ODS Metering Systems



Offshore Metering Packages **Pipeline Metering**

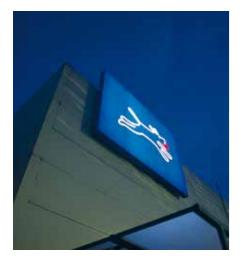
Metering Control Systems



klöckner & co multi metal distribution

ODS Metering Systems

ODS Metering Systems is part of ODS BV based in The Netherlands with a workforce of 420 employees and a turnover of 240 million EUROS. ODS Metering Systems is a specialized engineering contractor for design, construction and commissioning of field-proven innovative solutions for Custody Transfer Flow Measurement in the worldwide Oil & Gas Industry.



ODS BV

ODS BV is a 100% subsidiary of Klöckner & Co, the largest producer-independent multi metal distributor in the combined European and North American market. Klöckner & Co has a global presence covering more than 15 countries and around 240 locations with a total workforce of over 10,000 and annual turnover of € 7,4 billion. Being part of Klöckner & Co, ODS Metering Systems has direct access to their resources for structural and piping material required for fabrication of skids. ODS BV is also a leading specialized supplier for exotic materials such as Duplex and Super Duplex, often required in offshore projects.





ODS Metering Systems offers turn-key high-end Metering Solutions in accordance with customer specifications and the latest international industry standards. ODS Metering Systems takes single-point responsibility from front end engineering, design, construction through start-up activities for all integrated fiscal metering systems, such as:

- Offshore Crude Offloading Systems (FPSO's, FSO's, MOPU's, etc.)
- Oil/Gas Pipeline Metering Stations
- Marine loading and unloading Metering Stations
- Metering Control & Supervisory Systems • Liquid Meter Prover Systems



Our solutions are based on field-proven technologies and results of sustained developmental efforts combined with more than 40 years of operational experience with most major oil & gas companies across the world.

Our values:

- Knowledge
- Experience
- Responsive
- Focused
- Customer oriented
- Reliable

Unmatched combination of industry knowledge, project management skills, hands-on experience and customer-focused commitment, makes ODS Metering Systems an ideal choice for a System Integrator to manage high-performance custody transfer flow measurement and control applications effectively.

Independent System Integration

As a fully independent System Integration Company, with continuous quest for world-class quality, we ensure that we offer our clients a choice of best-of-breed products and technologies. Our purpose of innovation is to create higher value for our customers. Not being connected to any particular manufacturer also allows us to fully comply with our customers preferred makes or models.



We offer Integrated Metering Systems for:

- Liquids
- Gases
- Liquefied Gases

Liquids and Gases

Global presence

ODS Metering Systems is a globally networked organization headquartered in The Netherlands and regional subsidiaries in Singapore, Dubai and Brazil offering engineering, design, project management, fabrication & commissioning capabilities. Furthermore we collaborate with agents and partners around the world to anticipate the needs of our clients and deliver on every commitment in the most efficient manner.

Calibration Facilities ODS Metering Systems operates both stationary and mobile calibration facilities certified by NMi (Dutch Institute for Measurement and Weights). These facilities are used to calibrate process and custody transfer flow meters of any make and model on water or oil. Our installations are traceable to international standards.

ODS Netherlands - headquarters (Rotterdam)



Main Focus

- We are specialized in high end Metering solution particularly found in the following areas:
- Offshore Metering Packages
- Pipeline Metering
- Metering Control Systems





Waterdraw Calibrations

Pipe or compact provers are often used in Metering Systems for frequent calibration on actual process conditions.

The base volume of these provers needs to be determinded to the lowest possible measurement uncertainty. ODS Metering Systems performs calibrations of provers with our own waterdraw, master meter and/or gravimetrical calibration equipment in association with NMi and traceable to international acceptable standards.



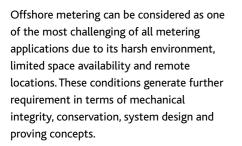
Offshore Metering

Offshore Metering Packages are mostly a combination of oil, gas and water measurement connected to an integrated Metering Control System.



ODS Metering Systems offers in-depth knowledge and experience of these applications to offer a "single-point responsibility" turnkey package.









As global market leader for offshore metering package, ODS Metering Systems has a lot of experience in using various metering and proving concepts in many parts of the world. Our system designs are of course in full compliance with local authorities and Operator preferences.

Due to its large range of applications these project typically consist of a wide variety of metering principles such as turbine, ultrasonic, coriolis, orifice and cone meters.

Pipeline Metering

Pipeline metering typically involves large line sizes with large transfer of product and more important, large transfer of money. ODS Metering Systems designs and delivers state of the art metering systems with the lowest possible uncertainty.

Pipeline Metering Systems are often supplied with a sampling and analyzer system to accurately determine the quality of the oil or gas. These systems can be in-line fluid analyzers upto fully integrated analyzer houses including chromatographs, H2S analyzers, water in gas monitors, hydrocarbon dew point analyzers, etc.











Besides quantity and quality measurement our Metering Systems are often supplied including fluid filtration, pressure regulation and flow control.

Metering Control Systems

Most critical for the optimum performance and operability of a "Fiscal Metering Systems" is the Metering Control System. The Metering Control System is primarily responsible for transforming the available accurate data in valuable information which ultimately leads to strategic decisions for operation and maintenance of the metering system.



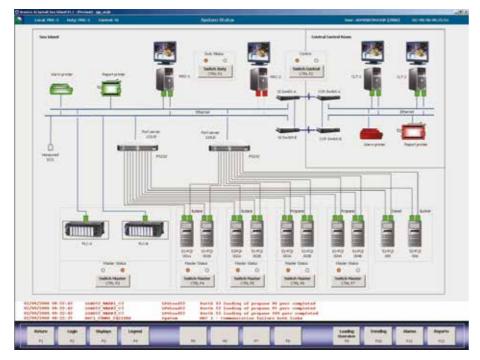
Our Metering Control Systems are renowned for their high reliability, full (synchronized) redundancy, easy operator interface and open architecture.

By using proven industrial components and software platforms we ensure optimum maintainability and upgradeability.

Making use of the latest development of electronic field instruments, our Metering Control Systems are often supplied with Performance Monitoring and Condition Based Maintenance to utilize real-time data to prioritize and optimize maintenance resources.

Typical functionality of ODS Metering **Control Systems consists of:**

- Flow calculations
- Alarming, archiving, trending and reporting
- Validation of field instrumentation and flow computers
- Virtual flow computing
- Operator interface
- Performance Monitoring and **Condition Bases Maintenance**





Quality, Services and References



Quality

Quality and HSE is an all-pervasive commitment at ODS Metering Systems. We translate this commitment into seamless project execution through our expansive knowledge of international regulatory standards and emphasis on "within-cost & schedule" completion of projects.

All our systems are designed and built in strict compliance to project specifications and applicable international standard viz. API MPMS, AGA, ISO, NMi, NPD, ANP, DPR, OIML, SIRIM, DTI, PED, ATEX etc. ODS Metering Systems has adopted quality management system which in accordance to the ISO 9001:2008 regulations, certified by Lloyds Register Quality Assurance.



- installation, commissioning & start-up
- services on-site diagnostics & troubleshooting

Services

support in:

- repair of electrical or mechanical equipments
- training (on-site or factory)
- system upgrade consultancy services
- evaluation & feasibility studies
- Calibration management
- Long and short term maintenance contracts

Systems also extends on-line remote technical support or diagnostics.



Experienced and factory-trained, ODS technical support and service engineers are available across the globe to carry out or

In addition to field services, ODS Metering

References

ODS Metering Systems has successfully supplied Metering Packages for all major Oil & Gas companies in the world. As approved and preferred supplier, our quality system and performance is subject to continuous monitoring by our clients and third party inspectors. Our extensive reference list is available on request.

