

The forklift guidance system with GPS optimizes the logistics processes on a 110,000 m² logistics yard

Incorrect loading is prevented and search times are reduced to a maximum

Challenge

As a nationally leading manufacturer of high-quality concrete products and design elements for the design of gardens, terraces, and outdoor facilities, Birkenmeier stein+design pursues the goal of raising process design to a new technological level.

To address the issues of incorrect loading of product pallets, lack of traceability, and extended search times, this manufacturing company was looking for a mobile warehouse management system (WMS) that, by specifically navigating to the relevant pallets in the open storage area, would reduce the loading times for the produced goods.

Because the storage bins there are partially dynamic and due to the wide range of products, a fixed storage structure cannot be maintained during peak seasonal business. Therefore, to ensure a smooth loading process for the forklift operators, real-time localization of the pallets must always be guaranteed.

Solution

Birkenmeier opted for the L-mobile forklift guidance system (FGS) with GPS positioning for the exact location of the pallets in their open area. The forklift drivers receive digital pick orders displayed on a terminal attached to the forklift truck in order to relocate the pallets. This enables the forklift drivers to navigate to the individual pallets accurately and based on efficient routes and to load them as quickly as possible.

Empty runs are consistently prevented thanks to maximum stock transparency. Knowledge of the whereabouts of individual products and pallets is no longer retained only in the minds of the loading crew. Instead, thanks to GPS tracking, it can now be accessed in real time and with pinpoint accuracy in MS Dynamics NAV.

The forklift guidance system simplified the receipt posting of produced goods into the warehouse stock and noticeably accelerated the loading process at goods issue. This was achieved in part through pre-picking using mobile handheld scanners of the mobile WMS for Navision.

L-mobile warehouse ready for MS Dynamics case study



Conclusion

Moving away from individual knowledge and towards system-supported real-time posting of all goods movements. This was the overall project goal. Pre-picking of sales orders can be done even faster and at the same time error-free with the forklift guidance system including GPS tracking. In this process, when products are assembled for a sales order, the goods are first taken to a picking station. Afterward, when scanning the goods, the system automatically generates a new order, and the new order-specific pallet is labeled with a unique pallet ID. The identification numbers contain all relevant data and, if necessary, allow for the blocking of individual batches. The L-mobile solution also made it possible to fully map plant-to-plant traffic and the purchasing of retail goods on the process side.

Mr. Eberhard, Managing Director at Birkenmeier stein+design, is very satisfied with the solution going live. On average, there are approximately 250 postings with a goods value of up to €200,000 each day, which can now be picked and loaded very efficiently. Furthermore, Mr. Eberhard praises the project team for their consistent flexibility in responding to new requirements within the ongoing project and their continual ability to identify swift solutions.

"L-mobile has extensive expertise in the field of mobile scanner solutions in combination with modern tracking technologies. Furthermore, the size of the project team and L-mobile's longstanding presence on the market were the key factors in our decision to choose L-mobile as our solution provider," said Mr. Eberhard.

Highlights

- Prevention of incorrect loading of the pallets
- No empty runs
- Reduction of search times with GPS tracking
- Real-time posting of 250 invoice items daily in NAV
- Stock information in real time
- Maximum transparency at the warehouse and in the outdoor area
- Accelerated goods issue
- Simplified pre-commissioning of sales orders
- Time saved thanks to perpetual inventory

Birkenmeier stein+design*

Birkenmeier Stein+Design

Birkenmeier stein+design was founded in 1949 solely as a manufacturing company. Today, the company is based in Niederrimsingen with 4 paver and slab plants, business, administration and warehouse buildings, as well as its own exhibition park.

Technical details

ERP: MS Dynamics NAV 2016

Devices: Zebra DS3678-ER, M3

UL20x Android, Unidat Slim12" with

Technology: L-mobile warehouse and

L-mobile FGS

System company: RIB Cosinus GmbH

Statement

"L-mobile has extensive expertise in the field of mobile scanner solutions in combination with modern tracking technologies."

Markus Eberhard | CEO, Birkenmeier Stein + Design

www.l-mobile.com/warehouse





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