Project:
Wessels + Müller AG, Hedemünden, Germany

Industry:
Wholesaler for vehicle parts, tyres, workshop equipment

Task:
Planning, development and construction of a new central warehouse

Project duration:
06.2012 – 03.2014

Services:
- High-bay warehouse with nine aisles
- Automatic small parts warehouse with 15 aisles
- Complex order picking and conveyor system for pallets and containers including control technology
- Forklift trucks and racking for conventional warehouse areas
- Jungheinrich WMS

Most important results:
- Capacity expansion
- Increased productivity
- Reduced errors
- Complete set-up of IT and logistics processes

Expansion of the logistics centre due to positive market developments
Wessels + Müller AG places great importance on constant further development and the international expansion of the company. The wholesaler for car and commercial vehicle spare parts and accessories currently already has 95 branches in Germany, four in Austria and the Netherlands, and five in the United States. In addition, the company also has a logistics centre. Overall, 175,000 items are listed at Wessels + Müller.

Prepared for growing market demands
The timely delivery of items to customers is of the utmost priority at Wessels + Müller. This is facilitated by the new central warehouse in Hedemünden planned and commissioned by Jungheinrich. The construction of a new logistics centre was inevitable because the opportunities for optimising the old site in Lotte had been exhausted. All Wessels + Müller AG sales outlets in Germany, the Netherlands and Austria are supplied daily overnight with goods from the new central warehouse in Hedemünden, Lower Saxony.
The requirement

A rapidly growing industry needs space – and automated processes

Wessels + Müller AG was on the lookout for a strong partner for the planning and construction of the new central warehouse to serve as general contractor with responsibility for all the logistics. Jungheinrich fulfilled this requirement profile: as a complete service provider for intralogistics, not only do we offer our customers overall project management from initial customer contact to final acceptance, but we also provide the required forklift technology and IT environment of the warehouse. This enables the customer to implement the complete package required for the operation of its warehouse with a single contact partner.

Given the abundance of listed products as well as the guarantee of short delivery times to its customers, Wessels + Müller needed a larger and more productive warehouse. In addition to planning the new warehouse, the focus of the project was on increasing the overall efficiency of the entire material flow. A high degree of automation and the error-free connection of all trucks to the Jungheinrich WMS posed the greatest challenge.

The solution

Automated and manually operated warehouse areas

In cooperation with Wessels + Müller, a completely new warehouse was planned and constructed. In order to accommodate all the items listed by Wessels + Müller in the required quantities, an automatic pallet warehouse with 42,480 pallet positions was constructed. The 40-metre tall high-bay warehouse is accessed by nine sets of rack operating equipment. The automatic small parts warehouse has 149,760 container storage locations that are arranged to a double depth and distributed across 15 aisles. Automation of a large proportion of the warehouse avoids incorrect stacking, increases productivity multiple times over and ensures greater process reliability overall. Goods receipt, automatic warehouse areas, order-picking zones and dispatch are connected with each other via a complex and extremely powerful conveyor system for pallets and containers. The logistics centre also has a manually operated wide- and narrow-aisle warehouse, which is operated entirely with forklift trucks from Jungheinrich and is based on our own racking systems and warehouse equipment.

The automated management of all processes in the warehouse, including the truck guidance system, takes place via the Jungheinrich WMS. The Jungheinrich warehouseNAVIGATION system is also used to navigate the narrow-aisle trucks via the Logistics Interface to their destinations on an optimised movement curve.

The Jungheinrich WMS supports employees with visual information, improving process reliability when order picking in the automated small parts warehouse. The Pick-by-Light function uses a laser dot to identify the source container in the relevant sector from which the operator should pick. The Put-to-Light function then indicates the target container by means of a signal light.

In addition, the ‘Empties management’ module has been adapted to suit the customer’s specific needs. The empties balance is not only registered for the supplier, it may also be used to determine the precise number of load carriers located in the stores at any time. This function thus creates a significantly higher level of transparency and cost control for empties. The interplay of the many Jungheinrich products used facilitates the perfect coordination of all processes running in the warehouse.

More information:
www.jungheinrich.com