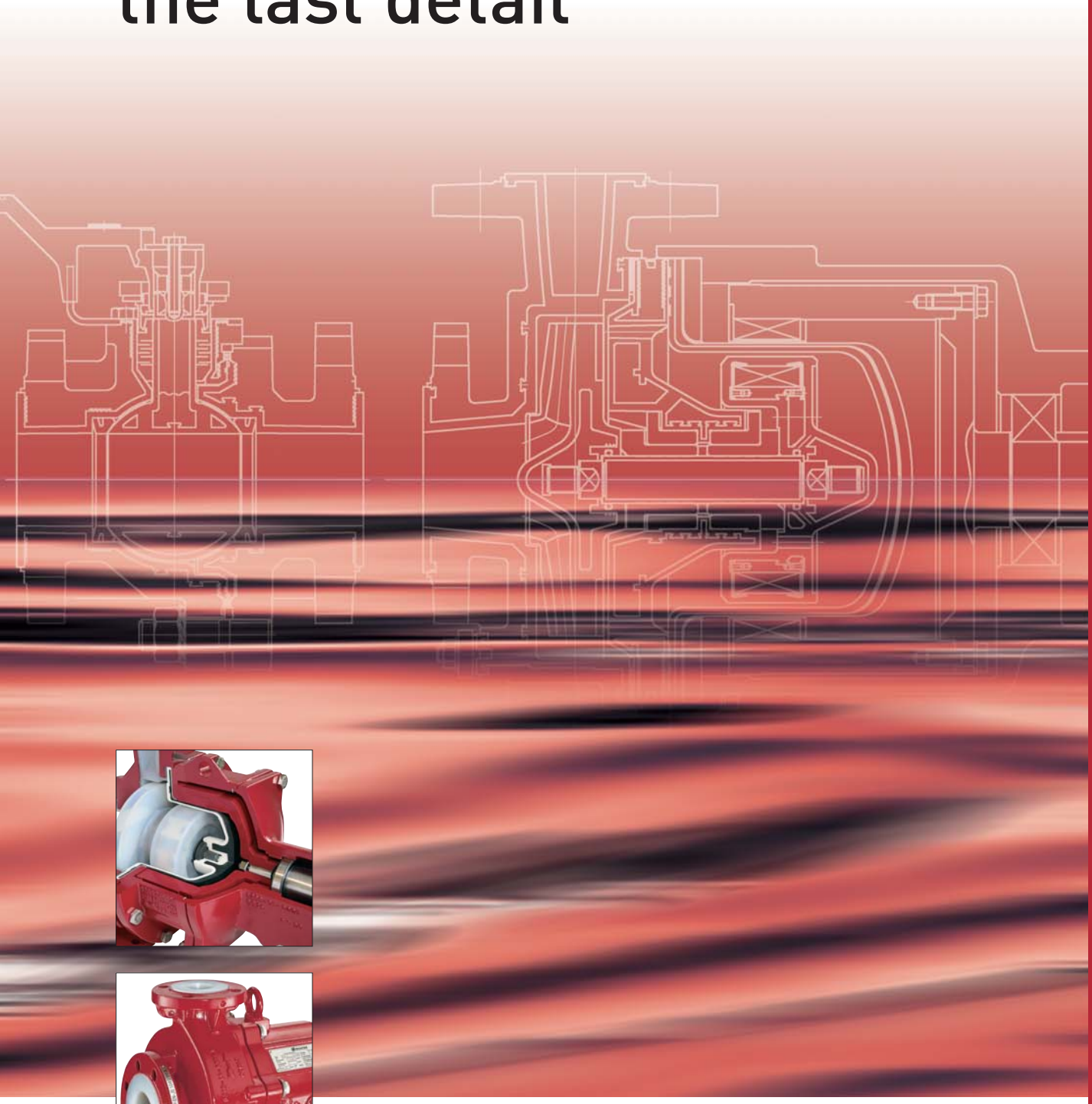
Safety down to the last detail



RICHTER
Process Pumps & Valves

Chemical process pumps, shut-off, control and safety valves for corrosive, hazardous, contaminated, pure and high-purity fluids

THE RICHTER PRODUCT RANGE

Richter products are known worldwide for their reliability and exemplary safety in complex plants, also under extremely difficult conditions, e.g. with elevated temperatures and high solids contents or highly permeating media.

Our **contribution** to a safe **chemical industry**

Ever more complex processes, together with growing demands on plant flexibility and safety, require the use of highly advanced and universal plant components. With a complete range of plastic-lined, chemical process, frame-mounted and special pumps, shut-off, control and safety valves, Richter Chemie-Technik offers a product spectrum which satisfies these demands to a very high degree.

Our products are designed for use with difficult fluids, regardless of whether they are corrosive, hazardous, pure or even ultrapure. Many years of experience enable us to also control additional difficulties, such as high and very low temperatures, solids contamination or the risk of dry-running.

Richter is renowned for its solutions in extremely demanding applications.

The chemical and pharmaceutical industries, semi-conductor production, the petrochemical industry, the pulp industry, the extractive metallurgy and metal processing industries, food production, environmental engineering and many other branches rely on the extraordinary reliability and cost-effectiveness of our products.

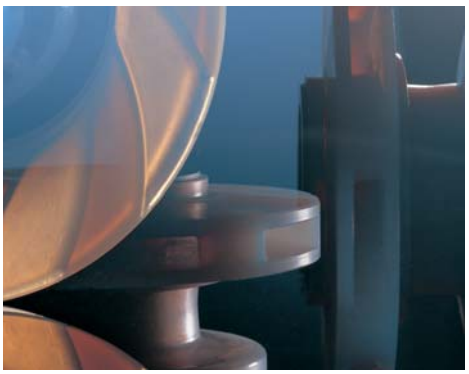
With its trail-blazing concept – inside corrosion-resistant plastics and engineered ceramics, outside pressure-resistant metallic housings – Richter products prove to be problem-solvers in many fields of application, in particular:

- for fluids where stainless steels, iron silicon alloy etc. are no longer sufficiently resistant to corrosion,
- as alternatives to expensive special metals and alloys, such as Hastelloy, tantalum, Monel and nickel,
- for applications with high demands on the ease of cleaning of the wetted components used,
- for pure and ultrapure fluids in the fine and semiconductor chemical industries,
- for highly permeating media,
- for media which must not come into contact with metals,
- when environmental protection regulations demand the safe separation of the fluid and the atmosphere.

Product effectiveness and advice on applications go hand in hand; we therefore place great emphasis on staff and customer training courses.

In order to guarantee a constant high quality, our products are subjected to comprehensive inspections during production.

Excellent value for money is also ensured by ultra-modern, computer-controlled production tooling.



We use top-quality, undyed lining materials to achieve constant and neutral material properties.

Our **quality** gives you **safety**

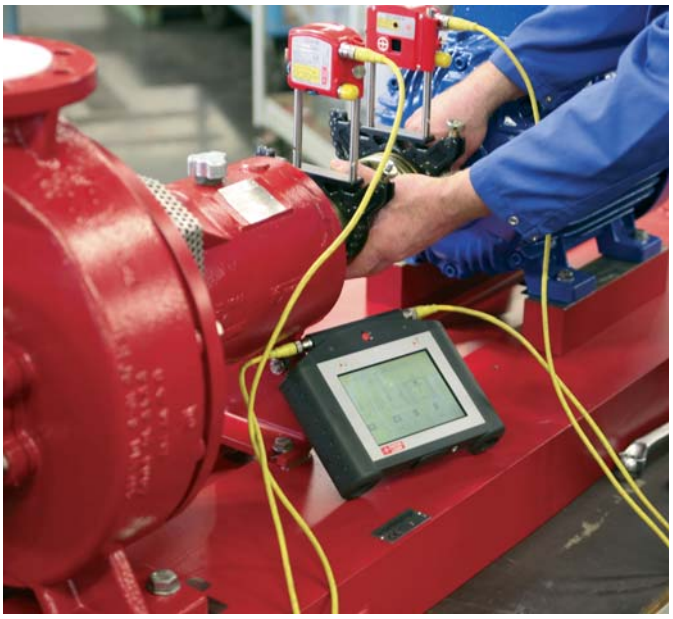
Plastic processing, mould and die construction are performed in-house, therefore direct influence can be exerted particularly in the most important phases in the manufacture of the products. The design, production and order processing procedures are laid down in the ISO 9001/EN29001 quality assurance system and they are audited regularly and continuously refined.

Continuous investments in modern production technology guarantee the outstanding Richter quality. We deploy skilled workers in all production sectors most of whom have been trained by Richter Chemie-Technik. A total of some 230 employees ensure that your problems are solved in a reliable, customer-orientated and cost-effective way.

Top quality is one of the standard requirements which we not only place on ourselves but also on our suppliers. In this way we have been able to prove ourselves worldwide as a reliable partner: with solutions using innovative products and a service on which you can rely.

Our concept has been proving its worth for about 50 years – a success which, for us, is above all an obligation for the future. We therefore constantly invest in product development, production engineering and quality assurance, organisation and customer service.

Richter products are not dispatched until they have passed functional and performance tests.



Using advanced CAD systems, our development engineers conceive product innovations and improvements, remarkably often initiated by exchanging experience with the customer.

Our own plastics processing facility including mould construction is crucial for production flexibility.

Your **requirements** are our **yardstick**

The continuous development of new customer and process-orientated solutions characterises the special value of our work. Our innovations have established themselves as trend-setting and state of the art. Maintaining this position is a challenge which we confront anew every day.

Some examples of trail-blazing developments are:

- Globe control valves RSS with heavy-duty bellows and a sophisticated seat/plug design for even the smallest k_V/Cv values
- Control valves KNR with a special V-control ball and play-free torque transmission
- Cavity-free sealless sampling valves PA
- Certified safety valves KSE, KSEA and LPV for vapours, gases and fluids
- Magnetic drive chemical process pumps MNK and MDK with eddy-current-free can systems
- SAFEGLIDE® PLUS: dry-run-optimised plain bearings for magnetic drive pumps
- Vortex pumps, self-priming pumps and peripheral pumps for demanding applications
- Linings made of highly permeation-resistant fluoroplastic PFA-P

Easy assembly, few components and optimum ease of maintenance are the alpha and omega of the performance specifications for all new developments.

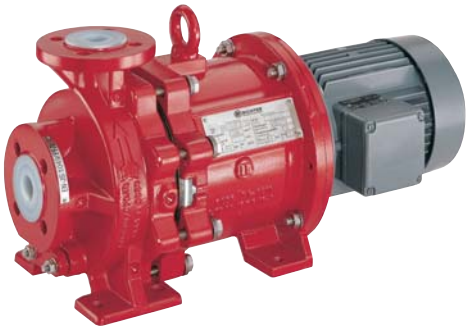
Chemical process pumps

The performance range comprises flow rates of up to 550 m³/h (2,400 USgpm), heads of up to 150 m (500 ft) LC and operating temperatures of –60 to 200 °C (-75 to 400 °F). Thanks to their sturdy design and consistent emphasis on high reliability, Richter pumps are also optimally suited for use under arduous operating conditions. They are available as mechanical seal and magnetic drive pumps to EN DIN 24256/ISO 2858 and ANSI/ASME B 73.3 in frame-mounted and close-coupled designs. Lining materials are PFA, PTFE, PP, PE-UHMW as well as PFA-P highly permeation-resistant and antistatic fluoroplastics.

Innovative self-priming pumps, vortex and peripheral pumps as well as customised solutions round off the range. Magnetic drive pumps with dry-run-optimised SAFEGLIDE® PLUS plain bearings and for solids contents of up to 30% are some of the crucial Richter innovations in pump technology. We offer conformity to ATEX, the German Clean Air Act and FDA.

Magnetic drive chemical process pumps, PFA/PTFE andPP/PE-lined

Mechanical seal chemical process pumps, frame-mounted and close-coupled designs, PFA/PTFE and PP/PE-lined



Magnetic drive and mechanical seal chemical process pumps of space-saving, close-coupled design, PFA/PTFE and PP/PE-lined

Chemical process peripheral pumps with magnetic drive, PFA/PTFE-lined

Self-priming chemical process centrifugal pumps with magnetic drive or mechanical seal, PFA/PTFE-lined

Vortex pumps with magnetic drive or mechanical seal, PFA/PTFE and PE-lined

Valves and control equipment

The Richter product range of corrosion-resistant shut-off, safety, sampling and check valves, sight glasses as well as control equipment for control and shut-off functions is virtually complete.

These products are available to ISO/DIN PN16/PN25 and ASME/ANSI Cl. 150 and 300 lbs for operating temperatures from –60 to 200 °C (-75 to 400 °F). They excel through their particularly robust design and long service life.

The body is manufactured from ductile cast iron EN-JS 1049/ ASTM A395 or stainless steel, absorbing pressure and pipework forces. Thick-walled, vacuum-resistant linings – PFA, PTFE, PFA-P highly permeation-resistant and antistatic fluoroplastics – offer particularly high resistance to corrosion.

Special pure media versions and a comprehensive options package round off the range.

Certified series in compliance with the German Clean Act and with FDA are available.

Shut-off ball valves, control valves,
PFA-lined,
flange and sandwich designs

Shut-off and control butterfly valves,
PFA/PTFE-lined,
sandwich, lug-style and
double-flange designs

Diaphragm shut-off and control valves,
PFA/PTFE-lined

Bellows-sealed control and shut-off valves,
PFA/PTFE-lined

Sampling valves, sealless,
PFA-lined, stainless steel

Sight glasses,
2 and 3-way designs,
PFA/PTFE-lined

Safety valves
for vapours, gases and fluids,
PFA/PTFE-lined

Overflow, pressure-relief and
thermal expansion valves, sealless,
PFA-lined

Low-pressure safety valves,
for container venting and aeration,
PFA/PTFE-lined

Strainers,
PFA-lined

Ball-type drain valves,
PFA-lined

Bottom drain valves,
PFA/PTFE-lined

Check valves,
PFA/PTFE-lined

Richter valves and control equipment can be fitted with many various types of actuators, control and monitoring components to suit your requirements.

Customer wishes and works standards take priority but in many cases Richter can offer attractive alternatives both in terms of technology and prices.

We are only too pleased to put our efficiency to the test.

SAFEGLIDE = TM Richter Chemie-Technik GmbH
Richter = TM Richter Chemie-Technik GmbH

Safety down to the last **detail**

Our corporate objective is safe chemical engineering. Customer-orientated solutions are our strength.

Ensuring your process plant works safely and reliably. Worldwide.

Richter Chemie-Technik:

50 years of technology leadership in chemical and pharmaceutical process engineering.

Kempen was founded more than 700 years ago and has a beautiful historical town centre.

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Agencies and distributors in more than 50 countries

RICHTER
Process Pumps & Valves

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