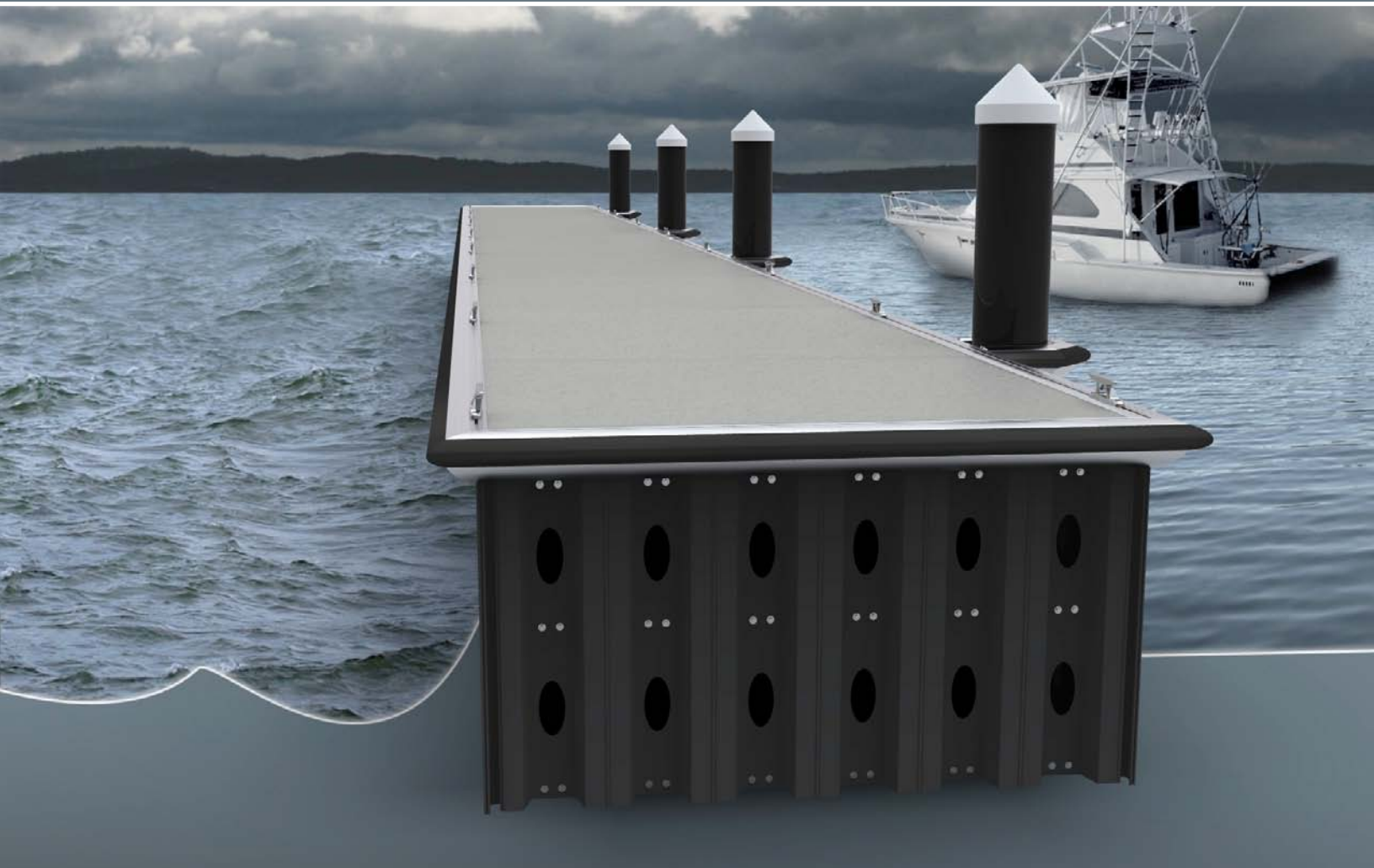


# FLOATING WAVE ATTENUATORS



## *Breakthrough Wave Attenuation Provides Safe Harbor with Floating Breakwaters*

*Today's global environment demands shoreline and watercraft protection that is effective and environmentally responsible. The MAADI Group uses innovative design and durable eco-friendly material to manufacture the most cost-effective wave attenuation solution: the Composite Floating Breakwater.*

Our specialized aluminum marine structure integrates the structural strength of extruded aluminum modules with a steel submerged frame and vinyl panels. Aluminum's low modulus of elasticity, critical energy absorption properties, resilience, and corrosion resistance make it the ideal natural material for Floating Breakwaters (FBs) to prevent shoreline erosion, and protect marine vessels and floating docks from wave damage.

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## *Floating Breakwater Design Tough and Effective*

MAADI Group's innovative design and quality fabrication improves FB performance and reliability by using custom hollow aluminum extrusion that combines internal links with increased torsional rigidity and high section modulus. Heavy-duty built-in tracks along the edges of each extrusion allow dockside accessories, such as cleats, bollards, ladders, and pedestals to be attached to extruded rails via fasteners.

MAADI Group FBs are efficient for up to 74 mile-per-hour winds that may generate three-foot wave heights. Wave pressures generated during storms are resisted by the FB, comprising flexible joints between each 40-foot section to allow hogging and sagging movements that release stress between the modules. In shallow waters, FBs use pilings to prevent swaying, allowing a free-heave motion.



## *A Better Breakwater for a Green Application*

MAADI Group's Floating Breakwater design saves coastlines from devastating erosion, *and* protects harbors by sheltering berthed vessels in marinas from wave interaction and its resulting damage, even in hurricane-prone regions. Traditional breakwaters, with their stone rubble mounds or concrete slopes require massive sub-surface soil foundations, and have large footprints that can obstruct water circulation and fish migration. Rubber tire breakwaters can cause fouling growth and litter entrapment, and have instability, inadequate buoyancy and anchoring problems.

Composite Floating Breakwaters successfully eliminate these adverse environmental effects. Throughout North America and the Caribbean, our breakthrough Composite Floating Breakwater design works *with* nature to dissipate waves.

## *Floating Breakwaters – Safe Harbor for Vessels and Shorelines*

MAADI Group designs functionality into its aluminum marine structures and is an industry leader in fabricating load-bearing aluminum welded structures for the marine industry. We design and produce high-performance FBs to increase efficiency using piles instead of chains, and create additional boat slips and dockage areas.

Whether new construction, or a renovation project, Aluminum Floating Breakwaters are an attractive solution that provides the ultimate in durability and corrosion resistance.

FBs protect valuable coastline and expensive vessels without compromise, for a cleaner environment and a sustainable marina landscape.

*To learn more about our custom-designed FB system, and how it will protect port, harbor and marina areas from wave damage, contact us today:*  
**info@maadigroup.com**