



Media Release

Schaffhausen

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At least 25% lower emissions: GF Piping Systems' plastic Butterfly Valve 565 beats metal alternatives

GF Piping Systems commissioned Swiss Climate AG to perform a Life Cycle Assessment (LCA) for the Butterfly Valve 565 and compare it to a metal alternative. Now, the Swiss company has published a whitepaper based on the results. In addition, the LCA has enabled the Butterfly Valve 565 to become the first industrial butterfly valve with an Environmental Product Declaration (EPD).

In today's industries, operators are increasingly reliant on long-lasting and safe piping systems that help them close water circuits, reduce leakages, and optimize their water usage. But in order to achieve the necessary longevity and sustainability of these piping systems, the choice of material is crucial.

Swiss flow solutions provider GF Piping Systems therefore commissioned a Life Cycle Assessment of the plastic Butterfly Valve 565 by the independent institute Swiss Climate AG. The system boundaries as well as the quality and scope of the LCA were defined in accordance with the Product Category Rule (PCR) 2019:143. To put the results into context, a Butterfly Valve 565 DN100 was compared to an equivalent metal valve in the same configuration.

Swiss Climate AG has come to the conclusion that the plastic valve outperforms the metal valve in a number of key areas. The Butterfly Valve 565 emits significantly fewer greenhouse gas emissions when comparing the individual service lives of the two materials. This gap increases further when taking into account that the metal valve would have to be replaced around three times during the 565's expected 23-year lifespan. In addition, the plastic valve has a lower water footprint.

Jochen Hamburger, Product Manager Valves at GF Piping Systems, is pleased with the results published in the whitepaper. "We have focused on plastic as a piping material for many decades, and our products reliably transport water, chemicals, and gas in a wide range of applications across industries. Proving that our 565 emits 25% fewer greenhouse gas emissions compared to a metal valve has confirmed our belief that plastic piping systems are a long-lasting, cost-effective, and sustainable solution. At the same time, the EPD certification, which is the first for an industrial butterfly valve, offers our customers transparent information on the 565 and allows them to make an informed decision based on an independent analysis."

The Butterfly Valve 565 is a wafer-style valve designed for water and water treatment applications and is suitable for a wide range of plastic piping systems and flange standards. The 565 features a very high pressure and temperature resistance (PN16 at 80°C). Furthermore, the material properties of its plastic components lead to a 60% lower weight compared to metal and make it more cost-effective due to a longer service life and lower maintenance requirements. Standard digital interfaces allow the Butterfly Valve 565 to be equipped with additional accessories and various types of actuation.

[Access the full whitepaper here.](#)

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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.

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Pictures

	Over its expected 23-year lifespan, the Butterfly Valve 565 by GF Piping Systems emits at least 25% fewer greenhouse gas emissions compared to a metal alternative. Source: GF Piping Systems
	The 565 is the first industrial butterfly valve with an EPD and therefore offers customers transparent information on its environmental performance thanks to an independent analysis. Source: GF Piping Systems