



Fasteners

Testing Capabilities

We make you feel sure

People, skills and technologies to make feel sure that materials and processes can guarantee expected performances.

Much more than testing

We make available to all manufacturing companies the skills and tools to control, improvement and innovation of materials, products, processes.

We work together with customers, in proper manners and time to their needs, from testing plan to operating solutions. With TEC Eurolab all manufacturing companies may have the technical skills and equipment needed to make unique their product.



Certifications



LAB N° 0052

PRS N° 0069 C

LAT N° 0110

Approved by

The Boeing Company D1-4426 | Agusta Westland | Eurocopter | Selex | Thales
Alenia space | Messier Dowty – Safran | GE | Alenia Aermacchi

Complete set of tests on fasteners

- verification of parameters and standards compliance
- survey of issues and/or study for the improvement of products



Testing and Verification of fasteners compliance

| Chemical Analysis |

- CHEMICAL ANALYSIS (ICP-EOS)
- GAS CONTENT (H,O,N)
- POSITIVE MATERIAL IDENTIFICATION (PMI)

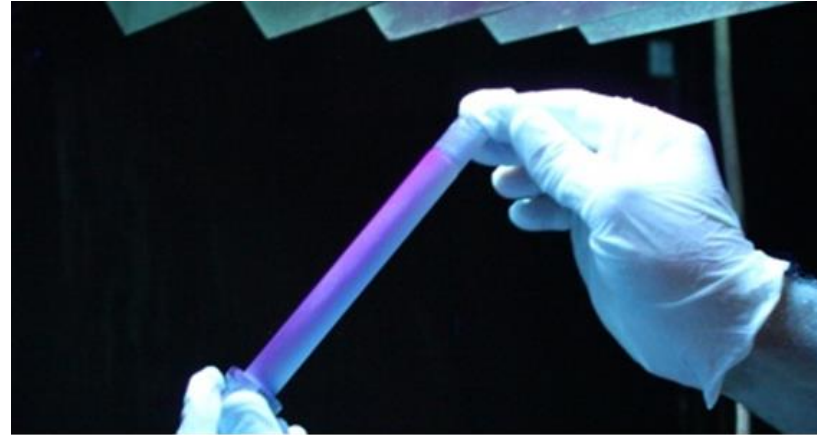


Testing and Verification of fasteners compliance

| Non Destructive Testing |

For surface and internal detection of defects on raw materials and finished parts

- VISUAL TEST (VT)
- FLUORESCENT PENETRANT TEST (PT)
- MAGNETIC PARTICLES TEST (MT)
- EDDY CURRENT TEST (ET)
- ULTRASONIC TEST (UT)
- RADIOGRAPHIC TEST (RT) and TOMOGRAPHIC TEST (CT)

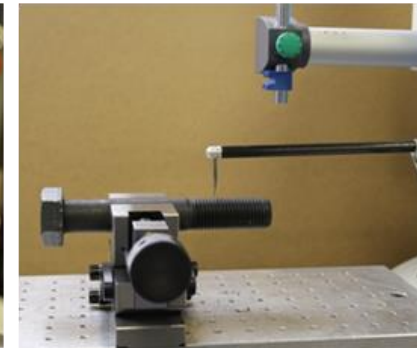
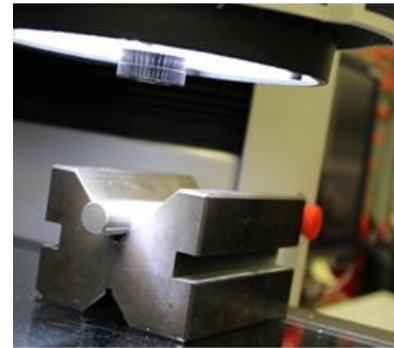
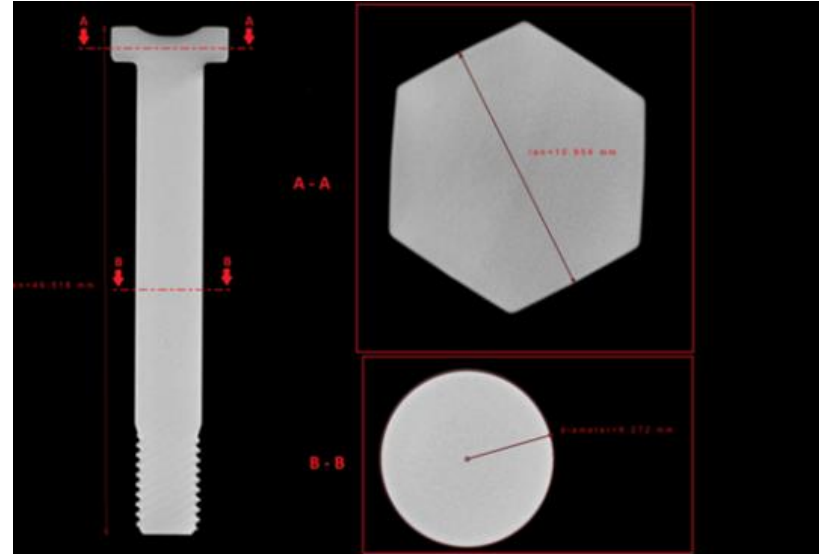


Testing and Verification of fasteners compliance

| Dimensional Controls |

TEC Eurolab performs a complete set of dimensional controls

- GAUGES
- ROUGHNESS AND ROUNDNESS METERS
- CMM AND LASER SCANNER
- TOMOGRAPHIC SYSTEM

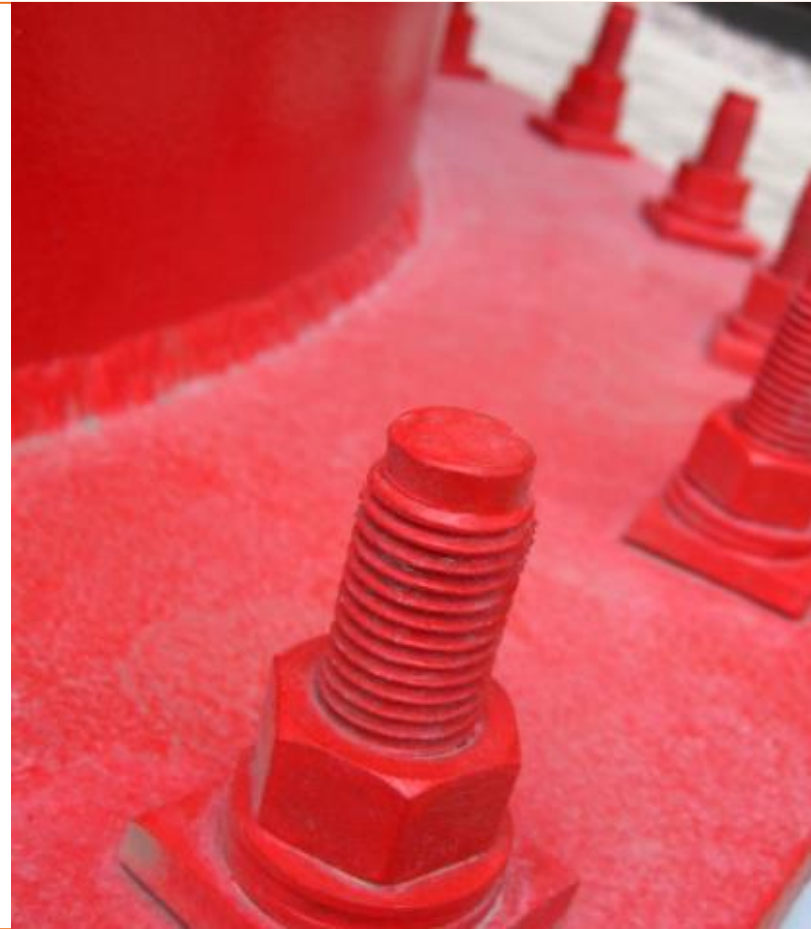


Testing and Verification of fasteners compliance

| Finish and Lubrication |

TEC Eurolab provides a complete range of tests for the characterization of surface finish, coatings, paints, lubricants

- NEAR SURFACE CHEMICAL ANALYSIS (EDS-XPS)
- SURFACE TEXTURE (SEM)
- CORROSION RESISTANCE (NSS, IGA/IGO etc)
- COEFFICIENT OF FRICTION
- THICKNESS
- HARDNESS



Testing and Verification of fasteners compliance

| Mechanical Tests |

TEC Eurolab provides a complete range of tests for the characterization of mechanical properties of fasteners

- TENSILE TEST
- SINGLE AND DOUBLE SHEAR TEST
- 3 and 4 POINT BENDING TEST
- PUSH OUT TEST
- FATIGUE TEST AND WHOLER CURVE DETERMINATION
- FRACTURE MECHANICS TEST



Testing and Verification of fasteners compliance

| Torque Test |

TEC Eurolab provides a complete range of tests for the characterization of the torque properties of fasteners

- LOCKING / BREAKWAY TORQUE
- WRENCH TORQUE / TORQUE EFFECTIVITY/ INSTALLATION
- TORQUE OFF / TORQUE OUT
- PRELOAD

COMPLETE CURVES TORQUE-LOAD-ANGLE



Testing and Verification of fasteners compliance

| Installation and Embrittlement Test |

TEC Eurolab provides a complete range of tests for the simulation and measurement of the characteristic parameters of the assembly

- INSTALLATION / DRIVEABILITY
- TORQUE CHECK
- STRESS EMBRITTLEMENT

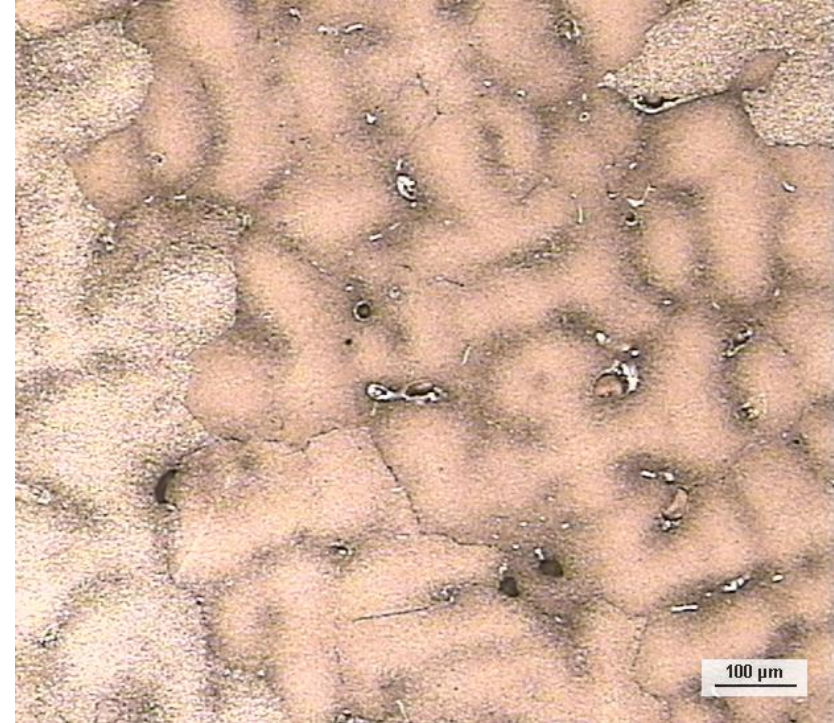


Testing and Verification of fasteners compliance

| Metallurgical Verifications |

TEC Eurolab provides a complete range of tests for the heat treatment, working verification and near surface examination

- METALLURGICAL EXAMINATION
- DECARBURATION / RICARBURATION
- GRAIN FLOW
- ALFA CASE
- DEFECT DETECTION AND MEASURE



Technical Support

TEC Eurolab provides comprehensive support for the study of failures from the problem to the solution implemented

- FAILURE ANALYSIS AND ROOT CAUSE DETERMINATION
- CORROSION AND WEAR INVESTIGATION
- TECHNICAL SUPPORT FOR THE CORRECTIVE ACTIONS
- TECHNICAL SUPPORT FOR THE PRODUCT IMPROVEMENT



Accreditation

Testing activities on fasteners are approved by

ALENIA AERMACCHI

BOEING

AGUSTA WESTLAND

NADCAP

Contact us

TEC Eurolab Srl



Modena – Headquarter

Viale Europa, 40 - 41011 Campogalliano (MO) - Italy



Tel. +39 059 527775 - Fax: +39 059 527773



info@tec-eurolab.com



www.tec-eurolab.com



Follow TEC Eurolab on

