GF Piping Systems

Process Automation

Ensuring precise flow for indoor swimming pools

Swimtec AB selected Process Automation solutions including the pneumatic Butterfly Valve 565 by GF Piping Systems for a pool renovation.

Automated butterfly valves control the flow of 580 cubic meters per hour

Swimming pools play an important role when it comes to public health and social interaction. However, operators must continuously ensure the highest possible water quality. This requires piping systms that control processes such as temperatures, tank levels, and dosing chemicals. When the Swedish company Swimtec AB was tasked with the renovation of the Kaskad indoor swimming pool in the community of Kinna, the decision was made to overhaul the filtration system with 200 Butterfly Valve 565s from Swiss flow solutions provider GF Piping Systems.

Project background

Swimming pools and other applications involving bathing water can be challenging to run and maintain, particularly in the context of temperatures or chlorides. Consequently, operators need to ensure a high water quality that not only offers customers the best experience but also prevents health risks. When Swimtec began its renovation of the indoor pool in Kinna, the company therefore also overhauled the filtration plant with four additional filter treatment systems designed to serve seven pools. As part of this overhaul, Swimtec decided to install the Butterfly Valve 565 as well as pneumatic actuators and electro-pneumatic positioners by GF Piping Systems.

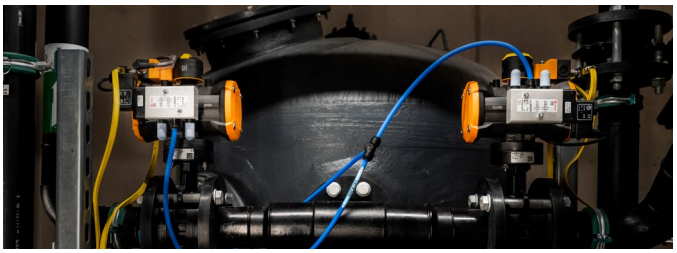
Selected technical solution

The Butterfly Valve 565 is designed for water and water treatment applications and features a very high pressure and temperature resistance (PN16 at 80°C). Furthermore, its plastic components lead to a 60% lower weight compared to metal and make it more cost-effective thanks to their corrosion-resistance. Standard digital interfaces allow the Butterfly Valve 565 to be equipped with various actuators such as the Pneumatic Actuator, a robust and compact solution with a NAMUR interface for the optional Electro-pneumatic Positioner. The new Plastic Pneumatic Actuator type PPA is also compatible with the Butterfly Valve 565 up to DN80. In addition, the Butterfly Valve 565 is the first industrial butterfly valve with an Environmental Product Declaration (EPD). A Life Cycle Assessment (LCA) conducted on the 565 showed that the plastic solution emits 25% less CO2 compared to a metal butterfly valve.

Achieved improvement

After successfully running test valves, Swimtec installed 200 Butterfly Valve 565s with a mix of manual versions as well as pneumatic actuators and positioners. Traditionally, swimming pools have often relied on metal valves, however, the plastic materials of the 565 offer both chemical and corrosion-resistance. Furthermore, the Pneumatic Actuator now ensures a precise flow which improves energy efficiency while wasting less water. At the same time, the Electro-pneumatic Positioner has automated processes such as backwash and splash drains. As a result, the Kaskad swimming pool now benefits from a cost-effective and long-lasting system with modern functionality that improves the experience for staff and customers.

Reliable and corrosion-free valves are essential for providing a high water quality in swimming pools.



The plastic Pneumatic Actuator type PPA is now also available fthe Butterfly Valve 565 up to DN80.

Customer benefits

- **The materials of the Butterfly Valve 565 ensure a high chemical and corrosion-resistance which leads to a long-lasting operation**
- **The compact and robust Pneumatic Actuator and the Electro-pneumatic Positioner allow operators to efficiently automate valves in a wide range of applications**
- **The combination of longevity, reliability, and automation allows staff to focus on other tasks**

Find out more **Watch our video**

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