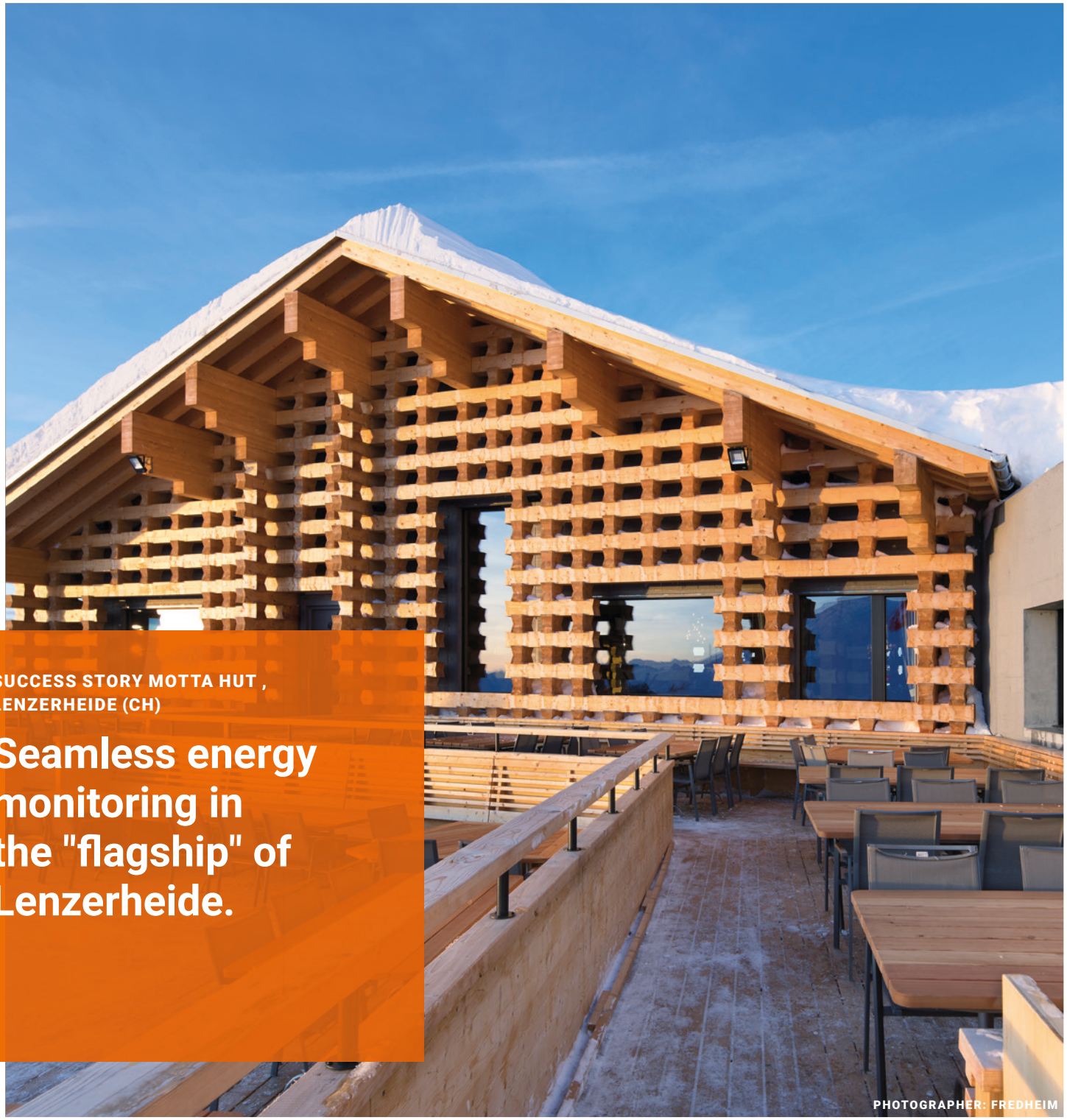


SUCCESS STORY MOTTA HUT ,
LENZERHEIDE (CH)

Seamless energy monitoring in the "flagship" of Lenzerheide.

The new Motta Hut is the hub for hungry and thirsty snow sports enthusiasts.

The slopes and ski lifts in the Arosa Lenzerheide ski resort had just barely shut down in 2017 before the bulldozers moved in to tear down the old Motta Hut. The new flagship project had to be ready by the start of the 2017/2018 ski season. The new Motta Hut has room inside for 120 people and outside for 240 more on its ample, multi-level sun terrace. The innovative timber-frame construction ensures a rustic, yet modern ambiance, both inside and out. This makes the new ski restaurant an international flagship and an experience for every snow sport enthusiast. To ensure that the restaurant operators would be able to take care of their guests, a HVAC system with the maximum amount of automation was once again selected for the Motta Hut. As with other projects, the plant was also equipped with Belimo products. The new sensor product range attracted just as much attention as the Belimo Energy Valve™ with Cloud connection.

TYPE OF BUILDING
Alpine lodge

PROJECT
New building

TRADE
HVAC

PRODUCTS
7 Belimo Energy Valve™, various sensors for temperature, air quality and pressure

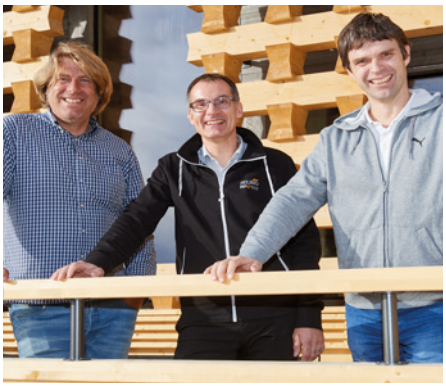
BELIMO

The networked future of HVAC systems.

As with the new construction of the Scharmoin mountain restaurant, there was also a tight schedule for the Motta Hut. Absolute delivery reliability was just as indispensable as the selection of products which met the high quality requirements and offered even more transparency and control with regard to the function of the HVAC system. This was ensured with the installation of the Belimo sensor product range and the new Belimo Energy Valve™ with Cloud connection.

Comprehensive range of HVAC sensors.

For over 40 years, Belimo has been constantly developing and expanding its range of new products and technologies to improve efficiency in buildings. With its complete sensor product range for temperature, humidity, air quality and pressure, Belimo can provide all of the HVAC field devices from a single source. The sensors feature a unique and uniform housing and assembly concept, which allows quick installation and makes them fully compatible with all major building automation and control systems. Particularly eye-catching is the housing, which provides IP65 protection. The catch fastener makes it possible to open and close the lid without the use of tools, thus enabling rapid and reliable installation.
The integration of the sensors makes it possible to control, monitor and check the entire HVAC system even better than before. At the Motta Hut, the Belimo sensors were installed in the air handling unit, in the heating lines and for measuring the outdoor temperature.



"Thanks to the sensors and the connection to the Belimo Cloud, the evaluations can be broken down even more precisely to the individual valve. In addition, we can also view the data and the evaluations without difficulty, and thus better distribute the energy costs."

Samuel Lorez, Head of Technology at Lenzerheide Bergbahnen AG (pictured at the upper left, with Hanspeter Moser of Belimo in the middle and Martin Eckhoff of AZ systems AG on the right)

Multifunctional Belimo Energy Valve™ for transparent energy monitoring.

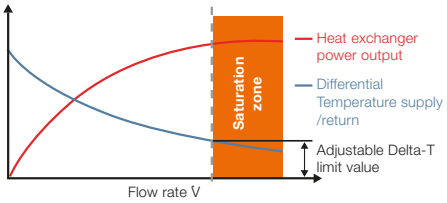
The intelligent, pressure-independent valve combines five functions in a single, easy-to-assemble unit. The further development into an IoT device (Internet of Things) thanks to the connection to the Belimo Cloud makes measuring, controlling, balancing, shutting off and energy monitoring even more transparent and the corresponding operation even easier. Unique functions such as the Delta-T manager or the possibility of direct power control provide clarity, enhance efficiency and reduce costs.

By being integrated into the Belimo Cloud, Lenzerheide Bergbahnen AG receives all information on the energy consumption of the heat pump, heating group and ventilation units in its own account. Other advantages of the cloud, in addition to transparency, are cloud optimisations: To improve system performance and stability, the Delta-T settings recommended by Belimo experts can be made available using a cloud-based analysis. Furthermore, the online updates ensure that the Belimo Energy Valve™ represents the very latest state of technology at all times. In addition, support via Cloud aids technicians in commissioning or solving technical problems. For this reason, Belimo also grants a 7-year guarantee for the Belimo Energy Valve™ with Cloud connection. Particularly in cases of new systems, such as with the reconstruction of the Motta Hut, we recommend that the settings be checked at the beginning. This means that the system will have optimum function from the very beginning and that there will be no unnecessary energy consumption. The main responsibility of the Belimo Energy Valves™ is regulating individual components and identifying the performance that each consumer requires.

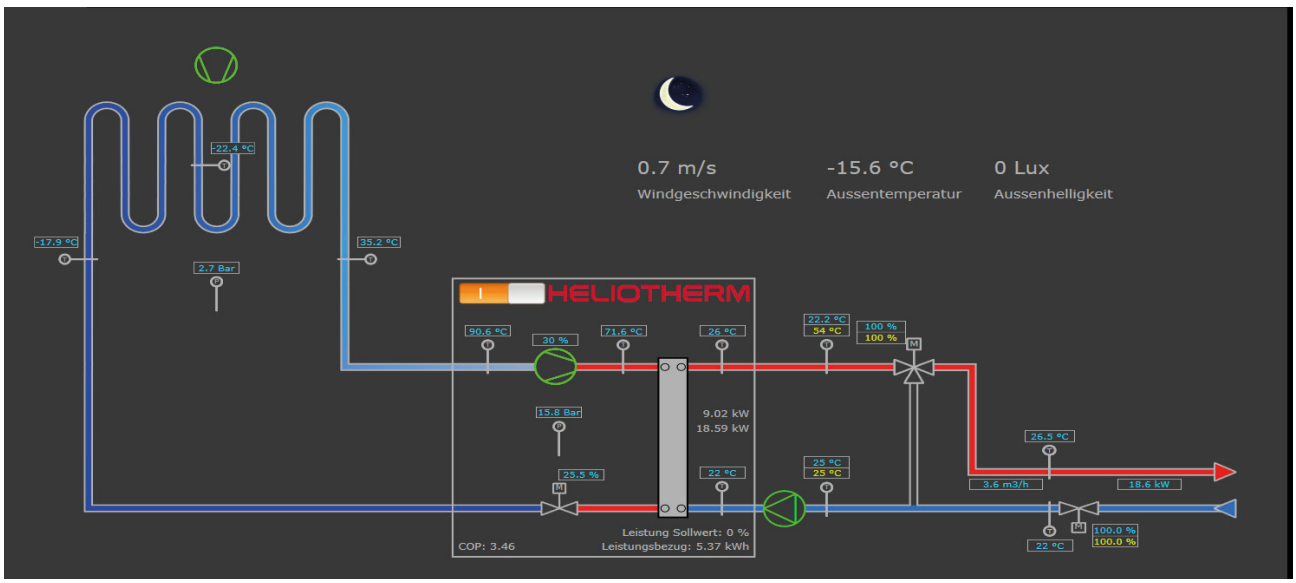
OPERATION OPTIMISATION WITH DELTA-T MANAGER

With too low a differential temperature, the energy consumption of the pumps as well as the cooling and heat generation increases above a certain operating point - without increasing the output.

Delta-T management, either integrated in the Belimo Energy Valve™ or done by Belimo experts via the Belimo Cloud, always ensures an efficient operation. This means that it is no longer possible for the heat exchanger to become flooded.



The picture shown below shows the basic circuit diagram for the heat pump from the AZ systems AG management system.



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 – 03.2019 – Subject to technical modifications

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