

Rockwell Automation Oil and Gas Global Solutions

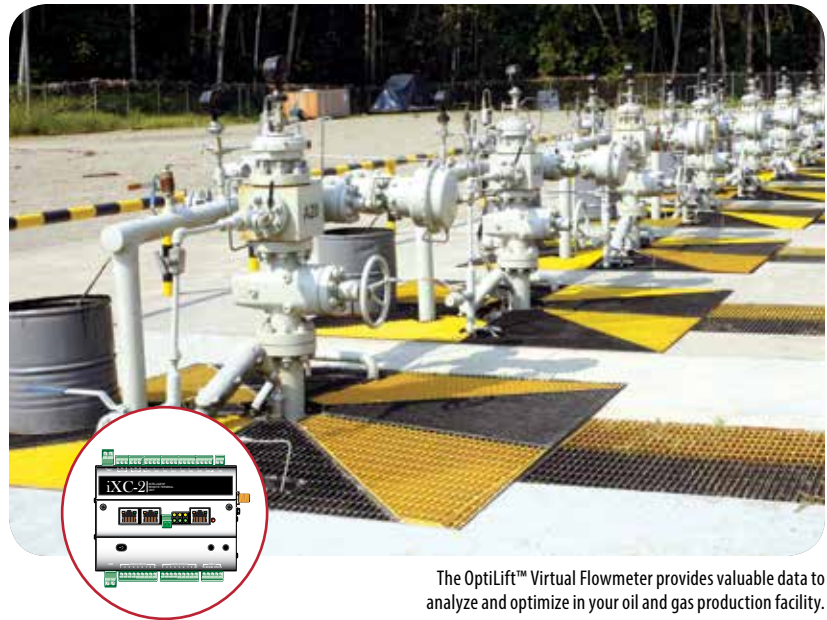


OptiLift Virtual Flowmeter (VFM)

Benefits

The Rockwell Automation® OptiLift™ Virtual Flowmeter (VFM) was designed to optimize production and reduce operating costs in your well environment. It gives your technicians the ability to:

- Compute three phase flow (oil, gas and water) based on well configuration, measured pressure and temperature data
- Supports operational benefits for any well type
- Use real-time data to predict changes that eliminate the need to correct deviations from old data
- Enable well test cross check/validation, which improves reconciliation with the test separator or multiphase meters
- Analyze operational data online like wellhead pressure, gas injection rate, water cut, reservoir pressure and the productivity index (PI)
- Integrate with your current system – whether it is a Rockwell Automation system or other brand
- Control costs with fewer professional well test visits



The OptiLift™ Virtual Flowmeter provides valuable data to analyze and optimize in your oil and gas production facility.

Optimize Production and Reduce Operating Costs

Data is a powerful tool that keeps your well operations functioning in top form. Most well automation does not give you access to real-time production data, which forces you to rely on the best available well test data. This challenge delays operational decisions that can save time and money. The VFM uses defining characteristics of your well along with pressure and temperature inputs to deliver timely and accurate three phase flow data.

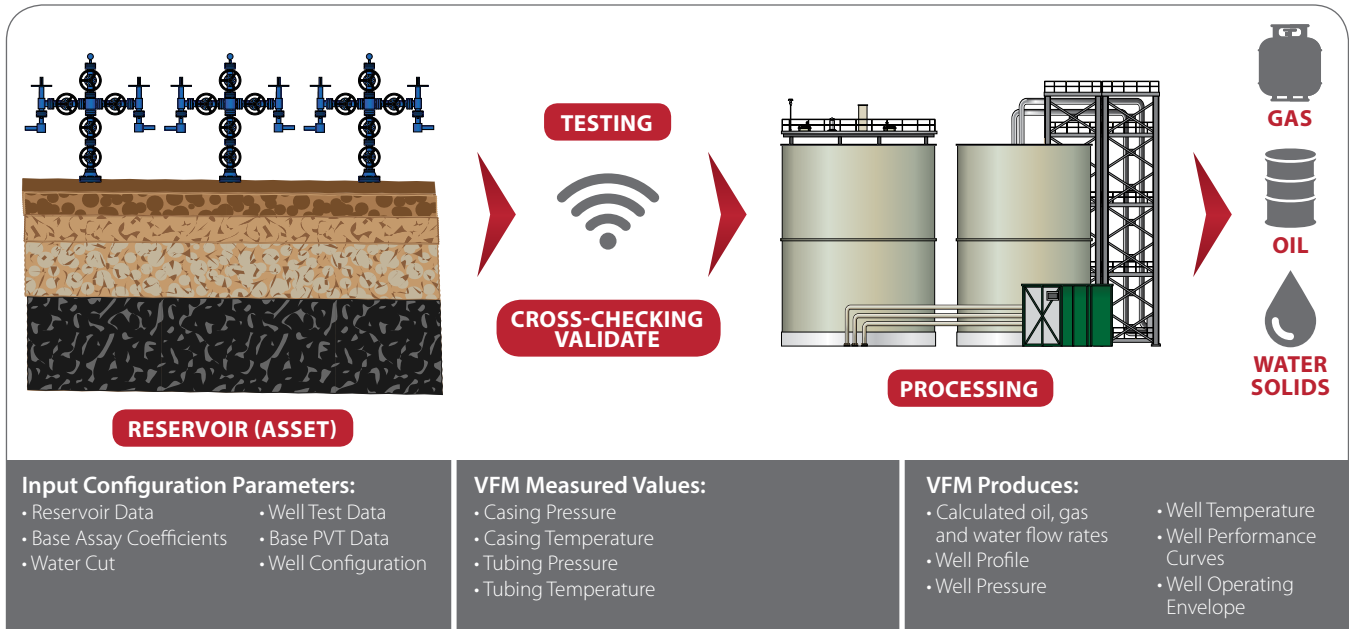
Computational nodes are placed along the flow regime from down hole/reservoir to surface equipment. Each node is equipped with algorithms to compute pressure, temperature and flow rate conditions. The algorithm was created with over 40 years of field data and 400 well simulations. It uses 30 unique equations to compute six key physical properties.

The OptiLift Virtual Flowmeter solution supports the following types of wells:

- Natural flow
- Gas lift/gas injection
- Submersible pump ESP
- Submersible pump PCP

The Rockwell Automation® OptiLift Virtual Flowmeter (VFM) is an optional feature of the rDAC iXC2 high performance remote terminal unit (RTU) that can provide a wealth of data that can increase efficiency and optimize your well production.

LISTEN.
THINK.
SOLVE.®



Optimizing Your Well Fields with the Virtual Flowmeter (VFM)

Having the ability to know the pressure, temperature and flow rates in your oilfields is invaluable to your technicians. It allows them to adapt quickly to those changing environments, reducing operating costs and averting any possible shutdown scenarios.

You can manage production, allocation and problem solving much more efficiently with the addition of a virtual flowmeter to your physical wells. Rockwell Automation offers a comprehensive range of oil and gas production solutions that will integrate with your existing systems.

	Physical Well Only	Physical Well & Virtual Flowmeter
Production Planning and Allocation	Based on the best available well test data, often a manual paper system or manual input	Produces a data set that can be used for planning and allocation and compared against well test data
Problem Detection	Forced to be reactive based on timing of possible problem	Projects values between well tests and enables cross check/validation for early detection
Well Production Allocation (GOR and Water Cut)	Based on infrequent well test (weekly/monthly)	Immediate real-time data
Underperformance	Gap between field targets and actual production	Immediate real-time data, allowing for adjustments to be made
Operating Ranges		
Oil Density	16 to 44 API (up to 50 API - consult factory)	
Water Cut Range	0 to 100%	
Gas Oil Ratio	7 to 11,739 scf/stb	

For more information or to contact your local sales office or distributor, visit www.rockwellautomation.com/distributor.



Rockwell Automation is an official ENERGY STAR® Industrial Service and Product Provider. It has proven it provides energy efficiency services and/or products to commercial buildings and industrial manufacturing plants in the United States by collaborating with an ENERGY STAR Industrial Partner to submit a teaming profile that outlines the scope and resulting savings from energy efficiency-driven projects. For more information, visit ENERGY STAR for Industry at www.energystar.gov/index.cfm?c=industry.bus_industry

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