



Specialised solutions

for the chemical industry



#better4chemical

ERIKS



Choose experience to meet your challenges

Companies in the chemical industry face diverse challenges, such as the avoidance of downtime or compliance with applicable standards. In addition, the strong focus on greening, automation of order processes and increased efficiency allow digitalisation to play an important role in this sector. The latest techniques and technologies are needed to automate production processes and keep them safe. Moreover, quality must be monitored around the clock.

ERIKS can help you with all your delivery, maintenance, health, safety and environmental challenges. Our specialists draw on years of experience to recommend certified products and value-adding services.

We use our skills and knowledge to improve and future-proof the chemical industry. We develop innovative solutions with your requirements in mind, based upon our many years of experience collaborating with companies in the chemical industry, our network of world-leading suppliers and our own production sites. Our commitment to product safety and sustainability enables us to improve the reliability of your equipment and to reduce your Total Cost of Ownership (TCO).

We look forward to supporting you as a reliable specialist and working together to make your everyday working life easier – today and in the future.

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Talk to us about anything



Gasket technology

Whether you need a standard product or a special part with prototyping and 3D-printing, we can support you with our expert knowledge. We offer a wide and extensive range for the chemical industry. [> Page 14](#)



Hoses

When it comes to industrial and process hoses in the chemical industry, safety is the most important thing. We pre-assemble, test and certify a complete range of hose lines. [> Page 20](#)



Flow control

ERIKS offers a complete range of valves, actuators and accessories for the chemical industry, supplying you with its own brands and products from world-renowned manufacturers. [> Page 26](#)



Sealing technology

We are a world leader in high-performance O-rings, elastomeric and polymer seals. With outstanding support, in the form of technical and logistical services, we deliver the right seal to critical applications in your chemical plant on time. Using our Chemical Resistance Guide you can find compatible compounds for your application in just a few steps. [> Page 32](#)



Power transmission

We keep you moving: We supply the chemical industry with high-quality machine components, such as high-efficiency motors, bearings and couplings that perform under even the most rigorous demands of your chemical applications. [> Page 38](#)



Engineered plastics

The right material for every application: A huge selection of certified standard, technical and high-performance plastics. We are happy to provide custom-fit blanks for your systems or 3D-printing. [> Page 44](#)



Tools, maintenance & safety

Head-to-toe safety: Protective clothing, safety gloves and much more. We provide optimum occupational safety, tools and maintenance products for your workforce in the chemical industry. [> Page 48](#)



Field services

Keeping assets operational and production flawless requires routine maintenance and inspections. We offer a variety of services designed to increase safety, reduce CO2 emissions and save on energy and maintenance costs. [> Page 53](#)



Co-engineering and prototyping

We work together with you to develop optimal solutions for the challenges you face. Our specialists have in-depth knowledge of the chemical industry.



Quality controls

Put us to the test! Various testing facilities enable us to test your products. Either in accordance with your requirements or as an authentic or random sample. Whether it's pressure testing or dimensional tolerance checks you need – we're equipped for everything.



Predictive maintenance

Using ERIKS predictive maintenance, we provide assistance and advice on which parts require replacement and when major maintenance is required. This helps to keep your chemical plant functioning at its optimum. Data is collected and managed via the ERIKS Smart Asset Management platform.



Supply chain solutions

Our experts analyse your procurement processes, in order to guarantee availability, and evaluate cost-saving potential. In addition, we offer Vendor Managed Inventory (VMI) or E-business solutions (EDI, EPDF). [> Page 9](#)



Clean room

Our clean rooms meet the highest of standards, in accordance with ISO 14644-1 Class 6. Our latest allows both prefabrication and post-processing of products.

Let's make industry work better

Your challenges our solutions



Minimizing downtime

Time-consuming process technologies and complex value-added processes mean rising costs in the chemical industry. In addition to the pressures of improving production efficiency and ensuring procedures are followed, you must also minimise unplanned downtimes and reduce Total Cost of Ownership (TCO).

Procedures and maintenance in a chemical plant must be executed with almost zero margin of error, as accidents, incidents and mistakes can cause environmental and health hazards. During planned downtime (turnarounds), you stand to lose between 1-3 million euros in revenue for each day of lost production. Shutdowns can be prolonged through the outsourcing of low-level knowledge and a lack of article categorisation according to criticality.

Read our best practice guide
to minimise unplanned downtime



[Download our guide](#)



You want

- Improved plant safety and uptime
- Extended service life for equipment
- Lower emissions and reduced maintenance
- Short, efficient turnarounds

Our solution

To guarantee high capacity in your systems, we offer optimum maintenance and process automation services:

- On-site advice from our specialized application engineers and product engineers
- Appropriate testing, certification and checking of parts
- Turnaround support
- 24-hour service
- Effective and sustainable stock management
- Quick supply
- Predictive maintenance



Ensure safety

In the chemical industry, nothing short of 100% perfection will suffice. Accidents or incidents caused by the use of unsuitable materials are potential hazards for your employees and the environment.

Therefore, special considerations have to be taken, in order to select the right material for each application. Every application requires its own technical evaluations and specifications. In addition, processes in chemical plants often involve high pressure, superheated steam, hazardous liquids and gases, which places extreme demands on equipment. For cleaning, materials and substances that are suited to each process must be used, these processes include Cleaning in Place (CIP) and Sterilisation in Place (SIP).

Improve sustainability

With a strong focus on greening in the chemical industry, energy consumption, CO₂ emissions and costs all need to be reduced. To improve sustainability, you rely on processes that help to reduce loss of medium, water consumption and consumption of steam and utilities.



You want

- Improved employee and plant safety
- Meeting health and safety requirements imposed by legislation and regulations
- Reduced maintenance and minimising unplanned downtime
- Reduced energy consumption, CO₂ emissions and costs.

Our solution

We understand that people are your most important asset and must, therefore, be protected. We help you with:

- On-site advice from our specialised application engineers regarding the selection of chemically compliant materials
- Tailor-made solutions with prototyping and co-engineering
- Comprehensive range of certified products and materials
- Extensive stock and local production units for fast deliveries
- Testing facilities for quality controls
- Continuous monitoring of your system



You want

- Less loss of medium
- Reduced water consumption
- Lower energy costs
- Smaller carbon footprint
- Reduced consumption of steam and utilities

Our solution

ERIKS offers a wide range of services to reduce energy consumption and CO₂ emissions, e.g. :

- Steam trap surveys
- Air leakage surveys
- Thermal imaging
- Process steam solutions
- Product and application knowledge from application engineers and technical sales



You want

- Compliance with standards
- Improved quality control and safeguarding of certificates
- Improved traceability
- Reduced adaptation time

Our solution

Our specialists monitor regulatory changes on a global level and are at the forefront of development of compatible materials:

- Chemical resistant and certified assortment
- Certificates department
- Support from our application engineers during pre-/post-audit implementation of current regulations
- Innovative research undertaken within partnerships with renowned universities, our own laboratories and globally linked development teams.
- Co-engineering of compounds

Comply with standards

Compliance with European standards and rapid implementation of statutory reforms are essential in the chemical industry.

Also, health and safety requirements are increasingly imposed by legislation and regulations. However, not all legal regulations are well known. Adjustments to materials or production processes are costly and time-consuming, therefore you have to be able to rely on certified materials and their traceability.



You want

- Reduce stock levels and working capital
- Have right quantities of spare parts available when needed
- Short reaction times during unplanned downtime
- Reduce manual order and handling

Our solution

Stock optimisation increases uptime, reduces your capital requirements throughout the process chain and enables you to meet your targets. We help you with:

- E-business solutions (EDI, EPDF)
- Webshop (with punchout) with over 120,000 standard parts
- Vendor Managed Inventory (VMI): To minimise your working capital and ensure access to the stock you need at all times, leave your stock management to ERIKS
- We make it possible to standardise products and processes, improving supply-chain integration through analysis of your purchase and inventory data
- Reduction in number of suppliers

Optimise stock management

Chemical plants are often in operation around the clock. On the one hand, stoppages must be kept to a controllable minimum for capital-intensive machinery. On the other hand, you are faced by the challenge of cutting costs.

Therefore, it is difficult to strike a balance between critical stock items which are crucial to the operation of your chemical plant but also stock costs. Thus a precise identification of articles and quantities is required. In addition, to ensure that storage capacity is sufficient, but not excessive, up-to-date data or stores, order-on-demand and obsolete parts is required.

Read our report about optimising stock management:



Download our report



This is where ERIKS comes in

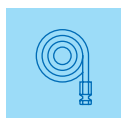
As a specialised industrial service provider for the chemical industry, we offer products for many areas of application.



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Gasket technology

- Flange gaskets
- Inflatable seals
- Rubber mats
- Machine bases



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Hoses

- Industrial hoses
- Process hoses
- Rubber hoses
- Metal hoses
- Crimping systems



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Flow control

- Valves
- Actuators
- Measurement and control technology
- Filtration
- Pumps
- Fittings



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Sealing technology

- O-rings (also encapsulated or vulcanised)
- X-rings
- Oil seals



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Power transmission

- Bearings
- Open drives
- High efficient motors
- Pneumatics
- Chains and sprockets



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Engineered plastics

- Container construction
- Nozzles
- Dosing systems
- Covers
- Slide bearings



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Tools, maintenance & safety

- Chemical resistant gloves
- Protective clothing (disposal/reusable)
- Head and breathing protection
- Spill control
- Safety hand tools and tool control
- Maintenance products

Gasket technology for chemical processing

Leader Gasket Technologies is one of the top first-class manufacturers of flat gaskets and is listed under the Approved Manufacturer List (AML). We continuously develop high-quality compounds and gasket designs. We provide metallic, semi-metallic and soft gasket products .

LeaderGasket

Garlock
SEALING TECHNOLOGIES

Frenzelit

GORE
Authorized Distributor
GORE Sealant Technologies

sgl carbon



ElastaGraph™

These gaskets simplify your everyday life for applications with process steam and superheated steam: Less effort is required to remove the gasket as there is hardly any contamination due to released graphite. The combination of shape and coating with the different graphite densities enables ElastaGraph to provide an up to 50% better sealing effect. The corrugated shape also provides a constant "spring-back" against the flange surfaces and thus reduces the required surface pressure. Our gaskets offer reliable sealing up to a pressure of 64 bar.

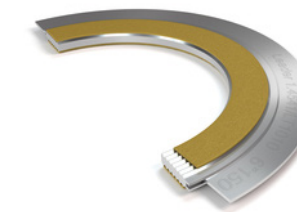
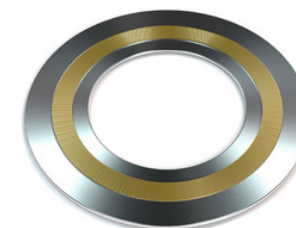
- Safer to use when compared to other graphite gaskets
- Higher safe zone at low bolt force
- Less contamination
- Easier disassembly
- Lower emission values
- High flange-adaptability
- Reliable tightness under varied conditions
- Retention of uniform prestressing
- Clear marking



LeaderTHERM NXT

This modified phlogopite base material is designed for critical high-temperature services such as turbochargers, catalytic cracking systems, power generation, gas boilers and equipment, and NOx containing applications. During thermal-cycling testing, LeaderTHERM NXT is proven to perform better than other high-temperature materials.

- Extreme-temperature gasket material
- Effective tightness even at high-temperatures (up to 1000°C/1832°F) and pressures
- Outstanding chemical resistance
- Low weight loss in extreme conditions
- Oxidation resistant
- Sustainable solution that uses organic ingredients
- Non-ageing



You want

- Improved safety for piping or processes with steam or superheated steam
- Tight seal during operation
- Reduced maintenance with quick assembly
- No surface leakage or minimum cross-section leakage (emission)
- Contamination and downtime prevention

You want

- Tight seal during operation with extreme temperatures and pressures
- Reduced maintenance with chemical resistance and quick assembly
- No surface leakage or minimum cross-section leakage (emission)
- Downtime prevention

Overview: metal gaskets

	Products	°C	Pressure (bar)	Air	Steam	Oxygen	Oil	Solvents	Weak acid	Strong acid	Weakly alkaline	Strongly alkaline	
	LEADER S / SI	+450	350	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	LEADER SR / SRI	+450	350	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	LEADER KV / KV9 / KV9L	+450	+450	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	LEADER RTJ R	+550	400	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	LEADER RTJ RX	+550	345	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	LEADER RTJ BX	+550	1378	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	LEADER ELASTAGRAPH	+450	50	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	LEADER THERM NXT 1000 / 1010	+1000	300	✓	✓	✓	✓	✓	✓	✓	✓		
	LEADER CORRUGATED	+450	50	✓	✓	✓	✓	✓	✓	✓	✓	✓	

Clipperlon

With Clipperlon, we offer you the latest-generation of PTFE sealing materials. Our PTFE gaskets have outstanding chemical stability, which makes them ideally suited for use in the chemical industry.

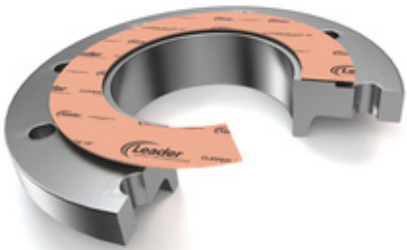
- Excellent seal ability
- Outstanding chemical resistance
- Suitable for high pressure and large temperature ranges
- Significant reduced creep (no cold flow)
- Low leak rate
- Good electrical insulation properties
- Non-ageing
- Batch code and complete traceability

You want

- Chemically stable, standard-conforming flange gaskets
- Tight seal during operation
- Reduced maintenance with quick assembly
- No surface leakage or minimum cross-section leakage (emission)
- Downtime prevention

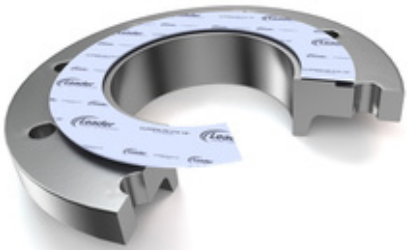
Clipperlon 2100

- Gasket filled with quartz for any application
- Good creep, flow and pressure deformation resistance, excellent gas tightness
- Suitable for steel flanges



Clipperlon 2110

- Gasket with hollow glass microbeads for any application and pH value
- Secure sealing properties and adaptability even with low surface pressures
- Suitable for all flange types, including plastic, damaged or glass flanges



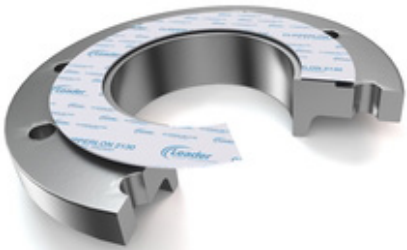
Clipperlon 2120

- Barium sulphate filled PTFE gasket
- Secure sealing for hydrogen fluoride and chlorine applications
- Suitable for steel flanges



Clipperlon 2135

- Due to an almost unlimited chemical resistance, the ideal gasket for components subject to high chemical stress
- No cold flow and low creep relaxation
- Highly compressible and adaptable to any uneven or rough flange surfaces
- Residue-free removal
- Suitable for steel flanges, heat exchanger or vessels



Clipperlon 600/660

- Monodirectional cord and multidirectional tape
- 100% expanded self-adhesive PTFE
- Suitable for large steel flanges



Overview: soft flange gaskets

	Products	°C	Pressure (bar)	Air	Steam	Oxygen	Oil	Solvents	Weak acid	Strong acid	Weakly alkaline	Strongly alkaline	Flexibility *	
	NOVATEC PREMIUM	300	100	✓	✓		✓	✓	✓		✓		A	
	FYBAR PT60	+250	100	✓	✓	✓	✓	✓	✓		✓		A	
	LEADER CLIPPERLON 2100	-210/+260	85	✓	✓	✓	✓	✓	✓	✓	✓		L	
	GYLON 3501	-210/+260	85	✓	✓	✓	✓	✓	✓	✓	✓		L	
	LEADER CLIPPERLON 2110	-210/+260	55	✓	✓		✓	✓	✓	✓	✓		H	
	GYLON 3504	-210/+260	55	✓	✓		✓	✓	✓	✓	✓		H	
	LEADER CLIPPERLON 2120	-210/+260	85	✓	✓		✓	✓	✓		✓	✓	VL	
	GYLON 3510	-210/+260	85	✓	✓		✓	✓	✓		✓	✓	VL	
	GORE GR	-240/+230	40	✓	✓	✓	✓	✓	✓	✓	✓	✓	VH	
	CLIPPERLON 2130	-240/+230	40	✓	✓	✓	✓	✓	✓	✓	✓	✓	VH	
	GORE UPG Style 800	-60/+230	40	✓	✓	✓	✓	✓	✓	✓	✓	✓	VH	
	GORE DF/GORE Série 500	-60/+230	40	✓	✓	✓	✓	✓	✓	✓	✓	✓	VH	
	Clipperlon 600 and 660	-60/+230	40	✓	✓	✓	✓	✓	✓	✓	✓	✓	VH	
	GORE Série 1000	-60/+230	10	✓	✓	✓	✓	✓	✓	✓	✓	✓	VH	
	SIGRAFLEX HD	+450	+250	✓	✓	✓	✓	✓	✓	✓	✓	✓	H	
	LEADERTHERM NXT 1020	+1000	10	✓	✓		✓	✓	✓	✓	✓	✓	A	
	NOVAPHIT SSTC TAL	+450	200	✓	✓	✓	✓	✓	✓		✓		H	
	NOVAPHIT MST	+450	+250	✓	✓	✓	✓	✓	✓	✓	✓	✓	H	
	FIRECHEM	+260	200	✓	✓	✓	✓	✓	✓	✓	✓	✓	H	
	ALKYONE	+260	200	✓	✓	✓	✓	✓	✓	✓	✓	✓	VH	

* Flexibility: VL=very low | L=low | G=average | H=high | VH=very high

Services for sustainable flange management

With our specially tailored services, we help you to reduce unplanned downtime and to keep to the schedule of costly turnarounds.

Engineering, production and logistics

- Gasket calculation
- Material analyses in own laboratories
- Reverse engineering, prototyping and 3D-printing
- Gasket cutting facilities
- Testing facilities
- Clean production, packaging and labelling
- Specialised distribution via ERIKS quick supply centres including logistic services with local stocks of gaskets and fasteners

Documentation and training

- Certification, online datasheets and specifications
- Data storage
- Heat exchanger workbooks
- Training for your employees

Field services

Read more on [page 53](#).



Hoses: process safety as the top priority

One of the major challenges in the chemical industry is to ensure a consistently high level of process workflows for your critical applications. We support you with this by taking on responsibility for the assembly in our own assembly units, testing and certification of your entire hose system.

Goodall® steam hoses

Steam is a critical application in a chemical plant. Therefore, we pay special attention to steam hoses, their couplings and the way in which they are assembled.

Testing procedures under extreme conditions for rubber steam hoses, form the parameters for the ultimate steam hoses. Even a special EPDM compound still has a porous structure, causing tiny water and steam particles to accumulate in the wall resulting in a 'popcorning' effect. To overcome this 'popcorning'-effect, Goodall has developed a special, non-porous rubber compound for the inner tube of the steam hoses. This tube is extruded and thus extremely smooth and non-porous. The double braid of galvanized steel wires contributes to higher safety and a longer lifespan.

You want

- Consistent high level of process workflows for your critical applications
- Improved safety and longer lifespan of hoses
- Avoidance of steam leaks and bolts coming loose during installation
- Reduced maintenance and down-time

DuraCrimp® - a complete solution to keep your plant up and running

This innovative and thoroughly tested crimping system for the new generation of Goodall steam hoses offers the following advantages:

- No steam leaks due to increased safety and reliability of equipment
- Original and innovative ergonomics
- Identifiers with coloured identification rings and RFID
- Superior compounds and corrosion resistant braids
- Reduced maintenance due to no tightening of bolts/nuts
- Cost savings due to longer lifespan and fewer replacements



Inferno + Super Inferno



- Flexible high-pressure steam hoses
- Exceeds EN ISO 6134-2A norm
- Engineered with conductive compounds, where all hose rubber components can dissipate electrical charges
- Withstand temperatures of saturated steam of 232 °C and pressure to 18 bar
- Extended lifetime
- Easily recognisable with hose imprints



Goodall

Comparison:
Goodall Inferno vs. competitor product

Goodall® chemical hoses

We know that static electricity in chemical plants represents a hazard. The build-up of static charge is influenced by the insulating properties of the transfer media and its flow rate.

Grounding and bonding may not always be enough. That's why we have created an innovative line of conductive hose products to minimise the risk to you and your employees; thereby decreasing your liability and preventing devastating outcomes. Our innovative conductive compounds assist your grounding the assembly for added security and safety.



Acidkem

- Discharge hose/suction and discharge hose
- Exceeds EN 12115 norm
- Conductive compounds, starting with a seamless and extruded EPDM tube
- Braided core for strength, flexibility and kink resistance
- Temperature -40 °C to 95 °C and pressure to 20 bar
- Particularly suitable for acids, alkalis, esters and ketones and use as a transport hose connected to tankers

Kemflex

- Suction and discharge hose
- Exceeds EN 12115 norm
- Outstanding flexibility and kink resistance
- Ultra High Molecular Weight Polyethylene (UHMWPE) tube and core with superior conductive materials
- Protective cover made of abrasion, chemical and ozone-resistant EPDM
- Multiple high tensile braids for fail proof resilience
- Temperature -40 °C to 100 °C and pressure to 20 bar
- Suitable for acids, alkalis, salts, alcohols, fatty acids and aromatic hydrocarbons

Tekno

- Suction and discharge hose
- Exceeds EN 12115 norm
- Outstanding flexibility and kink resistance
- Conductive Ultra High Molecular Weight Polyethylene (UHMWPE) tube, layer and cover, adding an extra level of safety
- Protective cover made of abrasion, chemical and ozone-resistant EPDM
- Multiple high tensile braids for fail proof resilience
- Temperature -40 °C to 82.2 °C and pressure to 16 bar

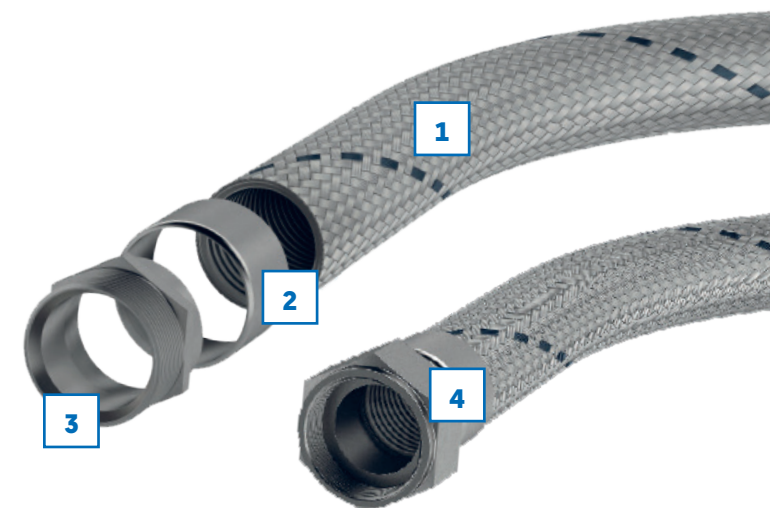
You want

- Decreased safety hazards in ATEX zones
- Reduced maintenance and downtime



MetalVisor® -

prevents leaks and guarantees reduced downtime and maintenance



- 1 MetalVisor® hose
- 2 Welding ring
- 3 Fitting
- 4 Inlay welding

Metal hoses are often used when rubber hoses reach their limits due to critical applications. Goodall MetalVisor is a safe and flexible stainless steel braided hose system, which can improve your productivity and efficiency when it comes to high temperatures, aggressive media or high pressure. This hose and coupling system convince with:

- Corrugated stainless steel hoses in AISI 316L with single or double stainless steel braiding AISI 304
- Unique single-pass assembly and welding technology eliminates gaps and burrs between hose ends and connections to improve media flow and avoid leakages and corrosion
- Special stainless steel welding ring with thick wall
- Withstands temperatures up to 550 °C
- Designed according to ISO 10380:2012, BS 6501-1:2004; ASME IX and ISO 15614-1: 2004 welding procedures qualification certification

You want

- Hoses that withstand aggressive media pumped through at high pressure
- Reduced downtime due to leakages or contamination
- Price savings from reduced exchange, storage and disposal costs
- Suitable solutions for when rubber hoses reach their limits



Overview: Industrial hoses

		Hose	Use	Application examples	Inner cover	Outer cover	Working pressure* [bar]	Norms	Properties	
Multifunctional		Multiserv	Discharge	All industries (water, compressed air, oils, etc.)	NBR	NBR	20		Resistance to abrasion, ozone and external substances. Conductive inner cover, grey outer cover.	
		Titan Black	Discharge	All industries (water, aqueous solutions, compressed air, etc.)	EPDM	EPDM	20		Resistant to heat, extreme weather conditions UV and ozone. Conductive inner and outer cover.	
		Alligator SD Flexoline	Suction + discharge	All industries (water, waste water, air)	EPDM	EPDM	10		Outer cover resistant to abrasion, atmospheric influences and ageing. Highly flexible design.	
Gas		Nitrogen	Discharge	Transport of nitrogen	EPDM	EPDM	24	ISO 7751	Resistant to heat, extreme weather conditions UV and ozone. Conductive inner and outer cover.	
Steam		Inferno + Super Inferno	Discharge	Pipe defrosting Saturated steam	CIIR	EPDM	18**	EN ISO 6134-2A	Non-porous inner cover. Conductive inner and outer cover. Resistant to atmospheric influences.	
Chemical		Multichem 10 GGE	Suction + discharge	Loading and unloading of aromatic hydrocarbons and chemicals	Polypropylene/iron	Polyester PVC	10	EN13765	Outer cover resistant to abrasion, oils and ozone.	
		Multichem 10 EGE	Suction + discharge	Loading and unloading of aromatic hydrocarbons and chemicals	Polypropylene	Polyester PVC	10	EN13765	Light and flexible, large diameters available.	
		Multichem 10/14 SST	Suction + discharge	Loading and unloading of aggressive, corrosive chemicals and hydrocarbons	PTFE	Polyester PVC	10/14	EN13765	Light and flexible, large diameters available.	
		Acidkem SD	Suction + discharge	Acids, alkalis, esters and ketones	EPDM	EPDM	20	EN 12115	Outer cover resistant to abrasion, chemicals and ozone.	
		Kemflex SD	Suction + discharge	Acids, alkalis, salts, alcohols, fatty acids and aromatic hydrocarbons	UHMWPE (UPE)	EPDM	20	EN 12115	Outer cover resistant to abrasion, chemicals and ozone.	
		Tekno SD	Suction + discharge	Chemical plants	UHMWPE (UPE)	EPDM	16		Outstanding flexibility and kink resistance, outer cover resistant to abrasion, chemicals and ozone.	
		PTFE tube smooth and corrugated	Suction + discharge	Transport of aggressive or corrosive chemicals	PTFE	Stainless steel / rubber EPDM / Polypropylene	***		Non-adhesive (easy to clean), no ageing, excellent UV resistance. Very good chemical resistance, also at high temperatures.	
Industrial process		MetalVisor	Suction + discharge	All industries (chemicals, aqueous solutions, oils, hot air, etc.)	Stainless steel 316L	Stainless steel 304	***	EN ISO 10380	Excellent flexibility, high-quality braid for better pressure resistance, single-pass welding.	

* Working pressure at 20°C ** 18 bar saturated steam *** Dependent on type and diameter

Services

- **Assemblies made in our own assembly units and delivered with requested certificates:** hydraulic pressure test/electrical conductivity test
- **Hose Management System (HMS)**
In order to improve productivity and reduce costs, ERIKS has developed the HMS system to manage your hose fleet. Each hose is marked to ensure traceability. A dashboard gives you an overview of the assets and detailed data on each hose (application, location, annual test date). You can easily view previous-inspection history and you are alerted when an inspection is required. Additionally, you can calculate the number of hoses to be replaced.
- **Field Services: Mobile unit for industrial hoses** Read more on [page 53](#).



Flow control

accurate
control your
media



Whether for the accurate control of flow, for process monitoring or for the efficient control of your chemical applications.

ERIKS offers a complete range of valves, actuators and accessories, supplying you with trusted own brands and products from other world-renowned manufacturers. We also deliver assembled combinations for steam control, heating, cooling, dosing and pumps.

You want

- Have emission control and improve safety
- Reduce pressure losses and leakages
- Reduce maintenance and downtime

Overview: valves

		Ball valves	Gate valves	Globe valves	Check valves	Butterfly valves	Diaphragm valves
	Section						
	Control the flow						
	Sealing						
	Abrasion resistance						
	Corrosion resistance						
	Ease of automation				NA		
	Low flow resistance						
	Temperature range						
	Pressure range						
	Vacuum resistance						
	High purity						
	Weight to size ratio						
	Ease of maintenance						

Sufficient Improvement possible according to the variants Badly adapted to criterion Not recommended

The information provided is intended as a guide only. Other considerations such as material, dimensions, pressure classes and construction must be considered. Contact our valve specialists for detailed technical advice.

Econ® ball valves

The ball valves are easy to automate and require almost no maintenance.

They are ideal for conditions, which require maximum flow capacity and minimum pressure drop. The standard ISO Direct Mount feature enables easy installation of any actuator, even after initial start-up in a manual configuration.

Econ® -CR [Chemical Resistant] ball valves

The Econ ball valve program has been extended with a special ball valve for chemical applications. In many of these applications, graphite gasket particles are not permitted in the medium. The Econ chemical resistant ball valve therefore has been equipped with a Leader two-layer PTFE/graphite spiral wound body gasket. The valve is fire-safety approved. This valve is also equipped with a Kalrez 6375 O-ring on the stem, which keeps the stem construction TA-luft approved, even for chemical applications like amines and ketones.

Control systems AMG actuators with Econ® ball valves [SIL*]

The compact design, high-performance ball valves from Econ and high-quality pneumatic rotary actuators from AMG are specified where fluids are to be safely and efficiently transmitted in all fields of flow technology and automation in a chemical plant. All versions are, with the exception of the position indicator, free of external moving parts.

- Safe to use, easy to install and virtually maintenance free
- Highly resistant to corrosion
- Lightweight and takes up little space
- Long service life
- Ideally suited for heavier applications

*SIL: Safety Integrity Level [SIL] is a measure of performance required from a safety instrumented system to maintain or achieve the safety state.

Special designed tailor made AbK valves

Are you looking for valves with high-demand or specific applications? This ERIKS brand meets your needs. With special, custom-made AbK valves, we offer you a wide variety of bottom, sample and diverter valves. Thanks to the enormous expertise of our technicians and designers, the possibilities in terms of design, choice of materials and other requirements are virtually limitless.

econ®



ASAHI® valves and pneumatic actuators

The complete range of thermoplastic valves guarantees the highest quality and reliability. Those valves are ideal for the most demanding corrosive applications:

■ Ball valves



■ Butterfly valves



■ Diaphragm valves



■ Check valves



■ Filter



Plastic pneumatic actuators

The pneumatic actuators are designed to automate ASAHI ball valves and are ideal for on/off or continuous operations. The actuators are made of high-quality plastics and, therefore, are perfect for use in a high-corrosive environment.

- Spring return normally open or normally closed design
- Lightweight and compact design
- Easy to mount and unmount
- No-bolt mounting due to the "snap-fit" design
- Air supply compatible with NAMUR standard
- Suitable for mechanical limit switches or dual proximity sensors



Saunders diaphragm valves

Lined diaphragm technology provides exceptional sealing and complete emissions control for chemical applications. This new material technology is a real alternative to high-quality metals.

A comprehensive selection of polymers delivers superior corrosion and abrasion resistance for a wide range of demanding applications. Top-entry design enables easy and in-line maintenance to reduce plant downtime and can be equipped with a pneumatical actuator.

Saunders



Measurement and control technology

- Stainless steel tube spring pressure gauges
- Stainless steel pressure transmitters
- Bourdon tube pressure gauges or pressure transmitters with separating diaphragm (chemical seal)
- Pressure gauges and transmitters for the chemical industry
- Option with a quarter turn: stainless steel control valves from NAMUR or three way from ASCO (ATEX, IEC-EX and SIL certified)



Filtration

Filters provide an effective method for the protection of pipeline and liquid purification equipment. They are equipped with several special features and options:

- Pressure differential indicator: Tracks clogging of the filter baskets and provides visual warnings when cleaning is required. The indicator is mounted directly on the filter housing.
- Double filter for applications where a continuous flow with minimal pressure loss is required.
- Automated cleaning of the baskets in the filter units.
- Cooling water treatment without chemicals (chlorine bleach)
- Filter units with treatment of the mussel eggs



ARO air operated membrane pumps

These ATEX-certified pumps are ideal where peak performance, endurance, and reliability are a must, as the compact pumps pack amazing performance in a small package. A favourite among process professionals, these pumps provide optimum safety, energy efficiency and downtime solutions.

ARO



Services

Steam trap survey

In a steam system that has not been checked for 3 to 5 years, 15 to 30% of the steam traps may appear to be defective. On average, no less than 25% of steam traps leak steam. During a steam trap survey, ERIKS steam specialists determine whether a steam trap is functioning properly, is leaking or is blocked by using an ultrasonic method. We also check whether the correct type of steam trap has been used. This is not only important to reduce energy loss, but also to prevent problems such as water hammer.



Flow-control asset management

Mitigate risk with our flow-control asset management. Site services support from ERIKS provides foresight and insight into the performance and condition of your valves, instrumentations or pumps in e.g., water cooling or steam heating systems. When required, we schedule interventions to keep your assets running smoothly and prevent downtime.



Sealing technology

for the chemical process industry



ERIKS Sealing Technology is a world leader in high-performance O-rings, elastomeric and polymer seals. We engineer new solutions for your applications, whether your requirement is for individual products, small batches or production volumes.

With outstanding support, in the form of technical and logistical services, we deliver the right seal to critical applications in your chemical plant on time.

You want

- Ensure standards with high-performance and easy to install O-rings
- Adequate properties for critical applications and protection against chemically aggressive media
- Prevent leakages with contact pressure and good sealing effects
- Longer life span and cost savings

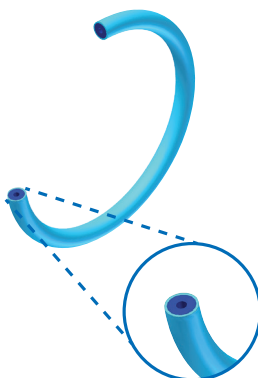
O-ring assortments in generic materials

- Adequate properties for the most diverse and critical applications in a chemical plant
- Economical seals are available in different materials in standard sizes according to international standards such as: AS568, ISO 3601, BS4518, JIS, NF
- Easy to install



Teflex encapsulated O-rings

- Almost unlimited chemical resistance due to seamless Teflon FEP coating
- Elastomer insert provides good contact pressure, elastic memory and sealing power
- Temperature range from -20°C to +200°C resp. -60°C bis +260°C
- Anti-adhesive properties, no sticking to the surface (stick-slip)
- Deep steam permeability and water absorption
- Good compression set
- Hollow core available for low compression forces



Vulc O-rings

- Precision-made, large size O-rings are hot vulcanised (not glued) into an endless O-ring
- Cost savings due to moulds not being required
- Meet very strict tolerances
- Available in all materials and all standard cord diameters
- No limitation of inner diameter
- Can be mounted in standard grooves



X-ring assortment

- Four-lobed profile of an X-ring is more stable than an O-ring in reciprocating applications and prevents spiral torsion or rolling of the seal.
- Requires lower compression force than an O-ring and has less frictional resistance and abrasion.
- Double contact points against the sealing surface contribute to a better seal than O-rings in dynamic applications.
- X-rings are available as standard in the same dimensions as O-rings according to ISO 3601 and AS568.



Rotary shaft seals (Oil seals)







- Rubber-cased oil seals are the most common oil seal execution, used when a metal-cased seal has the potential to fail.
- Generally implemented as a zero pressure seal of lubricating oil and grease on a rotating shaft. The seal keeps both the grease inside the application and any dirt outside of it, with the addition of a dust lip.
- In high temperatures and high pressures, fast expanding rubber can provide a tight fit and more stable sealability.
- Sometimes also used for liquids and gases and for solids in the form of powder or granules.



Selection of our standard compounds

			Elastomer	Compound Reference	Colour	Hardness	Temperature	Norms	Application
Nitrile			NBR	36624	Black	70 ShA	-35°C to +110°C	REACH, RoHS	Standard compound with good compression-set values and medium acrylonitrile content. Suitable for use with hydraulic oils, vegetable oils, animal fats, acetylene, alcohols, water, air, fuels and many other fluids.
			NBR	47702	Black	90 ShA	-35°C to +110°C	REACH, RoHS	Similar to 36624 with higher hardness for higher pressure applications.
			NBR	Type R	Black	45 - 60 HRC	-35°C to +100°C	DIN 3760 A	Rotary shaft seal (oil seal) with very wide application in the chemical industry. Suitable for sealing of thin fluids, mineral and synthetic oils, lubricating greases.
			NBR	Type RST	Black	45 - 60 HRC	-35°C to +100°C	DIN 3760 AS	Rotary shaft seal (oil seal) with very wide application in the chemical industry. Suitable for sealing of thin fluids, mineral and synthetic oils, lubricating greases.
			NBR	366300	Black	70 ShA	-30°C to +120°C	EN549 B2 H3	Compound with an average percentage of acrylonitrile for gas applications.
Ethylene, Propylene, Seves Monomer			EPDM	55914	Black	70 ShA	-55°C to +130°C	REACH, RoHS	Standard, sulphur cured EPDM compound with very good compression-set for use with solvents, alcohols, ketones, esters, organic and inorganic acids.
			EPDM	55914PC	Black	70 ShA	-50°C to +150°C	REACH, RoHS	High performance peroxide cured EPDM compound with very good compression-set, steam, ozone and weathering resistance.
			EPDM	55915	Black	70 ShA	-50°C to +150°C	REACH, RoHS	Peroxide-filled for critical applications, low compression-set values, resistant to steam, ozone and UV.
			EPDM	559270	Black	70 ShA	-50°C to +150°C	EC1935/2004, FDA	Peroxide-filled for critical applications, low compression-set values, resistant to steam, ozone and UV.
			EPDM	559273	Black	70 ShA	-50°C to +150°C	USP Class VI	Peroxide-filled for critical applications, low compression-set values, resistant to steam, ozone and UV.
Silicone			VMQ	714177	Red	70 ShA	-55°C to +230°C	EC1935/2004, FDA	General-purpose silicone with excellent physical and temperature resistance up to 220°C. Extremely high and low temperature range for use in air, oxygen dry heat, ozone, hot water up to 150°C, and glycol based brake fluids. Silicones are only recommended for static applications.
			VMQ	714703	Transparent	70 ShA	-50°C to +200°C	EC1935/2004, FDA, USP Class VI	Platinum vulcanised.

Selection of our standard compounds

			Elastomer	Compound Reference	Colour	Hardness	Temperature	Norms	Application	
Fluorocarbon			FKM	51414	Black	75 ShA	-20°C to +200°C	REACH, RoHS	General purpose compound with very low compression-set characteristics at high temperatures and chemical resistance to oils, fats, fuels. Suitable for vacuum applications.	
			FKM	51415	Green	75 ShA	-20°C to +200°C	REACH, RoHS	Comparable with compound 51414, green colour for easy identification.	
			FKM	Type GR	Black	45 - 60 HRC	-20°C to +160°C	DIN 3760 A	Rotary shaft seal (oil seal) with very wide application in the chemical industry. Suitable for sealing of thin fluids, mineral and synthetic oils, aromatic and chlorinated hydrocarbons, fuels also at higher temperatures.	
			FKM	Type GRST	Black	45 - 60 HRC	-20°C to +160°C	DIN 3760 A	Rotary shaft seal (oil seal) with very wide application in the chemical industry. Suitable for sealing of thin fluids, mineral and synthetic oils, aromatic and chlorinated hydrocarbons, fuels also at higher temperatures.	
			FKM	514641	Black	75 ShA	-20°C to +200°C	EC1935/2004, FDA	Low compression-set values at high temperature.	
			FKM	514701	Black	75 ShA	-20°C to +200°C	USP Class VI	Low compression-set values at high temperature.	
			FKM	514531	Black	91 ShA	-40°C to +200°C	REACH, RoHS, ADI free, RGD	Compound for low temperature applications and rapid gas decompression with RGD approval: NORSOK M710, NACE TM0297, NACE TM0187, TOTAL GS EP PVV 142.	
Perfluoroelastomer			FFKM	Kalrez 6375	Black	75 ShA	-20°C to +275°C		Compound with the widest chemical and temperature resistance. This combination of chemical and thermal resistance provides advantages for chemical processors. Suitable for acids, bases, amines, steam and many other aggressive chemicals.	
			FFKM	Kalrez 7075	Black	75 ShA	-10°C to +327°C		Designed for improved sealing performance in both high temperature environments and temperature cycling situations. Specifically developed for chemical and hydrocarbon processing industries.	
			FFKM	Kalrez 4079	Black	75 ShA	-10°C to +316°C		Low compression set product for general purpose use in O-rings, diaphragms, seals and other parts used in the chemical process industry. This carbon black filled O-ring has excellent chemical resistance, good mechanical properties and outstanding hot-air-ageing properties. It exhibits low swell in organic acids, inorganic acids and aldehydes and has good response to temperature cycling effects.	
			FFKM	Kalrez 7090	Black	90 ShA	-26°C to +325°C		Harder compound for use at highest temperatures and high pressure.	
			FFKM	Kalrez 7275	Light brown	75 ShA	-20°C to +300°C		Suitable for strongly oxidising media, ozone, ethylene oxide, propylene oxide.	
			FFKM	Kalrez 7375	Black	76 ShA	-20°C to +300°C		High temperature resistance combined with broad chemical resistance, including hot water and steam.	
			FFKM	Kalrez 0040	Black	70 ShA	-42°C to +220°C		For contact with acids, hydrocarbons, synthetic oils, and solvents at very low to high temperatures.	
Teflex®			FEP/VMQ	Teflex	N/A		-60°C to +200°C	EC1935/2004, FDA	General purpose encapsulated O-ring, with improved compression-set characteristics at low temperatures. Not recommended for vacuum applications due to high gas permeability. Not for dynamic applications.	
			FEP/FKM	Teflex	N/A		-20°C to +200°C	EC1935/2004, FDA	High thermal and chemical resistance. Not recommended for dynamic applications. Recommended for vacuum applications.	

Common chemical compatibilities of materials

	Media	Nitrile NBR	Ethylene Propylene EPDM	Fluorocarbon Viton® A	Fluorocarbon Viton® GF	Silicone VMQ	Fluorsilicone FVMQ	Hydrogenated Nitrile HNBR	Aflas® TFE/PTFE	Perfluoroelastomer FFKM
Organic Acids	Poor	Poor	Fair	Good	Good	Good	Good	Fair	Excellent	Excellent
Mineral Acids	Poor to Fair	Good	Good to Excellent	Excellent	Poor	Poor	Poor to Fair	Excellent	Excellent	Excellent
Strong Bases, High pH	Good	Excellent	Poor	Poor	Fair	Good	Good	Excellent	Excellent	Excellent
Alcohol	Good	Excellent	Poor	Good	Good	Fair to Good	Excellent	Excellent	Excellent	Excellent
Steam	Fair	Excellent	Poor to Fair	Good	Fair	Poor	Excellent	Excellent	Good to Excellent	Good to Excellent
Aromatic Hydrocarbons	Poor	Poor	Fair to Good	Good to Excellent	Poor	Good to Excellent	Excellent	Excellent	Excellent	Excellent
Chlorinated Hydrocarbons	Poor	Poor	Excellent	Excellent	Poor	Poor	Fair	Poor	Excellent	Excellent
Amines	Poor	Excellent	Poor	Fair	Poor	Fair to Good	Poor	Good	Good to Excellent	Good to Excellent
Ammonia, Aqueous Liquid	Good	Good	Poor	Poor	Good	Good to Excellent	Good	Excellent	Good to Excellent	Good to Excellent
Ammonia, Gas	Good	Good	Poor	Poor	Excellent	Good	Good	Excellent	Good to Excellent	Good to Excellent
Low Molecular Weight Caronolys (MTBB, MBK, MIBK, etc.)	Poor	Good	Poor	Poor	Poor	Poor	Poor	Poor	Poor	Excellent

Services

- It might be the case that your O-rings fail as the used compound is not adequate for your application. With our [chemical resistance guide](#) we help you to find the right material. Our guide allows you to check some 20 different rubber families and select plastics against over 2000 chemicals.
- With our [O-ring calculator](#), you can specify the groove dimensions for a specific O-ring or a specific groove. The O-ring calculator calculates the most relevant size O-ring for any given groove. Additionally, this unique online calculation tool takes into consideration the thermal expansion of the mating construction parts materials. The chemical volume swell or shrinkage of the O-ring is also taken into account. You can choose from over 30 construction part materials and 11 O-ring compounds.
- Our mechanical-seals team is specialised in solving your sealing problems quickly and efficiently. We repair, overhaul and modify all renowned manufacturers under optimal conditions, equipped with all modern production, control and testing equipment. We also engineer custom-made solutions for your applications.

Power transmission

for smooth operation of your plant



Strength, flexibility, durability and reliability are all vital in the field of power transmission. We meet these demands with our broad product portfolio tailored to the chemical industry.

Bearings

High-precision angular contact bearings are frequently used in pumps in chemical plants. To quickly supply you with tailored products for your applications, we have an extensive stock of certified ISO standard bearings from multiple high-quality brands.

Often, a great deal of the installations in your chemical plant are imported from the US, meaning components use imperial measurements, rather than metric. To overcome this challenge, we offer a large portfolio of bearings using imperial measurements.

RHP SKF FAG NSK TIMKEN

Open Drives

Flender couplings

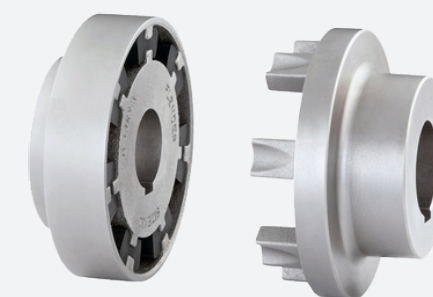
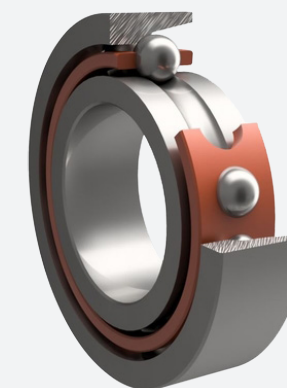
N-EUPEX pin couplings connect machine shafts. They compensate for shaft offset, and the restoring forces generated while doing so are low. The torque is conducted through elastomer elements, which gives the coupling its typical rubber-elastic properties. The coupling absorbs parts of the given mechanical loads, protecting the motor, gear unit and working machine.

- Standardisation with modular principle and simple design ATEX certified
- Reduction of downtimes due to whole-system protection
- Reduction of spare parts in stock
- Free of maintenance: no more lubrication required

SIEMENS
FLENDER

You want

- Reduced energy costs, maintenance intervals and downtime
- Prolonged lifespan of belts and motors
- Improved safety with ATEX compliance for environments with explosive atmospheres
- Clean, quiet and compact designs



Rexnord couplings

These couplings perform under even the most rigorous of demands in your chemical applications. With safety in mind, we offer you a complete line of flexible couplings for every pump and fluid compressor application within your plant.

- Engineered API compliant Thomas Disc Couplings
- General purpose ISO and ANSI-compliant Rexnord Omega and Viva Elastomeric Couplings
- ATEX certified
- Quick and easy installation and replacement
- Equipment protection and increased life of system components



Tollok keyless locking assemblies

This robust offering features a wide range of options, including internal locking assemblies, locking elements, shrink discs and rigid couplings.

- Customised products to fit your application needs
- Ideal for use in heavy-duty and specially engineered chemical environments
- Quick and easy installation and dismantling
- Equipment protection and increased life of system components



Timing belt Gates Poly Chain® Carbon™ Volt®

Antistatic power transmission belts are a must in explosive environments. With the most powerful synchronous belt in the market, your choice is the safest and strongest available. This belt has been proven to maintain static conductivity many times longer than any other belt:

- Static conductive to ISO 9563 throughout the lifetime of the belt
- ATEX directive compliant: suitable for environments with explosive atmospheres
- Patented static conductive construction
- High fatigue-resisting carbon fibre tensile cord
- Suitable for high torque, low speed drives
- Clean, quiet, compact and durable
- Supports a maintenance-free, energy saving, environmentally friendly operation
- Suitable for temperatures from -54°C to +85°C



Motors

WEG ATEX motors: We make hazardous areas safe

Non-sparking Ex nA motors are designed to prevent the occurrence during normal operating and certain specific abnormal conditions of arcs, sparks and excessive overheating of all inner and outer surfaces of the machine which could reach the self-ignition temperature of the surrounding potentially explosive atmosphere. With WEG ATEX motors, we offer you a large range of motors with highest efficiencies classes (IE4).



High efficient IE4 motors to reduce energy costs and prolong lifespan

Electric motors account for as much as 68% of industry energy usage. Yet a huge amount of this energy is wasted, as chemical plants use solutions which are poorly designed, or inappropriate for their application. By reducing this wastage, you not only help the environment, but also cut costs with a return on investment of three years or even less.

- Reduction of energy losses by between 10% and 40%, when compared to other typical motors
- Lower noise and vibration
- Higher reliability and easier maintenance
- Suitable for fin fan and pump applications



Pneumatics

We offer suitable pneumatic components to support you to increase the productivity of your chemical applications. These make daily work easier, are perfectly matched with one another and help to lower your total operating costs.

Pneumatic range from Festo

Are you looking to reap the benefits of leaner processes and a more manageable number of suppliers? Thousands of our customers take advantage of this by purchasing all their Festo pneumatic components directly from us.

We supply you with the appropriate components for the maintenance of your pneumatic drive system or control system. The pneumatic range for use in corrosive environments includes:

Valves

The valves from Festo are compact, small, robust and offer strong flow rates. This means they are perfect for use in the chemical and pharmaceutical industries.



Air supply

In order to guarantee reliable processing of compressed air, Festo products are used together to ensure suitability for the air supply



Connecting elements and hoses

Connecting elements and hoses from Festo are durable, simple to install and guarantee secure connections.



Saving energy made simple

Pneumatic air processing is energy and cost intensive. The higher the operating pressure, the higher the costs for compressed air preparation. Get in contact with us to find out how you can avoid faults in pneumatic components and how much energy you can save in your chemical plant with the help of these twelve measures:

 Reduce pressure level <ul style="list-style-type: none">With a pressure regulatorReduced pressure return stroke 6 → 3 bar	-22%	 Reduce leakage <ul style="list-style-type: none">Regular leakage detection, condition monitoring	-20%	 Reduce friction <ul style="list-style-type: none">Use low-friction components	-15%
 Recovering energy <ul style="list-style-type: none">Store braking energy in the coupled DC link	-10%	 Switch off energy <ul style="list-style-type: none">Leakage reduced by up to 10%Here for entire compressed air system	-10%	 Select right components <ul style="list-style-type: none">Motor with holding brake for long downtimes	-14%
 Shorten hose length <ul style="list-style-type: none">Decentralised valve terminalOptimum hose routing	-25%	 Reduce pressure losses <ul style="list-style-type: none">Optimal line diameters, less line resistanceMains pressure reduction	-6%	 Efficient control and regulation <ul style="list-style-type: none">Adapt driving profilesOptimise controller	-10%
 Use air-saving circuit <ul style="list-style-type: none">Vacuum handling with monitored shutdown	-60%	 Reduce weights <ul style="list-style-type: none">Optimum mix of technologiesElectric handling with pneumatic Z-axis	-18%	 Correct dimensioning <ul style="list-style-type: none">Optimum sizeSelect one size smaller for pneumatic actuators	-35%

Let's make industry work better

#better4chemical



Engineered plastics

for stable performance



In the chemical sector, suitable materials are determined based on their application. We take the chemical and temperature into account when advising you on your material choice, using chemical-resistance lists.

The following products represent a selection from our chemical-resistance range.

Standard plastics

PVC-U

PVC has high chemical resistance to acids, alkalis, alcohol, oil and petrol. It also adheres and welds very well and is used for extraction systems, container linings and in the construction of chemical plants.

PE (HD, HMW, UHMW)

PE displays average to good chemical resistance to acids and alkalis. This plastic is also very weldable and is used to construct containers.

Fluoroplastics

PVDF

PVDF exhibits excellent resistance to chemicals, for example to chlorine and bromine, and can be used for a wide temperature range (from approx. -50°C to approx. $+150^{\circ}\text{C}$). PVDF is used in the construction of chemical plants.

PTFE

PTFE is extremely resistant to acids, alkalis, alcohols, petrol and oil. The interesting thing about this plastic is its strongly anti-adhesive behaviour and very low coefficient of friction. PTFE is used for gasket technology.

You want

- Suitable materials based on your application
- Adequate resistance to high stress due to the chemicals used
- No swelling or softening of the plastic and loss of usability due to inadequate resistance to chemicals



Plastic semi-finished products

	Polymers	Properties	Use	
	PE-300 (HD-PE)	Tough and elastic	Machine parts, general	
	PE-500 (HMW-PE)	Good workability, tough and elastic	Boards	
	PE-1000 MDT	Metal detectable	Transport lines	
	PE-1000 (UHMW-PE)	Very good slip properties	Sliding components	
	POM-H/POM-C**	High dimensional tolerance	Dosing systems, nozzles	
	POM-C MDT	Metal detectable	Conveyor belts, transport lines	
	PA6/PA6G/PA6.6	Good workability	Sliding components, bearings	
	PA11/PA12	High resistance to chemicals	Dosing pumps, nozzles	
	PET-C/-P	High dimensional tolerance	Very complex components	
	PEEK	Very high temperature resistance	Temperature-resistant components	
	PP-H/PP-C**	Hardness and strength	Pump housings	
	PVC-U (Hart)	High fire retardation	Pump internals, nozzles	
	PTFE	Very high temperature resistance	Slide bearings	
	PVDF	High resistance to chemicals	Plant construction	
	PC	High transparency	General covers	
	PMMA	High dimensional stability	Transparent components	
	PET-A/PET-G	High rigidity	Noise barriers	
	PPSU	Good sterilisability	Filters	



FRP – the ideal material for chemical plants

Fibreglass-reinforced plastic (FRP) is a very interesting alternative to steel, due to the low tool costs and varied shaping options. For areas away from production zones, it is the ideal material for a multitude of different constructions. FRP is much lighter than steel – with the same tensile strength and compressive strength. In addition, it functions as insulation and is resistant to corrosion, alkalis and chemical cleaning agents. We provide a 20-year guarantee for these constructions, with respect to weather resistance.

Services

- Co-engineering with the design and selection of suitable materials
- 3D-printing and prototyping
- Reverse engineering
- CNC processing on 3-, 4- and 5-axis turning and milling centres
- Conventional processing machinery: turning, milling, drilling
- Water jet cutting, punching, thermal processing
- Foil blanks of different polymers on a 2D-CNC cutter/plotter
- Semi-finished product blanks (plates, rods, tubes, profiles) made to measure with the blank configurator in the online shop



Tools, maintenance & safety

for safe and
sustainable
processes



With our range of personal protective equipment (PPE), tools and maintenance products, we contribute to the safety of your workforce, provide comprehensive advice and offer solutions tailored to your requirements.

PPE

Chemical resistant ANSELL Glove AlphaTec™ 58-430

- Ideal for intermittent exposure to lubricants and cleaning agents in chemical plants.
- Unique design features a premium grade nitrile compound coating, for versatile chemical protection and long-lasting snag, puncture and abrasion resistance, along with a comfortable cotton-flocked liner.

Ansell



TYCHEM Coverall disposable

- TYCHEM F Coverall with hood is an excellent barrier against a broad range of organic chemicals, highly concentrated inorganic chemicals and biological hazards.
- The protective suite has an antistatic treatment on the inside.
- Category III PPE, conforms to following standards: T3, T4, T5, T6, EN 1073-2, EN 1149-5, EN 14126.



You want

- Improved safety for your staff using personal protective equipment (PPE)
- Reliable tools and maintenance products made for usage in chemical environments



THORMASAFE

spill control

- Made from Melt Blown Polypropylene, THORMASAFE absorbents are a high-quality, high-performance workplace spill control and absorbent solution.
- For incidents, and everyday situations involving chemicals and solvents, the THORMASAFE chemical range provides an instantly recognisable and complete solution.
- For ease of use, products are available as pads, sheets, rolls, socks, pillows, booms and specially created spill kits.



Safety hand tools

Hand tools are often underrated as sources of potential danger. Especially in chemical plants with ATEX zones the injuries to your employees can be serious. Our hand tools help to create a safe workplace.

			Product	Properties	Application	
	High-voltage insulated tools		Screwdrivers, pliers, wrenches, sockets and accessories, tool sets from Knipex, Bahco and Facom	Chrome-plated/ galvanized/nickel-plated with multi-component grips.	For work on live equipment up to 1000 volts, we offer quality brands with a wide selection of insulated safety tools. They are manufactured according to the International Standard IEC60900 for working with live systems of up to 1000 V AC and 1500 V DC.	
	Non-sparking tools		Sledgehammer, side cutter, ring spanner, slotted screwdrivers, tool sets etc. from Thormas	Non-sparking	Especially suitable for use in ATEX zones	
	Tools at height		Tool storage and lanyards, wrenches, sockets and ratchets, screwdrivers, pliers, cutting tools, hammers, pry bars and chisels, measuring, torque tools, clamping tools, toolkits from Bahco and Facom	Preventing object drops	Maintenance work carried out at height	
	ESD-safe tools		Cutters, screwdrivers, tweezers pliers etc. from Lindström and Erem	Prevention of discharge causing product defects or equipment failures	Most important and safe tools for hand assembly of sensitive electronic components and re-work activities	
	Safety knives		Safety knives from Martor	This knives are essential for cutting safety and accident prevention in your chemical plant. Non-corrosive blade, which is easy and safe to change.	Any type of cutting work	

Tool control

To store your tools durably and safely, we offer you standard and custom-made tool trolleys and chests of drawers, inlays and modules [sets]. By arranging your tools in organised tool carts with fixed places, you are working in a safe working environment. Faster tool retrievals can also lead to considerable cost savings in the long run.



Maintenance

To enable you to carry out your maintenance work efficiently and to keep downtime as short as possible, we offer you suitable maintenance and metalwork products as well as fasteners.

			Product	Properties	Application	
	Maintenance		MOLYKOTE P 37 Assembly paste	Extremely pure, solid lubricant paste for bolted joints. It contains no lead, nickel, sulphur, chlorine or fluorine. Can be used at temperatures up to +1400°C.	Suitable for screws, nuts and bolts that are subjected to extremely high temperatures and which are made of heat-resistant or extremely heat-resistant steels, e.g. those made from nickel-based alloys. Used successfully for the bolted joints of gas and steam turbines.	
			WD-40 Multispray	Lubricates and protects against rust and corrosion. It displaces moisture to restore water flooded equipment such as engines or power tools.	Frees stuck corroded parts like nuts, bolts, valves and locks. Lubricates moving parts such as hinges, wheels, rollers, chains, and gears.	
	Metalworks		3M Bristle Disc	Design: Scotch-Brite(TM) Bristle Disc with M 14 adapter for use on angle grinders without additional backing pad. Max. rpm = 12000.	Universal disc for quick and easy removal of paint residues, glue residues, adhesions, rust and other surface contaminations. Disc requires only minimal pressure and guarantees an efficient result without damaging the surface.	
			FLEXOVIT Cutting-off wheel flat	Stainless steel/inox, iron, sulphur and chlorine-free, high tool life, fast grinding	Easy to use and ideal for powerful machines	
	Fasteners		TESA Adhesive tape	This thick, white double-sided self-adhesive tape consists of a PVC-film backing and a tackified acrylic adhesive. It offers high initial tack and immediate adhesion. Reliable adhesion even on non-polar and rough surfaces. Good resistance to plasticiser.	Suitable for long-term outdoor applications and mounting of plastic trims.	
			LOCTITE SF 7063 Cleaner Aerosol	A non-CFC solvent based formulation for cleaning and degreasing of bonding and sealing surfaces. Removes grease, oil, lubricants, metal chips and fine particles from all surfaces.	Suitable for cleaning and degreasing machine components during maintenance operations.	
			LOCTITE 243 Medium Strength Oil Tolerant	Effective on all types of metal threaded fasteners. Prevents loosening on vibrating parts such as pumps, motor mounting bolts, gear boxes or presses.	Recommended for use where disassembly with hand tools is required for servicing and where parts are contaminated with oil.	



Our services

Prevention is better than cure

Keeping assets operational and production flawless requires routine maintenance and inspections. We offer multiple possibilities for keeping your uptime as high as possible.

ERIKS field services

Flange gaskets: from quickscan to leak-free flange connections

In every chemical plant there are some critical flange connections, the so-called "bad actors". This undesirable situation can pose a safety and environmental risk and costs time and money. ERIKS has experienced specialists in the field of leak-free connections.

Inventory of the operating conditions of the connections in your plant. This involves checking all the materials used, the operating parameters, existing stresses, temperatures, the type of installation, the location, etc. This will help determine the probable causes of problems such as leaks.

For each "bad actor", we offer the following:

- Analysis of the existing connection
- Indication of possible causes
- Recommendation for improving the connection

Additional field services for flange gaskets:

- On-site advice from specialised application engineers
- Full-service installation of difficult-to-close flanges
- 24/7 call out service during downtime or turnarounds
- Support from specialists before, during and after plant turnarounds
- LDAR leakage and emission services
- Asset management and predictive maintenance



On-site hose inspection and Hose Management System (HMS)

A periodic inspection of the hoses is necessary to ensure their proper functioning and to guarantee the safety of your installations. We systematically monitor leakages, damages, installation methods or discharge of static electricity. To avoid the inconvenience of arranging hose inspections with external service providers (transport costs, downtime, etc.), we offer you an on-site inspection solution: our on-site team carries out tests according to the latest standards. We plan inspections and provide insight into hose rejections using our digital (HMS) platform, with this comes the following advantages:

- Improved safety - less risk of incidents or accidents
- Reduced unplanned downtime with predictive maintenance
- Reduced maintenance costs, time-saving
- Extended hose life cycle
- Improved safety
- Automated and more efficient processes



Find out how we supported Sitech with their turnaround:



Download the case study

Turnaround support

It is important that your shutdown runs smoothly, as **keeping to your timeline is crucial**, because this has a direct impact on the biggest turnaround challenge: cost. Every year, **ERIKS accompanies plant shutdowns from start to finish at multiple chemical plants**. We have **ready-to-use containers** equipped with all of the necessary materials and **set up on your site** during the turnaround.

Together with you, we agree in advance which seals, screws and other maintenance products are required in which dimensions and quantities for the container. ERIKS can also take care of **maintaining stock levels during the shutdown** and missing products can be replenished quickly. This provides more time to attend to other matters and allows you to stick to your shutdown schedule.

Downtime costs millions, therefore the trustworthiness and reliability of a supplier is imperative. ERIKS has a wealth of knowledge and capabilities that stretch well past part-delivery services. That's why our **turnaround management team is available for your 24/7 to help on-site**.

Overview specific services

	Business unit	Services	Sustainability	Safety	Uptime	Supply chain
Gasket technology		Recalculating tightening moments	✓		✓	
		Emission reduction programme	✓		✓	
		Flange fitter training courses	✓		✓	
		Turnaround support (with on-site container)			✓	
		Quick scan		✓	✓	
Hoses		Field Service Team		✓		✓
		Hose Management System (HMS)		✓		✓
Flow control		Steam traps survey	✓			
		Total process/steam solutions	✓			
		Steam training courses	✓			
Power transmission		Vibration analysis	✓		✓	✓
		Smart asset management			✓	✓
		Assembly & alignment			✓	✓
		Mapping & optimisation audit			✓	✓
		Reconditioning of oil	✓		✓	✓
		Motor repairs			✓	✓
Sealing technology		Material analyses		✓		
		Reverse engineering			✓	
		Prototyping and 3D printing	✓			
		Overhauling mechanical seals				✓
Engineered plastics		Material analyses		✓		
		Reverse engineering			✓	
		Prototyping and 3D printing	✓			
Tools, maintenance & safety		Signalling audit and key plan		✓		
		Glove audit		✓		
		Maintenance hoisting and lifting equipment				✓

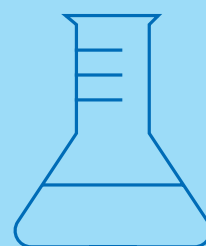


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