

CNC Programming Boot Camp For Milling and Turning Applications

This training program has been tailored to help CNC milling and turning machine operators or machinists develop confidence and new programming skills they can apply at the controller to modify existing NC code for jobs they are running or create new programs from scratch.

CNC Milling and Turning Operations

- CNC milling and turning processes and functions
- CNC machine tool systems and design
- Machine axes designation and direction conventions
- CNC positioning systems
- Geometry and Trigonometry application for CNC programmers
- Selecting and using cutter inserts and holders
- Understanding and calculating speeds, feeds, and chip load
- Developing a CNC machining operations plan from engineering drawings and specifications
- NC code and programming functions
- Strategy for developing toolpath coordinate moves for contour, pocketing, and turning operations
- Advanced NC programming technique using canned cycles, positioning, and sub programming
- NC programming at the machine using MDI
- CNC milling and turning machine controller operations and program loading
- Application project



Advanced NC Programming Practices

- Strategy and technique for incorporating entry and exit leads into toolpaths for turning and milling operations
- Applying canned cycles for drilling, tapping, circle milling and pocketing toolpaths
- Applying canned cycles for roughing, finishing, threading, and other turning operations
- Applying cutter diameter and tool nose compensation in the machine controller
- Advanced NC programming technique using coordinate positioning
- Strategy and technique for repetitive operations using sub programming
- Running the 1st article - program verification and editing techniques
- Application project

