

2005



CASE STUDY | FOOD INDUSTRY | REFRIGERATION SYSTEMS

11ER NAHRUNGSMITTEL

AUSTRIA

RETROFIT BY LTW

INCREASED AVAILABILITY BRINGS SIGNIFICANTLY MORE HANDLING CAPACITY

After more than a decade of operating a third-party intralogistics system, frozen food specialist 11er Nahrungsmittel in the Austrian town of Frastanz was encountering frequent disruptions and interface problems. To make things worse, the individual components had to be sourced from different suppliers and the responsibilities were unclear. Thanks to the retrofit of the third-party system by our technicians, the system availability has been restored to peak performance, whereby the handling capacity could be increased by 15%.

Back in 1991, 11er built their third frozen food store and at the same time the first fully automatic high-bay warehouse in Frastanz. In doing so the company commissioned a special equipment supplier for potato processing. Various sub-suppliers contributed the individual components such as stacker cranes,

conveyor systems, and software. After years of operation, errors, system crashes, and interface problems were starting to accumulate. Yet the biggest problem of all was the lack of clarity regarding supplier responsibility.

The concept

Originally, the 11er logistics team asked us whether we could take over the maintenance of the entire third-party system. However, it quickly became clear during the first on-site inspection with the customer that the technical systems were outdated and spare parts were becoming increasingly difficult to find. The customer therefore ultimately decided to modernize the entire system.

Although the original suppliers also submitted a tender that was slightly cheaper than our retrofit package, we were able to impress with greater performance as well as a detailed on-site analysis.



11er Nahrungsmittel GmbH

Galinastrasse 34
6820 Frastanz, Austria
11er.at

Founded: 1941

Employees: Family business with over 370 employees

Portfolio:

Austrian manufacturer of frozen food products made from potatoes.



In the past, we often had to restart the warehouse software several times a day, and adjust the stock manually. Since the retrofit, we have had so few problems that our people now almost forget what to do in such cases.

Walter Fitz, Project Manager at 11er Nahrungsmittel



Conveyor system: double transfer car

The implementation

Only three weeks were planned at the beginning of the new year for the implementation. With the exception of the air conditioners, the entire plant is at a standstill. The stacker cranes, rail system, conveyor system, and control systems are all to be brought up to the state-of-the-art. The -28 degree temperatures pose a major challenge for our team, particularly for fine motor work. Even the tool has to be taken back into the warmer pre-zones again after each use. The warehouse control system also has to be replaced by a new software. With modernization projects in particular, the conversion to a new software is the tensest stage of the operation – if this does not work, the entire system cannot run smoothly.

LTW planned the conversion meticulously. We switched the system on, and it worked. A textbook project.

Walter Fitz, Project Manager at 11er Nahrungsmittel

The outcome

After three weeks, we are finished on time. The interface between our warehouse control system and the 11er ERP system works straightaway, meaning the system will run smoothly again from day one. The increased availability of the system alone results in a 15% increase in the handling capacity while the speed of the stacker cranes remains the same. The customer is so happy with our work that we have been asked to implement another project – but this time with LTW as the full service provider right from the offset.

More Infos at:

[LTW.AT/en/references/detail/11er-nahrungsmittel](https://www.ltw.at/en/references/detail/11er-nahrungsmittel)



Working at -28°C



Aisle-changing stacker crane



Conversion of the three stacker cranes

OUTLINE OF THE PROJECT



GENERAL CONDITIONS

HIGH-BAY WAREHOUSE

- Year of construction: 1991
- Frozen storage warehouse (-28°C)
- Galvanized steel rack
- L x W x H: approx. 70 x 57 x 20 m
- 12 rack lanes, 1 switching aisle
- Approx. 8,700 pallet spaces
- Maximum payload: 1,000 kg

STACKER CRANES

- 3 fully automated aisle switching SRMs
- Cabin affixed to the lifting carriage
- Load handling device: telescopic fork

MATERIALS HANDLING TECHNOLOGY

- Pre-zone with storage and retrieval lanes for lift truck operation (+5°C)
- Production area connected to the high-bay warehouse by overhead trolley conveyor

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STACKER CRANES

- Switch cabinet with S7 control system
- Three phase driving and hoisting drive
- Path measurement during hoisting by bar code
- Absolute encoder for telescopic fork
- WLAN

SOFTWARE

- LTW warehouse management system
- Interface to the customer's ERP system
- Anti-collision control

CONVEYOR SYSTEM

- Replacement of S5 by S7 controller
- Operating units
- Bar code scanners
- New/Additional photoelectric barriers

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CONVEYOR SYSTEM

- Installation of the double transfer carriage in the high-bay warehouse
- New rail system with conductor line and bar code path measurement