

HYTECH
AUTOMATION



CNC LATHE
MODEL: HPL 150

Detailed Specification of CNC Turning Machine

I. Machine Capacity:

Swing over bed- 425 mm;
Turning diameter- 200 mm or higher;
Distance between centres- 300 mm ;
Maximum Turning Length- 240 mm ;
Slant angle (bed or saddle)- 30 degree to horizontal

II. Spindle:

Spindle nose- A2-5 ;
Bore through Spindle- 53 mm ;
Maximum spindle speed- 4000 RPM ;
Spindle power, continuous- 5.5 / 7.5 KW o;
Type of drive- AC servo spindle motor (digital);
Chuck size- 165 mm ;
Chuck type-3-jaw hydraulic,Hydraulic Power operated,
Programmable.

III. Axes:

X - axis Travel- 100 mm ;
Z - axis Travel- 300 mm ;
Programmable feed rate- X & Z- 10 - 10000 mm/min;
Minimum programmable command - X & Z- 0.001 mm;
Rapid traverse - X & Z- 20 m/min ;
Type of drive - X & Z- AC servo motor;
Ball screw - Z & X axes (diameter x pitch)- 32 mm x 10 mm ;
Ball screw finish - Z & X axes- Hardened and Ground;
Ball screw class- Z & X axes- Pre-loaded with C3 ;
Guideway Z & X axes-Antifricition linear motion guideway;
Guideway size - Z & X axes- 25 mm ;
Guideway precision - Z & X axes- P class.

IV. Turret:

Bi-Directional Tool Turret- Servo/Hydraulic;
No. of Tools- 8 Nos. ;
Tool shank size- 20 mm x 20 mm;
Maximum boring bar diameter- 32 mm.

V. Tail Stock:

Quill Diameter- 65 mm ;
Quill Stroke- 80 mm ;
Quill Taper- MT-4 ;
Quill actuation- Hydraulic through program as well as through
foot switch; Tail stock base travel manual- 150 mm ;
Thrust (Adjustable)- 300 Kgf

VI. Coolant/Lubrication/Hydraulic:

Coolant tank capacity- 110 Litres ;
Coolant pump motor- 0.37 KW;
Coolant pump output- 20 LPM ;
Lubrication type- Automatic centralized lubrication;
Lubrication tank capacity- 3 Litres ;
Hydraulic pump discharge- 10 LPM ;
Hydraulic tank capacity- 40 Litres ;
Hydraulic system pressure maximum- 30 Bar

VII. ACCURACY as per ISO 230-2:

Positioning accuracy X & Z axes- 0.010 mm;
Repeatability X & Z axes- ± 0.003 mm;
Geometrical Alignment- ISO 13041-Part 1;
Accuracy of finish test piece- ISO 13041-Part 6

VIII. CNC System:

Control System- FANUC-Oi TF;
System resolution- 0.001 mm;
Motors & Drives- Beta series compatible with FANUC-Oi TF;
Tool number display- On machine operator panel;
Machine control panel- Feed rate, spindle speed override knob;
MPG (Manual Pulse Generator)- On machine operator panel;
Features- Graphic Simulation, Programming help, Tool Offsets,
MDI, Absolute/ Inc Positioning, Pitch error compensation

IX. Power Source:

Mains supply ($\pm 10\%$)- 415 V, 3 Ph., 50Hz

X. Standard Equipment / Item:

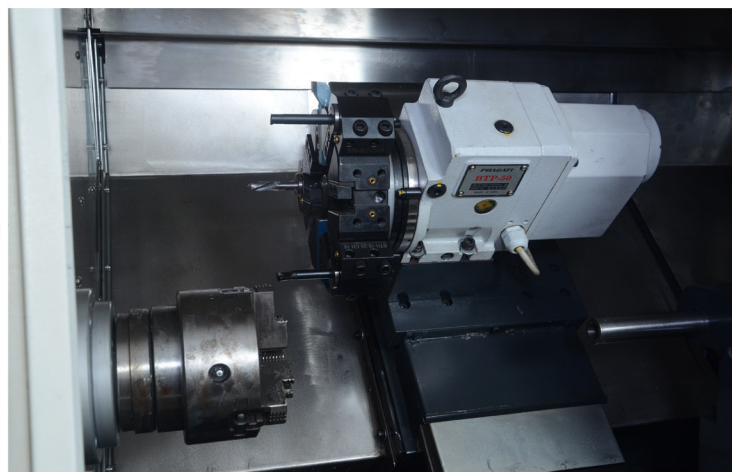
- (i) 3-Phase Servo Voltage Stabilizer of required capacity-1 No.,
- (ii) Chip Conveyor (Programmable)- Scraper type with chip bin
- (iii) Air conditioning unit for electrical cabinet- 1 No.,
- (iv) Backup CD for PLC Ladder Logic- 2 Set,
- (v) Machine lightning- 1 Set,
- (vi) Leveling pads and jacking screws- 4 Nos,
- (vii) Operation manual & Maintenance manual- 2 Set each,
- (viii) Complete set of Fanuc-0iMF CNC System, Servo Axis Drives
Spindle Drive- 2 Set each.
- (ix) Electric Circuit Diagram- 3 Set.
- (x) Manuals of all accessories like stabilizer, Chip Conveyor,
Hydraulic System, Centralized Lub System, Panel mounted
AC etc.- 1 Set each.
- (xi) Installation kit- 1 Set,
- (xii) Maintenance Tool Kit- 1 Set (list to be provided by bidder)
- (xiii) 6 rack tool trolley (Size 25"x22"x45") with lock- 1 No.,
- (xiv) Machine guarding with safety compliance- 1 Set
(incorporated with machine).



Prestigious Clients Include :

- ▲ Maruti Suzuki Capability Development Center (CDC)
- ▲ Indo German Tool Room - Ahmedabad
- ▲ Indo Danish Tool Room - Jamshedpur
- ▲ National Institute of Technology - Warangal
- ▲ Indian Institute of Technology - Delhi
- ▲ MSME - Agra
- ▲ Floor mounted machine with minimum weight of 1000 Kg
- ▲ Option of Hydraulic chuck (135mm and above) as as Hydraulic tailstock
- ▲ Automatic Lubrication and Automatic Coolant
- ▲ Manual Pulse Generator (MPG)
- ▲ Industrial MOP

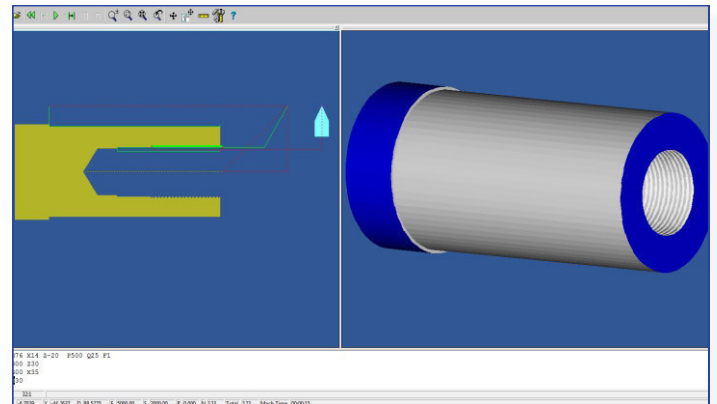
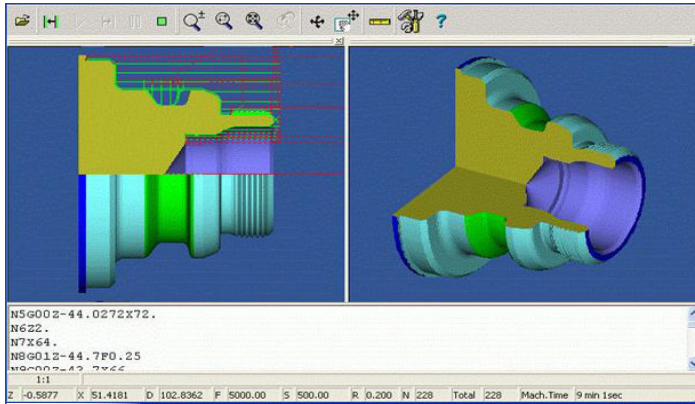
- ▲ Indigenously designed & manufactured patterns & high quality FG32 grade castings
- ▲ Linear motion Guideways and C3 class ballscrews
- ▲ Option of 8 station and 4 station production type Automatic turret
- ▲ Option of Flat Bed as well as 45 Degree Slant Bed



- ▲ Option of Metallic telescopic bellows
- ▲ AC Motor spindle with power ranging from 3HP to 5HP
- ▲ Air Mist Lubrication
- ▲ Provision of software as well as hardware over travel limits to avoid any accident
- ▲ Option of High Speed Spindle (Up to 10,000 RPM)

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.



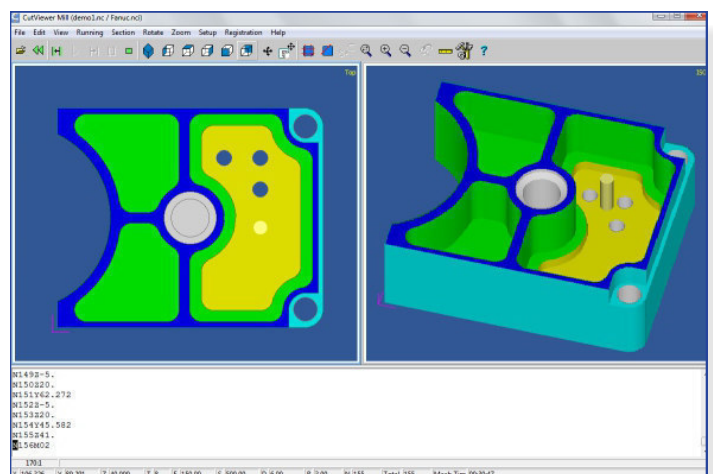
How many students are actually familiar with NC codes

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.



HYTECH AUTOMATION

Regd. Office: - 102 A Umashankar, Paud Road, Rambag Colony, Pune 411038

Factory: - Laygude Industrial Estate, Lagadmala, Sinhgad Road, Pune 411041

Email: - info@hytecheducation.com, sales@hytecheducation.com

Website: www.hytechworld.com

