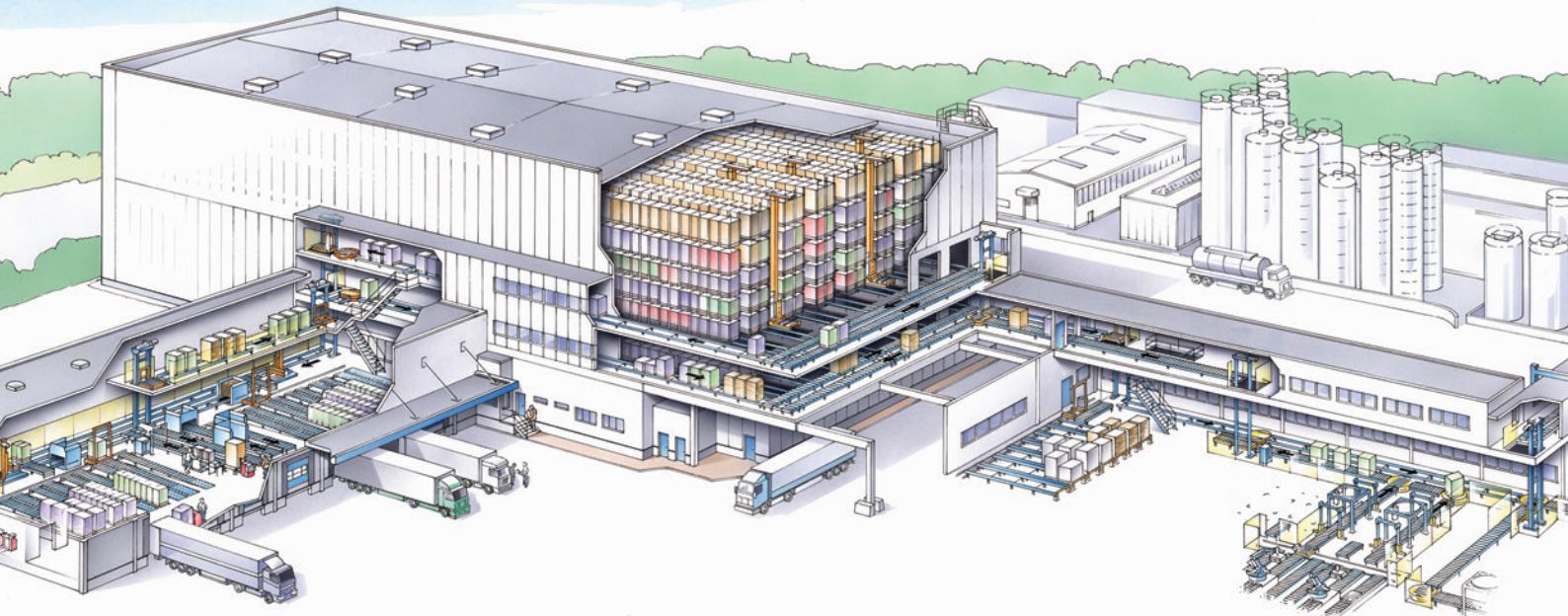




JOB REPORT 26



High-bay warehouse with innovative logistics for palleting and production.

An automatic high-bay warehouse with futuristic intralogistics - as the main contractor, KÖHL Maschinenbau AG has created and implemented such a system for DMK.

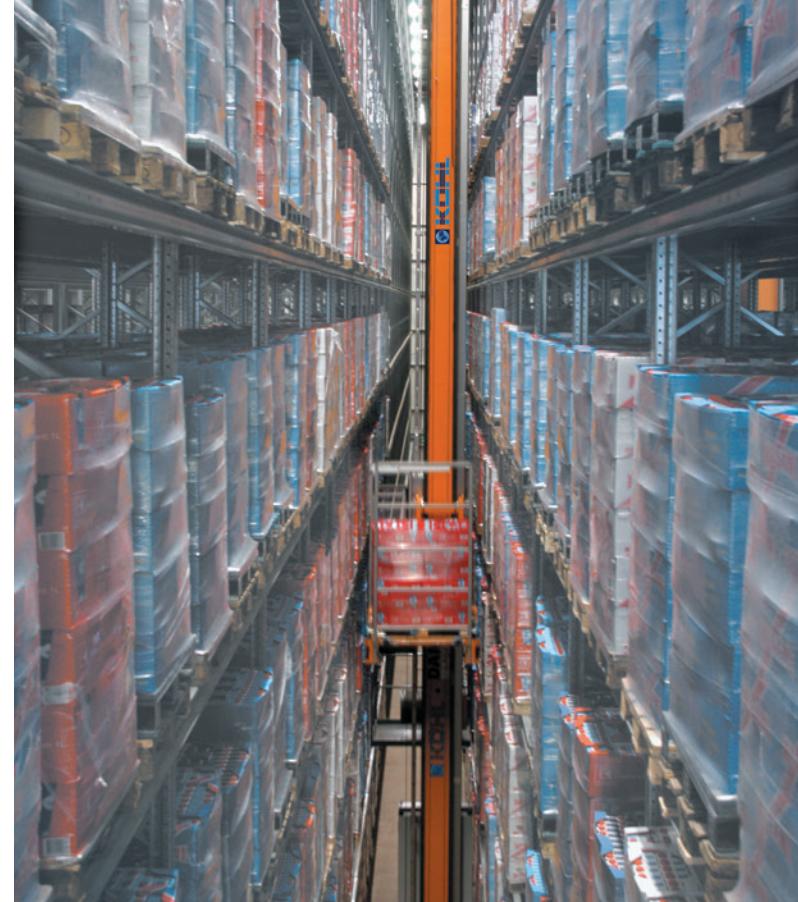
DMK, which in turn is one of the 20 largest milk processing companies in the world, produces a wide range of long-life and fresh milk products. Due to the increasing demand and resulting increased production at the Erfurt plant, the storage and delivery capacities need to be expanded in a targeted manner.

An architectural feature of the plant is the three connecting bridges for palleting and production. After a successful co-operating, the high-bay warehouse started operation at the end of 2006.



High-bay warehouse with 8,700 pallet spaces and seven lanes with SRVs.

The high-bay warehouse is linked to the palleting facility by connecting bridges.



TECHNOLOGY IN DETAIL

- High-bay silo warehouse with approx. 8,700 pallet storage
- Ceiling and wall panelling
- 7 storage & retrieval vehicles, complete with lane equipment
- Pallet transport system for admission into and removal from the warehouse
- Control system and warehouse management system

The dimensions and intralogistical design of the new high-bay warehouse of DMK mean that it is a fine example of warehouse logistics. With a length of 80 metres, a width of 35 metres and a height of around 22 metres, it houses 8,700 storage spaces and seven lanes with storage and retrieval vehicles. Three connecting bridges of length 53, 40 and 48 metres connect the high-bay warehouse to the palleting and production facilities.

Designed for fully-automatic pallet transport using extremely robust, solid pallet conveying systems, the high-bay warehouse system accepts the pallets from production, stores them and makes them available again in time for shipping. In addition, an empty pallet checking system was introduced, which checks the pallets for their suitability for automatic systems.

The KÖHL Maschinenbau AG also installed a warehouse management system according to the state-of-the-art criteria. The appropriate data is automatically transmitted to the shipping preparation office.

In the Erfurt plant, a special kind of palleting makes its own contribution to efficient handling in commissioning. Some of the consignment goods are palletised on Düsseldorf or CHEP pallets. During the palleting operation, two of these pallets are positioned on a carrier pallet (EURO pallet).

For packaging (automatic stretching), the pallets are lifted off this carrier pallet and are packaged individually. After this operation, the two pallets are brought together again and placed together on the carrier pallet. Storage in the high-bay warehouse takes place in this way.



Individual goods ready for delivery, shown as a flow storage with separation mechanics at the appropriate end of the lane.



Vertical conveyor and empty pallet checking station.



Complex conveying system in one of the connecting bridges.