



REEF ARCHES

COASTAL RESTORATION SYSTEM



REEF ARCHES®

PROTECT AND RESTORE COASTAL ENVIRONMENTS WITH REEF ARCHES, A NATURE-BASED SOLUTION DESIGNED WITH RESILIENCY IN MIND.

Reef Arches® are patented, honeycomb arch-shaped structures designed to restore shorelines, enhance habitat, and provide critical habitat for ecosystems. This uniquely engineered design revolutionizes coastal restoration by effectively recruiting sediment and reduces wave energy to build a shoreline.



BENEFITS TO USING REEF ARCHES IN YOUR RESILIENCY PLANS AND SPECIFICATIONS

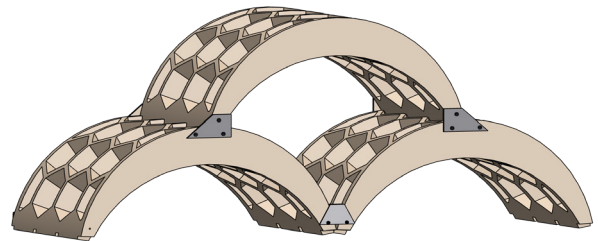
- **Wave Attenuation:** The flow-through technology™ design slows down waves with a sustainable concrete structure.
- **Hurricane Recovery and Shoreline Preservation:** Protects critical assets and flood mitigation.
- **Marine Enhancement Restoration:** Low pH plus high calcium composition (CSA) allows for coral outplanting and reef restoration and marine life to quickly adhere and thrive.
- **Coral Restoration:** Honeycomb design allows for multiple coral species for outplanting, e.g. stony and leather corals.
- **Oyster Restoration:** Ample surface area allows for greater oyster population.
- **Mangrove Restoration:** Openings in the honeycomb design allow mangrove prop roots to grow through, forming the basis of a living shoreline.
- **Light Permeability:** The design permits light to pass through, which is crucial for specific species taking refuge in our structure.
- **Scouring Prevention:** By allowing water to “breathe” through the structure, the design prevents scouring by accreting sediment—effective in both shoreline restoration and seawall protection.
- **Patent and Innovation:** The flow-through design is a critical component of our patented and innovative technology, setting us apart from competitors.
- **Accessibility For Hard-To-Reach Areas:** Structures can be floated into location and stacked.



MINIMAL GROUND FOOTPRINT AND A STACKABLE CONFIGURATION

With sustainability as our guiding principle, our patented concrete design boasts:

- Eco-friendly solution for inshore coastal resiliency
- Preservation of shoreline
- Critical habitat creation
- Takes up to 120 square feet of surface area
- A minimal ground footprint
- A modular system supports flexibility in design



HURRICANE RECOVERY AND RAPID SHORELINE RESTORATION

USED AS: **BREAKWATER + LIVING SHORELINE**

Palm Bay, Florida, Marine Resource Council



150 feet of breakwater placement in front of the Ted Moorhead Lagoon House's shell midden, an archaeological site.



37 1,200 lb. units

3 50 ft. sections

10 ft. from shore

4-day installation

YIELDS RESULTS

16 in. sediment accretion
in some areas & expanding property

0 scouring
allows habitat to swim through

100% living shoreline

500 lb. of biomass
on the structure

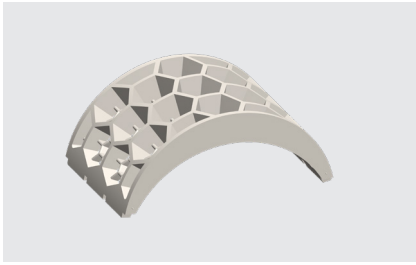
6 mo. marine life
attachment growth span

SIZES

50 LB. UNIT

\$300

2' 3"L | 1' 6"W | 11^{1/2}"H



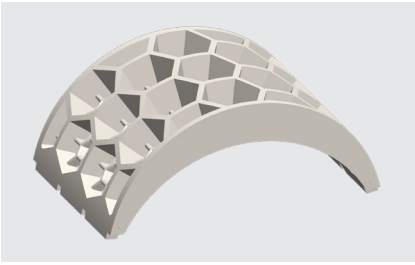
The 50-pound Reef Arch unit is purposefully engineered for low-profile oyster habitats in shallow water environments.

Designed with functionality and community engagement in mind, this unit's compact size makes it ideal for delicate ecosystems while being lightweight enough for hands-on installation. This design fosters greater community involvement in restoring and protecting our coastal ecosystems.

1,200 LB. UNIT

\$2,500

6'L | 4'W | 2^{1/2}'H



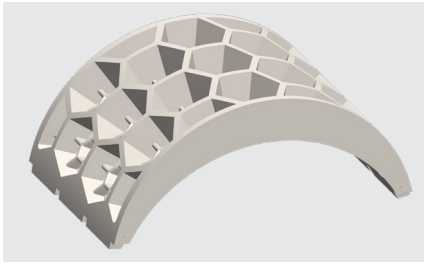
The 1,200-pound Reef Arch unit is specifically crafted for nearshore environments, focusing on protecting coastlines from severe erosion, creating vital habitats, and safeguarding critical infrastructure.

This versatile unit can also be deployed offshore to create artificial reefs, further enhancing marine ecosystems. Purposefully designed with over 120 square feet of surface area and a free-flow structure, this unit is an ideal environment for the growth of marine organisms. By fostering a thriving hotspot for marine life, this design plays a crucial role in the restoration and enhancement of coastal ecosystems.

CUSTOM WEIGHT

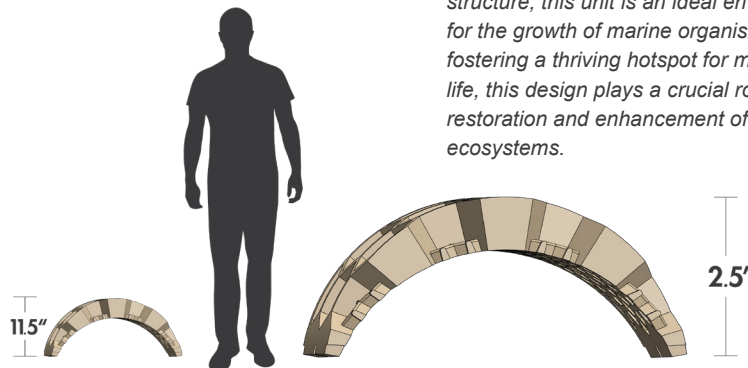
Up To 7,200 lb.

REQUEST
QUOTE



For a size-specific custom unit, reach out to us with the specific size you're looking for and we'll collaborate with our production team to meet your needs. We can create units as large as 7,200 pounds—ideal for open ocean settings.

Our custom program requires a minimum order of 100 units, with a 50% production deposit required upfront.



COLORS AVAILABLE*



Concrete White



Terracotta



Red Mangrove

**May also be dyed*

APPLICATIONS

- Inshore environments
- Offshore environments
- Commercial properties
- Residential properties
- Government, engineering, and developers



ACCESSORIES*

Our products include a variety of inserts designed to foster the growth of corals and oysters. These accommodate both our 50-pound unit and our 1,200-pound unit. The design allows water to pass through while protecting these species from predators.

**Available upon inquiry*

For more information, ask a Ferguson Geo & Stormwater Specialist or visit us online at www.FergusonWaterworks.com

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