



ABOUT TECHNO LABORATORIES

Techno Laboratories (TL) is an independent Test Laboratory founded in 2022. We have acquired recognition from the Oil & Gas, Offshore & Marine and Manufacturing industries as a leading provider of quick, reliable, and accurate testing of metals. We offer a wide selection of services including mechanical tests, chemical, metallographic analysis, corrosion tests and non-destructive tests, etc.

Tests performed by TL are in-line with the most recent international benchmark of ISO/IEC 17025 which attests TL's technical competency in laboratory testing. For specialized products, or products which are uncommon, TL's highly regarded and experienced team will develop testing methods which are suited for the specific purpose.

CERTIFICATIONS





Our Vision:

To be the world's first choice materials testing lab.



Our Strategy:

Lowest Risk Provider - We give you the right answer, on time Superior Customer Service - We are great people who make doing business easy







Mechanical Testing —

Mechanical testing is carried out to determine whether a material is suitable for its final application, for quality control or in research and development to predict how a material will react under other types of forces. This is achieved by measuring properties such as Young's Modulus, tensile strength, yield strength, elongation, reduction in area, hardness, and impact resistance.

- Tensile Test
- Transverse Weld Tensile
- ✓ All Weld Tensile
- Through Thickness Tensile
- Charpy Impact Testing at room temperature until minus 196 Deg C
- Welder Qualification tests
- Welding Procedure tests
- Hardness testing (Rockwell, Brinell, Vickers, Micro Vickers)
- Flattening test

- Bend test
- Nick break test
- Flaring test
- Flanging test
- Fillet fracture test
- Compression test
- Proof load test
- Peel Test

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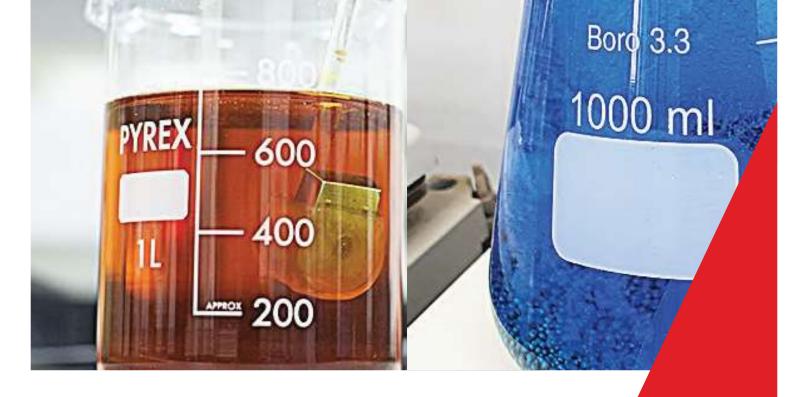


Metallographic Examination

Metallography is the study of sample microstructure. Analysis of a material microstructure helps to establish if the material has been processed correctly and is a critical step in determining product reliability and for understanding why a material failed.

- Decarburization
- Effective Case Depth evaluation
- Stereomicroscope Evaluations at 8-60X magnification
- Optical Microscope Evaluations at 50-1000X magnification
- Grain Size analysis using comparison charts as per ASTM E112
- Ferrite content by manual point count method as per ASTM E562
- Microstructure for the degree of banding as per ASTM E1268

- Microstructure Analysis
- Coatings evaluation
- Inclusion Rating
- Intergranular Attack (IGA)





Corrosion Testing —

Corrosion generally happens when materials are exposed to an aggressive environment, which results in a degradation of material.

Corrosion testing helps analyzing the metal resistance to corrosion at different weather conditions, such as temperature and humidity. The process is measured and analyzed to determine the chances of corrosion.

We can analyze variety of metal samples, including duplex and austenitic stainless steels and wrought nickel-rich chromium-bearing alloys.

- Pitting Corrosion Test as per ASTM A923 Method C; ASTM G48 Method A, C & E
- ✓ Crevice Corrosion Test as per ASTM G48 Method B
- Intergranular Corrosion Test (IGC) as per ASTM G28 Method A & ASTM A262 Practice A, B, C & E
- Hydrogen Induced Cracking Test (HIC)
- Sulfide Stress Corrosion Test (SSC)
- Stress-Oriented Hydrogen Induced Cracking Test (SOHIC)



Chemical Analysis —

Our chemistry division gives in depth chemical analysis of the properties of metals and alloys. Chemical testing of metals is achieved using qualitative and quantitive analysis.

Test we are providing.

Optical Emission Spectroscopy (Spark OES Analysis)



Non-Destructive Tests -

Non-destructive testing (NDT) is a testing and analysis technique used by industry to evaluate the properties of a material, component, structure or system for characteristic differences or welding defects and discontinuities without causing damage to the original part.

- PMI Spark Optical Emission Spectroscopy
- PMI X-Ray Fluorescence Method
- Portable Hardness Test
- In-situ Replica Metallography
- ✓ Iron Contamination Test (Ferroxyl)





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