CASE STUDY: VALVES & ENGINEERING

ENABLING CRITICAL ISOLATION FOR REJUVENATION

Delivering a live system solution to support Shell's 2021 TAR preparations without shutdown or valve replacement.



CLIENT Shell

YEAR 2020

BUSINESS LINEEnergy Solutions

The Challenge

As part of Shell's broader Shearwater rejuvenation programme, the 2020 pit stop was a critical milestone to complete enabling scopes ahead of the 2021 Turnaround (TAR) event.

One of the key challenges was isolating a 24" Emergency Shutdown Valve (ESDV) on the Condensate Pig Launcher to allow for the removal of an upstream chemical quill.

Traditional isolation methods would have required a full system shutdown or valve replacement, both of which posed significant risks to schedule, cost, and operational continuity. Shell needed a safe, efficient, and innovative solution that could be executed while the system remained live.

The Solution

EnerMech's onshore engineering and planning team engaged early with Shell to develop a bespoke solution. Leveraging exclusive access to Sealweld's Chameleon Sealant, one of only two companies globally with the IP right, EnerMech provided a live system isolation without requiring shutdown.

ValvePro-trained personnel were deployed onboard Shearwater to inject the sealant, confirm valve integrity, and monitor performance throughout the scope.

The sealant was later broken down and removed using solvent, returning the valve to its original state with no impact on downstream systems.

The Outcome

EnerMech delivered a fully engineered, live-system isolation solution that allowed Shell to complete the required scope without interrupting operations.

The use of Chameleon Sealant, combined with 24/7 offshore support and specialist ValvePro expertise, ensured the valve was safely isolated, monitored, and restored to its original condition post-scope.

This approach not only preserved the integrity of the TAR schedule but also avoided costly downtime and equipment replacement. The success of the intervention demonstrated EnerMech's ability to deliver high-value, technically complex solutions under tight timelines and operational constraints.

We Delivered...

- Live system isolation of a 24" ESDV using Chameleon Sealant
- 24/7 offshore support and monitoring by ValveProcertified technicians
- Full breakdown and removal of sealant post-scope with no residual impact
- Onshore engineering and planning support with continuous technical coverage

Early Engagement, Smarter Execution

Proactive planning enabled a fast, efficient solution aligned with Shell's TAR objectives.

Specialist Support

Early engagement and 24/7 technical coverage ensured a seamless solution, with ValveProcertified personnel delivering safe, efficient execution onboard Shearwater.