

What if you could improve the quality of data and increase production through an integrated well testing skid with a smaller footprint?



EMERSON[™]
Process Management

The Industry Challenges

Going through multiple vendors to meet a long list of manifold requirements can be challenging. In this industrial application, the unwelcome inevitability of spending lots of time and money across multiple bidding vendors and contractors, just to ensure that parts work together, is a frequent experience when dealing with integrated production manifolds. So what are the challenges that manifolds bring?



Procurement

You need vendors. Vendors for piping, skids, multipoint selector valves, valve actuators, controls, contractors to install and maintain them... the list is long. And the bidding process? Get ready to make plenty of calls.

“78% of Oil & Gas E&P Projects Suffer Severe Cost Overruns and Delays.”

Oil & Gas Industry MegaProjects: On Recent Track Record”, Independent Analysis, Inc., April 2012. Based on data from 130 Oil & Gas megaprojects.



Time

The average megaproject will exceed costs by 25% because of delays and overruns. Complexity increases the risk of delays. Procuring integrated manifolds, with all the vendors, bidding, manufacture, assembly, QA and installation involved are a known source of extended delays.

“Reducing the topside weight of deepwater structures could save \$250,000 per meter of water depth, an average of \$150 million per unit.”

US Department of Commerce estimate, cited by Offshore Magazine Nov. 2004



Footprint

Weight = costs. If your skid is heavier, shipping, operating and maintenance costs will be higher.



Maintenance

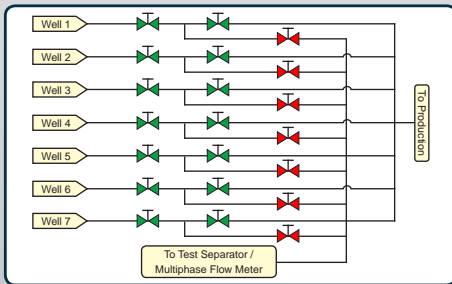
When parts break down, the contractor will have to check the entire skid, go through loads of separate documents, determine the fault, remove the component and ship it over to the appropriate vendor. This causes longer downtimes.



What if Emerson could provide an optimized well test & production manifold with reduced footprint and operating costs as a complete solution?

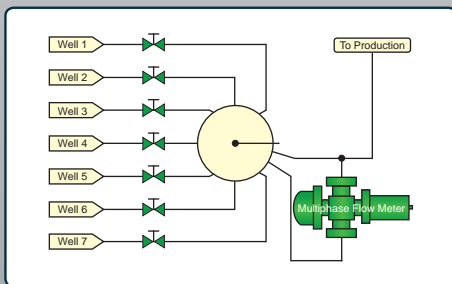
Emerson's Valve Automation, Remote Automation Solutions and ROXAR have come together to bring you a state-of-the-art Wellhead Digital System for Production and test Manifolds. When the requirements are tough, time is short and the budgets are restrictive, you need a total integrated solution that provides simplicity, reliability and value delivered to you as fast as possible in a reduced-footprint package.

Emerson's **Multiport Flow Selectors (MPFS)** are far more economical and provide numerous advantages over traditional test separator builds:



Traditional Manifold & Test Separator

- More valves, more piping and actuators with controls
- More leak points
- More weight
- More maintenance
- Procurement is more complicated



Emerson's MPFS Compact Well Testing Unit

- Automate well testing for remote operation
- Reduced piping, bypass lines, valves and structural support steel
- Reduced number of leak points
- Reduced maintenance
- Less helicopter and boat transfer – improved HSE
- Testing and calibration can be done locally
- Can be fully skid mounted – ready to install, connect and use
- Simplified procurement all done in-house

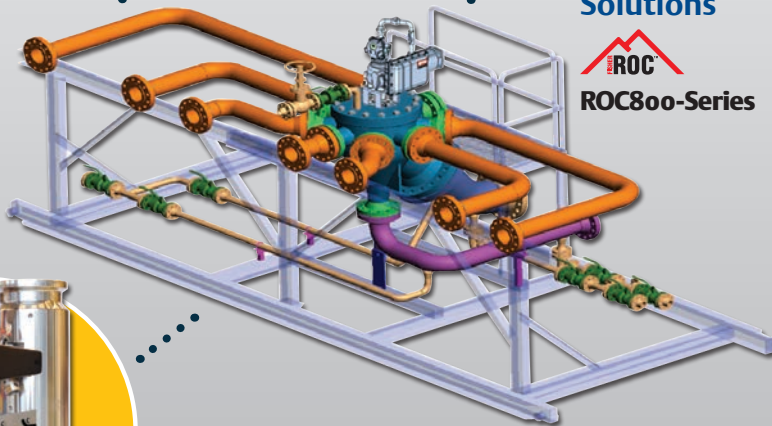


Bettis Multiport Flow Selector

"This is a very marginal field, so we need to incorporate solutions now that will allow us to minimize operating cost when we start production."

Charlie
Platform Manager

BETTIS™ Multiport Flow Selector



roxar
MAXIMUM RESERVOIR PERFORMANCE

Multiphase Flow Meter

ROXAR Multiphase Flow Meter

Oil or Gas production wells need to be measured periodically for production optimization. It is also important to maintain the safety of the operator, especially when the process is sour, location is in an unmanned platform or in remote deserts. Production supervisors and operations managers like to see real time data of each well from the control room. Emerson has a solution for all these concerns on one platter.

Multiport Flow Selector with Multiphase flow meter & programmed RTU for remote well selection and testing on one single skid.

- Up to 80% less weight compared to traditional flow meters
- Lower operating costs over time compared to traditional flow meters
- 3D imaging allows for fast and enhanced understanding of well performance

"This platform keeps getting bigger and heavier, and all the extra size and weight will hit me with a large cost overrun."

Steve
Project Manager



Remote Automation Solutions

ROC
ROC800-Series



Remote Automation Solutions

The ROC800 is a full-featured Remote Terminal Unit (RTU), designed to provide process control in remote locations with limited power and communications.

- Offers a total solution for cyclical well test applications
- Provides top level sequencing and data collection from local devices
- Increased reliability, improved uptime and simplified installation
- Native WirelessHART™

Remote Automation Solution's OpenEnterprise™

SCADA Suite completes the package to provide a turn-key SCADA solution from field equipment to supervisory control and management, reporting, and enterprise-wide data distribution.

"These wells will change behavior all the time, so I'm going to need accurate, real-time production data in order to optimize the gas lift."

Allan
Production Technician

Total Integrated Solution Brings You All The Solutions In One Package

- Entire assembly handled in-house from design to delivery for simplified procurement
- Better control over delivery
- Engineering support for Automation direct to EPC
- Reduction in flow of technical queries
- Reduced Project Management costs
- Local support during commissioning and start-up
- Standardized components and documentation for reduced inventory and combined manuals



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