

NEW

STAR CNC TRAINING

TURN YOUR OPERATORS INTO PROGRAMMERS

-INCREASE PRODUCTIVITY AND REDUCE DOWN TIME WITH SKILLED WORK FORCE!

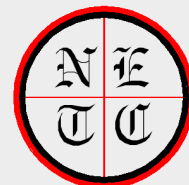
-ACHIEVE FASTER SET-UPS, FEWER MACHINE BREAKDOWNS AND BETTER QUALITY WITH THE MACHINISTS YOU ALREADY HAVE!



- Program consists of 4 courses. Courses are one week long.
- Courses can be taken individually, or as a part of the program.
- Training includes both classroom learning and hands-on experience.
- Courses are taught at our facility.
- For more information, please visit our website at <http://www.netoolcorp.com/training>, or contact our office.
- Registration forms available on our website.

CONTACT:

NEW ENGLAND TOOL CORPORATION
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COURSE DESCRIPTION:

Level 1: Entry level operator training

This level covers basic concepts of CNC machining with emphasis on tooling and offset adjustment. It also introduces basic measuring instrument reading and adjustment of offsets to match blueprint tolerance.

Course outline and lesson plan:

- Introduction to CNC Swiss style machining
- Various tooling and geometries for Swiss machines
- Measuring instruments
- Understanding blueprint tolerances
- Familiarization with Fanuc CNC control
- Axis configuration and machine layout
- Machine start-up and program activation
- Proper offset adjustment (Wear and Geometry)

Level 2: Mid level operator/basic setup training

This level covers setting of tools associated with the majority of STAR machines. Tooling geometries and basics of tool-making are also discussed. Hands-on machine set-up form Guide Bushing and collets to tool setting.

Course outline and lesson plan:

- Tooling geometry and basics of tool making
- Reading and understanding of tooling layout
- Program upload/download
- Proper collet and guide bushing setting and adjustment
- Turning tools setting
- Milling tools setting
- ID tools setting
- Stepping through the program (proof running)
- First part cutting techniques
- Feeds/Speeds adjustment (metal cutting troubleshooting)
- Understanding Wear and Geometry Offsets



Level 3: Entry/Mid level programming with basic knowledge of tooling and blueprint reading

This level covers reading and understanding blueprints, projections and GD&T. M and G code understanding. Part processing and tooling layout. Generating and testing of basic program sections.

Course outline and lesson plan:

- Blueprint tolerance understanding and common tolerances
- Coordinate system configuration and explanation
- M code definitions and understanding
- G code definitions and understanding
- Understanding use of wait codes
- Set-up sheet design and part processing
- Skeleton program design
- Proper tooling selection
- Generating basic program sections (turning, milling, drilling, etc.)
- Introduction to Polar Milling, Thread Milling/Whirling, Polygon Turning, Cylindrical Interpolation, Angular Drilling/Milling

Level 4: Advanced programming

This level covers use of variables, sub programs, Macro programs, Custom G codes, Programming of Polar, cylindrical and helical cuts. Programming family of parts using macros and variables.

Course outline and lesson plan:

- Use of sub programs
- Auto tool setting using sub program
- Macro programming
- Creation of custom G codes to simplify programming
- Variable handling using G code program call
- Family of parts programming
- Program using -Polar Interpolation, Cylindrical Interpolation, Helical Interpolation
- Concept of optimization (motion control)
- Tool life monitoring systems
- CAD/CAM Software use and benefits

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