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TO
MARKET



Element. Your perfect partner for product testing and qualification.

Making tomorrow safer than today

Element has the most comprehensive range of materials testing services available in the TIC sector that covers materials selection, application, performance testing, and failure analysis testing services.

We apply both destructive and non-destructive testing methods to a wide range of materials and ensure that they are safe, compliant, and fit for their end application.

MATERIALS TESTING SERVICES

Our materials testing laboratories are staffed by over 6,600 experts who solve our customers' most complex technical and commercial challenges in materials selection, materials application, production, certification, and failure analysis. Our range of materials testing services includes:

- Mechanical testing
- Chemical analysis
- Creep & Stress Rupture
- Fracture mechanics and fatigue testing
- Corrosion testing
- Failure analysis
- Material characterisation
- Working at low temperatures (Cryogenic) up to around 1250 Degrees Centigrade

NON-DESTRUCTIVE TESTING (NDT)

NDT covers a wide group of techniques used to evaluate the properties of a material, part, product, weld, or system without materially affecting the integrity of the unit being inspected or investigated under the test procedure. The non-destructive testing methods we offer are designed to comply with a variety of industry standards, government contracts, and military specifications, as well as unique customer requirements. We serve many sectors, and we can test metallic and composite materials from raw materials such as sheet, plate, bar, and pipe to stand-alone components.

We provide a full suite of NDT services, including, but not limited to:

- Film Radiography
- Digital Radiography
- Liquid Penetrant Inspection (LPI - Fluorescent & Colour)
- Passivation
- Visual Inspection
- Ultrasonic Testing Immersion & Contact

(IUT, UT) ACCREDITATIONS · ISO 17025 · ISO 9001 · NADCAP APPROVALS · Airbus · Leonardo · Meggitt · Pall Corporation · Rolls Royce Deutschland · Rolls Royce PLC (UK) · Sikorsky · UTC (Goodrich)

THE ELEMENT ADVANTAGE

At Element, we have unrivaled expertise in testing; our personnel are highly trained and experienced, holding certification from Levels 1 - 3 across recognised schemes, including SNT-TC-1-A (ASNT), ISO 9712 PCN, BS EN 4179, and NAS 410.





Scan to find
out more.

R&D TO REALITY

Element helps accelerate the transition from R&D to commercial reality in the Aerospace, Space, and Defence sectors. Our testing and certification services facilitate faster time to market by being able to support many of the services within the same organisation with the creation of compliance strategies and test plans, improved project management and coordinated testing.

As new wireless technologies are developed to support new use-cases (such internet access on aircraft or remote parts of the globe), Element is uniquely positioned to offer a combination of the traditional Aerospace/Defence test and certification services together with in-depth knowledge and test capabilities for advanced wireless technologies covered by 3GPP for cellular and interoperability.

We test to internationally recognised standards for connectivity and interoperability, ensuring that all technologies are robust, compliant, and airworthy.

CONNECTED TECHNOLOGY SERVICES

We offer comprehensive support throughout the entire lifecycle of your connected devices, ensuring they meet rigorous testing from EMC and safety to cellular compliance, achieving necessary certifications for global market access and airworthiness regulations.

SECTOR ENGAGEMENT

Element's vast range of Aerospace test services combined with cutting edge wireless test capabilities ensure that we are well positioned to directly input into emerging Aerospace standards and regulations and share the knowledge and experience of many years working with some of the world's innovators on new technologies and concepts.

Our advisory and testing services streamline your path to market, providing a comprehensive strategy for compliance and certification across all stages of product development.

ADVANCED DIGITAL ENGINEERING SOLUTIONS

Element leads in specialised Digital Engineering Services for the Aerospace and Defence sectors, providing full lifecycle support from concept to decommissioning. We guarantee enhanced system reliability and sustainability across all development phases.

Our comprehensive support ensures seamless transitions from initial ideas to market-ready products through advanced modelling and cutting-edge technologies. Services include concept studies, integrated design, system safety analysis, prototyping, testing, implementation, certification, and maintenance, culminating in evaluation and decommissioning.

Our specialised engineering services encompass:

- Applied Engineering: Enhancing efficiency and innovation.
- Data Science and Machine Learning: Boosting performance and productivity.
- Engineering Design: Accelerating market-ready solutions.
- Modelling and Simulation: Delivering cost-effective, compliant outcomes.
- Project Management for Product Testing: Achieving industry compliance.
- Prototype Design and Development: Precision engineering from concept to testing.
- Software Development: Optimising system integration and performance.
- System & Process Safety: Meeting stringent safety standards.
- Test Rig Design: Simulating real-world conditions accurately.

Trust Element's integrated approach to foster innovation, efficiency, and sustainability in your Aerospace and Defence projects.



Scan to find out more.

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