



Media release

Schaffhausen

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GF Piping Systems retrofits a 92.700 GT cruise ship with prefabricated plastic solutions

In collaboration with Mec.Ship, the Swiss flow solutions provider has replaced the hot and cold water manifolds onboard a cruise ship that started its service life as Costa Luminosa. During the project, the two companies contributed state-of-the-art planning, engineering, and execution practices. As a result, the cruise liner now benefits from long-lasting and corrosion-free piping materials.

The 92.700 GT cruise ship started its service life in 2009 as Costa Luminosa and has the capacity for 2.800 passengers. After ten years of service, the existing hot and cold water manifolds showed signs of corrosion as they were made of metal. Because of this, the former owners decided to install prefabricated ecoFIT and INSTAFLEX solutions by GF Piping Systems.

In order to meet the tight project deadlines and install the new piping systems while the ship was in operation, GF Piping Systems collaborated with the Italian company Mec.Ship to make highly accurate measurements of the complex manifolds. The data gathered from 3D scanners was used to design the replacements using GF Piping Systems' extensive CAD libraries and prefabrication capabilities. Combined with efficient jointing technologies such as butt fusion and electrofusion, the installation could be carried out quickly with minimal impact on the passengers and crew.

Roberto Chiesa, Head of Business Development Marine at GF Piping Systems, is pleased with the outcome of the project: "Our company has over 30 years of experience as a supplier and partner of renowned shipyards and ship owners, and we are committed to offering innovative, energy-saving piping solutions for the marine sector. Thanks to the combined design, engineering, and prefabrication knowledge of GF Piping Systems and Mec.Ship, we were able to create replacement manifolds that are perfectly adapted to the specific needs of the former Costa Luminosa. The material properties of ecoFIT and INSTAFLEX ensure a corrosion- and maintenance-free operation of the lightweight systems during the ship's entire service life – as we say, they create connections for life."

ecoFIT is a polyethylene piping system suitable for transporting water and wastewater at operational temperatures between -50°C and 60°C and has an expected service life of 25 years. INSTAFLEX, the polybutene solution by GF Piping Systems, is designed for drinking water installations. Polybutene does not release any taste or pollutants, while smooth inner surfaces prevent limescale deposits.

[Access the full reference case here.](#)

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About GF Piping Systems Ltd.

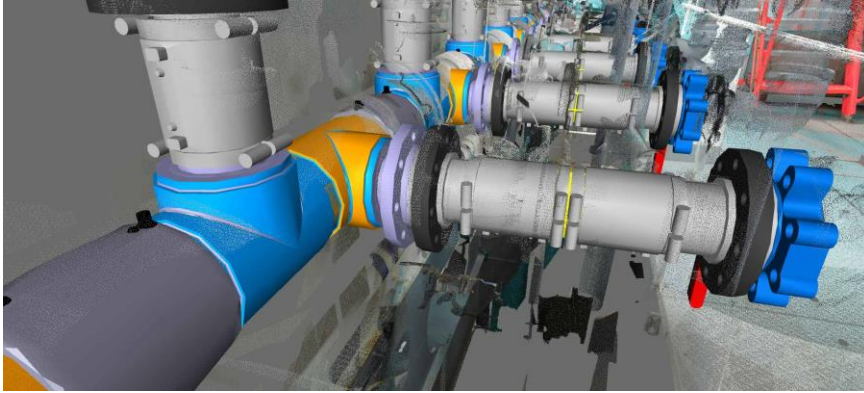
As the leading flow solutions provider for the safe and sustainable transport of fluids, GF Piping Systems creates connections for life. The division focuses on industry-leading leak-free piping solutions for numerous demanding end-market segments. Its strong focus on customer-centricity and innovation is reflected by its global sales, service, and manufacturing footprint and its award-winning portfolio, including fittings, valves, pipes, automation, fabrication, and jointing technologies.

GF Piping Systems has its own sales companies in 31 countries, which means it is always by its customers' side. Production sites in 36 locations in America, Europe, and Asia ensure sufficient availability and quick, reliable delivery. In 2022, GF Piping Systems generated sales of CHF 2'160 million and employed 8'085 people. GF Piping Systems is a division of Georg Fischer AG, founded in 1802 and headquartered in Schaffhausen, Switzerland.
www.gfps.com

Pictures

Thanks to the material properties of the ecoFIT and INSTAFLEX piping systems, the hot and cold water manifold benefit from a corrosion- and maintenance-free operation.

Source:
GF Piping Systems



The replacement manifolds were designed by 3D-scanning the existing systems.

Source: GF Piping Systems