

CNC EXPERT STANDARDS

PROJECT: TITAN-6M
CERTIFICATION: CAD

OVERVIEW:

Successfully demonstrated comprehension of the TITAN-6M CAD performance standard. Create an accurate and fully defined TITAN-6M solid model using CAD software and part documentation.

MATERIALS:

- TITAN-6M part print
- Computer with CAD software

SKILLS DEMONSTRATED:

SKETCHING

- **Create Sketch:** Enters Sketch mode and creates a new sketch on a selected plane or face.
- **Select Construction Plane:** Selects plane on which to sketch part dimensions.
- **Center Rectangle:** Creates a rectangle using two points to define the center and one corner.
- **Center Diameter Circle:** Creates a circle using a center point and diameter.
- **Point:** Creates a sketch point.
- **Dimensioning:** Assigns dimension values to sketch geometries and/or modifies previously assigned dimensions.
- **Construction Lines:** Creates a construction line for referencing purposes.

CREATING

- **Hole:** Creates a hole based on user-specified values and selections.
- **Thread:** Add internal or external threads to cylindrical geometry.

- **Circular Pattern:** Creates duplicate faces, features, bodies, or components and arranges them in an arc or circular pattern.

MODIFYING

- **Press Pull:** Modifies the selected geometry using offset, extrude, or fillet commands.
- **3D Fillet:** Places an arc of a specified radius at the intersection of two lines or arcs.
- **3D Chamfer:** Applies a bevel to one or more edges.