

Large Diameter Polymer Products

Complete systems for subsea and land-based drilling and production



Parker Oil & Gas Expertise

Parker EPS Division has the expertise and technology to manufacture a vast range of products, including large diameter seals and components, for critical subsea and land-based oil and gas applications. Our products serve all industry applications, such as:

- Drilling
- Well Completion
- Production
- Distribution

With a wide range of elastomer and thermoplastic materials engineered to perform at temperatures up to 550°F and pressures above 20,000 psi, we can take you to new depths and deliver world class solutions — in any shape, large or small, and with the latest proven material formulations.



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Molding & Material Capabilities:

- Thermoplastic molding to 62.5" diameter; cast molding to 144" diameter
- Elastomer molding to 80" diameter
- PTFE and hard plastic machining to 72" diameter
- Insert & rotational molding
- NORSOK M-710 certified elastomers compatible in CO₂, sour service (H₂S) and sweet service applications
- Rapid gas decompression (RGD) materials available
- Materials compatible with traditional or exotic drilling fluids and muds

ENGINEERING YOUR SUCCESS.

Proven Materials & Product Design Expertise

For Subsea and Land-based Applications

Material Type	Temp Range	Min	Max
Nitriles (Buna-N, NBR) N4400A75, N4180A80, N9643A90 / N9589A80. Excellent compression set resistance, peroxide cure, API 11D1 for packer elements. Applications: Petroleum lubricants, seawater and diesel fuel.		-35°F	+275°F
Hydrogenated Nitriles (HNBR) N4031A85 (EPS) / KA183A85 (ORD), N4025A80, N4007A95, N4288A85. Norsok M-710 Certified for H ₂ S and sweet service. Excellent low temperature capability, extrusion resistant, abrasion resistant, compression set resistant, NACE TM0 192-2003 Standard. Applications: High abrasion, high temperature resistance coupled with low temperature resistance. Good in Flex Fuels MTBE.		-40°F	+300°F
Ethylene Propylene (EPDM, EPR) E0962A90. Developed for steam service. Geothermal, high temperature, high pressure steam (intermittent to 550°F), resistant to CO ₂ , H ₂ S, methanol, glycols and explosive decompression.		-60°F	+500°F
Nitroxile® N4263A90, N4257A80, N4274A85. Excellent abrasion resistance. Internally lubricated for lower friction, Extreme low friction, Applications: Petroleum lubricants, seawater and diesel fuel.		-20°F	+275°F
Fluorocarbon (FKM) V4205A75, V1238A95, V4208A90, V4266A95. Various general-purpose fluorocarbons including Norsok M-710 certified V1238. Excellent compression set resistance. Maximum extrusion resistance and explosive decompression resistant. Applications: High temperature, high pressure, petroleum oils & fuels, H ₂ S.		-15°F	+400°F
Perfluorinated Elastomers (FFKM) V8545A75, V8588A90 Parofluor™. High temp resistant perfluorinated elastomer. Good compression set resistance, extreme chemical resistance and low leachables. Extreme temperatures, chemical mixtures, high concentration H ₂ S, amines, steam, polar fluids, solvents.		-15°F	+550°F
Highly Fluorinated Elastomers V3819A75, V8534A90 (Hifluor™). Highly fluorinated material. Lower temperature range, cost-effective alternative to perfluorinated materials. Improved compression set and abrasion resistance. Extrusion resistant version available. Resistant to aggressive chemicals, ketones, amines, acids and bases, polar fluids.		-15°F	+400°F
AFLAS®1 TFE V4461A90, V1041A85. Improved compression set resistance. Applications: Amines, H ₂ S, steam, high temperature. Certified to Norsok M-710. Passes NACE TM0 192-2003 Standard.		-15°F	+450°F
Elasto-Plastic Materials Resilon® P4300A90, P4301A90, P4700A90, Molythane® P4615A90. Parker branded improved blends and high performance polyurethanes with improved compression set and rebound properties, water- and extrusion-resistance capabilities.		-65°F	+275°F
Plastic Alloy Materials Polymyte® Z4651, MolyGard® W4650, Nylatron®2 W4655. High tear strength, abrasion- and extrusion-resistant. Excellent resistance to petroleum fluids, many phosphate ester fluids, some chlorinated hydraulic fluids, up to 180°F in water, oxygen, common solvents, ketones, alkalis, dilute bases, mineral acids, weak acids.		-65°F	+275°F
PTFE 0100, 0201, 0204, 0502, 0901. Virgin & variously filled PTFE (carbon, glass, moly, bronze) blends available depending upon application parameters for wear resistance, abrasion resistance and speed. UHMWPE (0901) for high wear resistance and H ₂ O based media.		-450°F	+550°F
UltraCOMP™ Engineered Thermoplastics W4685, W4738. Parker brand of PEEK. Neat, non-filled and filled blends available (carbon, graphite, PTFE).		-65°F	+500°F
Specialty Fillers / Filled Materials. Natural rubbers enhance elongation properties in oilfield rubber products. Neoprene and FKM fiber (non-fabric, fabric) filled elastomers.			

Parker's experienced application engineering team will work with you on standard or custom designs. Our expertise includes all sealing systems and polymer products for:

Drilling

- Drills
- Blow Out Preventers
- Drilling Mud Systems
- LWD and MWD Test Equipment
- Casing and Pipe Connections
- Control Valves
- Compressors and Pumps
- Drilling Service Expendables

Subsea Riser Management & Connector Systems

- Riser Connector Seals
- Shims, Fins
- Protectors: Box & Pin, Flange
- Riser Clamps, MUX Clamps
- Viv Strakes
- Gimbal Bearings and Assemblies
- Flexible Joint Assemblies
- Diverter Joint Assemblies
- Tether Bearings
- Annular Seals
- Flowline Seals

Completion

- Tubing Heads and Hangers
- Packers
- Well Controls and Christmas Trees
- Cementing Equipment, Expendables
- Well Head Assemblies

Production

- Packer Elements
- Christmas Trees
- Injection Systems
- Gas Lift Valves
- Well Service Tools, Test Equipment
- Well Servicing Expendables
- Compressors/Pumps
- Production BOPs
- Artificial Lift Systems

Distribution

- Marine/Offshore Loading Swivels and Turrets
- Railcar Loading Systems
- Pipeline Service Equipment: Pigs and Spheres
- Pipeline Valves, Actuators
- Pumps/Compressors
- Tank Systems
- Tanker (Ship) Loading Systems

¹ AFLAS® is a registered trademark of Asahi Glass Co., Ltd.

² Nylatron® is a registered trademark of Quadrant EPP USA Inc.

