



COMPA Repairs® is a method for **fast and durable repair** and **reinforcement of damaged ship structures and pipes** using composite materials — carbon and glass fibres mixed with epoxy resin/adhesive.

## USE of COMPA Repairs

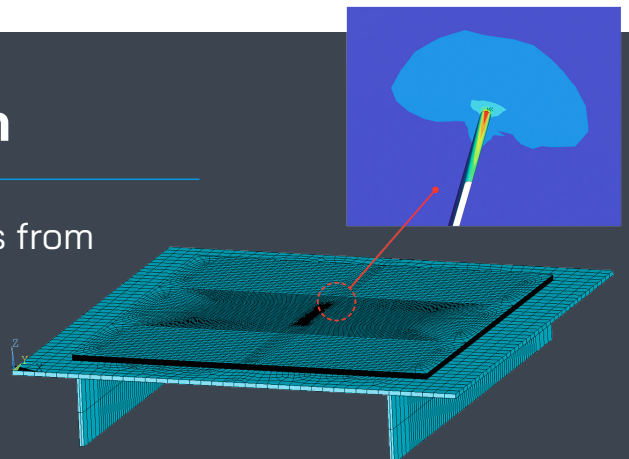
- ✓ To reinstate strength and stiffness of the damaged, corroded or cracked structure or system
- ✓ To provide watertightness

## BENEFITS of COMPA Repairs

- ✓ Fast and cost-efficient
- ✓ Safe — no hot works involved
- ✓ Done during a voyage or port operations
- ✓ Applicable to any structure reachable by hand and to any shape

## Engineering and application

COMPA Repairs process make several steps from repair design to application. The design of the repair involves numerical calculations that provide input for the repair application.



# COMPA Repairs case studies

## 500m of BALAST PIPING

on board a bulk carrier vessel



12 days



in a port



BEFORE REPAIR



AFTER REPAIR

500m of ballast piping was heavily corroded and it was leaking sea water on numerous places. Minding all the safety standards, the repair lasted 12 days and it was conducted during the vessel's dry docking.

## HEELING TANK FLOOR and BALLAST TANK BULKHEAD

on board a Ro-Ro vessel



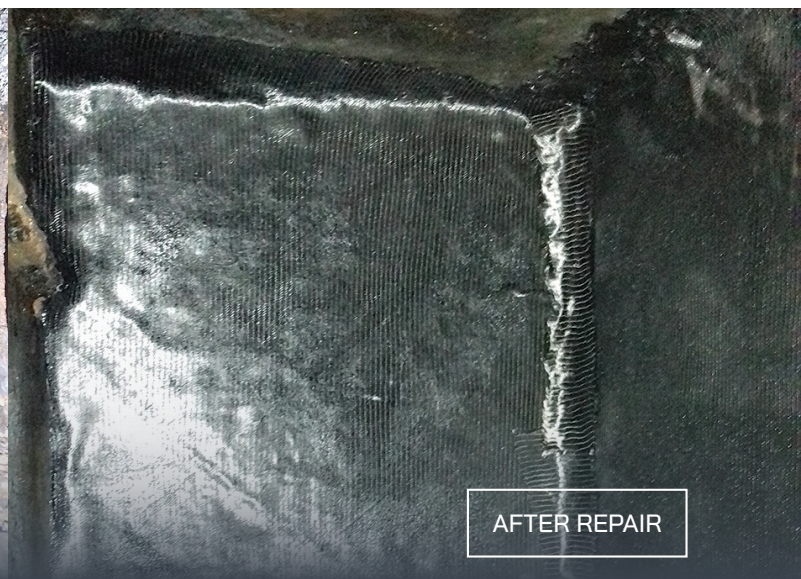
3 days



during voyage



BEFORE REPAIR



AFTER REPAIR

The floor and the bulkhead plates in ballast tank were corroded and HFO was leaking into the sea water through the plates. The repair was conducted during the vessel's voyage that lasted 3 days.

# Join our network of representatives and technical agents

We are interested in:

**Representatives** and **sales agents** with a local presence in various markets and world ports

**Technical agents** that will be able to apply the technology, after a training provided by our team, having our constant support

Our partners will benefit from:

- ✓ **The use of the brand that is rapidly establishing itself in the world of shipping**
- ✓ **A unique product with high added value for customers**
- ✓ **The competence of the COMPA Repairs team in finding the best solution**
- ✓ **Continuous training and consultancy support**

## COMPA Repairs LICENCE

COMPA Repairs Licence offers a possibility to become a trained COMPA Repairs partner and to provide COMPA Repairs services.

Through the licencing agreement, partners receive:

- ✓ **Training**
- ✓ **Access to COMPA Repairs know-how, software and tools**
- ✓ **Support in engineering and operations**
- ✓ **Updates on technology development**

The screenshot displays the eCOMPA software interface for creating a repair case. The 'Basic Information' tab is active, showing various input fields for repair details. The 'Input' section includes dropdowns for 'Choose repair type' (Tank plate), 'Specify type of damage' (Corroded), and 'Specify patch function' (Restore watertightness only). It also has text inputs for 'Specify initial thickness of the plate (mm)' (10), 'Specify thickness of the corroded steel (mm)' (1), 'Specify operating temperature (°C)' (0), 'Specify location on the vessel' (Cargo hold deck), 'Specify type of procedure' (Wet lay-up), and 'Specify position of the technician in relation to the repair surface' (Overhead and corner with vertical). A 'Suggest Lay-up' section has 'Yes' and 'No' buttons. The 'Description of the problem' section includes a 'Damage details' area with an 'Import image of the damage' button and a 'Dimensions' area with a diagram of a damaged area and inputs for 'Width - A (m)' and 'Height - B (m)'. The 'Lay-up suggestions' table lists five layers with their thickness, orientation, and fibre type. The 'Surface weight (g/m2)' is set to 200, and the 'Resin to be used' is West System 105. The 'Total thickness (mm)' is 1.358.

Layer	Thickness, mm	Orientation, °	Fibre
1 Layer 1	0.274	-	Chopped strand glass fabric
2 Layer 2	0.274	-	Chopped strand glass fabric
3 Layer 3	0.274	-	Chopped strand glass fabric
4 Layer 4	0.268	0	Bi-Axial 0/90 carbon fibre fabric
5 Layer 5	0.268	45	Bi-Axial 0/90 carbon fibre fabric

# Approvals

COMPAs Repairs technology received a Statement of Feasibility from **DNV GL**.



The company has received **ISO 9001:2015** certificate for quality of management by Bureau Veritas and has been certified for COMPAs Repairs by, an IACS member, **CRS Croatian Register of Shipping**.



## About us

Alveus d.o.o., founded in 2006, is an expert in development and application of composite technologies with extensive experience in ship design and engineering.

**COMPAs Repairs team make naval architects, mechanical engineers and composite experts who are stand by to execute COMPAs Repairs.**

We have a record of successful applications of COMPAs Repairs on ships in cases such as ballast piping and tanks, sewage and HFO tanks, thermal oil piping, valves, flanges, decks, bulkheads, garage floors, air-conditioning units etc.

Also, we are mastering engineering analyses based on which we design optimal repair solutions.

**COMPAs Repairs technology is owned by Alveus d.o.o.**

## Contacts

[www.comparepairs.com](http://www.comparepairs.com)  
[info@comparepairs.com](mailto:info@comparepairs.com)  
**T** +385 51 219 591



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 806018.