



OUR SOUTHERN CALIFORNIA-BASED RANCHO DOMINGUEZ FACILITY IS ONE OF THE LARGEST NON-DESTRUCTIVE TESTING FACILITIES IN THE UNITED STATES

INTRODUCTION

Element’s Rancho Dominguez facility is one of the largest independent non-destructive testing laboratories in the United States, serving critical aerospace, energy, defense, and industrial customers. Located in the Los Angeles metropolitan area, our 52,000 square foot facility offers a comprehensive range of NDT services supported by Nadcap and AS9100 accreditation. As part of the global Element Materials Technology network, we combine local capacity and expertise with the resources of a worldwide testing leader.

WHY CHOOSE ELEMENT RANCHO DOMINGUEZ?

Element Rancho Dominguez provides NDT services across the full manufacturing lifecycle from incoming raw material inspection through finished component certification. Our facility is staffed by technicians certified to NAS410, and SNT-TC-IA standards, with customer-specific certifications available. Partnering with Element Rancho Dominguez gives you access to:

- **Scale and Capacity:** One of the largest NDT facilities in the U.S., with dedicated infrastructure for high-volume production programs, large-format parts, and specialized inspection requirements.
- **Industry-leading Accreditations:** Nadcap and AS9100 accredited, with approvals from more than 40 aerospace primes and OEMs — including Blue Origin, Boeing, Lockheed Martin, Northrop Grumman, Pratt & Whitney, Rolls-Royce and SpaceX.
- **Comprehensive NDT Capabilities:** Radiographic, ultrasonic, magnetic particle, liquid penetrant, eddy current, and chemical processing services under one roof, eliminating the need to source multiple inspection vendors.
- **Global Network Access:** As part of Element’s network of over 270 laboratories, clients have access to complementary destructive testing, mechanical testing, failure analysis, and chemical analysis services when program requirements demand it.

SERVICES OFFERED AT ELEMENT RANCHO DOMINGUEZ

Element Rancho Dominguez offers a comprehensive range of non-destructive testing services, including:

- **Radiographic Testing:** We perform X-ray and iridium radiography across a broad energy range (160kV – 4MeV), with high-capacity vaults for large-format parts and computed radiography for digital image acquisition and archiving.
- **Ultrasonic Testing:** Our UT capabilities include A-scan and C-scan, manual and automated, contact, immersion, and squirter methods. We inspect bar, plate, and tube stock up to 144 inches in length, 1/8 to 22 inches in diameter and offer contour following for composite structures.
- **Magnetic Particle Inspection:** We perform wet and dry magnetic particle inspection on parts up to 144 inches, accommodating a wide range of geometries and configurations.
- **Liquid Penetrant Testing:** Type 1 and Type 2 penetrant services across all methods and sensitivity levels, including a dedicated penetrant room sized for large parts, for both aerospace and commercial applications.
- **Eddy Current Testing:** Manual and automated eddy current scanning, including C-scan capability and custom probe development for specialized inspection requirements.
- **Chemical Processing:** Etch, alkaline cleaning, and passivation in support of pre- and post-inspection processing requirements.
- **NDT Consulting & Field Services:** On-site inspection support and consulting services provided by ASNT Level III personnel, available for specialized programs, audits, and field applications.

INDUSTRIES WE SERVE

Element Rancho Dominguez supports customers across a range of industries where material integrity and regulatory compliance are critical. Our facility is trusted by companies across the following sectors:

- **Aerospace & Defense:** We are a qualified NDT partner to major aerospace primes and defense contractors throughout Southern California and beyond, providing inspection services for structural components, rotating parts, fasteners, and raw material stock. Approved by Boeing, Lockheed Martin, Northrop Grumman, Pratt & Whitney, Rolls-Royce, Honeywell, General Dynamics, and more than 40 additional aerospace OEMs.
- **Military & Defense:** We support defense programs requiring CUI ITAR-sensitive handling and inspection of components to customer and government specifications.
- **Power Generation:** Our team inspects components used in turbine and power generation systems, including rotating parts and pressure vessels, to applicable industry standards.
- **Transportation:** We provide inspection services for transportation-sector manufacturers requiring certified NDT for structural and safety-critical components.
- **Medical Device:** Our accredited NDT services support medical device manufacturers requiring precise, documented inspection of metallic and non-metallic components.
- **Alternative Energy:** We serve customers in wind, solar, and other alternative energy sectors requiring NDT for structural integrity assessment and quality assurance.

ACCREDITED AND APPROVED BY LEADING AEROSPACE AND INDUSTRIAL COMPANIES

Element Rancho Dominguez holds Nadcap and AS9100 accreditation and maintains approvals from a broad range of aerospace primes and manufacturers. Our team is certified to ASNT, NAS410, and SNT-TC-IA standards, with customer-specific certifications available. Current approvals include:

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| • Aerojet | • General Atomics | • Honeywell | • Messier-Dowty (now Safran Landing Systems) | • Robinson Helicopter |
| • BAE Systems | • General Dynamics | • HR Textron | • Moog | • Rolls-Royce |
| • Bell Helicopter | • General Electric | • IHI | • Northrop Grumman | • Sikorsky |
| • Boeing | • GKN Aerospace | • ITP | • Pacific Scientific | • SpaceX |
| • Blue Origin | • Goodrich (now Collins Aerospace) | • Kawasaki | • Parker Hannifin | • Spirit AeroSystems |
| • Cessna / Textron Aviation | • Gulfstream | • Klune Industries | • Pratt & Whitney | • Turbomeca (now Safran Helicopter Engines) |
| • Collins Aerospace | • Hamilton Sundstrand (now Collins Aerospace) | • Lockheed Martin (LMA) | • Pratt & Whitney Rocketdyne | • And more... |
| • Eaton Aerospace | | • Lockheed Martin (LMCO) | • Raytheon | |

STATE-OF-THE-ART EQUIPMENT

Element Rancho Dominguez operates advanced inspection equipment designed for high-throughput production programs and precision aerospace applications. Key equipment includes:

- **ScanMaster Large Bar and Plate UT System (5-Transducer):** Our automated immersion ultrasonic system provides full volumetric inspection of bar and plate stock using five simultaneous transducers for both longitudinal and shear wave inspection. The system accommodates a wide range of part dimensions and employs surface-following probe mechanisms to maintain consistent coupling across varying geometries. This capability is particularly valuable for aerospace raw material suppliers — bar, billet, and plate manufacturers can receive certified volumetric inspection to standards including AMS 2154 and AMS 2628 without the lead time and logistics of shipping material to multiple vendors.
- **High-Capacity X-Ray Vaults:** Dedicated radiographic vaults for large-format component inspection, supporting 160kV through 4MeV energy ranges with iridium camera and computed radiography capability.
- **Monorail Crane System:** Facility-wide overhead handling for large and heavy components, enabling efficient movement through inspection stations without risk of damage.
- **Magnetic Particle Inspection Equipment:** Capable of inspecting parts up to 144 inches across a variety of shapes and configurations.
- **Penetrant Processing Room:** A dedicated large-part penetrant room supporting Type 1 and Type 2 penetrant inspection at all sensitivity levels.
- **Eddy Current Systems:** Manual and automated eddy current with C-scan capability and custom probe development for specialized inspection requirements.
- **TacTic Small Diameter Bar UT System:** The TacTic immersion “spin the tube” system inspects tube and bar from 1/8 inch up to 6 inches in diameter, locating internal and external defects and inconsistencies in smaller-diameter product forms where high-throughput rotary systems are not required. This system directly addresses the inspection needs of customers supplying small-diameter bar stock for aerospace fastener, medical, and precision component applications — capable of detecting the very small mandated notches dictated by the aerospace, nuclear, and medical industries.

CONTACT US TODAY

Element Rancho Dominguez is ready to support your next program. Whether you are qualifying a new supplier, managing production inspection requirements, or need a certified NDT partner with the capacity and approvals your prime demands, our team is here to help. **Contact us to discuss your program requirements and learn how Element Rancho Dominguez can support your supply chain.**

