

OFFSETDRUCKEREI SCHWARZACH/AUSTRIA





THE CUSTOMER

Since 1913, the offset printing house Offsetdruckerei Schwarzach has established itself as a supplier of packaging solutions for the international consumer goods industry.

At the company's site in Schwarzach in western Austria a total of 300 employees process 20,000 tons of cardboard and paper a year.

In 2009, the company was one of the first packaging producers in Europe who implemented the natureOffice standard for climate-neutral printing: the CO₂ emission values are calculated consistently for each print job. Naturally, the more environmentally friendly the production chain's organisation – all the way from cardboard production to logistics – the lower the compensation amount.



Net result of the current building project: 79% more building volume, 40% less fossil energy.

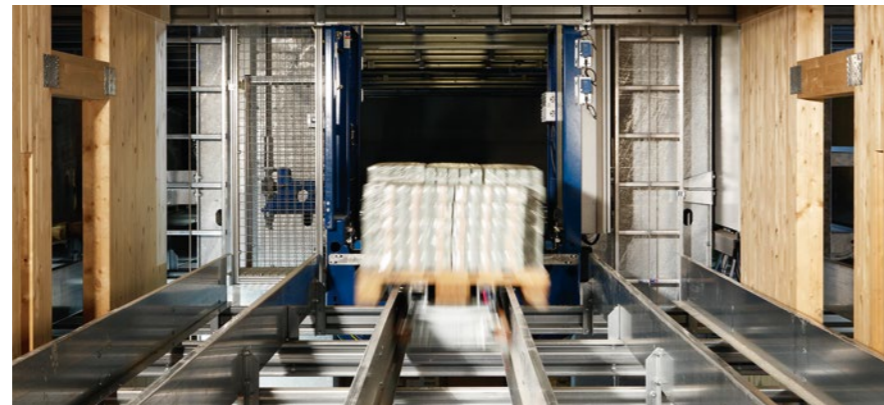
ACTIVE CLIMATE PROTECTION AS A COMPETITIVE EDGE

HIGH-BAY WAREHOUSE BUILT OF WOOD

Double production capacity, new fully automatic logistics center: As the managers of Offsetdruckerei Schwarzach start the most ambitious expansion since the company's foundation, it is already clear that commitment to active climate protection is something they definitely want.

After all, active climate protection is seen in the company as a responsibility – and a market strategy, too.

„Consumers act sensitively and want to know how a product is processed“, says CEO Ing. Eduard Fischer. „Hence, the certificate for climate-neutral printing was our benchmark for the construction project: Such a logo on the packaging creates confidence and thus a competitive edge for our customers.“



Pallet transfer by a longitudinal shuttle to a compartment of the wooden rack. The innovative rack design comes from the neighbouring Bregenzwald region from wood construction pioneer Kaufmann Bausysteme, a reliable partner of LTW in their first wooden high-bay warehouse project for salt producer Salinen Austria.

CO₂-NEUTRAL BUILDING MATERIAL

For the heating and cooling of the industrial complex, the planners develop an energy concept using geothermal energy. Moreover, the choice of building material for the high-bay warehouse alone accounts for a CO₂ reduction of 880 tons: Spruce wood from the region is a renewable and recyclable raw material with short transport distances.

Even though the steel price sinks considerably during the planning phase, in the end the environmental added value of wood as a building material clearly outweighs the marginally higher cost. Besides, the extremely short construction period of five months upon contract award was only feasible by using wood.



The Management Board of Offsetdruckerei Schwarzach (left to right: Johannes Knapp, Eduard Fischer, Ralph Joser) and the certificate for climate-neutral printing as a result of a consistent entrepreneurial mission.

ECOLOGY ON CONSTANT DUTY

With the energy-saving design of the intralogistics system LTW also contributes to the excellent CO₂ balance of Offsetdruckerei Schwarzach.

A weight-optimised design of all three stacker cranes and optimal organisation of order retrieval – this current eco-standard at LTW is completed by a couple of new features. Using the fact that each downward movement of the lifting carriage releases energy is just one of them. The energy thus released is converted to electricity and fed back to the grid.

In each stacker crane cycle the travel and lifting speed are so well synchronised that both movements are terminated almost simultaneously.

Thus short-term costly performance peaks can be avoided and there is a considerable reduction of wear.

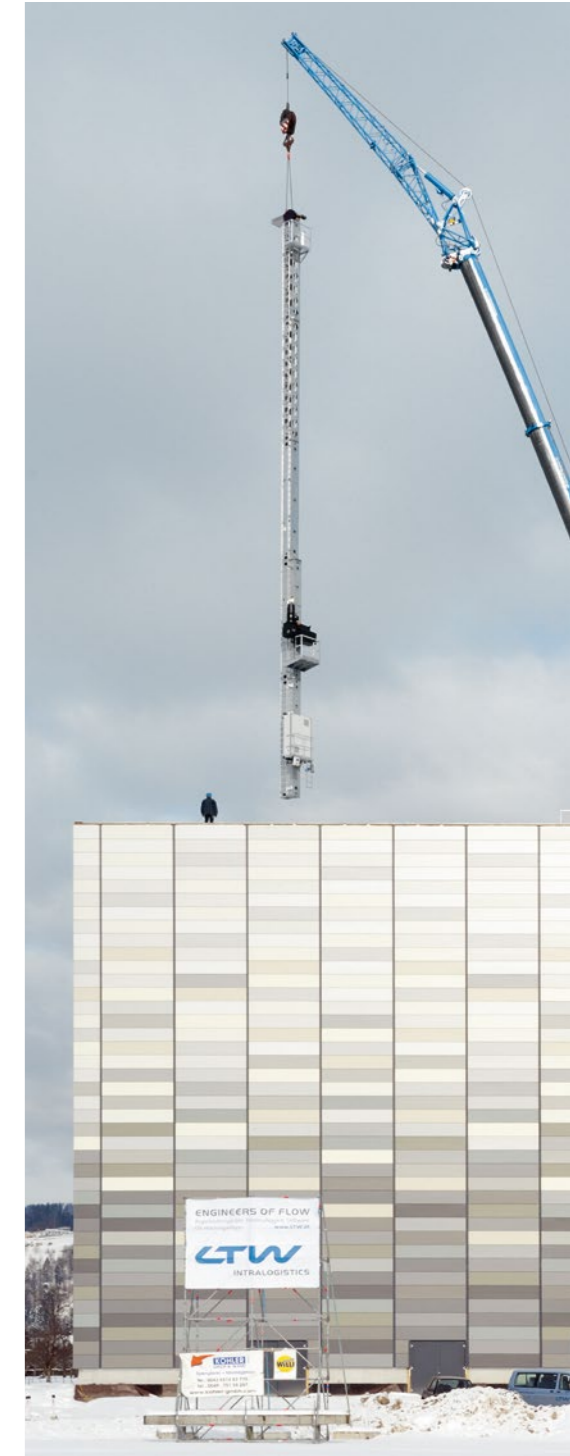
CTO and project manager Johannes Knapp sums it up: „From the beginning on, we have saved energy, including our personal energy, on a massive scale simply by the efficient material flow and interfaces.“



Conveyor line with automatic contour control, strapping, wrapping and labelling for pallets of different dimensions.



The existing robot was integrated into the new fully-automatic cardboard box conveying equipment with precise timing and minimum service interruption.



Lowering the 30 m high stacker cranes into the high-bay warehouse. The special facade design optically reduces the height of the building.

PROJECT OUTLINE

YEAR OF CONSTRUCTION 2010



HIGH-BAY WAREHOUSE

- ▶ Wooden rack in silo structure with steel inserts
- ▶ L x W x H: 56 x 23 x 30
- ▶ 3 rack lanes
- ▶ Multi-deep storage
- ▶ Approx. 10,500 pallet spaces
- ▶ Payload: 1,000 kg



STACKER CRANES

- ▶ 3 aisle-bound stacker cranes
- ▶ Travel speed: 180 m/min
- ▶ Lifting speed: 60 m/min
- ▶ Load handling device: LTW longitudinal shuttle
- ▶ Storage/retrieval capacity per stacker crane: 54 single or 33 double cycles/h



CONVEYOR SYSTEM

- ▶ Pallet conveyor connecting 3 levels with storage/retrieval stations incl. automatic contour control, strapping, wrapping, labelling
- ▶ Fully automatic cardboard box conveyor system starting at the production lines
- ▶ Automatic retrieval of the goods in the dispatch area



SOFTWARE

- ▶ LTW warehouse management system consisting of warehouse control and warehouse management units
- ▶ Visualisation
- ▶ Interface to customer's ERP system