

Fresh on the table – Warehousing for Hochland



For the modernisation of the Hochland distribution centre in the Allgaeu, the director of the warehouse location, the haulage company Riedle, counts on the warehouse management system LFS 400 by Ehrhardt + Partner. With this project, especially the integration of the existing automatic conveyor technique was a big challenge at which already made two other WMS suppliers had failed before.



Outside view on the warehouse

Patros, Almette, Valbrie and Hochland – those are products that almost everyone has in his fridge. These branded articles and numerous producer brands of the food discounters ALDI, Lidl and Plus are produced by one of the biggest cheese producers and refiners in Europe, the Allgaeu Hochland S.A.. With 3,200 employees, the company earns a 700-million Euro turnover at ten production

sites and in 30 countries. In Germany, hard-, sliced and soft cheese are produced at the Heimenkirch production site with 900 employees and are distributed via the neighbouring distribution centre in Buxheim to wholesalers or the major customers' distribution centres. Specific products of other production sites like for example the French soft cheese Valbrie are also stored in the Buxheim central

warehouse and distributed from there on. Next to the products of the client Hochland, Riedle also stores the products of the cheese dairy Champignon in its warehouse.

Project requirements and selection of suppliers

About 1,000 pallets are stored and released every day in the 12,700 pallet-place warehouse. Only for Hochland, more than 500 different items are stored on the warehouse area of 8,200 square meters. The entire warehousing and the temperature-led transport of the goods are supervised by the medium-sized forwarder Riedle on which the leading logistics service provider Kraftverkehr Nagel holds a share of 50 percent. This way, Riedle Riedle has access to the know-how and the structures of the market-leading transport amongst others in the IT-sector. The selection of the new warehouse expert for the realisation of the upcoming warehouse modernisation preceded detailed market analyses and an intense competitor selection. "Before taking over the Buxheim warehouse from Hochland, already two other warehouse software suppliers had failed with this project. What proved to be an unsolvable problem was in both cases the connection of the existing conveyor technique. Therefore, the expectations to the new WMS supplier were relatively high", Roland Gutowski, warehouse manager in the Buxheim site, values the project requirements. With the commissioning to Ehrhardt + Partner, especially the positive experience of Kraftverkehr Nagel





Automatic conveyor technique of the high rack warehouse

with the Boppard warehouse experts played a decisive role. Together with E+P, Kraftverkehr Nagel had in the past among others started-up warehouses of well-known clients like Ritter Sport, Bakemark and Gewürzmüller. With Ritter Sport, comparable to the current modernisation of the Hochland warehouse, also an existing automatic conveyor technique of MAN was integrated into the warehouse management system LFS 400. "Next to an extremely powerful warehouse management system, we also offer to our clients amongst others a funded know-how in the section of communication with foreign systems," says Marco Ehrhardt, managing partner of the Ehrhardt + Partner group. "Because of our experience with similar projects, we could finish the integration within a short period of time. Already two months after the creation of the SRD, the company Riedle was able to put the Hochland warehouse into operation."

Optimised warehouse processes

The route and cost-optimised warehouse processes run since August 2005 the following way: at the different production sites, the according goods are loaded onto trucks and where then transported to the central Hochland warehouse. Already before the goods receipt, the enterprise resource planning system SAP transfers all the relevant data to the LFS 400. After the arrival of the truck driver at the goods receipt, he hands the whole delivery over to the automatic conveyor technique of the warehouse. The pallets here are directed to a scanner which reads in the EAN-128 label into the system. Hereupon, the

LFS 400 generates a putaway transport into one of the two cooling warehouses. In the automatic cooling warehouse at 2 to 1 degree Celsius, Hochland stores for example soft cheese. Hard cheeses as well as other items are stored in the second warehouse at six degrees Celsius. During the entire warehousing process, LFS 400 carries the item information like batch and best before date (BBD). This way, the software allows Riedle a permanent tracing of each item. With this, Hochland meets the requirements of the EU regulation 178/2002 for the entire foods industry valid since January 1st 2005. The data of the client orders are administered by Hochland

analogously to the goods receipts in the host system SAP. One day before the goods delivery, these information were transferred to the LFS 400. The WMS provides these data via another staging location for Riedle's route planning. The external system determines a routing and provides it to the warehouse software. According to the fixed routes, the LFS 400 generates the release orders. Hereby, the logistic service provider Riedle works in the dual-server operation. This means: there are two AS/400 server used in the warehouse. Via the active AS/400 server, LFS 400 operates the warehouse. The second server saves the current data. If the first server fails, the second system automatically takes over the operation of the warehouse. Riedle this way achieves an improved data security and a high availability.

Picking and reduction of pallet sizes on clients' height

For Hochland clients that have arranged a certain pallet height for their deliveries, the size of the full pallet is reduced to the desired height before release. SAP transfers this specific data with every order to the LFS 400 which automatically initiates the process. The full pallets are released via the conveyor technique for the reduction of pallet heights. For the setting of picked pallets, 12 employees are in charge in the Hochland warehouse in a two-shift day. LFS 400 leads the employees with mobile radio frequency appliances rout-optimised to the picking areas of the two 2- and 6-degree cold cooling warehouses. The pickers are firstly lead to the heavier items which are put on the bottom of the pallet. The



For clients that have arranged a certain pallet height for delivery, the full pallets' height is reduced down to the desired height by employees before release



Application of radio frequency / scanning

lightest items are picked at last. The WMS system of E+P furthermore offers the possibility to the employees of self-defining the sequence of picks. This additional function in the LFS 400 is needed with Hochland, as the items can significantly vary in weight, volume and quantity and a flexible building-up of the pallets is required. The employees can in these cases for example pick the third position on the list first: the employee scans the items and puts the required quantity on the pallet. Afterwards, he is lead route-optimised through the picking zone in order to pick the missing positions. After finishing the picking, the pallets are labelled with EAN-128 labels. The barcode gives information about all contained products, batches, article numbers, expiration dates etc. of the pallet.

Loading and cross docking

The picked pallets are transported by the warehouse employee to the consolidation zone. Here, all the pallets of one tour are allocated and instantly loaded when the truck arrives. Here, also those loading units are considered that have been provided for goods dispatch by the LFS 400 directly after their arrival in the goods receipt (cross docking). With the end of the loading, LFS 400 prints a delivery note and sends the confirmation back to SAP. As soon as the goods deliveries have been transmitted, a DESADV is generated and the ordered goods are this way announced to the Hochland client's ERP system. Furthermore, for each client it is made sure that with the next delivery, he receives goods with the same expiration date or – if these goods are no longer available – a later expiration date. "The system today meets all our requirements and along with that all the requirements of the Hochland company to our complete satisfaction. Furthermore, the use of the LFS 400 ensures us a higher flexibility in regard to future clients' requirements," warehouse manager Gutowski sums up.

Convincing results

Summarized, the logistic service provider Riedle achieves the following results by the use of LFS 400:

- Because of the funded modernisation know-how of Ehrhardt + Partner, the existing automatic conveyor technique could be connected problem-free to the warehouse management system and the warehouse could be represented entirely.
- By the connection to the superior host system SAP, Hochland has a significantly higher security of planning. In addition, Riedle profits from the addi-

tional newly created staging location to the logistic service provider's external route-planning system.

- If a Hochland client has arranged a specific pallet height for delivery, LFS 400 automatically initiates the reduction of the pallet height of the full pallets down to the desired height.
- By the use of the LFS 400, Hochland meets all the requirements of the EU regulation 178/2002. Products on picked pallets are also clearly identified by the SSCC label. This way, the tracing is guaranteed at any time.



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