



Pressure Vessel Hydraulic and Fire Testing

PowerTech Labs includes a hydraulic testing lab, fully automated to run 24 hours a day, and fire testing capability. Light, medium, and heavy duty cylinders are regularly tested at our facility. Testing is accredited to ISO 17025.

Hydraulic lab features:

- Ambient cycle tests up to 138 MPa
- Cold cycling tests down to -48°C
- Hot cycling tests up to 100°C
- Burst tests up to 275 MPa

Other test capabilities:

- Accelerated stress rupture testing
- Boss torque tests
- Drop tests
- Flaw, impact, and chemical tests
- Material testing (resin shear strength, glass transition temperature, and tensile tests)

Custom tests:

PowerTech excels at custom tests as per customer requirements. Our team of industry experts can offer expertise and work with customers to design tests.

Fire testing capability:

- Localized and engulfing bonfire tests
- Penetration and gunfire tests
- Impact tests (pressurized or non-pressurized)

Featured Regulations and Standards:

- All hydrogen and CNG powered land vehicle tests, including:
 - ECE R134 and UN GTR No. 13
 - HGV2
 - NGV2
 - EC 79
 - SAE J2579
 - ISO 11439

PowerTech engineers are also members of ISO, GTR, CSA, and SAE technical committees developing testing protocols, and have extensive industry experience.

ABOUT POWERTECH LABS:

PowerTech Labs Inc. is one of the largest testing and research laboratories in North America, situated in beautiful British Columbia, Canada. Our 11-acre facility offers 15 different testing labs for a one-stop-shop approach to managing electrical utilities, and testing gas components, pressure vessels and systems.

Outside of the utilities industry, PowerTech provides routine testing capabilities, product development, research and consulting services to support an array of industrial-type operations, electrical equipment manufacturers and automotive original equipment manufacturers.



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PowerTech

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Pressure Vessel and Fuel System Pneumatic Testing

PowerTech Labs includes a pneumatic testing lab, fully automated to run 24 hours a day. PowerTech tests cylinders and fuel systems, including all components between receptacle and injectors. Testing is accredited to ISO 17025.

Pneumatic lab features:

- Hydrogen gas cycling up to 90 MPa
- Pre-cooled gas to -50°C
- Chamber temperature from -50°C to 90°C
- Fueling as per MC method
- Permeation testing up 60°C
- Drive cycle testing
- CNG cycling up to 35 MPa

Other test capabilities:

- Continuous sampling for permeation and dynamic emissions testing
- Leak testing with H₂, CNG, or N₂
- CT scans
- Gas cycle testing up to a cylinder length of 3300mm
- H₂ purity as per SAE J2719

Featured Regulations and Standards:

All hydrogen and CNG

- ECE R134
- UN GTR13
- CSA HGV2
- CSA NGV2
- EC79
- SAE J2579
- ISO 11439
- ISO 11119-3
- KHK S0128
- others

PowerTech engineers are members of ISO, GTR, CSA, and SAE technical committees developing testing protocols, and have extensive industry experience.

Custom tests:

PowerTech excels at custom tests as per customer requirements. Our team of industry experts can offer expertise and work with customers to design tests.



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