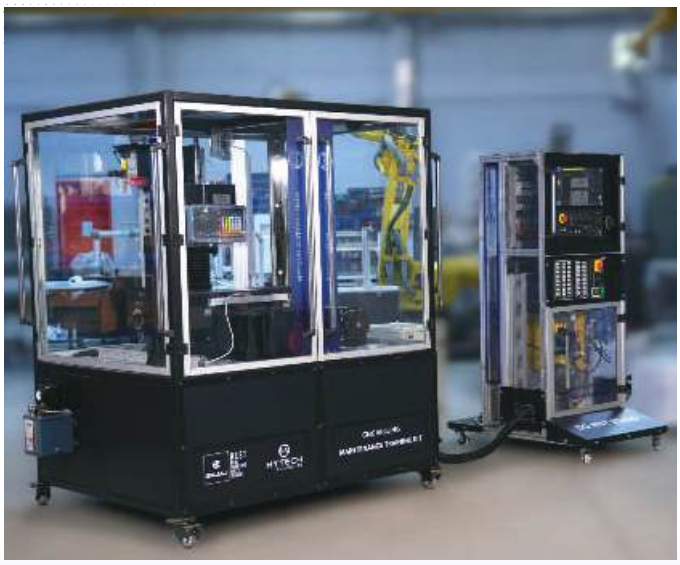
HYTECH DIDACTIC

CNC MAINTENANCE TRAINING KITS

CNC Maintenance kits are designed to provide hands on experience to CNC operators or application engineers. Basic function of these kits is to experiment with the electrical panel as well as the ladder diagram of CNC machines. These training kits consist of machine slides with linear motion guideways and ball screws. Separate operation units with CNCs are provided for both turning as well as Milling maintenance training kits.

Participants are trained to solve most of the commonly occurring issues / problems in CNC controllers. It not only involves ladder design but also involves electrical circuit design and understanding.



Electrical panel is designed with completely isolated circuits for different operating voltages with color coded cables. Check points are provided to check the voltage at different checkpoints with proper safety precautions to avoid any accident.

Primary target of the CNC Maintenance Kits is to equip maintenance engineers and CNC operators with necessary skillset to resolve most of the recurring problems in CNC machines. Mechanical slides provide participants with hands on experience with hardware related parameters.

Operating manual is designed in such a way that it will guide participants to understand the basic operation and maintenance parameters of CNC systems.

CNC Maintenance Training kits are completely different from CNC Trainer machines. CNC Trainer machines provide training on CNC Machine operations. Students as well as instructors are not supposed to change the parameters as well as the ladder of a CNC machine. CNC Maintenance Training kits are designed to provide insights of CNC Commissioning and ladder designs.

Understanding the basic maintenance procedure can substantially reduce the machine breakdown time. CNC Operational training will never expose students to maintenance requirements of a machine.

Basic functions of CNC Controller such as calibration, control circuit design and checking, over travel limits, assigning i/o s, backlash compensation, referencing etc can be very easily practiced on CNC Maintenance training kits.

FEW OF THE EXPERIMENTS THAT CAN BE CARRIED OUT ON CNC MAINTENANCE KITS:

Taking System Backup	Understanding electrical circuit diagram and function of various electrical components used
Restoring System Backup	Basic single phase circuits
Setting Backlash	Understanding of basic components and bottle neck components (from CNC OEM such as Fanuc and Siemens)
Limiting the speed of each axis	
Setting acceleration and deceleration for each servo axis	Basic single phase circuits
Setting software limits	Dynamic updation of machine ladder diagram
Setting hardware limits	PLC ladder monitoring and understanding function of various input and output bits
Axis referencing	Understanding the electrical circuits of peripheral accessories
Changing Servo Parameters	Setting axis parameters for belt driven system, direct coupled system etc
Changing spindle parameters and incorporating encoder	Setting spindle parameters for belt driven system, direct coupled system etc

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CNC WEBPAGE

CNC VIDEOS

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