

HGP Profile

Extended Life Frac and Mud Pump
Suction or Discharge Cover Seal



Delivers longer life versus HNBR D-rings

Parker's HGP Profile delivers over three times the life over traditional HNBR D-rings for suction and discharge cover seals in multi-plex frac pump applications.

Owing to its patent pending geometry and Parker's proprietary Resilon® polyurethane materials of construction, the HGP Profile can withstand pressure up to 15,000 psi at 3 hertz in abrasive, acidic fracturing fluid.

Contact Parker's experienced oil and gas application engineers to learn more.



Contact Information:

Parker Hannifin Corporation
Engineered Polymer Systems Division
2220 South 3600 West
Salt Lake City, UT 84119

phone 800 233 3900
eps-ccare@parker.com

www.parker.com/eps

Product Features:

- Unique, patent pending geometry provides increased sealing surface protection
- Greater in-gland stability resists proppant intrusion – preventing corrosion
- Tough, abrasion-resistant Resilon® 4300 polyurethane material resists wear from caustic fracking fluid proppant
- Compression-set resistant material ensures positive sealing at high temperatures, even after long, continuous use
- Worldwide availability



ENGINEERING YOUR SUCCESS.

Proprietary Design and Resilon® Polyurethane

Extend seal life to keep equipment running longer before needing repair

Proprietary Design

Design features of the patent pending HGP Profile include:

- High gland fill that maximizes exclusion of debris, especially highly abrasive proppant, preventing damage to metal from aggressive fluids
- Maximized heel width stabilizes seal from vibrational motion generated by high frequency pressurization
- Stabilizing pedestal aides self-energizing lip orientation -- ensuring consistent contact force
- Symmetrical design makes installation easy

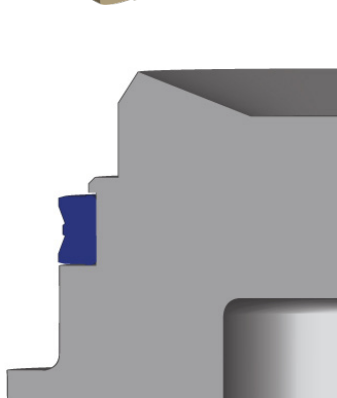


Fig 1. Uninstalled state

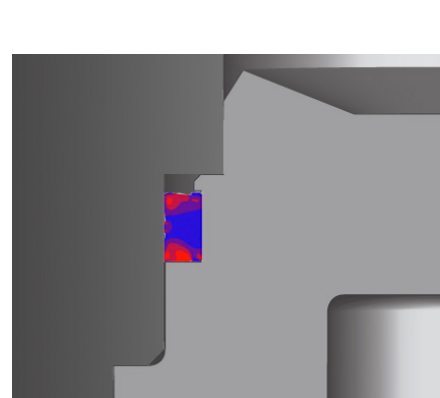


Fig 2. Installed state

High Performance Resilon Polyurethane Material

One of the challenges oil and gas companies face is sustaining seal life in fracking fluid and drilling mud, some of the most destructive media to be sealed. Parker's proprietary Resilon® material meets the challenges presented in sealing abrasive and caustic fluid with a polyurethane that offers superior wear resistance and the highest operating temperature on the market.

Advantages of Resilon polyurethane over all other commercially available polyurethane seal materials include:

- Excellent abrasion resistance for increased seal life
- Better rebound for faster reaction to rapid changes in pressure
- Toughness for long wearing performance
- Resistance to extrusion at higher pressures
- Thermal suitability for use in applications with continuous operation temperature of 230°F (excursion temperatures up to 275°F) depending on application¹.

Typical Physical Properties

Material Code	P4300
Hardness, Shore	90 A
Modulus @ 100% elongation, psi	1674
Ultimate tensile strength, psi	8021
Ultimate elongation, %	638
Specific gravity	1.17
Temp range Min to Max (°F)	-65 to 275

¹ Values listed are typical values and should not be used as specification limits. Parker advises end users to test material under actual service conditions before specifying.

