

ACCURATE...

# AND THERE'S INDUSTRIAL INSPECTION & ANALYSIS ACCURATE.

#### A Leader in Lab Services

With roots that date back nearly a century, IIA has grown to become one of North America's largest and most trusted providers of industrial and commercial laboratory services. Our full-service capabilities include metallurgical testing, non-destructive testing, dimensional inspection, mechanical testing, EMC/EMI, consumer goods testing, fuel and fluid analysis, calibration, environmental testing and chemical analysis —



Our accredited labs feature state-of-the-art technology and experienced personnel committed to providing quality solutions and story-worthy service. We are a trusted partner to customers in an array of industries, including highly regulated arenas such as aerospace, medical, defense and more.

We are proud to be the provider of choice for leading companies across North America and we're here for you, too.

- "Working with IIA just makes sense...they have fantastic technical knowledge and skills."
- Stephanie Gehrke Quality Manager at Commercial Plastics

#### Partner with IIA Lab Services for:



**Fast turnaround times** 



**Accurate results** 



Reliability



**Cost containment** 

#### **SERVICES WE PROVIDE**

#### CHEMICAL ANALYSIS

- · Salt Spray and Humidity Testing
- · Alloy Identification (OES) and (ICP-OES)
- · X-Ray Fluorescence Spectroscopy (XRF, PMI)
- Polymer Characterization and Failure Analysis
- Pyrolysis Gas Chromatography Gas Spectrometry
- Fourier Transform Infrared Spectroscopy (FTIR)
- Thermogravimetric Analysis (TGA)
- Differential Scanning Calorimetry (DSC)
- · Mineral, Ore, Particulate Testing
- Deformulations and Product Analysis
- · Coating Adhesion, Weight, Resistance

#### CHEMICAL TESTING

#### **METALS TESTING**

- Compositional Analysis of Metals / Metal Alloys (ICP or OES)
- · Lead Analysis
- · Carbon Analysis (Leco)
- · Coating Weight
- Salt Spray or Humidity Testing
- · Soluble Heavy Metals
- PMI Field/Lab Inspection (XRF)

#### **CPSIA COMPLIANCE TESTING AND MORE**

- Phthalate Analysis
- · Density / Specific Gravity
- Durometer Hardness
- Electrical Contact Resistance
- Vibration Testing
- Loss on Ignition
- Compositional Characterization of Unknown Substances
- Particle Size Analysis
- Wet Chemistry

#### **POLYMER TESTING**

- Compositional Analysis of Elastomers / Polymers (plastics)
- Thermogravimetric Analysis (TGA)
- · Differential Scanning Calorimetry (DSC)
- Fourier Transform Infrared Spectroscopy (FTIR)
- · Pyrolysis-Gas Chromatography-Mass Spectrometry (Py-GC-MS)
- Energy Dispersive Spectroscopy (EDS)
- Melt Flow Index (MFI)

#### **CONSUMER GOODS**

- · CPSIA Test Methods
- ASTM F963
- · RoHS Compliant and certified by the US Consumer Product Safety Commission (CPSC)

#### **ENVIRONMENTAL TESTING**

- Vibration Testing
- Water, Wastes, Sludge, and Soil Samples
- Drinking Water Coliforms and E. coli
- EPA Test Methods
- Karl Fischer Moisture
- Flashpoints
- Trace Elements Lead, Mercury
- Biological Activity Reaction Test (BART)

#### **METALS TESTING**

- · Lead in Drinking Water
- · Lead in Paint
- Mercury
- TCLP Metals
- Hardness
- · Hexavalent Chromium
- · Coupon Testing

#### **BACTERIA TESTING**

- Total Plate Count (SimPlate)
- Total Coliform & E. coli (Present/Absent)
- E. coli (Enumeration)
- Fecal Coliform
- BART

#### **OTHER TESTING**

- FCC
- USP
- · Ink Testing
- Cleanliness Testing
- Water Vapor Transmission
- Titrations
- · Solids (TSS, TS, TDS, Settleable)
- · Karl Fischer Moisture
- Flash Point
- Phthalates
- Anions (IC)
- · Nitrogen (Ammonia, TKN, Organic)
- Oil & Grease / TPH
- Surfactants (Anionic & Cationic)
- Sampling and Sample Pickup Options Available

#### FLUID TESTING AND ANALYSIS

#### **GREASE ANALYSIS**

Grease Tests

#### **OIL ANALYSIS**

· Oil Tests, HVAC Cooling Oil

Equipment: Compressor, Engine, Gearbox - Transmission, Hydraulic Pump, Transformer, Turbine

#### **FUEL ANALYSIS**

- · Diesel, Gasoline, Jet Fuel, Marine Fuel
- AVGAS
- Emergency Power Generator
- Fuel Tests
- Fuel Sample Submission

#### **COOLANT ANALYSIS**

Coolant Tests

#### **MECHANICAL TESTING**

- Tension Testing
- · Compression Testing
- · Shear Testing
- · Hardness Testing
- Impact Testing
- · Tear Strength
- Flexural Properties
- · Welder Qualifications
- Welding Procedure Qualification (AWS/ASME)
- Abrasion Testing (Taber)
- Pressure Testing (Hydrostatic/Air)
- · Proof & Load Testing

#### **METALLURGICAL TESTING**

- · Failure Analysis
- Scanning Electron Microscopy (SEM)
- Energy Dispersive Spectroscopy (EDS)
- Coating/Plating Thickness and Evaluations
- Microstructure Analysis
- · Grain Size
- Microhardness
- Immersion Corrosion Evaluations
- Surface Roughness Measurement
- · Conductivity Testing
- · Deposit Weight Density

## METROLOGY/DIMENSIONAL INSPECTION

- First Article Inspection
- Capability Studies & Statistical Analysis
- Supplier Validation (3rd Party Inspection)
- Fixture Evaluation
- CMM Training on PCDMIS and Calypso
- FARO Laser Scanners Training
- CT & Laser Scanning
- Part-to-CAD Comparison
- 3D Dimensional Inspection
- Geometry Recreation (Reverse Engineering)
- DCC-CMM Full Automation Capability
- Non-Contact Inspection
- Contour Analysis 2D & 3D
- · Surface Finish Analysis
- Form & Roundness Testing
- · Nano Measurement
- Additional Inspection Specialties

## NON-DESTRUCTIVE TESTING (NDT)

#### **RADIOGRAPHY**

- Gamma ray: Iridium 192 and Cobalt 60
- X-ray
- Film interpretation to codes: AWS, ASME, ASTM, API

#### **ULTRASONIC:**

- · Flaw detection
- Immersion
- C-scan
- · Thickness measurements

#### **AIRCRAFT INSPECTION:**

• Federal Aviation Agency Certification

#### **MAGNETIC PARTICLE INSPECTION:**

· Dry, Wet, Fluorescent

#### PENETRANT TESTING

#### **VISUAL INSPECTION**

- CWI Personnel
- CCTV Mini Camera/Video Record
- Borescope

#### **EDDY CURRENT**

### GROUND PENETRATING RADAR PERSONNEL CERTIFIED TO

- · ASNT-TC-1A
- NAS 410
- ASNT CP-189
- NAVSEA T9074-AS-GIB-010/271

#### **PYROMETRY**

# WIRELESS & TELECOMMUNICATION EMC/EMI TESTING

- · Cybersecurity Testing
- EMF/RF Exposure & SAR testing
- Electrical/Product Safety Testing
- ISO/IEC 17065: 2012 Accredited Product Certification Body (IIA EMC) for U.S. FCC, ISED Canada, MIC Japan, IMDA Singapore. Notified/Approved Body (NB/AB1177) for the EU Radio Equipment and EMC Directives and the United Kingdom Radio Equipment and EMC Regulations.
- SAR Testing

#### **TYPES OF CALIBRATION**

- Torque
- Electrical
- Dimensional Metrology
- Force
- Vacuum
- Pressure

#### **TYPES OF GAUGES/TOOLS**

- Check Fixtures
- Master Tools
- Articulating Arms
- Optical Comparators
- Vision Systems
- CMMs
- Surface Plates
- Spline Gages

#### **ON-SITE SERVICES**

- Measurement
- Surface Mapping
- Dimensional Inspection
- Model-Based Inspection & Comparison
- 3D Scanning
- Reverse Engineering
- · Tool Qualification
- · Mechanical Alignment
- Calibration
- · Range Scanning
- · Part Sorting

#### **CONSULTING**

- Quality Systems
- Process Measurement & Control
- Equipment Sales

#### **TRAINING**

- CMMs & Measurement Equipment
- Inspection Principles
- Geometric Dimensioning & Tolerancing

## PART SORTING & RELATED SERVICES

- Part Sorting & Inspection
- Light Part Rework or Repair
- Light Assembly
- Part Containment
- Quality Partnerships
- 3D Scanning for Recordkeeping Purposes

#### **PRODUCT SALES**

- New
- Pre-Owned
- Custom

#### **CERTIFICATIONS & GUIDELINES**

- AS9100D Certified
- AS9100 Compliant
- AS9102 Compliant
- AS9110 Compliant
- AS9120 Compliant
- ISO/IEC 17025 : 2005
- ISO 17025: 2017 Accredited
- ISO/IEC 17065 : 2012

- ISO 9001: 2015 Registered
- ISO 13485: 2016 Certified
- ITAR Registered
- FAR Part 145 Certification
- Federal Firearms License (FLL)
- A2LA Calibration
- NADCAP Accredited
- ASNT Certified Level 2 and 3
- · Our Facilities Meet a Variety of MIL-SPEC, ANSI, ASTM, and ASME Specifications
- Cessna Authorized Independent NDI Facility
- Our Quality Program meets the Nuclear Industry requirements of 10 CFR 50 Appendix B, NQA-1, and ANSI/NCSL Z540.1-1994.

#### WE CAN ISSUE YOUR APPROVALS FOR USA, **CANADA AND EU SCOPES**



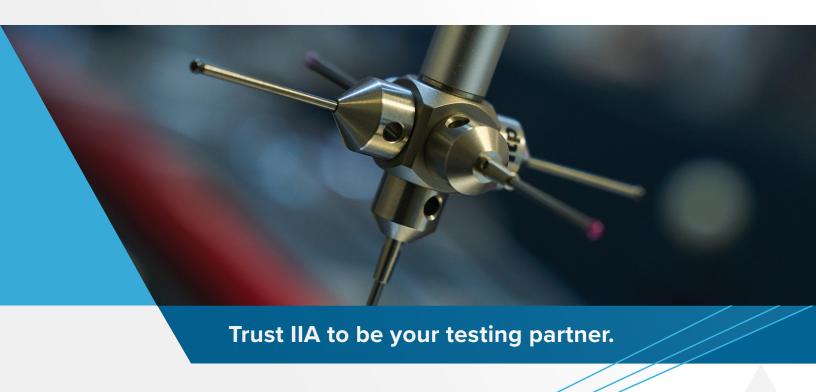
# **CUSTOM SOLUTIONS**

IIA's Labs leverage a broad breadth of knowledge across all of our facilities to analyze and determine the best methodologies for our customer's unique needs. We offer decades of experience providing custom testing to numerous industries and organizations. We'll also develop tests to evaluate your product's safety and performance. Bring us your toughest problem. We will find a solution.

# EASE, SPEED, AND CONVENIENCE

#### YOU CAN COUNT ON

IIA's experts combine unmatched technical expertise with exceptional customer service to provide our customers the data they need to be successful. Everything we do is to help you develop quality products, minimize down-time, and manage total cost of ownership while keeping quality at the forefront.





Making the World Safer



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