aerospace
climate control
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filtration
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pneumatics
process control
sealing & shielding

Connection Solutions for Natural Gas

Innovative, Compliant Seal-Lok™ Technology

Parker

ENGINEERING YOUR SUCCESS.

Leak-Free Connections for Natural Gas Applications

With Seal-Lok™ for CNG and Seal-Lok™ Xtreme

In response to the vital push toward sustainability, Parker has become a leader in the design and manufacture of products that utilize compressed natural gas (CNG) and liquid natural gas (LNG). Plentiful in North America and relatively inexpensive, natural gas produces 30 percent fewer greenhouse gas emissions than gasoline or diesel – making it an ideal alternative fuel for a diverse range of applications. However, when opting for an alternative fuel, it is imperative to use equipment tailored to the fuel's unique attributes.

Parker Seal-Lok™ technology provides options that optimize fuel conveyance in natural gas applications. Seal-Lok for CNG and Seal-Lok Xtreme enhance the performance and reliability of O-ring face seal SAE J1453 connections. Available in tube and hose sizes from ¼" to ¾" (6 mm to 20 mm), both options improve connections by:

- **Producing zero clearance for easy plumbing**
- **Utilizing existing captive O-ring groove for seal retention to prevent fallout during shipment and assembly**
- **Offering unlimited reusability**
- **Reducing assembly/ disassembly times**

Seal-Lok™ for CNG utilizes a CNG compound for an elastomeric seal specially engineered for natural gas applications.

Seal-Lok™ for CNG Applications
Parker Seal-Lok for CNG applications utilizes an elastomeric seal compound that is specially designed to address the needs of the natural gas market. The CNG compound is a hydrogenated nitrile which improves ozone resistance and supports wider temperature range requirements making it the ideal compound for CNG applications.

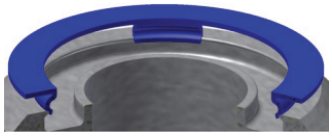
Key features and advantages of Seal-Lok for CNG applications:

- **Available in inch sizes ¼" – ¾" and metric sizes 6 mm – 20 mm**
- **Offered port options: SAE J1926-1/ISO 6149-1 straight thread ports and NPT tapered ports**
- **Standard materials are stainless steel, steel and XTR (zinc nickel) plated steel.**
- **CNG compound with sealing temperature capabilities: -40° to 300°F (-40° to 149°C)**
- **Recommended for: low-temperature, petroleum-based hydraulics oil, ozone, aging and weather resistance**
- **Seal-Lok for CNG exceeds the pressure requirements of the certifications below. Please contact the division for the specific pressure ratings.**

Seal-Lok for CNG applications has been tested and certified by TUV according to the following standards:

- **ECE R110 regulation (Economic Commission for Europe)**
- **ANSI NGV 3.1-2014/CSA 12.3-2014 for stainless steel and zinc nickel plated steel fittings (Natural Gas Vehicles/Canadian Standards Association)**
- **ISO 15500**
- **Passed Bonfire Testing in accordance with ANSI/CSA NGV 2**

Seal-Lok Xtreme for Severe Temperature Applications
Extreme temperatures and chemical compatibility concerns can pose challenges to elastomeric sealings in LNG applications. Parker Seal-Lok Xtreme offers an alternative to the sealing capability of O-ring face seal SAE J1453 connections in these critical applications.



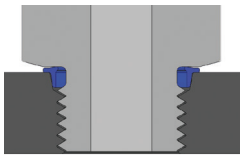
Seal-Lok Xtreme with a SS metal sealing ring can withstand severe temperatures and solve chemical compatibility issues most often seen with elastomeric seals.

Seal-Lok Xtreme improves durability with the use of a patented stainless-steel metal sealing ring. This Parker innovation **achieves superior tube and hose connections at temperatures as low as -328°F (-200°C) and as high as 1200°F (650°C)**.

Seal-Lok Xtreme fittings are field-replaceable for easy maintenance. They enhance connections with:

- **SAE/AISI 316/316L stainless-steel materials for corrosion resistance**
- **Working pressures up to 5,850 psi**
- **High resistance to over-tightening or over-loosening due to vibration**
- **Incorporation of extreme temperature seals into O-ring face seal body design**

In addition to the Seal-Lok Xtreme tube or hose connection, Parker also offers a patented metal port seal to replace the elastomeric seal on the SAE J1926 O-ring boss fittings. The SAE metal port seal provides similar temperature, pressure, and chemical compatibility.



Patented SAE metal port seal.

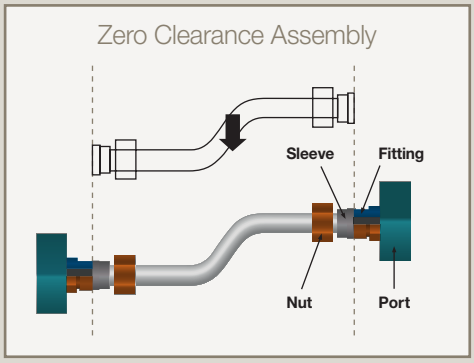
Seal-Lok Xtreme has been extensively tested in the areas of thermal cycle and shock, as well as shown proven success in helium mass spectrometer and pressure testing. It has also passed Bonfire Testing in accordance with ANSI/CSA NGV 2. For ease of service, Seal-Lok Xtreme can be connected to tube assemblies using the existing Parker Parflange® end technology as shown.

Many applications benefit from Seal-Lok Xtreme's rugged design, including:

- **Combustion turbines**
- **LNG storage and fueling systems**
- **Cryogenic equipment**
- **High-temperature engine compartments**
- **Instrument panels**

Both the Seal-Lok for CNG and Seal-Lok Xtreme product lines offer a wide range of tube and hose connection styles to meet your needs. Configurations include straights, elbows and tees with port-end options of SAE J1926-1, ISO 6149-1 straight thread and NPT.

Parflange® Technology Enhances Seal-Lok Connections



Parker Parflange equipment is designed to make fast, leak-free connections for Seal-Lok tube fittings without brazing or welding. Using an exclusive orbital spindle motion, Parflange produces high-quality, consistent flanges and flares.

Parflange units are easy to operate. With multiple power options and a simple tooling change for flanges and flares, Parflange saves you time and money on tube assembly. Parker offers a full range of Parflange equipment options:

1025

ECO 25

PRO 50

Call 614.279.7070 or visit www.parker.com to learn more about how Seal-Lok technology can enhance your application.

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