



ReBuild

Product Brochure
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MSc4 -ID13
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ReBuild

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Synopsis

The project ReBuild revolves around a mechanism for fastening of functional modules on to commercial vessels in order to enable re-assembly

The solution is a mechanism relying on standard components in a wire system. The mechanism applies tension to wires mounted from module to deck, and thereby fasten the module firmly into place.

ReBuild is designed with the use scenario in focus and the solution is scalable in order to also mount onboard cranes and cargo.

Mikkel Bech Nielsen

Introduction

This brochure is aimed to appeal to potential clients on fairs and at meetings, by presenting ReBuild and its function.

ReBuild is the mechanism of a modular system designed for Tuco Marine Group. It enables modular re-assembly of Tuco's commercial composite catamarans.

Functions are divided into modules which ReBuild attach to a given platform of 12, 15 or 17 meters. These modules are available as standard solutions and can be designed to suit specific demands.

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ReBuild

ABOUT

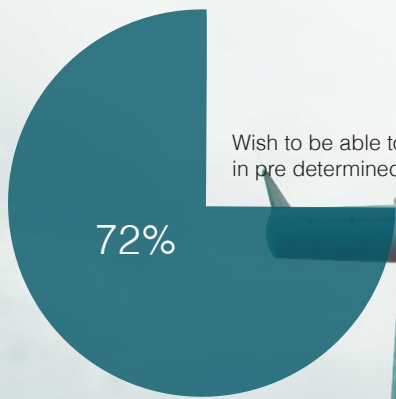
ReBuild is a unique feature by Tuco, allowing re-assembly of our commercial catamarans. This allows one single vessel to target multiple use scenarios. It is designed to support easy utilization in a re-assembly scenario

MODULAR

USE IN
FOCUS

VERSATILE





Wish to be able to build up their vessel in pre determined positions



28%

Wish to be able to build up their vessel without limitations

The common factor is individual build.
Tuco introduces Re-build



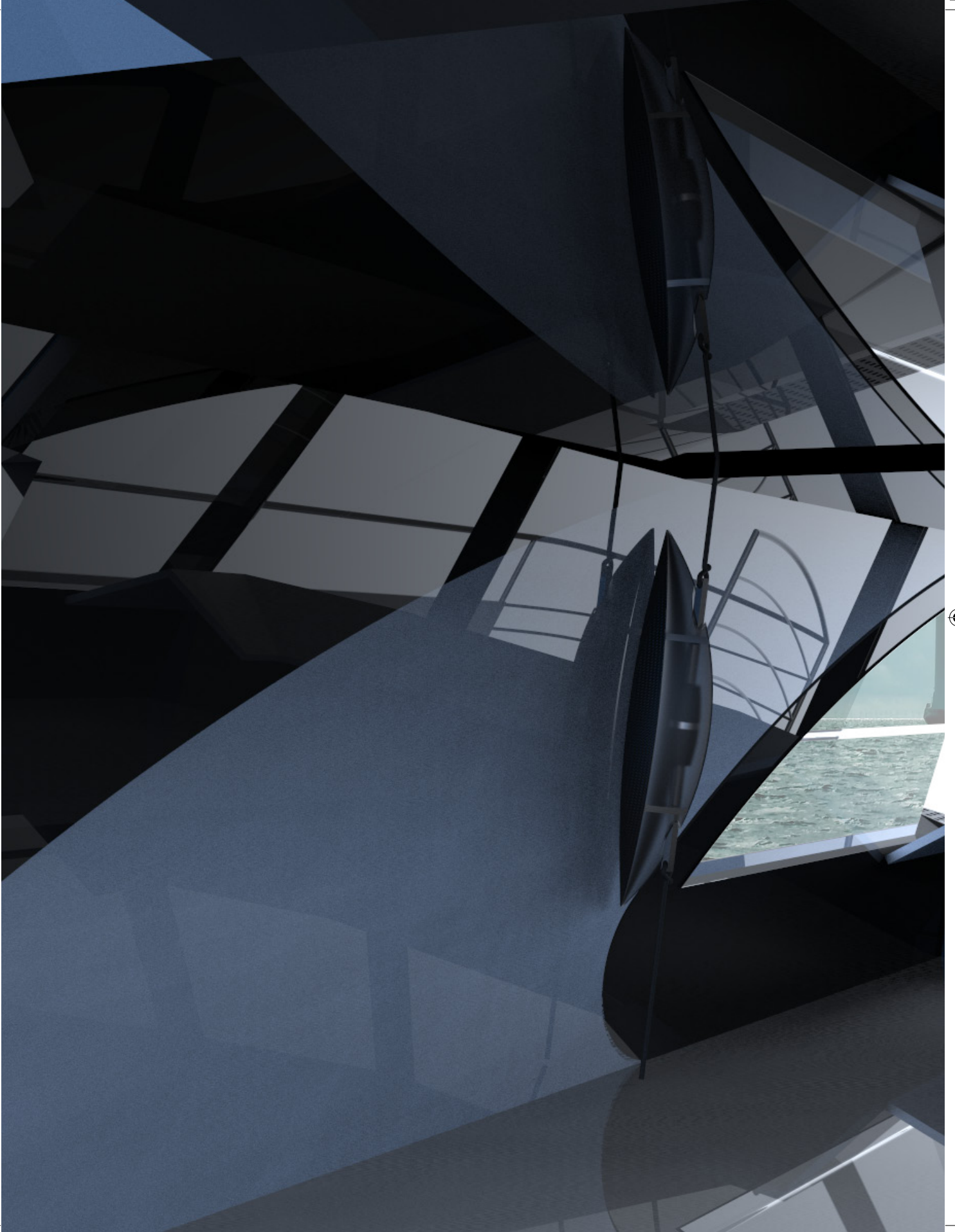


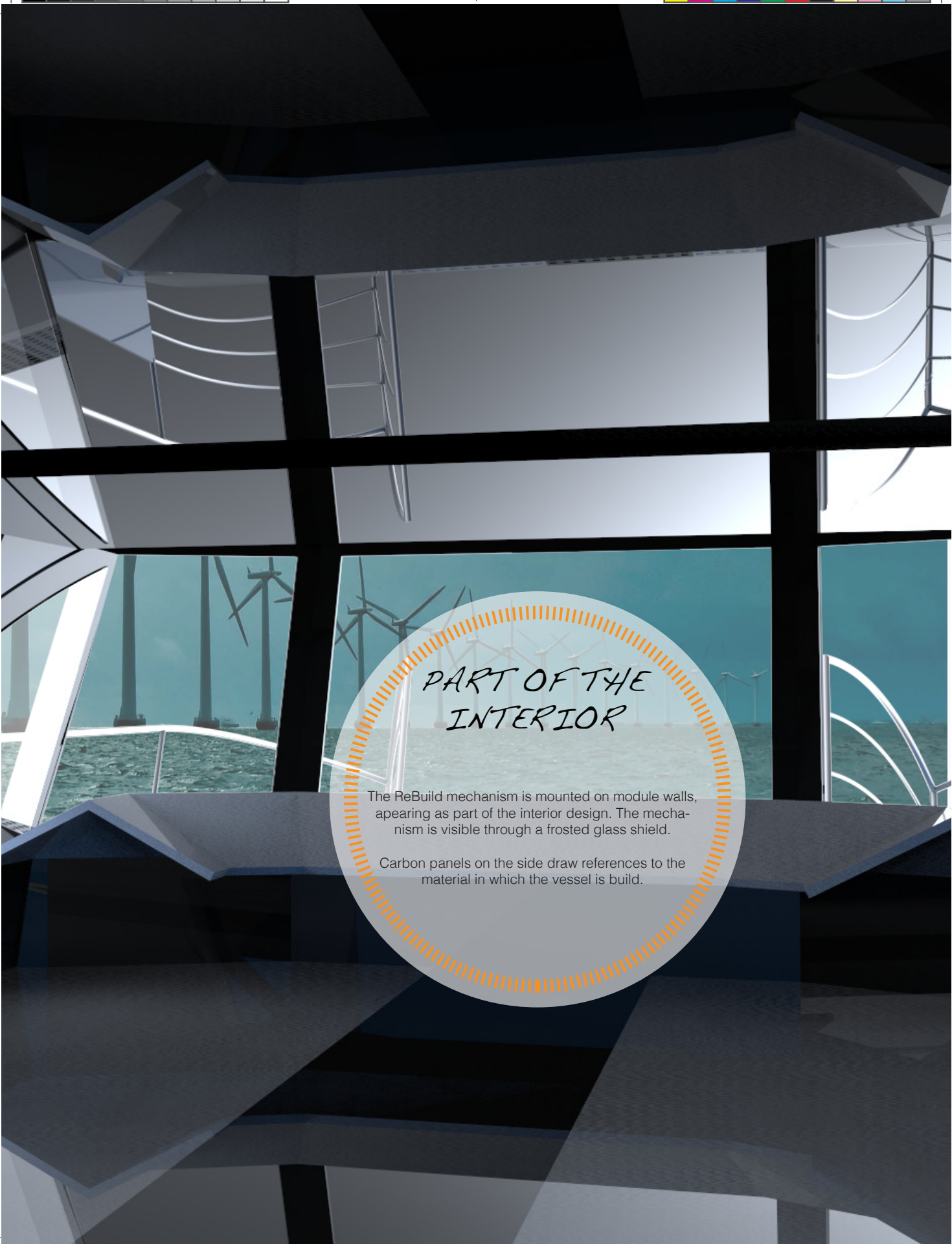
MODULARITY IS KEY

Commercial vessels are built to facilitate platforms for specific use scenarios. The design strives to bring versatility into the nature of the vessel, but once the vessel is complete, predetermined functionality and use dictates the scenarios in which the platform can work.

At Tuco, we eliminate predetermined scenarios by offering an innovative solution, enabling re-assembly of the vessel platform. Functions of the vessel is divided into modules which are placed on deck with our ReBuild mechanism. This allows the vessel to adapt to any given use scenario







PART OF THE INTERIOR

The ReBuild mechanism is mounted on module walls, appearing as part of the interior design. The mechanism is visible through a frosted glass shield.

Carbon panels on the side draw references to the material in which the vessel is build.

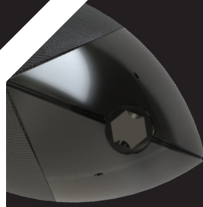
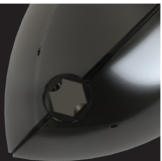


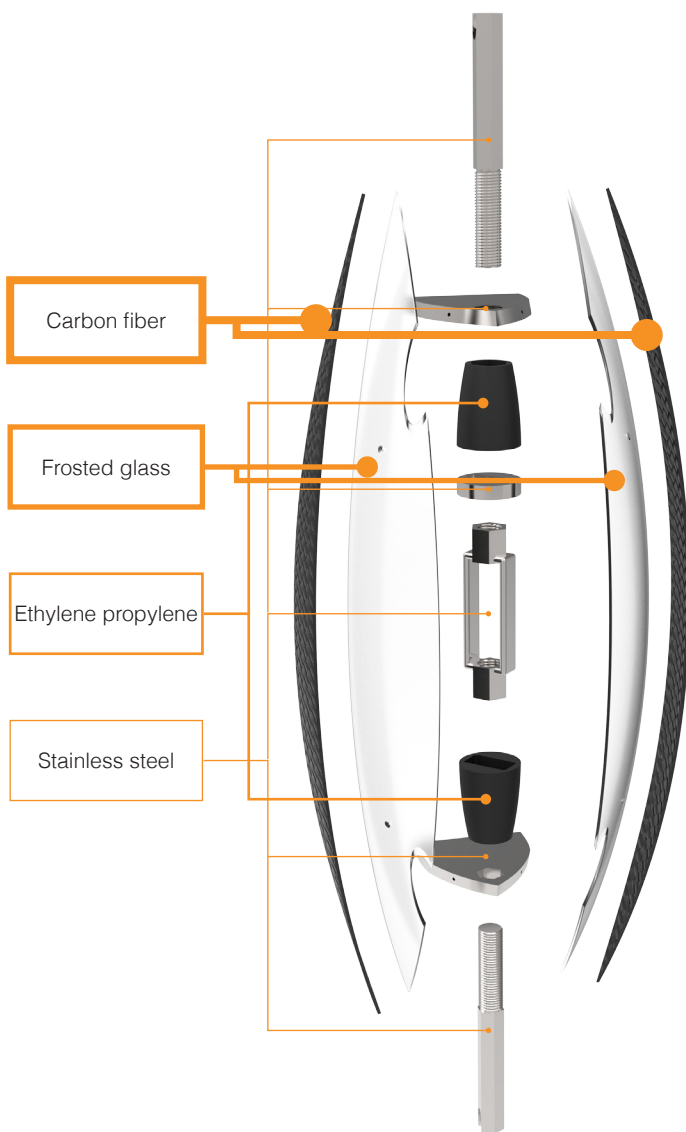


*FITS IN ANGLES
BETWEEN
90° and 180°*



Incorporation





DESIG BASED
ON STANDARD
COMPONENTS

The mechanism is based on a standard high tention turnbuckle of the brand WECALL. This enable ReBuild to withstand up to 100 kN

Materials

Carbon Fiber

- High tensile strength
- Good dimentional stability
- Aesthetic feature
- High stiffness

Frosted glass

- Trasculent
- High stiffness

Ethylene Propylene

- Abration resistant
- High friction
- Water resistant

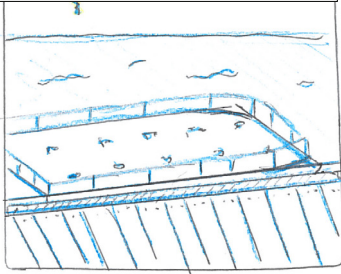
Stainless steel

- Corrosion resistance
- High tensile strength
- Good dimentional stability
- Quality
- High stiffness

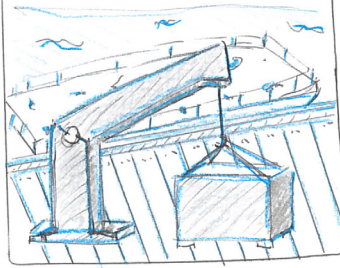


Use Scenario

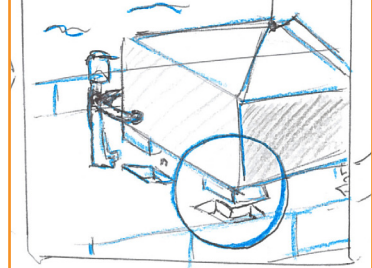
The vessel is docked at the harbor



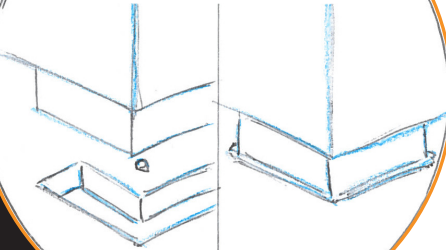
The crane lifts a module off the ground



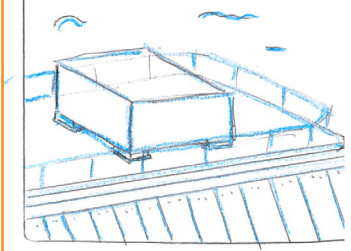
Module is lifted on to the deck, guided by a worker



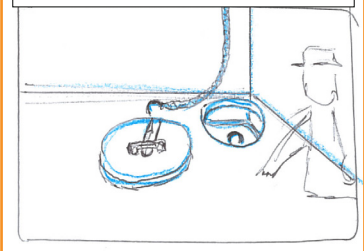
The worker guides the module into place



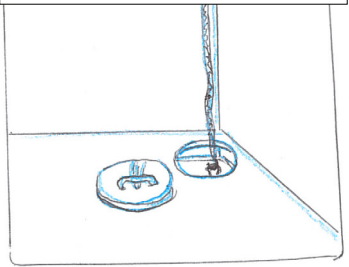
The crane is unhooked and the module is correctly placed on the deck



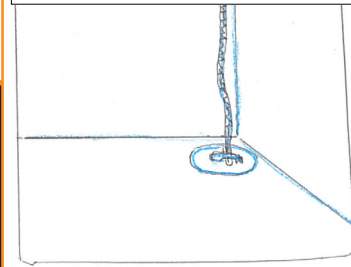
From the inside of the module, a lid is removed in each corner



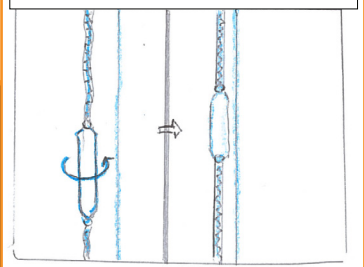
A worker places the rope hook in the attachment eye on the deck



The lid is placed, covering the opening and ensuring a watertight seal

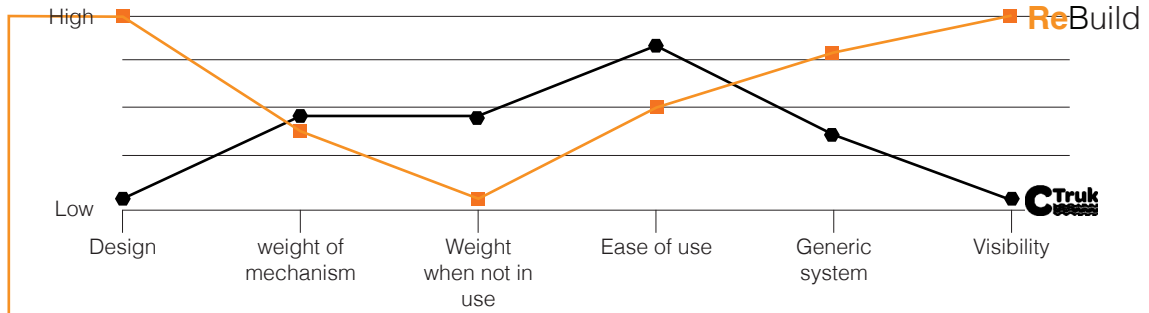


A mechanism tightens the rope, fastening the module to the deck

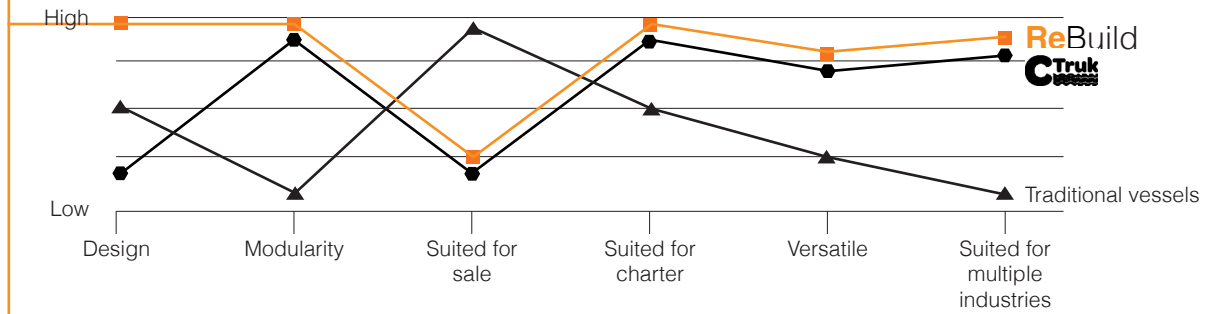




ReBuild compared to competitor CTruck



ReBuild and CTruck compared to traditional vessels

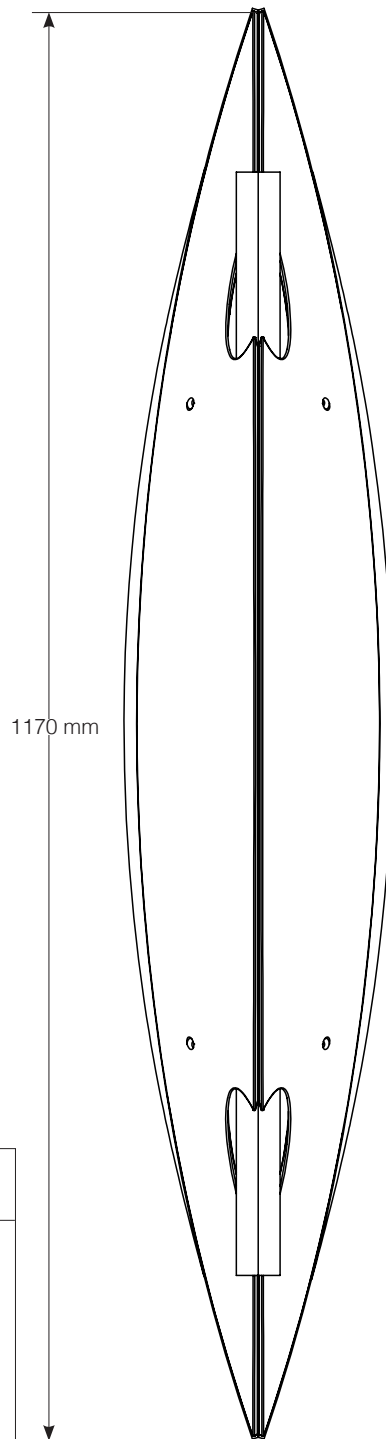
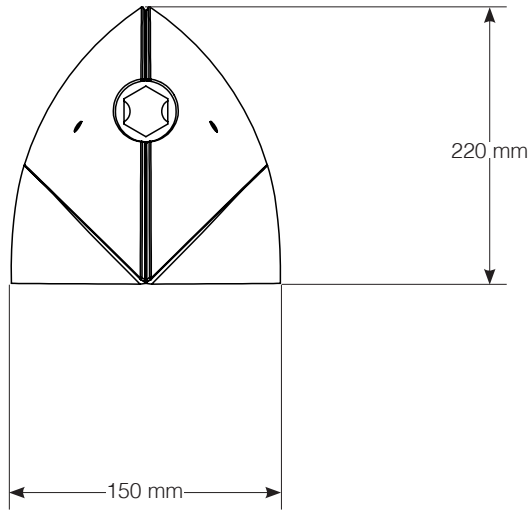


Benchmark





Simple technical drawings



Item	Quantity	Material
Turnbuckle	1	Stainless steel
Threaded hexagonal beam	2	Stainless steel
Bracket	2	Stainless steel
Turnbuckle sleeve	2	Ethylene Propylene
Sleeve mid section	1	Stainless steel
Glass shields	2	Frosted glass
Carbon shield	2	Carbon reinforced Epoxy



