

## Process Automation

# Future-proof water treatment plant for large sustainability project

De Halve Maan Brewery, Bruges

Wastewater treatment for reduction of environmental impact with solutions from GF Piping Systems

# Future-proof water treatment plant for De Halve Maan brewery thanks to the Butterfly Valve 565 from GF Piping Systems

As part of a major sustainability project, De Halve Maan brewery opened a brand new water treatment plant at its Bruges bottling facility in 2022. For the design, installer Veolia Water Technologies Belgium chose the brand new plastic Butterfly Valve 565 from GF Piping Systems. Not only can these valves replace their metal counterparts one-to-one, but they are also completely corrosion resistant, more compact, and 60% lighter than metal counterparts. The valves combine ease of use with robustness, simplifying installation and greatly enhancing the system's life.

## Project background

De Halve Maan brewery is located in the heart of the City of Bruges, where it has passed on the art of beer brewing from generation to generation since 1856. Best known for its beers Brugse Zot and Straffe Hendrik, the authentic family business has one goal: to brew superior quality beers with respect for tradition. De Halve Maan does this with the environment in mind. For example, in 2016, amid worldwide media attention, the brewery inaugurated a pipeline that pumps beer from the brewery under the city to the bottling facility, three kilometers away. This way, De Halve Maan was able to keep a lot of heavy freight traffic out of the city and reduce its carbon footprint.

As part of a major sustainability project in 2022, the brewery opted to install solar panels and a brand new water treatment plant at the bottling facility. The plant is there to help treat wastewater and further reduce the environmental impact. For the design and installation of the plant, the brewery put its trust in Veolia Water Technologies Belgium, a market leader in water treatment.



Joeri Tomas Fahim (GF Piping Systems) and Karsten Pauwels (De Halve Maan) at the water treatment plant.

## Light and compact

“Designing water treatment plants involves a lot of planning because the space available at a company site is very limited,” says Antoine Carlier, Project Engineer at Veolia Water Technologies Belgium. “It is important to be able to work with the most compact and easy-to-install components without sacrificing quality and durability. Therefore, for the butterfly valves, which are placed between pipes to regulate the inflow and outflow of water, we turned to GF Piping Systems. Their innovative offerings lent themselves perfectly to this.”

With the Butterfly Valve 565, GF Piping Systems, specialized in piping systems for water and water treatment applications, launched a plastic valve that couples the robustness of metal valves with a light and compact size. GF Piping Systems went to Veolia in Tienen to demonstrate the added value of the valve. “The Butterfly Valve 565 is up to 60% lighter than its metal counterparts,” says Joeri Tomas Fahim, account manager for GF Piping Systems’ industrial customers in Flanders. “That means the load on the pipelines is much lower, which means they need less support, allowing for a more compact plant design. Their small size also allows them to be installed in smaller spaces.”

“Their compact nature and lower weight are also good news for the installer,” adds Antoine Carlier. “The installation is so much less physically demanding for them, especially considering the water treatment plant has about fifty valves.” The Butterfly Valve 565 comes in different sizes and versions for manual and fully automatic operation. Many of the valves are equipped with electronic feedback to the control room, indicating whether the valve is open, or closed.



### Corrosion and pressure resistant

The plastic butterfly valves are not only extremely light, they are also completely corrosion resistant. "Unlike metal butterfly valves that rust and wear from water over time, plastic valves do not oxidize. That means their lifespan is much longer. With the butterfly valves, the new wastewater treatment plant is extremely future-proof. Above all, we developed the valves to replace just about all metal butterfly valves one-to-one. This means the lifetime of each plant can be increased without the need for major works involving long downtimes," says Joeri Tomas Fahim.

Furthermore, pressure and temperature resistance was an important issue in the water treatment plant at De Halve Maan. In fact, some valves are used in a system with heated water or are installed below a ten-meter-high tank. The operating pressures are relatively high for plastic piping systems, but even under these circumstances, the butterfly valves do not yield, thanks to the fiberglass-reinforced housing.

### Sense of innovation and quality

The De Halve Maan brewery is extremely pleased with the result and sees the future looking bright. "As a brewery, we highly value sustainability and circular manufacturing. It goes without saying that we also look for these values in our choice of partners and suppliers," says Karsten Pauwels, process manager at De Halve Maan.

"The sense of innovation and quality at GF Piping Systems are proof that they develop products that stand the test of time. As a brewer, we are big fans of stainless steel, but it is clear that the added value of plastic in this application is enormous. The plastic butterfly valves from GF Piping Systems are a new generation of innovation that will contribute to the longevity of our water treatment plant and the sustainability of our delicious beer through their robustness and lightness."



Butterfly valves equipped with pneumatic or electric actuators are used as process and control valves.



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