HYTECH AUTOMATION

CNC MILL TRAINER

CNC LATHE TRAINER

CNC LATHE TRAINER MACHINE

PRESTIGIOUS CUSTOMERS

- Maruti Suzuki Capability Development Center (CDC) – Manesar
- Indo German Tool Room Ahmedabad
- Indo German Tool Room Aurangabad
- MSME Agra
- Indo Danish Tool Room Jamshedpur
- IDEMI Mumbai
- NIT Warangal
- NIT Goa
- MTPF Ambarnath
- TRTC Patna
- MSME Mumbai
- IIT Delhi
- Amity University – Greater Noida

SLT 100 Servo with slant bed
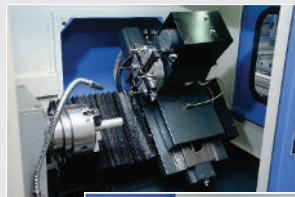
SLT 100 Servo with Hydraulic Chuck

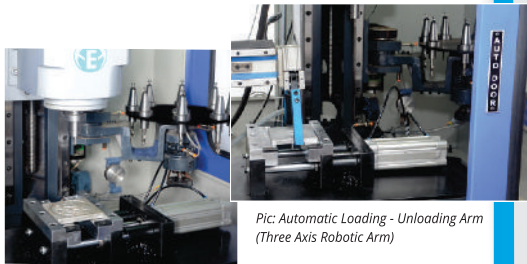## Detailed Specifications of CNC Lathe Trainer Machine

	CLT 100	SLT 100 Servo
Machine Details:		
Bed Type	Flat / 45 Degrees Slant	Flat / 45 Degrees Slant
Keyboard Type	Fanuc Emulated / Standard	Fanuc Emulated / Standard
Chuck Size	100 mm (Dia)	100 mm (Dia)
Chuck Type	Hydraulic / Manual	Hydraulic / Manual
Maximum Turning Diameter	50 mm	50 mm
Maximum Turning Length	250 mm	250 mm
Center Height	100 mm	100 mm
Swing over Cross Slide	80 mm	80 mm
Swing Over Bed	200 mm	200 mm
Distance between Centre	320 mm	320 mm
CNC Controller Details:		
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
Accuracy:		
Positioning	0.010 mm	0.005 mm
Repeatability	+- 0.015 mm	+/- 0.010 mm
Resolution	0.010 mm	0.001 mm
Spindle:		
Spindle Motor	AC Motor	AC Motor
Spindle Motor Capacity	2 HP	3 HP
Spindle RPM	100 to 3000 RPM with VFD	100 to 3000 RPM with VFD
Spindle Nose Taper	A 2-3 / MT 3	A 2-3 / MT 3
Hole Through Spindle	20 mm	20 mm
C Axis (Optional)	C Axis with Brake	C Axis with Brake
Axes		
Axis Motor and Drive	Stepper Motor with Stepper Drives imported from Singapore	Servo Motor with Servo Drives (Mitsubishi / Siemens / Fuji)
X Axis Travel	100 mm	100 mm
Z Axis Travel	280 mm	280 mm
Ball Screw X / Z	Ø25 x 5 - C4 Class	Ø25 x 5 - C3 Class
Feed Rate	0 to 1,200 mm/min	0 to 5,000 mm/min
Rapid Travel	1,200 mm/min	0 to 5,000 mm/min
Turret and Tooling:		
Turret Type	Automatic	Automatic
Number of Stations	8	8
Tool Cross Section	16 mm x 16 mm	16 mm x 16 mm
Boring Bar Size	16 mm	16 mm
Tailstock:		
Tailstock Base Stroke	200 mm	200 mm
Tailstock Quill Stroke	100 mm	100 mm
Tailstock Actuation	Hydraulic / Manual / Electrical	Hydraulic / Manual / Electrical
Miscellaneous:		
Lubrication	Automatic	Automatic
Coolant	Automatic	Automatic
FMS Compatibility	Provided	Provided
Real Time Toolpath Simulation	Provided	Provided
Dimension in mm	1480 x 800 x 1200 mm	1480 x 800 x 1200 mm
Power Supply	230V, Single Phase	415V, +-2% 50 Cycles, 3 Phase

CNC MILL TRAINER MACHINE

CNC Trainer Machine Features

- Servo Motors and Drives from Siemens / Mitsubishi
- Resolution of 0.001 mm
- Rapid up to 5,000 mm/min
- Indigenously designed and manufactured FG32 grade castings
- Fanuc / Siemens Emulated Keyboards
- Current and Temperature (Of Axis Motors) indication
- Current consumption is 4 times lesser which results in 16 times lesser heat generation
- PLC Based Technology
- M/C Zero Facility / Single Block Facility / Dry Run Function
- LM Guideways and Metallic Bellows covering the guideways (Optional)
- Hydraulic Chuck for Lathe and Pneumatic Vice for Mill (Optional)
- Upgradable to FMS / CIM

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

Pic: Pneumatic vice with 8 station ATC

Detailed Specifications of CNC Mill Trainer Machine

|	MT 250	SMT 250S_Servo
Axes		
Axis Motor and Drive	Stepper Motor with Stepper 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 5,000 mm/min
Rapid Travel	0 to 1,200 mm/min	5,000 mm/min
Table		
Table Size	600 X 220 mm	600 X 220 mm
T Slot	3 x 10 x 50	3 x 10 x 50
Load On Table	120 Kg	120 Kg
Spindle		
Spindle Motor Capacity	2 HP	3 HP
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
CNC Controller Details:		
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
Accuracy		
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
Tool Changer (ATC)		
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
Tool Holder Type	BT 30 Tool Holder with Collet Chuck ER Type	BT 30 Tool Holder with Collet Chuck ER Type
Machine Details		
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

BobCAD-CAM ™

THE NEW BobCAD-CAM V29
Cutting Edge CNC Production Power

SIMULATION CAPABILITIES

- Set Travel Limits & Detect Over Travels
- Use Machine Kinematics
- Detect Part Gouges & Tool, Tool Holder, and Machine Collisions
- Calculate Cycle Times
- Dynamic Machine/ Material/ Tool Viewing
- Section View / Smart View
- Tool Holder, Shank Arbor
- Tool Focus/Workpiece Focus
- Analysis – Tool #, Operation #, Deviation, Height Change, Orientation Change, Toolpath Length, Mark Parts, Single Marking, Gouge Excess
- Statistics (Move, Operation, Sequence) – Feed Rate Time, Rapid Time, Change Tool Time, Total Machine Time, Min/Max XYZ, Feed Rate

## Dynamic Elements/ Workpiece & Holder Tree
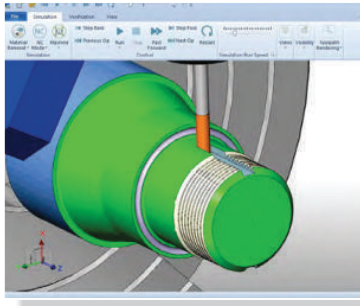
Deviation Analysis
- Move List
- Simulation Play Controls
- Video Capture
- Toolpath Mode/Material Mode
- Time Based Mode/Length Based Mode
- Save Simulation Models as STL
- Measure Between 2 Points
- Remove Chips

- Works With Your STL Stock Customize Graphics & Background
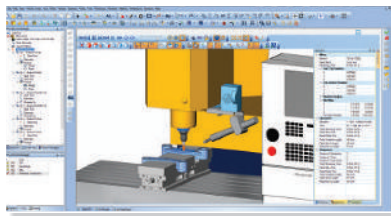- Launches Inside of BobCAD CAM Software

Post Processors (NC Code Generation)

BobCAD-CAM offers a large library of downloadable post processors that work with variety of machine types from many of the biggest machine manufacturers in the industry.
- Popular post processors (Controllers):
- Fanuc
- Heidenhain
- Siemens
- Haas
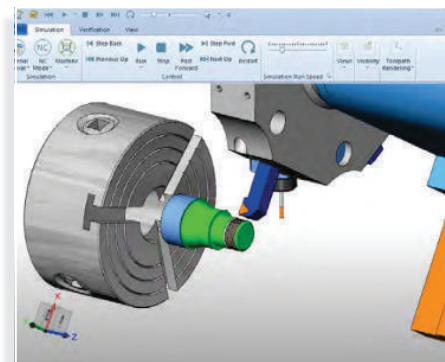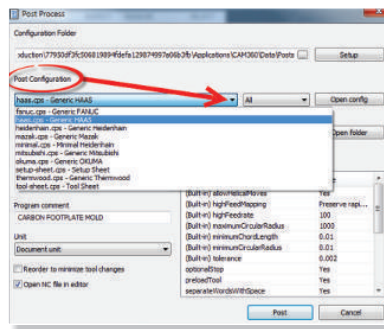
Machine Simulation

Get a complete visualization of your machine in action inside the CAM simulation window to test and confirm your programming on 2-5 axis CNC machines. This allows you to verify part fixtures are oriented correctly, machine movements are free of collisions, proper tool fixture sizes are being used, and much more!

- Full Machine Display
- Set Machine Travel Limits
- Calculate Cycle Times
- Dynamic Machine/Material/Tool Viewing
- Time Based Mode / Length Based Mode
- Works With Your STL Stock Play Control Buttons & Move List

# CutViewer CAM Software

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.
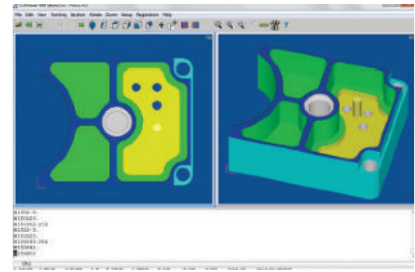

Collision detection prevents catastrophes

Cutviewer detects any part of the toolpath where the shaft of the cutter touches the stock during a cutting move or any part of the tool touching the stock during a rapid movement.
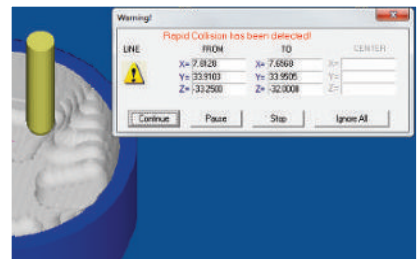

Works with Mills and Lathes

Cutviewer comes in two versions, Cutviewer Mill for milling machines, and Cutviewer Turn for lathes. Both versions feature the same 3D simulation of your finished part and real-time g code editing.
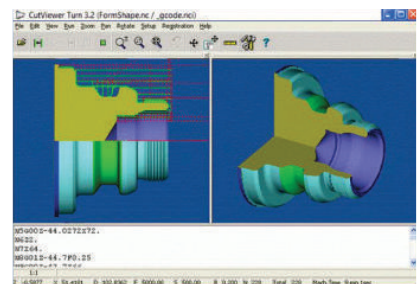
Compare the finished part tothe original 3D file

Once your toolpath is done simulating, you'll be able to load an STL file and let Cutviewer show you how far the finished part is from the original design.
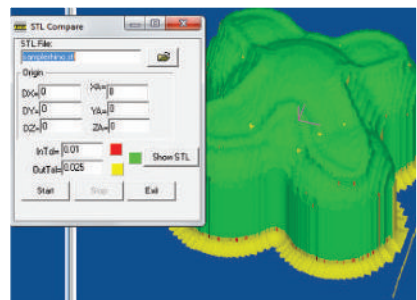
Please visit www.cutviewer.com to know more about CutViewer - World's leading CAM software

HYTECH AUTOMATION

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