

LIVING SEAWALLS

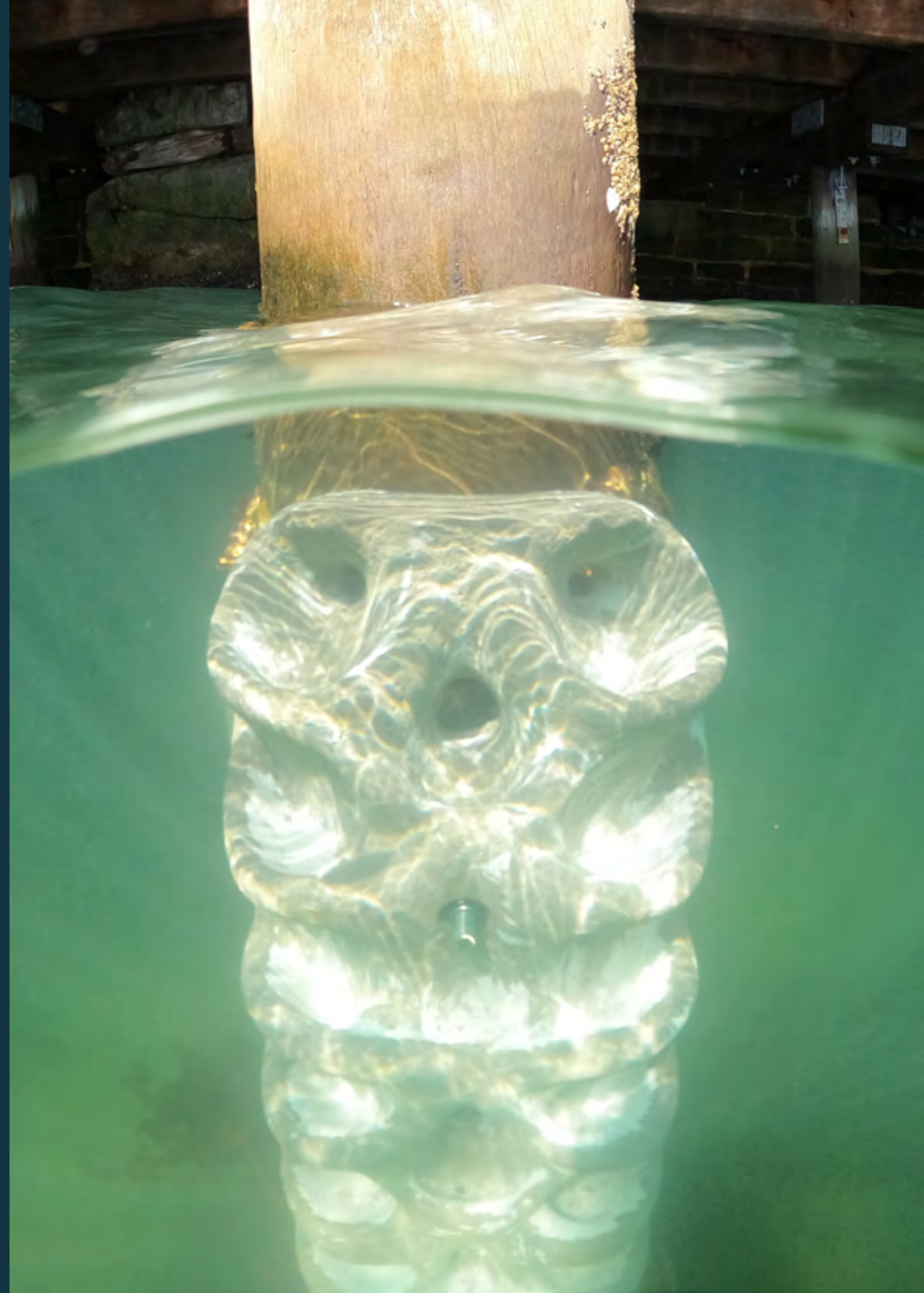


PILING HABITAT
MODULES

PRODUCT INFORMATION

JANUARY 2024

ENHANCING THE ECOLOGICAL VALUE OF
ARTIFICIAL MARINE STRUCTURES





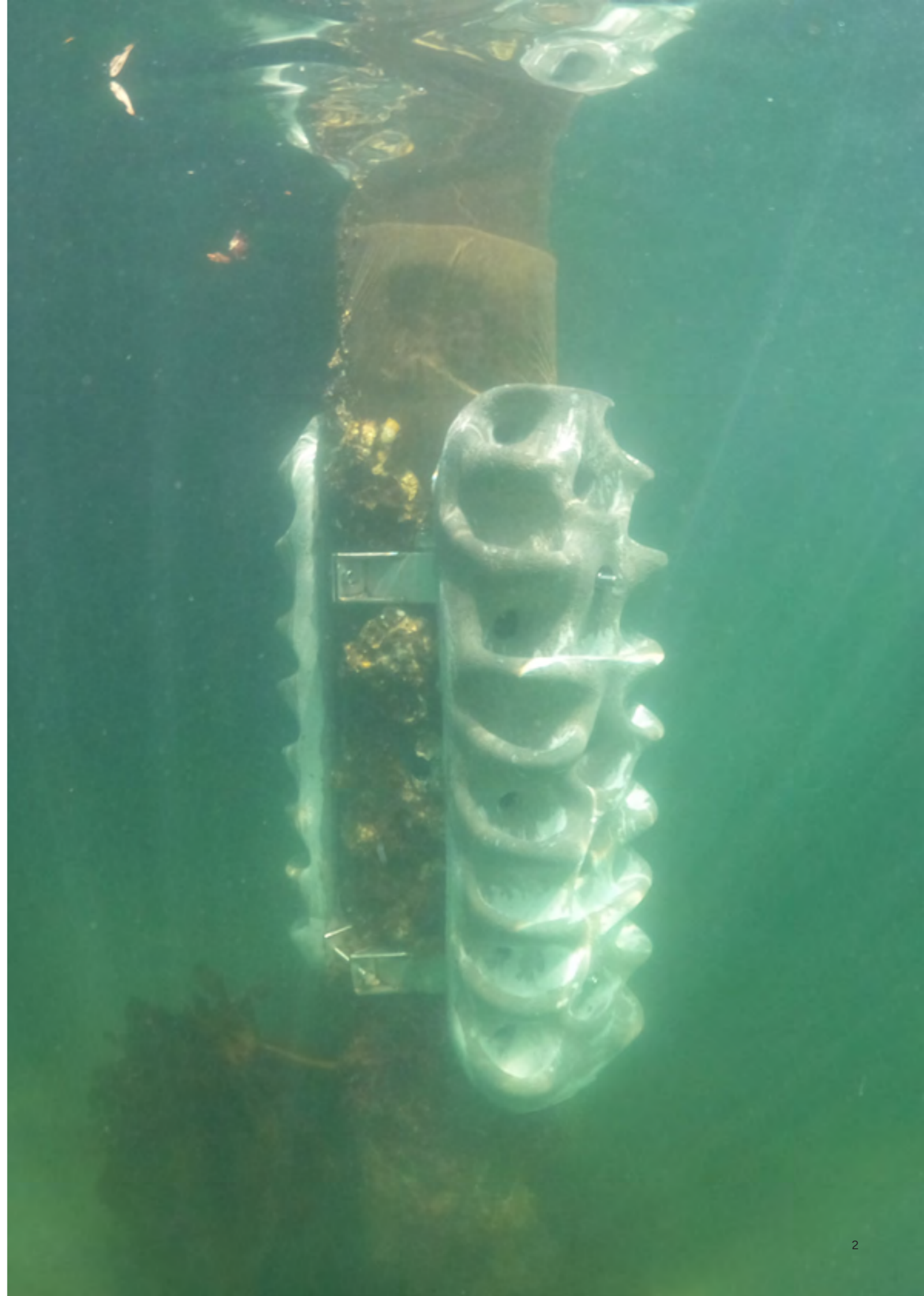
Living Seawalls Piling Habitat Modules

Building on the success of the Living Seawall habitat enhancement panels for seawalls, Living Seawalls now offers habitat enhancement modules designed for wharf pilings.

Living Seawalls Piling Habitat Modules are specifically designed to attach to marine piles, enhancing habitat and providing a sustainable and cost-effective solution to preserve marine ecosystems.

Product features:

- Habitat enhancement: The Living Seawalls Piling Modules are designed to enhance habitat for marine organisms, providing a sustainable solution to protect and restore marine ecosystems.
- Easy installation: These modules are designed to be strapped onto marine piles, without requiring any special tools or expertise.
- High-quality materials: Made from eco-concrete and stainless steel, these wraps are built to withstand harsh marine environments and provide long-lasting habitat enhancement.
- Customisable design: The Living Seawalls Piling Modules can be designed to fit specific marine environments, ensuring that they provide the best possible habitat enhancement for each location.
- Cost-effective: These modules offer a cost-effective solution to preserve and enhance marine habitats, without the need for expensive and ongoing maintenance.





Piling Habitat Modules

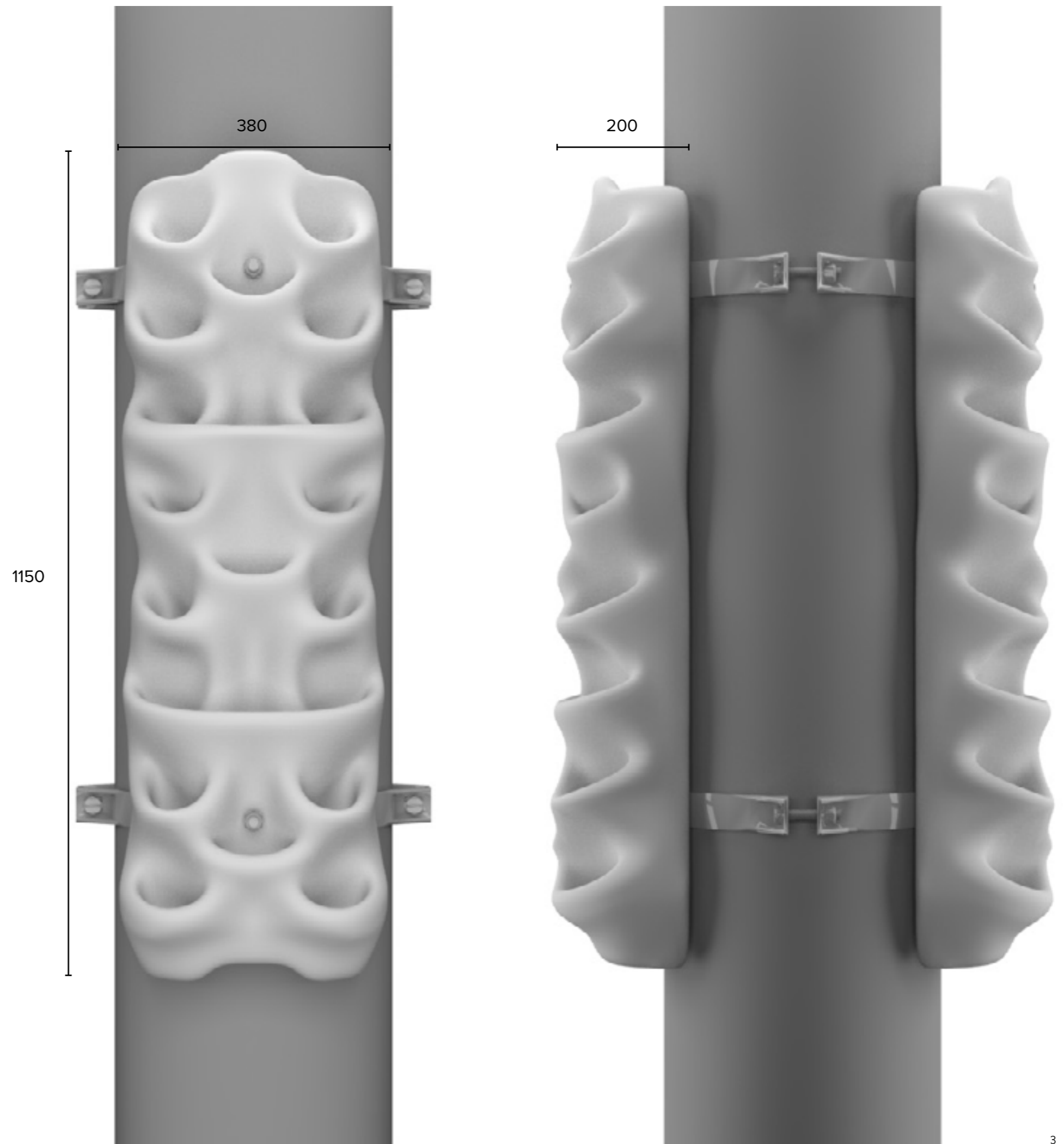
DIMENSIONS GIVEN IN mm

MATERIAL: 50MPa concrete with composite reinforcing bar.

WEIGHT: 73kg

FIXING: Stainless Steel 316 clamp

MANUFACTURE: Precast from a 3D printed moulding system, cured for 30 days.





Piling Module Assembly

CUSTOM 316 STAINLESS STEEL CLAMP

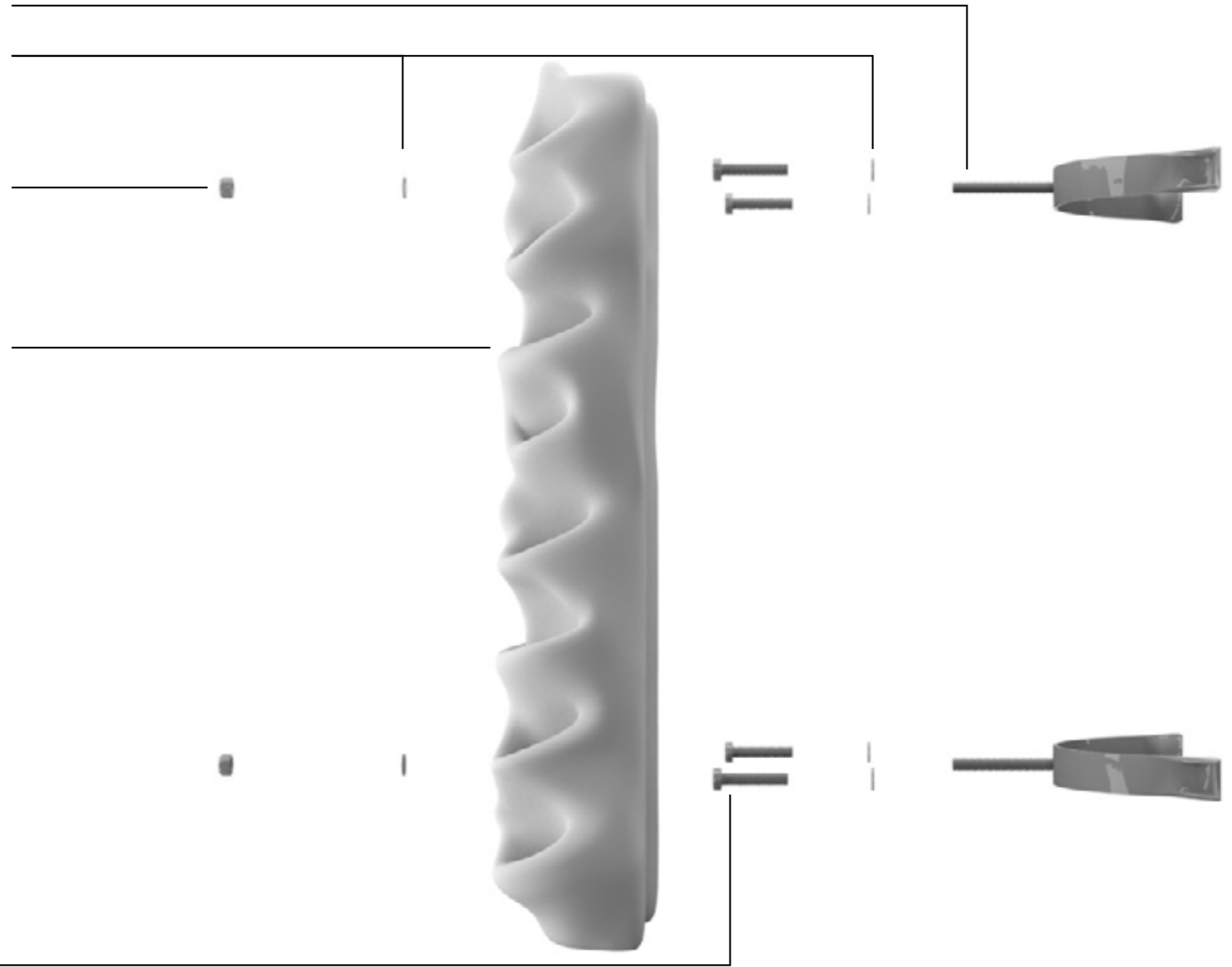
M16 316 STAINLESS STEEL WASHER

M16 316 STAINLESS STEEL NYLOC NUT

LIVING SEAWALLS PILING MODULE PANEL

M16 316 STAINLESS STEEL BOLT

MARINE PILE





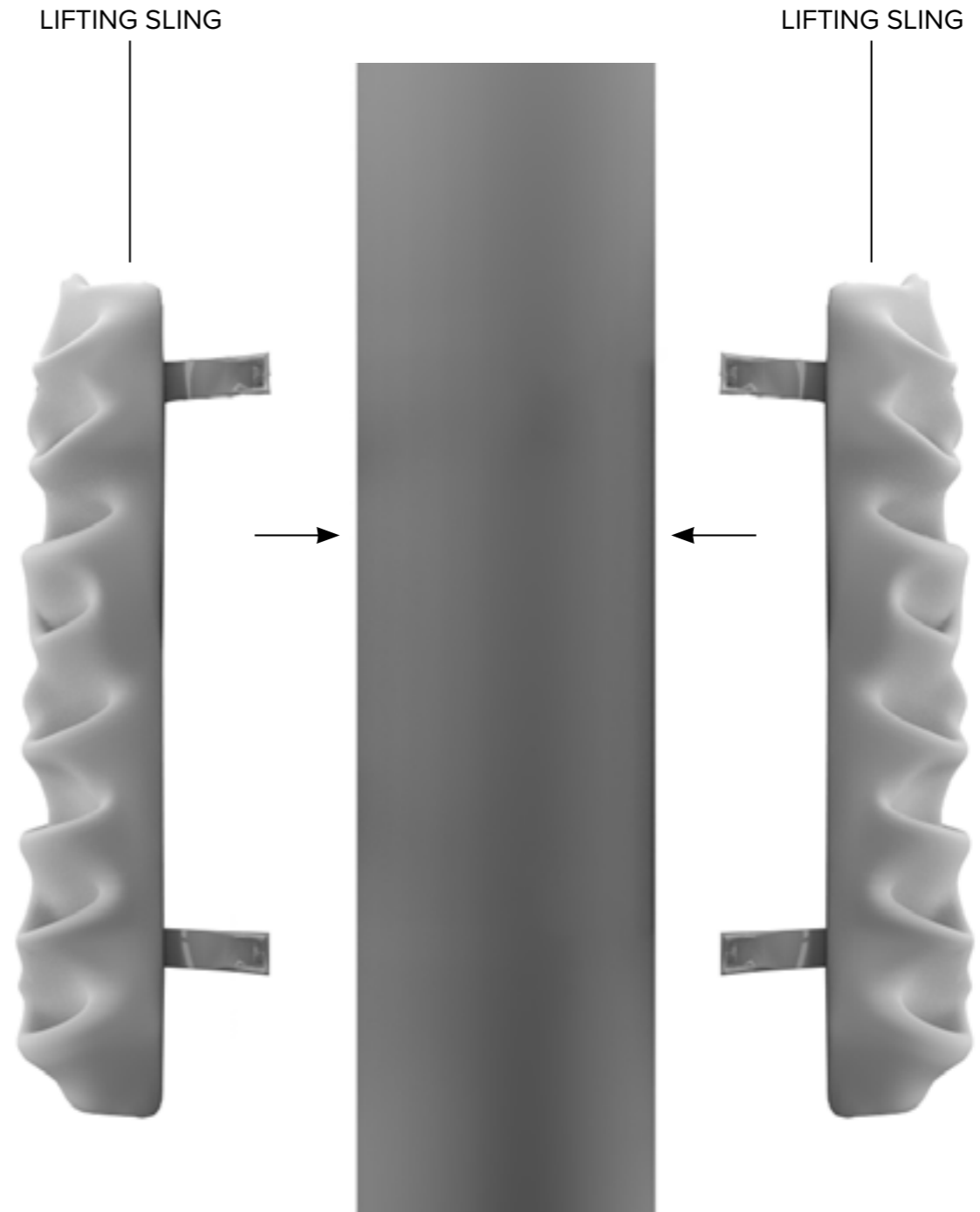
Installation

Living Seawalls Piling Modules are design for installation in the intertidal or shallow subtidal zones. For intertidal installations we suggest installation to occur during a low tide to avoid the need for commercial divers, however, some locations will require this.

- Individual units can be slung through the top center hole to help with installation.
- Weight of an individual unit is 73kg.
- Only use adequate lifting gear.
- Never lift a unit above a person.

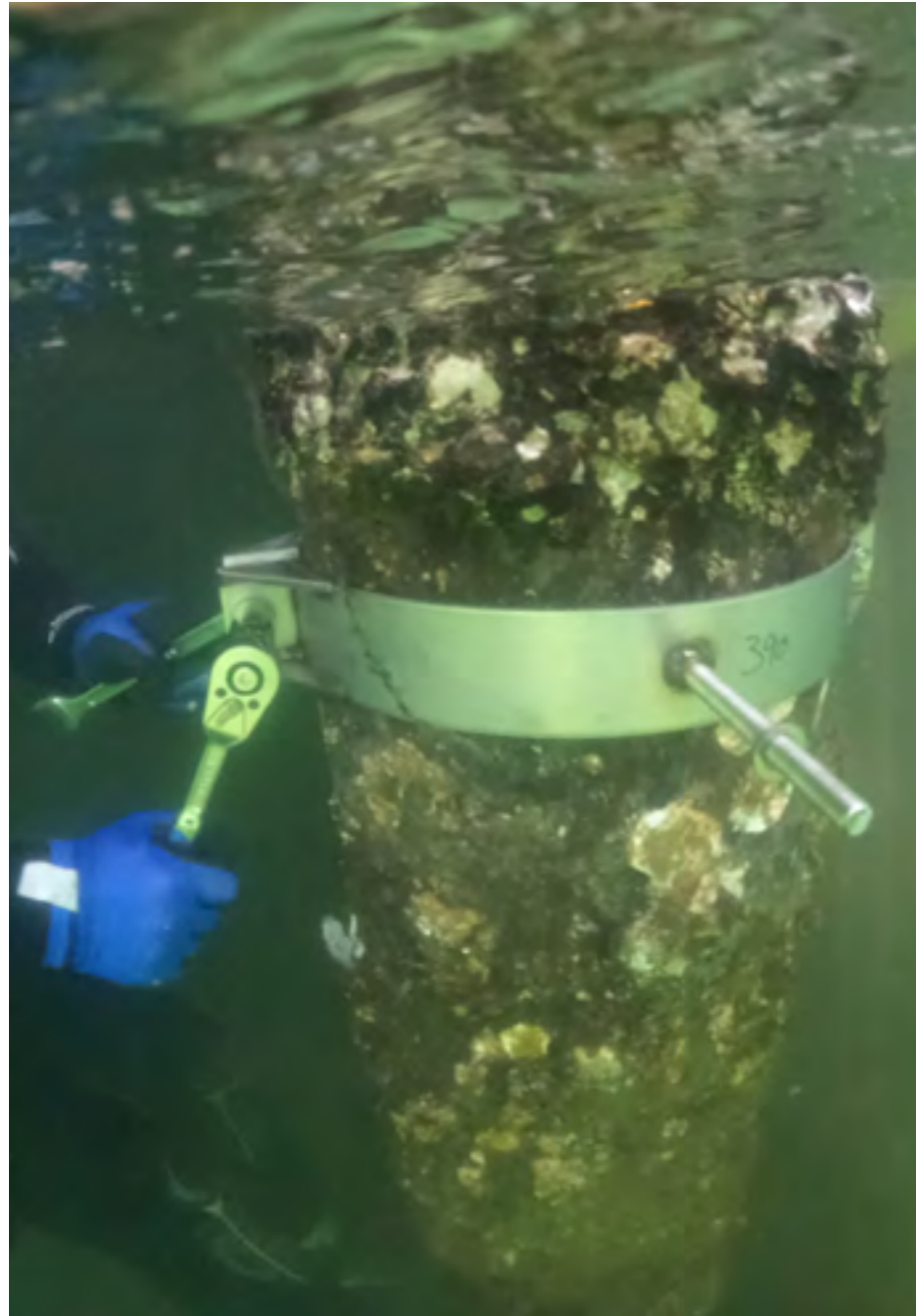
NB: Safe installation of the Living Seawalls Piling Habitat Modules are the responsibility of the contractor.



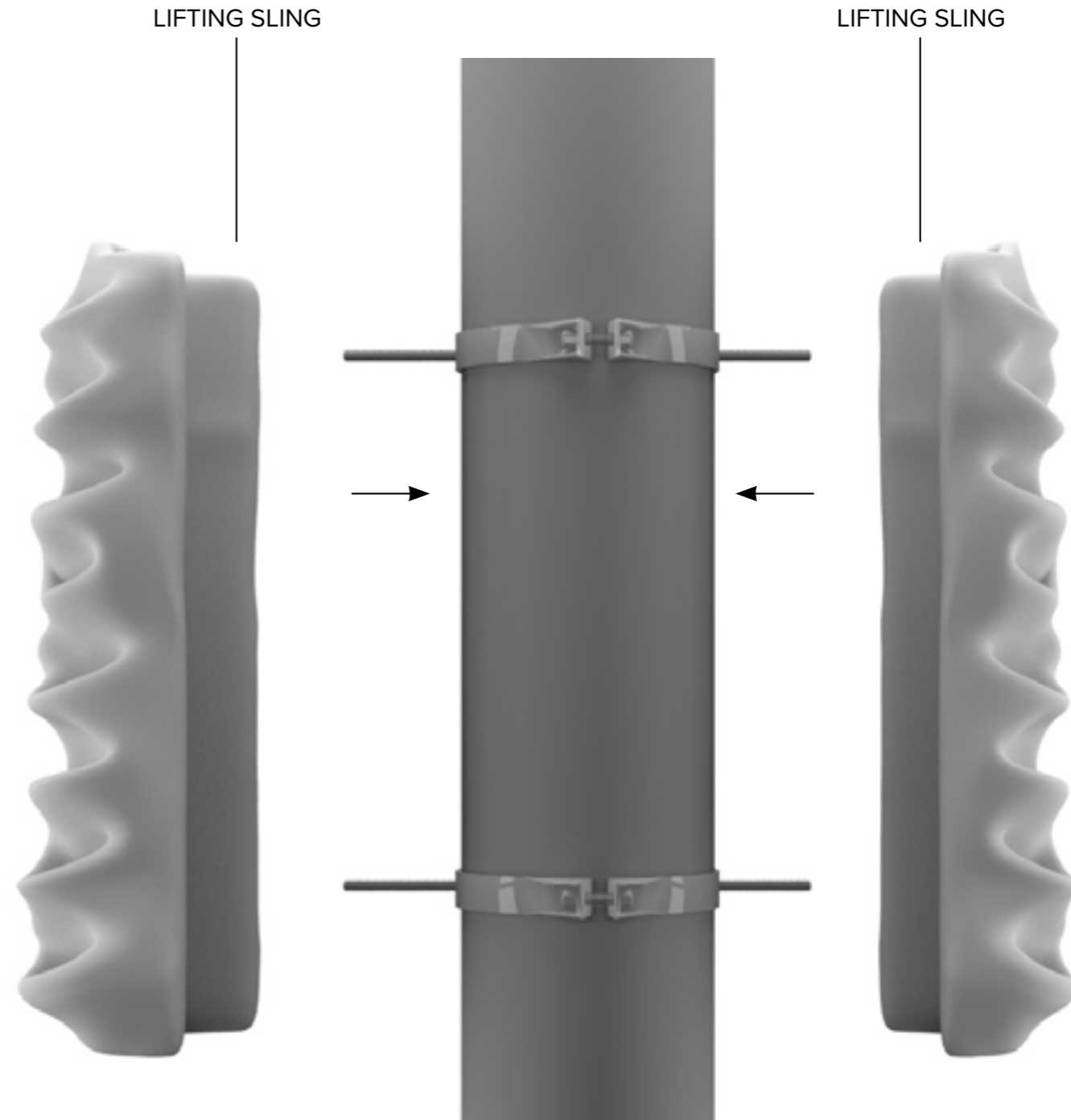


Installation Method 1

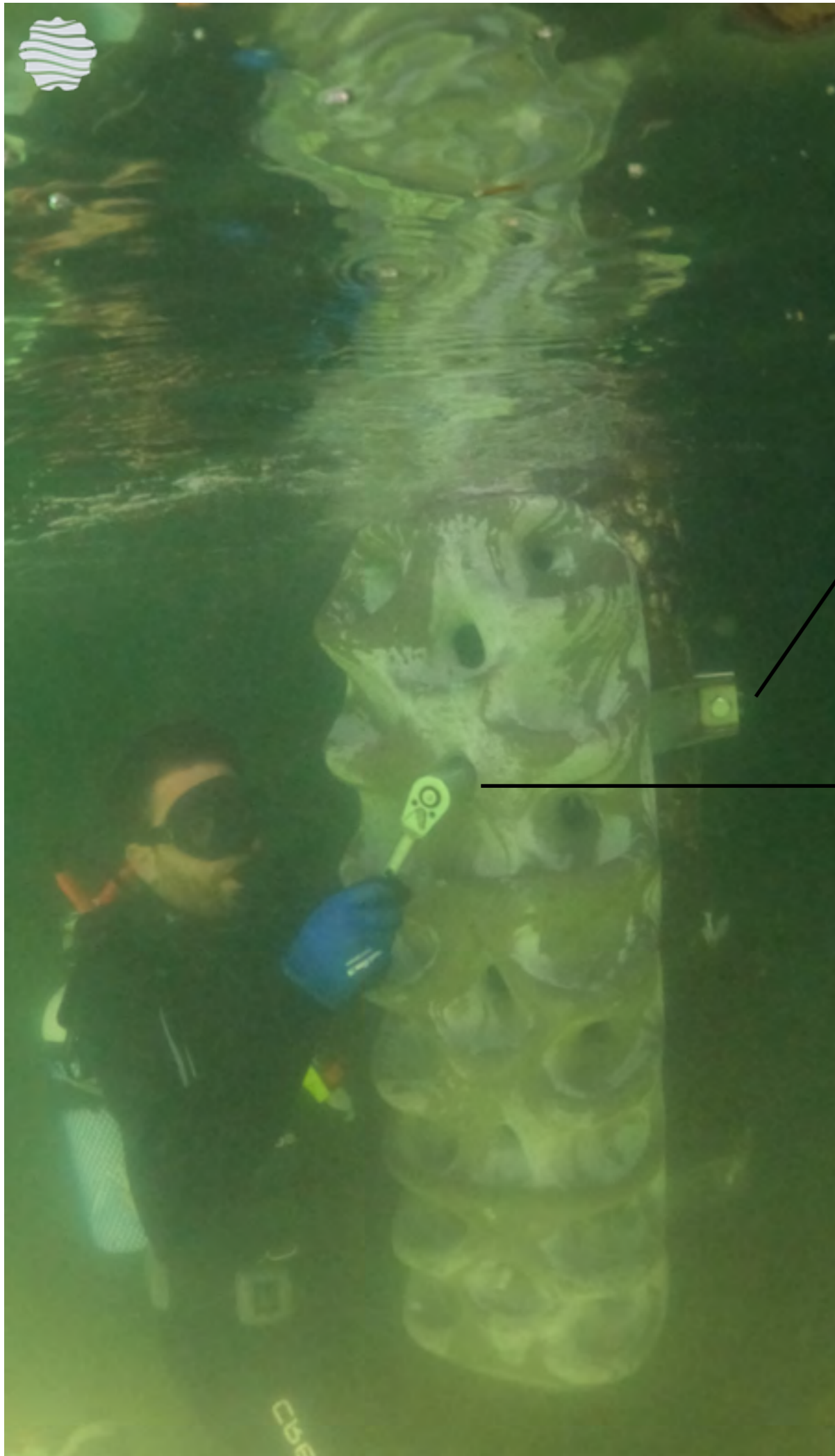
1. SS316 clamps are bolted to the concrete modules using a SS316 Nyloc nut and washer. Avoid over tightening.
2. Concrete modules and clamps are slung either side of the pile.
3. Clamps are bolted together with SS316 M16 bolts, washer and Nyloc nuts.
4. Clamps should be fastened appropriately so they don't slip down the pile over time.
5. Front bolts of the concrete unit should be hand tightened using a deep socket and wrench.



Installation Method 2



1. SS316 clamps are bolted to the pile using SS316 M16 bolts, washer and Nyloc nuts.
2. Keep the top clamp loose to help guide concrete units into place.
3. Concrete units are slung either side of the pile and bolted to the clamps with SS316 Nyloc nuts and washers.
4. Clamps should be fastened appropriately so they don't slip down the pile over time.
5. Front bolts of the concrete unit should be hand tightened using a deep socket and wrench.



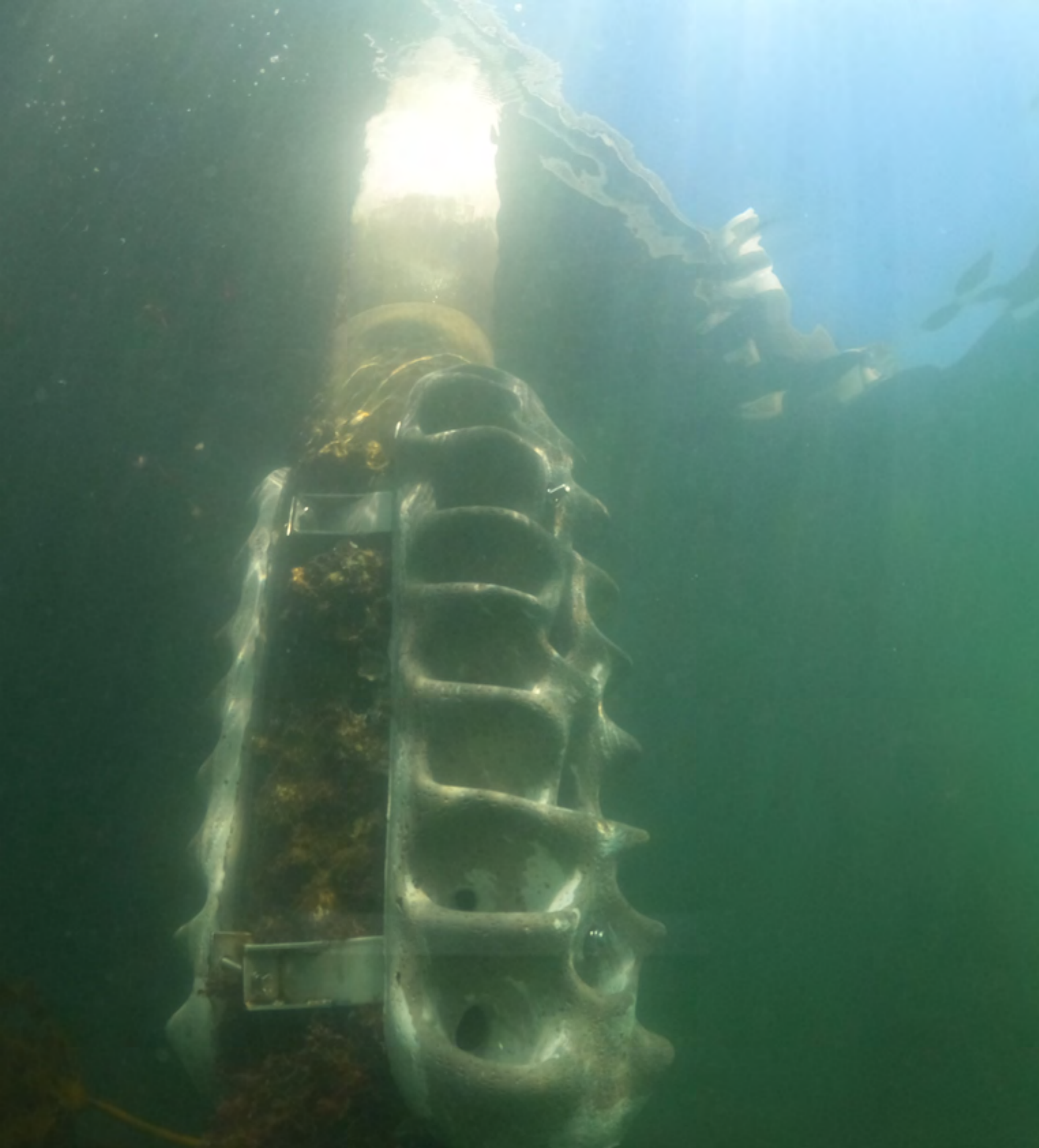
Bolts fastening the clamps should be appropriately tightened to prevent clamps falling down the pile.



A 24mm deep socket wrench should be used to hand tighten the front Nyloc nut. The deep socket will help avoid damaging the concrete.

The back two edges of the concrete should be even with the clamp.

Excessive over tightening could cause the concrete to crack.



LIVING SEAWALLS



Contact

For more information, please contact
info@livingseawalls.com.au

or visit our website
www.livingseawalls.com.au

Living Seawalls works in collaboration with Reef Design Lab

REEF DESIGN LAB

www.reefdesignlab.com