



Case Study

Braun AG Holzwerkstoffe, Gossau, Switzerland

Products:

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|-------------------------------|--------------------|----------------------|
| MONTANATHERM® MTD TL 145/1000 | RAL 1013 | 8'000 m ² |
| MONTANATHERM® MTW V 120/1000 | RAL 1013, RAL 8025 | 3'000 m ² |
| SWISS PANEL® SP 41/193.5 | sim. RAL 9002 | 1'300 m ² |
| SWISS PANEL® SP 44/333 | RAL 1013 | 80 m ² |
| SWISS PANEL® SP 44S/333 | RAL 1013 | 55 m ² |

Owner:

Braun AG, Gossau, Switzerland

Facade construction:

COVRA Metall AG, Goldach, Switzerland

Architect:

W+P Weber und Partner AG, Wil, Switzerland

Construction time:

05/2019 - 08/2020

Plenty in store in terms of energy

During running operations: Montana Building Systems Ltd. supports complex material warehouse renovation at Braun AG



More storage space, optimised logistics and a modern building concept: Braun AG of Gossau achieved all this with the renovation of its existing warehouse building. Increased requirements for the storage of wood-based materials as well as a necessary asbestos clean-up prompted the timber wholesaler to carry out an extensive modernisation from May 2019 to August 2020. The company found a reliable partner in Montana AG (Villmergen) for the work during ongoing operations - which continued at full capacity during the conversion. "Not only did Montana ensure prompt, stage-by-stage deliveries", says Urban Thaler from Covra Metall AG (Goldach), "but it also provided us with cross-company support to create a consistent building design." Thus, in addition to their own sandwich panels, Montana supplied suitable flat sheets for combination with mineral wool elements from another manufacturer. This guaranteed a homogenous façade design without batch-related colour differences.

The extended warehouse building at Braun AG in Gossau is a combination of a modern building concept and a uniform design. There were several reasons for the conversion of the existing hall. The wood-based materials wholesaler stresses that the requirements for warehousing have also steadily grown due to increasingly more complex products. However, not only the materials themselves, but also the logistical framework required modernization. For instance, just-in-time delivery, which is currently the norm, requires higher storage capacities, which in turn requires efficiently planned loading facilities. "It was precisely these requirements that represented the biggest challenge in this project",

says Marcel Baumgartner from Covra Metall AG (Goldach). The reason was that during the extensive conversion work, this very logistically demanding operation continued and could not be impaired.

Higher capacity demands optimised logistics

Renovation during ongoing operations necessitates good planning and requires high reliability on the part of all the companies involved. Hence, the extensions to the existing hall were renovated first, followed by one hall section after another. In this way it was possible to maintain stock levels on site and guarantee the smooth running of daily business. "Because of the step-by-

step approach, we already knew during the tendering process that we would have to rely on extremely reliable partners," stresses Urban Thaler from Covra Metall AG. "We had already had good experience with Montana in the past, which proved to be true again."

With an area of 4,800 m² and a storage volume of 61,000 m³, Braun AG already had a high storage capacity before the extension. The conversion enlarged this figure by more than 50%. The new terrain covers an area of 8,200 m² and achieves a usable volume of 95,000 m³. It was clear from the very start that such a high storage capacity would demand optimised warehouse logistics. The addition of a new loading hall



measuring around 1,100 square meters was intended to remedy this situation. which now enables the loading and unloading of trucks directly inside the hall. On the one hand this is conducive to a smooth work process, while on the other temperature fluctuations in the hall can be reduced. Two large doors on the south and north sides of the loading area ensure the safe and fast flow of traffic.

Uniform – modern – efficient

The extensive renovation of the building envelope shows that all the conversion work in Gossau follows an overall concept in terms of both cost effectiveness and energy efficiency. The MONTANATHERM® roof panels from Montana Building Systems Ltd. used here are not only maintenance-free and thus particularly cost-effective – with a U-value of up to 0.15 W/(m²K) they are also highly thermally insulating. They are therefore particularly suitable for the energy-related roof renovation, as in the case of the warehouse. The fast installation of the sandwich elements was also a welcome advantage here.

For better thermal insulation – which was the focus of the renovation

- mineral wool panels had to be installed in addition to Montana elements. As these are not produced directly by Montana, a cross-company collaboration was necessary here. To ensure a uniform appearance of the façade, the required mineral wool elements were inserted into the corresponding flat sheets of Montana AG in advance. Batch-related colour differences could thus be avoided and constant quality of the façade elements guaranteed. The result: A high-quality building envelope in terms of design and energy efficiency now supports the further modernisations of the hall.

Modernised all round

The high degree of consistency with which the Gossau-based timber wholesaler undertook the renovation of its warehouse is reflected in the enormous storage capacity increase as well as in the extensive logistical and energy-related innovations. However, it didn't stop at the exterior measures – the energy-related renovation was continued to the core: the existing heating system was also put to the test. To further reduce the temperature fluctuation in the renovated hall, it was

finally replaced by a modern woodchip heating system. A decision that makes sense not only on account of the higher efficiency of modern heating systems: as Braun AG is a company that works with wood-based materials, any timber waste produced can be used directly on site for heating. Expensive transport is eliminated and the company has implemented an ecologically and economically sophisticated building concept with its hall renovation.

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