Large Diameter Polymer Products

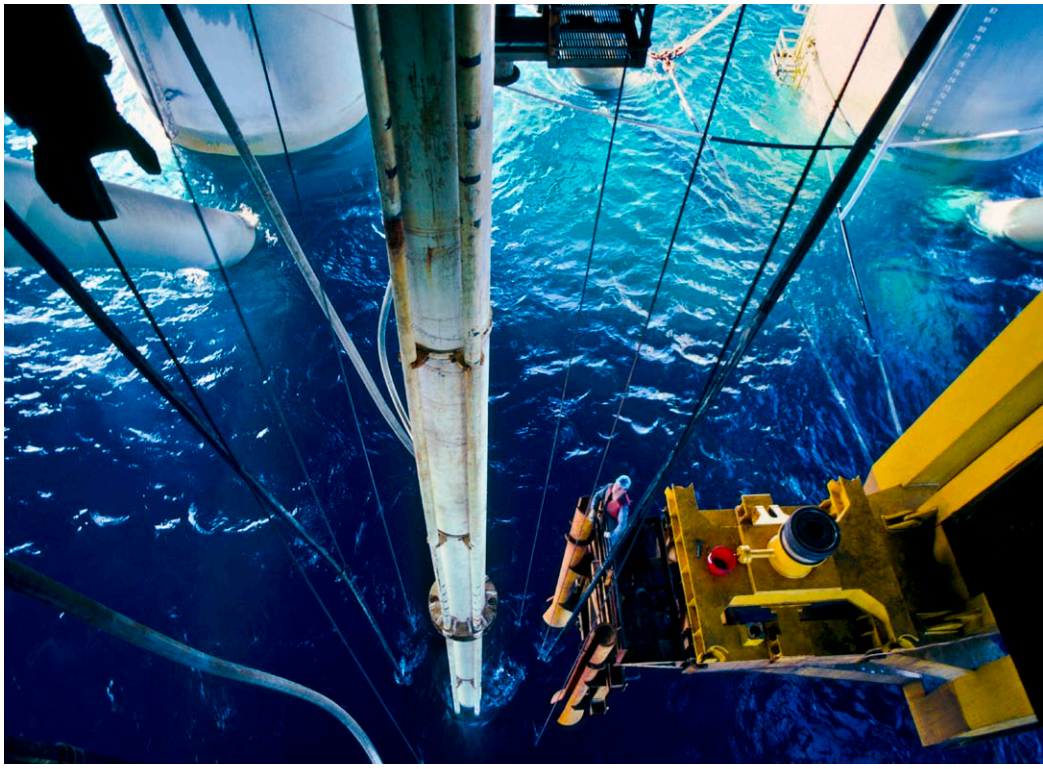
Complete systems for subsea and land-based drilling and production

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 CO_2, sour service (H_2S) 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	Temperature Range	Min	Max
Nitriles (Buna-N, NBR)		**-35°F**	**+275°F**
N4400A75, N4180A80, N9643A90 / N9589A80 Excellent compression set resistance, peroxide cure, API 11D1 for packer elements. Applications: Petroleum lubricants, seawater and diesel fuel.			
Hydrogenated Nitriles (HNBR)		**-40°F**	**+300°F**
N4031A85 (EPS) / KA183A85 (ORD), N4025A80, N4007A90, N4288A85 NORSOK M710 Certified for H_2S and sweet service. Excellent low temperature capability, extrusion resistant, abrasion resistant, compression set resistant, NACE TM0 187-98 Standard. Applications: High abrasion, high temperature resistance coupled with low temperature resistance. Good in Flex Fuels MTBE.			
Ethylene Propylene (EPDM, EPR)		**-60°F**	**+500°F**
E0962A90 Developed for steam service. Geothermal, high temperature, high pressure steam (intermittent to 550°F), resistant to CO_2, H_2S, methanol, glycols and explosive decompression.			
Nitroxile™		**-20°F**	**+275°F**
N4263A90, N4257A80, N4274A85 Excellent abrasion resistance. Internally lubricated for lower friction, Extreme low friction, Applications: Petroleum lubricants, seawater and diesel fuel.			
Fluorocarbon (FKM)		**-15°F**	**+400°F**
V4205A75, V1238A95, V4208A90, V4266A95 Various general-purpose fluorocarbons including NORSOK M710 certified V1238. Excellent compression set resistance. Maximum extrusion resistance and explosive decompression resistant. Applications: High temperature, high pressure, petroleum oils & fuels, H_2S.			
Perfluorinated Elastomers (FFKM)		**-15°F**	**+550°F**
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_2S, amines, steam, polar fluids and solvents.			
Highly Fluorinated Elastomers		**-15°F**	**+400°F**
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.			
AFLAS TFE		**-15°F**	**+450°F**
V4461A90, V1041A85 Improved compression set resistance. Applications: Amines, H_2S, steam, high temperature. Certified to NORSOK M710. Passes NACE TM0 187-98 Standard.			
Elasto-Plastic Materials		**-65°F**	**+275°F**
Resilon™ P4300A90, P4301A90, P4700A90, Molythane™ P4615A90 Parker's branded materials include improved blends and high performance polyurethanes. Offering includes a range of materials with improved compression set and rebound properties, water resistance, and extrusion resistance for increased sealing capabilities.			
Plastic Alloy Materials		**-65°F**	**+275°F**
PolyMyte™ Z4651, MolyGard™ W4650, Nylatron™ W4655 High tear strength, abrasion and extrusion resistance materials. 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. Good resistance to hostile environments.			
PTFE		**-450°F**	**+550°F**
0100, 0201, 0204, 0502, 0901 Virgin & variously filled PTFE (i.e., carbon, glass, moly, bronze). Many blends available depending upon application parameters for wear resistance, abrasion resistance and speed. UHMWPE (0901) for high wear resistance and H_2O based media.			
UltraCOMP™ Engineered Thermoplastics		**-65°F**	**+500°F**
W4685, W4738 Parker brand of P.E.E.K. Non filled and filled blends available (carbon, graphite, PTFE).			
Specialty Fillers and Filled Materials			
Natural rubbers enhance elongation properties in oilfield rubber products. Neoprene and FKM fiber (non-fabric and fabric) filled elastomers available.			

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

Completion
- Tubing Heads and Hangers
- Packers
- Well Controls and X-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

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