



OCEANBIRD

Powered by Alfa Laval and Wallenius

## Two tracks to a shipping revolution

### Reducing a lot on a few

The first newbuilt vessel from the Oceanbird concept, will most likely be Orcelle Wind. Equipped with six Oceanbird Wings, it will have a capacity for over 7,000 cars.

The vessel will be around 220 meter long, 40 meter wide and 70 meter high above water. The ambition is to commence sailing in late 2026 or early 2027.



### And even more from a lot

To achieve a shipping revolution, we need to address the 60,000 commercial vessels on sea today. First focus is RoRo (Roll On, Roll Off) but we are also looking into other segments.

One wing sail on an existing RoRo vessel at normal speed, can reduce fuel consumption from main engine with 7-10% on favorable oceangoing routes.



# Oceanbird Wing 560

**Height:** 40 meters (131 feet)

**Width:** 14 meters (46 feet)

**Total sail area:** 560 m<sup>2</sup> (6028 f<sup>2</sup>)

**Weight:** Approx 150 tons.

**Two segments:** Consists of a main sail and a flap, optimizing the aerodynamic forces by creating camber.

**Materials:** High strength steel and glass fiber. We aim to use as large amount of recycled material as possible and follows the progress of carbon neutral steel production in close cooperation with manufacturers.

**Performance:** One wing sail on an existing RoRo vessel at normal speed, can reduce fuel consumption from main engine with 7-10 % on favorable oceangoing routes.

This means a saving of approx. 675,000 liters of diesel per year, which corresponds to approx. 1920 tonnes of CO<sub>2</sub> per year.

**Developed by:** AlfaWall Oceanbird – a joint venture between Alfa Laval and Wallenius.



## What is...

**The Oceanbird concept** – A concept for wind-powered vessels. It shows that it is possible to reduce emissions from vessels by up to 90% if all emissions-influencing factors are aligned. It was developed in a Swedish R&D project team consisting of Wallenius Marine, KTH Royal Institute of Technology and SSPA/RISE and supported by Swedish Transport Administration.

**Orcelle Wind** – The first vessel from the Oceanbird concept. Wallenius Wilhelmsen have announced the intention to order the first vessels from the Oceanbird concept, which they will call Orcelle Wind.

Wallenius Marine is leading the ship design and new building project, and AlfaWall Oceanbird is providing the wind propulsion system.

**Retrofit** – A wing sail installed on an existing vessel.



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