

Case Study

BASF: Replenishment secured





Efficient and compact thanks to lifting beams

The challenge

BASF was looking for an integrated solution for material replenishment in production. The goal was to decouple the external delivery of raw materials from the production supply, but the spatial constraints meant that a highly compact solution was required. Specially designed for tall and narrow warehouse buildings, this was where the Kardex MTower lifting beam warehouse came into its own. A principle based on a shuttle car mounted on a vertically guided lifting beam, the automated pallet storage works faster and more efficiently than other storage concepts based on a stacker crane.

The solution

The two structurally identical Kardex MTower systems – each 24.7 meters tall – are in adjacent buildings. The warehouses have been connected to two separate floors of the building so that no additional lift is required. The raw materials are contained in Big Bags that are placed, together with their wooden pallets, on plastic pallets. Staging of these Big Bags and the entire circulation of the system pallets is carried out fully automatically via the conveying system.

The replenishment storage facilities are managed by the Kardex Control Center using Kardex WMS, Kardex MVisu plant visualization, and the Kardex MFlow material flow system. Kardex also provided the conveying technology, and each system consists of 44 drive modules, including chain conveyors, roller conveyors, scissor lift tables, and corner transfers with lift tables.

At a glance

Dynamic raw materials storage

Kardex has built two structurally identical, automated buffer-storage facilities for BASF, including warehouse management and conveying technology, to connect goods receipt and production. The two dynamic replenishment storage facilities for raw materials offer a capacity of 272 customized load carriers each, weighing up to 1,350 kg and operated around the clock, seven days a week.

Automated
raw materials
supply

Unique
lifting beam
warehouse

No additional
lifts required



Scope of delivery



Two structurally identical Kardex MTower lifting beam warehouses, each 24.7 meters tall



2 x 44 drive modules: Chain conveyors, roller conveyors, scissor lift tables, corner transfers with lift tables



Kardex Control Center, Kardex WMS, Kardex MVisu plant visualization, Kardex MFlow material flow system