



April 2024

Rio Tinto selects Alfa Laval OceanGlide fluidic air lubrication with a focus on advancing efficient shipping and reducing emissions

Alfa Laval will provide Rio Tinto, the world's largest dry bulk shipper, with the OceanGlide fluidic air lubrication system. This innovative system enhances a ship's propulsion efficiency and energy savings while sailing.

Rio Tinto has selected the Alfa Laval OceanGlide fluidic air lubrication system for one of its bulk carriers, as part of its focus to boost vessel energy efficiency and decarbonize shipping. Recognizing the merits of OceanGlide in the market, the company has chosen to retrofit a Rio Tinto-owned vessel with the system to assess this energy-efficient technology for its fleet.

A smooth path to real energy savings

Introduced in 2023, Alfa Laval OceanGlide's energy-saving capabilities have generated considerable interest from shipowners seeking to address energy efficiency and emission challenges.

OceanGlide is proven to reduce specific drag from 50–75%, which means significant propulsion power savings. This leads to lower fuel consumption and reduced CO₂ emissions. The combination of these benefits positions it as a future-proof solution for improving vessel performance.

"We are delighted about OceanGlide being selected as one of the promising technologies that can support Rio Tinto in its decarbonization journey," says Rajiv Sarin, Head of Air Lubrication, Alfa Laval. "By providing innovative solutions, like OceanGlide, we empower our customers to achieve both efficiency and sustainability. We are proud to be part of the initiative that drives a more sustainable future."

Efficiently reducing drag with optimized airflow

The solution combines air lubrication with fluidic technology to create an even air layer with high efficiency and little compressor power. Through this innovative approach, OceanGlide creates a more streamlined air layer on the vessel's flat bottom by dividing the surface into segments, with each segment featuring its own fluidic band. The independent steering of each band allows a more controlled airflow to reduce friction between the hull and water. This distribution of bands into sections creates a more dynamic air layer, maximizing coverage and eliminating passive cavities along the vessel's underside.

The system requires no structural modifications, except for three to five hull penetrations of a maximum DN150. This ensures easy adaptation to existing classification certificates without necessitating any major changes or conversions, making it ideal for retrofitting as well as for new builds. The fluidic bands, designed with a low profile and no moving parts, can be configured underneath the ship at any shipyard with ease.



For further details about Alfa Laval OceanGlide fluidic air lubrication system, please visit:

www.alfalaval.com/OceanGlide

Explore Alfa Laval's sustainable solutions & technologies: [Sustainable shipping solutions and technologies | Alfa Laval](#)

For more information, please visit the Alfa Laval Marine webpage:

www.alfalaval.com/marine

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Editor's notes

This is Alfa Laval

Alfa Laval is a world leader in heat transfer, centrifugal separation and fluid handling, and is active in the areas of Energy, Marine, and Food & Water, offering its expertise, products, and service to a wide range of industries in some 100 countries. The company is committed to optimizing processes, creating responsible growth, and driving progress to support customers in achieving their business goals and sustainability targets.

Alfa Laval's innovative technologies are dedicated to purifying, refining, and reusing materials, promoting more responsible use of natural resources. They contribute to improved energy efficiency and heat recovery, better water treatment, and reduced emissions. Thereby, Alfa Laval is not only accelerating success for its customers, but also for people and the planet. Making the world better, every day.

Alfa Laval has 20,300 employees. Annual sales in 2022 were SEK 52.1 billion (approx. EUR 4.9 billion). The company is listed on Nasdaq Stockholm.

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