



Urgent Offshore Repair of 94 Flange Faces Affected by Crevice Corrosion

The Challenge

A total of 94 flange faces, ranging from 1" to 8" ID, had developed early-stage crevice corrosion. A previous repair had already failed, leaving the assets vulnerable to further degradation and potential leakage.

While full spool replacement was estimated at approximately \$60,000, the far greater risk was operational—any shutdown would result in production losses of up to \$678,000 per day.

A solution was required that could be delivered in situ, without interrupting operations.

The Solution

Corrosolve deployed a specialist offshore repair team to complete the full programme on-site, utilising a proven flange forming and casting technique.

The scope of work included:

- Controlled surface preparation using a combination of vacu-blasting and traditional abrasive blasting within containment
- Installation of former plates and application of release agents to achieve precise casting geometry
- Rebuilding of flange faces using Plasmet HTE, selected for its high compressive and tensile strength
- Careful in situ application to ensure durability under demanding offshore operating conditions

All work was carried out safely and efficiently by a four-person crew, with no disruption to live operations.



The Results

- Successful restoration of all 94 flange faces in 9 working days
- Successfully passed nitrogen pressure testing following first application
- Returned to service within 24 hours of polymer coating installation
- Prevention of further crevice corrosion and degradation of the sealing surface
- Long-lasting, durable repair suited to offshore conditions

Key Benefits

- Avoided significant production losses of up to \$678,000 per day
- Precision restoration
- Delivered a safe, efficient offshore repair solution
- Extended asset life while maintaining full operational continuity