

Remote Leak Containment System Designed for Sealing and Isolation of Subsea Pipelines, Caissons & Conductors

Technologically Advanced & Innovative | Diver-less & Online Installation

Cost Effective | Verified as per ASME PCC-2

Helicoid RSS[®]

The Helicoid RSS[™] (**Remote Subsea Seal**) is a proprietary, diver-less underwater leak containment tool engineered for the rapid sealing of pinholes, cracks, and through-wall leaks in subsea or splash-zone pipelines, conductor and caissons to be used together with our Helicoid Epoxy Sleeve[®] system. The system integrates two primary components, a remotely activated, vacuum assisted piston mechanism that establishes a seal at the leak area, followed by installation of the Helicoid 100 Epoxy Sleeve[®], which provides long-term corrosion protection and structural reinforcement. It is specifically designed to provide a fast, reliable, and re-deployable solution for emergency or planned subsea leak containment operations.

Benefits of the Helicoid RSS Epoxy Sleeve[®]

- Cost-effective repair system
- Diver-less installation for the splash-zone area, directly from the Top Deck zone
- Simple and fast, in-situ and online installation
- Lengths of up to 10.00m
- Pre-engineered and off-the-shelf product
- Final wrap is corrosion and Impact resistant
- Modular design allows repairs of pipes from 6" to 36"

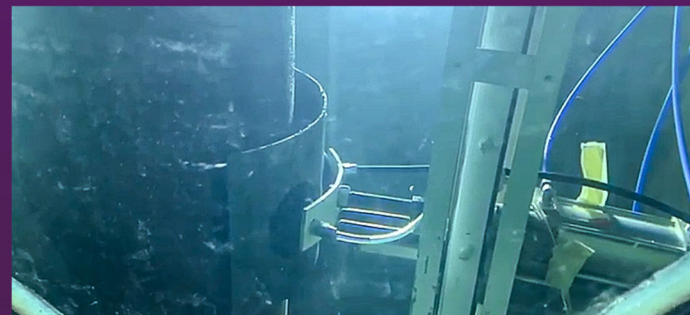
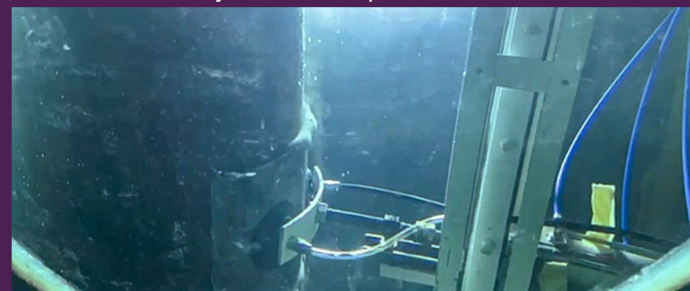


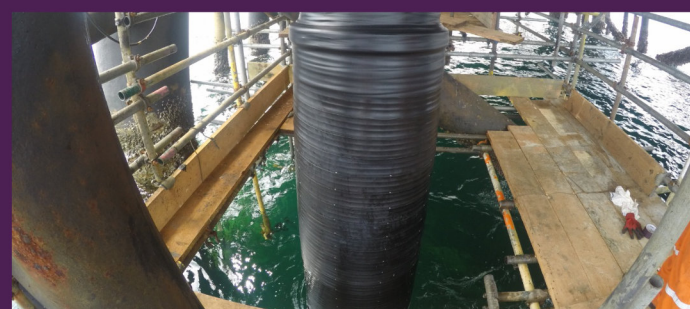
Plate in position on the leak area. Vacuum system activated remotely to hold the plate



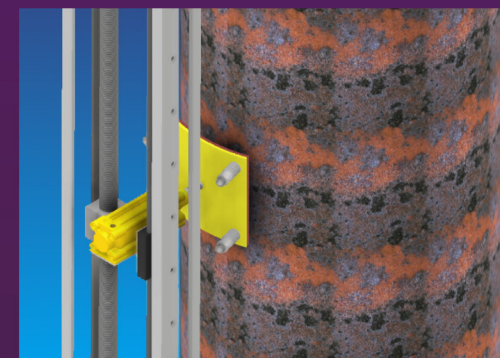
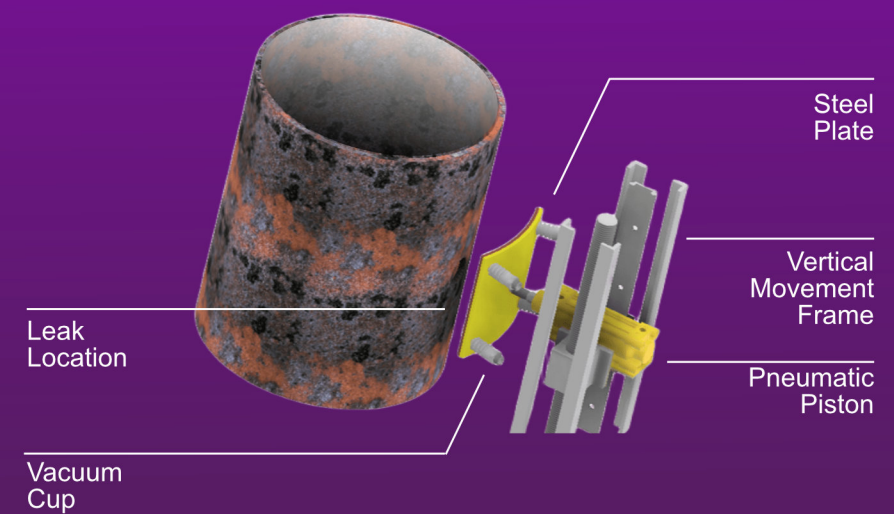
Piston activated to push plate towards pipe surface. Metal sealant in contact to create bond between plate and pipe



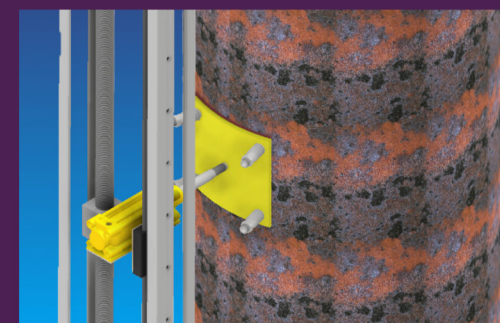
Once the metal sealant has cured, piston is released. Metal plate remains in place ready for the Helicoid Epoxy Sleeve[®] to be installed.



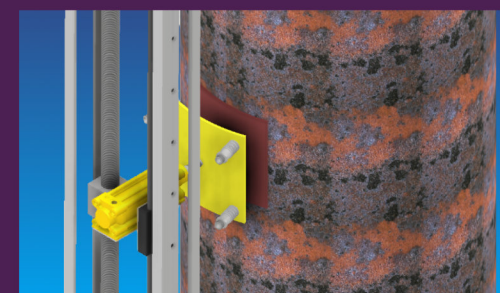
Helicoid Epoxy Sleeve[®] for final wrap over the patch



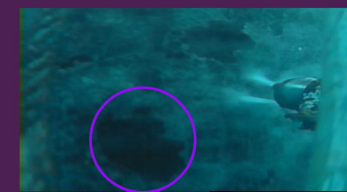
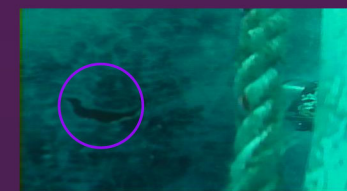
Identify Leak Area - the pipe section with an active leak is identified and prepared for containment; then we will position Containment Plate - a metal containment plate aligned over the leak on the pipe surface.



Activate Piston Mechanism - the piston is activated to push the plate firmly against the pipe surface, with the metal sealant being introduced at the interface, filling gaps and forming a tight seal between the plate and the pipe.



Sealant Curing - The sealant is allowed to cure, creating a strong bond between the metal plate and the pipe surface, after which the vacuum driven actuators is released. After full curing, the vacuum and piston mechanisms are safely retracted. The bonded metal plate remains in place, effectively sealing and containing the leak.



Underwater images of actual repairable leaks of various sizes

