



Pressure Testing

All metal, plastic, and composite parts intended to contain liquids or gases under pressure are required to undergo stringent pressure testing procedures to meet qualification standards.

E-Labs can meet your needs for pressure testing using a multitude of different gases over an extended range of pressures.

Whether it be proof pressure or burst testing we have the facilities to accommodate large tanks up to 8 ft long and 3 feet in diameter. Rigorous field test conditions are simulated in a controlled lab environment allowing us to test and measure volumetric expansion in a cylinder while providing positive quality assurance.



E-Labs Inc.
5150 Lad Land Drive, Fredericksburg, VA 22407
Phone: 540-834-0372 - Fax: 540-834-0373
Info@E-LabsInc.com - www.e-labsinc.com

ISO:17025 Accredited

- **Burst Pressure, Hydrostatic, 30,000 psig**
- **Proof Pressure, Gaseous, 12,000 psig**
- **Reliability/Life/Fatigue Testing**
- **Proof Pressure Cycling**
- **Coatings/Corrosion Prevention Test and Evaluation**



PRESSURE TESTING

Pressure Testing

Burst Pressure, Hydrostatic, 30,000 psig

Knowing the pressure carrying capacity of a tank is necessary to ensure short and long term product performance. A Burst Pressure Test shows a real-time curve of increasing pressure until the cylinder sustains permanent deformation and ultimately fails. By establishing how the tank fails, the test allows for an estimation of product life expectancy and safety. At E-Labs, Inc. we are capable of performing Hydrostatic Burst Pressure testing up to 30,000 psig.



Reliability/Life/Fatigue Testing

During fatigue testing a product is subjected to repeated load cycles in order to understand how it will perform under similar conditions in actual use. Testing may include any of the following: low & high cycle fatigue, durability, life prediction methodology, mechanical fatigue, tensile strength, strain gage, multi axial fatigue, experimental mechanics, stress measurement & analysis. At E-Labs Inc. our fatigue testing facilities are designed to service the needs of multiple industries including aerospace, automotive, and industrial industries.



Proof Pressure Cycling

Proof Pressure Cycling consists of generating stresses that increase to the required value (usually 1.5 times the maximum expected operating pressure), holding for a determined amount of time without pressure loss, inspecting the component, then releasing the pressure and re-inspecting. This helps in determining product susceptibility to fatigue failure.

Coatings/Corrosion Prevention Test and Evaluation

Components that do not have proper coatings or corrosion resistance will ultimately fall short of their expected design life. At E-Labs, Inc. we design and implement highly accelerated corrosion test programs for determining corrosion resistance. We also perform fundamental corrosion evaluation including failure analysis, corrosion performance, corrosion prevention and control, and environmental effects. Testing can range from cabinet testing, immersion, and high pressure/ high temperature tests to electrochemical tests.

