

FLUID HANDLING



FREUDENBERG
SEALING TECHNOLOGIES

 **FREUDENBERG**
INNOVATING TOGETHER



CALM UNDER PRESSURE

The fluid handling world market is forecast to expand in the coming years. Growth will be healthy across the globe, although the drivers will vary by region. Rising production will cause growth in certain territories while, in others, expansion is based on a growing industrialization market and will focus on investment in water infrastructure and electricity generation. These resource process improvements will progress in developed areas along with continued advances in other manufacturing output.

As an innovative global supplier, Freudenberg is well equipped to take part in the expansion of these emerging and growing markets worldwide. We provide solutions for the most challenging applications that utilize ultimate flow control for liquids and gases. Our company offers a broad range of sealing solutions for diverse applications like pumps, valves, and compressors, along with a global support network of experts, to be your single-source sealing and service provider.

We address issues like miniaturization, rising temperature ranges, and highly corrosive materials which are just some

of the ongoing challenges in fluid handling, as are the constant threats of contamination and leaks. Ultimately, the stability of the entire manufacturing process depends on the integrity that seals the actual system. With Freudenberg you can count on high reliability, which means less downtime and less error.

In today's market, improved efficiency is also needed due to rising energy prices. We can provide precision sealing solutions that address these concerns. If your project calls for environmentally friendly materials, we have the expertise to provide material-compatible components that are compliant with global regulations.

When it comes to controlling the flow in fluid handling, Freudenberg understands exactly what's required. And we deliver just that. Every customer has specific demands for flow equipment. Freudenberg Sealing Technologies has the experts who will listen, deliver the correct solution, and remain calm under pressure.

DELIVERING GLOBAL PERFORMANCE

Freudenberg offers the world's largest product range from a single source, both materials, and manufacturing expertise, along with revolutionary solutions for your next sealing application. We provide global certifications for our products that meet the requirements for a wide range of industries.

Because we operate globally, our development and sales teams understand our customers' needs throughout the world. Whether your application calls for a standard material or a custom compound blend, Freudenberg delivers.

RELIABLE OPERATION

Whether steam, chemicals, water, or gas, we provide advanced sealing solutions that reduce maintenance and keep your equipment running longer, hotter, faster, and under higher pressures.

DIAPHRAGMS

Engineering and material expertise is our secret to virtually maintenance-free diaphragms. Freudenberg finds the right balance between pressure resistance and flexibility to assist you with extended product life. We accomplish this by providing the ability to apply PTFE foils and fabric reinforcements, insert metal parts, and provide TPU diaphragms. They are resistant against abrasive media and are used in an array of applications including slurry pumps and control valves.



O-RINGS

Standard or custom-designed, our O-rings are available in several hundred materials. They provide resistance to ozone, chemicals, and temperature fluctuations. Also available are the necessary certifications for your application in any region of the world.



SIMMERRING® SHAFT SEALS

Our robust seals handle the pressure across a wide spectrum of temperatures. Available in metric or imperial sizes, Simmerring shaft seals come in a large range of materials that stand up to extreme operating challenges.



MINIATURIZATION

With diameters as small as five millimeters and thicknesses down to 40 microns, or the size of a matchstick head, Freudenberg is up to the challenge for your smallest application.

SOLENOID PLUNGERS

Available in numerous designs, our solenoid plungers can be utilized in various applications and are available in several coatings. Smaller solenoid plungers are possible with elastomers vulcanized into the smallest cavities and bonded to the metal part. Our product range includes lifting plungers, tilting plungers, and solenoid plungers with meander springs.



MICRO COMPONENTS

Providing the most reliable solution for your project, our micro components (Micro Simmerring®, Micro O-Ring, Micro Forseal) are robust against liquids and gasses. Our selection of micro products duplicates the high performance of our standard products with regard to durability, extreme temperature resistance, and protection from aggressive media.



PRECISION-MOLDED COMPONENTS

With tight dimensional tolerances and high surface quality, our precision-molded components consist completely of elastomer, or elastomer metal. When standard molded parts do not meet your requirements or size, we have the innovation to provide the solution.





UNIQUE REQUIREMENTS

Because we understand that every customer has specific demands for flow equipment, we offer special sealing solutions that are reliable for each application.

GASKETS

Freudenberg's gaskets are engineered to application specifications and are available in an array of materials for effective and durable sealing. We provide a variety of gasket technologies that support sealing solutions of fluids, temperatures and pressures found in most sealing applications.



CHEVRON SEALS

When you need ultimate resistance to pressure with high wear resistance, then you need Freudenberg Chevron seals. Our seals are resistant to chemicals and high temperatures and provide reliable protection against extrusion.



DIAPHRAGM ACCUMULATORS

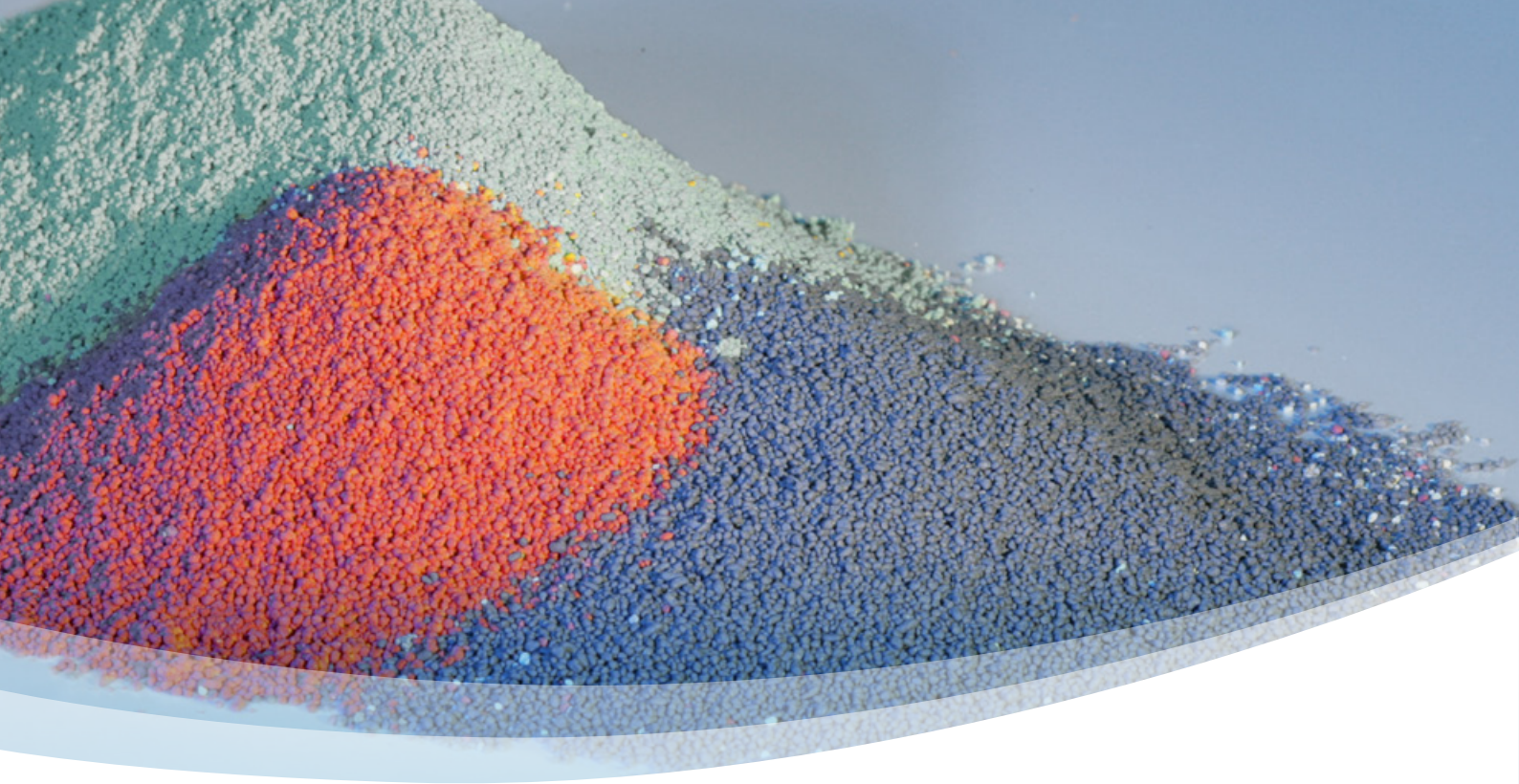
We meet the challenges of your application by providing accumulators that cover wide temperature ranges and provide longer service life. Our diaphragm accumulators can be used in an assortment of heavy-duty applications like large pumps and compressors.



FREUDENBERG XPRESS

Tailor-made, economic, and fast: ordering machined seals from Freudenberg Xpress minimizes your downtime and maximizes your production flexibility. We produce customized seals and guides—as a single piece or in economic small batches.





MATERIALS AND CERTIFICATIONS

Freudenberg constantly monitors market developments and the regulatory environment so that we'll continue to provide our customers the optimum material for your specific application. Depend on our assistance in finding the right sealing solution.

SIMRIZ®/FFKM

Simriz features wide chemical stability, similar to that of PTFE, combined with the rubbery properties of an elastomer. Specially for the processing industry, Simriz makes a complete product range of high-class FFKM material available which sets new standards for operational safety and durability.



EPDM

With its excellent stability in water and aqueous solutions, EPDM is one of the most widespread materials in the fluid handling industry. EPDM materials are outstanding because of their wide and extremely cost-effective use in a diverse range of applications.



PTFE

PTFE shows a series of excellent properties in fluid-handling applications. Chemical resistance is better than that of all elastomer materials and thermoplastics, providing a wide application portfolio in almost all media. The extremely large thermal range of PTFE allows it to be used even with liquid gases.



POLYURETHANE

Outstanding durability properties due to incredible wear resistance and excellent structural tenacity make Freudenberg's polyurethane top of the line. Our polyurethane material provides extreme flexibility in all temperatures, withstands chemicals, and protects against crack formation and growth.



PORTFOLIO

Products	General Valves	Solenoid Valves	Pumps	Compressors
Diaphragms	+		+	+
Simmerring® Shaft Seals			+	+
O-Rings	+	+	+	+
Solenoid Plunger		+		
Micro Parts	+	+	+	
Precision-Molded Components	+	+	+	+
Gaskets			+	+
Chevron Seals			+	+
Diaphragm Accumulators			+	+
Profiles			+	+
Molded Polyurethane Parts	+		+	+
Freudenberg Xpress	+		+	+

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