



SEALING DIVISION

John Crane Seal Technology

For more than 100 years, John Crane's experience and technical expertise has helped keep global process industries ready to meet the ever-changing needs they face. Our customers depend on John Crane to ensure their operations run efficiently and effectively. Our team of experts use the latest technologies to maximize reliability, provide rapid response and develop innovations needed for mission-critical equipment and services that improve energy efficiency, process reliability and emissions reduction.







DRY GAS SEALS ELASTOMER BELLOW SEALS



LIQUID HYDROCARBON PIPELINE SEALS



NON-CONTACTING SEALS





O-RING PUSHER SEALS

PTFE BELLOWS SEALS



PTFE WEDGE SEALS



SLURRY SEALS

VESSEL & AGITATOR SEALS



METAL BELLOWS SEALS

SPLIT SEALS John Crane Seal Face Technology





Seal Filtration Support Systems



DOUBLE 3-WAY & 6-WAY TRANSFER VALVES



FUEL GAS FILTRATION









FCF SEAL GAS FILTRATION

FILTER ELEMENTS

SEAL GAS FILTRATION





Wet Seal Support Systems



Dry Gas Seal Support Systems

GAS SEAL SYSTEMS -FOR NON-CONTACTING GAS SEAL AND SEPERATION SEALS FOR TURBO COMPRESSORS



GAS CONDITIONING UNITS

-GAS CONDITIONING UNIT FOR NON-CONTACTING GAS SEALS FOR TURBO COMPRESSORS



JOHN CRANE DIAMOND®

Next-generation Face Technology That Extends Seal Life



John Crane Diamond®

Made with ultrananocrystalline diamond (UNCD[®]) materials that capture the qualities of nature's hardest substance to increase industrial equipment reliability.

Less Friction, Less Wear, Longer Life





John Crane Packings are designed, engineered and constructed for specific services and applications. This is your assurance that John Crane Packings will provide the best sealing with the least amount of maintenance and adjustment. All John Crane mechanical packings are made of asbestos-free materials. These asbestos-free packings can be substituted without any difficulty for asbestos packings in present use. They can be interchanged with most asbestos products, and in many cases will give better, more dependable performance.



CHEMRAZ®

FFKM, or perfluoroelastomer, contains higher amounts of fluorine than standard FKM, and features higher temperature ratings, up to approximately 325°C (617°F). FFKM also has improved chemical resistance, with nearly universal chemical compatibility. This combination of high-performance capabilities makes FFKM seals the premium choice for the most challenging applications.

The first commercially available FFKM seal was produced in the late 1960s. However, widespread manufacturing of FFKM materials did not occur until the late 1980s due to patent restrictions.

FFKM is used in o-rings and seals in environments with high temperatures and/or harsh chemicals in the aerospace, semiconductor, energy, pharmaceutical, and industrial industries.

Greene Tweed's Chemraz® is the ultimate elastomeric FFKM material. Chemraz® is a polymer of three or more monomers in which all hydrogen positions have been replaced with fluorine. It has the broadest chemical resistance of any elastomeric material.

XYFLUOR®

Xyfluor® is a proprietary, highly fluorinated elastomer with a chemical compatibility which surpasses that of an FKM and can handle amines, ketones, and hydrofluoric acid for static applications in temperatures ranging from -60°C to 232°C (-76°F to 450°F). It is available in both compression and injection molded grades. Xyfluor® is ideal for use in demanding high-volume applications such as mechanical seals and gaskets in a range of metering pumps, valves and other high-performance equipment.

FLUORAZ®

Fluoraz® FEPM elastomers deliver excellent chemical resistance against acids and bases such as methanol, amines, ammonia, urea, hydrochloric acid, and steam at temperatures up to 232°C (450°F). Fluoraz® is generally not recommended for aromatic hydrocarbons.

Products engineered from Fluoraz® are used in a variety of industries, including automotive and oil & gas. In certain applications, Fluoraz® FEPM may offer performance advantages over an FKM solution. A Greene Tweed engineer can help determine which material will be best suited for your application.

FUSION™ (FKM)

FKM is the ASTM designation for a class of fluorinated, carbon-based synthetic rubber, commonly known as fluoroelastomers. FKM has impressive heat resistance, allowing FKM seals to withstand temperatures greater than 200°C. FKM also exhibits extraordinary levels of resistance to high pressures, chemicals, and other fluids (including several fuels).

FKM was originally developed in the late 1950s in response to demand for high performance seals in the aerospace industry. Development of FKMs continued through the 1980s, with advancements including greater thermal stability and improved heat, solvent, and compression resistance. Today, FKM materials are commonly used to manufacture o-rings, seals, and gaskets for a variety of high-performance applications in the automotive, aerospace, energy, semiconductor, and industrial industries.

Greene Tweed's Fusion™ elastomers have been engineered to withstand conditions such as RGD and low and high temperatures, and to ensure minimal particulation in clean environments.

HOFFMAN-KANE ENCAPSULATED O-RINGS

Encapsulated O-rings are specially developed seals which solve a common problem in many industries. Sometimes you need the chemical and temperature resistance of PTFE, but a PTFE O-ring wouldn't have the flexibility you need for compressive fluid sealing. Or perhaps you want a flexible elastomer but can't rely on the material to resist the chemicals you are dealing with.

An encapsulated O-ring brings the best of both worlds together. The outer jacket is made from Teflon, giving the seal high thermal stability and resistance to corrosion, while the rubber inner ore provides compressional and elasticity.







INNOVATIVE THINKING LIABLE PERFORMANCE.

Aerospace & Defense Chemical Processing Industrial Operations Life Sciences Oil & Gas Power Generation Semiconductor