



ENGINEERING CONFIDENCE THROUGH TRUSTED MATERIALS TESTING | ELEMENT DALEVILLE

For nearly 80 years, Element Daleville has combined local technical expertise with the global strength of Element Materials Technology to deliver accredited materials testing, failure analysis, and engineering solutions that help manufacturers reduce risk, ensure compliance, and accelerate product success.

Element Daleville combines nearly eight decades of local materials testing expertise with the strength of Element Materials Technology's global network of laboratories and technical specialists. Since 1947, the laboratory has helped manufacturers validate materials, solve complex engineering challenges, and maintain product quality across industries including aerospace, orthopedic, automotive, and transportation. Backed by Element's worldwide capabilities in materials testing, product qualification, and failure analysis, customers gain access to deep technical expertise, globally recognized quality systems, and the resources needed to support programs from routine production testing through the most demanding analytical investigations. Accredited to ISO/IEC 17025 by A2LA, PRI Nadcap accredited, ITAR registered and compliant, and approved by many of the world's leading aerospace manufacturers, Element Daleville provides the confidence, responsiveness, and engineering insight customers need to reduce risk, accelerate decisions, and bring high-performance products to market with confidence.

Element Materials Technology is one of the world's leading providers of materials testing, inspection, calibration, certification, and product qualification services, supporting customers across aerospace, defense, transportation, energy, medical devices, and industrial manufacturing. With a global network of laboratories and technical experts, Element helps organizations verify performance, demonstrate compliance, and improve the safety, quality, and reliability of critical products and materials. By combining advanced testing capabilities with deep engineering expertise, Element enables customers to reduce technical risk, streamline qualification programs, and bring innovative products to market with confidence.

OUR SERVICES

- Destructive Testing
- Failure Analysis & Consulting
- Engineering & Consulting
- Expert Witness Services
- Investigative Chemistry
- Chemical Analysis
- Mechanical Testing
- Hardness Testing
- Izod/Charpy Impact Testing
- Tensile Testing
- Product Qualification Testing
- Metallography & Microscopy
- Metallurgical Analysis
- Hydrogen Embrittlement (ASTM F519)
- Weld Qualification Testing
- Creep & Stress Rupture
- Elevated Tensile Testing
- Material Properties Testing
- Microhardness Testing
- Test Procedure Development
- On-Site Failure Analysis
- Fixturing Design & Manufacturing
- Product Durability, Reliability & Life Cycle Testing
- Strength & Durability Testing
- Heat Treating
- Bond Testing (ASTM C633)
- Load Testing
- Salt Spray, Water Fog and Humidity
- Electrochemical Deposition
- Gravimetric
- SEM | EDS
- Shear Strength

MAIN EQUIPMENT

- Stress Rupture & Creep Frames up to 12K lbs. capacity
- Elevated Temperature Tensile Frame, 60K lbs. capacity
- Room Temperature Tensile Frames – 22 lbs to 110K lbs. capacity
- Stress Durability Frames – 20K lbs. capacity
- Hydrogen Embrittlement (ASTM F519)
- Heat Treat Furnaces – Class 2/2150°F
- Scanning Electron Microscope (SEM) with EDS
- Rockwell and Brinell Hardness Testers
- Charpy Impact Tester
- Izod Impact Tester
- Vickers & Knoop Microhardness Testers
- Metallurgical Scopes with Video Systems
- Optical Emission Spectrometer (OES)
- Atomic Absorption with Graphite Furnace (AAGF)
- X-Ray Fluorescence (XRF)
- Direct Current Plasma (DCP)
- Inductively Coupled Plasma Spectroscopy (ICP)
- Gases – Hydrogen, Oxygen, Nitrogen
- Leco Carbon/Sulphur
- Clemex Image Analysis System
- Machine Shop Including: CNC Lathes, CNC Mills, Conventional Lathes & Mills, CNC Grinders, Bandsaw, Abrasive Saw & Abrasive Waterjet Sectioning
- Low Stress Grinding
- Wire EDM

ACCREDITATIONS

- A2LA/ISO 17025
- PRI Nadcap

APPROVALS

- Arconic
- Aerojet Rocketdyne
- Airbus Canada
- Bell Helicopter Textron
- Boeing Company/McDonnell
- Bombardier Aerospace
- Cessna Aircraft Company
- Chromalloy Gas Turbine Corporation
- De Pont
- Eaton Corporation
- Flowserve
- General Electric Aviation
- Gulfstream Aerospace Corporation
- Hamilton Sundstrand
- Honda Aerospace
- Honeywell
- KHI Kawasaki Heavy Industries
- MTU Aero Engines GmbH
- Parker Aerospace
- Pratt & Whitney
- Pratt & Whitney Canada
- Rolls Royce Corp.
- Rolls Royce Deutschland
- Rolls Royce PLC
- Sikorsky
- Safran / Snecma
- Volvo Aero
- Zimmer, Inc.

INDUSTRIES WE SERVE

- Aerospace & Defense
- Airframe Structures
- Automotive
- Automotive Parts & Components
- Biomedical & Medical Device
- Castings & Forgings
- Commercial Vehicles
- Engineering & Supply Chain
- Exploration
- Fastener Manufacturing
- Heavy Equipment
- Landing Gear
- Power Generation
- Insurance & Legal
- Manufacturing
- Nuclear Energy
- Oil & Gas
- Chemical & Petrochemical
- Pipeline Distribution
- Refining
- Transmissions Systems
- Transportation
- Turbine & Engine

For a comprehensive list of our services, accreditations & approvals, please visit element.com

PARTNER WITH ELEMENT DALEVILLE

Partnering with Element Daleville gives manufacturers access to decades of materials science expertise backed by one of the industry's most comprehensive testing portfolios. From routine mechanical testing to advanced failure investigations, metallurgical analysis, and product durability assessments, our engineers help customers understand not just whether a component meets specification, but why it performs the way it does. With globally recognized accreditations, approvals from leading aerospace OEMs, and the resources of Element's worldwide laboratory network, Daleville delivers the technical insight, responsive support, and dependable results organizations rely on to improve product performance, strengthen quality programs, and make confident engineering decisions throughout the product lifecycle.

