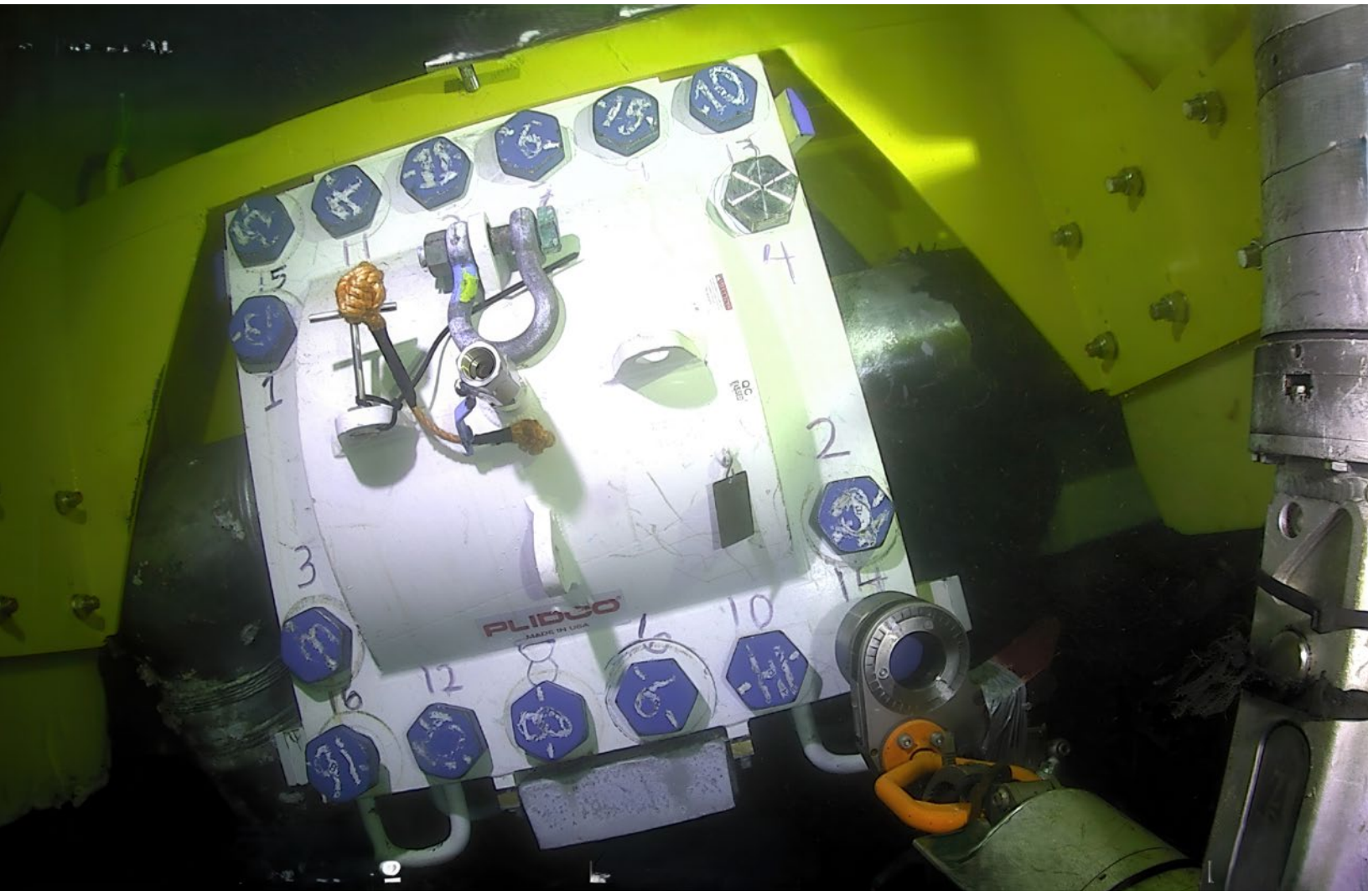
CASE STUDY

PLIDCO®



RESTORING OFFSHORE OPERATIONS

WITH ROV-INSTALLED PIPELINE REPAIR IN ANGOLA

CASE STUDY

RESTORING OFFSHORE OPERATIONS
WITH ROV-INSTALLED PIPELINE REPAIR IN ANGOLA

CLIENT:
Stapem Offshore

INDUSTRY:
Subsea Oil & Gas

LOCATION:
Offshore Angola, Atlantic Ocean

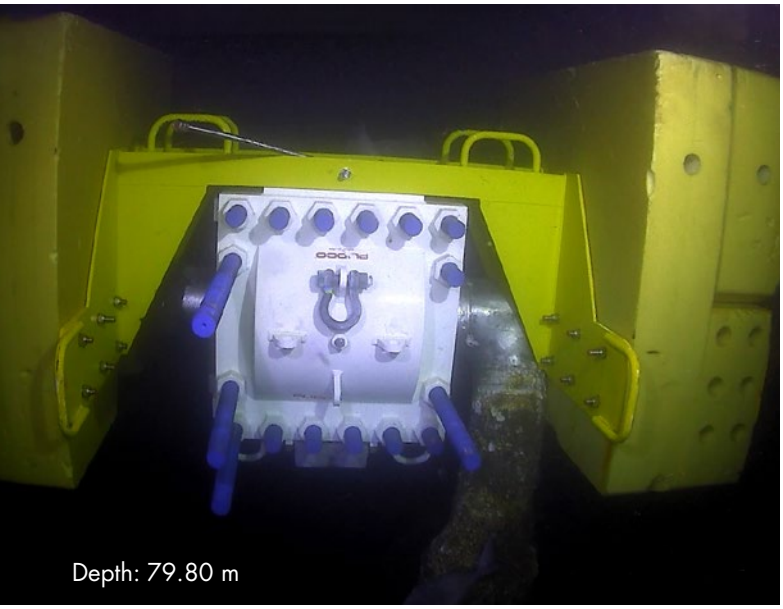
SOLUTION PARTNER:
PLIDCO®
The Pipe Line Development Company

THE CHALLENGE

A significant subsea leak was discovered on a 10" water injection line serving an offshore oil platform off the coast of Angola. The leak originated from a compromised 900# flange assembly on a branch line, located at a depth of 80 meters (262 feet) beneath the ocean surface. The pipeline was shut down, halting injection operations and impacting oil production.

Due to the depth and harsh underwater environment, traditional diver-installed clamp repairs were not feasible. The client, Stapem Offshore—a France-based provider of marine and subsea support services with strong operations in West Africa—needed a remotely operated solution. This would require a clamp that could be precisely installed by an ROV to ensure safety, limit environmental exposure and restore operations without delay.

Stapem Offshore's subsea intervention partner Film-Ocean, a Stapem Group company specializing in ROV services, was tasked with coordinating the technical aspects of the subsea repair and engaged PLIDCO® to provide the engineered solution.



THE SOLUTION

PLIDCO®, a global leader in pipeline repair and maintenance fittings, was selected to design and fabricate a custom clamp solution capable of remote subsea installation. After initial discussions and review of the site conditions, PLIDCO® recommended a Flange Repair Split+Sleeve—a high-integrity fitting engineered specifically for this type of application.

The design process began with dimensional data provided by Film-Ocean and validated using 3D photogrammetry. This advanced imaging provided accurate, high-resolution measurements of the pipe's outer diameter, flange face, stud lengths and ovality—details that would have been

difficult to measure reliably using conventional tools. This ensured that the final fitting would precisely match the existing flange assembly, eliminating the risk of installation misalignment.

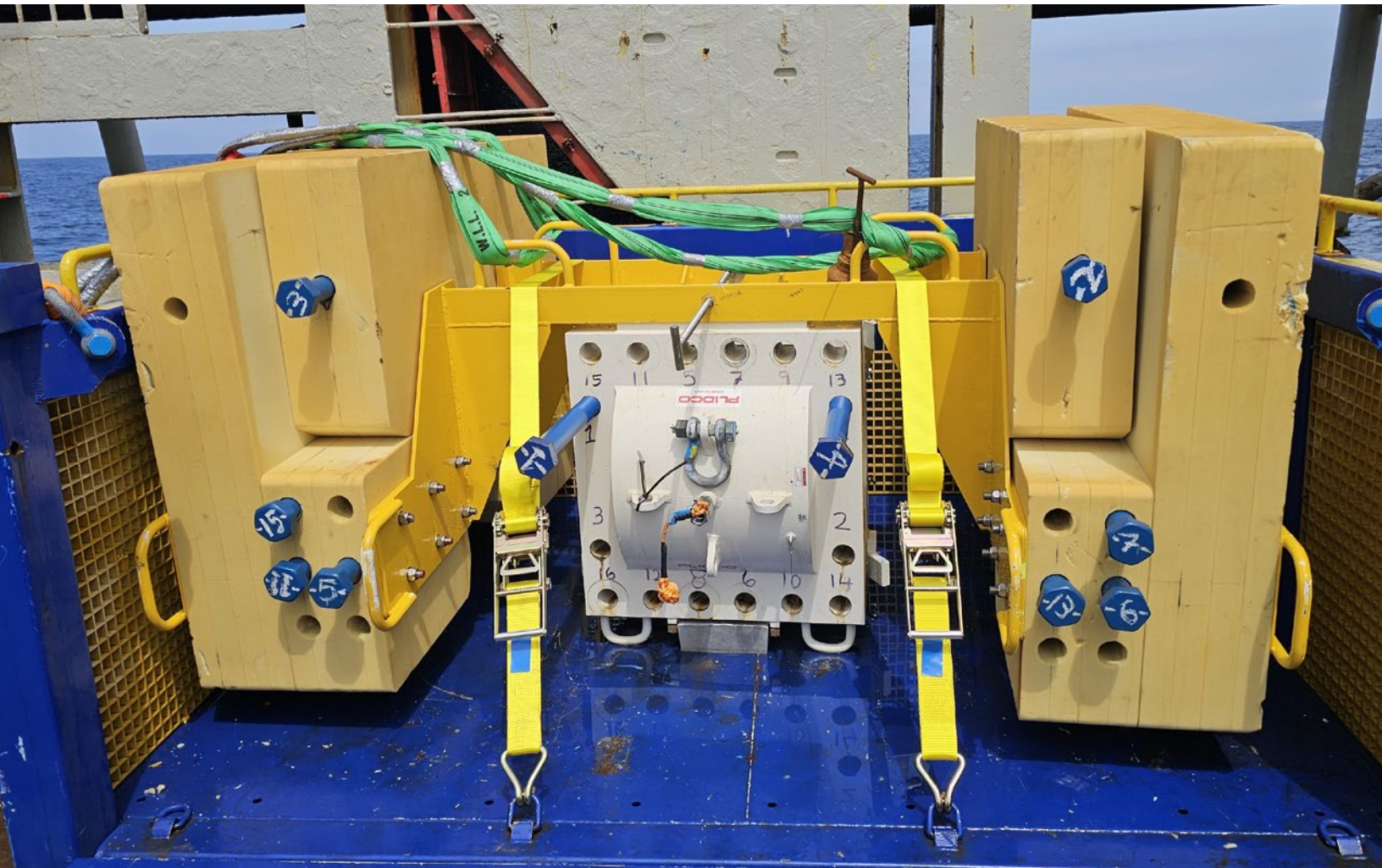
The fitting was custom built to ASME Section VIII Division 2 standards at PLIDCO®'s facility in Strongsville, Ohio. It fully encapsulated the damaged 10" ASME B16.5 900# flange set and was engineered to form a pressure-tight seal—without any need for welding. To protect against long-term corrosion, the fitting featured a marine epoxy finish, coated studs and nuts, and attached anodes for cathodic protection. The sealing elements were carefully selected for compatibility with the temperature and fluid characteristics of the injection line.

To accommodate remote handling and reduce installation complexity, the fitting was integrated with a Walker Subsea buoyancy attachment. This addition reduced the fitting's effective weight underwater, allowing it to be safely maneuvered into place by an observation-class ROV.

Despite the engineering complexity and urgency of the repair, PLIDCO® completed and delivered the custom solution on an expedited timeline to meet the client's operational deadline.

"The PLIDCO® fitting worked exactly as we needed—it completely stopped the leak. While our on-site manager was fantastic to work with, credit really goes to the whole PLIDCO® team. Their support and coordination throughout the process made a tough ROV install go smoothly. I'd be happy to work with PLIDCO® again on our next clamp install."

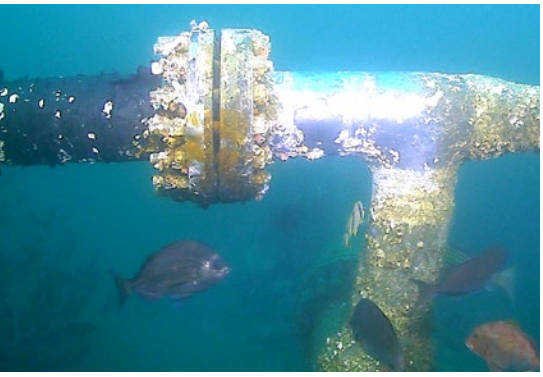
— Film-Ocean Superintendent

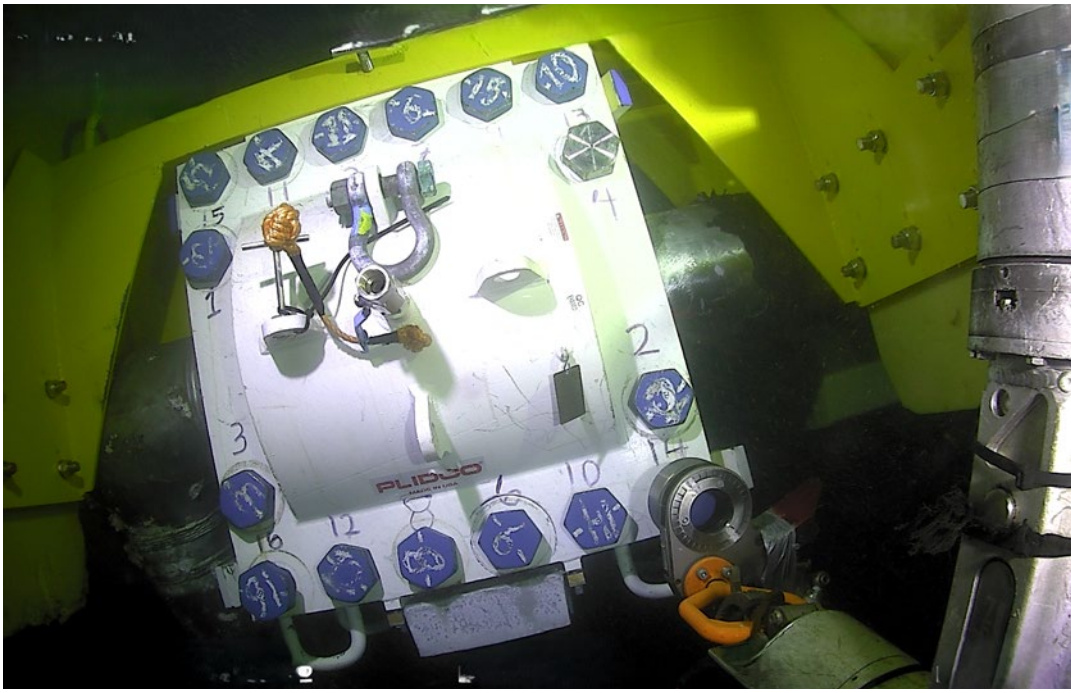


THE RESULTS

To ensure successful execution, PLIDCO® dispatched experienced service technicians offshore to support the Film-Ocean team during installation. They provided real-time troubleshooting, installation supervision and technical guidance to ensure that the operation went smoothly.

The clamp was installed using an ROV, with no need for diver intervention. Once in position, it achieved a secure seal around the leaking flange assembly. An eight-hour hydrostatic pressure test confirmed the integrity of the repair—no pressure loss and no evidence of further leakage.





With the leak fully contained and the system restored, the operator avoided further production losses, minimized environmental exposure and maintained the safety of offshore personnel.

This successful collaboration highlights the value of precision engineering, advanced planning and hands-on field support in complex offshore environments. It serves as a model for how custom ROV-installable repair solutions can restore critical infrastructure safely and efficiently.

Contact us today to learn why PLIDCO® has been the trusted source for pipeline fittings and maintenance products used around the globe for 75+ years.

PLIDCO®
11792 Alameda Drive
Strongsville, Ohio 44149

USA +1 440-871-5700
Fax +1 440-871-9577

pipeline@plidco.com
www.plidco.com