INNOVATION MEETS MARKETS

FREUDENBERG
INNOVATING TOGETHER

INNOVATING TOGETHER ...

... and together creating new solutions and products for our customers – that is our commitment. The innovative strength of Freudenberg has many facets. Close collaboration between colleagues from different areas, with our customers, our partners and with the world of science has always been central to our culture. Having pioneered innovation throughout our history – from chrome tanning and the development of the Simmerring to sophisticated and high-tech medical devices – our company is an innovation champion. For us, striving together for solutions that support global sustainability is both our motivation as well as our concept for success. We live “Innovating Together” across Business Groups and world regions. This enables us to provide our customers with solutions and answers to tomorrow’s questions, today.

AS A LEADING TECHNOLOGY GROUP ...

... we use the knowledge of experts in some 60 countries to develop leading-edge solutions for over 30 different market segments. More than that, we are inspired by technology and innovation. Thanks to our technological materials and process expertise, we deliver leading-edge innovations that help ensure the ongoing success of our customers. We are leaders in our business segments. We provide products, solutions and services for mobility & transport, industry & manufacturing, energy & resources, household & textiles, healthcare & the food industry, and services.

STRONG COMPANY VALUES ...

... are the basis of all our business activities. We live responsibly in everything we do – in the way we interact with our employees, our customers, business partners, neighbors and the environment. These values have been embedded in Freudenberg's culture for more than 165 years and continue to lead our daily activities. They bring employees together as one Freudenberg family in 60 countries, creating reliability for our business partners worldwide.

The Freudenberg Group remains in family ownership. Our financial independence allows us to take a long-term view. We are proactive, operate with commercial foresight and always act based on a strong values structure.

EXCELLENCE ...

... for us means: as a leading technology group, we are committed to excellence in technology, innovation and quality in products, processes and services that make our customers successful today and in the future.

This commitment to excellence has its roots in our founding era. The extreme care and attention to detail required in our days of leather production apply just as much today in our complex, highly technical manufacturing processes. Although mostly hidden from view, our products are always indispensable and are often installed in especially critical areas.

Our employees excel themselves in their entrepreneurial thought and action, their initiative and in their willingness to take on responsibility. We develop innovative and forward-looking solutions in diverse teams and global projects. In everything we do, we help our clients to achieve lasting success.

RESPONSIBILITY FOR SOCIETY …

… is for us both a given and an issue we take very seriously. We strive for solutions that support global sustainability. We encourage social engagement and protect the environment everywhere we are.

Our employees also assume personal responsibility. Our “We all take care” initiative serves the environment and supports health and safety. It encourages all employees to contribute their ideas and suggestions for improvements.

We actively offer support where help is needed. For example, the Freudenberg Group is providing long-term help for a school in Haijin, China, which was completely destroyed by an earthquake. And through new global initiatives, the Freudenberg Group will become increasingly involved in education and environmental protection in the future.

DIVERSE TEAMS …

… fuel our innovations. People of different ages and genders from different cultures and backgrounds are more successful when they work together.

The best solutions and innovations emerge when employees bring their different experiences, knowledge and skills to their shared tasks. In this way, new ideas, imaginative solutions and innovative products come to life.

Our more than 40,000 employees share a common basis: entrepreneurship in thought and action. This fundamental attitude unites us worldwide. We combine global presence with local expertise and develop advanced products and leading-edge solutions that meet the specific needs of our customers.

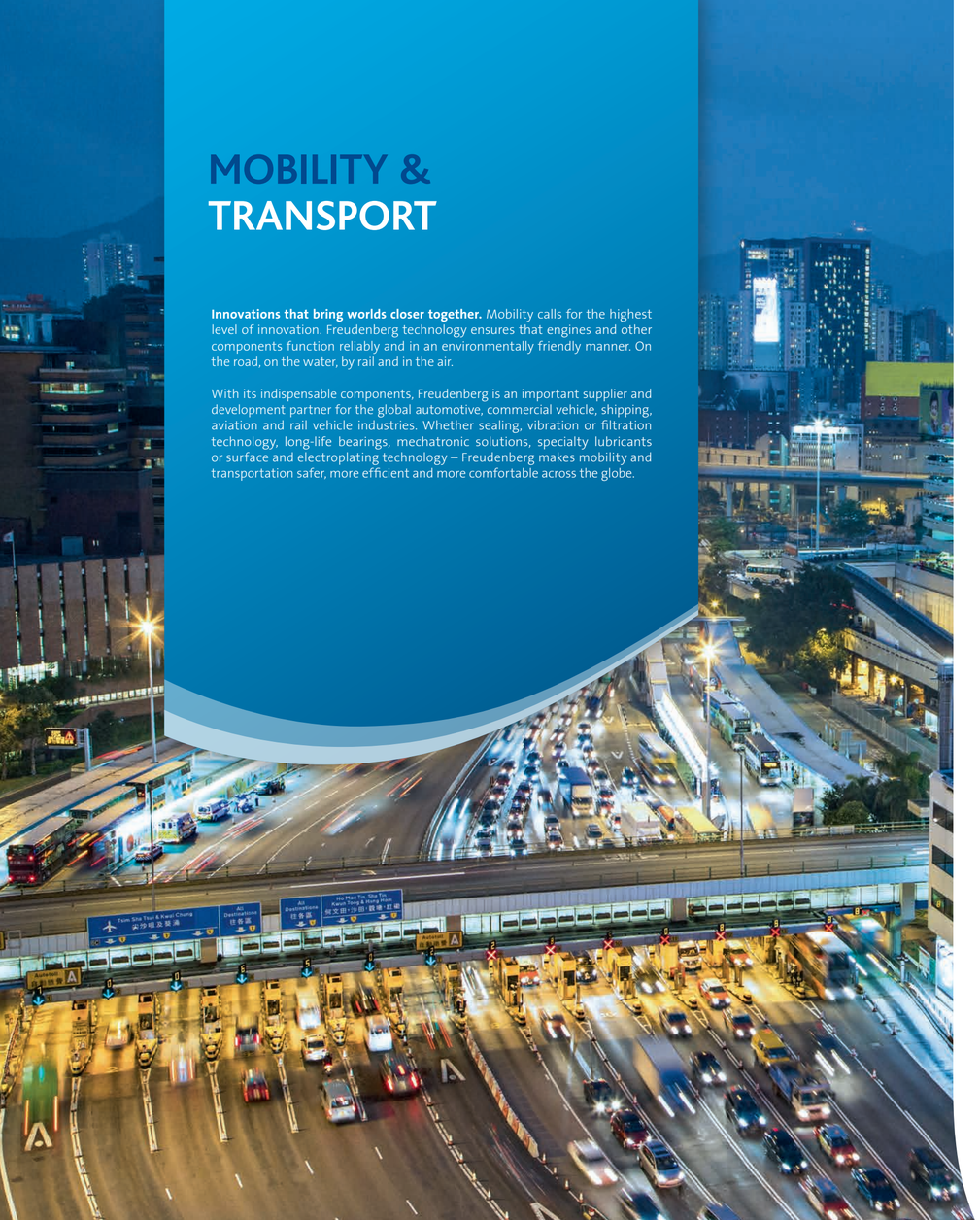
INNOVATION MEETS MARKETS

With its leading-edge products and solutions, Freudenberg has a presence in six markets and over 30 market segments across the globe. Whether in mobility & transport, energy & resources, industry & manufacturing, healthcare & the food industry, household & textiles or services – proximity to our customers, the know-how of our specialists in some 60 countries worldwide and our expertise in materials are the connecting elements of our broad product portfolio.

MOBILITY & TRANSPORT

Innovations that bring worlds closer together. Mobility calls for the highest level of innovation. Freudenberg technology ensures that engines and other components function reliably and in an environmentally friendly manner. On the road, on the water, by rail and in the air.

With its indispensable components, Freudenberg is an important supplier and development partner for the global automotive, commercial vehicle, shipping, aviation and rail vehicle industries. Whether sealing, vibration or filtration technology, long-life bearings, mechatronic solutions, specialty lubricants or surface and electroplating technology – Freudenberg makes mobility and transportation safer, more efficient and more comfortable across the globe.



MOBILITY & TRANSPORT

Innovations that bring worlds closer together. Mobility calls for the highest level of innovation. Freudenberg technology ensures that engines and other components function reliably and in an environmentally friendly manner. On the road, on the water, by rail and in the air.

With its indispensable components, Freudenberg is an important supplier and development partner for the global automotive, commercial vehicle, shipping, aviation and rail vehicle industries. Whether sealing, vibration or filtration technology, long-life bearings, mechatronic solutions, specialty lubricants or surface and electroplating technology – Freudenberg makes mobility and transportation safer, more efficient and more comfortable across the globe.

Passenger cars

Commercial vehicles

Aviation

Rail vehicles

Shipping

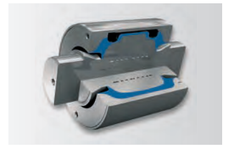
OUR CONTRIBUTION TO TOMORROW'S MOBILITY

Passenger cars Freudenberg's patented Levitex® gas-lubricated crankshaft seal is characterized by its longevity. This is achieved by up to 90 percent reduced friction loss compared to an already friction-optimized lip seal. An innovative structure on the contact surface of the sliding ring creates an air cushion on which the ring floats independently in conjunction with the stationary ring. As a result, Levitex® can reduce CO_2 emissions from vehicles by 0.5 to 1 gram per kilometer. And because less friction also reduces wear, Levitex® simultaneously ensures prolonged service life. In addition, the seal is extremely stable under pressure.

Freudenberg's product portfolio for chassis mounts includes the DualRubber Bushing. Through the use of two different elastomers within the bushing, road noise can be even more effectively isolated and low frequency axle vibrations precisely controlled. This means, for example, that the reverberation period when driving over transverse joints can be reduced by 40 percent. Even under permanent agitation, the axle runs much more smoothly and thus increases driving safety. The DualRubber Bushing is an innovative alternative between conventional chassis bushings and elaborate, hydraulically damped mounts.

Commercial vehicles OKS 589 is an anti-friction bonded coating used for the dry lubrication of mechanical sliding surfaces at high friction loads. It is used for the permanent coating of steel lock parts for commercial vehicle doors. The lubricating onded coating adheres very well to the surface of components, prevents the adhesion of dust and dirt and provides lasting protection against corrosion and wear. Small parts for commercial vehicles can be quickly and inexpensively coated with OKS 589. Low material consumption and the ability to apply the bonded coating in closed systems significantly reduce environmental impact.

Aviation As a consequence of sustainability considerations and legal regulations, the aviation industry is increasingly looking for environmentally friendly alternatives. With its global team of aviation experts, Freudenberg has established itself as a leading provider of future-oriented and sustainable production processes. For example, the chromium(VI)-free conversion coating SurTec 650 provides the highest level of corrosion protection without requiring subsequent protective coating. SurTec 650 holds numerous approvals from customers in the aviation industry, such as Airbus, UTC Aerospace or the Safran Group.



Rail vehicles Developed by Freudenberg, the hydraulic axle-guide bearing (HALL) enables trains to better negotiate curves in the track. This innovation provides a solution to previously incompatible demands. In a single component, it combines low longitudinal stiffness for cornering with high axial stiffness for fast, straight stretches. The technical advantages of HALL are especially evident in areas where increased wheel-rail wear and the efficiency of a system play a significant role. The HALL bearing can be installed in both new and existing rolling stock without structural modifications to the bogie.

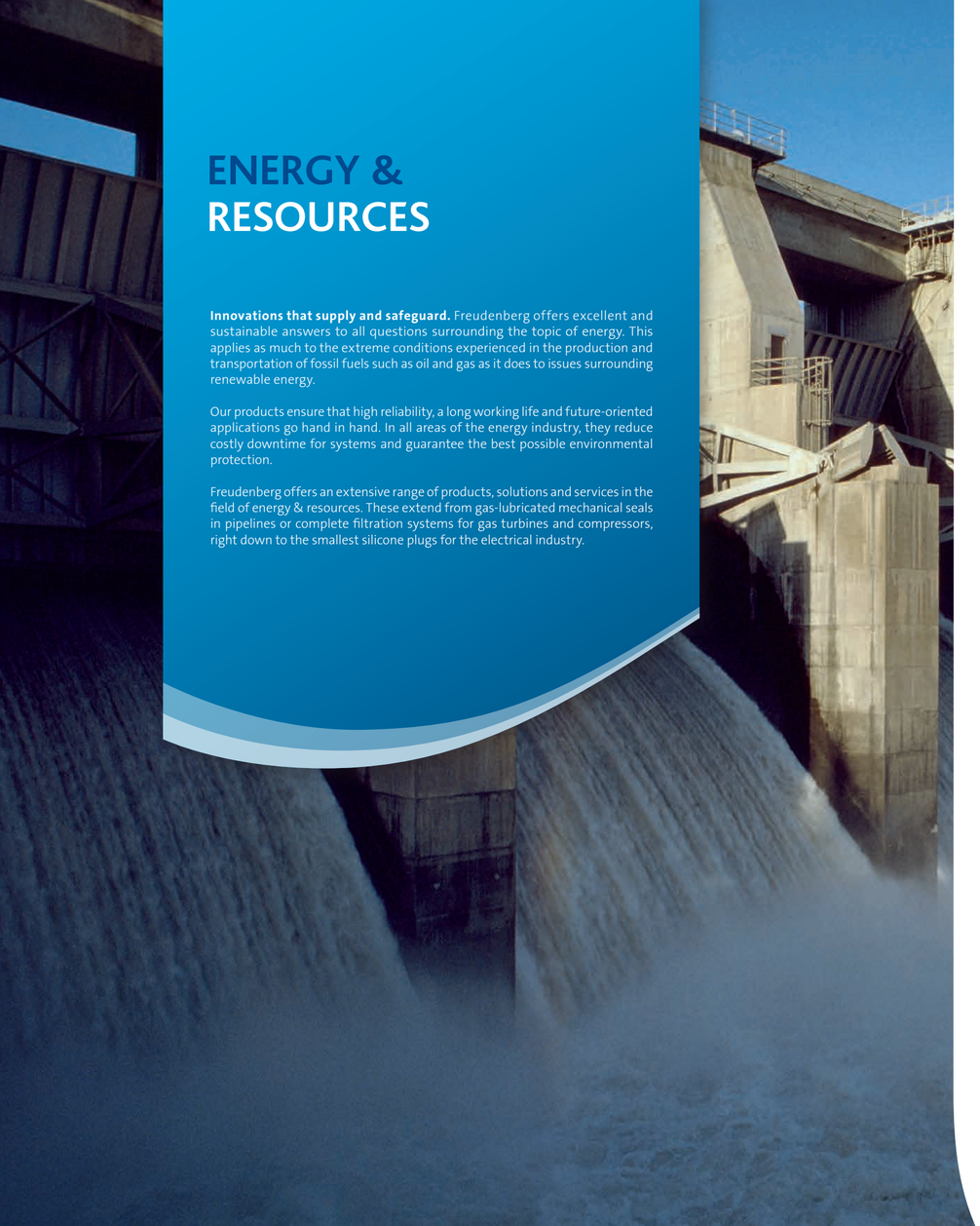
Shipping Mobile offshore drilling platforms with retractable positioning drives can be precisely aligned with the borehole, regardless of weather conditions. The Freudenberg Group manufactures the pressurized, double-acting 9700 series cartridge mechanical seals especially for sealing these drives. Thanks to the specially constructed secondary sealing elements, these advanced seals are resistant to seawater applications and remain unaffected by vibrations and pressure fluctuations. The seals pay dividends to operators in both ecological and economic terms as a result of their low leakage rates and very good service life.

ENERGY & RESOURCES

Innovations that supply and safeguard. Freudenberg offers excellent and sustainable answers to all questions surrounding the topic of energy. This applies as much to the extreme conditions experienced in the production and transportation of fossil fuels such as oil and gas as it does to issues surrounding renewable energy.

Our products ensure that high reliability, a long working life and future-oriented applications go hand in hand. In all areas of the energy industry, they reduce costly downtime for systems and guarantee the best possible environmental protection.

Freudenberg offers an extensive range of products, solutions and services in the field of energy & resources. These extend from gas-lubricated mechanical seals in pipelines or complete filtration systems for gas turbines and compressors, right down to the smallest silicone plugs for the electrical industry.



ENERGY & RESOURCES

Innovations that supply and safeguard. Freudenberg offers excellent and sustainable answers to all questions surrounding the topic of energy. This applies as much to the extreme conditions experienced in the production and transportation of fossil fuels such as oil and gas as it does to issues surrounding renewable energy.

Our products ensure that high reliability, a long working life and future-oriented applications go hand in hand. In all areas of the energy industry, they reduce costly downtime for systems and guarantee the best possible environmental protection.

Freudenberg offers an extensive range of products, solutions and services in the field of energy & resources. These extend from gas-lubricated mechanical seals in pipelines or complete filtration systems for gas turbines and compressors, right down to the smallest silicone plugs for the electrical industry.

Renewable energy

Power plants

Electrical industry and batteries

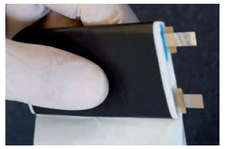
Oil and gas

Fuel cells

OUR CONTRIBUTION TO TOMORROW'S ENERGY

Renewable energy Operators of wind turbines face the challenge of protecting their systems and components against wear and corrosion. Klübersynth AG 14-61 is a specialty lubricant that was specifically developed by the Freudenberg Group for gear and pinion drives and plain bearings in wind turbines. The lubricant provides very good protection against corrosion and has a high loading capacity and adhesiveness. It can also be applied at temperatures of –30 degrees Celsius. In addition, it does not contain inorganic solid lubricants such as molybdenum disulfide and graphite.

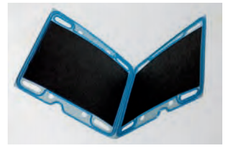
Power plants The Freudenberg Group offers sophisticated sealing solutions for process gas compressors, such as the world's largest gas-lubricated mechanical seal. This was developed and manufactured for use in the gas compressors of a cogeneration plant connected to a steel mill in China. With a shaft diameter of 350 millimeters, the seal's design takes into account all aspects of operation in a high-temperature environment. As a rule, dry gas seals are designed for temperatures of between –20 to +160 degrees Celsius. Because much higher temperatures are reached in the Wuhan plant, this specialty seal was designed to cope with temperatures of up to 250 degrees Celsius. It contributes significantly to the efficiency of the compressors.



Electrical industry and batteries Lithium-ion batteries need to be powerful, reliable and safe. The Freudenberg Group develops special separators for these batteries, where a very thin yet extremely durable nonwoven fabric with a ceramic impregnation ensures that positive and negative poles are permanently separated from each other. This minimizes the risk of short circuits or even battery fires while still allowing the ions and the power to flow freely. The Freudenberg Group has been manufacturing separators with the ceramic impregnation at its own production facility in Weinheim, Germany, since 2013 and distributes them worldwide.

Oil and gas Safety devices – called blowout preventers – are used when drilling for oil and gas. Freudenberg holds the API-16A license (API stands for American Petroleum Institute) for the manufacture of sealing products for RAM and annular blowout preventers. This positions the Group on par with the major OEMs. Freudenberg's API-16A-certified products are marketed under the brand name WellProtek™ and are manufactured using an internally developed proprietary elastomer. Freudenberg has its own material and product testing laboratory, which is used for developing and testing new materials.

Another important Freudenberg product in this market segment is our range of hydraulic accumulators for blowout preventers. As a component of hydraulic systems, a piston accumulator provides directly retrievable energy – i. e. pressure and oil volume. The accumulator consists of a cylindrical pipe, which can be filled from both sides, and a movable piston. The piston separates the gas that acts as a damper from the hydraulic fluid. Freudenberg piston accumulators are used on drilling platforms, for example. In this setting, the accumulator provides energy that can be used in an emergency to move the blowout preventer over the borehole. This ensures that an uncontrolled escape of oil and gas is avoided.



Fuel cells A special product in the Freudenberg portfolio for fuel cells is an injection-molded elastomeric seal integrated on the gas diffusion layer. The gas diffusion layer consists of a conductive carbon fiber nonwoven fabric. This ensures the transmission of electric power and the optimal distribution of the two reactant gases, hydrogen and oxygen, as well as removing the wastewater and heat. The injection-molded elastomeric seal prevents leakage of the reactant gases. The integration of the seal on the gas diffusion layer significantly reduces the number of components and increases process reliability during assembly and operation of the fuel cell stack.

INDUSTRY & MANUFACTURING

Innovations that increase productivity. Behind the products that make life safer, easier and more comfortable are complex production processes. Reliable and customized Freudenberg components ensure that industrial enterprises are able to increase productivity thanks to smooth and efficient manufacturing processes. The basis for this is the longevity and safety of innovative and elemental components such as seals, filters, specialty lubricants and nonwovens.

Freudenberg products can be found in nearly all industries and production processes. Our high-quality solutions make an important contribution in heavy industry and in the wood processing industry, in equipment manufacturing and in the chemical and process industries. Freudenberg products also ensure the longevity of construction and agricultural machines as well as contributing to efficiency in the careful use of resources.

INDUSTRY & MANUFACTURING

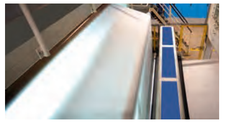
Innovations that increase productivity. Behind the products that make life safer, easier and more comfortable are complex production processes. Reliable and customized Freudenberg components ensure that industrial enterprises are able to increase productivity thanks to smooth and efficient manufacturing processes. The basis for this is the longevity and safety of innovative and elemental components such as seals, filters, specialty lubricants and nonwovens.

Freudenberg products can be found in nearly all industries and production processes. Our high-quality solutions make an important contribution in heavy industry and in the wood processing industry, in equipment manufacturing and in the chemical and process industries. Freudenberg products also ensure the longevity of construction and agricultural machines as well as contributing to efficiency in the careful use of resources.

Heavy industry

Construction and agricultural machinery

Plant production



Wood processing

Building industry and building service systems

Chemical and process plants

OUR CONTRIBUTION TO TOMORROW'S PRODUCTIVITY

Heavy industry The Freudenberg Group supplies highly resilient seals for the largest tunnel boring machines in the world. The current maximum drill diameter is 15.62 meters. Such enormous dimensions and the extreme conditions experienced underground make our seals for tunnel boring machines a technical masterpiece. Among other projects, they were used in Shanghai during the construction of the tunnel under the Yangtze River. "Trude", the tunnel boring machine used for the fourth tube of the Hamburg Elbe tunnel, was equipped with Freudenberg seals. The Gotthard base tunnel – at 57 kilometers, the longest tunnel in the world – was also drilled using Freudenberg seals.

Construction and agricultural machinery Freudenberg hydraulic seals ensure the long-lasting operational reliability of construction and agricultural machines. With the HDR-2C seal, Freudenberg offers a hydraulic seal that uses an innovative combination of materials. The result is improved performance capability and longer seal life, along with great savings potential in cylinder design and manufacture. Compared to standard seals, the two-component technology offers larger gap tolerances, reliable use under operating pressures of up to 500 bar and high impermeability in the temperature range of –50 to +110 degrees Celsius.

Plant production Freudenberg develops and manufactures customized solutions for complex production processes. More and more industries are using ultra-precision machine tools with high-speed spindles. These can reach speed factors of more than two million. Lubrication at such speeds is often performed by oil-air solutions that enable reliable lubrication at even the highest speeds. Freudenberg has developed a series of synthetic spindle oils for these special requirements. Based on PAO, the Klübersynth-FB series corresponds to the purity class 15/13/10 and is available in viscosities ISO VG 32, 46 and 68.

Wood processing Even the smallest dust particles in production processes have an impact on man and machine. Viledon® sinTexx Plus filter cartridges from Freudenberg prevent this, courtesy of their corrugated polyester medium with its nanofiber lining. These filters are responsible for the extraction of hard-to-handle dust and fine smoke that occur in the processing of metallic and non-metallic materials during welding, cutting, polishing and coating processes. They achieve optimum values, provide unparalleled efficiency and outperform conventional filtration media. Both workers and the process environment are permanently protected from harmful emissions.

Building industry and building service systems Energy consumption is frequently one of the core financial burdens of every household. This is due to the fact that a large amount of heat is lost through a building's walls and roof. Freudenberg Group products support efficient thermal insulation. Produced in-house from recycled polyester, our eco-friendly nonwoven fabrics are used as key components in building insulation, waterproofing and thermo-acoustic applications.

Chemical and process plants The Freudenberg Group supports chemical and process engineering systems with a wide variety of sealing solutions. These include eCartex, a globally proven standard cartridge mechanical seal, the sliding rings of which feature high-performance DiamondFace® technology. The DiamondFace® coating makes the sliding rings extremely robust and creates desirable additional effects. DiamondFace® reduces the friction coefficient, resulting in a reduction in energy consumption and an immediate increase in the energy efficiency of a pump. In addition, working life is extended above average values. DiamondFace® is a microcrystalline diamond film that fully compares to the hardness of a natural diamond.

HEALTHCARE & FOOD INDUSTRY

Innovations for life. When it comes to the health and nutrition of people, products need to meet the most stringent hygiene requirements. Freudenberg offers customers in the medical, pharmaceutical and food industries numerous internationally certified solutions. Expertise in materials and process reliability in particular make Freudenberg a reliable partner in these demanding markets.

Our medical innovations simplify surgical procedures and ensure improved wound healing after surgery, both on the skin and inside the body. In the food industry, Freudenberg products are used among other things for the refinement of confectionery. Our many years of expertise in liquid filtration enables efficient water treatment, as a result of which even wastewater can be purified to drinking water quality.

HEALTHCARE & FOOD INDUSTRY

Innovations for life. When it comes to the health and nutrition of people, products need to meet the most stringent hygiene requirements. Freudenberg offers customers in the medical, pharmaceutical and food industries numerous internationally certified solutions. Expertise in materials and process reliability in particular make Freudenberg a reliable partner in these demanding markets.

Our medical innovations simplify surgical procedures and ensure improved wound healing after surgery, both on the skin and inside the body. In the food industry, Freudenberg products are used among other things for the refinement of confectionery. Our many years of expertise in liquid filtration enables efficient water treatment, as a result of which even wastewater can be purified to drinking water quality.

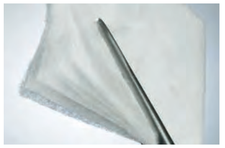
Medical and hygiene

Pharmaceuticals

Food industry

Water treatment

OUR CONTRIBUTION TO TOMORROW'S LIVING STANDARDS



Medical and hygiene Freudenberg's innovative scaffolene® technology delivers medication to the right place in the body. Medical nonwovens produced using the scaffolene procedure are able to position active ingredients such as growth factors or enzymes precisely where they are needed. Once the active ingredients have been delivered, the fibers made from bioresorbable raw materials are easily absorbed by the body. The advantage for the patient is that no second surgery is necessary to remove the fabric. For the world of medicine, scaffolene has opened up innovative new opportunities in post-operative wound healing and regenerative medicine.

In the case of chronic wounds, the healing process is better supported if the wound does not dry out but is maintained in a moist environment. In this context, as a pioneer in leading-edge nonwoven technologies, Freudenberg has developed hydroactive nonwovens for moist wound care. The innovative dressing consists partly of hydrogel-forming fibers, which form a gel when they come into contact with the wound. This gel binds the wound exudate, directs it into the core of the dressing and activates the wound-healing processes. Even when wet, these nonwovens have an extremely high tensile strength and high absorption capacity, ensuring optimal wound healing.

To facilitate medical interventions with minimally invasive instruments, Freudenberg developed the Symphony™ IntroducerSheath with FlexSeal™. This innovative product allows the introduction of interventional devices into blood vessels with minimal friction resistance and blood loss. A core component of the Symphony™ Introducer is a variable valve to control bleeding, known as FlexSeal™. The functional range of this valve extends from opening the inner diameter to the maximum extent, right through to complete sealing. This allows the surgeon effortless freedom of movement when handling surgical instruments combined with robust fixation and absolute blood impermeability.

Pharmaceuticals Freudenberg developed white EPDM (ethylene-propylene-diene rubber) specifically for the pharmaceutical industry. Among other applications, it is used in the manufacture of O-rings and molded parts. This innovative material meets the most stringent hygiene requirements while providing virtually the same performance as its black rubber counterparts. Good chemical resistance and excellent mechanical properties are usually achieved by a blackening soot admixture. In contrast, white EPDM is mineral-filled and still offers excellent sealing properties.

Food industry Freudenberg's anti-sticking, glazing and sealing agents ensure the appetizing appearance of confectionery. These surface treatment products help to prevent candy from sticking, moisture loss or drying out and create attractive surface finishes. The products help customers to improve manufacturing operations and to increase efficiency times. The raw materials for our products are carefully selected. The majority of the raw materials derive from natural resources, e. g. carnauba waxes, beeswax, gum arabic or shellac.

Water treatment Efficient wastewater treatment is becoming increasingly important for many companies in their efforts to conserve resources and reduce costs. Through Viledon Water Solutions with Aquabio technology, Freudenberg offers comprehensive consulting, development and construction of complete filtration systems for wastewater treatment. The membranes used in these systems guarantee the reliable separation of solid particles and bacteria. Treated wastewater can be fed back into industrial processes. Using reverse osmosis filtration and an additional disinfection stage, effluent can even be purified to drinking water quality.

HOUSEHOLD & TEXTILES

Innovations that make life easier. In everyday life, the Freudenberg Group's innovative products and solutions simplify many tasks by combining advanced technologies with consumer benefits. These innovative ideas make all the difference, both in the home and in the textile industry.

Freudenberg represents technology, quality and progress. Whether microfiber cloths or electric window vacuum devices, the company constantly proves its innovative spirit through the development of new, highly sophisticated technologies.

Freudenberg nonwovens make sofas comfortable, help clothes fit properly and ensure mite-free beds. Our functional nonwovens are in demand worldwide for everything from footwear and leather goods to protective clothing, while our filter applications provide cleaner indoor air.

HOUSEHOLD & TEXTILES

Innovations that make life easier. In everyday life, the Freudenberg Group's innovative products and solutions simplify many tasks by combining advanced technologies with consumer benefits. These innovative ideas make all the difference, both in the home and in the textile industry.

Freudenberg represents technology, quality and progress. Whether microfiber cloths or electric window vacuum devices, the company constantly proves its innovative spirit through the development of new, highly sophisticated technologies.

Freudenberg nonwovens make sofas comfortable, help clothes fit properly and ensure mite-free beds. Our functional nonwovens are in demand worldwide for everything from footwear and leather goods to protective clothing, while our filter applications provide cleaner indoor air.

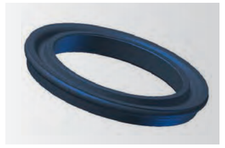
Household

Textile industry

OUR CONTRIBUTION TO TOMORROW'S LIFESTYLE

Household Vileda®, O-Cedar®, SWASH®, Marigold® und Wettex® household products can be found in millions of homes around the world. They are characterized by outstanding cleaning performance, longevity and sustainable quality, and innovations – made by Freudenberg – that please the consumer. One recent innovation in surface cleaning is the next generation of microfiber cloths, the Vileda Actifibre cloth, which combines its excellent cleaning power with a perfect streak-free, shining result – in just one wipe.

Everybody knows the Vileda brand for its expertise in window cleaning. The new WindoMatic® electrical window cleaner is the latest addition to Vileda's window cleaning family. It helps make strenuous polishing of windows with newspaper a thing of the past. With its high-quality rubber lip and flexible head, cleaning windows is fast, easy and streak-free. This saves time, improves performance and reduces effort. Just another example of the way in which Freudenberg technology experts work to make daily life easier.



In the kitchen, an innovative seal developed by the Freudenberg Group ensures hygiene and durability in swivel spout fittings. This innovation involved creating a rounded edge that makes the sealing ring insensitive to contamination by lime or cleaning agents. As a result, the seal ensures improved hygiene and prolonged working life at the same time.

Textile industry To help produce fabrics or carpets efficiently, Freudenberg offers technologically advanced high-performance greases for the textile industry. These are used for lubricating the bearings of high-speed knitting machines, for example. The food industry also uses innovative high-performance Freudenberg lubricants in production processes because they can be used across a wide temperature range and are resistant to detergents and disinfectants. Our experts are constantly working on new technologies to further develop high-performance greases according to industrial requirements.

Whether creative hobby or fashion tailoring and no matter what the application – from seams, waistbands, hems and appliqué to patchwork or quilts – Freudenberg has offered customized interlining solutions for more than 60 years under the Vlieseline/Vilene brand. High quality, technologically sophisticated and tailored to the needs of the customer, Vlieseline products ensure that everything works safely and easily.

To enable allergy sufferers to enjoy restful sleep, the Freudenberg Group has developed Evolon – an innovative fabric for bedding. Without using chemical additives, it prevents dust mite allergens from coming into contact with the person sleeping. The sophisticated technology is unique, globally patented and free from harmful substances. Using high-pressure water jets, endless bicomponent fibers are split into microfilaments and then consolidated. This creates a very dense textile material. The innovative technology is also used for high-tech cleaning cloths, technical packaging and highly demanding industrial applications.

SERVICES

Innovations in hardware, software and services. Freudenberg has become a byword for superior quality and excellent service, supported by innovative concepts, reliability and customized offerings for its customers.

Large and medium-sized businesses rely on our IT expertise and advanced system solutions, such as those developed for integrated production control: in short, Industry 4.0. We support the entire process cycle, from order entry through production and staff scheduling to billing. Our highly qualified experts also offer comprehensive consulting, implementation and operational services, including for SAP and MES systems.

We complement our product range with numerous support and logistics services. These extend from technical support in the development and manufacture of seals to the optimization of frictional effects and the necessary lubricants, right through to maintenance, inventory management and delivery services.

IT services

SERVICES

Innovations in hardware, software and services. Freudenberg has become a byword for superior quality and excellent service, supported by innovative concepts, reliability and customized offerings for its customers.

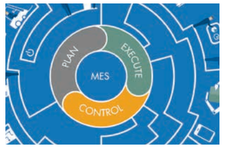
Large and medium-sized businesses rely on our IT expertise and advanced system solutions, such as those developed for integrated production control: in short, Industry 4.0. We support the entire process cycle, from order entry through production and staff scheduling to billing. Our highly qualified experts also offer comprehensive consulting, implementation and operational services, including for SAP and MES systems.

We complement our product range with numerous support and logistics services. These extend from technical support in the development and manufacture of seals to the optimization of frictional effects and the necessary lubricants, right through to maintenance, inventory management and delivery services.

IT services

Product services and logistics

OUR CONTRIBUTION TO TOMORROW'S SERVICE QUALITY



IT services The FIT Shop Floor Suite is the entry ticket to the industry 4.0 era – an SAP-centric solution package for integrated production control. It provides increased flexibility while also achieving higher quality and reduced costs. This begins with production planning, which is continuously updated in real time, and moves on via automated workforce planning to enterprise-wide control of production processes and devices. The reporting function ensures transparency by allowing information to be evaluated against individual criteria. Whether for hosting, system optimization or SAP consulting, medium-sized companies in particular can rely on Freudenberg IT's expertise.

Product services and logistics With Viledon® filterCair, Freudenberg offers industrial customers a flexible and comprehensive program for air quality management. In addition to filter products, Viledon® filterCair includes services such as the disposition or disposal of filters, hygiene inspections, ventilation system deficiency assessments and warranties. This comprehensive service package enables every customer to achieve maximum value from the filter units in terms of performance, cost-effectiveness, environmental friendliness and energy efficiency.

The reliable, durable and efficient operation of machinery is not just a question of cost. Efficiently operated systems also protect the environment and the correct lubricants play a major role in achieving this goal. Through the KlüberEfficiencySupport service package, Freudenberg offers a multistage systematic analysis to quickly identify and implement optimization potential. Whether the aim is to increase the energy efficiency of equipment, improve maintenance and production processes or find ways to increase the efficiency of machines and components, KlüberEfficiencySupport offers every customer a customized solution with concrete results.

Freudenberg's Dilution Monitoring Device (DMD) allows for the accurate, real-time, remote monitoring of die lubricant and mold release mixing system dilution ratios used mainly in the die casting of nonferrous metals. The device provides immediate process feedback. Release agent levels and dilution mixtures are continually available online for monitoring, enabling necessary corrective action to be taken immediately. In this way, the DMD makes a significant contribution to improving process reliability and minimizing casting machinery downtime.

Seals and Vibration Control Technology Business Area

Freudenberg Sealing Technologies:
Freudenberg Sealing Technologies GmbH & Co. KG
69465 Weinheim, Germany
Phone: +49 6201 80 6666
Fax: +49 6201 88 6666
info@fst.com
www.fst.com

Freudenberg Oil & Gas Technologies:
Freudenberg Oil & Gas Technologies LLC
10035 Brookriver, Suite 400
Houston, Texas 77040, USA
Phone: +1 281 233 1400
Fax: +1 281 894 5232
info@fogt.com
www.fogt.com

EagleBurgmann:
EagleBurgmann Germany GmbH & Co. KG
82515 Wolfratshausen, Germany
Phone: +49 8171 23 0
Fax: +49 8171 23 1214
info@de.eagleburgmann.com
www.eagleburgmann.com

Freudenberg Medical:
Freudenberg Medical Europe GmbH
Liebigstraße 2 – 8
67661 Kaiserslautern, Germany
Phone: + 49 631 5341 7500
Fax: + 49 631 5341 7600
info@Freudenbergmedical.com
www.Freudenbergmedical.com

TrelleborgVibracoustic:
TrelleborgVibracoustic GmbH
64293 Darmstadt, Germany
Phone: +49 6151 3964 0
Fax: +49 6151 3964 444
contact@tbvc.com
www.tbvc.com

Nonwovens and Filtration Business Area

Freudenberg Performance Materials:
Freudenberg Vliesstoffe SE & Co. KG
69465 Weinheim, Germany
Phone: +49 6201 80 5009
Fax: +49 6201 88 5009
info@Freudenberg-pm.com
www.Freudenberg-pm.com

Freudenberg Filtration Technologies:
Freudenberg Filtration Technologies SE & Co. KG
69465 Weinheim, Germany
Phone: +49 6201 80 6264
Fax: +49 6201 88 6299
info@Freudenberg-filter.com
www.Freudenberg-filter.com

Household Products Business Area

Freudenberg Home and Cleaning Solutions:
Freudenberg Home and Cleaning Solutions GmbH
Im Technologiepark 19
69469 Weinheim, Germany
Phone: +49 6201 80 871000
Fax: +49 6201 88 874000
info@fhp-ww.com
www.vileda.com

Specialties and Others Business Area

Freudenberg Chemical Specialities:
Freudenberg Chemical Specialities SE & Co. KG
Geisenhausenerstraße 7
81379 Munich, Germany
Phone: +49 89 7876 0
Fax: +49 89 7876 1600
info@fcs-munich.com
www.fcs-munich.com

enmech:
enmech GmbH & Co. KG
69465 Weinheim, Germany
Phone: +49 6201 80 2069
Fax: +49 6201 88 2069
info@enmech.de
www.enmech.de

Freudenberg IT:
Freudenberg IT SE & Co. KG
69465 Weinheim, Germany
Phone: +49 6201 80 8000
Fax: +49 6201 88 8000
info@Freudenberg-it.com
www.Freudenberg-it.com

ORGANIZATIONAL OVERVIEW

Freudenberg is a values-based technology company that provides maximum benefit to its customers and to society. Organizationally, the company is founded on two management companies: Freudenberg & Co. Kommanditgesellschaft (Freudenberg & Co.KG) is the strategic and Freudenberg Societas Europaea (SE) the operational management company.

The bodies of Freudenberg & Co. KG are the Management Board, the Board of Partners and the General Meeting. Their tasks are comparable to those of a board of management, supervisory board and the general meeting of a stock corporation.

The bodies of Freudenberg SE are the Board of Management, the Supervisory Board and the Shareholders' Meeting. The Management Board of Freudenberg & Co. KG and the Board of Management of Freudenberg SE, as well as the Board of Partners of Freudenberg & Co. KG and the Supervisory Board of Freudenberg SE, are composed respectively of the same people.

The Freudenberg Group has been in family ownership since 1849. Today, the Group is in the hands of some 320 descendants of the founder, Carl Johann Freudenberg.

Editorial Information

Freudenberg Group
Höhnerweg 2–4
69469 Weinheim, Germany

Published by
Freudenberg & Co. KG
Corporate Communications
Phone: +49 6201 80 0
CorporateCommunications@freudenberg.com
www.freudenberg.com

August 2015
Item No. FRE1001EN

FREUDENBERG
INNOVATING TOGETHER