

# WAREHOUSE MANAGEMENT BY E+P



SEEBERGER GMBH

BEST RUNNING  
WAREHOUSE

SEEBERGER GMBH

RUNS LFS

EHRHARDT+PARTNER

## CHALLENGE

- Demand of more warehouse space
- A perfect supply of goods for the production
- The goods have to be assigned to bin locations in three different temperature zones

## SOLUTION

- New full automated high bay warehouse
- Four driverless transport vehicles (DTV)
- New release of the warehouse management system LFS

## RESULTS

- The capacity has been tripled
- LFS ensures the perfect interaction of the different automated systems
- 100% reliable supply of raw materials for the 25 production machines
- Seeberger can store and retrieve up to 75 pallets per hour

## Networked intelligence: Production of nuts and raisins, dry fruit, coffee, etc.

A sense of tradition since 1844: Founded as a family-owned company, the Seeberger GmbH with headquarters in Ulm, Germany, today delivers several thousands of tons of dry fruit, nuts and coffee to customers all over the world. Another tradition of the South German company is working with the warehouse management system LFS produced by Ehrhardt + Partner (E+P), which has been in use at Seeberger for more than 20 years: Until now, the system has been controlling all movements in the raw materials warehouse. In recent years, all signs have been pointing towards growth.

To be able to handle the increasing goods and production volume in the future, the company decided to build a new automated warehouse. The special feature: Using a bridge, the new building will be connected to the production site and the old warehouse on the other side of the road. On this bridge, a driverless transport system (DTS) guarantees the reliable supply of goods for the 25 production machines.

Here, too, LFS will ensure the entire material flow. Up to 75 pallets per hour will be stored and retrieved in the new Seeberger warehouse.

Starting as a food wholesaler in 1844, the Seeberger GmbH has developed into a worldwide active brand for dry fruit, nuts and coffee. Until now, all raw materials have been stored in one of the 18,000 pallet bin locations of the old warehouse. To be able to handle the increasing order volume that is expected within the frame of the growth strategy, the company has decided to build a new high bay warehouse and to automate all processes. The entire material flow will be controlled by the warehouse management system LFS.

### ■ Producer selection

“The objective of building a new warehouse was not only to create more space, but also to guarantee a reliable supply of raw materials for the production machines. This was not possible before and the material flow processes were not optimal”, Frank Bäcker, operations manager of the Seeberger GmbH, explains. “That is why we decided to automate all processes in the new warehouse in order to obtain a smooth material flow.” The decision in favor of LFS and E+P was easy to make: The warehouse management system has already been in use at Seeberger’s old warehouse for more than 20 years. In 2012, a change of release took place. “This speaks for the quality, reliability and consistency of the system”, Frank Bäcker says.



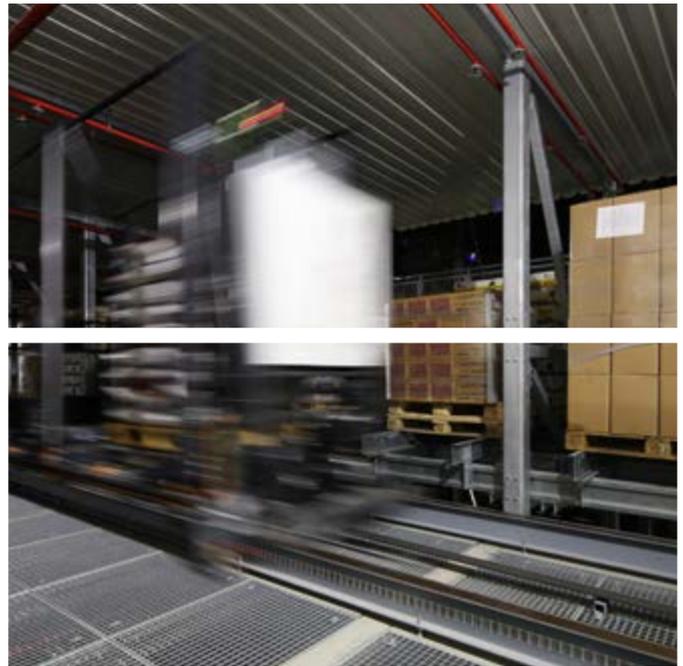
### ■ Refrigerated and automated

The new high bay warehouse is 40 meters high and consists of two aisles with channels of 14 horizontal and 15 vertical rack levels. In total, 700 different items can be stored on the 23,000 pallet bin locations in the new warehouse. In goods receiving, the raw materials are recorded in LFS using radio frequency terminals. With forklifts, they are then taken to one of the six storage points. From there, they are transported to the high bay warehouse. In the warehouse itself, a fully automated laterally guided shuttle system takes the pallets to a buffer section for the stacker cranes (SC) that can handle both Europe and industrial pallets. The SC move between two aisles with up to 250 meters per minute. The goods are assigned to bin locations in three different temperature zones: On the bottom level, the products are stored at 5 °C to 8 °C. In the zone above, there is a temperature of up to 15 °C and on the top level there is a zone without temperature control. Based on the master data, LFS can already assign a bin location to the products in goods receiving and automatically control the process.



## ■ Smooth material flow

The warehouse management system and four driverless transport vehicles (DTV) guarantee a smooth material flow. The vehicles will connect the new high bay warehouse with the production site. When a production order is created, LFS will first send a telegram to the stacker cranes in the automated warehouse. These will retrieve the required goods and take them to the retrieval points. Here, a DTV will pick up the pallet and transport it across the bridge to one of the 25 production machines. "LFS has to ensure the perfect interaction of the different automated systems to keep production running", Frank Bäcker continues. The retrieval process has another special characteristic: After arrival and before storage, LFS automatically selects pallets from the raw material lot for a manual quality control by the laboratory personnel. When a lot has successfully passed the check, a DTV can pick up the pallets and transport them to the production site across the almost 100 meter long bridge. LFS assigns the vehicles to the bin locations based on the orders. The Seeberger employees then use their RF terminals to scan the goods and take them to the next processing station or place them on the respective machine for packaging. Thanks to the automated processes and the smooth material flow ensured by LFS, Seeberger can store and retrieve up to 75 pallets per hour



## ■ High quality standards until dispatch

Also during the packing process, the goods are permanently checked for their weight and the packaging quality. Afterwards, the nuts, the dry fruit and the other products are taken to the finished goods warehouse with forklifts, before being delivered to the customers. Four to five trucks full of Seeberger products leave the warehouse every hour. "It has been a year now since E+P implemented the new warehouse – and we can already say that we have more than tripled our capacities and that we profit from a transparent material flow", Frank Bäcker summarizes.

Within the frame of the Seeberger 2030+ project, further investments are planned for this site. Currently, E+P is installing a materials handling system that is connected to LFS, in which all areas of the old warehouse will be connected. Seeberger still wants to include all processes in the warehouse and the production site in the same material flow.



### Seeberger GmbH

- Headquarter in Ulm, Germany
- Founded in 1844
- Turnover of 160 millionen Euro (2012)
- 360 employees
- Export into over 30 countries



## AT A GLANCE

- Warehouse management system:  
Ehrhardt + Partner GmbH & Co. KG,  
Boppard-Buchholz
- Driverless transport systems: Rocla Oy,  
Järvenpää (Finland)
- Stacker cranes: LTW Intralogistics GmbH,  
Wolfurt (Austria)
- Racks: Voestalpine
- Materials handling system elements:  
TGW Logistics Group, Wels (Austria)
- Scanners: Intermec Technologies GmbH,  
Düsseldorf (Germany)
- Rolling shutters: Unitor Torsysteme,  
Jemgum / Soltborg

## ■ Ehrhardt + Partner

With its LFS Software Suite, Ehrhardt + Partner (E+P) offers an industry-independent total solution and is one of the world's leading logistics experts. As a Supply Chain Execution System, LFS is currently successfully deployed on five continents and enables a control of all logistics processes across all industries. The internationally active company group was founded in 1987 and currently employs more than 500 people at 14 locations. More than 60,000 users worldwide use the system for their supply chain management.

The range of services offered by the LFS software suite includes everything necessary for an integrated logistics control system: the warehouse management system LFS.wms for controlling intralogistics, the material flow controller LFS.mfc, and the transportation management solutions LFS.tms for efficient tour planning and processing. Data solutions, logistics planning and consulting, private cloud and hosting services as well as warehouse seminars at the LFS.academy complement the company's range of solutions.

In combination with in-depth warehousing advice, comprehensive expert knowledge in warehouse logistics and reliable support, E+P offers everything from one source. Currently, more than 1,000 customers from all industries are on the list of references.

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