CUSTOMER CASE STUDY

WAREHOUSE MANAGEMENT BY E+P

EHRHARDT+PARTNER

FIEGE LOGISTIK HOLDING & CO. KG

CHALLENGE

- Restructuring the logistics and the IT landscape
- Multi-channel concept
- Online shop and returns logistics under one roof

SOLUTION

- Introduction of the Warehouse Management System LFS
- Put-to-Light installation
- Transport Control System TCS

RESULTS

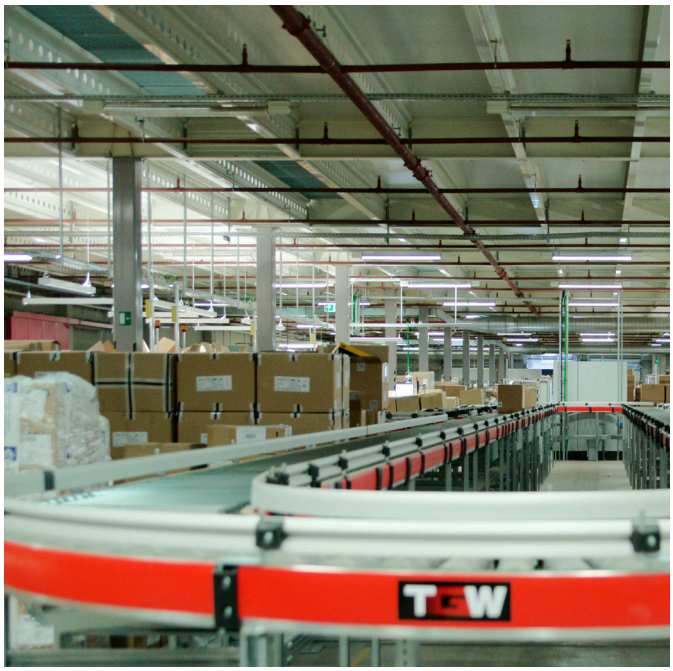
- Highest flexibility in the multi-channel storage processes
- Efficient picking thanks to way optimization
- Partial automation of the material flow

SportScheck is fit for the future

Several orders with few items, same-day delivery and many returns: E-commerce has its own laws. And they are different than those for stationary trade. In stationary trade, the focus is on fulfilling the requirements of the individual stores and processing orders on a larger scale. Managing online, branch and returns logistics under one roof is a huge challenge. This is also the case at the sporting goods dealer, SportScheck. The company is placing more of a focus on multi-channels sales and thus decided to completely restructure its logistics and IT landscape. The logistics service provider Fiege was awarded the contract. In order to maintain the necessary flexibility in the order processing despite the complex structures, Fiege has chosen the warehouse management system LFS from Ehrhardt + Partner (E+P).

In conjunction with a sophisticated sorting system with a bag sorting system and integrated dynamic buffer, consisting of approx. 40,000 bags, it ensures fast processing and is an optimum interface between shipping

and returns logistics and thus completely fulfills the requirements of the multi-channel company. More than 3 million parts with 140,000 variants on a logistics area of 80,000 m²: “The dimensions are gigantic”, comments Oliver Schlüter, Project Manager at Fiege Germany in reference to the project at the Apfelstädt (near Erfurt) location. The new logistics system was implemented in a total of six halls, each with a floor area of 6,500 m². In 2012, the multi-channel merchant, SportScheck, which belonged to the Otto Group, began searching for a suitable partner to assume the entire warehouse logistics. The contract was awarded to the logistics service provider Fiege which handles the item processing, picking, shipping, returns and branch deliveries for Germany as well as the end customer deliveries in the DACH region. The central warehouse was therefore moved from Burgkunstadt in Upper Franconia to Apfelstädt near Erfurt. SportScheck also left the decision regarding which IT system and which suppliers would be involved up to Fiege. “Many joint projects and the many years of successful cooperation have convinced us to trust in the E+P warehouse management system as well,” says Marco Balz, IT Project Manager at Fiege. “We thus not only maintain the standards within our group, we also have a solution that fulfills the requirements of multi-channel sales and the complex processes with the necessary flexibility for this business.”



3, 2, 1 ... Go!

Key chains, running shirts, bicycles – the SportScheck range of products is extremely diverse. The joint project from Fiege and E+P also started this way: The two material flow computers for the conveyor technology and the bag sorter had to be connected with SportScheck‘s warehouse management system and ERP system so all of the processes ran smoothly together. Other characteristics of SportScheck´s logistics are the regular changes in the product range and the differentiation between online and store orders. Thus, store orders are, for instance, equipped with an anti-theft device, a price tag or a clothes hanger, prior to shipping. This had to be taken into consideration in the IT planning in order to completely fulfill the requirements of the multi-channel concept.

Partially automated material flow for a complex warehouse environment

The partial automation of goods receiving is a solution for a smooth flow of materials. 80 percent of the incoming goods are able to be conveyed, which means the boxes are transported via the conveyor technology for further processing. LFS knows, based on the label, whether they are boxes with one type of item or contain mixed goods. Mixed goods boxes are transported to a station for manual sorting. Only boxes with one type of item are transported directly to the out-

LFS.
Warehouse Management by E+P

going goods area, where they are placed on shelf carts and placed in storage per RF. Via the RF, the employees also know if the item has to be put onto a hanger and thus has to be transported to a separate part of the storage area set up for this purpose. The Transport Control System (TCS), also from E+P, guides the picker through the corridors of the racking storage system. “The fact that the TCS is also responsible for the pickers in this project is, perhaps, somewhat unusual, but in this case, very efficient. This way, Fiege´s picking process is optimized with regard to travel paths and at the same time Fiege profits from optimum space management and very transparent item handling,” explains E+P Project Manager, Markus Linkenbach. More than 140,000 variants have to optimally managed. LFS assigns the bin locations based on the dynamic field assignment and either assigns variants to an existing bin location or creates a new one. The pickers then place the goods directly into the ergonomic spring-bottom cart and push them to the vertical conveyors for transport to the ground floor. Once they have arrived there, they continue on to the bag sorter for further sorting for the orders. 5,000 bags are available per batch and are equipped with one item each by the employees.

5,000 parts per hour

To pick one batch takes exactly one hour. This corresponds precisely with the time required for the hanging bag sorter to sort 5,000 parts. The planning should provide for 2/3 of the goods to be taken from the warehouse and 1/3 of the goods from the dynamic buffer, ergo the returns area. Here too, the communication between the different IT systems play a decisive role. As soon as the parts have been scanned and fall into the bag, the material flow computer for the bag sorter

takes over. Via telegram, the computer knows everything about the orders in the batch and starts the multi-staged sorting process. The 5,000 parts are first reduced, in stages, down to batches with 600 and then 100 parts from which the customer orders are then generated, piece-by-piece. The LFS takes over again at a total of 23 packing stations. Per order, the bags move forward to the packagers that prepare the goods for shipment. For online orders, the goods travel on a conveyor to the outgoing goods area and then to the corresponding outgoing bridges for Germany, Austria or Switzerland. Store goods are processed separately. The system is designed so 2/3 of the batch contains goods for the end customer and 1/3 for stores.

Dynamic work stations and Put-to-Light for store processing

At the 42 work stations for store shipments, the items are compiled for each store. The employees handle the additional services, such as anti-theft security, price labeling or hanging the goods onto hangers. A Put-to-Light system displays for which floor of the branch the item is intended. Another peculiarity: The store deliveries are also packed in multi-transport boxes that are also divided into floors. Every floor is equipped with a specific range of products, for instance, hiking clothing or swimsuits.

SportScheck
Wir machen Sport.

Sportschek GmbH

- 30,000 sports items
- 19 subsidiaries
- 500 sports brands
- Warehouse: Fiege Mega Center in Erfurt, Germany

This is also displayed by the Put-to-Light system so the employee can intuitively compile the orders. “SportScheck would like to keep the internal logistics expenses in the stores as low as possible. Due to our pre-sorting the branch employees only have to remove the box on site and can simply place them in the display,” explains Oliver Schlüter.

Six hours to reuse

The returns logistics process is also performed centrally. Both customer and store returns are assessed and prepared by Fiege. Employees make the decision regarding the further use of the item. Unobjectionable goods are transported on a spring-bottom cart to a separate work station in the hanging bag sorter system. An employee then equips these with one item each; 40,000 bags are available for this in the dynamic buffer. If possible, 1/3 of the goods in every batch are from the returns area. “Due to this system and the centralization of the shipping and returns logistics, we ensure that goods can be back on the way to the customer six hours later,” says Project Manager, Oliver Schlüter.

LFS.
Warehouse Management by E+P

The highest level of process reliability for multi-channel business

“In order to keep the process reliability and the quality at the same level, we have integrated several 100 percent checks in the material flow,” explains IT Manager Marco Balz. This starts at goods receiving. Here, for instance, the scale on the conveyor technology checks whether the right item is in the box. During picking, feedback is constantly transmitted to the LFS via double scanning and confirmation which practically eliminates errors. Then, there is another scan at the transfer station for the spring-bottom cart, just as there is when equipping the hanging bag sorter and packaging stations, so the LFS is continuously informed about the processes. “Due to the many years of cooperation with E+P, we were already familiar with the high level of quality of the warehouse management system. It really pays off, especially if it has to go fast, like in e-commerce,” Marco Balz sums up.

AT A GLANCE

- Many orders with only a few items
- Same–day delivery and many returns
- Restructuring of the logistic proceses and the IT landscape
- Online shop and returns logistics under one roof
- Bag sorter system with integrated dynamic buffer
- More than 3 million parts with 140,000 variants on 80,000 m² of storage surface
- High degree of parameterization
- Dynamic workstations and Put–to–Light installation for shop supply

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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