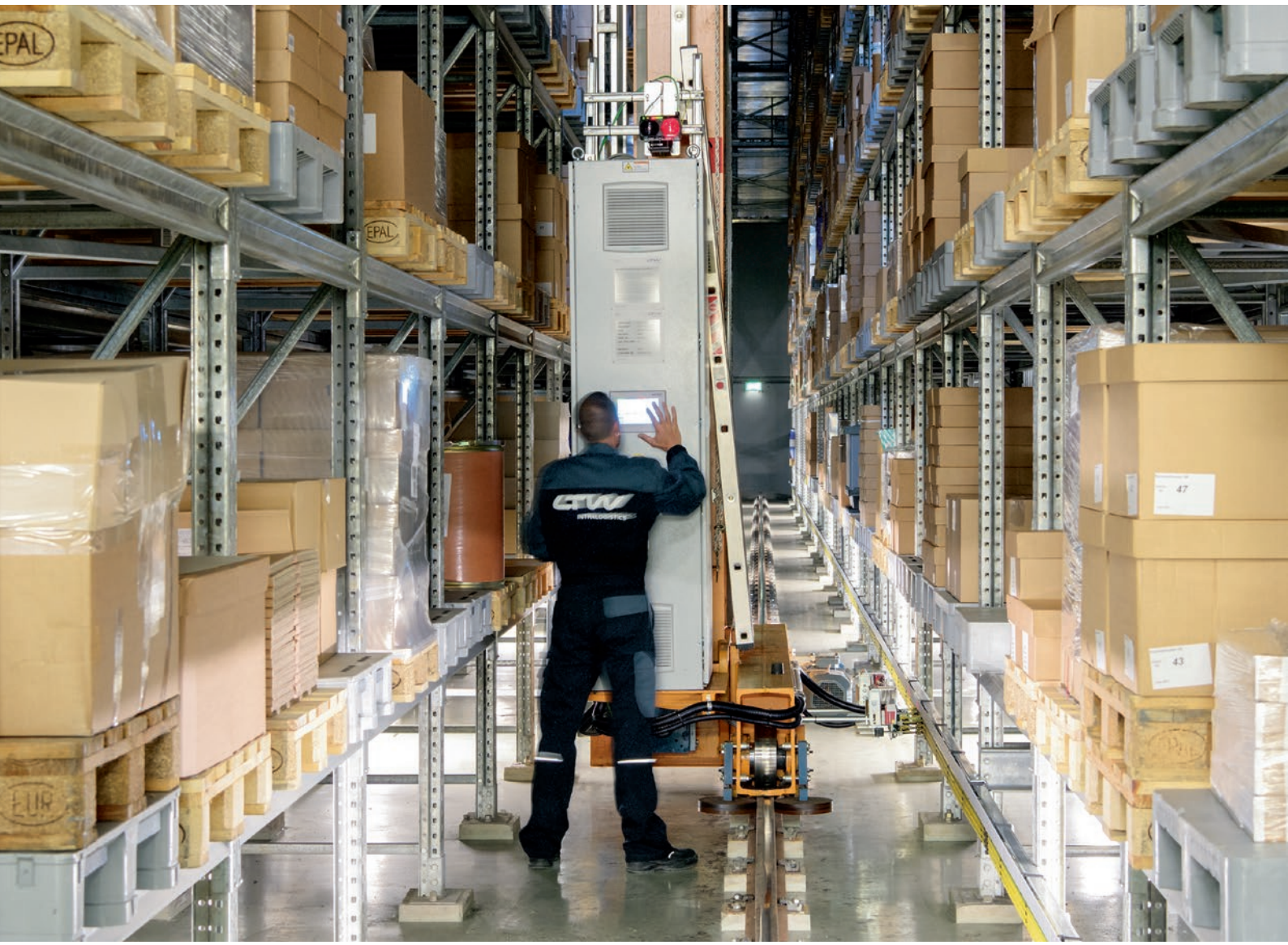
HERMES ARZNEIMITTEL WOLFRATSHAUSEN/GERMANY



LTW
INTRALOGISTICS

PRECISION LANDING AFTER PERFECT PREPARATION

RETROFITTING OF AN EXTERNAL SYSTEM IN PLUG & PLAY MODE

THE CUSTOMER

Since its founding in 1907, the family-operated pharmaceutical company with headquarters in Pullach in the district of Munich has become Europe's largest producer of pharmaceutical effervescent tablets.

The company has two production facilities, one of which is located in nearby Wolfratshausen and is the workplace for 250 of the firm's 800 employees. With the TOPO granulation process, which is unique worldwide, HERMES produces effervescent tablets, chewable tablets, lozenges and instant beverages from a variety of active pharmaceutical ingredients and foods. Besides distributing its own brands via pharmacies, HERMES also develops and produces products for co-contractors – altogether over 500 products for 35 countries.

Over 800 million effervescent tablets per year: Good Manufacturing Practice in Wolfratshausen

"If the high-bay warehouse comes to a standstill, we may as well all go home", is how site manager Dr. Daniel Bracher describes the importance of the logistic interface between raw material supply, production, order picking and outbound goods at the Hermes facility in Wolfratshausen.

Despite consistent servicing and maintenance of the six-aisle system constructed in 1998, minor failures were starting to accumulate after almost 20 years of faultless operation. In particular, the supply of replacement parts for the control was turning into a risk.

Besides the replacement of individual components, the entire system needed an overhaul, and in early 2015, the management team in charge decided that an extensive retrofitting project was in order.

THE CHALLENGE

The original system manufacturer was no longer available after several changes of owner. Moreover, the kinds of small enterprises that usually prove to be a solid choice in terms of customer service were unable to handle a project of these dimensions as a general contractor.

This is where the positive experience gained on an earlier project at the Austrian HERMES facility in Wolfsberg came in: For the new high-bay warehouse (HBW) at this facility, LTW supplied three stacker cranes and the entire conveyor system in 2007 together with the LTW warehouse control system, which has since become the gold standard at all facilities.

"LTW tackled the project flexibly and kept to the schedule meticulously. This enabled us to coordinate our internal activities perfectly too." The HERMES project team featuring Stefan Riedl (Head of Building Services), Albert Berghofer (Head of Building Services and Safety) and Building Services Technician Werner Decker.

Pre-zone of the high-bay warehouse with I-point (identification point). In the scope of retrofitting, the system communication is converted from Interbus to Profinet.

"Due to the smooth and flexible cooperation in Wolfsberg, we trusted LTW to meet the ambitious schedule in Wolfratshausen as well," says Albert Berghofer, coordinator of both projects.

TIME FRAME

In accordance with an internal strategy, HERMES scheduled its two-week company holiday around Christmas and the turn of the year 2016/17 so that the conversion could take place.

In this period, the LTW team had to upgrade 17 control cabinets to Simatic S7 and install 14 new ones; replace 12 stacker crane runners and 18 travel, lifting and fork drives; lay and connect 3,600 meters of cable, 450 meters of bus bar and 550 meters of bar codes; correct 70 sensors, install 24 new control panels, and relabel 1,500 cables and 1,200 sensors.

This enormous effort first started to become evident after an initial on-site inspection by the LTW retrofitting team to aid in preparing the offer. LTW coordinated the specifications with the HERMES management team on the basis of an assessment of the system's status quo over several days and an entirely new electrical plan for the system, into which LTW invested approximately 100 man-days.

On-time completion was crucial for both parties, so LTW worked to implement the new structures before the actual retrofitting phase parallel to operation of the old system.

This enabled great commitment and efficient coordination on the part of the customer. "No one was stalling; all parties cooperated perfectly in our company and at LTW," concludes Albert Berghofer. Additional time frames were agreed: in late 2016, the LTW team worked weekends on the preliminary installations and other preparatory work, which took up one-third of the total 3,600 installation hours.

THE CRITICAL PHASE

Saturday, December 17, 2016: LTW arrived with 25 experienced experts in Wolfratshausen. Their work fields extended to the production clean room zones.

The LTW warehouse control system was converted seamlessly. The package transport conveyor system was operational by January 2 and transporting the first pallets to goods dispatch. One week later, the high-bay warehouse was commissioned right on time. The HERMES team tested out the system right away by transporting all pallets back to the HBW from external storage.

PERFORMANCE UP 20%

LTW remained on site for several weeks with up to eight people, completed the documentation and assisted with the performance assessments.

Even though an increase of the system performance was not a defined objective of the project, the tests showed an increase of around 20% compared to the original handover report. This is due to numerous details like the precise start-up behavior of the stacker cranes thanks to bar code distance measurement, as well as the optimized retrieval strategies of the new software.

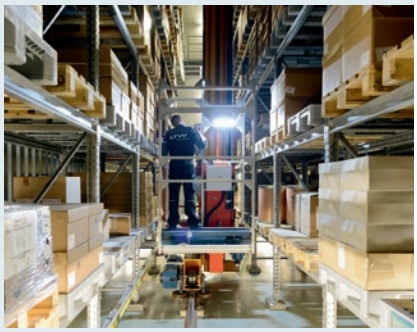
"In this case, many sophisticated measures have resulted in a showcase project," is Dr. Daniel Bracher's highly satisfied conclusion.

PLUG & PLAY 1: While the existing bus bar on the left side of the rack aisle remains in operation, the LTW team is already installing the new bus bar including bar code distance measurement on the right side. All that needs to be done on the agreed date is to switch them over.

PLUG & PLAY 2: Pre-installation of the new control during operation of the old components that have already been partially taken out of the control cabinet.

PROJECT OUTLINE

RETROFITTING 2017

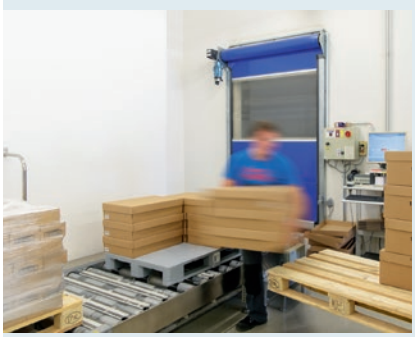


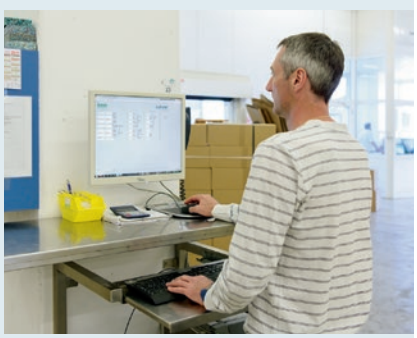
HIGH-BAY WAREHOUSE

- Galvanized steel rack, silo structure
- L x W x H: 70 x 30 x 23 m
- 5 rack aisles for euro pallets (single deep storage)
- 1 rack aisle for industry pallets (double deep storage)
- 10,900 storage spaces
- Temperature range: +15°C to +25 °C

STACKER CRANES

- 5 aisle-bound stacker cranes
  Load handling device:
  single deep telescopic fork
  Payload: 800 kg
- 1 aisle-bound stacker crane
  Load handling device:
  double deep telescopic fork
  Payload: 1,000 kg





CONVEYOR SYSTEM

Across 4 levels with storage and retrieval lines including

- 3 transfer cars
- 2 vertical lifts
- Package transport conveyor system in picking area

SOFTWARE

- Warehouse control including visualization
- Interface to the superordinate warehouse management system (SuPCIS)

INTRALOGISTICS

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