SUCCES STORY HAPPYLAND

EPIV – the energy-efficient and sustainable solution for “happyland”.

Electronic pressure-independent valve optimises HVAC system at leisure facility

“happyland” in Klosterneuburg (Austria) offers a huge range of leisure activities for all ages including an indoor wellness pool, a large outdoor sports pool, various playing fields and a large sauna area. In 2013 the operator decided to undertake major renovation, extension and modification work. State-of-the-art technical systems were used, for example to renovate the heating distribution and complex ventilation system. Particular importance was attached to the perfect control technology. The EPIV – one of Belimo’s innovative products – more than lived up to its role as a problem-solver in this project.

TYPE OF BUILDING
Leisure facility

PROJECT
Renovation

SECTOR
Heating, ventilation and air conditioning (HVAC)

PRODUCTS
Electronic pressure-independent characterised control valves (EPIV)

BELIMO

Requirements.

Initial situation

Renovation projects don't always get off to a smooth start. Once the current situation has been evaluated and the system documentation put together, work to configure the individual components normally gets underway. Just like the pipework, the control valve also has to be sized. Such lengthy k_{vs} calculations often involve system parameters which are hard to gauge, such as valve authority. An additional challenge in planning this project was that all renovation work had to be undertaken during ongoing operation in order to prevent loss of revenue.

Project requirements

- Renovation during ongoing operation
- Good suitability for everyday use
- Simple handling
- Sustainable, optimum system operation

Belimo solution

Belimo attaches great importance to providing planners with extensive support and working closely with engineering companies. Helmut Doblhofer from the technical office GBT Planung GmbH was quickly convinced of the benefits of the new electronic pressure-independent valve solutions (EPIV). He recognised the benefits of the EPIV, such as reduced planning work and simple valve design, because he had already planned the function principle in zone control for air-handling systems (VAV). The dynamic hydraulic balancing and the large dynamic range of the EPIV make the valve authority across the entire control equals 1. Once the order had been placed with Bacon Gebäudetechnik GmbH (Linz branch), the costs of a conventional solution (fitting a line-type regulator and manual hydraulic balancing) were to be compared with those of Belimo's EPIV solution. This showed that the EPIV solution is noticeably cheaper and that the system can be operated with much more energy efficiency.

"The EPIV solution is based on state-of-the-art technology. It reduces manufacturing costs, and the five-year product warranty provides good investment protection. The system also ensures sustainable and optimum system operation for years to come."

Thomas Pfeiffer, Project Manager
Bacon Gebäudetechnik GmbH

Result.

Customer benefit

- Greatly minimised efforts for hydraulic balancing.
- Easy to integrate in measuring, control and regulation technology.
- More cost-efficient than conventional systems.
- Feedback signal provided for amount of water measured.
- Constant, dynamic hydraulic balancing of entire system.
- 5-year product warranty.

Customer satisfaction

Thomas Pfeiffer (overall project manager at Bacon Gebäudetechnik GmbH) was quick to opt for the EPIV thanks to its many benefits. “This solution was able to fast and smoothly complete the challenge of modifying and starting up each of the eight distributors during operation.” Pfeiffer was also very pleasantly surprised about practical suitablity, how easy it is to handle and the commercial advantages: “The EPIV solution is based on state-of-the-art technology. It reduces manufacturing costs, and the five-year product warranty provides good investment protection. The system also ensures sustainable and optimum system operation for years to come.”

A total of 45 EPIV were fitted on eight distributors during ongoing operation. This wasn’t a problem for Belimo’s characterised control valve, which dynamically regulates hydraulic balancing.

All inclusive.

Belimo is the global market leader in the development, production, and sales of field devices for the energy-efficient control of heating, ventilation and air-conditioning systems. The focus of our core business is on damper actuators, control valves, sensors and meters.

Always focusing on customer value, we deliver more than only products. We offer you the complete product range for the regulation and control of HVAC systems from a single source. At the same time, we rely on tested Swiss quality with a five-year warranty. Our worldwide representatives in over 80 countries guarantee short delivery times and comprehensive support through the entire product life. Belimo does indeed include everything.

The "small" Belimo devices have a big impact on comfort, energy efficiency, safety, installation and maintenance.

In short: Small devices, big impact.

- 5-year warranty
- On site around the globe
- Complete product range
- Tested quality
- Short delivery times
- Comprehensive support

EN – 12.2024 – Subject to technical modifications

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