

Case Study

Installation of Helicoid RSS Epoxy Sleeve[®]

Type of Work

Caisson Repair
Services

Location

Sarawak, Malaysia

Client

ENEOS Explora Inc.

Platform

Helang HIP

Project Completed

June 2025



CAISSON REPAIR

Background:

In June 2025 we had to undertake one (1) number of 40-Inch Caisson repair for leak containment and protection located offshore in the waters of Sarawak, Malaysia with a total 5m of repair length. The caisson had multiple leaks via pinhole punctures located along the axial length at multiple locations 3m under the MSL at the splash zone area.

Scope:

- To perform Surface Preparation via High Pressure Water Jetting removing the existing coating and marine growth.
- To perform leak containment using Helicoid RSS.
- To perform winding of HDPE sleeve with carbon fibre reinforcements
- To perform mixing and injection of epoxy grout for the Helicoid sleeve.

Client Benefit:

- Caisson repair was successfully installed using Helicoid RSS system at the splash zone area. The leak containment was executed with out divers and an integrated diving vessel support. The hybrid system of patch seal and the Helicoid provided a long term solution at a fraction of the cost of a conventional repair method.

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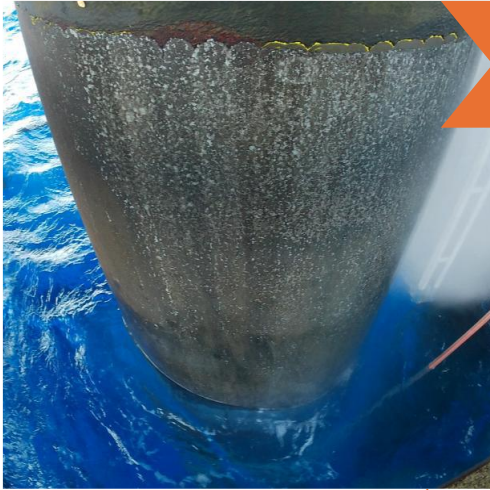
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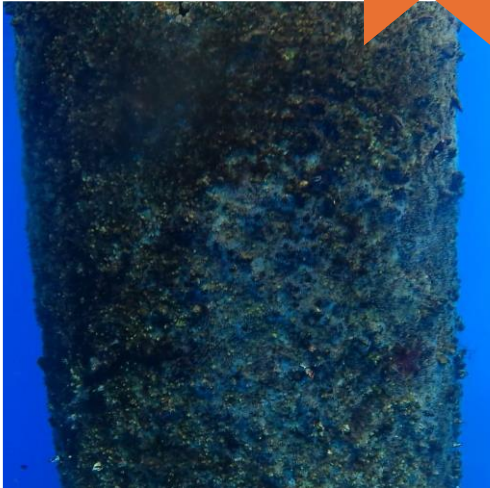
**CAISSON
REPAIR**



Surface Preparation



Helicoid RSS Installation



Initial Condition



Patch plate being setup
neumatically



Completed Installation

