

Aluminum floating docks

Wave Attenuators



For all floating
dock systems





Wave attenuators designed for climate change

Hurricanes, typhoons and storms have all generally become more severe and unpredictable in recent years. With the impacts of climate change already being felt around the world, it's more important than ever to develop robust solutions that respect the environment and withstand the forces of nature and accelerated erosion.

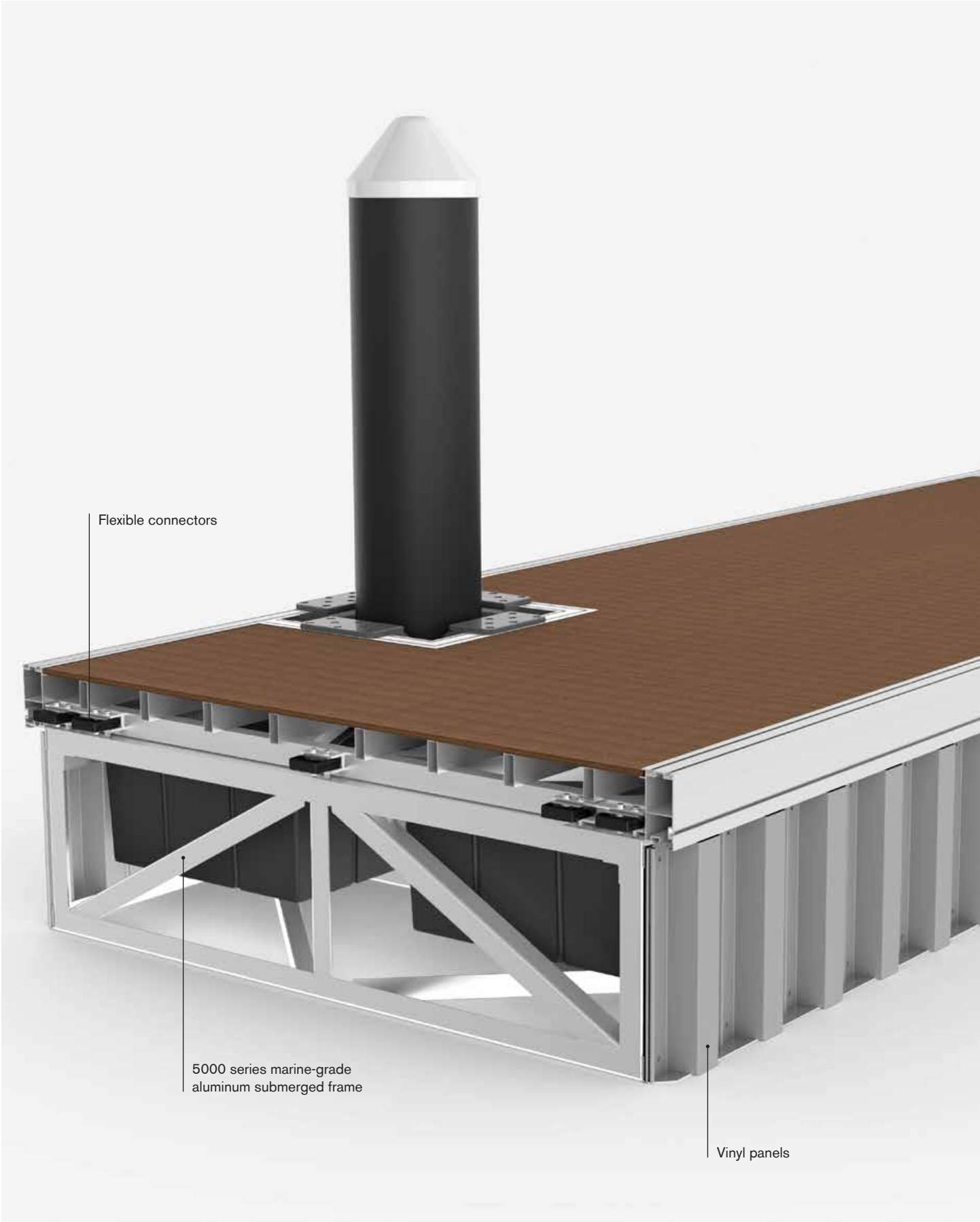
Faced with the challenge of protecting shorelines from damaging wind- and ship-generated waves, MAADI Group engineers have created an innovative design that uses sustainable materials: the aluminum floating wave attenuator.

Design innovation

Whether for a new construction or a renovation project, aluminum floating wave attenuators are an attractive solution that provides the ultimate in durability and corrosion resistance.

We design and produce high-performance floating wave attenuators. By using piles instead of chains, we're able to increase the efficiency of wave attenuators and create additional boat slips and dockage areas.

Our specialized maritime structures integrate the strength of aluminum alloys 6061-T6, 6005A-T6 and 5083-H321 modules with a submerged steel or marine-grade aluminum frame and vinyl panels. Aluminum's low modulus of elasticity, critical energy absorption properties, resilience, and corrosion resistance protect valuable coastline and vessels without compromising the environment and beauty of the waterfront.



Specifications

Tough and efficient

MAADI Group's superior design and quality fabrication improves the performance and reliability of floating wave attenuators by using custom aluminum extrusion that combines internal links with increased torsional rigidity and high section modulus.

MAADI Group floating wave attenuators are efficient for up to 74 mile-per-hour winds that may generate three-foot wave heights. Flexible connectors between the sections of our floating wave attenuators allow for hogging and sagging movement, releasing tension.

In shallow waters, floating wave attenuators use pilings to prevent swaying and pitching.

Conditions	Wave		Reduction
	Period (T)*	Maximum length (L)*	
Normal	1 to 2 sec.	20' (6 m)	90 to 75%
Maximum	2 to 2.8 sec.	40' (12 m)	75 to 50%
Storm	2.8 to 3.3 sec.	50' (15 m)	50 to 32%
Survival	> 3.3 sec.	> 50' (15 m)	

* Relation between the period (T) and the wavelength (L):

$$L \text{ (ft)} = 5.12 T^2$$

$$L \text{ (m)} = 1.56 T^2$$

Better, greener applications

Unlike traditional wave attenuators that use rocks or rubble, MAADI Group's floating wave attenuators respect the natural environment. Instead of destroying marine life, our systems allow for better water circulation and fish migration. This non-invasive method is the result of a floating system anchored by pilings. Our made-to-measure extruded aluminum modules also allow for better buoyancy, eliminating anchoring problems, and do not trap debris like rubber tire systems do.

Throughout North America and the Caribbean, our breakthrough design works with nature to dissipate waves and provide superior protection.

Warranty

We offer a 2-year limited warranty on aluminum against material failure, defects and corrosion.





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