## 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
  - Carburation / Decarburation
  - 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)

- **Mechanical Testing**
  - Yield Strength
  - Tensile / Ductility
  - Flaring / Expansion
  - Charpy V-Notch Impact
  - Magnetic Permeability
  - Wedge & Axial Tensile
  - Fracture Toughness
  - Fatigue Crack Growth
  - High & Low-Cycle Fatigue
  - Elevated Temperature Tensile
  - Hydrogen Embrittlement / Stress Durability
  - Hardness: Rockwell, Brinell, Superficial
  - Welder & Procedure Qualifications

- **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
  - Digital Imaging
  - Sample Preparation
  - Weld Qualification

- **Calibration**
  - Force
  - Torque
  - Pressure
  - Electrical
  - Humidity
  - Flow*
  - Dimensional
  - Mass
  - Temperature

*Subcontracted

### Laboratory Testing Inc.
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- www.labtesting.com