

Foam Fenders

A TRELLEBORG INVENTION

Since 1975, Trelleborg's foam products have been used to protect infrastructure and vessels during berthing operations. The foam products are suitable for a wide range of applications, including cruise, container, bulk, naval, oil & gas, Ro-Ro, ferries, bunkering, and ship-to-ship berthing operations.



This infographic provides an overview of Trelleborg's Foam Fenders and how the extensive R&D, design, material selection, manufacturing, testing, and quality control processes ensure a long-lasting, durable, high-performance fender with a low-maintenance service life despite the harsh marine environment, and operational conditions to which they are exposed.

ISO 9001 and ISO 14001 CERTIFIED IN-HOUSE MANUFACTURING FACILITY

Trelleborg's foam fenders are manufactured in our ISO 9001 and ISO 14001 certified production facility in Berryville, VA, USA using high-quality raw materials and steel components. They are designed to achieve high durability, faster turnarounds, and improved safety and longevity.

Trelleborg's foam fenders are constructed using wound foam, reinforced polyurethane skin, and a unique manufacturing process. They are typically manufactured in a cylindrical shape with a wide range of diameters and lengths. We ensure that the lifecycle and performance of our entire foam fender product range meets international standards.

TESTING AND QUALITY ASSURANCE

Quality control testing is carried out as part of our manufacturing process to ensure that each product satisfies your specific requirements.

It incorporates a thoroughly documented inspection system that meets ISO, ABS, and in-house standards. Testing includes fender material properties, dimensions, skin thickness and performance verification. These tested fenders consistently excel in all required tests, including energy absorption, capacity and reaction forces, ultimate compression, cyclic compression, and longitudinal pull tests.

Years of field tests with foam fenders have confirmed the ability of these fenders to take the rugged service for which they are designed.



Watch the video on fender testing

LOW MAINTENANCE

Impact and wear can occur due to normal service conditions in moderate to harsh marine environments. Trelleborg marine fender's exterior is highly resistant to ozone, hydrocarbons, ultraviolet radiation, sea water and other environmental factors, and the skin color is integrated into the elastomer. Hence, the fenders generally require very little maintenance.

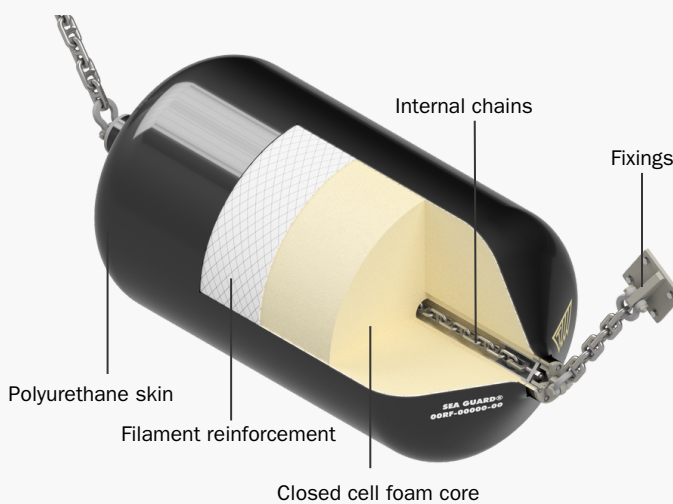
EXPERT ENGINEERED SOLUTION

Trelleborg's foam fenders are constructed with a uniformly wrapped foam body, utilizing only crosslinked, closed-cell polyethylene. Each layer of foam is heat laminated to develop a continuous bond, producing a solid foam body that absorbs significant amounts of energy when compressed.

The foam has a rugged polyurethane elastomer outer skin, with nothing to snag hull protrusions or dock fittings. To provide added strength, the thick skin is reinforced with nylon filaments.

The fenders are designed to provide low reaction forces, high energy absorption and efficiency, low hull pressures, ease of installation, low maintenance, a non-marking PU skin, and an unsinkable, non-deflatable body.

SEAGUARD® FOAM FENDER



OPTIMAL PERFORMANCE

Trelleborg's foam fenders are manufactured for maritime applications to absorb kinetic energy during vessel-to-vessel or vessel-to-dock berthing. After the initial contact, the fenders offset the vessel from the structure and resist mooring loads.

The fenders are attached to the pier using chains which are connected to end fittings built into the fender and typically float with a large portion of the fender body above the vessel's waterline. These foam fenders are designed and manufactured to international standards to meet specific application requirements such as vessel size and displacement, impact velocity, and environmental conditions for optimal performance.

Trelleborg's world-class inspection service identifies risks and repair opportunities before further damage occurs due to a variety of factors such as fatigue, chemical, and external force factors to optimize port efficiency, reduce the risk of downtime, increase fender durability, and improve safety.

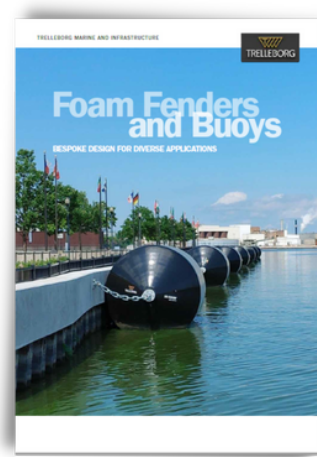


ISO 9001 and ISO 14001 certified manufacturing facility, Berryville, VA, USA

Safety Track Record

With over 100 years of industry-leading expertise in engineered polymer solutions that seal, damp and protect critical applications in demanding environments, Trelleborg Marine and Infrastructure is one of the most trusted and reliable suppliers of high-quality marine solutions for all industries.

Our end-to-end service includes research and development, manufacturing, expert fender design, testing, stringent quality control and installation and maintenance. Trelleborg's foam fenders provide a tough, heavy-duty solution for port and harbor, off-shore and ship-to-ship applications.



Download our brochure for information on our industry-leading foam fenders.

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LEARN MORE ABOUT MARINE FENDERS

