

The solid SmartFenders continuously monitor quay activity and fender performance, providing valuable insights that can help operators improve vessel throughput, extend asset life and optimize maintenance schedules.

Capturing the critical events of vessel approach, berthing and eventual departure, the solid SmartFender produces a complete overview of the port / vessel interface.

Generated data is wirelessly sent to the SmartPort cloud, where it is processed and stored. Using the SmartPort user interface accessed on a smartphone or tablet, users can follow quay activity in real-time, analyze historical operational performance and have an instant fender status update.

The solid SmartFenders by Trelleborg are powered by SmartPort technology and can be integrated with other products in the SmartPort portfolio. The assets are connected through the SmartPort cloud, providing a complete overview of the port / vessel interface in one common user interface.



## **HOW DO SOLID SMARTFENDERS WORK?**

A solid SmartFender box containing sensors is fitted to new fenders, or retro-fitted to existing ones. The sensors continuously measure a range of criteria, including fender deflection and distance towards jetty and vessel. Data is then transferred in real-time via wireless network to the SmartPort cloud, where it's processed and stored. Using a smartphone, tablet, desktop or other third-party system, the user interface can be accessed, and data assessed and analyzed.

## **KEY FEATURES**

#### **Real-time interface**

Delivered via an iOS or Android downloadable app, the SmartFender's intuitive interface makes monitoring fender performance and berthing activities easy to access and interpret. It is compatible with, and integrates into, existing third-party wireless networks for further ease of use.

#### Report generator to track trends

The SmartFender system allows customizable reports to be created using both immediate and longer-term data. to identify short-term operational efficiencies and improvements over time.

#### **Customizable functionality**

The solid SmartFender offers customizable functionality to suit specific port and terminal requirements. Abnormal berthing is easily identified using the alarm function, providing immediate preventative maintenance benefits. Any abnormal events can be revisited and assessed, analyzing vessel behavior and fender performance.

#### **OPERATIONAL BENEFITS**

SmartFenders help improve the operational efficiency of port and terminal mooring and transfer operations by:

- Assessing fender status, facilitating preventative maintenance to optimize fender utilization and extend asset life
- Improving berth allocation and management to increase throughput rates
- I Preventing berthing accidents using alarm functionalities
- Detecting and highlighting unnatural events, highlighting heavy berthing and possible fender damages
- Contrasting vessel behavior and fender performance with design parameters
- Providing insight in fender occupancy, building an understanding of infrastructure utilization and future investment optimization
- Long-term trend analysis including time spent on berth and berthing velocity



SmartPort by Trelleborg powers the critical interface between ship and port, on land and at sea. Visit our website to access our case studies and white paper, plus the entire suite of SmartPort solutions.





Learn more about SmartPort solutions

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