

Case Study

From Three to Six





From 32 to 64 double cycles per hour

Customer and task

In the main plant of a South German truck and bus manufacturer, employees manufacture heavy trucks, driver cabs, axles and transmissions. The core of the company's intralogistics is a 24 meter high, automated small parts warehouse with a capacity of more than 55,000 storage spaces for small load carriers. Each of the three aisles were previously served by a single mast stacker crane, and these were replaced with state-of-the-art machines by Kardex Mlog in 2008, all during ongoing operations. The resulting capacity was approximately 32 double cycles per hour. By 2018, this solution had reached its operating limits.

Solution

It was not possible to add floor space to the plant. That's when the idea arose to increase the number of stacker cranes from three to six. Each stacker crane has its own controls and, at the terminal, it receives its instructions from the higher-level system via an optical sensor. This means that the devices "can substitute for each other." Another challenge for Kardex Mlog was to ensure that the new stacker cranes matched the development status of the 10-year old devices in order to keep the customer's stock of required spare parts to a minimum.

So as not to disrupt operations during the installation and test phases, temporary intermediate doors were installed in all the aisles. This meant that it was possible to install the new stacker cranes of type Kardex MMini in the rear of the aisles without any disruptions. Following the refurbishment, the capacity of the small parts warehouse increased from 32 to 64 double cycles per hour, which represents an increase of 100 percent.

Case at a glance

Performance capability doubled in ongoing operations

After ten years of use, the requirements for the automated small parts warehouse of a Munich-based truck and bus manufacturer had changed significantly. With a unique concept, Kardex Mlog doubled the performance capability during ongoing operations and integrated an additional stacker crane into each of the plant's three aisles.

Almost
**100% higher
performance**

Max.
**64 double
cycles/hour**

**Machines
substitute for
each other**



Scope of delivery



3 additional stacker cranes of type Kardex MMini



Integrated escape routes through space-saving control boxes with fold-up maintenance platforms



On-board mechanical buffer, which absorbs the kinetic energy of the adjacent device in emergency situations