

## Color Hybrid

## Color Line - Ulstein Shipyard, Norway



Color Hybrid is the world's largest plug-in hybrid ferry. It sails between Sandefjord, Norway and Stømstad, Sweden and has full battery operation in and out of the fjord to Sandefjord inner harbor. This means that the ship will not emit damaging greenhouse gasses, nitrogen and sulphur compounds into the air, and the noise from the ship will be reduced considerably.

The ship has a capacity of 2,000 passengers and 500 cars. It is 160 meters long with a beam of 27,1 meters. Frese has been a part of the project from the beginning and has been working closely with Fosen Yard with the design and implementation of the best and most sustainable solutions possible as well as with Ulstein Group in all the project stages.

## Task

The task was to make the ship as eco-friendly as possible, which is why Frese has been chosen to deliver different products to the ship – both below and above deck.

## Solution

Frese has delivered a wide range of automatic, pressure independent balancing valves counting the Frese OPTIMA Compact, Frese SIGMA Compact and Frese ALPHA HCR. The valves used above deck are a part of the accommodations counting the central heating and chilled water systems. Below deck Frese has delivered valves for the low temperature cooling water systems, chilled water systems, battery cooling and waste heat recovery water system.















