



# CASE STUDY

## SEALED CAP SOLUTION FOR REDUNDANT OFFSHORE VALVE

### Key Takeaways

- Bespoke tailored solution
- In-house manufacture
- FAT to prove technology
- Client satisfaction

### Client Testamomial

*"We couldn't be more pleased with how MOSS responded; expert engineering deployed to provide a safe and effective solution to our problem"*

### The Challenge

MOSS was engaged regarding a heavily corroded valve located on a 3" branch line on an offshore installation. With a design pressure rating of 153 bar, the valve was redundant and no longer in service.

The initial proposed solution involved encapsulating the valve using a mechanical clamp. However, due to spatial constraints and obstructions surrounding the valve, there was insufficient clearance to safely land and secure a clamp assembly.

### Our Approach

Given the valve's redundancy, our team proposed an alternative approach: removing the existing valve and installing a sealed cap assembly directly onto the weldolet connected to the 3" branch.

A detailed engineering concept was developed for a Cap Assembly incorporating a double-seal configuration, designed to provide primary and secondary sealing.

Critically, it also featured the ability to perform pressure testing in the annulus between the seals. Allowing us to verify both seals were holding pressure independently and confirm that there was no leakage across either interface.

### Implementation

MOSS fabricated a full-scale test piece, and conducted a workshop FAT at 250 bar, exceeding the original design pressure of the system. Demonstrating both the mechanical integrity and sealing performance of the solution.

With the FAT successfully completed, the offshore intervention is scheduled to be executed live in the coming weeks.