



Coko-Werk GmbH & Co. KG Bad Salzufen.

**Automation for increased
efficiency and value.**

JUNGHEINRICH

Project:

Coko-Werk GmbH & Co. KG, Bad Salzufen, Germany

Industry:

Plastics industry

Task:

Increased efficiency of the narrow-aisle warehouse through automated high-rack stackers and conveyor systems

Project duration:

10.2013 – 05.2014

Services:

- Jungheinrich Warehouse Control System (WCS)
- Wi-Fi solution with directional antennas
- Automation of narrow-aisle warehouse
- High-rack stacker ETX 515a
- Conveyor system including control system

Most important results:

- Increased efficiency
- Reduced energy consumption
- Increased overall availability
- Reduced wear

From one supplier for almost 90 years

The company Coko-Werk GmbH & Co. KG has made a name for itself in the plastics industry. Its key markets include the construction of tools and plastic items, injection moulding and the assembly of components, painting, foaming, welding and printing. Its customers are based in the automotive, medical and mechanical engineering

industries. The global company manufactures products in Germany, Poland and Turkey and achieves annual sales of approx. 140 million euros.

Convincing overall concept

Following an extensive capacity and process analysis, two service providers offered plans for an automated narrow-aisle warehouse. Coko decided to accept Jungheinrich's offer on the basis of the complete needs analysis, the convincing overall concept and not least the price-to-performance ratio. Another important factor was that Coko has already been using Jungheinrich forklift trucks for a long time, and is very happy with them in terms of quality, service and price.

Customised logistics system solution

To increase throughput efficiency and cost-effectiveness, a high-bay warehouse with space for approx. 3,240 pallets has been built at the main site in Bad Salzufen. Following extensive economic efficiency analyses, the decision was made to implement an automatic narrow-aisle warehouse. In order to meet the requirements in terms of reliability, efficiency and warehouse safety, this required a complete logistics system solution. This includes warehouse control using the Jungheinrich Warehouse Control System (WCS), for example.

The requirement

Improvement of warehouse processes

Since 2008, Coko has used an ERP system introduced by SAP. The consequence of this is that only one shipping storage location and only block storage areas are available in SAP. Goods which belong together must therefore be stocked separately, which results in the picker taking a long time to locate items.

The solution

Automated high-rack stackers in a narrow-aisle warehouse

In planning an intralogistics project, Coko was guided by the economic efficiency analyses of Jungheinrich, and invested in three automated ETXa high-rack stackers, a narrow-aisle warehouse and the conveyor systems to take items to and from storage. The ETXa is equipped with a swivelling fork and designed for an optimal lift height of ten metres. In order to avoid downtime during battery changes, the ETXa has been designed to be powered by busbars. The energy reclamation during lowering of the load handler and during regenerative braking confirms the high energy efficiency of the automatic high-rack stacker. In addition, the ETXa travels diagonally to the storage locations, with an optimised speed profile, which saves time. The required throughput efficiency is exceeded for the whole system.

Following a system and performance analysis carried out in advance, a controller-based Wi-Fi solution was implemented in the automatic environment. An advantage of this radio data solution is that the central administration of the connected Access Points is possible both directly and remotely. The challenge with regard to implementation is in covering a narrow aisle approx. 80 metres long with directional antennas in the 5 GHz frequency range. Data is exchanged between the vehicle terminals and the implemented SAP WM via the Jungheinrich WCS, which serves as a material flow controller, controls the conveyor system and manages the 3,240 pallet positions. The

Jungheinrich WCS is also responsible for the authorisation and calculation of target locations in the narrow aisle. Additionally, the system optimises storage and stock removal by using double cycles. Another feature is 'aisle balancing', where the Jungheinrich WCS does not store an item exclusively in one aisle, but rather stores it in several aisles at the same time. This lowers the risk of being unable to deliver an item – e.g. due to a blocked aisle. The delivery specification also includes a label printer, mobile workstations and truck terminals for reach trucks.

Customer statement

Increased efficiency and higher supply capability thanks to custom-designed total solutions

"Since we invested in the automatic narrow-aisle warehouse, we have known which items are in which storage locations. This means we can now work according to the FIFO principle and fulfil the corresponding guidelines of the automotive industry. Furthermore, we benefit from significantly more efficient logistics processes," states Jens Kastning, Head of Logistics at Coko-Werk GmbH & Co. KG. Furthermore, he stresses: "The number of high-rack stackers means we benefit from a high level of efficiency, resulting in improved supply capability. An advantage which can be used to good effect with our customers."



Jens Kastning, Head of Logistics,
Coko-Werk GmbH & Co. KG in Bad Salzungen.

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