

# UTD PRECISION MANUFACTURING

Since 1923





## About UTD

Located: West Hartford, CT

### Facility

≈ 80 Employees

≈ 125,000 sq/ft (Across all buildings)

### Product Catalog

- Bracket Mounts

- Housings

- Headers

- Air Management Ducting

- Feedline Assemblies

- Venturi Assemblies

- Heat Exchangers



## Accreditations

AS9100:D/ISO9001:2015

NADCAP

- Welding

- Heat Treating

- Nonconventional Machining

# Sheet Fabrication

## Manufacturing Capabilities

**Materials:** Aluminum, Stainless Steel, Titanium, & Inconel  
**General Thicknesses:** .028 - .250"

**Types:** Bending, Drawing, Punching

**Examples:** Brackets, Headers, Mounts, Battery Housings



# Tube Bending

## Manufacturing Capabilities

### Aluminum

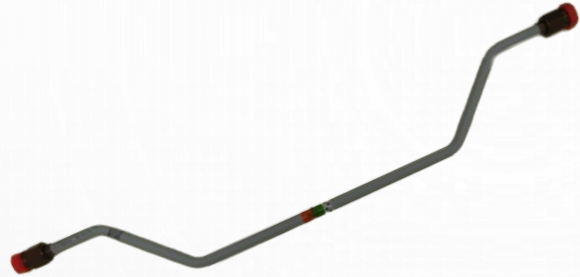
Outside Diameter: 0.1875 - 6.000"

### Inconel & Stainless Steel

Outside Diameter: 0.1875 - 4.000"

### Titanium

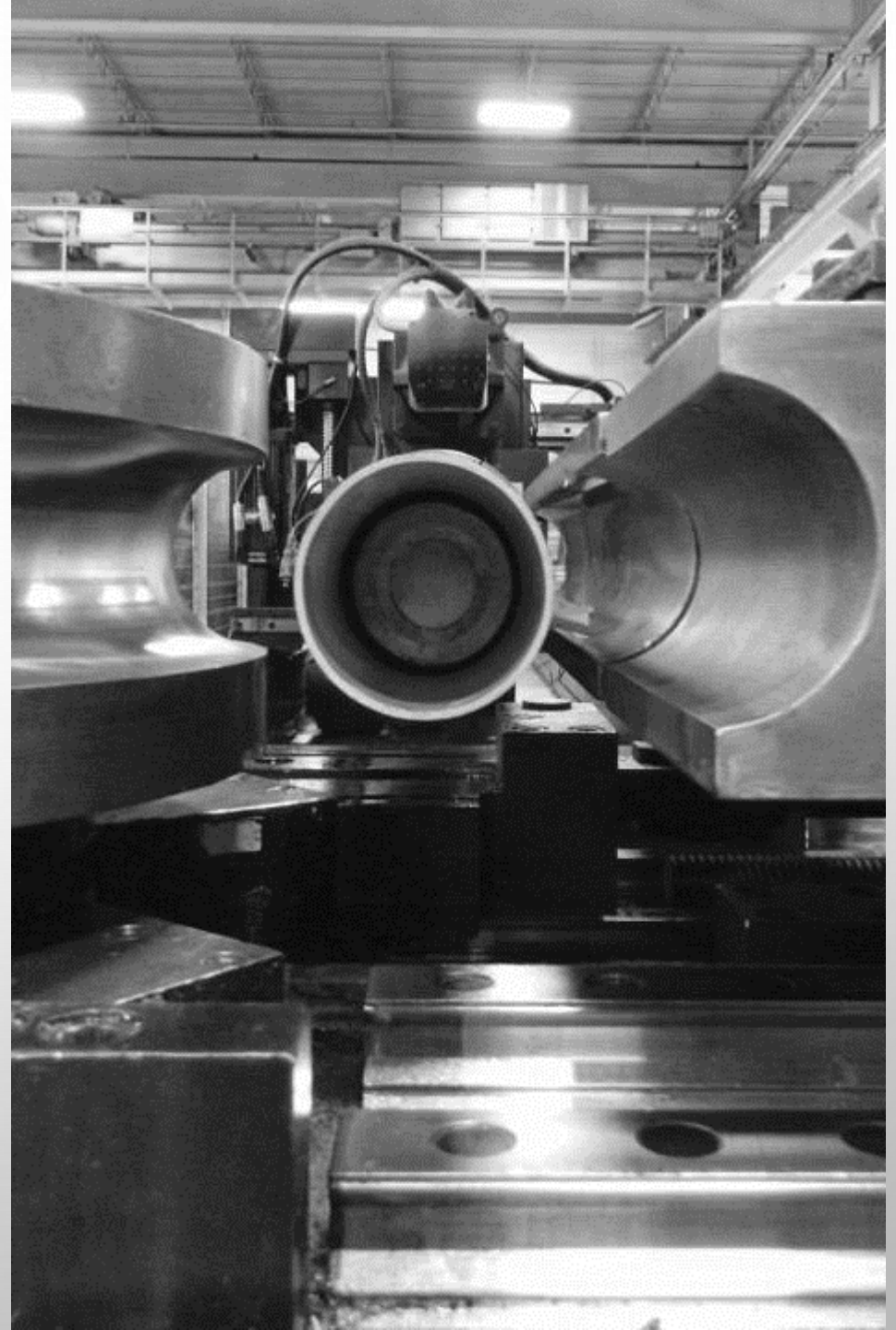
Outside Diameter: 0.1875 - 4.000"



## Inspection Capabilities

### TubeInspect P16.2 Optical Scanning Machine

- 16 Cameras
- 8.5ft x 4.1ft Measurement Area
- Ability to Inspect Tubes up to 23ft Long!



# Fusion Welding



## Manufacturing Capabilities

**Type:** Manual GTAW

**Materials:** Aluminum, Stainless Steel, & Inconel

**General Thicknesses:** .028 - .250"

**Industry Specifications:** Welding Qualifications per AWS D17.1

## Inspection Capabilities

**Equipment:** Indicators, fillet gages, borescopes, depth mics, etc.

*Welding Inspectors Qualified IAW AWS D17.1.*



# Internal Heat Treating



## Manufacturing Capabilities

**Materials:** Aluminum Only

**Treatments:** Anneal (-O), Solution (-T4), & Age Hardening (-T6).

### **Size Limits**

Solution: 84" x 36" x 36"

Anneal & Age: 96" x 60" x 70"

**Industry Specifications:** AMS 2770

## Inspection Capabilities

**Rockwell Hardness Inspection**

Scales: *HRB, HRC, HRE, HRV, HR15N, HR15T, HR30N, HR30T*

*Hardness Inspectors Qualified IAW ASTM E18*



# Dip Brazing

 **Nadcap**<sup>™</sup>  
Administered by PRI

## Manufacturing Capabilities

**Materials:** Aluminum Only

### **Size Limits**

Working Zone: 16" x 22" x 15"

### **Filler Application**

Flux, Wire, & Foil

**Industry Specifications:** AWS C3.7 & AMS 2673

## Inspection Capabilities

Flux Removal Test, Pressure Test



# Machining

## Nonconventional Machining



**Materials:** Aluminum, Stainless Steel, Titanium & Inconel

## Laser Cutting

(1) AMADA LCG 3015 AJ OPTIC LASER

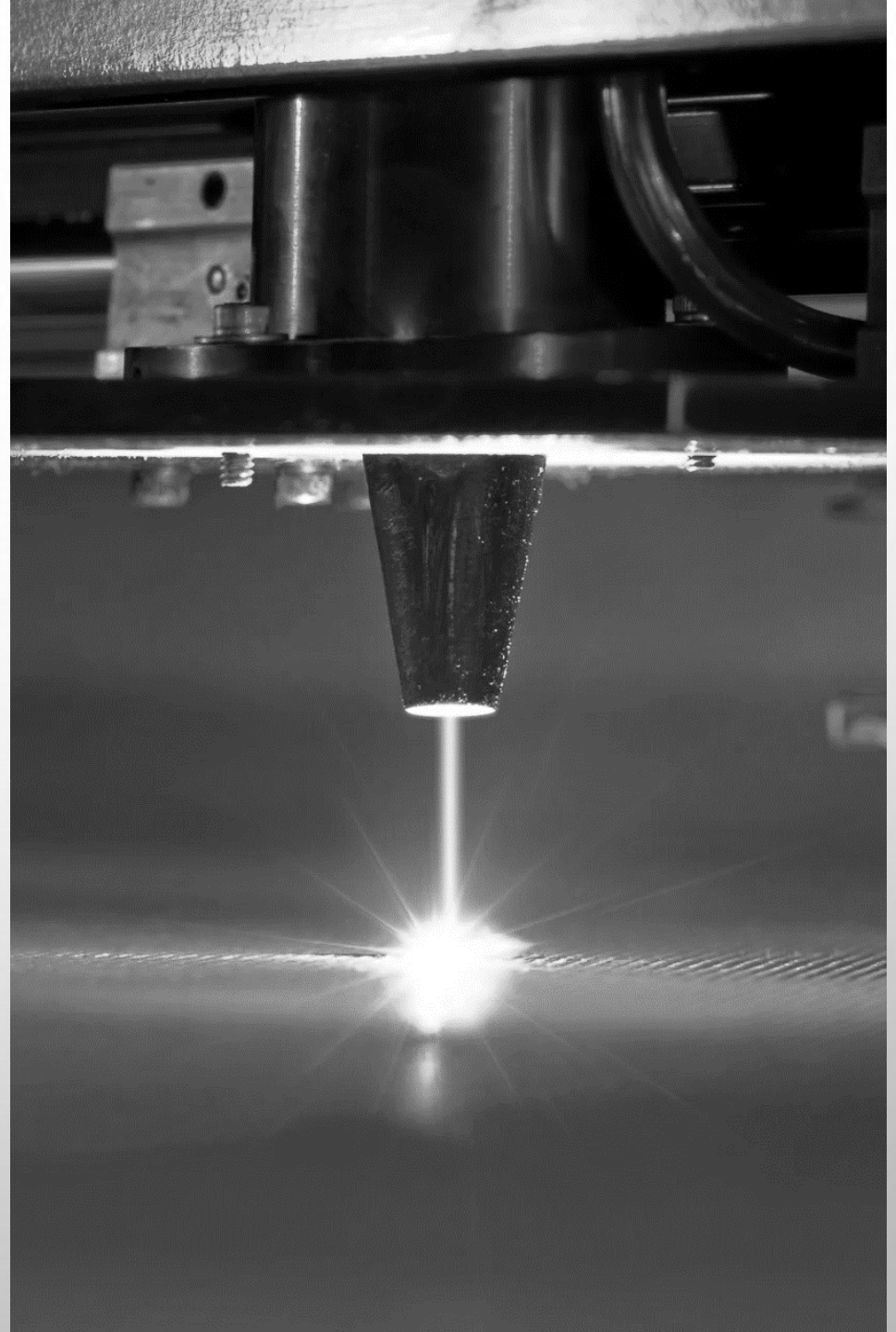
## Electrical Discharge Machining (EDM)

(1) Mitsubishi BA24 41.3" x 32.3" x 16.3"

(1) Robocut Fanuc 20" x 14"

## CNC Machining

- Multiple 3-Axes Vertical Mills
- 2 HAAS CNC Vertical Milling Center
- Multiple Horizontal Lathes



# End Forming & Hardware Installation

## End Forming

- Beading
- Swaging
- Flaring

## Hardware Installation

- Rivet/Nutplate Installation
- Coupling Assembly
- Sleeve & Nut Assembly



# Inspection

## General Equipment List

Bridge CMM

Hexagon Absolute Romer Arm

Shadowgraph/Optical Comparator

Digital Height Gages

Calipers, Micrometers, Gages, and More...

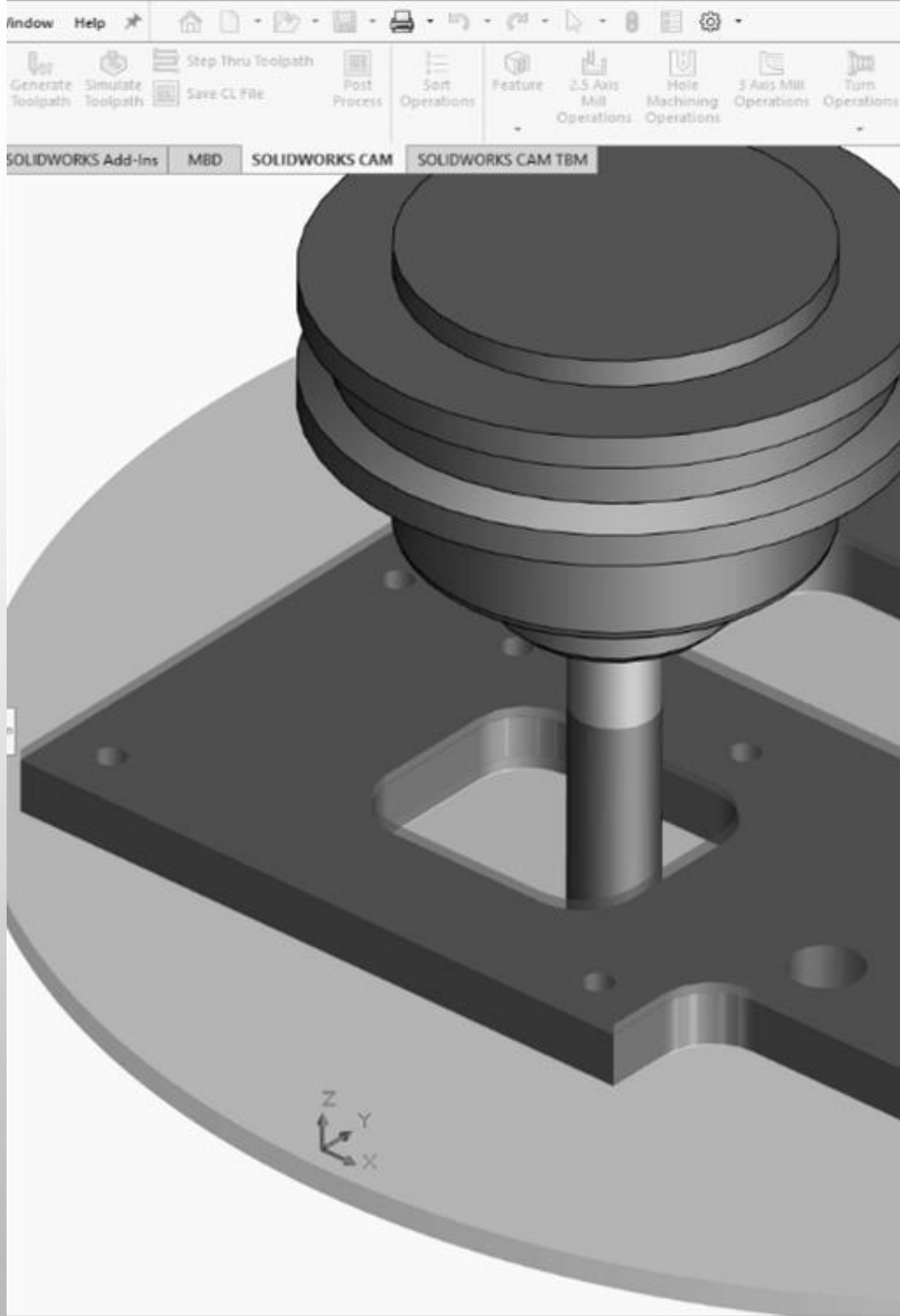
## Special Process-Related Inspection

Hardness Testing

Conductivity Testing

Pressure Testing (Water & Nitrogen)





# Engineering

## General

### CAD/CAM

- In House Tooling Design
- CNC Programming
- Internal OP Sheets
- 3D Model Design for Inspection

### 3D Printing

- Product Prototyping
- Tooling Prototyping
- Expedited Tooling