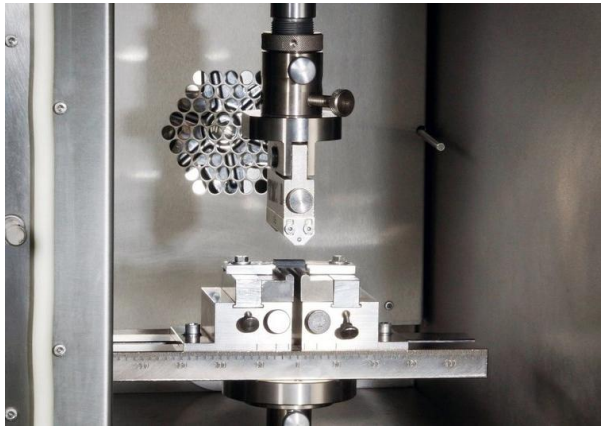


Mechanical Testing

The Applus+ Materials Centre operates a full mechanical testing facility for destructive testing of various materials.



THE Applus+ SOLUTION

The types of mechanical tests and associated equipment available include:

- 60 tonne servo-hydraulic Universal Testing Machine for tensile, compression, flexural/bend, fracture toughness, low cycle fatigue testing with full computer control
- 500kg electro-mechanical Universal Testing Machine for the testing of polymers and composites
- Charpy Impact tester
- Vickers Hardness tester with 5kg to 250kg test load range
- Vickers Micro-Hardness tester with 15gram to 500gram test load range
- Full machining workshop

Each test is generally conducted in accordance to either Australian or related international standards. Testing can generally be conducted with client witness as required. Also essential to each investigation are understanding the client applications, structures, equipment, processes and understanding and relating manufacturing processes for the materials in relation to the failure modes observed.

Various mechanical tests can be conducted to provide:

- Comparison of supplied materials to standards
- Quality Control
- Weld procedure qualification
- Certification of materials
- Product development
- Residual life measurement for structural components

Our test equipment is routinely calibrated in accordance to standards and guidelines established by NATA. Specific test arrangements and procedures can also be developed in discussion with our clients to meet specific test conditions that improve the correlation to real world applications.

Target customers

Mechanical testing is generally a destructive testing process that can be used for material evaluation, quality control, weld procedure qualification, and other Standard certification tests to ensure materials meet the design requirements. Typical industries where mechanical testing is required includes Oil and Gas, Mining, Power, Utilities and Manufacturing.

Key customer benefits

The Materials Centre is currently managed and operated by a team of dedicated professionals with key expertise in materials science and technology. Our personnel have worked in the Oil and Gas, Mining and manufacturing industries for over 30 years, specializing in failure analysis of equipment, materials analysis and characterization.