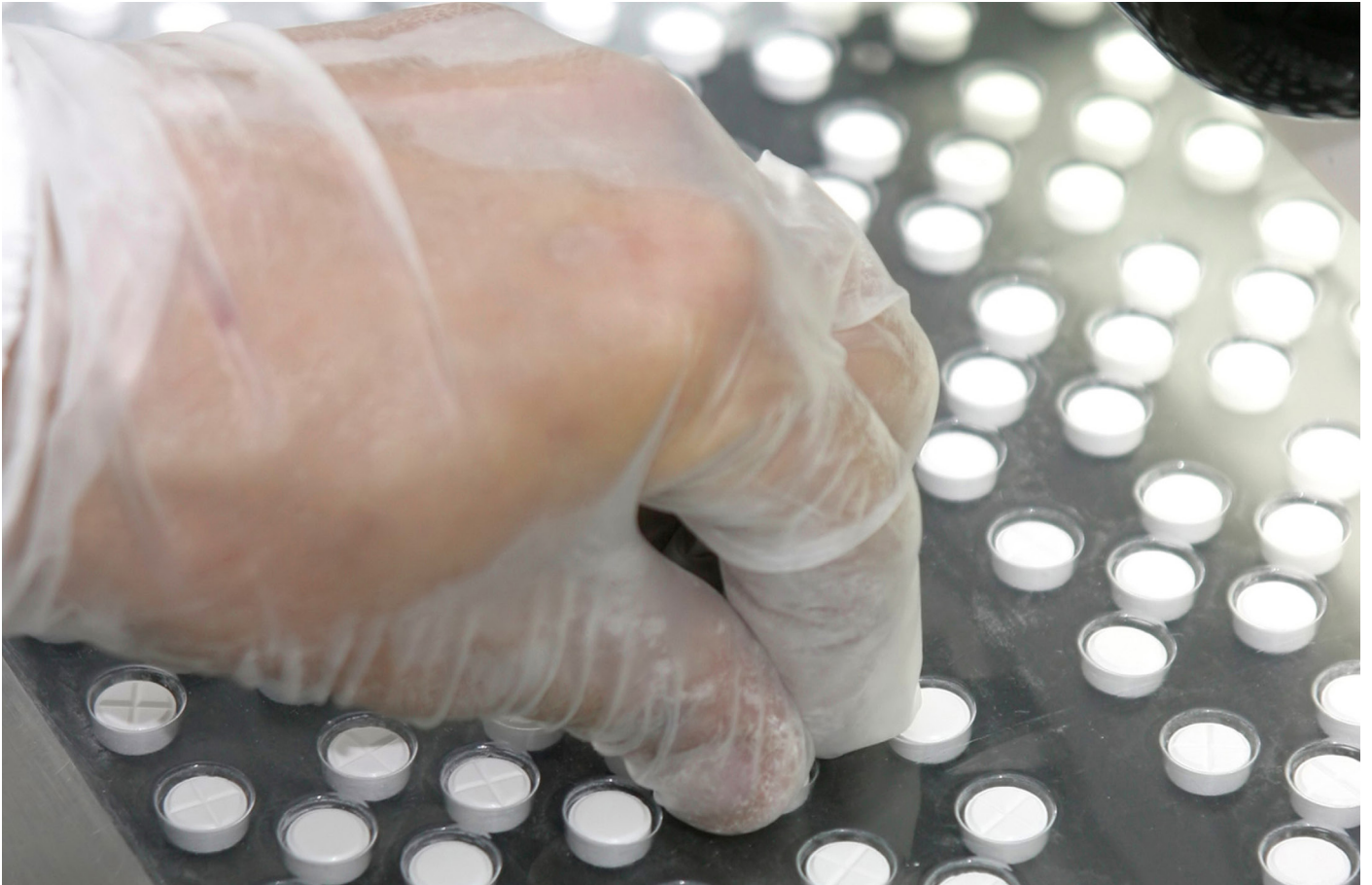


SwissCo Services AG: New chiller with communicative butterfly valve actuator

Reliability, security and energy efficiency achieved with Belimo



SwissCo Services AG is part of the Aenova Group and specialises in manufacturing and packaging humidity-sensitive solid medicines, such as effervescent tablets.

A reliable cooling circuit is particularly important for the pharmaceutical company SwissCo Services AG in Sisseln (CH). The temperature and above all the humidity in the production plants are decisive for manufacturing the company's effervescent and tablet products. Alongside reliable operation and keeping temperature and humidity levels constant, the aim of refurbishing the cooling plant was to optimise energy consumption.

The requirements of the new cooling circuit and its control were immense, deviations in temperature and / or humidity can shut down production or destroy batches already produced. That is why a reliable and safe cooling plant is indispensable. An ideal solution has been found with the new Belimo

communicative PR actuator combined with the new butterfly valves. This butterfly valve / actuator combination has made it very straightforward for the company to implement the issues of greatest importance to it, namely plant safety and energy efficiency.

Reliable, energy-efficient production

Building type	Production
Project	Renovation
Sector	Cooling system
Belimo products	2 butterfly valve-actuator combinations with BACnet MS/TP
Commissioning	May 2017

Controlling factory ambient environment influences the HVAC system

Ambient environment in the pharmaceutical industry are strictly controlled and particularly in the manufacture of moisture-sensitive tablets, humidity and room temperature play an important role. This means that the products manufactured in Sisseln need to be produced at max. 20% humidity and max. 18° C / 64° F. The manufacturing process for tablets only works if the right pressure, the right temperature and post-hardening processes are coordinated correctly. The production plant in Sisseln runs 24 hours a day every day. To keep production flexible, SwissCo keeps refitting

the production facilities. This means that it is also possible to produce small batches. The chilling and dehumidification process is particularly important here, and distinction is made between two phases:

1. In the preliminary dehumidification process, most of the humidity is removed from the air.
2. The remaining humidity is removed from the air at various temperatures with silica gel driers (first cold and then at 130° C / 266° F).

Two chillers support this process (see figure below), although generally only the new plant is in operation. Chiller one is used when the outside temperature rises above 35° C / 95° F or if Chiller two is out of service. The older plant from 2005 is scheduled to be retrofitted in the near future to meet the company's energy saving goals.

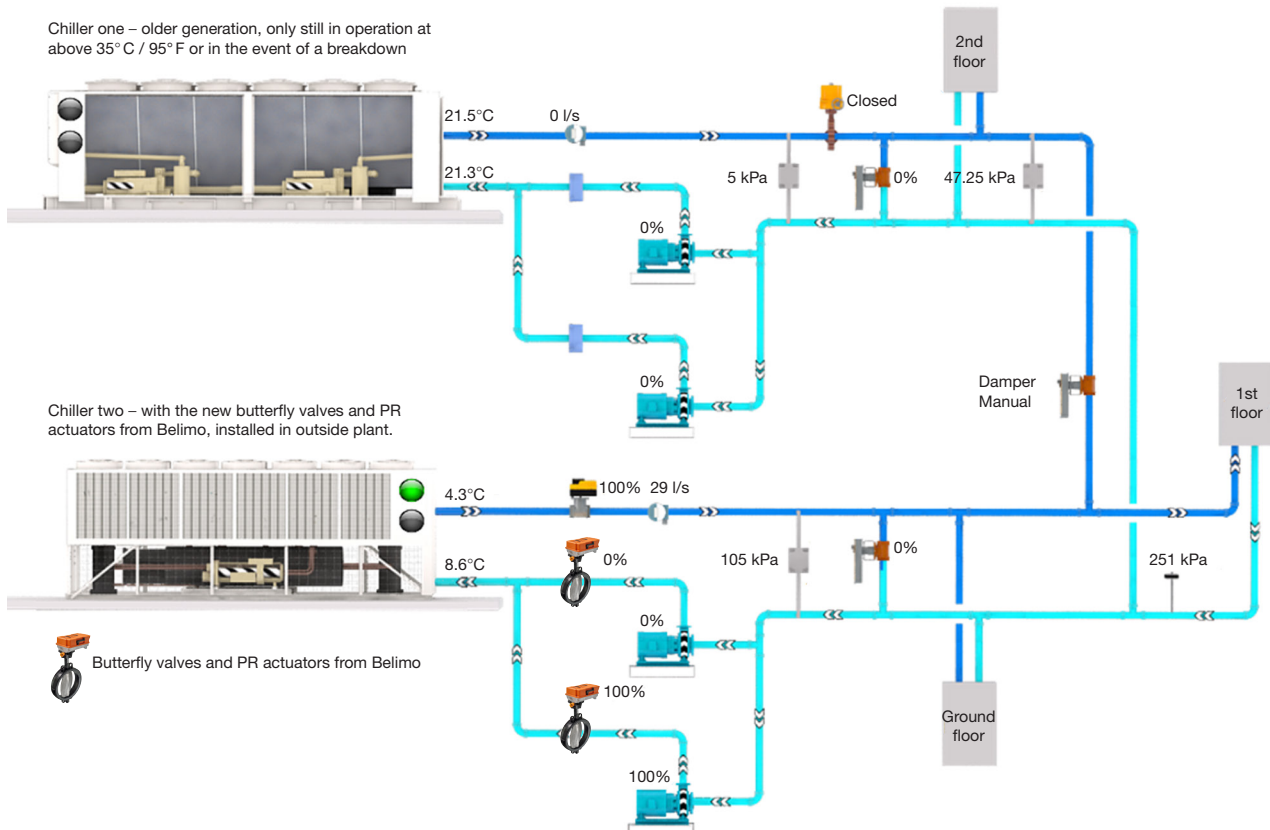
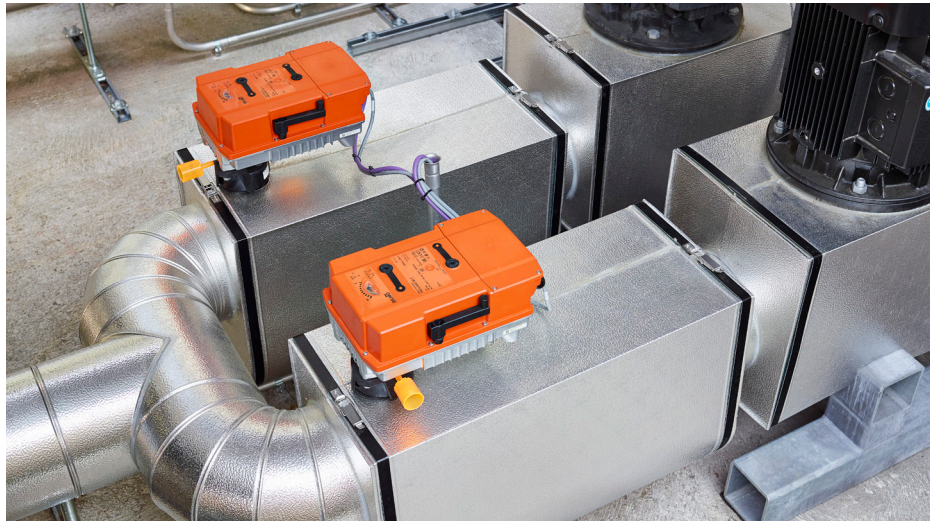
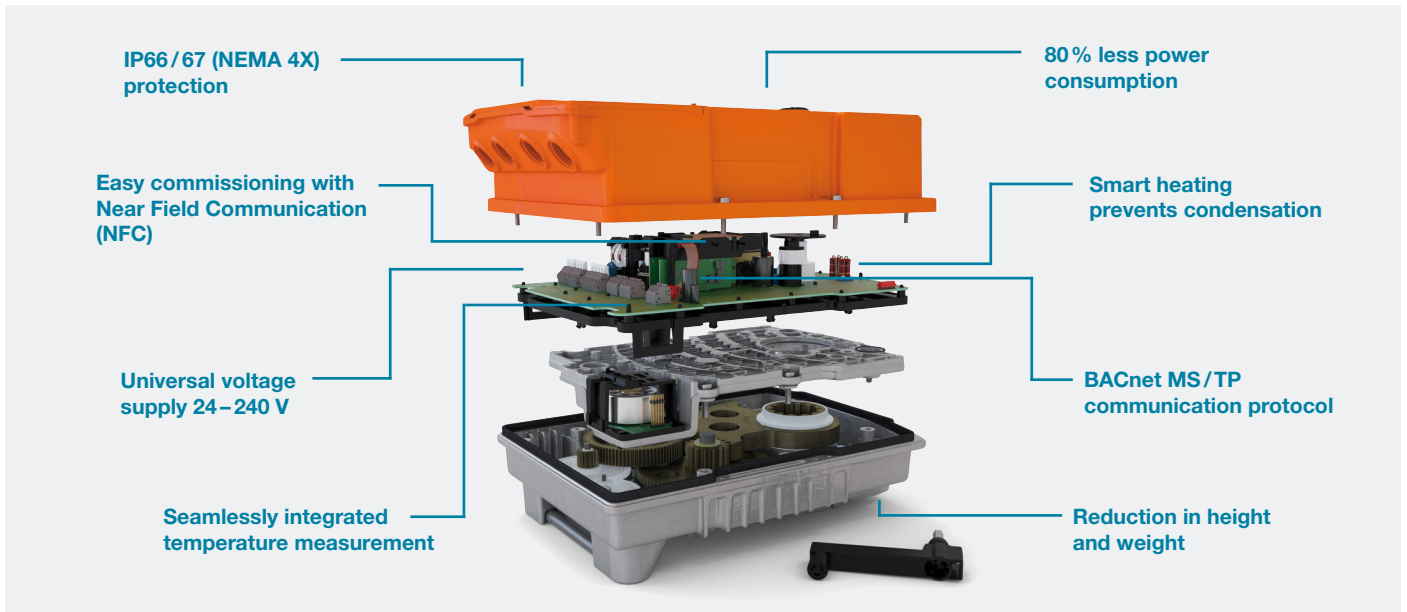


Figure of the two chillers with their circuits at SwissCo Services AG. Chiller two has been equipped with the new butterfly valves and PR actuators.

Safe, communicative PR actuators



Belimo is synonymous with reliability and energy efficiency

The challenge for the HVAC system is that the required ambient temperature and humidity needs to be constant the whole year round, regardless of the weather conditions. That is why a reliable and precise plant is hugely important. "We like working with Belimo because we can depend on the reliability of the products," explains Andreas Wechner, Project Manager & Field Controls Representative at Trane (Schweiz) GmbH. SwissCo also wanted to reach a new level when it comes to energy efficiency. Compared with the energy consumption of the previous year, the company was able to save a total of 128'000 kWh of energy between March and August 2017.

Communicative actuator with diagnostics capability

The fact that the new Belimo PR actuator is communicative makes it unique. "The communicative PR actuator allows us to see at any time whether the system is working properly so we can intervene rapidly if there are any deviations. That provides both us and our customer SwissCo with the necessary safety and peace of mind." Thanks to the BACnet® MS/TP interface which is easy to integrate to the BMS, the plant operator and plant installer can access the PR actuators from

anywhere via secure web access and thereby obtain information on the plant's current operation.

At SwissCo Services AG, two passive temperature sensors have also been connected to the communicative PR actuators so that precise measurement data can be transferred via BACnet® MS/TP protocol.

Simple commissioning thanks to NFC

Another advantage of the PR actuator is that commissioning, setting parameters and maintenance are easy. "With NFC (Near Field Communication) I was able to commission the PR actuators in just a few minutes from my own smartphone. It is really easy to do and saves a lot of time,"



confirms Andreas Wechner.

Using Near Field Communication makes simple diagnosis possible even during operation. This means for example that the health status of the actuator can be queried at any time. This function is another important element for guaranteeing the reliability and user-friendliness of the PR actuator.

Visual position indicator

Because it is not possible to see the position of butterfly valves from the outside once they have been installed, Belimo has developed a new position indicator.



"The position indicator is practical because it allows you to see the position of the valve from a distance," says Andreas Wechner. When the new cooling circuit project was in the planning phase, the Project Manager was quite clear that he wanted to work with Belimo: "Belimo does all it can to find a solution quickly and if anything should ever not go quite to plan, then the company is very accommodating."

SwissCo Services AG

SwissCo Services AG has 150 employees. In most cases, the drugs produced in Sisseln are supplied to the customer's companies ex works. The most well-known products at the moment are the Nicotinell tablets and sticks. The company manufactures various products for companies like Ratiopharm. Both the drugs and the blister packaging are produced in Sisseln.

In the new chillers, SwissCo Services AG not only uses the butterfly valve / actuator combinations but also a Belimo Energy Valve™. Actually, Belimo products are installed throughout the building, including in fire protection and in the air handling units.

"With the communicative PR actuator, we always know how the actuator is doing."

Trane (Schweiz) GmbH

According to the company's slogan, Trane doesn't just follow industry standards. We define them. In collaboration with building owners and operators, Trane creates high performance buildings that contribute measurable, year-over-year benefits. First of all, options are discussed as to how the building environment can have a positive effect on the company and these are implemented correspondingly. From a preliminary energy audit to a complete performance analysis, Trane examines each building's critical systems and energy consumption – and considers how they stand up to the customer's objectives. Trane is also committed to delivering sustainable performance, innovations and knowledge – for the lifecycle of buildings. Working with Belimo, the company has been able to successfully implement many projects for other facilities.

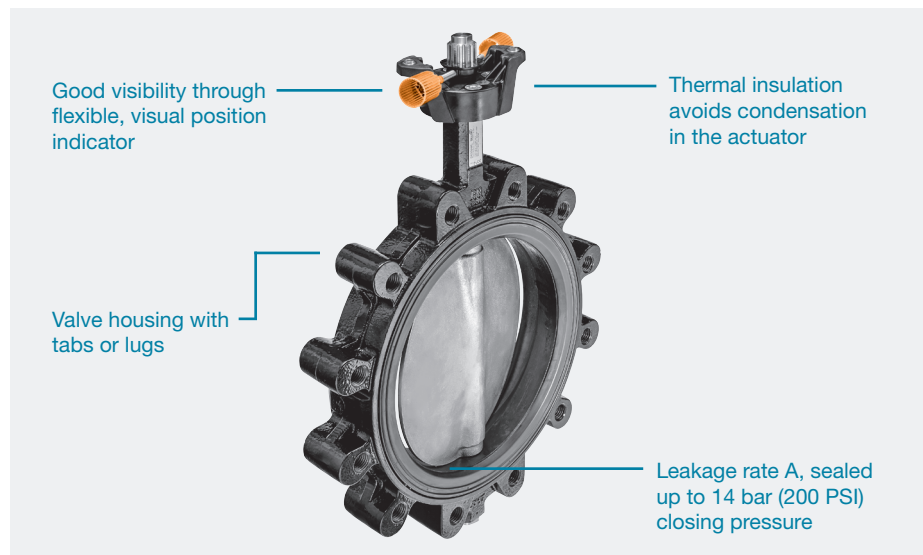
The new generation of butterfly valves and actuators from Belimo, designed for high flow HVAC applications

In addition to the communicative PR actuator, the Belimo butterfly valves have also been technically optimised. The new Belimo butterfly valve / actuator combination was designed exclusively for the heating, ventilation and air conditioning industry. When developing the new generation, user-friendliness and reliability were given top priority and an innovative solution was found.

Installation is now incredibly easy thanks to the reduced height of the actuator and the fact that it weighs approx. 2/3 less. With Near Field Communication (NFC), the butterfly valve / actuator combination can be started up in a matter of minutes. The housing has IP66/67 (NEMA 4X) degree of protection and is also ideally protected for use outdoors. The thermal insulation and smart heating inside the actuator prevent condensation which also contributes towards increased operating safety and a longer service life.

The new valve design ensures low torque which, in combination with the actuator, results in a reduction in energy consumption of 80%. In addition to that, the valve housing is available with tabs or lugs and is sealed up to a 14 bar (200 PSI) closing pressure (leakage rate A). With the new generation of butterfly valves and actuators, there is no longer any need to compromise. They are the best solution for every plant.

The advantages of the butterfly valve at a glance



Belimo worldwide: www.belimo.com



5-year warranty



On site around the globe



Complete product range



Tested quality



Short delivery times



Comprehensive support