

CNC EXPERT STANDARDS

PROJECT: TITAN-85L
CERTIFICATION: CAM

OVERVIEW:

Successfully demonstrated comprehension of the TITAN-85L CAM performance standard. Create an accurate and fully defined NC program using the TITAN-85L solid model, CAM software, and part documentation.

MATERIALS:

- TITAN-85L part print
- TITAN-85L setup sheet
- Computer with CAM software

SKILLS DEMONSTRATED:

SETUP

- **Orientation:** Define axis orientation for work coordinate system.
- **Origin:** Define axis origin for work coordinate system.
- **Stock:** Define raw stock dimensions for machining operations.

TURNING TOOLPATHS

- **Facing:** Set tool parameters, machining geometry, clearance/cutting heights, and other toolpath parameters for facing operation.
- **Outside Turning:** Set tool parameters, machining geometry, clearance/cutting heights, and other toolpath parameters for outside turning operation.

GROOVING TOOLPATHS

- **Outside Grooving:** Set tool parameters, machining geometry, clearance/cutting heights, and other toolpath parameters for outside grooving operation.
- **Part Off Grooving:** Set tool parameters, machining geometry, clearance/cutting heights, and other toolpath parameters for part off grooving operation.

THREADING TOOLPATHS

- **Outside Threading:** Set tool parameters, machining geometry, clearance/cutting heights, and other toolpath parameters for outside threading operation.
- **Tapping:** Set tool parameters, machining geometry, clearance/cutting heights, and other toolpath parameters for tapping operation.

HOLEMAKING OPERATIONS

- **Drilling:** Set tool parameters, machining geometry, clearance/cutting heights, and other toolpath parameters for drilling operation.

ACTIONS

- **Simulate:** Previews and simulates toolpaths and stock material removal.

MANAGE

- **Tool Library:** Manage tool library.