

# Oil & Gas Sampling

With the daily consumption of around 85 million barrels crude oil a day it's clear why we need quality control.

Automatic sampling is the established method for providing a representative sample of pipeline transfers for the determination of bulk properties, especially water content, specific gravity and composition for fiscal calculations, allocations and loss control.



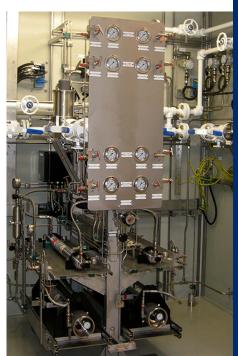
e manufacture
a wide range of
Automatic Sampling
equipment and
systems designed for sampling liquids
and gases in pipelines. This equipment
is renowned for its durability, proven
by decades of trouble free use on
production platforms and other
harsh off- and onshore environments
worldwide.

We have the capability to design and engineer complete Sampling systems to meet the customer's specific requirements and internationally accepted standards for automatic sampling of hydrocarbon liquids and gases: ISO 3171, ISO 4257, ISO 10715, API 8.2, 14.1, Norsok and Gost.



#### Main applications

- stabilised and HVP crude oils
- gas and gas condensates
- refined liquids at refineries and import/export terminals
- LNG, LPG



## SERVICE & MAINTENANCE

We provide worldwide service support, including:

- site evaluations and advise on sampling
- presentations and workshops on sampling
- installation and commissioning
- testing
- maintenance
- trouble shooting

Our engineers ensure that technical challenges are handled competently within the planned schedule. Our service personnel have the relevant safety training to perform their tasks both on- and offshore.

#### SAMPLING SCOPE OF SUPPLY

Our scope of supply now covers a comprehensive range of Sampling products and systems.

#### **Sampling products**

- Static Mixers
- Liquid and Gas Take-off Probes, retractable and fixed
- Pneumatic and Electrical In-line and Fast-loop Grab Samplers
- High and Low Pressure Sample Vessels
- Sample Vessel Mixing Systems for laboratories
- Sample Vessel Weighing Systems
- Sample system Controllers

#### Sampling systems

- CPF (Combined Power-Jet® Mixing and Fast-loop Sampling systems)
- Fast-loop Sampling systems
- Inline Sampling systems
- Dynamic Pipeline Mixing systems (Power-Jet®)
- Composite Gas Sampling systems
- LPG Sampling systems



Pneumatic cell sampler



Mixing and sampling system

### **REPRESENTATIVE SAMPLING**

Sampling is the first step in determining product quality, where it is of utmost importance that the sample is representative of the pipeline contents over the full process range at any moment.

To enable representative samples good mixing is essential.

#### **ADVANTAGES OF GOOD SAMPLING**

Our superior sampling system delivers valuable information on product quality deviations, product losses and avoids product quality disputes. When used correctly, our systems have proven results with confidence level exceeding the norm of 95% with benefits:

- high returns on capital investment
- improved loss control
- lower operating costs
- reduction in costly breakdowns through systematic monitoring

