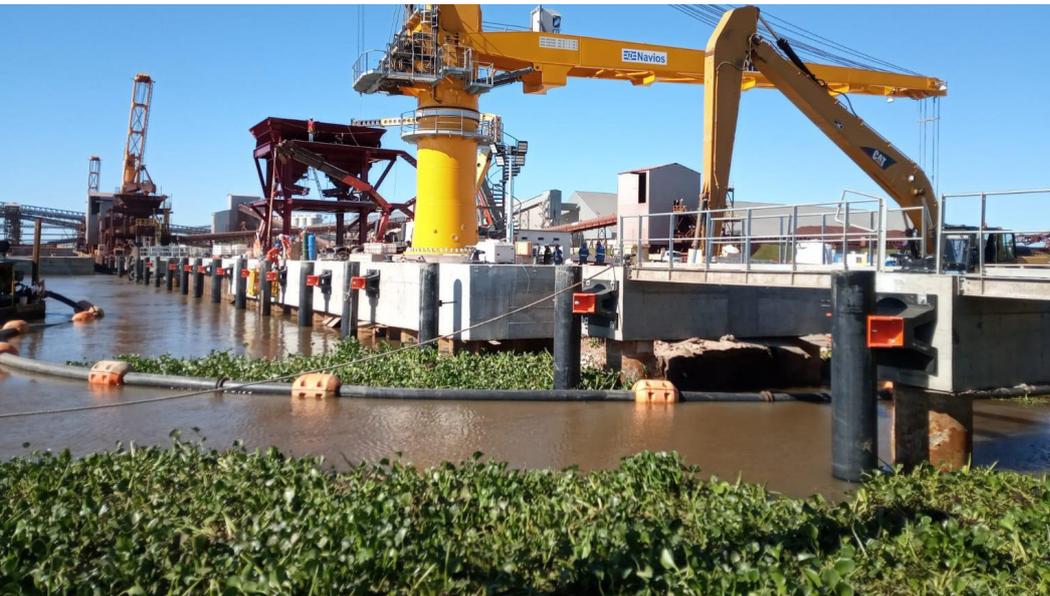


Engineering for River Dynamics

Muelle Barcazas - Nueva Palmira, Montevideo, Uruguay



Application
Bulk Terminals

Type
V Fenders

Date 2025

Reference 1369

A CLOSER LOOK AT THE CASE

Located at the mouth of the Uruguay river, the Port of Nueva Palmira is Uruguay's second-largest by volume and plays a key role navigating South America's inland waterways and connecting the Atlantic and Pacific coasts. Within the port's Free Zone, Corporación Navíos has expanded its private infrastructure for liquids and minerals. This modern river quay is now **capable of simultaneously operating three barges and accommodating up to 48 units.**

ShibataFenderTeam provided its expertise by **designing the fender solution for this new river quay** comprised of 16 V Fenders (V-P 500x1000 mm, G3.0) and two double V Fenders (800x2950 mm, G3.1). The project scope also included 12 Cleat Bollards, each with a 40-ton capacity, and four T-Head Bollards with an 80-ton capacity.

Project Scope

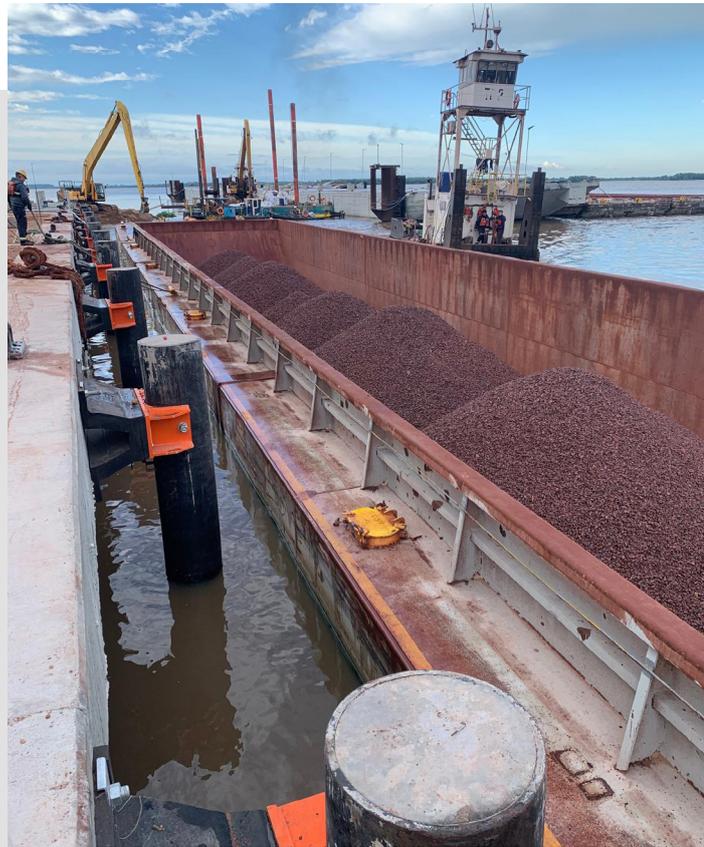
- ▶ 16 V Fenders (V-P 500x1000 mm, G3.0)
- ▶ 2 double V Fenders (800x2950 mm, G3.1)

- ▶ 12 Cleat Bollards with 40t
- ▶ 4 T-Head Bollards with 80t

CHALLENGE AND SOLUTION

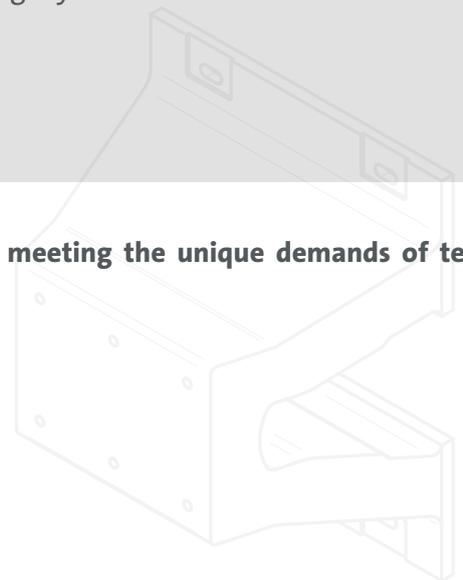
River terminals face **significant challenges** due to fluctuating water levels and currents. These variations can lead to steep level differences, making it **difficult for barges to berth safely**. Conventional solutions, such as placing fenders directly on the upper quay structure or the use of standard steel panels, have been used over the years but have failed to address the challenge, often resulting in barges getting caught beneath the fender.

To address these issues, our in-house engineering team developed this **innovative solution featuring a bracket at the end of the fender**, which connects to piles drove to the riverbed. This design ensures that the barge **always makes contact with the piles at any river level**, transferring the berthing energy to both the fender and the quay structure. Proven to be highly effective, this configuration provides a **long service life for the fender system and the supporting structure**, while offering adaptability to the fluctuating conditions of river terminals.



Muelle Barcazas – Nueva Palmira | Montevideo
| Uruguay

As the leading fender manufacturer, **ShibataFenderTeam excels at meeting the unique demands of terminal operations**, whether in saltwater or river environments.



SFT is honored to have played its part in a project that marked an advancement in the region's logistics operations at the Nueva Palmira Port in Uruguay. Explore more SFT Case Studies or Contact Your Nearest Office.

