

Project management sets new company up for success

Pumpflow establishes rig to test and calibrate pumps

Pumpflow

Pumpflow is an independent company that specialises in the design, build and test of bespoke engineered pumps, primarily for the oil & gas industry. Located in Manchester, Pumpflow's in-house test bed enables pump performance to be verified against known test data and any improvements to be quantified. Pumpflow personnel have many years' experience with a wide range of pumping applications, with an emphasis on pumps covered by the design standard API 610.

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The challenge Pumpflow was established in 2015 to assist manufacturers with the development of pumps and offer a test and verification service for existing equipment. In order to do that, a test and calibration rig had to be created from scratch. As well as a wide range of instrumentation, the rig needed to incorporate a bespoke visualisation and recording system.

Pumpflow's General Manager, Stephen Egerton, says they were looking for a supplier who could do more than sell them flowmeters and pressure transmitters: "We wanted someone to take control of the whole project, not just supply equipment but to work with us to develop our ideas. We knew roughly how we wanted it to function but we were less sure how to actually generate that and how to get all the equipment talking together." The process involved a number of potentially difficult metering issues, such as complicated power metering. The company also wanted to be able to present the results generated from the test bed to their customers on-site in Manchester. One of the key



Pumpflow's test bed

objectives was being able to present complex data in a simple and visual way.

"The key to our business is having a good test bed," confirms Stephen Egerton. "We have to be confident in the results we get from it – and of course everything has to be documented and traceable."

The solution Pumpflow initially approached Endress+Hauser to supply instrumentation but soon realised that they could do more. "I had a look at Endress+Hauser's training centre which has rigs that are quite similar to ours," explains Stephen Egerton. "That gave us confidence that they were the right supplier. And in the industry the quality of Endress+Hauser equipment – and their experience in different applications – is well known."

As well as project management, third-party device integration, design and commissioning services, Endress+Hauser supplied Pumpflow with flowmeters, temperature transmitters, pressure transmitters,

three bespoke panels, an electricity meter and an HMI data logger. Solutions were found to all Pumpflow's difficult metering solutions, allowing them to integrate automated power metering measurements with all other data logs to bring the information together in a single system.

Now the system has been installed, commissioned and tested, Endress+Hauser will carry out regular, traceable calibration of the instrumentation incorporated into the rig.

The benefits On many test beds, measurements are taken manually but Pumpflow's rig is fully automated. This saves time and reduces the risk of operator error. "With manual measurements, testing a pump can be quite a long process and you don't necessarily get true readings," explains Stephen Egerton. "Now everything's instantaneous and it's all logged so we can identify any problems quickly."

The new test bed has given Pumpflow confidence in the results they're passing on to customers. Stephen Egerton: "People trust us with their equipment and we've got to be 100% certain that the results we're getting are accurate. It can be the difference between, for example, a pump going offshore or not, potentially holding up production on an oil platform." And the customers can see the results for themselves, from the comfort of a conference room on a television screen, thanks to the remote visualisation of the HMI. As Stephen says, "When our customers come here they can see the way the data's logged and how we generate reports – that experience gives them confidence in us."

Being able to engage Endress+Hauser's solutions team to look after the project was the biggest benefit for Pumpflow. "We saw the value in having one company looking after the entire project that could problem solve and take that responsibility away from us," explains Stephen. "The alternative would have been us buying equipment from all over, trying to tie it all together, then getting an independent company in to make it all communicate."

Having someone who'd take responsibility for it all was exactly what we needed." And it's proved to be a successful working relationship: "The customer service we've had from Endress+Hauser has been perfect, spot on. As a new company we knew we'd hit a few problems but we've actually had fewer than we expected and the response has been way beyond our expectations."



Pumpflow's Engineering Manager Sean Whiston with one of the panels designed by Endress+Hauser



Two of three Endress+Hauser Proline Promag flowmeters installed on the test bed

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