

Project:

Rudolph Logistics Group Lorsch, Germany **Industry:**

Logistics service provider

Task:

Provision and temporary storage of pallets and internal transportation to goods outward

Project duration:

03.2013 - 08.2013

Services:

- Automated Guided Vehicle EKS 210a
- Traffic Manager transport control software
- Connection to the customer WMS via the Jungheinrich Logistics Interface

Most important results:

- Increased efficiency and productivity
- Greater flexibility for transport tasks
- Transfer of 50 percent of internal transports to goods outward
- Reducing load on warehouse personnel

Improvement of internal processes

Rudolph Logistics Group develops and implements comprehensive logistics solutions for different industries, focusing on the automotive, transportation, consumer goods, industry and fulfilment sectors. In order to deliver goods to customers just-in-time, it is important that internal processes are constantly improved and optimisation

potential utilised. This requires new approaches to be taken and innovative technologies implemented as well as using and further developing existing resources to their optimum extent.

Optimum utilisation of the existing warehouse technology

In addition to just-in-time delivery, relieving strain on employees and utilisation of the existing storage facilities were important to Rudolph Logistics Group. Consideration was therefore given to the use of an automated guided vehicle system. This has the advantage that it can also be adapted to a changed environment while still retaining the necessary flexibility in the warehouse. Moreover, the existing racking systems and storage locations can be used.

The choice was the technology partner with expertise in turnkey solutions

Finding the right solution for Rudolph Logistics Group was preceded by an eight-week planning and testing phase. In this phase, Jungheinrich was able to score with its expertise in turnkey solutions and the newest generation of the Automated Guided Vehicles. Of particular advantage to Rudolph Logistics Group was the Jungheinrich Logistics Interface. This middleware enables the Jungheinrich AGV to communicate easily with the customer's own warehouse management system without requiring restructuring.

The requirement

Optimisation of the existing processes without changing the general conditions

The main tasks of the new system are the automated internal transportation from the packaging area to various supply racks and to goods outward using the existing travel routes within a warehouse measuring 14,300 m². In doing so, the transfer orders are to be generated by the customer's own Warehouse Management System and the individual parking positions of the pallets reported to the Warehouse Management System. An additional goal was to reduce the load on warehouse employees, enabling them to focus more on special transports. Thanks to the mixed operations mode and Automated Guided Vehicle System together with manual fork lift trucks, the internal transport processes are optimised and transport peaks can be processed efficiently.

The solution

EKS 210a combined with the Jungheinrich Logistics Interface

The Automated Guided Vehicle EKS 210a is a Jungheinrich production truck that is already equipped with an extensive safety package as standard. By using the AGV, it was possible to show a noticeable increase efficiency in the intralogistical processes even a short time after commissioning along with significant error reduction in the internal transport processes.

The assignment of transport orders to the individual pallets is via a bar code that is automatically read by the AGV and reported to the WMS via the Logistics Interface. The WMS then sends the exact storage location for the respective pallet to the truck, once again via the Logistics Interface. The pallet is securely transported to this location via the optimum route and precisely positioned.

Customer statement

Increasing process efficiency and reducing the load on employees

"We decided to go with the automation solution from Jungheinrich because we were able to utilise this without requiring major changes to our distribution centre. Likewise, simply connecting the AGV to our own warehouse management system via the Logistics Interface was one aspect where Jungheinrich really stood out," says Thorsten Kramer, head of the Rhine/Main/Neckar division, and Markus Krumpholz, project management and controlling, contact for Rudolph Logistics Group, regarding the use of the AGV. "Since commissioning, the Automated Guided Vehicles have taken over some of the internal transport. In goods outward, this represents approximately 50 percent of the daily goods outward volume. Thanks to the use of the Automated Guided Vehicles, we have been able to make our internal processes more efficient and to relieve the load on our employees. In addition, the Automated Guided Vehicles comprehensive safety system has helped us to minimise damage in the distribution centre."



Thorsten Krämer, head of Rhine/Main/Neckar business unit, and Markus Krumpholz, project management and controlling, Rudolph Logistics Group, Lorsch, Germany.

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