



Media Release

Schaffhausen

13 May 2024

Energized partnerships: GF Piping Systems contributes to the green hydrogen growth by supplying corrosion-free and safe polymer solutions

As the global demand for green hydrogen rises, so too does the demand for efficient and safe flow solutions for long-lasting hydrogen applications. With 60 years of thermoplastic expertise, GF Piping Systems has begun to apply its extensive experience to this dynamic sector, offering a wide range of products and services.

Hydrogen is far from a novel concept, tracing back to its discovery in the late 18th century. However, the advent of green hydrogen production that bridges the intermittency gap often associated with wind and solar energy is sparking renewed interest. Piping systems are required throughout the entire green hydrogen value chain, from desalination plants, water treatment, electrolyzers, and distribution to embedded storage and fuel cells. To meet the demands of the industry and drive the cost reduction of green hydrogen, GF Piping Systems aims to increase performance, ensure operational safety, and improve the lifetime of these hydrogen applications.

Within the hydrogen sector, the material selection for piping systems is an underestimated factor. A common challenge in all H₂ applications is the need to prevent impurities, and accelerated degradations due to dissolved ions which is a particular concern in metal piping systems. Corrosion and maintenance-free polymer alternatives, on the other hand, can extend the lifespan of systems and components which not only reduces downtimes but also the overall cost of producing hydrogen molecules.

As part of a commitment to support the entire hydrogen value chain, GF Piping Systems is extending its leading polymer expertise beyond desalination and water treatment to collaborate with electrolyser and fuel cell manufacturers. To serve the need for hydrogen storage, the Swiss flow solutions provider offers high quality injection-moulded and extruded tank liner components, made of PE100 and various grades of PA needed as gas barrier for Type IV hydrogen high pressure tanks.

Rachel Bros De Puechredon, Global Business Development Manager Hydrogen at GF Piping Systems, comments: "We are quickly and successfully transferring our extensive expertise in challenging industries such as microelectronics to the hydrogen sector. Thanks to our corrosion-free and chemical resistant components, comprehensive services, as well as our global presence, we believe that we can energize partnerships that shape the sustainable energy transition."

GF Piping Systems offers a vast portfolio for the safe and reliable transport of gases and fluids and operates 36 production sites as well as 18 prefabrication facilities across 31 countries. This enables the company to provide customers with full project support, from planning and engineering to the installation on-site. Established distribution systems including ELGEF Plus and MULTI/JOINT® 3000 PLUS have already received H₂ certifications by KIWA and DBI and are 100% hydrogen ready. In addition, the company is a member of organizations such as Hydrogen Europe, NWBA in NL, and DVGW in Germany.

Visit GF Piping Systems at IFAT in Munich (13-17 May) and World Hydrogen Summit in Rotterdam (13-15 May).

Find out more about how GF Piping Systems can support customers in the hydrogen sector, please visit: www.gfps.com/hydrogen

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GF Piping Systems

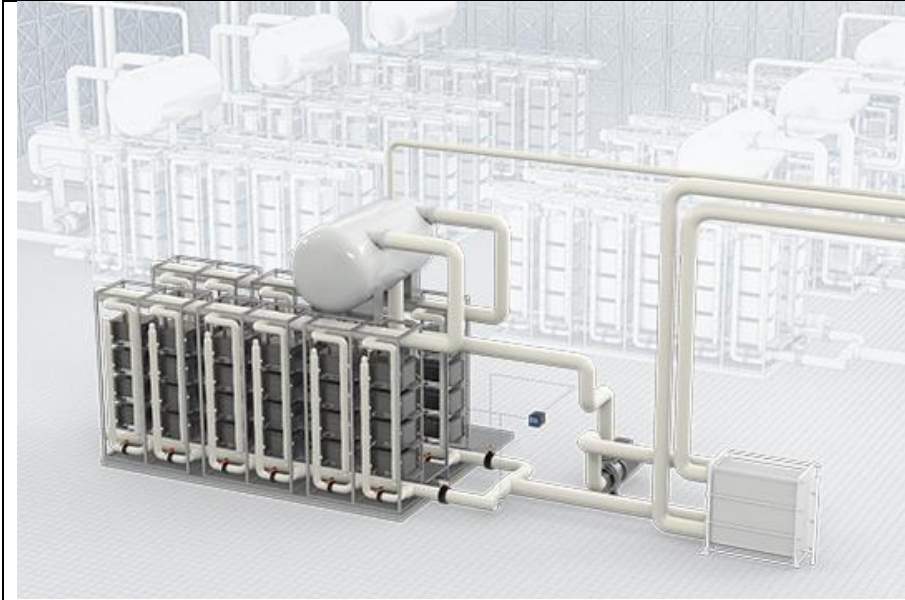
As the leading flow solutions provider for the safe and sustainable transport of fluids, GF Piping Systems creates connections for life. The division focuses on industry-leading leak-free piping solutions for numerous demanding end-market segments. Its strong focus on customer-centricity and innovation 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 33 countries, which means it is always by its customers' side. Production sites in 40 locations in America, Europe, and Asia ensure sufficient availability and quick, reliable delivery. In 2023, GF Piping Systems generated sales of CHF 2'1 bn and employed 8'798 people. GF Piping Systems is a division of Georg Fischer AG, founded in 1802 and headquartered in Schaffhausen, Switzerland.

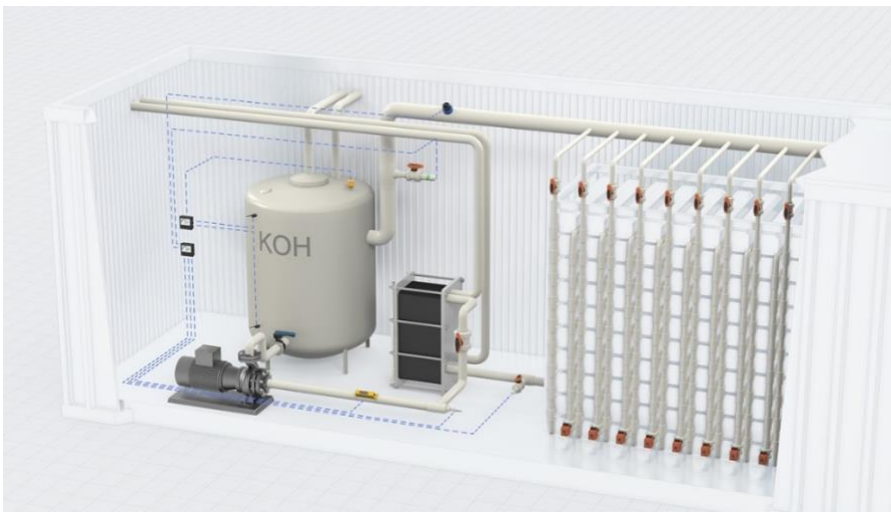
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Pictures

	<p>Energized partnerships: GF Piping Systems aims to increase performance, ensure operational safety, and improve the lifetime of hydrogen applications.</p> <p>Source: GF Piping Systems</p>
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Proton Exchange Membrane (PEM) electrolyser



Anion Exchange Membrane (AEM) electrolyser

Piping systems are needed for various media such as ultra-pure water, cooling liquids, or KOH lye across the entire value chain, particularly during water electrolysis. GF Piping Systems offer complete solutions, including pipes, valves, and sensors for Electrolyser OEMs (PEM, AEL and AEM, exemplified in the pictures PEM and AEM).

Source: GF Piping Systems