

# Pneumatic Fenders

**EXPERTLY MANUFACTURED USING HIGH-QUALITY, DURABLE MATERIALS DELIVERING A LIFETIME OF RELIABLE PERFORMANCE.**



**Pneumatic fenders are mission-critical equipment that have a direct impact on the safety and efficiency of shipping operations.**

This infographic provides an at-a-glance summary of factors affecting fender performance to ensure your pneumatic fenders perform optimally to support safer, more reliable and more efficient marine operations.

## FULLY ISO 17357-1:2014 COMPLIANT

Trelleborg's pneumatic fenders are fully ISO 17357-1:2014 compliant – from design and manufacturing, to testing and quality assurance. Trelleborg guarantees each pneumatic fender produced meets industry standards to minimize operational interruption and provide optimal performance.

## MANUFACTURED TO THE HIGHEST QUALITY

Trelleborg's manufacturing process is structured to ensure each and every fender produced meets the design standards consistently. The entire fender is built inside a purpose-built mold without using any pre-vulcanized components. Specially trained Trelleborg employees construct the fender build to stringent processes and procedures in-house in a Trelleborg-owned factory. The primary objective of building and vulcanizing all the multi-characteristic components inside a mold is to achieve a solid, uniform construction that works together as one unit during critical applications.

## IMPROVED SAFETY

Trelleborg's bead ring and turn-up process is designed to reduce stress generated at the flange area of the fender by distributing the load evenly throughout the body during the compression and shearing forces in operations. An optimally designed safety valve is provided on all fenders with diameters above 2.5m. The fully stainless steel design ensures the safe release of any excess pressure when the fenders are exposed to over compression or abnormal berthing conditions.

## REDUCED MAINTENANCE

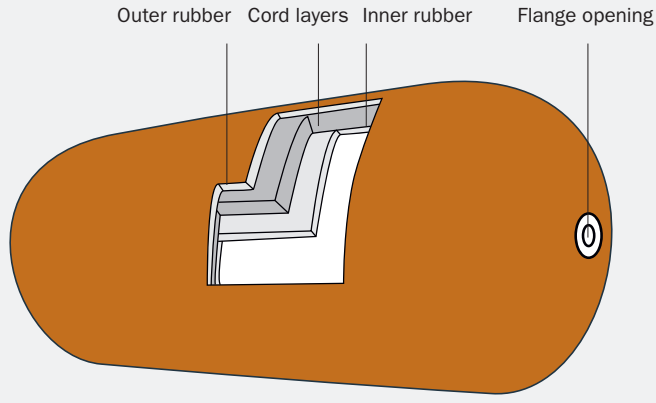
Trelleborg's mission is to ensure an industry-leading product lifespan for our pneumatic fenders. A unique combination of engineering and design expertise, higher-grade materials and manufacturing process produces a pneumatic fender that is proven to perform better over the long term, even in demanding marine environments. This reduces the need for significant repair and simplifies maintenance requirements.

## WORLDWIDE LOCATIONS

Trelleborg's high-performance pneumatic fenders are available in a wide range of sizes for every application, with stocks located in several strategic locations worldwide to ensure quick and reliable delivery. Trelleborg's large network of global offices, agents, distributors and approved service centres provide excellent after-sales services based on your needs, including fender inspections and fender maintenance.

## EXPERTLY DESIGNED

Trelleborg uses only the highest quality, proven materials for pneumatic fenders to ensure effective performance and reliability. The inner rubber is constructed from specifically designed compounds to ensure optimum air-tightness of up to six times the industry standards. Carefully selected and tested synthetic tire-cord layers are integrated to greatly enhance the ability of the fender to hold pressure, improve fatigue resistance and extend endurance life, whilst the tough abrasion-resistant, durable outer rubber is designed to protect from all damaging external forces.



## TESTING AND QUALITY ASSURANCE

Trelleborg conducts many stringent and rigorous, fully ISO 17357-1:2014 compliant, testing and quality assurance procedures. Thermo-Gravimetric Analysis (TGA) testing is undertaken on the polymer rubber compound for the inner and outer layers to guarantee the rubber properties and quality. Angular compressions, durability, compression recovery, puncture resistance, fatigue, and heat radiation testing are conducted to verify design, whilst dimensional, hydrostatic, and air leakage tests are carried out on commercial fenders to ensure a lifetime of reliable performance.

## OPTIMAL PERFORMANCE

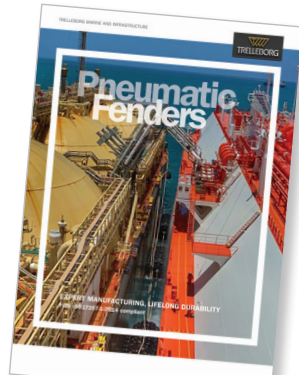
Due to their superior design and manufacturing process, Trelleborg's pneumatic fenders ensure consistent guaranteed energy absorption, reaction forces, and low hull pressure over time. Quality material plays a key role in improving longevity through added resistance to UV radiation, sunlight, ozone, oxygen, heat and weathering.



## Safety Track Record

Trelleborg Marine and Infrastructure's pneumatic fenders are expertly manufactured using high-quality, durable materials to deliver a high level of reliable performance in even the harshest of environmental conditions.

Our end-to-end service includes research and development, expert fender design, testing and stringent quality control. All pneumatic fenders supplied are fully compliant to ISO 17357-1:2014 standards to offer improved durability.



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

[Download Now](#)

### GET IN TOUCH:

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### LEARN MORE ABOUT FENDERS

