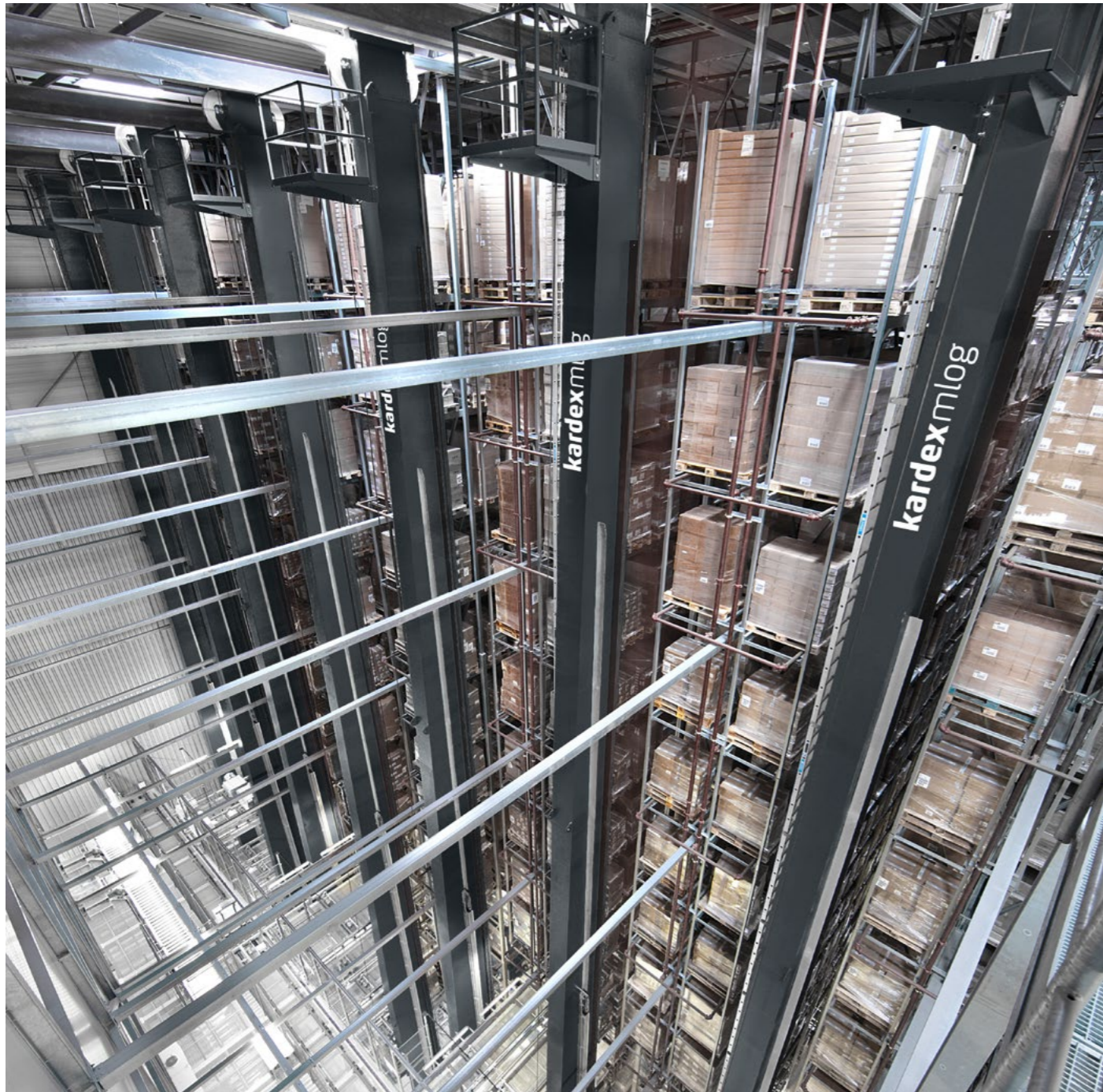


Case Study

# More Space for Strong Brands





# From 8 to 16 aisles

## The challenge

After 15 years of use, Procter & Gamble's distribution centre in Marktheidenfeld-Altfield had reached its capacity limits.

The construction of the extension took place in a low-lying site with poor accessibility. Special foundations had to be laid to accommodate the truck-mounted cranes which delivered the 38-metre high storage and retrieval machines. In each of the 8 new aisles, a storage and retrieval machine (SRM) was installed. The new conveying system extends to 3 different levels: Goods are stored on the lower floor and retrieved on the middle floor.

## The solution

The pallets are transported via chain and roller conveyors. Lift tables and vertical conveyors are used to overcome the height differences. Each SRM is equipped with diverse sensors for control and monitoring of the storage and retrieval operations. For each SRM, there is a camera system that transfers images via WLAN. To enable monitoring of the load pick up, the SRMs were fitted with through-beam sensors.

Similar levels of sophistication can be found in the sensors of the conveying system with its integrated contour check. The special features include quality control through automated bottom-plank inspection of the pallets. Finally, the units are weighed on a modified conveyor and automatically arranged by weight class.

## At a glance

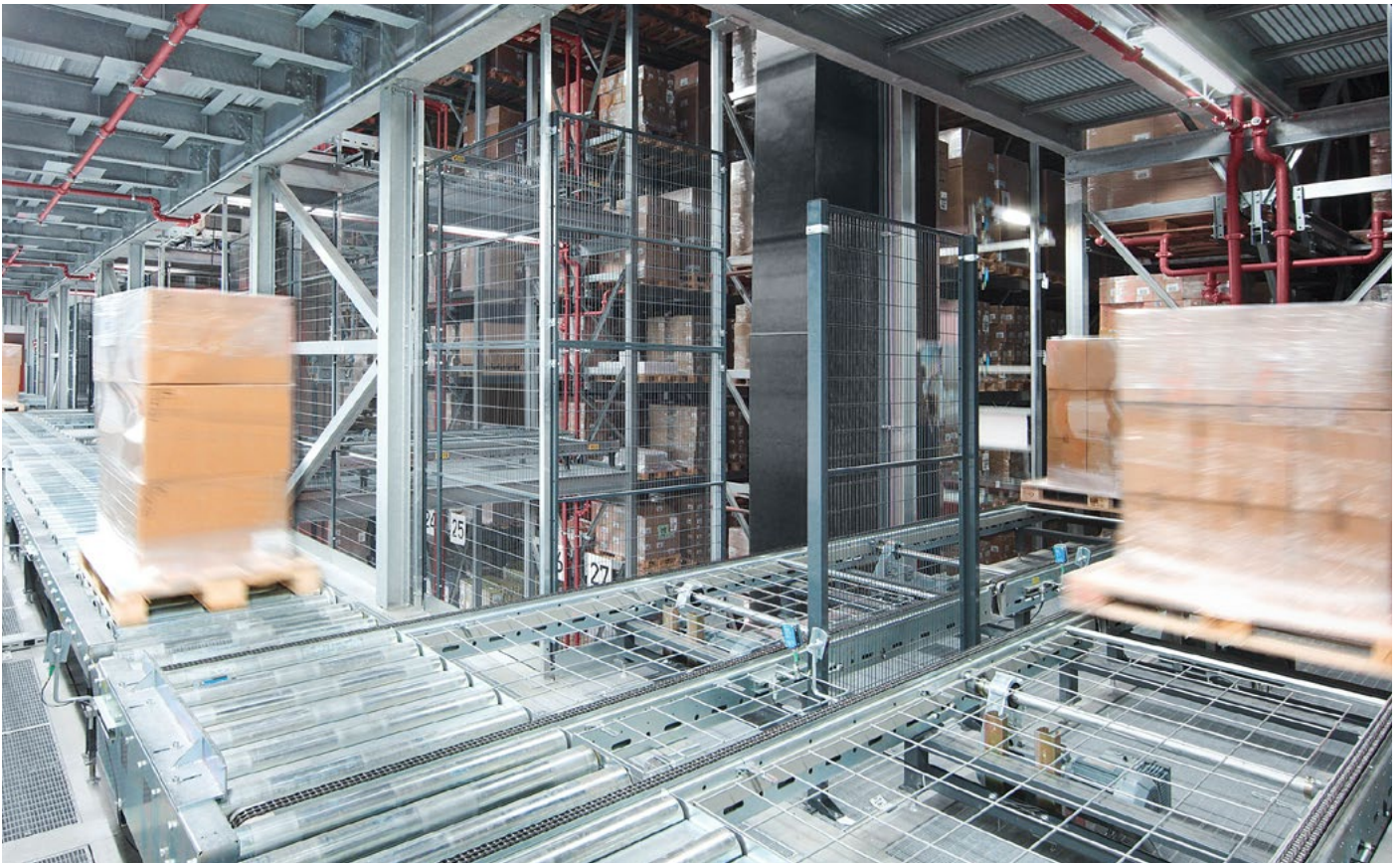
### Sustainable expansion with 8 additional rack aisles

Kardex Mlog carried out the extension of Procter & Gamble's distribution centre in Marktheidenfeld-Altfield from a capacity of 25,600 pallet storage spaces to approximately 64,300. The additional 38,700 storage spaces were achieved by doubling the number of rack aisles from 8 to 16. The modifications were carried out during ongoing operations.

38,700  
additional pallet  
storage spaces

24 double  
cycles per hour  
and per SRM

Automated  
bottom-plank  
inspection



### Scope of delivery



8 fully automated MSingle B-1000 storage and retrieval machines with a height of 38 m



Complete conveying technology with chain and roller conveyors, turntables, lift tables and vertical conveyors



Extensive sensor and control technology