

CASE STUDY

State-of-the-Art Subsea Pumping

Subsea technology has been available for many years allowing hydrocarbon recovery from the world's most remote locations; however, subsea processing technologies have not yet utilized the full potential. Sulzer will meet the demands of our customers by providing innovative subsea boosting solutions based upon our field proven topside high boost single and multiphase pumping technologies.



Pump and motor casings being pressure tested.

The Sulzer difference

With over 40 years of balance piston development, the utilization of a high speed, high powered subsea motor and access to market leading rotating equipment knowledge, the Sulzer subsea pumping technology generates higher pressures and gives more flexibility in the pumping system enabling future assets to begin producing today.

Contact

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Applicable markets

Oil & Gas

Applicable products

Subsea MPP, MPP Hybrid, HPcP

The challenge

Sulzer's market leading pumping experience is topside based; the subsea market requires robust proven solutions that provide operators with controllable tools for continual hydrocarbon production. To be a viable alternative to existing subsea pump providers, Sulzer is building up qualification of its subsea products adding subsea specific knowledge and enabling technologies to its established topside expertise.

The solution

An extensive and exhaustive qualification program based around medium term subsea requirements and game changing technologies, plus a partnership with FMC technologies allows Sulzer to validate its world class pumping technologies for subsea applications, be it single phase water injection, high boost multiphase or gas tolerant pumping. The culmination of the project – A full scale, 3.2MW, 6000rpm subsea deployable pump test at Sulzer UK in 2011.

Customer benefit

Expertise in highly engineered pumping systems and subsea system integration make Sulzer and FMC technologies the perfect subsea partners. Couple this with state-of-the-art permanent magnet high speed, high power motor technology plus a robust mechanically regulated pressurization system and end users now have a viable alternate supplier not only for present subsea applications but also for the future of mud line hydrocarbon production.



Prototype pump and motor before attachment of cooling coils.



Model of the complete pump and motor assembly.