

# Material Testing Laboratory

- Accredited Tests by ENAC  
(ISO 17025).

Accreditation #942/LE1853

- Material metallic tests and welded  
joints.

- Water Analysis.

- Training and consulting.

- Heat treatments and machining.



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Material Testing  
Laboratory





## Metallographic Tests

- Quantitative macroscopic and microscopic tests (grain size, layer thicknesses, phase analysis, etc.) and qualitative tests (indications morphology, metal microstructures, corrosion, etc.).
- Optical microscope up to 1880 magnifications.
- Stereoscopic up to 50 magnifications.
- Welding macrographics measurement control systems.
- Vickers macrohardness tests.
- Corrosion tests.
- Metallographic replicas "on site".
- Welded joints approval testing.



## Chemical Tests

- Chemical test in steel or foundry pills or chips, low alloy and Ni-Cu alloys with optical spectrometry emission (OSE).
- Carbon and Sulfur determination with and without nitrogen.
- Chemical analysis with inductively coupled plasma spectrometry (ICP).
- Water analysis: Conductivity, pH, ionic chromatography (anions and cations) and dissolved contents.
- Dew point, and oxygen in gas plus moisture determination in covers and fluxes.



## Mechanical Tests

- Tensile tests at room and elevated temperatures up to 1022°F with a maximum load of 1000 kN.
- Charpy test in accordance with EN and ASTM from -310°F.
- Drop Weight (Pellini) tests to 1600 Jules and temperatures from -310°F.
- Brinell, Rockwell and Vickers hardness test with loads from 0.01 to 30 kg.
- Bending and flattening test with loads up to 1.000 kN.