



Media Release

Schaffhausen

30 April 2024

GF Piping Systems supplies 5,000 valves for revolutionized bioplastics production in China

For the construction of the newest ion exchanger generation, Swiss flow solutions provider GF Piping Systems supplied a valve solution that reduces wastewater discharge and improves efficiency for Tianjin-based Oumingzhuang Biological Technology (OMZ). The company specializes in process equipment used to produce biodegradable plastics.

Lactic acid is a key raw material for bioplastics which can be used for everyday products ranging from bags and cutlery to packaging materials. To meet the growing demand for this organic compound, process equipment specialist OMZ builds ion exchangers capable of turning corn starch into lactic acid. As part of a ten-year partnership, the company relies on GF Piping Systems to provide valves for its highly automated solutions.

With the goal of enabling its customers to reduce their water usage and wastewater discharge, OMZ saw an opportunity in 2020 to expand the volume and efficiency of its 5th generation ion exchanger. In order to achieve this goal, the company required technical solutions that provided a high level of reliability in acidic environments and could be integrated into a modern automation loop.

During the project, OMZ and GF Piping Systems installed a total of 5,000 valves across seven parallel ion exchangers. By selecting DN50 valves, it was possible to implement smaller sizes while maintaining an equivalent flow capacity. As a result, OMZ could also downsize the equipment and reduce the overall weight of the system. Once installed, the thermoplastic valves were able to increase efficiency, reduce wastewater discharge by 40%, and improve resin utilization by 30%.

Zhang Tianti, General Manager at OMZ, is pleased with the results of the collaboration: “We have enjoyed a decade-long partnership with GF Piping Systems, whose products and services have been instrumental in our success. GF Piping Systems is a trusted and reliable partner, and we eagerly anticipate continuing our collaboration in areas such as biotechnology fermentation and lithium extraction from salt lakes to further advance sustainable industrial development.”

Wang Yingjie, Senior Sales Manager, Energy Key Account Sales at GF Piping Systems China, adds: “We are committed to strengthening our business impact without forgetting to do so in a sustainable way and contributing to societal and technological progress. Bioplastics made with lactic acid are essential to replace everyday products that are traditionally made of petroleum-based plastics. We are therefore proud to have supplied more than 100,000 valves to OMZ throughout our partnership.”

Media contact:

Constanze Werdermann, Global PR Manager
constanze.werdermann@georgfischer.com
+41 76 33 99 218

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.

www.gfps.com

Pictures



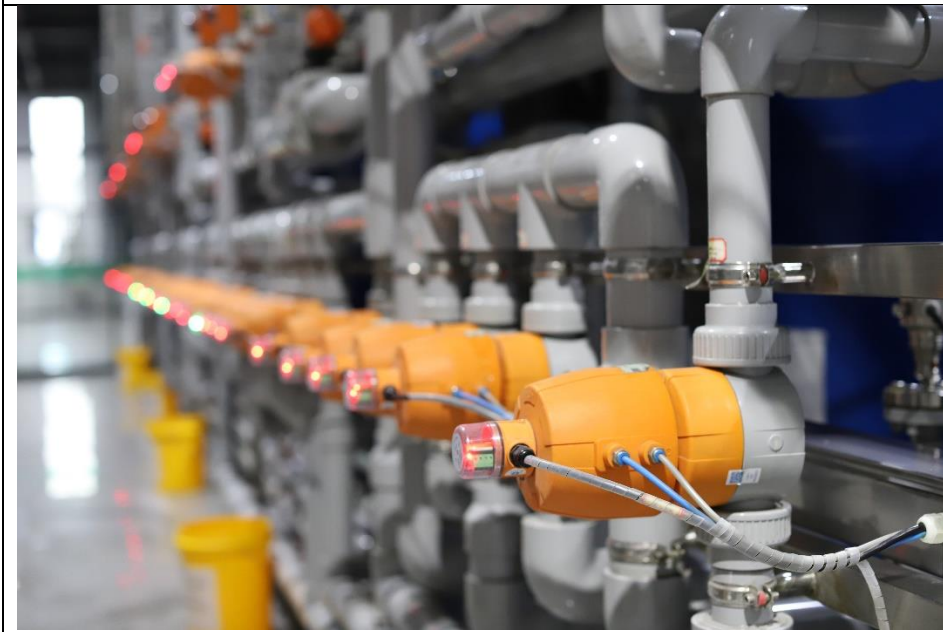
A total of 5,000 valves across seven parallel ion exchangers to produce biodegradable plastics.

Source:
GF Piping Systems



OMZ's innovative ion exchange system has elevated resin utilization efficiency by over 30% for the customers. Furthermore, it has substantially curtailed acid and alkali consumption, resulting in a reduction of wastewater discharge by over 40%.

Source:
GF Piping Systems



High-performance diaphragm valves help to increase utilization efficiency by over 30% while reducing wastewater discharge by 40%.

Source:
GF Piping Systems