

Hydrogen Product Solutions

Robust. Reliable. Reusable.



In response to the vital push towards sustainability, Parker has become a leader in the design and manufacture of products that utilize hydrogen. Hydrogen has no greenhouse gas emissions, making it the ideal alternative fuel for a variety of applications; however, it is imperative to design equipment with safe, reliable products tailored to the fuel's unique attributes.

Parker Tube Fitting Division offers several products for a variety of hydrogen applications, from onboard vehicle gas systems, cryogenic storage, as well as infrastructure station builds and transfer lines.

Our hydrogen products boost your bottom line with:

Unlimited Reusability –

The Seal-Lok™ O-ring Face Seal (ORFS) design allows for in-field troubleshooting and maintenance by simply replacing the O-ring or seal.

Ease of Assembly –

Seal-Lok fittings use a torque method of assembly and are incredibly resistant to overtorque (can withstand up to 2X torque). These fittings are also very robust and can be assembled and disassembled many times without any issues.

Hydrogen-Compatible Sealing –

Seal-Lok utilizes a robust elastomeric sealing design proven for critical, leak-free applications.

Corrosion-Resistant Materials –

All Seal-Lok product lines for alternative fuels are available in corrosion-resistant SAE/AISI 316/316L stainless steel, as well as carbon steel.

SEAL-LOK FOR HYDROGEN

For gaseous applications

- Proven H2 compatible compound with sealing temps of -55 to 85
- Best fitting for high vibration applications
- Tested and approved to HG3.1 and EC79.
- Zero-clearance for fast and easy plumbing
- Suitable for on-vehicle and infrastructure applications



SEAL-LOK XTREME

For cryogenic applications

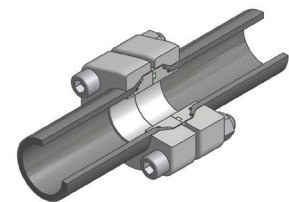
- Uses patented metal seal for increased pressure capability in ORFS-design and SAE ORB fittings
- Sealing temperatures from -328°F to 1,200°F (-200°C to 649°C)
- Suitable for on-vehicle and infrastructure applications



PARFLANGE F37 NON-WELDED FLANGE SYSTEM

For infrastructure or larger transfer lines

- Non-welded connection systems for fast and repeatable on-site assembly
- Market proven safe and reliable
- Various sealing materials suitable for H2 applications



ENGINEERING YOUR SUCCESS.

Seal-Lok and Port 700 Bar Benefits

The flat face design of Seal-Lok fittings, combined with the patented Parflange tube end process, creates leak-free connections fast and effectively, for both H35 (350 bar) and H70 (700 bar) pressure classes. On the port side, Parker does offer a special 700 bar design that features an enhanced sealing arrangement and approved O-ring compounds that meet the demands of high-pressure hydrogen service. This is the only 700 bar adjustable fitting in the market



High pressure (700 bar) port configuration

SEAL-LOK KEY BENEFITS:

- Resistance to overtightening
- Zero clearance assembly
- Unlimited reusability
- Superior vibration resistance
- Ease/speed of assembly
- Field replaceable components/easy maintenance

700 BAR PORT BENEFITS:

- Enhanced sealing arrangement for higher pressure capability
- 700 bar (10,000 PSI)(70MPa) working pressure capability
- Positionable fitting approved for 700 bar service
- Torque Assembly for improved assembly consistency

Easy Assembly With Parflange® Technology

Parker Parflange® equipment is designed to make fast, leak-free connections for Seal-Lok tube fittings and are available to purchase or rent to meet all production needs. Parflange models include:

1025

Best machine for lower volume H2 tube assemblies

- Flanging and flaring capabilities
- Stainless – ¼" to 1" OD
- 60 sec cycle time
- Very easy to use with minimal setup time
- Compact table-top unit



PRO50

Best machine for on-vehicle H2 tube assemblies for OEMs

- Flanging and flaring capabilities
- Stainless – ¼" to 1 ½" OD
- 15 sec cycle time
- Production grade machine for higher volume tube assemblies



LEARN MORE!

View the reference links below to learn more about our alternative fuel product offerings:

Parker Alternative Fuels
www.parker.com/alternative-fuel

Machines and Tooling
www.TFDToolSpec.com

Parflange Machine Operation Videos
<https://discover.parker.com/TFDTubeFabEquipment>

