



FS SEALS

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FS SEALS

Ideal for sealing large clearances, particularly those on surface wellhead-to-casing assemblies, the FS Seal design supports reduction in installation time, correct placement in the housing and simple installation.

High-performance FS Seals can retain sealing integrity under severe operating conditions, including:

- Stab-in Operations
- Wide Ranges of Temperature and Pressure
- Chemically Aggressive and Highly Abrasive Media

Freudenberg Flow Technologies performs in-house product verification testing and analysis for our designed solutions and for proprietary customer projects at our Materials Development & Product Testing Lab. We offer a complete line of FS Seals designed for API standard casing sizes ranging from 2-7/8" to 36" diameter.

Freudenberg Flow Technologies – The Supplier of Choice in Seals:

We utilize engineered designs, in-house material development, prototyping, product and material testing and advanced manufacturing to provide our customers with robust solutions for their demanding applications.

Freudenberg Flow Technologies offers an industry-leading portfolio of FS Seals and material capabilities, field-proven and tested to rigorous industry standards.

Proving Performance

Our FS seals have been tested to PR2 industry standards (API 6A and ISO 10423)



Petroleum Elastomers from Freudenberg Flow Technologies

Our high-performance materials ensure reliable solutions for extreme and abrasive operations covering a wide temperature and pressure range.

Material	Composition	Useful Temperature Range (in air)	Comments
Hydrogenated Nitril peroxide cured (HNBR, HSN)	Hydrogenated acrylonitrile-butadiene polymer	-13° to +320°F (-25° to 160°C)	General service. Improved wear and abrasion resistance. Low acrylonitrile grades available for use at -40°F (-40°C)
GAZGUARD®	Proprietary, high performance RGD-resistant range of compounds using a range of polymer types	-40° to +410°F (-40° to 210°C) depending on grade	Ideal for high pressure gas applications. Tested in gas and sour fluids in accordance with Norsok M-710 and ISO 10423 appendix F
Fluorocarbon (FKM, FPM)	Fluoroelastomer polymers	-10° to +430°F (-23° to 220°C)	Suitable for high temperature, aliphatic and aromatic hydrocarbons. Special low temperature grades available for use at -40°F (-40°C)

GAZGUARD® is a registered trademark of Freudenberg Flow Technologies

Freudenberg Flow Technologies is a global solutions provider of elastomeric, thermoplastic, metal to metal and other engineered designed sealing solutions. Our continuous dedication to innovation and excellence offers our customers a clear competitive advantage. For global locations and product support, please visit our website.



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