

Layer picking in a 3PL warehouse

Kuehne + Nagel: When innovation means new possibilities.



After successful installations of K.Handle Layer Pickers® in two sites, Kuehne + Nagel had two more installed in Utrecht. The objective was to achieve intelligent material flow control for storage and retrieval, picking, and crossdocking.

The customer

With approximately 63,000 employees at more than 1,000 locations in over 100 countries, the Kuehne + Nagel Group is one of the world's leading logistics companies. Worldwide, the company offers its customers more than 8 million m² of storage space – nearly 33,000 m² in the Dutch city of Utrecht where Kuehne + Nagel constructed a national distribution center for food in 2012. The distribution center has a throughput of up to 220 pallets per hour.

Kuehne + Nagel has invested in groundbreaking automation equipment from Körber at their distribution centers in Raamsdonksveer and Veghel, which led to an “Oscar” as best European distribution platform from the French magazine “Le journal de la logistique”.

At a glance

Project goals

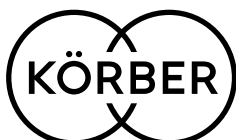
- Taking productivity of the Layer Picker® to a new level
- Intelligent material flow control

Solution

- K.Handle Layer Picker Robot

Features and benefits

- Fast and flexible solution to meet current and future customer needs
- Highly integrated in the site automation
- Efficient and reliable building of customer pallets





At the distribution center in Utrecht, the objective was once again to achieve intelligent material flow control for storage and retrieval, picking, and crossdocking. To attain intelligent, automated layer picking, layer picking robots from Körber were chosen. The cooperation between Kuehne + Nagel and Körber has been a unique one, characterized by a long and close history and a continuous dialogue throughout and after projects, with benefits for both companies.

The product

The Layer Picker® has introduced a new standard for automated warehouse layer-picking. Flexible, reliable and responsible for cutting away man-years of intensive manual labor. The new, innovative layer-picking robots, Layer Picker® Flex-R, with 8 picking positions, automate the task of picking layers of vastly diverse food products directly from source pallets and transferring them to target pallets, regardless of shape, packaging type and stacking pattern.

“Having the Körber Layer Picker® installed on 3 sites gives Kuehne + Nagel a very flexible set-up, and has meant a lot of rationalization in the competitive 3PL market. Without the added value from the Layer Picker®, this would not have been possible.”

John Pelzer

Technical Manager,
Kuehne + Nagel Netherlands

The Layer Picker® Flex-R is designed with innovative gripping technology and a robot arm that can move it in all directions, offering completely new application possibilities. The Layer Picker® Flex-R can lift up to 215 kg, and the high cycle capacity means that it can move more than 340 tons in a shift. For customers using the Flex-R, this means higher throughput with less effort.

Complete automation

Donor pallets stored in the adjacent high-bay storage are called out to the depalletizing area. The pallets are visually checked by operators before entering the layer picking cell. Customer pallets are built according to the order before being sent out to be shrink-wrapped – and everything is done automatically.

Facts and figures

Total picking area at the Utrecht DC

22,626 m²

High-bay warehouse area

9,348 m²

Items in the product line

Approx. 4,000

Throughput per hour

220 pallets

Picking aids

Scanner

Picking principle

Automatic layer picking

