



FILTERSAFE SPOTLIGHT

FPSO Marlim 1



Project	FPSO Marlim 1
Location	Off the coast of Brazil, Campos Basin
Date installed	Jan 2021
Application	Produced Water Coarse Filter
Water Source	Treated Produced Water
Filter model	FS1004 Multi-Element Filters Full SDSS
Quantity	3 x 50% configuration
Micron	25
Treatment capacity	1,898m ³ /hr
Client	Modec Singapore
End User	Petrobras

Additional Information: American Bureau of Shipping class certification, Super Duplex stainless steel screen and interior, Design: 'U' stamp; 20 bar. NR13, Hazardous Area Zone 2, IIA, T3.

Unique challenges:

Modec sought a robust filtration solution for their offshore Floating Production, Storage, and Offloading (FPSO) vessel, owned by Petrobras. They required a filtration system to recycle treated produced water to be used onboard the vessel as injection water for oil recovery. The chosen filtration system needed to reliably handle large volumes of water, removing particles while preventing clogging through a self-cleaning process. The filters had to meet Petrobras' strict specifications, operating at high temperatures and effectively filtering water with an oil concentration of 50 ppm down to 25 microns, to support the downstream process.

Why Filtersafe was chosen:

Filtersafe was selected for its ability to provide a high-flow filtration solution with a compact footprint. Although the custom FS-1004 is larger than traditional Filtersafe filters, it effectively manages large volumes of water within the allocated space. Filtersafe's reliable automatic filtration system, featuring the patented NozzleX proximity nozzle, ensures 100% cleaning of the screen without disrupting the process. This allows the filters to filter and auto-clean as necessary without interruption. The filter is equipped with a state-of-the-art design, including a unique screen element and a patented cleaning mechanism that utilizes the bellow chamber pressure equalizer technology, ensuring 100% effective cleaning at all times. Additionally, its ease of operation and maintenance, along with reduced inventory requirements, made it an ideal choice for this application.

INDUSTRY

Energy

APPLICATION

Produced Water
Coarse Filter

FILTERSAFE

- 30 years filtration experience
- 3,000+ installations
- 10 µm & upwards
50-6,840 m³/hr
- Modular filter technology



The FPSO has been in operation since August 2023 with the filters operating as expected. The FPSO can process 80,000 barrels of crude oil and 7,000,000 cubic meters of gas per day.

sales@filtersafe.net