



OVERVIEW

Element Monterrey opened in 2007 to service the testing requirements of northern Mexico markets, providing 24-48 hours of lead-time on almost all testing and analysis.

Staffed by highly qualified and experienced personnel, it provides exceptional customer service to a wide and diverse range of industries including Aerospace, Power Generation, Automotive and Oil & Gas. Element Monterrey has helped support the Aerospace industry development in Mexico, making available critical services for the industry to create jobs and economical growth.

ABOUT ELEMENT

Element provide critical services to the Aerospace, Transportation, Oil & Gas, Fire & Building Products and Infrastructure and Environmental sectors, where failure is not an option.

Our purpose is a simple one. We make certain that all of the materials, products and devices we test, inspect and certify for our customers are always safe in their end application; are of marketable quality; are compliant with all relevant industry standards and regulations and are ultimately fit for purpose.

Together we help our clients to develop better products to take to market; enable them to get their products to market faster than ever before; help them become more efficient, saving time and money and through the application of the collective experience and knowledge of our experts we help to minimize the risk throughout their product development and production processes.

CAPABILITIES

Destructive Testing (DT) also known as mechanical testing, reveals the properties of a material under dynamic or static force. Designed to ensure that materials are suitable for their intended applications.

Non-Destructive Testing (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.

DESTRUCTIVE

- **METALLURGICAL**
 - General Metallographic Examination
 - Replication Metallography
 - Alloy Depletion
 - Grain Size
 - Macroetching & Microetching
 - Alpha Case
 - Intergranular Corrosion - End Grain Pitting
 - Microstructure
 - Inclusion Rating
- **MECHANICAL**
 - Tensile (Room and Elevated Temperature)
 - Creep & Stress Rupture Tests
 - Hardness (Rockwell & Brinell)
 - Charpy Impact
- **CHEMICAL**
 - LECO Analysis (Inert Gas Fusion)
- **SPECIMEN PREPARATION** -
 - Cutting
 - Heat Treatment (475C to 1180C)
 - CNC Milling and Turning
 - Low Stress Grinding

NON-DESTRUCTIVE

- Fluorescent Penetrant Inspection (FPI)
- Macro Etch
- Macrostructure
- Pre-Penetrant Etch (Surface Cleaning)
- Immersion Ultrasonic Testing (IUT)

APPROVALS AND ACCREDITATIONS

Element Monterrey holds a wide range of accreditations, based on globally recognized standards ISO 17025 and Nadcap.

In addition, we have a range of client approvals from many of the manufacturers, prime contractors and large commercial companies that operate in the industry sectors we serve worldwide.

CUSTOMER APPROVALS
DESTRUCTIVE

- **HEAT TREATMENT**

- Rolls Royce plc (UK)
- Snecma
- General Electric
- Volvo Aero (GKN)
- Aerojet Rocketdyne
- Honeywell

- **MECH SPECIMEN PREP - GENERAL**

- MTU Aero Engines
- Rolls Royce plc (UK)
- Snecma
- General Electric
- Volvo Aero (GKN)
- Honeywell

- **CHEMICAL (ONH ON TI)**

- Pratt & Whitney
- General Electric
- Honeywell

- **TENSILE, ROOM TEMPERATURE**

- MTU Aero Engines
- Pratt & Whitney
- Rolls Royce plc (UK)
- Snecma
- General Electric
- Volvo Aero (GKN)
- Boeing
- Rolls Royce Canada
- Aerojet Rocketdyne
- Honeywell

- **TENSILE, ELEVATED TEMP -**

- MTU Aero Engines
- Pratt & Whitney
- Rolls Royce plc (UK)
- Snecma
- General Electric
- Volvo Aero (GKN)
- Rolls Royce Canada
- Honeywell

- **STRESS RUPTURE**

- MTU Aero Engines
- Pratt & Whitney
- Rolls Royce plc (UK)
- Snecma
- General Electric
- Volvo Aero (GKN)
- Rolls Royce Canada
- Honeywell

- **CREEP**

- MTU Aero Engines
- Rolls Royce plc (UK)
- Snecma
- Honeywell

- **IMPACT**

- Rolls Royce plc (UK)
- Snecma
- Volvo Aero (GKN)
- Boeing

- **ROCKWELL HARDNESS**

- MTU Aero Engines
- Pratt & Whitney
- Rolls Royce plc (UK)
- Snecma

- General Electric
- Volvo Aero (GKN)

- Boeing

- Rolls Royce Canada
- Aerojet Rocketdyne
- Honeywell

- **BRINELL HARDNESS**

- MTU Aero Engines
- Pratt & Whitney
- General Electric
- Volvo Aero (GKN)
- Boeing
- Aerojet Rocketdyne
- Honeywell

- **MICROSTRUCTURE / GRAIN SIZE -**

- Pratt & Whitney
- Rolls Royce plc (UK)
- Snecma
- General Electric
- Volvo Aero (GKN)
- Boeing
- Aerojet Rocketdyne

- **MACROSTRUCTURE**

- MTU Aero Engines
- Pratt & Whitney
- Rolls Royce plc (UK)
- Snecma
- General Electric
- Volvo Aero (GKN)

- **INCLUSION CONTENT IN STEEL**

- Pratt & Whitney
- Volvo Aero (GKN)

- **TI SURFACE CONTAMINATION -**

- Volvo Aero (GKN)

- **IGO / IGA**

- Volvo Aero (GKN)
- Boeing

- **ALLOY DEPLETION**

- General Electric
- Volvo Aero (GKN)

- **METALLOGRAPHIC – ALL OTHERS**

- General Electric
- Boeing
- Honeywell

NON-DESTRUCTIVE

- **FPI**

- Rolls Royce plc (UK)
- Snecma
- General Electric
- Avio
- Collins Aerospace
- Boeing
- Pratt & Whitney
- Honeywell

- **MACRO ETCH / PRE-PENETRANT**

- Rolls Royce plc (UK)
- Snecma
- General Electric
- Honeywell (Only pre-penetrant)
- Pratt & Whitney

- **IUT**

- General Electric
- Aerojet Rocketdyne

TRUST THE CERTAINTY OF  **element**

With almost 200 years of experience and a global network of world-class laboratories, we make certain that the materials and products we test, inspect and certify for our customers are safe, quality, compliant and fit for purpose.

contact.us@element.com element.com 1-888-786-7555