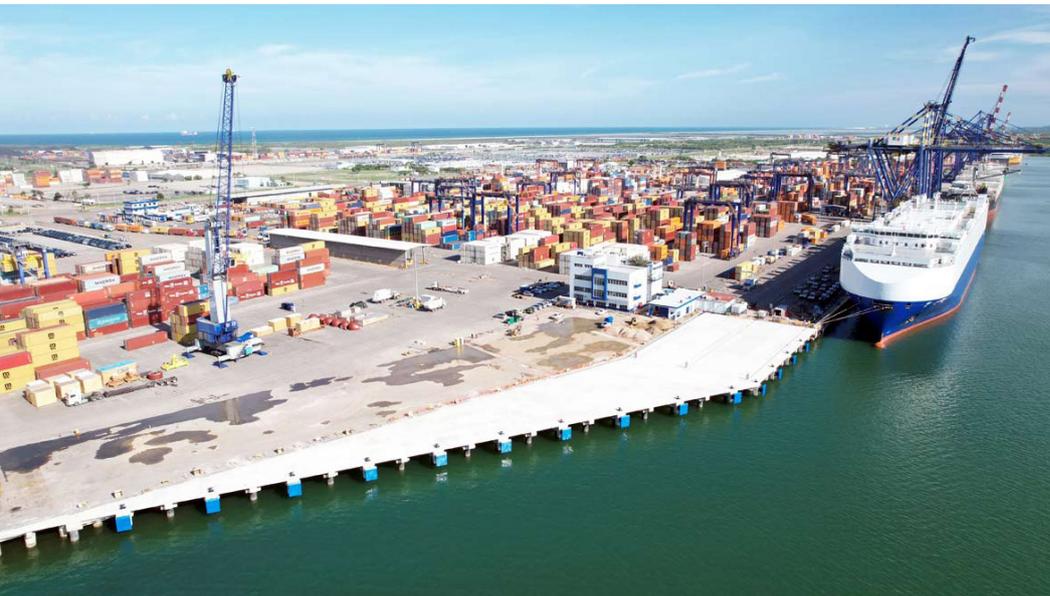


## Varying Approach Angles

A.T.P. - Container Terminal, Altamira, Mexico



**Application**  
Container Terminals

**Type**  
SPC Cone Fenders

**Date** 2026

**Reference** 1562

### A CLOSER LOOK AT THE CASE

Altamira Terminal Portuaria (ATP) has completed a **350-meter dock expansion** as part of an ongoing project to growth capacity at the Port of Altamira, in Mexico's east coast. The new waterfront, added to the terminal's existing 600 meters, **increases operational capacity by 30%**.

ATP, the terminal owner and operator, led the expansion project with CIMESA as the main contractor responsible for the construction works. ShibataFenderTeam provided site-specific fender engineering, designing all components to perform reliably during container vessel operations on the new berth: 14 Cone Fender Systems (SPC 1000), each equipped with closed-box steel panels 2200x2560 mm, and 14 T-Head Bollards with 200t mooring capacity.

#### Project Scope

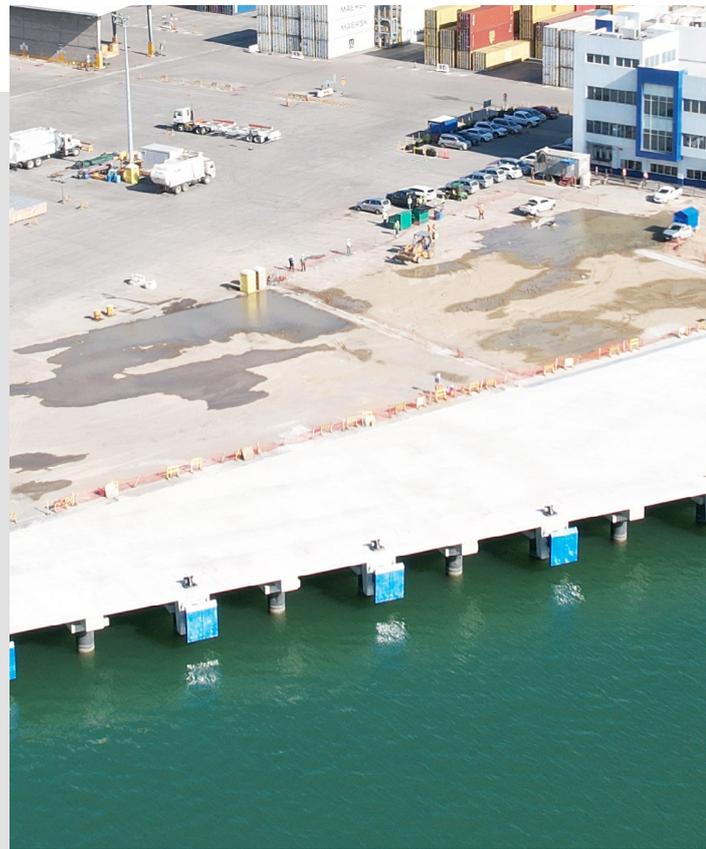
- ▶ 14 Cone Fender Systems (SPC 1000) with closed-box steel panels 2200x2560 mm
- ▶ 14 T-Head Bollards with 200t

## CHALLENGE AND SOLUTION

A significant feature of the dock is a **corner located mid-alignment**, a configuration that influences berthing angles and, thus, vessel–fender contact behavior. This geometric constraint required attention during engineering, as **varying approach angles** can generate different load distributions on the fenders.

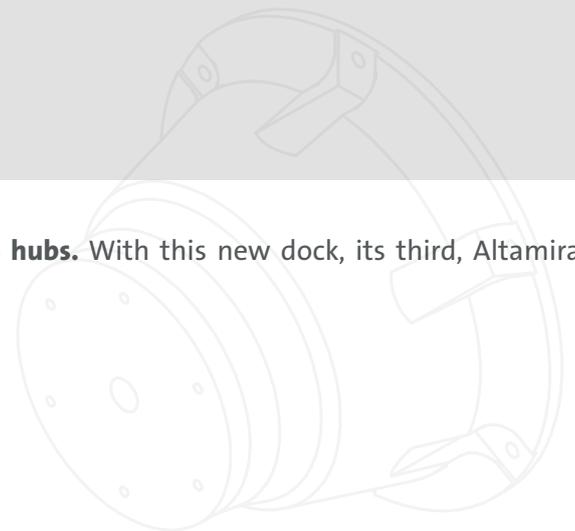
To address this, SFT in-house engineering team designed two **reinforced fender systems** for the units positioned closest to the corner. These systems incorporate **upgraded anchorage** and chain configurations to safely manage the higher loads expected in this area.

On-schedule delivery, **the entire order was completed within one year**, was in line with the terminal operator plans, who is experiencing accelerated growth.



A.T.P. – Container Terminal | Altamira | Mexico

The Port of Altamira is one of Mexico’s key **multimodal logistics hubs**. With this new dock, its third, Altamira Terminal Portuaria seeks to strengthen its leading position.



With this project, ShibataFenderTeam once again showcases the strength of its Holistic Approach, considering the interaction of all fender system components to design fully optimized solutions. Explore more SFT Case Studies or Contact Your Nearest Office.



SHIBATA**FENDER**TEAM

▶ | on the safe side