

TruTops Tube Programming for TruLaser Tube 5000



COURSE DESCRIPTION

The TruTops Tube Programming for TruLaser Tube 5000 course provides students with the essential knowledge and skills required to successfully program TRUMPF laser machines. Students will develop a working knowledge of TruTops Tube programming software by learning how to accurately create, import and export part drawings, properly program round, square and rectangular tube parts to maximize material utilization and machine processes. Upon completion of this course, students will be able to draw parts, use the TruTops Tube drawing package, process a job with appropriate cutting technologies and logic, and create machine code suitable for the TRUMPF TruLaser Tube machine.

TARGET AUDIENCE

Machine Programmers or operators with programming responsibility

PREREQUISITES

Basic PC skills are a must. Basic blueprint-reading skills are recommended. Fundamental drawing skills using a CAD package and NC programming knowledge are a plus.

COURSE DURATION

3 days

OBJECTIVES

- Discuss laser cutting principles and processes.
- Identify various types of laser cutting and machine parameters.
- Utilize databases relative to the programming systems and machine.
- Identify major interface components and their functions.
- Program with the Drawing module.
- Create drawings for round, square, and rectangular tubes.
- Identify the tool path and interaction with the driven tool path.
- Program with the Technology module and utilize technology tables for various types of cutting.
- Apply logic (rules) of contour approaches and withdrawals.
- Execute part removal, measuring cycles, and support bridges.
- Generate NC code.



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COURSE OUTLINER

- Laser cutting principles and processes
- Types of laser cutting and machine parameters
- Databases relative to the programming system and machine
- Overview of TruTops Tube
 - TruTops Tube theory
 - Components on the user interface
 - Programming sequence
- Drawing module
 - Loading and importing DXF files
 - Creating and editing part drawings utilizing 2-D construction geometry
 - Create and edit basic CAD drawing
 - Creating GEO, ROT, & RPF files
 - Creating and editing material lists and standard patterns
 - Saving drawings
 - Tube profile management
 - Creating tube profiles
 - Utilizing 3-D Viewer for reviewing drawings
- Technology module
 - Applying tech table & rules to a ROT file
 - Modifying round, square, and rectangular tube processing
 - Generating NC code
- Logic (rules) of contour approaches and withdrawals
 - Defining rules
 - Selecting a set of rules
 - Creating and modifying rules
 - Assigning rules to tech tables
- NC code basics
- Part removal, measuring cycles, and support bridges
- Setting up the machine and running programs
- Optional programming