





Non-Radioactive Multiphase Flow Measurement Solutions. ABBON AS is your one stop shop for end-to-end solutions to reduce costs and maximize production output.





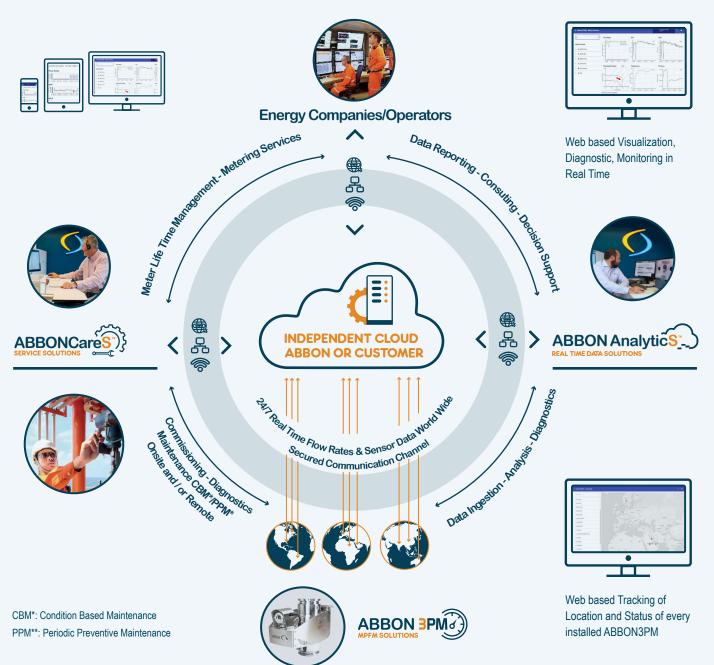
Data driven decisions using ABBONAnalyticS reducing OPEX, maximising production, optimising reservoir management and extending well lifetime.

#### **End-to-End Real Time Data Solution**

ABBONAnalyticS is an End-to-End Real Time Data Solution with ABBON Multiphase Flow Metering systems. ABBONAnalyticS provides on demand secure access to historical and real time flow metering data to operators across the globe. Customers and operators monitor the status and configure remotely the MPFM using ABBONAnalyticS, additionally receives automated notifications when the status of MPFMs health check changes based on customer defined alerts.

#### Independent Data Storage and Computing via Cloud

ABBONAnalyticS Real Time Data Management can be deployed either on customer's premises or public cloud infrastructure. This ensures highest flexibility and data security as per our customer's policies.







No Radioactive Source - No Field Calibration - High Meter Performance - Low Cost, ABBON's unique TWINFLOW™ Technology for reliable and safe Multiphase Flow Measurement increases production output and reduces costs.



# Non-Radioactive technology improves Data accuracy and Data reliability

ABBON's non-radioactive TWINFLOW™ Technology provides much more than clients would expect. ABBON's Non-radioactive meter improves measurement reliability since ABBON3PM accuracy is not affected by H<sub>2</sub>S or CO<sub>2</sub> content, unlike radioactive meters that suffer from high attenuation of gamma radiation by Sulfur and Carbon Dioxide. Neither will salts dissolved in water affect ABBON3PM water cut measurement, unlike radioactive meters, since gamma absorption coefficients are also depending on salinity.

This increases measurement accuracy, data assurance and reduce OPEX significantly, since re-calibration in the field is not necessary.

# TWINFLOW™ Technology provides an unique sensor design

TWINFLOW™ Technology ensures excellent signal and data quality of the impedance sensors. The sensors are ideally placed in the Twin Venturi throat, co-located with the DP measurement, to enable a real time "on the spot" measurement. The TWINFLOW™ design provides "built-in" flow conditioning, by reducing slip and swirl.

Combining the high signal quality of the sensors with our proprietary high-performance electronics & software, it offers extraordinary performance with non-radioactive meter design.











ABBON's Non-Radioactive Multiphase Flow Meter ABBON3PM with the patented TWINFLOW™ technology offers an in-line system for continuous real-time measurements of the volume flow rates of produced oil, water and gas. TWINFLOW™ technology utilizes impedance measurements, velocity, differential pressure (Venturi principle), pressure and temperature. All measurements are unified in an advanced model calculation of flow rates. It provides the most compact, non-radioactive meter design, giving the best price / performance ratio possible.





ABBON Client Software ACS-3PM Stand-alone or webbased



ABBON Flow Computer AFC-3PM





Ensuring optimal metering performance from start to end. With ABBONCareS™, we provide seamless Meter Lifetime Management. Our local, experienced technical experts ensure optimal performance of new MPFM installations and are continuously maximizing the potential of your installed base.

AbbonCareS<sup>™</sup> offers tailored, innovative and comprehensive service solutions for seamlessly supporting the different phases of the Life Cycle of your Meter Installations. From successful installation and commissioning for start up, maintenance and support during operation, as well as Metering & Rental Services for operation of our ABBON3PM metering systems in production.

#### Reduce OPEX by ABBONCareS CBM and PPM

ABBONCareS technical experts and certified field engineers ensure local support to our customers at any time during operation. Customized service packages from ABBONCareS optimizes your maintenance strategies to unlock operational efficiency across your installed base. High data assurance and optimized metering performance with Periodic Preventive Maintenance (PPM) and Condition Based Maintenance (CBM) supported by ABBONCareS Onsite Services and ABBONAnalyticS Remote Solutions.

#### Reduce CAPEX by ABBONCareS metering services & rental

ABBONCareS provides metering & rental services. ABBONCareS technical experts operates and services the ABBON3PM metering system during the whole well testing and well monitoring process. This significantly reduces CAPEX and OPEX for any oil producers and operators with our metering service solutions. By ABBONCareS Service Solutions 'Rent & Operate (R&O)' and 'Buy & Operate (B&O)', ABBONCareS takes the full responsibility of operating the metering system, to provide flow data and analysis, eventually provide data assurance and enabling data driven decisions, onsite as well as remotely.









### **Technical Support & Consultation**

- Help desk
- Technical Advice & Consulting
- Training

#### Remote and/or On-Site Services

- Commissioning & Configuration
- Periodic Preventive Maintenance (PPM)
- Condition Based Maintenance (CBM)

#### **Metering & Rental Services**

- Rent & Operate (R&O)
- Buy & Operate (B&O)
- Rent To Buy & Operate (R2B&O)

#### **Real Time Data Management**

- Data Reporting
- Data Analysis and Diagnostics
- Decision Support

# Expert and manufacturer of cost effective, most innovative Non-Radioactive Multiphase Flow Measurement Solution.

# **About ABBON**

ABBON AS provides multiphase flow measurement solutions for the Oil & Gas Industry. Our innovative solutions enable operators to optimize production and increase recovery rates per well in real time. ABBON's customers are International and National Energy Companies worldwide.

In 2010, ABBON started the development of a new Non-Radioactive and Low Cost MPFM Solution with TWINFLOW™ Technology for the upstream market in the Oil & Gas Industry worldwide.

In 2016, ABBON3PM with TWINFLOW™ Technology was commercialized and successfully launched. The following year, ABBON established and introduced ABBONCareS™ Service Solutions to provide first class support and data assurance at the customers' location. In 2020, ABBON completed its Multiphase Flow Measurement End-to-End solution by introducing ABBONAnalyticS and ABBONCloud to provide webbased Real Time Data Solutions for data reporting, visualization, remote diagnostics, metering and decision support.

## ABBON's approved by leading Oil & Gas companies

ABBON is technically qualified and approved by major National Oil Companies in the Middle East, e.g. Saudi Aramco, Abu Dhabi National Oil Company ADNOC and Kuwait Oil Company KOC, as well as by leading International Oil Companies and well service companies.





#### **ABBON MPFM** solutions are manufactured in Norway

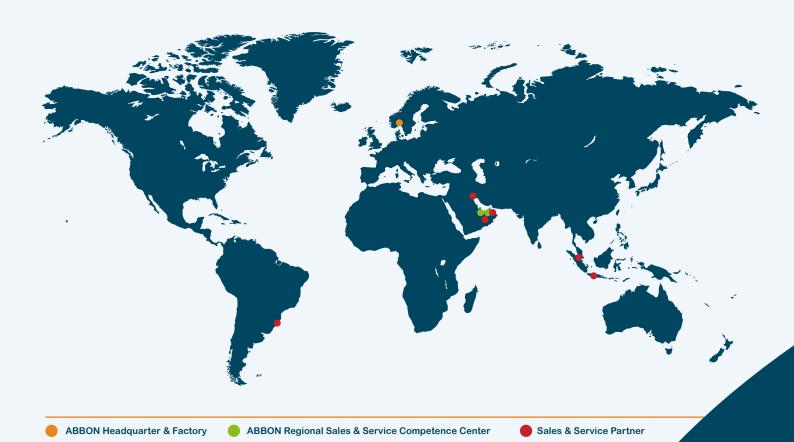
In 2018, ABBON established and opened its state-of-the-art manufacturing facility in Norway. With a production area of more than  $1000 \, \text{m}^2$ , ABBON ensures high quality manufacturing of Multiphase Meters and Skid solutions for our customers worldwide.











## **ABBON Saudi Arabia**

Dammam, Kingdom of Saudi Arabia

**Mob:**+966 554 019 997 **E-mail:** ia@abbon.com

# **ABBON United Arab Emirates**

Abu Dhabi, UAE

**Mob:**+966 558 786 9674 **E-mail:** an@abbon.com

# **ABBON AS**

Baker Østbysvei 5 N-1351 Rud, Norway

Phone:+47 67108860 E-mail: info@abbon.com www.abbon.com **Local ABBON Sales & Service Partners** 

See ABBON website: www.abbon.com
Sales Partners