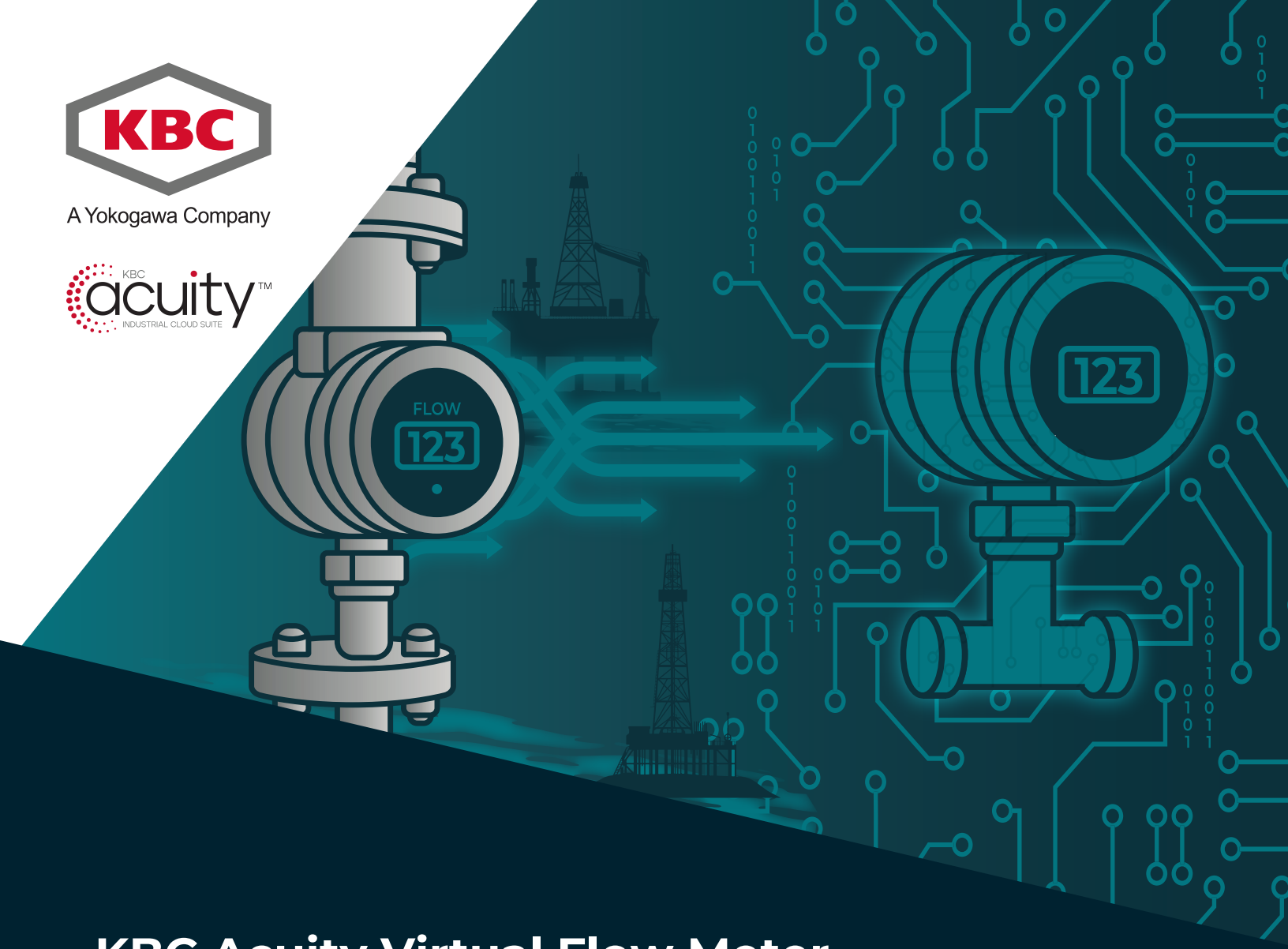
KBC

A Yokogawa Company

KBC acuity™ INDUSTRIAL CLOUD SUITE



KBC Acuity Virtual Flow Meter

Smarter Flow Visibility. No Hardware. No Guesswork.

KBC Acuity™ Virtual Flow Meter (VFM) is a cloud-based solution that delivers near real-time oil, gas, and water flow estimates for back-allocation and daily production accounting. Built for field-wide scalability, it reduces the need for frequent well tests and improves flow visibility and asset performance to support faster decisions and leaner operations. This means better allocation accuracy, earlier anomaly detection, and greater control over production performance.

KBC Acuity VFM enhances production metering and monitoring by providing continuous flow estimates that works alongside systems such as MPFMs, well testing units, or test separators—without requiring additional hardware or IT infrastructure.

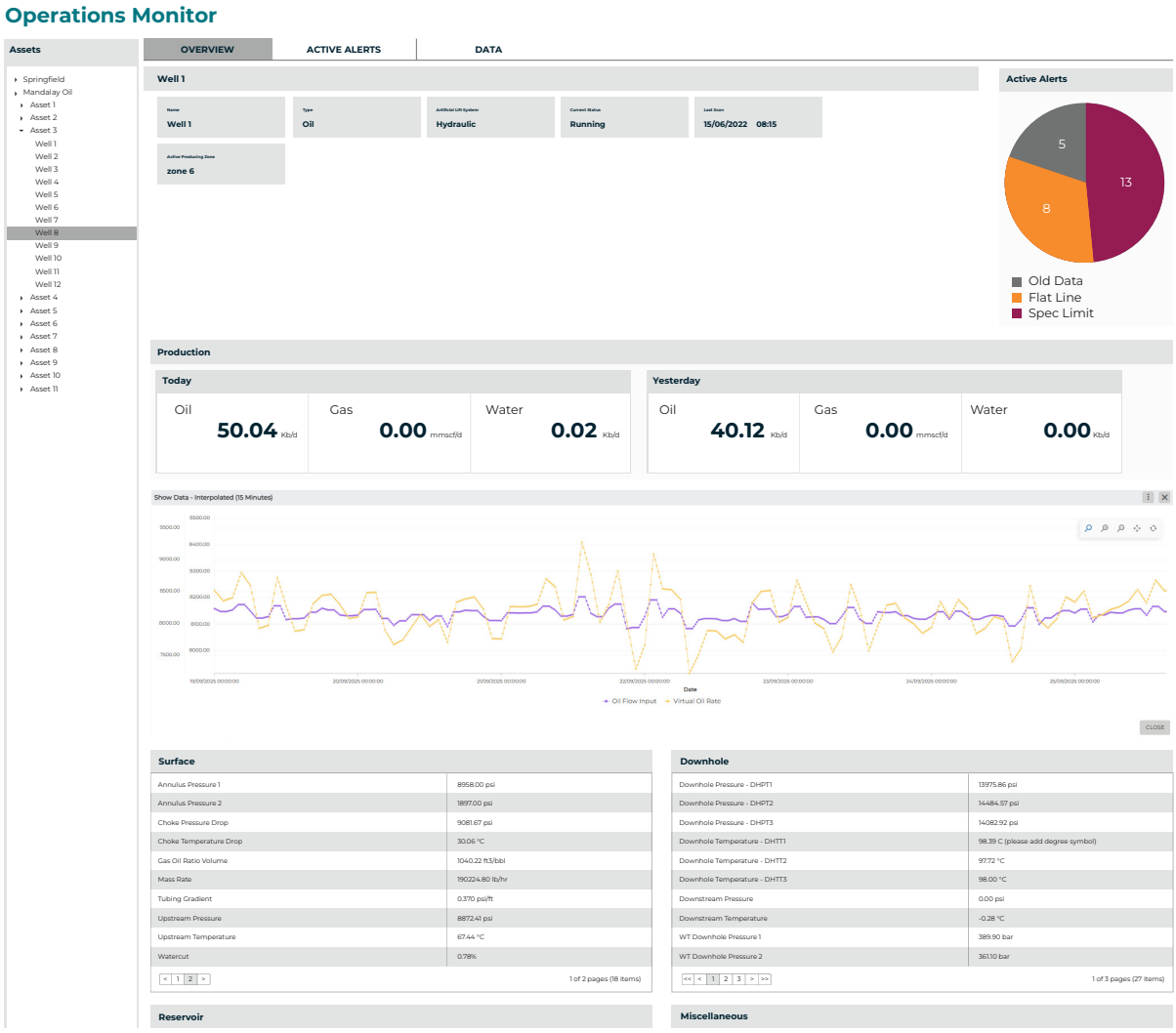
Bringing
DECARBONIZATION
to Life®

Improving Operations with Models

Traditional well surveillance methods — like test separators and multiphase flow meters (MPFMs) — are costly, hard to scale, and slow to react. With over 1 million wells operating globally and approximately 100,000 drilled each year. Engineers need a better way to track flow, identify underperforming wells, and reduce production risk.

Continuous, Scalable Production Monitoring

KBC Acuity VFM incorporates first-principles multiphase modeling to deliver three-phase flow estimates using advanced thermohydraulic simulation and near real-time analytics as part of an integrated asset model (IAM). This cloud-based digital flowmeter twin provides continuous monitoring across production and processing systems—giving engineers scalable insight to forecast production, diagnose issues earlier, and optimize field performance.



KBC Acuity VFM is a fully deployable, cloud-native solution designed for the realities of field operations and enterprise-wide production data visibility. It provides near real-time insights to drive smarter asset management, production optimization, and proactive decision-making. It can run alongside the KBC Acuity Operations Monitor (OM) platform, formerly WellShare, or connect via API to other enterprise systems. The result is a new generation of simulation technology that predicts anomalies and forecasts production rates in near real time. It shifts updates from weekly or monthly cycles to daily or hourly.

Leveraging native integration of physical properties from KBC's Maximus® simulator, KBC Acuity VFM provides deeper operational intelligence to mitigate risk, enhance performance, and close the gap between expectations and reality. For underperforming wells—particularly in unconventional or brownfield assets—it offers a scalable, software-based alternative to traditional MPFMs, simplifying operations and laying the foundation for advanced control, optimization, and digital transformation.

Ideal For

Streamlines cross-disciplinary collaboration to enhance production monitoring and decision-making across the asset lifecycle.

- **Production & Petroleum Engineers** for well-level optimization and allocation
- **Reservoir Engineers** for better forecasting and field planning
- **Operations Technicians & Managers** monitor flow continuously without extra hardware or frequent testing
- **IT/OT Teams** reduce costs and streamline integration across platforms
- **Executive & Asset Managers** improve production efficiency and reduce OPEX at scale

Key Capabilities

KBC Acuity VFM combines high-fidelity simulation, advanced analytics, and near real-time data fusion to enable well-level optimization, anomaly detection, and collaborative production decision-making across teams. Delivered as part of the KBC Acuity OM platform, it leverages the Maximus simulator to integrate physical property models and deliver predictive insights with precision.

- **Sensor Integration:** Connects directly to IIoT field devices and data historians for near real-time monitoring of production conditions.
- **Allocation Support:** Tracks well-level flow dynamics to support accurate production accounting, reservoir performance analysis, and field-level diagnostics.
- **SCADA & Historian Connectivity:** Seamlessly integrates with PI System™, SCADA platforms, and existing infrastructure to unify data streams and operational context.
- **AI/ML-Ready Dashboards:** Built for future integration of machine learning models and advanced analytics, enabling predictive diagnostics, automated anomaly detection, and performance forecasting via intuitive visual interfaces.

These capabilities support scalable, enterprise-wide deployment—bridging field operations and corporate strategy with a unified, cloud-native digital twin framework.

Cybersecurity Commitment

KBC Acuity VFM supports enterprise-grade security with compliance-ready infrastructure. KBC and its parent company Yokogawa prioritize security and safety, adhering to the highest global standards. Powered by the Yokogawa Cloud, KBC Acuity VFM is protected by a multi-layer cybersecurity framework that safeguards client data, ensures compliance, and defends against digital threats.

With SOC 2® Type 2 certification and additional global credentials, every metric is secure, validated, and trustworthy.

Why KBC Acuity VFM

KBC Acuity VFM brings transparency to production that enables engineers and operators with continuous flow visibility, predictive insight, and simulation-grade accuracy—without the cost, complexity, or downtime of physical meters. It supports enterprise-wide deployment and simplifies complex modeling workflows while Bringing Decarbonization to Life®.

Market Problems	Product Features
Near Real-Time Flow Estimation (oil/gas/water)	
Manual well testing is infrequent and costly.	Delivers continuous three-phase flow visibility without separators or MPFMs.
Cloud-Native Scalability	
On-premise tools are hard to scale and manage.	Simplifies deployment and enables multi-asset visibility from pilot wells to full fields.
Anomaly Detection and Alerts	
Wax, hydrate or scales issues go unnoticed until failure.	Proactive detection reduces downtime and unplanned maintenance.
Simulation-Based Accuracy	
Lack of transparent, physics-based flow estimates.	Builds trust and accuracy in flow predictions using engineering-grade simulation.
Custom Dashboards with Smart Analytics	
Static data views limit insight and decision-making.	Predictive analytics help optimize performance and flag deviations automatically.
MPFM Backup and Validation	
Physical meters may drift or require recalibration.	Software provides redundancy and confidence in flow data.
MPFM Backup and Validation	
MPFMs are cost-prohibitive in aging or marginal wells.	Makes advanced monitoring accessible where budget or logistics are a constraint.
Seamless Data Integration	
Siloed data systems limit insight, burden IT teams and cause operators to switch between platforms to analyze production data.	Connects sensors, historians, and simulators in a single-pane-of-glass delivering full data continuity and faster, smarter production decisions.

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