

CASE STUDY

BARRIER FLUID SUPPLY UNIT (BFSU) FOR CHEVRON AUSTRALIA

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OVERVIEW

Pressure Dynamics recently completed the manufacture and commissioning of a Barrier Fluid Supply Unit (BFSU) for Chevron Australia, designed to support reliable subsea pump operation in demanding offshore environments. The package was engineered to provide a continuous supply of clean, pressurised barrier fluid, supporting the protection and lubrication of critical subsea pumping systems and contributing to long-term equipment integrity and performance.

Operating in harsh offshore conditions requires systems that deliver reliability, consistency and maintainability. The BFSU package was designed to support these requirements while integrating seamlessly with broader offshore process infrastructure.

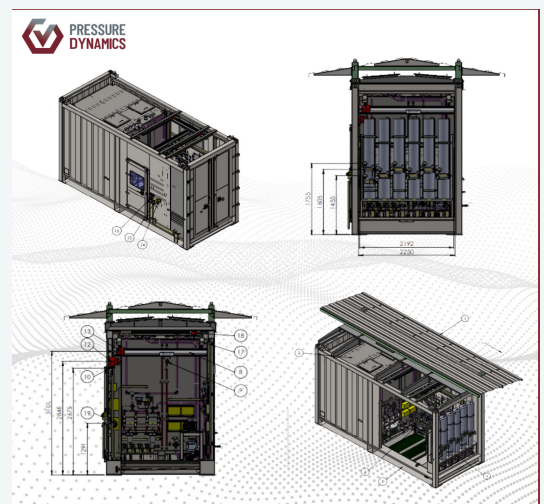
APPROACH

Pressure Dynamics delivered a fully integrated solution encompassing manufacture, assembly, testing and commissioning activities. The BFSU package incorporated a range of key system components including:

- Integrated storage tanks
- Pump systems
- Filtration equipment
- Pressure control systems
- Supporting instrumentation and ancillary components

Throughout the project, the team maintained a strong focus on engineering quality, system functionality and operational performance. Collaboration across engineering, manufacturing and commissioning disciplines ensured all project stages were delivered efficiently and in accordance with project requirements.

Comprehensive testing and commissioning activities were undertaken to verify system performance and ensure readiness for operational deployment.



OUTCOME

The completed BFSU provides a reliable and robust solution designed to support the long-term operation of subsea pumping systems in offshore environments. Key benefits of the unit include:

- Continuous operation – Full redundancy across all critical components ensures uninterrupted barrier fluid supply even in the event of equipment failure
- Designed for harsh environments – Built to withstand the demanding coastal conditions of its offshore location
- Minimal downtime – Components can be serviced and replaced without taking the unit offline
- Future-proofed – Pre-installed tie-in points allow the system to be expanded as operational demands grow
- Seamless integration – Full integration with existing plant control systems enables automated remote monitoring and operation, reducing manual intervention

The successful delivery of this project demonstrates Pressure Dynamics' capability in delivering complex engineered packages through collaboration, technical expertise and a commitment to quality across the full project lifecycle.

