codes

Most of the students are not aware about Fanuc and Siemens cycles which are most commonly used in industrial sector. You don't really have to purchase a Siemens or Fanuc controller to understand their specific cycles. CutViewer can simulate each and every cycle for Fanuc, Siemens, Traub and Heidenhain controllers which are most widely used in Indian industrial sector.

## Full 3D Simulation, not just a toolpath viewer

There are lots of "CNC Simulators" out there that don't simulate anything- they just show you the toolpath.

Your CAM program can show you the toolpath but you need to see what the finished part is going to look like. Cutviewer shows you a full 3D simulation of the finished part based on the toolpath, the stock you define, and the cutters you're using.



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