Are Your Well-Testing Manifolds Cost-Efficient Enough To Stay Competitive In a World of Falling Oil Prices?

"World oil prices have fallen by more than 40% since June 2014, when it was $115 a barrel. It is now below $70."

The Economist

With the recent downturn in oil prices cutting into profits, many oil and gas field facilities have become too large, too complicated and too expensive to run cost-effectively. With delivery time, complexity, size and weight costs being the usual culprits to increased overhead, the need for a solution that addresses all these factors becomes that much greater.

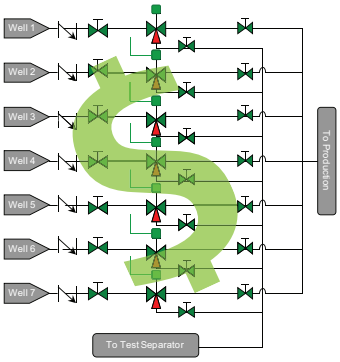
The well-testing manifold is one such component where cost-efficiency issues due to footprint, complexity and costs are readily visible. To address this problem, the industry developed compact manifolds. Although the improvements are significant, the footprint and complexity of compact manifolds remained a big issue and the cost improvements often fall short of expectations.

What if...

... you could improve offshore well-testing profitability by reducing capital and operating expenses?
... you could reduce complexity of your manifold design?
... you could reduce the complexity and improve reliability of your project by eliminating components and working with one supplier for your well test manifold requirements?

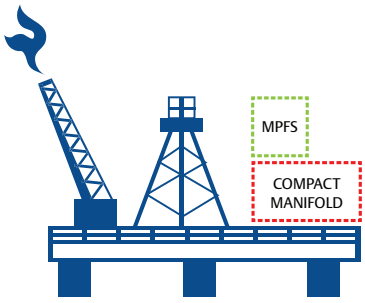
THE CHALLENGES OF COMPACT MANIFOLD

Cost



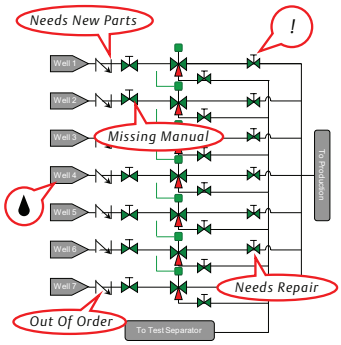
- Compact manifold assemblies can be up to 65% more expensive than an Multiport Flow Selector

Footprint



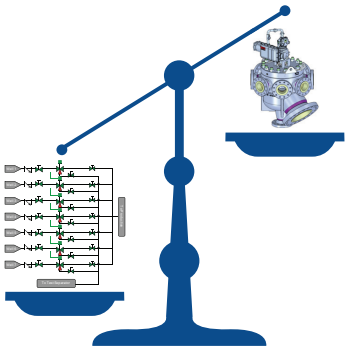
- A compact manifold requires as much as 50% more space compared to a similar Multiport Flow Selector setup

Complexity



- Higher chance of single point failure due to more components
- To get the full benefit of a compact manifold, all building blocks have to be used
- Poppet valve is just a 3-way valve with actuator and associated controllers

Weight



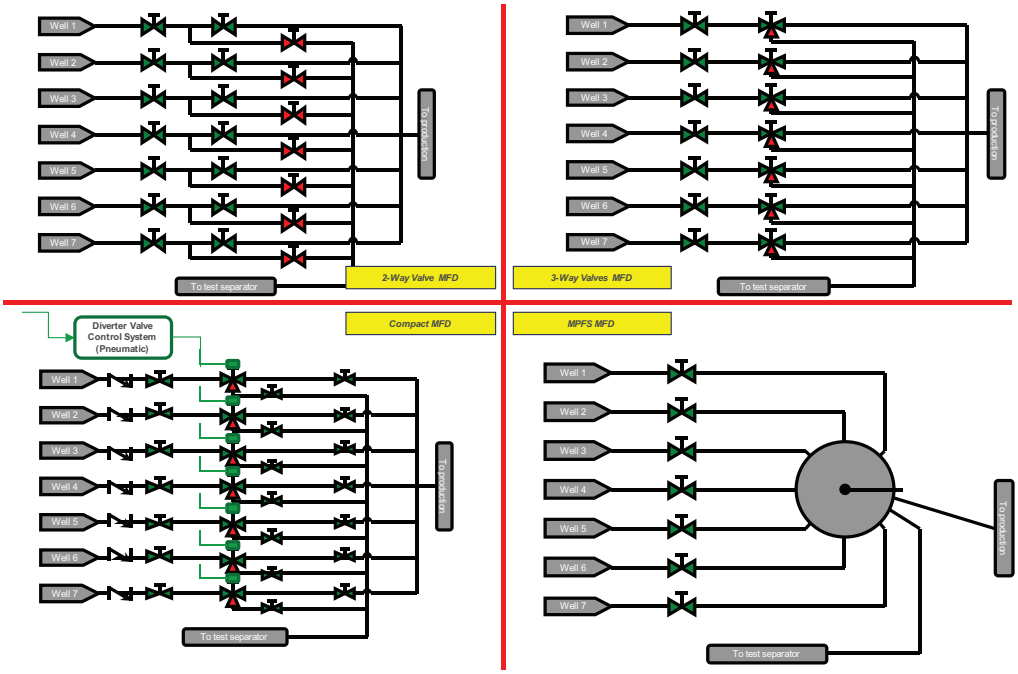
- A compact manifold requires a bigger, heavier, and more complex skid
- More parts and weight; meaning more maintenance costs and project complexities

INTEGRATED WELL-TESTING SOLUTION WITH MULTIPORT FLOW SELECTOR

SOLVING THE FOUR PROBLEMS

Introducing Emerson's Multiport Flow Selector—the final solution to the complex well-testing manifold issue. Reducing the number of valves, pipes, actuators, wiring and installation time by up to 66% compared to a compact manifold, the Multiport Flow Selector reduces CAPEX and OPEX by an estimated 30-40% with additional benefits over the lifetime of the equipment. Shown below are the typical production test manifolds and how Multiport Flow Selector solves the complexity issue:

Overall Comparison: 2-Way and 3-Way Valves, Compact Manifold and Multiport Flow Selector



CONCLUSION

You can simplify your well-testing manifold using the Multiport Flow Selector. You can expect significant benefits in cost, performance, safety, simplicity and reliability. With reduced components and fewer leak points, the maintenance service requirements reduces the risk of accidents during travel and reactive maintenance by a factor of 10-50*; resulting in a big edge in safety and savings in a world of falling oil prices.

* "Aviation Transport Accident Statistics," International Association of Oil & Gas Producers, March 2010.

The cost of constructing an offshore topsides production facility can range from approximately $5,000 - $35,000/ton depending on many variables. Much of this tonnage is for steel supports, decks, piping and skid-mounted equipment. A simplified footprint means reduced capital and total cost of ownership (TCO), not to mention, improved construction schedules and accelerated time to first production.

Source:
Project Controls International

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