

We deliver the solution
where it really counts.

Process technology for ultimate safety.

Prominent®





Your business is tough.
Our process technology
has been designed to handle it.



Whether you are drilling for oil or gas in the depths of the ocean, pumping it across entire continents, processing toxic, acidic or explosive chemicals or producing high-grade plastics – you can rely on process technology from ProMinent where it really counts.

But in less dramatic process environments, too, our solutions have been demonstrating their impressive capabilities for decades. As an innovative system supplier and experienced partner to companies in the oil, gas, chemicals and petrochemicals industries, we understand the process-based challenges you face – and can offer solutions that are tailored to your specific requirements which will help you overcome these challenges, no matter where you are located worldwide. From highly developed process pumps, all the way up to sophisticated processing plants.

All ProMinent solutions have one thing in common: they are developed, tested and manufactured to handle the most demanding conditions and thereby guarantee trouble-free operations with excellent reliability and process stability. They comply with all requisite international standards and offer ultimate safety for operators, the environment and the overall installation. They have been designed as maintenance-free units that target maximum process efficiency and offer a long service life. The key here is that ProMinent not only uses its proven process-based expertise and comprehensive application experience to support your processes, but also to help make these processes safer, more flexible and more cost-effective – thereby offering you decisive added value.

So whether you are planning procurement of individual process metering pumps or implementation of a complex ready-to-run process solution: incorporate the proven expertise of ProMinent from the outset.



Perfectly tailored availability. Our solutions for the oil, gas and petrochemicals industries.

Alongside uncompromising safety, oil and gas extraction operations require metering systems to guarantee one thing: maximum availability. ProMinent therefore offers you tailor-made complete solutions for virtually all metering applica-

tions from a single source: from high-performance pumps, through skids and storage tanks, all the way up to control engineering. The advantages of this full-scope portfolio are clear. All components, systems and interfaces are opti-

mally matched to one another and have been proven thousands of times over – with constant optimisation. This results in a high degree of reliability, upon which ProMinent has always built its excellent reputation.

Oil and gas industry

Upstream – oil extraction

Field of application: Oil rig

- Oil separation from gas and water
- Treatment of crude oil at the wellhead for storage and transport (corrosion protection, flow properties)

Midstream – transport

Fields of application:

- Pipelines
- Pumping stations

Applications:

- Reduction of frictional losses
- Corrosion protection
- Odourisation of gas

Downstream – oil processing

Fields of application:

- Natural gas and biogas storage
- Refineries in the petrochemicals industry
- Oil and gas treatment systems

Applications:

- Corrosion prevention
- Process water/waste water treatment
- Process steam treatment
- Cleaning and distillation of oil and water



Our chemistry is just right. Guaranteed. Our solutions for the chemical industry.

Applications in the chemical industry often require a large number of fluids to be controlled, some of which have completely different requirements of the metering technology employed. As a long-standing partner to the chemical industry, ProMinent is today a well-versed expert in efficient and safe fluid manage-

ment. As such, we can offer you cost-effective complete solutions that cover all processes to which chemicals are subjected at your company: from storage and transfer, through metering, measuring and regulation, to process water and waste water treatment – all from a single source. Our high-performance process

pumps and metering systems optimise process and product quality through reliable metering. Even when metering combustible, toxic, solids-laden or highly viscous fluids, our solutions secure a high degree of availability.

Chemical industry

Fields of application:

- Laboratory
- Production (e.g. plastics production)
- Industrial/process engineering
- Detergents and cleaning agents
- Finishing chemicals (paints/varnishes)

Applications:

- Chemicals metering
- Abrasive suspensions
- Simultaneous metering of multiple liquids at a precisely equal ratio

Chemicals:

- Urea
- Polymers
- Liquid gases
- Explosive media



For maximum reliability and cost-effectiveness: Our standardised package solutions.

ProMinent offers pre-configured standard solutions for many metering tasks in the oil and gas industry – which set new standards in terms of cost-effectiveness, practical orientation and reliability. Our package solutions are tailored

precisely to the tasks of our customers and – since they have been tested and proven many times over – also offer the greatest process reliability, while at the same time securing a high degree of availability. Supplied as ready-for-oper-

ation metering systems from matched components, they excel through their extreme robustness and high level of cost efficiency.

Task

- Metering, handling and transfer of combustible, toxic, solids-laden or even highly viscous media

Design in line with standard worldwide regulations

- API 674 and API 675
- ASME, DIN, VDMA, etc.
- Explosion-proof as per ATEX
- Compliance with customer-specific works standards
- Onshore and offshore-compatible design of all components
- Certified to ISO 9001

Our package solutions have been precisely tailored for specific tasks and proven in countless applications. They combine outstanding process reliability with a high level of cost efficiency



Especially for you: our customer-specific metering systems.

No two customers are the same. And that's why no two ProMinent solutions are the same. We can therefore offer you innovative ready-to-use metering systems that we design specifically to your individual requirements. Our portfolio ranges from basic localised

systems to ATEX-compliant explosion-proof systems connected to a process control system; from proportional metering, right through to complex systems with reaction vessels. A broad output range and optimum matching to various chemicals come

as standard here. Complete metering systems in walk-in containers with heating and climate control round off our offer.

Available features

- In metering cabinet
- Plate or frame-mounted
- With metering container and collection trough
- Installed in container

Materials (others also possible)

- PVC, PP, PVDF, PTFE
- Stainless steel
- Duplex stainless steel
- Hastelloy
- Alloy 20
- Titanium

Control options

- Terminal box
- Relay control
- Miniature controllers
- ProMinent controllers
- PLC with control panel and PROFIBUS® connection

ProMinent offers design and implementation services from a single source. This ensures that our customer-specific solutions also meet the strictest requirements in practice.

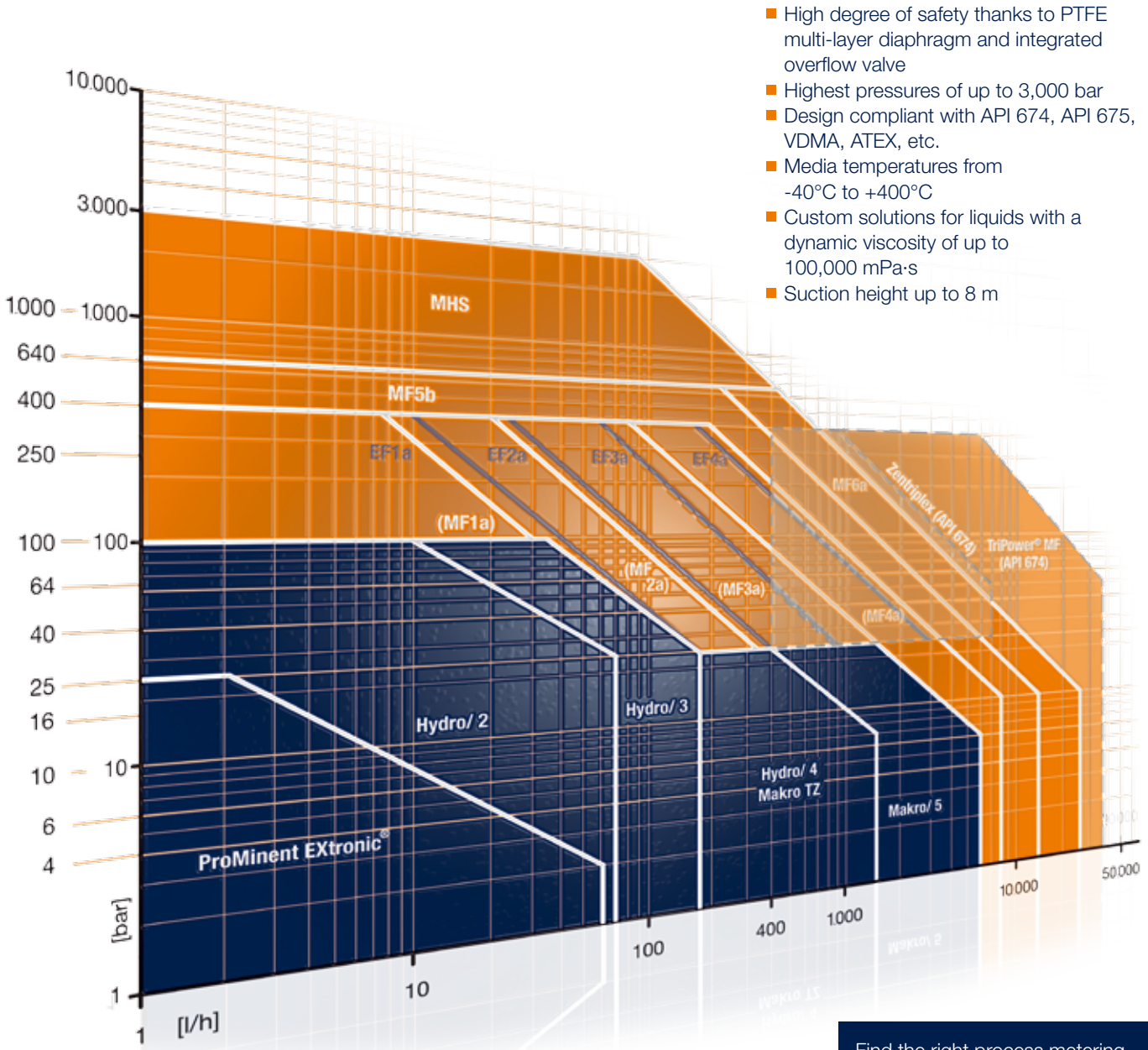


Seamless pump portfolio.

A custom solution for any application

ProMinent offers the right process metering pump for every application and every medium: from the tiniest volumetric flows, all the way up to 38,000 l/h; for media temperatures from -40°C to +400°C; for extreme pressures of up to 3,000 bar. Our pumps have been proving themselves for decades, even

in the toughest of conditions. Alongside their rugged construction, their flexible performance profiles also allow them to be used in many different applications. If desired, ProMinent process metering pumps can also be adapted very accurately to almost any customer specification.



- High degree of safety thanks to PTFE multi-layer diaphragm and integrated overflow valve
- Highest pressures of up to 3,000 bar
- Design compliant with API 674, API 675, VDMA, ATEX, etc.
- Media temperatures from -40°C to +400°C
- Custom solutions for liquids with a dynamic viscosity of up to 100,000 mPa·s
- Suction height up to 8 m

Find the right process metering pump for any application:
www.pump-guide.com

Our quality knows no compromises.

At ProMinent we understand that process technology needs to operate reliably for years in the toughest of conditions. This is why we subject our metering pumps to systematic tests in line with the strictest standards – in an ultra-modern testing environment that is unparalleled worldwide.

Our process pump test bay in Germany comprises two independent testing areas, in which process pumps with motor outputs ranging from 0.37 to 90 kW are subjected to variable performance tests at 400 V and process pumps with motor outputs ranging from 5.5 to 160 kW are subjected to variable performance tests at 690 V – with maxi-

imum precision, at the maximum flow rate and maximum operating pressure. The measurement range for volumetric flow stretches from 20 to 90,000 l/h. Extremely precise Coriolis flowmeters ensure accurate and reliable measurement results at all times with an accuracy within 0.1% of the measured value.

Our manufacturing operations are also aligned to deliver high quality without compromise. We secure this through comprehensive quality management, which is certified to ISO 9001:2008, as well as through compliance with many other global standards such as API 674, API 675, ASME, DIN and VDMA.

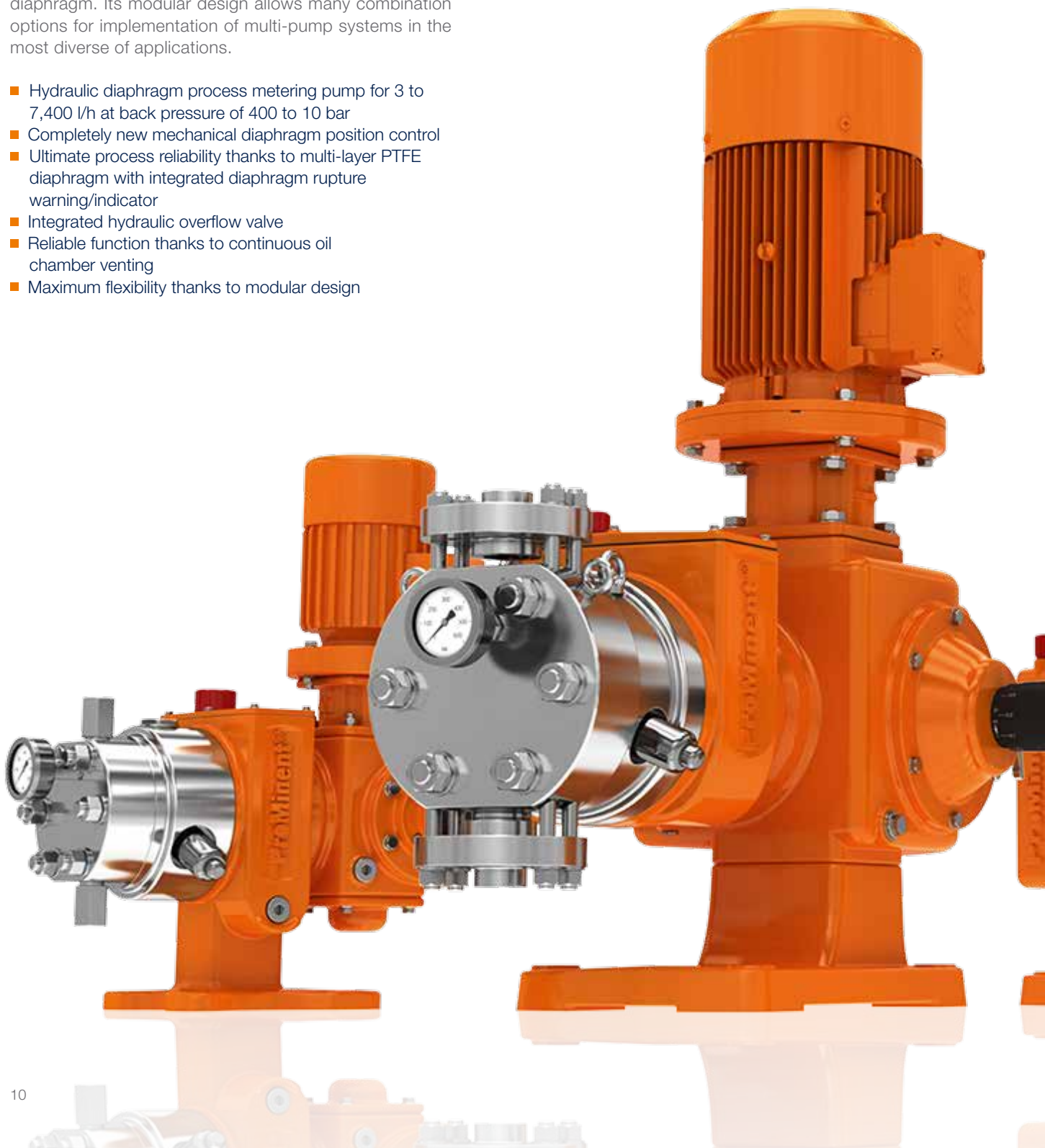
- Quality management as per ISO 9001:2008 for the ultimate in product quality and compliance with customer-specific requirements
- Testing as per API 675 for the best possible process reliability when metering combustible, toxic, acidic and highly viscous liquids
- Customer-specific tests



Evolution sometimes takes a forward leap. The new Orlita® Evolution.

Discover a new dimension in process reliability and flexibility: the new Orlita® Evolution from ProMinent is an extremely rugged range of hydraulic diaphragm process metering pumps with hydraulically deflected safety diaphragm. Its modular design allows many combination options for implementation of multi-pump systems in the most diverse of applications.

- Hydraulic diaphragm process metering pump for 3 to 7,400 l/h at back pressure of 400 to 10 bar
- Completely new mechanical diaphragm position control
- Ultimate process reliability thanks to multi-layer PTFE diaphragm with integrated diaphragm rupture warning/indicator
- Integrated hydraulic overflow valve
- Reliable function thanks to continuous oil chamber venting
- Maximum flexibility thanks to modular design





Hydraulic diaphragm metering pump **Orlita® MH/MF**

The Orlita® MH and MF pumps employ a modular structure and are highly versatile. A large number of drive options is available and the motors, drives and dispensing heads can be freely combined with one another. The MHR range has also been designed to handle the highest pressures and comes with overflow valves to protect the pumps from overload. Independently operating bleed valves for the hydraulic chamber as well as integrated diaphragm rupture warning/indicators round off the equipment of the individual models in this range.



Valveless piston metering pump **Orlita® DR**

The Orlita® DR has been designed for the highest-precision metering of high and extremely high viscosity media. Even highly solids-laden liquids are no problem for these valveless piston metering pumps. Media with a temperature from -40°C to +400°C can be pumped steplessly from 0 to 100%.



Valveless piston metering pump **Orlita® PS**

The Orlita® PS range of pumps impresses with its particularly high hydraulic efficiency, which is combined with excellent self-cleaning characteristics and low pressure losses. The PS pumps can be used across a wide temperature range (up to 400°C) and are easy to maintain, affordable and extremely robust.



Extremely tough, yet still highly flexible:
our specialists for the process industry.



Diaphragm metering pump

ProMinent EXtronic®

The EXtronic® diaphragm metering pump is ideally suited to the sensitive application environment of liquid media in explosive gas atmospheres and in underground (mine) workings subject to fire-damp hazards (certification: EC Directive 94/9/EC (ATEX)).



Hydraulic diaphragm metering pumps

Hydro/ 2, / 3 and / 4

With its highly robust hydraulic diaphragm metering pumps, the Hydro range complies with the strictest safety requirements. The Hydro/ 4 rounds off this product range specifically for top-end performance requirements.



Diaphragm and hydraulic diaphragm piston metering pumps

Makro TZ und Makro/ 5

With the Makro range, anyone can find the right modular solution for their specific application – ranging from basic mechanical diaphragm pumps, through hydraulic diaphragm pumps, all the way up to extremely rugged piston pumps. The modular structure, with single-head and twin-head versions, allows these pumps to cover an extremely wide range of applications – whether in industrial process technology or the chemical industry.



Process metering pump

Zentriplex®

The Zentriplex® oscillating multi-cylinder process diaphragm pump excels through its high performance and high efficiency in combination with a minimal footprint. This extremely compact and lightweight new design allows high pressures and metering outputs to be achieved with minimal material costs and low drive power requirements.



Diaphragm process pump, piston process pump

TriPower®

The TriPower® diaphragm process pump offers ultimate performance, pumping up to 38 m³/h at pressures of up to 400 bar. The tried-and-tested MF supply unit guarantees optimum safety here with its multi-layer PTFE diaphragm system and integrated overflow valve.



We can offer you far more than just pumps: from process engineering consulting services, through to systems engineering.

Whether intensified competition, growing cost pressure or increasingly complex plant and system technology: we have a profound understanding of the challenges you face in your business – and know the best way to overcome these. As such, we do not see ourselves simply as a pump supplier, but rather as a holistic problem solver that supports you with innovative systems engineering, as well as comprehensive expertise and excellent service. Our portfolio goes far beyond industry standards – offering you measurable added value.

For example, we develop highly complex plants of virtually all sizes – both for end users and system manufacturers. Our service ranges from consulting, through engineering, manufacturing and quality assurance, right through to comprehensive support after your system has been installed and commissioned. We offer this service worldwide, as ProMinent maintains competence centres in all important markets with well-trained sales, service and engineering teams which provide you with high-quality local support. And since many of our customers have international operations, we have

established a network that also allows international projects to be processed to the familiar ProMinent standards. Their projects are looked after by industry managers with engineering and project management backgrounds. These industry managers have comprehensive knowledge of various industries, applications and processes – and are therefore capable of supporting you at eye level.

We are happy to advise and support you in selecting products and systems, as well as materials or chemicals. If desired, we can also draw up feasibility studies or develop solutions to upgrade existing plants. In addition we are happy to assume responsibility for processing all design and manufacturing procedures for standardised or fully customised plants. Thanks to our high degree of vertical integration and dedicated manufacturing locations that employ the latest testing systems, we are capable of implementing even the most complex systems with guaranteed quality. An extensive aftersales service with installation of the plant, training for your staff, as well as care and maintenance rounds off ProMinent's service portfolio.



In demand worldwide, proven worldwide – ProMinent's expertise.

ProMinent's list of customers reads like a 'who's who' of the oil and gas industry, as well as the chemical industry. This is no coincidence, as our metering systems make a key contribution to the productivity and competitiveness of leading

international companies across the globe. When working with us, they find an innovative partner that has extensive expertise in the most diverse of sectors and is committed to providing them with optimum local support in over 100 countries.

References

- Siemens
- PEMEX
- Petrobras
- Linde
- Technip
- Kuwait Oil Company
- Daelim
- Petronas
- Petroleum Development
Oman
- Saipem
- Saudi Aramco



Contact Worldwide



Experts in Chemical Feed and Water Treatment

ProMinent is at home in more than 100 countries. This secures global availability of our products and ensures that we are never far away from our customers. Wherever in the world you are located, our products and services meet the same high quality standard locally for you. Our experience and expertise in water treatment and metering technology are available across the globe.

You can download the ProMinent app for iPad and iPhone on the iTunes App Store or at www.prominent.com/app



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