

Materials Testing







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Materials Testing

ATS offers a complete range of mechanical testing services. A wellequipped in-house machine shop provides timely preparation of test specimens or any special fixturing. Our experienced test engineers can also help you design custom special testing programs to test your products.

Our common testing capabilities include Weld Testing and Weld Qualification, Special Testing, Load Testing, Pressure Testing, Hardness Testing, and Helium Leak Testing.

Applied Technical Services has the resources to simulate real world conditions and perform accelerated wear and tear testing to assess product life cycles. ATS serves various industries such as automotive, aerospace, nuclear, construction, manufacturing, power generation, retail and insurance.

Common Capabilities:

- Weld Procedure Qualification
- Welder Performance Qualification
- Impact Testing (Charpy)
- Tensile, Compression, Shear, and Bend Testing
- Fastener Testing
- Pressure Testing
- Helium Leak Testing
- Customized Product Testing
- In-house Machining, Fixture Fabrication
- AWS, NAVSEA, ASME, API, ISO/EN

Materials & Special Testing

Materials Testing

ATS offers a complete range of mechanical testing services. A well-equipped in-house machine shop provides timely preparation of test specimens or any special fixturing. Our experienced test engineers can also help you design custom special testing programs to test your products.



Weld Testing and Weld Qualifications

Applied Technical Services, Inc. welding engineers ensure industry standards are maintained by assisting in preparing welding procedure specifications and weld procedure and performance qualifications.

Applied Technical Services, Inc. uses a wide variety of techniques and standards such as ASME, AWS, API and PED/EN to serve our clients' vast weld testing needs. Many companies require their welders be qualified, and at ATS we are able to test all aspects of weld procedure and performance qualifications by conducting destructive and nondestructive tests to ensure conformance to code requirements.

Special Testing

Applied Technical Services is equipped to handle customized Load Tests, Pressure Tests, Accelerated Life Cycle Tests and Wear/Fatigue Tests. Our Special Testing Group has the equipment and knowledge to satisfy a wide variety of testing requirements.





Load Testing

Applied Technical Services has performed numerous load tests on a variety of items ranging from space shuttle parts to hand railings. We can perform this testing in-house or on-site using customer supplied fixtures or fixtures designed by ATS specifically for

our clients. Our engineers work closely with our clients to simulate life-like scenarios to achieve the most accurate test results.

Pressure Testing

Applied Technical Services has the capability to perform pressure tests, both in-house and in the field. Our pressure capabilities range from vacuum to 20,000 psig. With these capabilities, we are able to test a large variety of items from proof pressure testing nuclear plant components to burst testing copper tubes.





Hardness Testing

ATS can accommodate the needs of our clients in the hardness testing area with capabilities in various hardness scales such as, Brinell, Rockwell, Superficial Rockwell, Webster, Barcol, Leeb, Knoop and Vickers. (On-site and Lab Testing)

Strain Gage Testing & Strain Measurements

Strain gages are used to determine material stress due to static and dynamic loads coming from internal and external sources such as mechanical, thermal and pressure. ATS can apply the appropriate strain gage type to the test surface, perform data acquisition and provide



results to assist in identifying the stress levels to avoid mechanical failure or fatigue. The data can also assist you in verifying your design criteria and/or validate your finite element analysis results.

Common Capabilities:

- Weld Procedure Qualification (ASME,
- AWS, PED/EN, API)
- Welder Performance Qualification
- Impact Testing (Charpy, Drop Weight)
- Tensile, Compression, Shear, Torsion and Bend Testing
- Stress Rupture
- Hydrogen Embrittlement Testing
- Fastener Testing
- Pressure Testing
- Helium Leak Testing
- Customized Product Testing
- In-house Machining, Specialty Fabrication



