



Logistics centre with automated pallet warehouse and small parts warehouse, KRACHT GmbH, Werdohl.

More space and optimised material flow.

**JUNGHEINRICH**

Project:

KRACHT GmbH, Werdohl, Germany

Industry:

Manufacturer of gear pumps, gear type flow meters, screw type flow meters, hydraulic components and valves

Task:

Set-up of a logistics centre with automated pallet high bay warehouse and small parts warehouse, including stacker cranes and connection to Jungheinrich WMS

Project duration:

04.2016 – 05.2017

Services:

- Fully automated two-aisle pallet high bay warehouse with 2 stacker cranes
- Automatic small parts warehouse with a stacker crane
- Jungheinrich Warehouse Management System (WMS)
- Planning and realisation of the entire warehouse in a silo construction

Most important results:

- More space for production through optimal utilisation of space
- Optimisation of company-internal material flows
- Streamlining production processes
- Greater efficiency

Traditional company on the path to success

KRACHT GmbH is a medium-sized family company operating worldwide that designs, manufactures and distributes gear pumps, valves and flow meters for wind turbines, ship gears, dosing and mixing systems as well as in the test bench technology. The product range is supplemented by hydraulic components for mobile and stationary applications.

New orientation of internal logistics

In order to better face the future challenges posed by the global market, the company has taken a very close look at all logistics processes at the Werdohl site. It became clear that the warehouse system had to be centralised, enabling production areas to be created and production processes to be optimised. Intralogistics experts at Jungheinrich were commissioned to implement this system.

Everything from a single source

As a general contractor, Jungheinrich set up the 3,500 m² logistics centre in Werdohl. The silo construction houses an automated pallet high bay warehouse and an automated small parts warehouse. Provision is also made for the IT connection and implementation of Jungheinrich WMS, which monitors all processes for warehouse technology and order picking. Furthermore, a wide-ranging service contract was agreed, which ensures a maximum reaction time of four hours alongside various maintenance and testing intervals.

The requirement

Complete restructuring of production logistics

As part of the planned restructuring of plant logistics, all decentralised warehouse locations at the Werdohl site were to be dissolved with the aim of freeing up space for production whilst also reducing warehouse inventories and search times. A centrally automated warehouse and Warehouse Management System were to ensure an ideal overview of the raw materials and semi-finished goods, but also enable the introduction of streamlined production processes. This also covers the conversion of the variety of previously used transport aids and carriers to standardised pallets, mesh boxes, and containers in order to supply workstations with the required material in future, in line with requirements.

The solution

Pallet and order-picking warehouse under one roof

It became clear that a pure high bay warehouse would not fulfil all requirements. For this reason, the choice fell on a combination of a new order-picking hall and an additional small parts warehouse. The solution, which was designed in close collaboration with the logistics managers at KRACHT GmbH, comprises a two-aisle high bay warehouse with a directly adjacent automatic small parts warehouse aisle – both sections are under one roof in a silo construction. The 23 m-high, fully automated warehouse has 5,100 spaces for Europallets and mesh boxes on a total of 15 levels with double-depth storage locations. Two stacker cranes from the Jungheinrich subsidiary MIAS store the pallets with acceleration of 0.5 m/s^2 both inwards and outwards. They achieve around 30 double cycles per aisle. Over 12,000 storage locations for containers are available in the adjacent small parts warehouse. The stacker crane accelerates in the 15 m-high aisle at a speed of 3 m/s^2 and distributes the containers on a total of 34 levels with an output of up to 68 double cycles. The delivery specification also includes around 200 m of auto-

matic pallet and conveyor technology to be linked to the order picking workstations, three ergonomic combined workstations with lift platforms, and the Jungheinrich Warehouse Management System. To ensure a quick and reliable repair work, a premium software support service for WMS including control technology was concluded. Furthermore, Kracht opted for an interval contract with maintenance for the stacker crane and conveyor technology as well as for a security check. Also part of the solution is a spare parts package for the control technology, the conveyor technology and the stacker crane.

The statement

Space obtained, efficiency increased

"The previous concept was 'goods to man'. This process was time- and cost-intensive and could no longer fulfil increasingly stringent requirements. We turned the system around and improved efficiency significantly", explained the KRACHT managing partner, who was pleased to see employees freed up to perform other value enhancing activities.



Heiko Zahn, managing partner of KRACHT GmbH, Werdohl, Germany.

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