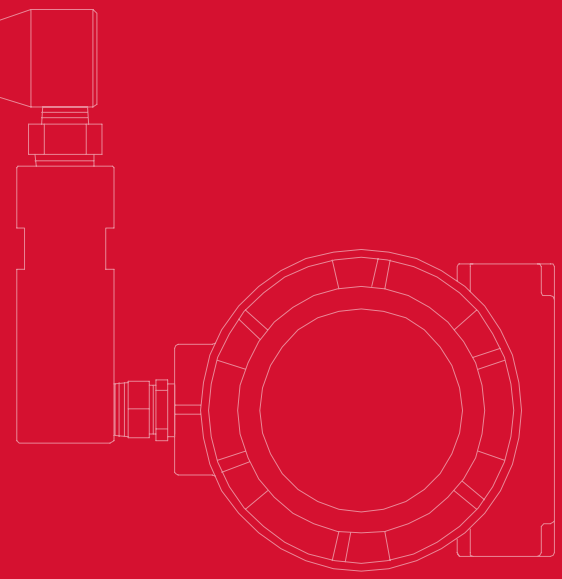
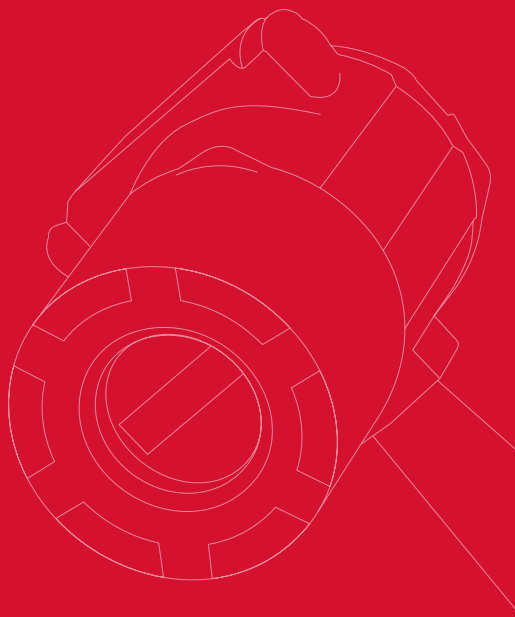
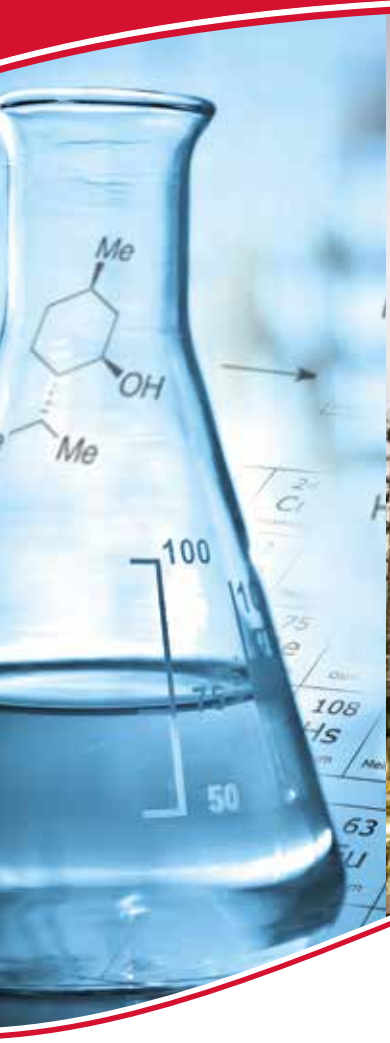
Heinrichs

KOBOLD Group

Process-Instrumentation since 1911







PRODUCT RANGE

We measure flow, mass, density, level and pressure

Process-Instrumentation
since 1911

Heinrichs Messtechnik since 1911
Since more than 100 years we design measuring instruments for our customers. Worldwide and daily in countless applications we provide our know-how for our customers and thus we contribute a big part of reliability and accuracy for their plants and machines. Each detail in our instruments is the amount of experience of decades and serves always the scope of improvement of the efficiency of the instruments and for the safety of in your applications.

From the beginnings up to now Heinrichs Messtechnik attended e.g. the development of the explosion protections guidelines nationwide as well as worldwide and offers knowledge and support for the arrangement of norms and standards in particular for flow meters.

With instruments from Heinrichs Messtechnik
you have decided for top products

MADE IN GERMANY.

Index

Heinrichs Messtechnik
History

Heinrichs
KOBOLD Group

> Heinrichs Messtechnik since 1911
The history of the company started with the design of mechanical Variable Area Flow Meter in 1911. 1913 the company moved from Düsseldorf to Cologne.

> Chemical and Petrochemical Industry
At that time mainly companies in the chemical and petrochemical industry around Cologne have been supplied. This area is still one of the largest chemical and reffinery locations in Europe.

> Variable ares flow meters
In the early 1960´s the company already started with the manufacturing of All Metall Variable Area Flow Meters to meet the increasing standards of the chemical industry. At that time the development of Variable Area Flow Meters e.g. with pneumatical and also with electrical output signals have been driven forward.

> Magnetic inductive Flow Meters
As soon as electronics conquered measuring technology the product portfolio has been extended. As one of the first manufacturers in Europe Heinrichs Messtechnik started with the serial production of Magnetic Inductive Flow Meters in the late 1960´s and was able to set benchmarks in terms of measuring accuracy and long term stability.

> Coriolis principle
In the mid 1980´s Heinrichs - as the first company in Europe - developed a Mass Flow Meter according the Coriolis principle and expanded it´s Coriolis product range constantly in the following years. Heinrichs developed e.g. instruments made from titanium, hastelloy or tantalum who became reference in the chemical and petrochemical industry.

This has been underlined through certificates according different custody transfer approvals which guarantees the accuracy of acknowledged standards when instruments are delivered to our customers.

> Innovative communication methods
The adaption of micorprocessor technologies in the 1990´s led to modern communication technologies like HART, Profibus and MODBUS. With the Fieldbus Foundation protocoll Heinrichs now offers all relevant communication technologies to it´s customers. Again in 2010 Heinrichs Messtechnik - as the worlds first manufacturer - developed an All Metall Variabel Area Flow Meter with compact Foundation Fiedlbus protocoll and thus has underlined it´s innovation power again.

> competent and solution-oriented
Heinrichs Messtechnik offers competence, flexibility and tailor made solutions e.g. special materials, high temperature and high pressure versions to it´s customers in the chemical / petrochemical industry, oil and gas industry, energy and plant engineering. Also modern safety standards like SIL will be integrated into new developments for transmitters and instruments.

> Integration to the KOBOLD Group
Since 2008 Heinrichs Messtechnik has been successfully integrated into the KOBOLD Group. The KOBOLD Group has more than 30 own subsidiaries, sales and service offices worldwide and thus guarantees for a nearly complete sales network with contact persons locally.

Heinrichs Messtechnik
operating worldwide

Continent

Point of Sale

Production

> We present you our Locations:

> Europe
Cologne, Hofheim, Stuttgart, Budapest, Zürich, Sindelfingen, Erfurt, Arnhem, Usingen, Brussels, Mansfield, Paris, Lyon, Barcelona, Milan, Brno, Warsaw, Vienna, Bratislava, Zagreb, Sarajewo, Belgrad, Kiew, Bucharest, Sofia, Istanbul, Moscow

> North-america
Pittsburgh, Montreal, Toronto, Providence, Medina, Detroit, Las Vegas, Querétaro

> South-america
Charleston, Barranquilla, Bogota, Medellín, Call, Lima, Buenos Aires, Santiago de Chile

> Asia
Xian, Bankok, Ho Chi Min City, Wuhan, Tianjin, Seoul, Shanghai, Taipei, Guangzhou, Kuala Lumpur, New Delhi, Pune, Singapour, Johor, Jakarta, Tehran

> Africa
Tunis, Cairo

> Australia
Sydney

Heinrichs Messtechnik

Chemical Industry

Reliable partner for the chemical industry since more than 100 years. We supply our instruments nearly to all well known chemical companies with our great variability of instruments you cover nearly the most applications. Benefit from our experience.

CHEMICAL INDUSTRY

Providing Solutions for over a 100 years

Heinrichs Messtechnik is worldwide one of the most experienced solution providers of innovative products for process measurement. For over 100 years we have been developing extremely robust and reliable measurement technology, in particular for flow measurement setting standards for accuracy and repeatability. With our wide range of instruments we are capable of covering almost all flow applications in modern chemical production – such as flow switching and flow metering through to high precision flow measurement for filling purposes in custody applications. We measure highly corrosive liquids and produce flow meters with wetted materials ranging from St.st. to PTFE through to hastelloy and tantalum.

Variable Area Flow Meters

Pressure and Differential Pressure Transmitter

Electromagnetic Flow Meter

Coriolis Flow Meter
stainless steel / tantalum

Technologies

Variable Area Flow Meters
Flow measurement / monitoring of liquids, gases or steam Glas tube variable area flow meters, all metal variable area flow meters, high temperature up to 300° C

Coriolis Flow Meters
High accuracy flow measurement for optimal process results from 6 to 100 mm, nominal pipe size Tantalum Coriolis Flow Meter, Titanium or other special materials Batching of oils, solvents or any chemicals

Electromagnetic Flow Meters
In-Line sensors with lining of PTFE / PVDF, hard rubber, soft rubber pipe sizes from 6 mm to 1200 mm, Insertion type sensors for pipe sizes of up to 2200 mm

Vortex Flow Meters
In-Line sensors for Gases, steam or non-conductive liquids from ½" to 12 inch, for temperatures up to 400° C

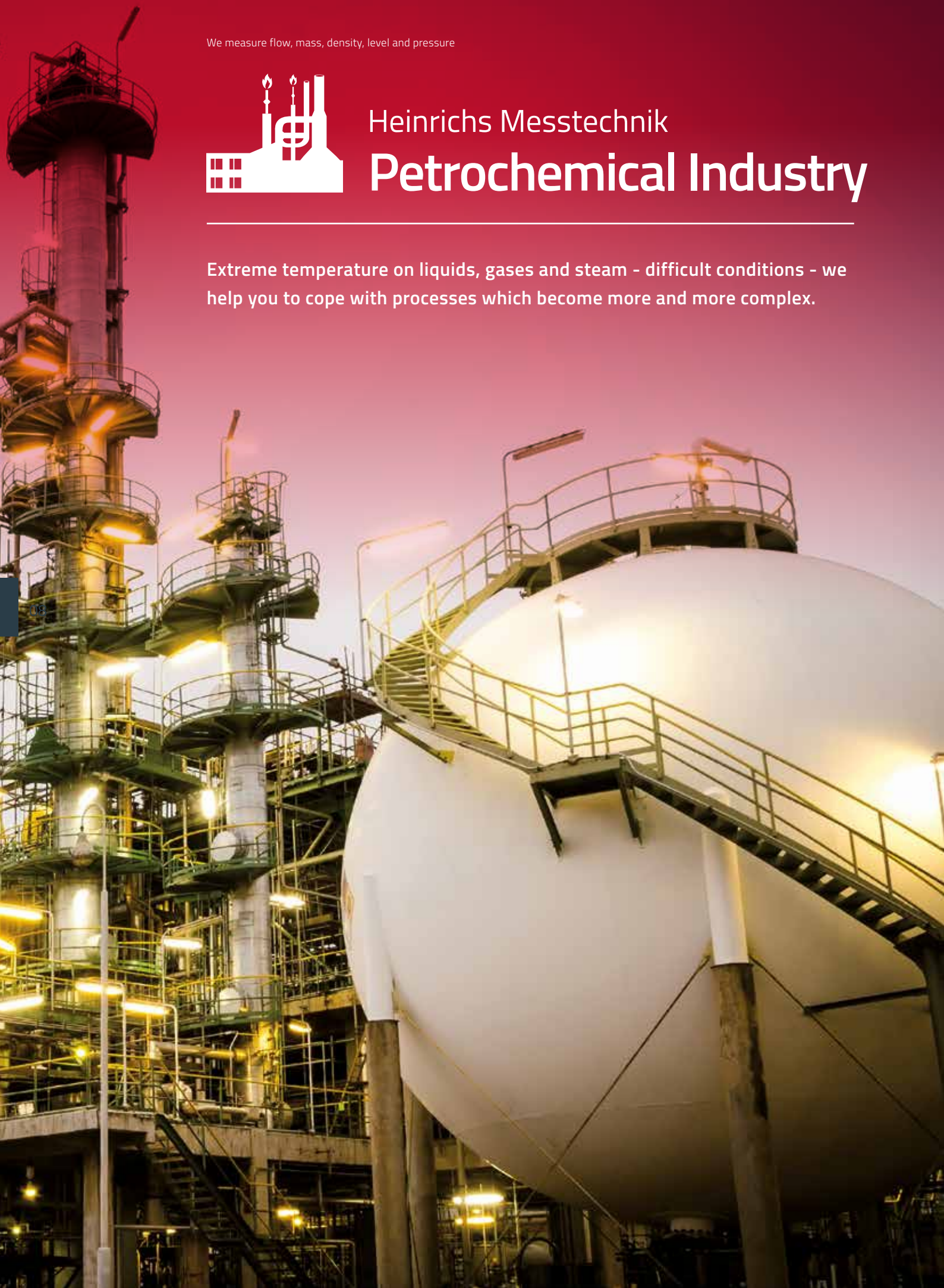
Pressure- / Differential Pressure Sensors
High performance piezo sensor system
up to 600 bar

We measure flow, mass, density, level and pressure

Heinrichs Messtechnik

Petrochemical Industry

Extreme temperature on liquids, gases and steam - difficult conditions - we help you to cope with processes which become more and more complex.



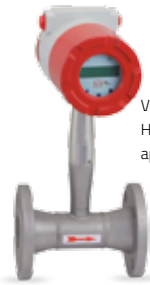
PETROCHEMICAL INDUSTRY

Measure your extreme processes reliably

Petrochemical processes require particularly robust measuring technologies. In particular, flow meters are extremely important in the refining process. Utilizing Coriolis flow meters for the reliable measurement of all refined products made the effective production of a large number of end products first possible. Downstream refining and chemicals to storage and distribution demands the highest requirements in terms of sensor performance. Coriolis mass flow meters from Heinrichs Messtechnik measure medium from heavy crude oil up to bitumen and liquid sulfur through to ethylene inside the cracker, thus all liquid products found in the petrochemical process. A continuous process for the operation of heaters, process lines and cylinders is essential for achieving production targets. Accuracy, robustness and long term stability are the most important properties. Heinrichs Messtechnik stands for durability, the lifespan of our coriolis mass flow meters often exceeding 20 years,

delivering stable and reliable measurement throughout this long period of time. Moreover, with our unique fully welded vortex flow meters, hot steam and hot gases are equally well measured and evaluated with precision. Our sensors are gasket and thus maintenance free, standing for highest long-term durability.

Variable Area Flow Meter
High Pressure c/w double heating system



Vortex Flow Meter
Hot gas and steam applications

Coriolis Flow Meter
Liquid Sulfur / Bitumen measruement

Technologies

Coriolis Mass Flow Measurement

St.st.-high performance Coriolis c/w media heating – liquid, steam or electrical, High temperature measurement up to 260° C, High Pressure applications up to 500 bar, liquid sulphur measurement with special heating systems, Custody transfer measurements for e.g. bitumen, terminal automation for refining products

Vortex Flow Measurement

Measurement of steam e.g. for the optimization of boiler and steam-quantity, energy measurement, hot gases, flare gases, high temperature measurement up to 400° C

Variable Area Flow Meters

High pressure meters up to 500 bar, sour gas applications

Heinrichs Messtechnik

Oil & Gas Industry

We solve even extreme applications for high pressures and viscosities. We are used to rough environmental conditions. Here reliability is our highest mark.

OIL & GAS INDUSTRY

Coriolis Flow Meter
High Pressure
1000 bar

Coriolis Flow Meter
Upstream design

Coriolis Flow Meter
High Flow custody design
2200 t/h

Vortex Flow Meter
Steam / Flare Gas application

Variable Area Flow Meter
St.st. off-shore version

Variable Area Flow Meter
Sour Gas version

High Performance on demand

Where safety processes in the oil and gas industry are required, we are present. From the well hole to the processing in the refinery, you can expect the highest performance in measurment accuracy and robustness. From high pressure injection systems for drill heads up to fracking support processes. Measure low volume under high pressure under all environmental conditions as found, for example, on offshore plattforms. Furthermore, precise measurments of such low volumes can save considerable costs and help relieve the environment. Simultaneously through accurate measurments higher productivity is achieved so increasing the yield. Unbeatable arguments. Flow measurment acc. AGA / API standards, measurments acc. MID/ OIML standards.

Technologies

Vortex Flow Meters

In-Line meters for hot gas and steam from ½"..14", up to 400° C, Flare gas applications, energy measurement for steam boiler

Variable Area Flow Meters

Flow measurement /-monitoring of liquids, gases and steam, sour gas, cooling and supply lines, analysing racks for gas analysis, dry run monitoring of pumps

Coriolis Flow Meters

High performance Coriolis up to 16 inch, AGA/ API measurments, high pressure measurments up to 1000 bar with 2 to 8 mm nominal measuring tube size, pipeline measurements under extreme conditions up to 260° C, sub sea drilling

Heinrichs Messtechnik

Power Stations

Beside conventional EPCs we deliver also measuring technology into nuclear power plants and thus we are familiar with the corresponding demands. Special for us is normal.

POWER PLANTS - EPC INDUSTRY

Electromagnetic Flow Meter
Inline / Insertion design

Target Flow Meter

Vortex Flow Meters
Steam monitoring

Variable Area Flow Meters

Maximum Reliability

Power plants – regardless whether operated with coal, oil, gas or nuclear power – normally work with steam turbines. Water - in the form of steam - is used both for the power turbines as well as in liquid form during the entire thermal process inside a power plant. A large number of cooling circuits are drawn through the plant and all sub-circuits must be safety monitored. The central water supply and measurement control are of the highest importance and must deliver maximum performance 24-7. Heinrichs Messtechnik has been for many years a strong partner of the power plant industry and engineering companies, our instruments been successfully deployed since decades. We are partner of Siemens, ABB, Alfa Lavall, Hitachi-Power, Technip and many more and we stand for hiqhest reliability and measurement precision. Our instruments find use in nuclear power plants where reliability is of a particular necessity, since cooling circuits - also in peripheral areas – can be contaminated and must therefore continue to work safely under the most extreme conditions.

Technologies

Variable Area Flow Meters

Flow measurement / -monitoring of lqiuids and gases upt to 6 ", monitoring of cooling and supply lines, dry run monitoring of pumps, cooling lines for heat exchangers and air conditions

Target Flow Meters

Monitoring of cooling and supply lines 4"...20" nominal size, extremely compact mounting for critical space installations

Electromagnetic Flow Meters

Central water supply for In-Line sensors with lining of hard rubber, soft rubber, line sizes up to 1200 mm or use of insertion meters up to 2200 mm line size, redundancy measurement for insertion technology Incl. multiple measurement.

Vortex Flow Meters

Measurement of hot gases and steam from ½" to 12" up to 400° C

Heinrichs Messtechnik

Shipbuilding

Since decades we deliver solutions for flow and level into the shipbuilding industry. Robustness and durability are also demanded than reliability.

SHIP INDUSTRY


Coriolis Flow Meter
Bunker Fuel Version


Bypass Level Indicator


Target Flow Meters


Electromagnetic Flow Meter
Insertion version / Ballst water version


Float Level Switches

High Demands

The shipping industry has numerous requirements on measuring instruments. Measuring systems for this industry must be safe in process, stable and insensitive against aggressive marine air, vibration and shocks, heat, cold and dust. Liquid level of fuel and diesel tanks must be monitored. On liquid gas tankers, the level of the liquid gas at very low density must be measured safely and stable. Cooling and heating systems must be monitored. We measure with maximum accuracy bunker fuel oil supplies and guarantee highly accurate bunkering through advanced software monitoring. Viscosity compensation and fraud-proof monitoring of the supplied bunker fuel quantity save costs and time. Furthermore, we offer software optimized engine fuel control systems, which provide high accurate consumption measurements of the main or auxiliary engines, delivering an overview of the ships operational efficiency – if needed via satellite. For ballast water treatment systems we offer electromagnetic flow meters usable for large pipe sizes and mountable practically anywhere inside the ship.

Technologies

Electromagnetic Flow Meters

PIT Insertion meters for Ballast Water systems PVDF lined, seawater resistant, submersible for 30 m

Technologies

Coriolis Flow Meters

High Performance Coriolis up to 8 inch, viscosity compensated measurement of bunker fuel oil deliveries, High accurate vibration stable engine fuel control measurements, Bunker / engine fuel control software, inspection and startup service

Target Flow Meters

Monitoring of cooling and supply circuits from 4" to 20" nominal size, extremely compact mounting for critical space installations

Bypass Level Indicators

Liquid level measurement of fuel tanks and liquid gas tanks

Float Level Sensors

For measurement of liquid levels and safe measurement of two phase liquids, measurements also for gas inclusion or critical liquid phase

Heinrichs Messtechnik

Machine & Plantengineering

You need instruments which are not standard or which are adapted to your demands? We develop solutions for your machines and plants together with your engineering.

MACHINES AND PLANT ENGINEERING

Coriolis Flow Meter
CNG custody version

Coriolis Flow Meter
High Pressure H2 Fuelling

Vortex Flow Meter
Insertion type
steam, hot gases
for large pipe sizes

Electromagnetic Flow Meter
Insertion type

Technology on Demand

Machines and plant equipment are becoming more and more complex and simultaneously more efficient. A more efficient measurement operation in turn also requires components that are more efficient. Heinrichs Messtechnik has been developing and manufacturing industrial high-end sensor technology for decades. From high pressure to high temperature – for high viscous to high accurate. Custom is normal for us. We manufacture Coriolis mass flow meters with the highest performance e.g. for hydrogen fueling for cars and busses with tanking pressure up to 1000 bar. High pressure Coriolis for CNG operated cars up to 350 bars. We comply with custody provisions under adverse conditions. We monitor bitumen batching on hot recycler rod machines with highly robust Coriolis mass flow meters. We manufacture cost efficient measuring instruments for non-off-the-shelf serial machines. We call this "technology on demand" your requirements for performance and cost efficiency are our challenge.

Don´t accept prescribed performance – prescribe it yourself.

Technologies

Coriolis Flow Meters

High Pressure up to 1000 bar for hydrogen or CNG fuelling stations, high temperature Coriolis for solar plants, Coriolis in special materials like tantalum, titanium, hastelloy Coriolis sensors with economy cast iron housing

Electromagnetic Flow Meters

PITe economic insertion sensors for line sizes up to 400 mm, Inline sensors with cost effective monitoring electronic

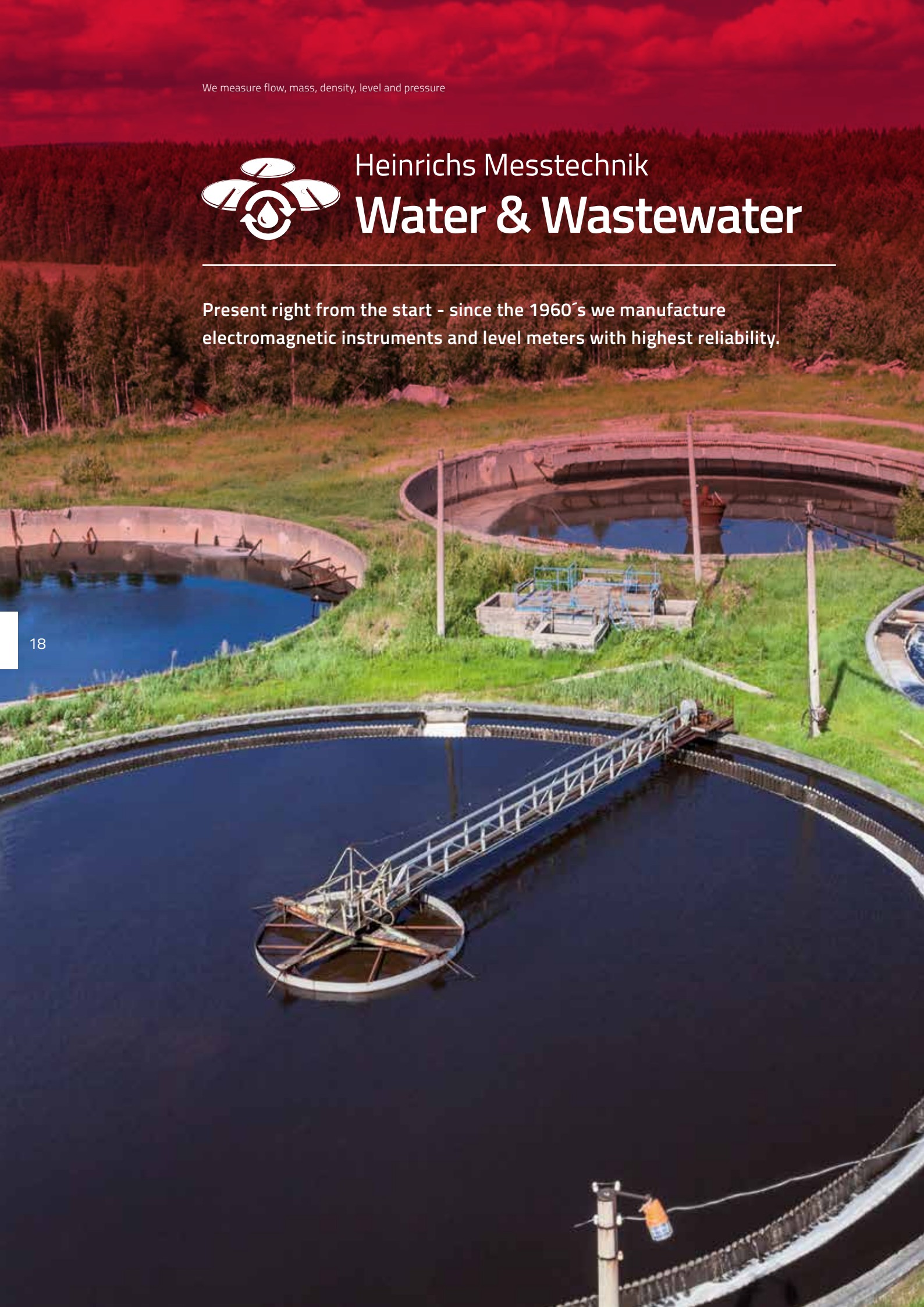
Vortex Flow Meters

Cost saving insertion sensor systems upt to 600 mm line size, gas and steam application up to 400° C, retractor device, energy monitoring software

Heinrichs Messtechnik

Water & Wastewater

Present right from the start - since the 1960´s we manufacture electromagnetic instruments and level meters with highest reliability.



WATER AND WASTEWATER TREATMENT

Guided Wave
Radar Sensors

Capacitive
Level Meters

Temperature Sensors

Vibration Level Sensors

Electromagnetic Flow Meters
Inline / Insertion sensors

Efficient measurement in water supply and irrigation networks

Operators of water or wastewater networks are increasingly required to monitor the efficiency of their processes and are thus dependent on particularly reliable and problem free deployable measuring technologies. Precise measurement of water consumption in production processes is therefore presupposition for an efficient water and wastewater management. Fresh or drinking water circuitries often require an economic measurement solution where flow meters can be mounted or disassembled without disruption of the water circuit. The technology proven electromagnetic insertion sensor PIT can be removed and re-installed without disruption of the process by means of a retractor device. Measurements in large pipe sizes are therefore cost efficient and do not require an exchange of the pipe. Naturally, we also offer PIT solutions for smaller pipes or, for example, our In-Line sensors. Level sensors as well as pressure and temperature measurements are also covered by our portfolio, and have proven themselves in system operations for many years.

Technologies

Electromagnetic Flow Meters

PIT insertion sensors for line sizes up to 2200 mm, PVDF lined, retractor device for removing and insertion during plant operation, In-Line sensors up to 1200 mm

Capacitive Level Measurement

Measuring length up to 4000 mm, highly accurate

Level Measurement with guided wave radar

For liquids and bulks, 4-wire technology, rod, rope or co-axial probe

Vibration Level Sensors

For reliable measurements of different liquids for all installation positions

We measure flow, mass, density, level and pressure

Precise measurements are our

Passion

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