

Branch Reference Automotives

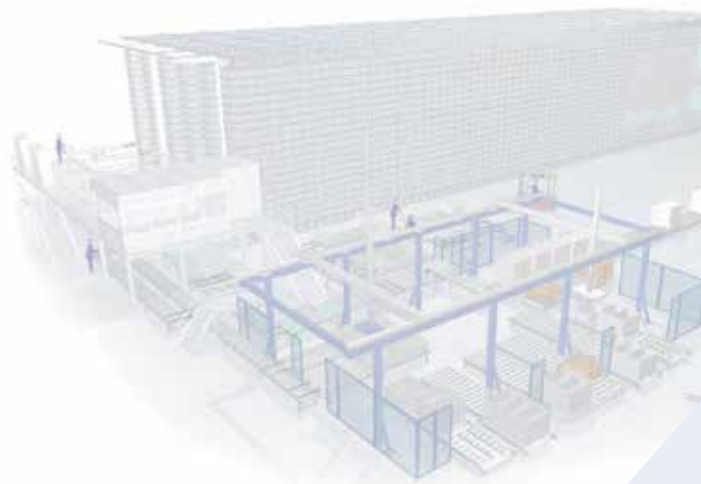


The Customer

With 28.000 employees in 42 locations worldwide, the Dräxlmeier Group is an international system partner in the automotive industry and a leading specialist for innovative automotive electrical systems. At the Emden location Dräxlmeier supplies the wiring harnesses for the production of the new VW Passat Model.

The Requirement

The installation of the wiring harness is the very first step in the assembly process. Wiring harnesses are exclusive to each model version. With up to 40.000 different sets of wiring harnesses within a model year, this sequencing sets an interesting logistic puzzle. In peak times Dräxlmeier supplies a wiring harness within the right sequence and with the right label every 0.6 minutes. The Klinkhammer Group was commissioned to supply and install a fully automotive just-in-time sequence warehouse.



D
DRÄXLMAIER

Klinkhammer Intralogistics GmbH

Wiesbadener Str. 11 · 90427 Nuremberg · Germany
Phone +49 911 930 64 0 · Fax +49 911 930 64 50
info@klinkhammer.com · www.klinkhammer.com



Parallel storage of wiring harnesses

The Solution

Security of supply and sequence reliability take top priority. Therefore the system developed by the Klinkhammer Group is safeguarded at several levels. It is designed in such a way that there is always an alternative in case of failure to ensure the order is fulfilled. Five stacker cranes service six rows of shelves. In case a stacker crane fails to function there's still an alternative and the chance that another machine has access. The system uses identical conveyor technology for both storage and retrieval purposes, which ensured smooth transition in case of emergency and order fulfillment. The Klinkhammer Group has even taken provision for breakdown of the software, orders can be extracted individually and printed directly. Moreover, each container is provided with a bar code and a transponder chip. In a worst case scenario this ensures and documents retrieval and delivery. As far as stacking is concerned Dräxlmeier employs two handling devices: one for delivery and the other one for provision of empties. In case of malfunction the defect device is "parked" aside while the functioning one stands in. This idea also applies to the entire software system, the printers and the

warehouse management – there is always an intact second system standing by.

Data and facts

Steel construction:

Six rows of shelves with steel construction; 7980 bin locations

Devices:

5 stacker cranes Type Mustang (5m/s); Conveyor technology for bins and pallets (flowrate up to 360 bins/h) 2 handling units (180 bins/h); 18 transponder readers 2 printers with applicators; Security technology with muting system

Electronics and computing:

Wiring with Profibus and ASI Bus, network 100 Mbit, dual layout; Cluster, server and workstations

Software:

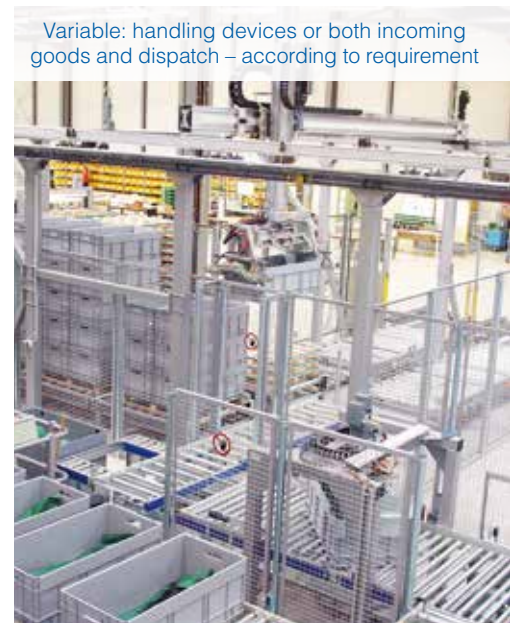
Control with SPS S7; Warehouse management, material flow and visualization unit with Klinkhammer software DC-21



High bay storage with 7980 storage spaces



Printers with applicators: doubly installed above the container



Variable: handling devices or both incoming goods and dispatch – according to requirement