



# **FASTENERS TESTING SERVICES**



# WE MAKE YOU FEEL SURE

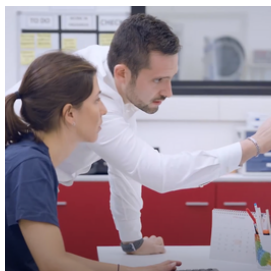
TEC Eurolab is a third-party materials testing laboratory: independent, impartial and UNI CEI EN ISO/IEC 17025:2018 and NADCAP accredited.

A center of excellence for laboratory testing and non-destructive testing, we are able to support every manufacturing company in their quest to achieve the highest standards of quality and safety of their products and processes.

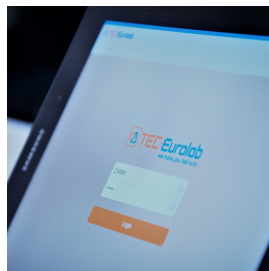
We can help you on any specific request.



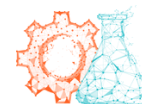
TESTING



TRAINING



CERTIFICATION



## YOUR CHALLENGE

Fastening components, such as screws, nuts and bolts, are essential parts found in any mechanical and aircraft assembly.

By their design nature, fasteners have similar characteristics, but significantly different uses and evaluation methods depending on the application and market of use.

Whatever your application and target market, TEC Eurolab can support you to maximize the value of your product and ensure that what is produced lives up to expectations, regardless of the end application.

## OUR SOLUTION

TEC Eurolab labs are equipped with all the necessary technologies and expertise to conduct rapid and thorough characterization of all chemical-physical, mechanical and metallurgical characteristics of fastening elements. The laboratories dedicated to non-destructive testing and metrological inspection, guarantee our customers the possibility of validating large batches of material, with issuance of certificates of conformity in accordance with the main international regulations and manufacturers' proprietary standards. Our experts can structure acceptance inspection procedures for fasteners, screws, washers, nuts, bolts according to international standards, such as ISO 3269. Our goal is to assure our customers that their products comply with the latest regulations in force, ensuring that all requirements for end users are met. Our laboratories boast established collaboration with major national and international players, and for more than 30 years, our technical experts have been available to assess how to organize continuous characterization campaigns, guaranteeing fast delivery times, flexibility in service and high quality in the provision of experimental data. TEC Eurolab works every day to make its customers feel sure and ensure that they have the maximum capacity to satisfy their target market.

## QUALITY ACCREDITATIONS

NADCAP: SAE Aerospace Standard AS7003 for Material Testing, Non-Destructive Testing, Aerospace quality systems

EN 9100:2018 for test laboratory for the aeronautical and aerospace industry - UNI EN ISO 9001:2015 (SAI GLOBAL)

UNI CEI EN ISO/IEC 17025:2018 - material testing laboratory UNI CEI EN ISO/IEC 17024:2012 -UNI CEI EN ISO/IEC 17065:2012 , certification of personnel and services ( welding, ATP, NDT, F-Gas, ISO 3834) - (ACCREDIA)

NOTIFICATION BODY NB2770: as per Regulation (EU) 305/2011 for FCP Certification.

## CUSTOMER APPROVALS

GE AVIATION

SAFRAN LANDING SYSTEM

LEONARDO SPA

AVIO AERO

AVIO SPA

ELBIT SYSTEMS

THE BOEING COMPANY

## CHEMICAL-PHYSICAL TESTS

Chemical analysis of metallic alloys (ICP-OES, XRF, SPARK-OES)

Gas content analysis: combustion ad fusion method for C-S-H-N

Positive Material Identification (PMI)



## NON-DESTRUCTIVE TESTING

Visual Inspection Test (VT)

Fluorescent Penetrant Test (PT)

Magnetic Particles Test (MT)

Eddy Current Test (ET)

Ultrasonic Test (UT)

Radiographic X-ray Test (RT)

Computed Tomography Inspection (CT)

## MECHANICAL TESTS

Tensile test

Single and Double Shear Test

$\frac{3}{4}$  Point Bending Test

Push Out Test

Fatigue Test

Locking/Breakway Torque Test

Wrench Torque / Torque Effectivity Installation Test

Torque Off / Torque Out Test

Torque Check Test

Installation Test

Preload Test

Stress Embrittlement Test

Proof Load Test

Hydrogen Embrittlement Test





## METALLURGICAL TESTS

Metallurgical Microstructure Examination

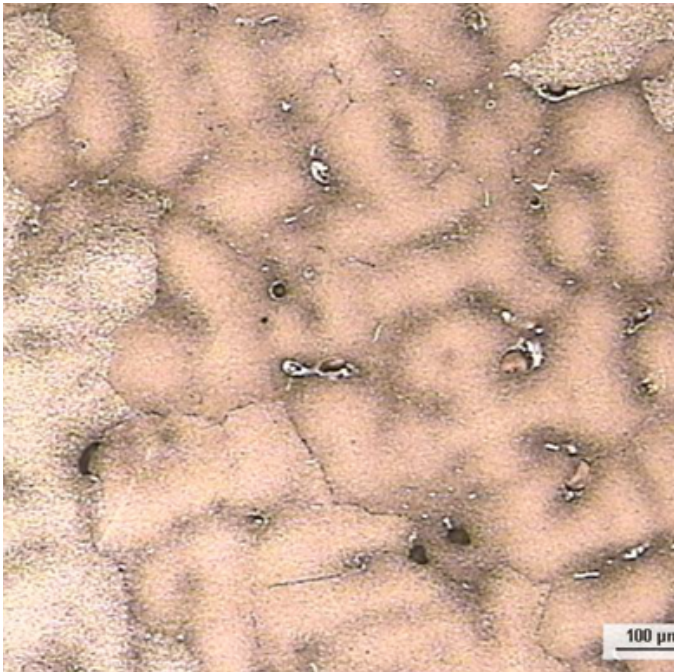
Decarburation / Ricarburation Analysis

Grain Flow Analysis

Alpha Case Analysis

Defect Detection, Classification and Measure

Hardness Testing



## FINISH AND LUBRICATION TESTS

Near Surface Chemical Analysis (EDS-XPS)

Surface Texture Evaluation (SEM)

Corrosion Resistance Evaluation (NSS, IGA/IGO etc.)

Coating Thickness Evaluation



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YOU FEEL  
SURE



## OUR SITES

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