

Foam filled fenders tackle any environment

Marine Fenders International, Inc., Wilmington, CA, USA

Ketchikan, Alaska is a major cruise ship port along the Inside Passage, welcoming hundreds of thousands of visitors each year. Given the decline of the timber and fishing industries in Southeast Alaska, tourism has become the mainstay of Ketchikan's local economy.

However the structural deterioration of Berths had become a critical issue for the community.

These docks are essential to the continuing health of the local economy and must be replaced with modern and safe facilities. Continued preservation of the wood docks does not constitute a cost effective solution.

Berth design considerations

A critical consideration in the design and rehabilitation of the berths was the optimal fendering system. With their proven track record for outstanding performance for the cruise ship industry, Ketchikan ordered 14 units of the Ocean Guard™ Netless foam filled fenders with integral swivel end fittings.

Fender attributes

The dimensions of each fender are 6 ft in diameter x 16 ft in length. This foam filled fendering system provides many desired attributes for cruise ship-berthing including:

- **Soft Berthing:** Compared to rubber buckling fenders, the foam filled construction gradually and smoothly compresses,

providing a soft berthing for the vessel and its passengers. In comparison buckling fenders can 'jolt' as the fender buckles.

- **All Tide Mooring:** In the Alaskan waters large tidal fluctuation can be experienced. The floating characteristics of Ocean Guard™ foam filled marine fenders provide optimal fendering at all tides.
- **Hull conforming:** The resilient nature of the Ocean Guard fender gives it the unique ability to conform to a vessel's hull contours and extremities, such as rub rails. The hull conforming feature eliminates point loading, which can occur with panel type fenders, on hull contours therefore evenly distributing energies over a greater surface area. This results in much lower hull pressures.
- **Unsinkable:** The foam core construction not only provides a sink proof construction, but also lower hull pressure than pneumatic fenders.

These resilient tough marine fenders are constructed with a heat-laminated energy absorbing resilient foam core; a thick tough filament nylon tire cord reinforced non-marking urethane skin; and heavy-duty integral swivel end fittings internally connected with a stud-link chain.

Ocean Guard fenders efficiently absorb significant amounts of energy with a low corresponding reaction force, lower than pneumatic or rubber buckling fenders.



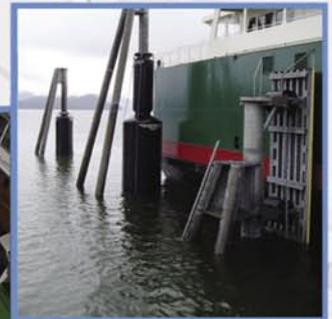
The floating characteristics of Ocean Guard™ foam filled marine fenders provide optimal fendering at all tides.



OCEAN GUARD™

Foam Filled Marine Fenders
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**ENGINEERED FOR
EXCELLENCE**



The foam filled construction gradually and smoothly compresses, providing a soft berthing for the vessel and its passengers.

The Ocean Guard fenders are designed to absorb 427 ft-kips (59 tonne-m) of energy when 60 per cent compressed with a corresponding load of 265 kips (120 tonnes).

Marine Fenders International, Inc.'s *Ocean Guard™* & *Ocean Cushion™* foam filled fenders are constructed and designed for the worlds toughest environments.

ABOUT THE COMPANY

Marine Fenders International, Inc. is a leading manufacturer of high performance foam filled marine fenders and buoys. With over 30 years experience in the engineering and manufacturing of fendering, buoyancy products and urethane products and elastomers Marine Fenders International can provide you with quality, solutions, service and value to meet your specific needs.

ENQUIRIES

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