SUCCESS STORY ALTE DRUCKEREI,
WINTERTHUR (CH) SHOPPING CENTRE

Smart, cost-optimised solutions increase comfort and safety in the building.

From the former Landbote printing press to the trendy specialist market centre.

Ziegler Druck- und Verlags-AG was a Swiss media service provider and publishing house founded in 1836 and based in Winterthur. The publishing house included the newspapers "Der Landbote" and the "Winterthurer Stadtanzeiger". Following its takeover by the Zurich-based media group Tamedia, the Ziegler printing press ceased operations at the end of 2015.

The former print shop building was demolished in autumn of 2018. Commissioned by the investor NEWPORT RE AG and managed by Nagel AG, Architektur & Baumanagement, the "Alte Druckerei Winterthur" centre opened its doors to the public at the end of 2019. The three-storey shopping centre on the 1475 square metre site has a total area of 12,703 square metres, divided into four retail spaces on the ground and upper floors and a rental warehouse (self-storage) in the basement. The current tenants are the specialist electronics retailer Media Markt, the furniture discounter Lipo, the clothing company La Halle, the supermarket Maximarkt and the storage space provider Easystock.

BUILDING TYPE
Shopping Centre

PROJECT
Renovation

FACILITIES
Heating, cooling, ventilation, MCR

PRODUCTS
EPIV electronic pressure-independent characterised control valves, globe valves and globe valve actuators, butterfly valves, rotary actuators, fire damper actuators, MP-Bus integration

BELIMO

High requirements with respect to planning, control devices and cost management.

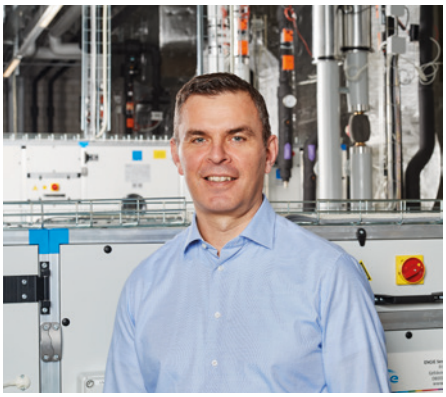
The planning of the HVAC installations was carried out by the engineering company Jakob Forrer AG, Buchrain. "It was important to us to use flow control to limit the energy quantities that can be drawn per tenant. This objective made it inevitable that we would be relying on the EP0..R+MP electronic pressure-independent characterised control valve from Belimo," said project managers Roman Vette and Martin Haas in agreement.

The building services specialist ENGIE Services AG in Winterthur was commissioned to install and integrate the heating, cooling and ventilation systems. "The challenges of this project were, on the one hand, the short time frame of May to October 2019, and, on the other hand, the requirement of keeping investment costs low without compromising on the quality, functionality and safety of the products and the installations," explains Giuseppe Masciali, the responsible head of building services at ENGIE.

Heating and cooling simultaneously with two heat pumps and chillers.

Two heat pumps and chillers with two heat exchangers on the roof of the building are used to generate heating and cooling. The 500 kW heating and 630 kW cooling capacity are routed to the rental areas via a 4-pipe water system. Six air handling units with a total air volume of 33,000 cubic metres per hour supply the tenants in the shopping centre with air. A total of eight mechanical smoke and heat exhaust ventilation systems (MRWA) with an air-volume capacity of 190,000 cubic metres per hour ensure the legally prescribed protection of people and buildings in case of fire.

The EPIV electronic pressure-independent characterised control valves ensure that the cooling and heating coils of the air handling units cool or heat the air supply as required.



"Belimo is a reliable partner, delivers on time and provides good support."

Giuseppe Masciali, Head of Building Technology at ENGIE Services AG in Winterthur.

Minimising costs while maximising functionality.

The interface to the individual tenant spaces during basic construction is the 4-pipe water system for heating and cooling. With the electronic pressure-independent EPIV from Belimo, the flow is limited according to demand. This means that the cooling and heating supply is automatically controlled directly at the EPIV, and the maximum amount of energy that can be drawn per retail area is set and limited with the flow control. This reduced the investment costs, also because the required functionality does not have to be called up via the building management system. All field devices could be seamlessly integrated via the MP-Bus. The resulting cost, material and time savings during installation, commissioning and control are further bonuses of this solution.

State-of-the-art fire dampers equipped with actuators from Belimo.

Lindab AG was involved in the renovation project from the very beginning and supplied the modular and space-saving air handling units which were equipped with various damper actuators from the ventilation applications product ranges from Belimo.

Special mention should be made here of the motorisation solution for the fire dampers also provided by Lindab AG. Equipped with the compact and powerful BFN safety actuators from Belimo, they provide reliable protection against the spread of fire and smoke via the ducts. The fire dampers are monitored and controlled by the "Powerline" electronic control system from BV-Control.

Once the air handling unit is switched off, the fire dampers close automatically, thus securing the fire compartments to the tenants' premises.

Electronic pressure-independent characterised control valves (EPIV) regulate the quantity of heating and cooling water flow to the rental areas.

Butterfly valves with PR actuators ensure the correct flow rate of the heating and chilled water in the main distribution.

IMPRESSIVE FUNCTIONS OF THE EPIV

- Measuring, controlling, balancing and isolating in one ready-to-install unit.
- Flexibility in planning and later conversion.
- Fast and simple commissioning.
- Simple hydronic balancing.
- Excellent control stability and quality.
- High operating safety.
- No leakage thanks to the air-bubble tight characterised control valve (leakage rate A in accordance with EN12266-1).
- Reduced energy consumption saves costs.
- Nominal diameters DN 15 to DN 150.

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

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