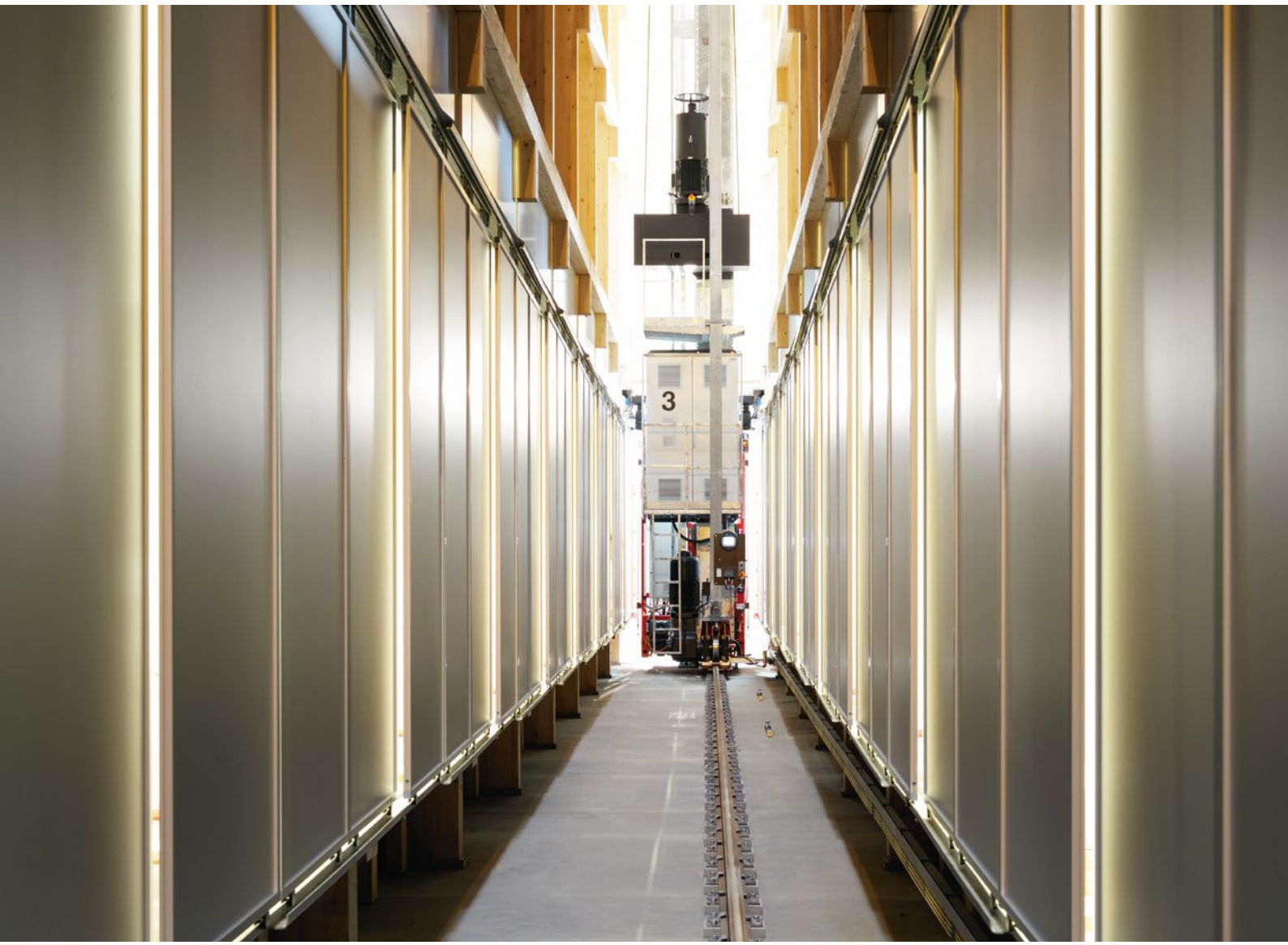
JOSERA TIERERNÄHRUNG KLEINHEUBACH/GERMANY



LTW INTRALOGISTICS

A QUESTION OF ATTITUDE

THE CUSTOMER

Josera has been producing mineral feed and other products for productive livestock since 1941. Since 1998 they also produce feeds for dogs, cats and horses and sell them in over 30 countries.

As a family owned company with 200 employees, Josera sets great store by entrepreneurial responsibility. The best examples are products like the first milk replacer without skimmed milk powder or the renunciation of in-feed antibiotics 20 years before the legal ban on their use was first issued.

Josera strives for sustainability also in production and logistics – they use “green” electricity and have their own rail connection to the railway network.

With a cubage of 72,000 m³, one of the biggest wooden high-bay warehouses in the world.

THINK CONSEQUENTLY, BUILD SUSTAINABLY, MOVE ERGONOMICALLY

At the beginning of the large-scale project at the Josera headquarters in Kleinheubach is a presumption that lets imagination run wild: How shall our production and logistics systems be organized if we double our revenue?

As a response, a conversion and enlargement plan in three stages takes form. The main priority is intralogistics: In order to reduce transport routes, processes are reorganized and entire production areas relocated. The planning team goes through variants of an automatic high-bay warehouse to be erected on the neighbouring meadow.

At this point the Josera team takes advice and security from the experienced logistics planners Luy & Partner in Wiesbaden. It does not take long until the multiple threads converge into a new, unconventional idea.

Norbert Sennert, Authorized Officer at Josera: “Wood fits perfectly into our philosophy. As a family owned company we think in generations.”

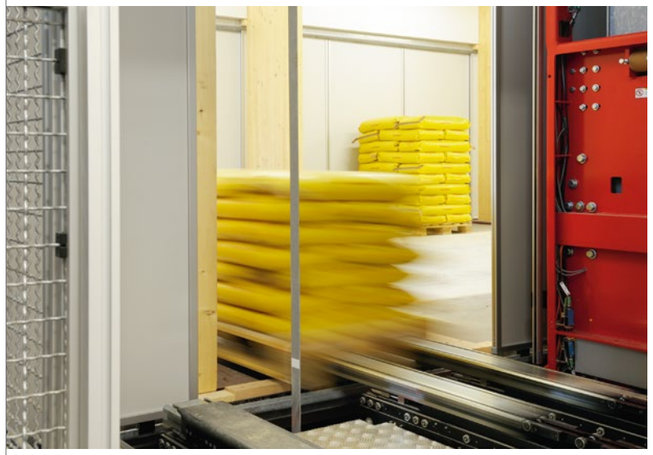
TIMBER AS BUILDING MATERIAL

Hans-Jürgen Luy knows LTW through earlier projects and draws Josera‘s attention to the first two wooden high-bay warehouses in the world which LTW has already implemented. Hess Timber, one of the leading German glulam specialists and an immediate neighbour of Josera, expresses an interest.

Josera can indeed instantly associate their corporate culture with timber as a building material, but they insist on neutral planning and request for proposal through Luy & Partner.

In a detailed comparison, timber finally asserts itself against steel. The resulting extra cost is manageable and can be justified by advantages in terms of ecology, hygiene and fire protection.

The contract for the entire intralogistics system is awarded to LTW comprising four aisle-bound stacker cranes, the conveying equipment and warehouse control system. In the end, it is the proven know-how of a single-source supplier which tips the scales in favour of LTW – and their decisive contribution to solving order picking.



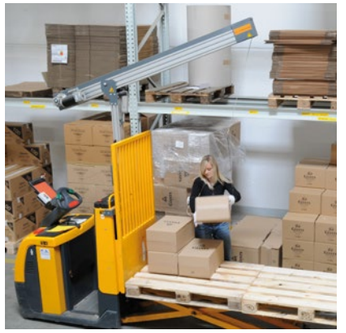
Four stacker cranes supply from both sides three spacious and well-lit order picking tunnels that range over the entire length of the high-bay warehouse. 324 order picking gates by LTW provide safe separation between the tunnel and the stacker crane aisles as required by safety regulations.

THE GATEWAY TO FLOW

From the outset, the crux of the matter of the intralogistics concept is a space and time-saving order picking solution for mixed pallets which make up one fifth of the goods and consist mainly of 25 kilo bags. Luy & Partner develop the winning approach: Three order picking tunnels at the lowest level of the high-bay racking provide for dynamic goods supply by automatic stacker cranes. Thus, the external order picking zone including the corresponding floor area and transport routes can be spared.

If you now think of narrow and dark galleries you are mistaken: Spacious circulation areas, bright lighting conditions, floor heating and, not least, timber as building material provide a motivating work environment. In addition, the order-picking devices are equipped with an ergonomic hoisting crane that supports natural movement and relieves strain on the back.

A safe boundary between the order picking area and the stacker crane aisles presents a special hurdle. With the patented sliding order picking gates LTW delivers the economical and reliable solution. Since the opening and closing mechanism is installed on the stacker cranes, the 324 gates do not require separate drives.



The ergonomic EcoPick® crane takes up to 80% of the strain off the operator during order picking by means of a cable winch and special glove cuffs.

The automatic conveyor line for full pallets consists of three vertical conveyors (see image), two transfer cars and gravity roller conveyors.

THE IMPLEMENTATION

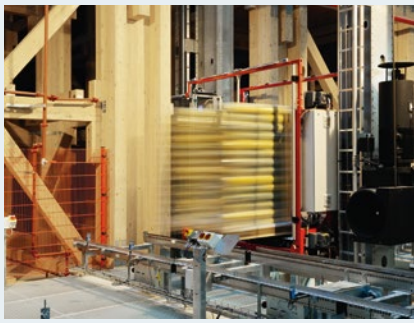
Construction and assembly is carried out according to a tight schedule and must be synchronized with the dismantling of existing logistics installations with the warehouse remaining in full operation. Barely nine months after the ground-breaking ceremony the project team wins its ambitious bet: On April 4, 2011 at 10.04 am on the dot, the first pallet is ceremoniously retrieved from the high-bay warehouse – just this once, it is not loaded with animal feed.

PROJECT OUTLINE

YEAR OF CONSTRUCTION 2011

HIGH-BAY WAREHOUSE

- Wooden rack in silo structure
- L x B x H: 75 x 32 x 30 m
- Double-deep triple storage
- Approx. 9,200 pallet spaces
- 3 order-picking tunnels with 324 order-picking stations
- Temperature range: + 5° to + 35°C



STACKER CRANES

- 4 aisle-bound stacker cranes
- Travel speed: 180 m/min
- Lifting speed: 50 m/min
- Load handling device: telescopic fork
- Storage/retrieval capacity per stacker crane: 23 double cycles/h
- Payload: max. 2 x 1,100 kg

CONVEYOR SYSTEM

On 2 levels with storage/retrieval, connection to production, dispatch and AGV system

- 3 vertical conveyors
- 2 transfer cars
- Automatic retrieval of the goods in the dispatch area

SOFTWARE

- LTW warehouse control system with visualisation
- Just-in-sequence order retrieval
- Optimization of double load handling devices
- Buffer area monitoring

INTRALOGISTICS

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