



CUSTOM-MADE FENDER SYSTEMS FOR

Workboats

Exceptionally lightweight, incredibly strong—built for demanding performance at sea.



Our standard is custom-made

Our fender systems are engineered to be exceptionally lightweight, strong, flexible, and durable — delivering maximum protection without compromising vessel performance.

At Fender Innovations, we specialize in ultra-lightweight, high-performance marine fender systems designed specifically for fast-moving and lightweight workboats. Every system is custom-built to match the vessel, operational profile, and performance requirements.

Our tailor-made fender solutions are ideally suited for:

All-weather lifeboats, Pilot vessels, Fast rescue craft, Heavy-duty RIBs, Research and survey vessels, Superyacht tenders, Windfarm support vessels, Special operations craft, Unmanned marine systems and more.



Engineered for Performance Without Compromise

KEY FEATURES

Super Strong Where Necessary, Ultra-Light Where Possible

Our advanced fender systems provide an exceptionally lightweight alternative to traditional rubber fenders - up to 12 times lighter while maintaining outstanding strength and durability. The significant weight reduction improves fuel efficiency, vessel performance, handling, and overall operational efficiency, resulting in substantial long-term fuel and operational cost savings. The weight of our fenders is comparable to heavy duty inflatable tubes.

By combining lightweight construction with exceptional durability and protection, our fender systems perfectly complement the demanding standards of modern high-performance vessels.

- Improved acceleration and higher top speed
- Increased fuel efficiency and extended operational range
- Better vessel balance and maneuverability
- Improved toughness and overall flotation capacity
- Superior impact absorption and protection
- operational safety and performance





Custom-Made with Complete Freedom of Design & Seamless Integration

Every Fender Innovations system is individually engineered to match the vessel's hull shape, operational requirements, and design vision with absolute precision. Seamlessly formed around corners and complex curves, our fender systems enhance both aesthetics and functionality while delivering superior protection, impact absorption, and wear resistance.

We manufacture fenders in virtually any shape and in one continuous piece up to 20 meters in length – with longer lengths available upon request.

Whether based on 2D CAD drawings, 3D CAD models, physical templates, or on-site measurements, we support both new-build projects and refit applications. By carefully optimizing material properties, we achieve the perfect balance between flexibility, contact surface, durability, and hull conformity.



Engineered Material Combinations

Through advanced material engineering and carefully optimized core structures, our fender systems deliver superior impact absorption, an optimized contact surface and long-term durability without compromising vessel aesthetics or performance. The high-quality, non-absorbent core materials prevent water ingress and eliminate unnecessary weight gain over time, ensuring consistent performance in demanding marine environments. Our standard systems operate reliably in temperatures from -30°C to +55°C. Custom temperature specifications are available on request.



Repairable

Our high quality, non-absorbent core material structure prevents water absorption, allowing fast and effective emergency repairs to be carried out in the event of damage. This minimizes downtime, prevents further damage and ensures the fender system continues to perform at its highest level. Following emergency repair, the fender system can subsequently be professionally restored to its original condition.

Sustainability & Responsibility

At Fender Innovations, sustainability is not an afterthought — it is an integral part of the way we design, engineer, and manufacture our fender systems. We are committed to developing high-performance solutions with a minimal environmental footprint, combining innovation, durability, and responsible production practices.

Through the use of recyclable materials, energy-efficient manufacturing methods, and advanced engineering principles, we actively contribute to a more sustainable maritime industry — without ever compromising on quality, strength, or performance.

We reduce our environmental impact by:

- **Using recyclable, long-life materials**
Extending product lifespan while reducing raw material consumption and unnecessary waste.
- **Implementing energy-efficient production processes**
Minimizing energy usage throughout every stage of manufacturing.
- **Reducing material waste through precision engineering**
Applying advanced production techniques and lean manufacturing principles for maximum efficiency.
- **Designing with purpose and functionality**
Optimizing protection, weight, and performance with minimal excess material.

Our ambition is clear: to support a cleaner, smarter, and more efficient future for the maritime industry — one advanced fender system at a time.



SPECIFICATIONS

Shape

Our fender systems can be manufactured in virtually any shape and length, fully tailored to the vessel's hull design and operational requirements. Using advanced 3D engineering techniques, we create seamless fender systems that precisely follow complex curves, corners, radii, and angles. Virtually any shape is possible, to fit the hull and to achieve optimal in-service performance.

The flexible cross-section allows maximum design freedom, while minimum radiuses for load-bearing surfaces are carefully determined based on the intended application and performance requirements. Our team is pleased to advise on the optimal fender profile for every vessel.

We work with IGES, Rhino, and most commonly used 2D and 3D design files. When digital files are unavailable, we may also manufacture fender systems based on physical templates and on-site measurements.

Mounting

The preferred installation method is direct bonding to the hull or vessel structure, offering a clean finish, efficient installation, and a highly reliable connection. Alternative mounting solutions may also be engineered to meet specific technical or operational requirements.

Custom Features

Our fender systems can incorporate a wide range of integrated custom features, including rope eyes, handles, reinforced inserts, stainless steel accents, logos, and light openings.

These integrated solutions not only enhance functionality and aesthetics but also enable the creation of extremely strong connection points with load capacities up to 5 tons.

Materials

Our fender systems are constructed using a high-performance combination of closed-cell foam cores, advanced technical fabrics, and our durable FI topcoat system.

Core Material

- High-quality foam cores provide excellent impact absorption and damping characteristics
- Closed-cell, cross-linked foam ensures zero water absorption
- Different foam densities can be combined to achieve the desired performance characteristics
- High compressibility for optimal energy absorptions
- A wide range of foam densities available from stock for fully customized solutions

Technical Fabrics

We carefully select the most suitable technical fabric or reinforcement mesh for each application, including advanced materials such as Aramid and Dyneema®, ensuring maximum durability and performance.

Topcoat System

- Premium FI 55 or FI59 Polyurea topcoat system
- Adjustable coating thickness depending on the application and operational demands
- Exceptional durability and wear resistance
- Available in smooth or non-skid finishes
- Standard colours include black, battleship grey, and orange
- Custom colours and finishes available upon request

Temperature Range

Our fender systems are designed to perform reliably in demanding marine environments and are suitable for ambient temperatures ranging from -30°C to +55°C.

Extended or specialized temperature ranges can be engineered upon request to meet specific operational requirements.

Additional Features

- Custom-integrated company logos for a fully personalized appearance
- Seamless integration with composite, aluminium, nylon, and stainless steel constructions
- Supply of custom brackets and mounting points in marine-grade stainless steel (316) or aluminium
- Integration of stainless steel accent lines, light openings, handles, rope eyes, and other bespoke design features
- Tailor-made solutions engineered to complement both the vessel's design and operational profile



MEET THE FENDER INNOVATIONS GROUP

A strong partnership



Fender Innovations B.V.

specializes in lightweight, flexible, tailor-made fender systems and custom solutions for fast rescue boats, lifeboat tenders, superyacht tenders, and heavy-duty RIBs.



Poly Marine Fender Systems B.V.

Poly Marine Fender Systems B.V.

develops and produces highly durable, impact-resistant polyurethane fender systems for demanding marine applications such as pilot vessels, ferry's and tug boats, and specialized solutions such as wear plates, friction segments, bollard protection, mooring protection, and rope protection systems.



Together, we combine innovation, durability, and craftsmanship to deliver high-performance maritime protection solutions without compromise.



CONTACT & QUOTES

Find out more

Fender Innovations and PolyMarine Fender Systems can offer a complete solution based on your needs and requirements. Contact us for information.

Fender Innovations

Westrak 240,
1771 SV Wieringerwerf
The Netherlands

Phone:+31 22 37 64 170
info@fenderinnovations.nl
www.fenderinnovations.nl



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