### SERVICES

**METROLOGY**

- **Calibration**
  - Force
  - Torque
  - Pressure
  - Electrical
  - Dimensional
  - Mass
  - Vacuum
  - Temperature

- **Field Service** - Surface Plates, Hardness Testers, Optical Comparators, Pyrometry, Scales, Tools...

- **New Instruments / Parts & Repairs**

- **Contamination Control Certification Services**

**MACHINING**

- **Specimen Machining**
  - Test Specimens to ASTM & MIL specifications
  - Jominy
  - Tensile
  - Fatigue
  - Izod impact
  - Stress rupture
  - Stress corrosion
  - Compact tension
  - Fracture toughness
  - Round compression
  - Charpy V-notch impact
  - Hydrogen embrittlement
  - Face, root, side bend...

- **EDM & Specialty Machining**

### MATERIALS TESTING

**Chemical Analysis**

- ICP-AES & ICP-MS
- Soxhlet Extraction
- Plating Identification
- Classical Wet Chemistry
- Density, Porosity & Oil Content
- Positive Material Identification (PMI)
- Moisture Content Analysis
- Carbon & Sulfur Analysis
- Inert Gas Fusion (Nitrogen, Oxygen, Hydrogen)

**Corrosion Testing**

- Salt Spray / Salt Fog (ASTM B117)
- ASTM A262 & 923; G28, 34, 48, 66 & 67
- Passivation (ASTM A380, A967; MIL-STD 753)
- Humidity (AMS 2700)
- Intergranular Oxidation
- Hydrogen Embrittlement
- Coating Evaluation
- Sensitization
- Sigma Chi Phase

**Metallurgical Testing**

- SEM Analysis
- Microstructure
- Grain Size (ASTM E112)
- Case Depth
- Coating Thickness
- Carburization / Decarburization
- Inclusion Rating (ASTM E45)
- Carbide Precipitation
- Ferrite by Point Count (ASTM E562)
- Alpha Case / Surface Contamination
- Intergranular Attack
- Eutectic Melting
- Nodularity, Nodule Count
- Macro-etch (ASTM E340)
- Grain Flow
- Surface Condition
- Surface Contamination
- Microhardness (Knoop & Vickers 100g to 10kg)

- AES Analysis
- EDS Analysis
- FTIR Analysis
- RoHS Testing

### Mechanical Testing

- **Yield Strength**
- **Tensile / Ductility**
- **Flaring / Expansion**
- **Stress Rupture**
- **Fracture Toughness**
- **Fatigue Crack Growth**
- **Magnetic Permeability**
- **Wedge & Axial Tensile**
- **Elevated Temperature Tensile**
- **Charpy V-Notch Impact**
- **Hydrogen Embrittlement / Stress Durability**
- **Hardness: Rockwell, Brinell, Superficial**
- Welder & Procedure Qualifications  
  (per ASME, ASTM, EN, AWS, MIL, API)

**Nondestructive Testing**

- Ultrasonic: high-speed immersion, contact
- Magnetic Particle: fluorescent wet, visible dry
- Liquid Penetrant: fluorescent, visible dye
- X-Ray / Radiography: film, digital
- Hydrostatic Pressure: tubing, pipe, coils
- Visual Examination - SNT-TC-1A certified

**Dimensional Inspection / CMM**

- Fasteners including threads
- Surface Finish
- First-article & Third-party inspections

**Failure Analysis - SEM/EDS**

800-219-9095

www.labtesting.com