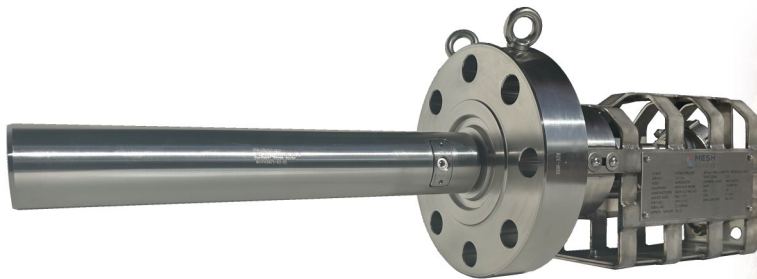

Surface BOP Probe Pressure & Temperature ATEX Version



MESH
GLOBAL



Duration

33 Weeks (Future builds 6-8 weeks)

Scope Overview

- Initial review of existing hardware.
- Development of specification documentation, including hardware requirements, operating system / software, programming environments, functional requirements, data requirements, and interfaces to all external systems.
- Completion of the following pre-delivery scope: generating all Factory Acceptance Test (FAT) documentation, and conducting a final integration test using simulation.

Provision of personnel for the following tasks:

- Installation and commissioning of the new system.
- Conducting offshore training on the system covering operation, maintenance and fault finding.

Achievements

This project showcases MESH Global's ability to design complex, innovative solutions that lead to increases in operational efficiency. It also shows our commitment to quality design and regulatory compliance.

Our ability to understand a problem and find a solution quickly and efficiently. This demonstrates the ability to bring a product as complex as this to market in such a short time.

Background

The client, a leading oil and gas exploration company, operates in HPHT environments. With a commitment to safety and operational excellence, the client sought an advanced solution to monitor BOP performance and integrity in real-time on a surface BOP. Many HPHT probes on the market are designed for Subsea use only, making them incapable of working on Surface BOP stacks due to the requirement for Zone 1 Certification.

Requirement

Extreme Operating Conditions: Operating in a HPHT sour gas environment with temperatures exceeding 356°F and pressures up to 15,000 psi posed significant challenges for conventional sensors. The location is within a Zone 1 area, so required ATEX certification on any solution.

It also had to comply with API, ATEX & NORSOK Standards.

The unit is to be mounted in an area that would be deemed as a 'primary well control barrier', so any failure of the probe had to be mitigated so that it would not impede the function of the BOP or create a situation where pressure could make its way out of the BOP.

Approach

Mesh went through a number of proposed designs and methods that would best allow for a unit that not only met the required standards, but would allow for an easily maintainable product. The design also used existing proven technology with a documented track record. The design made the machining / fabrication element quite complex.

Results

The Surface HPHT BOP Probe was successfully manufactured ready to fit into the client's BOP stack. It underwent a rigorous testing and validation procedure to ensure reliability and accuracy.

Enhanced Safety: Real-time monitoring capabilities provided early detection of potential BOP issues, allowing operators to take proactive measures to prevent equipment failures and mitigate safety risks.

Improved Reliability: The Surface HPHT BOP Probe's robust design will enable the optimisation of drilling operations.

Regulatory Compliance: Ensured adherence to relevant industry standards.

Call: +44 (0) 1674 908700

Email: info@mesh-global.com

Website: www.mesh-global.com