

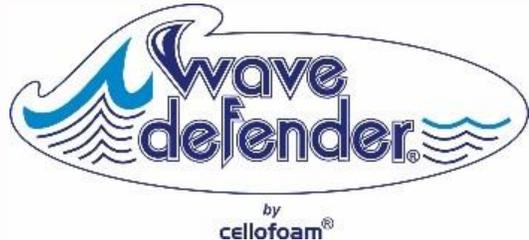


CELLOFOAM®
North America Inc.

Wave Defender®

Protect & Stabilize Your Dock

Cellofoam's *Wave Defender*® protects your dock from rough waves caused by boat wakes and wind. It reduces your dock's rocking and rolling motion, thereby reducing dock wear and tear.



Wave Defender® stabilizes your floating dock just as well as commonly used heavy weights but without requiring additional floatation to maintain freeboard. It can be used with both new or existing docks, allowing you to relax and better enjoy your time on the water.

Wave Defender® attenuates waves and may serve as a breakwater to protect residential and commercial floating docks.

The *Wave Defender*® system is made of two special types of extra thick, double-flanged, Permafloat® shells bolted together and to the underside of a dock. The top shell is a sealed float filled with expanded polystyrene (EPS), and provides dock buoyancy. The bottom component is an empty shell with holes that fills with about 1100 lb of water during installation. When a wave strikes and attempts to move the dock, the water in the lower shell cannot be quickly expelled. This causes it to momentarily act like a thousand-pound weight, reducing the motion of the dock and increasing its stability in wave action.



Wave Defender is composed of a top buoyant float filled with foam attached to a lower, empty, holed float shell (non-standard hole pattern shown here for clarity; wooden stringer not included)

Wave Defender® has a huge advantage over alternatives such as concrete weights that permanently decrease buoyancy and thus incur not only the cost of the weights but also additional floats to offset these weights to maintain freeboard. Since the lower *Wave Defender* float filled with water has neutral buoyancy, it does not decrease overall dock buoyancy and compromise freeboard like a permanent weight does.

Wave Defender® float shells are seamless, 48 x 36 x 20 inches in size, and are manufactured by rotational molding using a tough, 100% virgin, superior grade polyethylene material. UV inhibitors are used for long life and resistivity to oil, gas, salt water, and debris. With a nominal thickness of 0.200 inches, they are much thicker than standard rotationally molded dock floats. *Wave Defender*® float shells have molded-in slots and very tough flanges to meet forces imparted by wave action for years. The filled float has a buoyancy of 1130 lb when fully submerged.





Wave Defender®

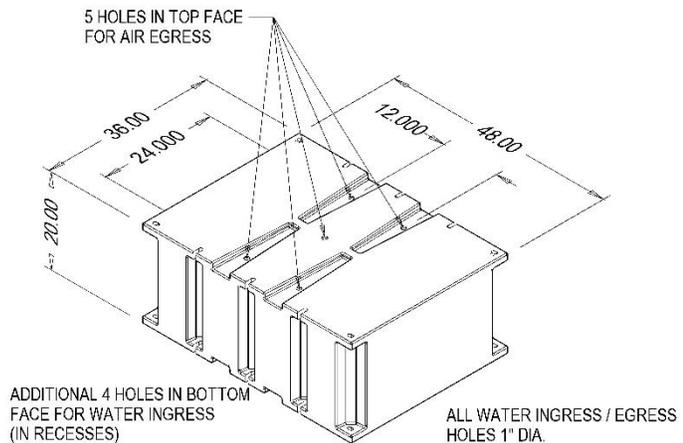
Wave Defender® can be attached to almost any new or existing wood, steel or aluminum dock system. Cellofoam North America Inc. has been producing Permafloat® dock floats for decades and thousands of dock owners can attest to Cellofoam's superior quality and performance. The lower, empty shells are typically supplied with our standard nine-hole pattern as shown in the diagram but may also be ordered with different hole patterns to allow dock builders to customize them to their own specific needs.



Installation

The *Wave Defender*® system is effective and long-lasting when used in a properly designed floating dock system that is appropriately installed in a lake or sheltered marine area such as a coastal bay. *Wave Defender*® is not intended to replace large rock or concrete breakwaters.

Cellofoam highly recommends employing a professional dock designer and builder to incorporate *Wave Defender*® into your existing dock or new design.



Dimensional detail of Wave Defender double flanged float shells, and standard hole placements for holed shell

For more information or to order, please contact your Cellofoam Permafloat® Dock Flotation Specialist

1-800-531-4734

The performance data herein reflects Cellofoam North America Inc.'s expectation based on tests conducted in accordance with recognized standard methods. The sale of these products shall be subject to Terms and Conditions of Sale, including those limiting warranties as set forth in Cellofoam North America Inc.'s invoices. No agent, employee, or representative of Cellofoam North America Inc. or its subsidiary or affiliated companies is authorized to modify this disclaimer.

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