



Media Release

Schaffhausen

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COOL-FIT: Certified sustainability for marine cooling applications

With approvals by DNV, RINA, Lloyds Register, and Bureau Veritas, COOL-FIT has already changed the planning, installation, and operation of cooling applications on ships. The entirely pre-insulated plastic piping system is a lightweight, long-lasting, and cost-effective solution for air conditioning and refrigeration onboard. Now, COOL-FIT has been assessed with an Environmental Product Declaration (EPD).

As the marine industry strives to become more sustainable, shipbuilders, owners, and operators require modern technology that helps them reduce CO₂ and greenhouse gas emissions. In 2022, a study commissioned by GF Piping Systems and conducted by the ship design and engineering specialist Foreship showed that COOL-FIT, the company's pre-insulated plastic piping system, is helping ship owners and operators to save fuel, reduce emissions, and lower costs.

For added transparency, the company has now assessed the COOL-FIT range with an EPD in accordance with ISO 14025 and EN 15804. An EPD is a standardized, third-party verified document that uses scientifically quantified data from Life Cycle Assessments to estimate environmental impacts and enable comparisons between similar products.

In addition to sustainability and performance, the COOL-FIT range also offers a number of new components that address the specific needs of the marine industry. When ships are built using individually assembled sections, a sliding coupler allows pre-installed piping systems to be quickly connected. Similarly, the sliding coupler also simplifies the process of retrofitting sections of pipe on existing ships. The COOL-FIT Fixpoint kit, on the other hand, is designed as a solution for the high loads often encountered on large ships with pipe dimensions over DN140 and a length exceeding 50 meters. It is capable of withstanding three times the forces of a standard fixpoint.

Daniel Dossenbach, Head of Global Product Management Cooling at GF Piping Systems is proud of COOL-FIT's performance in the industry: "We have already shown that COOL-FIT makes ships more efficient and sustainable. With our EPD certification we now also provide transparent information on the environmental performance of the system itself, which benefits the customer. Combined with COOL-FIT products that are specifically designed for the high demands onboard, we believe that we can offer the marine industry a flexible and complete cooling solution that plays a valuable role in achieving their sustainability goals."

COOL-FIT is a completely pre-insulated plastic piping system consisting of pipes, fittings, valves, flexible hoses, and tools. They can be implemented in secondary refrigeration and air conditioning applications using chilled water, as well as glycol, ethanol, and brine in the -50°C to +60°C temperature range. Thanks to the factory-installed pre-insulation of the plastic components and the vaporproof construction, the system facilitates 30% better insulation performance within the cooling circuit compared to a traditional post-insulated piping system made of metal. Furthermore, it is 60% lighter than post-insulated metal systems and can be installed 50% faster thanks to electrofusion jointing technology. Through the application of

corrosion-free materials, COOL-FIT has a service life of 25 years and therefore saves resources that would otherwise be necessary for maintenance, repairs, or replacements.

[Meet GF Piping Systems at Nor-Shipping 2023 from 6 to 9 June in Oslo, Norway, at booth D01-08.](#)

[Find out more about COOL-FIT's EPD certification.](#)

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GF Piping Systems

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





COOL-FIT has already proven to offer performance benefits compared to metal. Thanks to an EPD certification, customers can now also access transparent information on its environmental performance.

Source: GF Piping Systems



Daniel Dossenbach, Head of Global Product Management Cooling at GF Piping Systems.

Source: GF Piping Systems