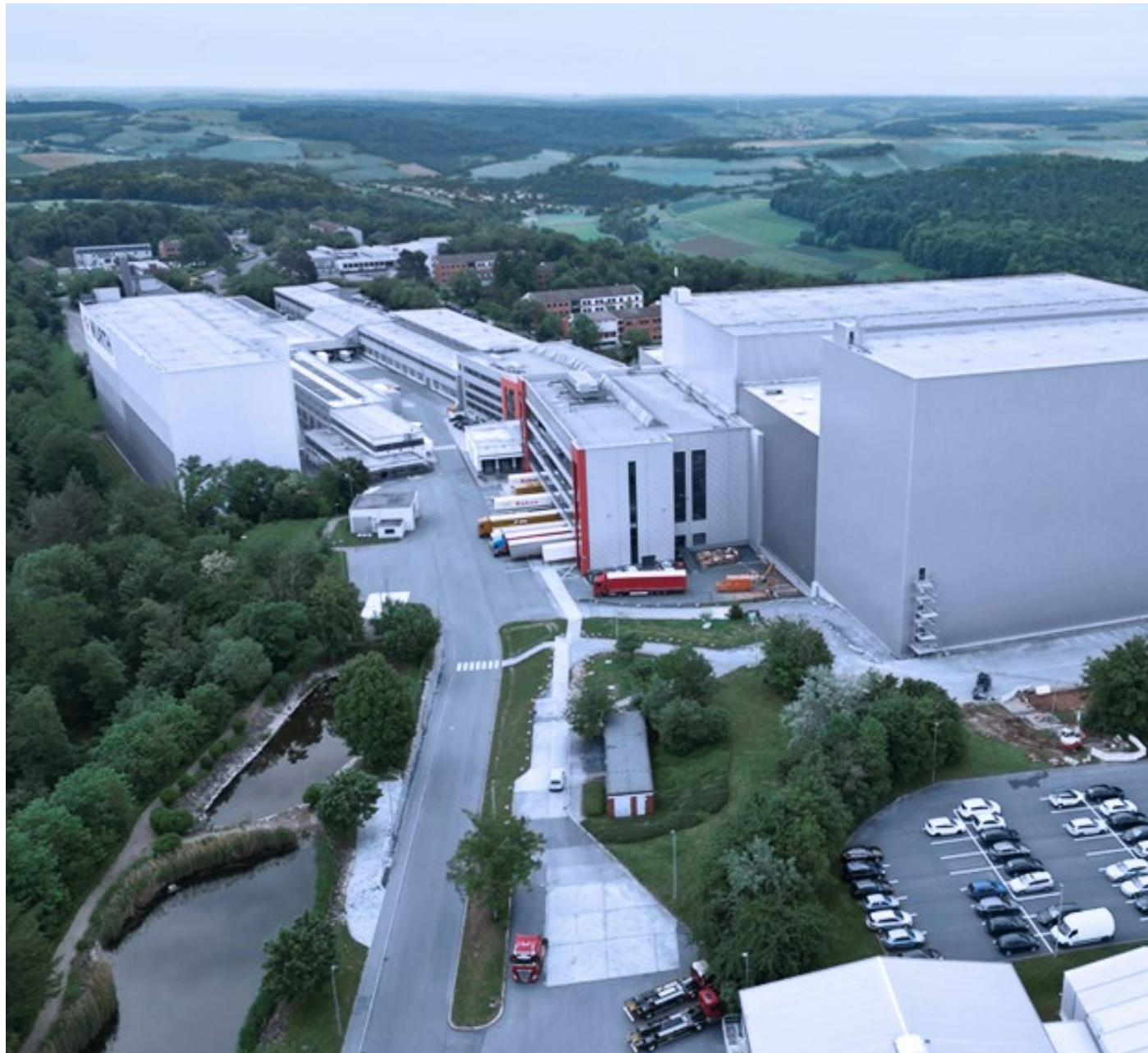


Benchmark Briefing

# Würth, reaching new heights







# Stacker cranes brought to a new level

A six-aisle, automated, high-bay warehouse with 59,000 pallet storage spaces on a floorspace of only 4,000 square meters: This extremely compact construction method was made possible by using 46-meter-tall stacker cranes, which enabled optimal and sustainable use of the existing floorspace.

The 50-meter-high, 34-meter-wide, and 121-meter-long high-bay warehouse extends the capacity of the C-parts specialist with 59,000 additional pallet storage spaces, creating a total of 235,000 storage spaces available for pallets with small parts at the Bad Mergentheim location.

Würth Industrie Service has invested more than 30 million euros in the huge high-bay warehouse and its connection to the existing areas of the logistics center. Its constantly growing product range, which currently has more than 1.4 million items, and very high expectations regarding supply capacity made this step inevitable.

## At a glance

### Location

Bad Mergentheim

### Application

A constantly growing product range with more than 1.4 million items and very high expectations regarding supply capacity meant that Würth Industrie Service needed to expand its logistics center.

### Solution

59,000 additional pallet storage spaces were created through the construction of a 6-aisle, 50 meter-tall automated high-bay warehouse.

**59,000**  
pallet storage  
spaces

**46-meter-tall**  
stacker cranes

**Only 4,000**  
square meters  
of floorspace



# Connection on three levels

**The new construction, fully integrated into the existing logistics center, has extensive conveying technology that ensures continuous material flow on three levels.**

The new high-bay warehouse supplies some 60 different destinations, including picking robots and shipping points. To cater to this, Kardex Mlog installed conveying technology with 360 drives, which store and retrieve the pallets on three levels. This connection to the adjoining warehousing areas was one of the key challenges of the project.



6 stacker cranes of type Kardex MSingle B with 2 telescopic forks and a load-bearing capacity of approximately 2,400 kg



Extensive conveying technology to connect the plant to the other storage areas



High-bay warehouse (50 m tall, 34 m wide and 121 m long)

## Consistent automation strategy

**The Würth industrial park in Bad Mergentheim is one of the most modern logistics centers for industrial supplies in Europe. From here, approximately 20,000 international customers are supplied with production materials, consumables, and supplies.**

Some 500 metric tons of goods are dispatched from the 70,000-square-meter site every day. Modern, fully automated, high-bay, and shuttle warehousing with a capacity of more than 700,000 storage spaces, 34 kilometers of conveying technology, self-driving container shuttles, camera inspection systems, and self-learning robots make it all possible.

By integrating the high-bay extension into the existing plant, Würth Industrie Service can continue its automation strategy.



# 46-meter-tall stacker cranes set new standard

Six rail-guided stacker cranes of type Kardex MSingle B are at the core of the new high-bay warehouse and carry out fully automated storage and retrieval of the pallets. Each stacker crane has two telescopic forks as load-handling devices, with a load bearing capacity of approximately 2,400 kg. The single-column construction means that the machines provide maximum space savings, and their height of 46 meters is unrivaled in the industry. "As far as the form of construction is concerned, the dimensions of this project set new standards. For Kardex Mlog, the construction of 46-meter-tall stacker cranes certainly breaks new ground," states project leader Lars Wagner from the Refurbishment department at Kardex Mlog.

With its production location in Neuenstadt am Kocher, Kardex Mlog is one of the very few manufacturers with the capability to design, construct, deliver, and service stacker cranes of this magnitude. Within the 120-meter-long aisles, the stacker cranes travel with a maximum speed of 180 m/min and have a lifting speed of up to 70 m/min, enabling the transport of up to 600 pallets per hour. This performance is coupled with extremely low energy consumption, with DC bus coupling ensuring that the energy gets effectively rerouted between two drives and the electricity requirement of the stacker cranes is optimized.







# Full service around the clock

**The on-schedule commissioning of the high-bay warehouse in the Würth industrial park in July 2024 did not mark the end of the project. With its full-service concept, Kardex Mlog ensures seamless operations even in unforeseen incidents.**

Kardex Mlog's full-service concept applies to all tasks, such as maintenance, hotline, troubleshooting, and repairs, and covers mechanics, controls, and IT. Two service technicians work on-site in Bad Mergentheim around the clock and, if necessary, can call for remote support from their colleagues at Kardex Mlog headquarters in Neuenstadt.

Furthermore, plans are already in place for emergencies and efficient spare parts management. With Kardex Mlog providing all the technical support, the Würth employees can concentrate all their efforts on their core business.

“The plants installed by Kardex Mlog run very smoothly. In case of emergencies, we have the service hotline and two service technicians from Kardex Mlog here on site, who provide full support for the plant. In the event of a disruption, these experts look to provide an immediate solution.”

**Andreas Schmidt**, head of Operations Technology at Würth Industrie Service



# Anniversary of collaboration

**The high storage density of the new high-bay warehouse extension project at the Würth industrial park in Bad Mergentheim is not the only milestone. 2024 was also the 20th year of partnership-based cooperation between Würth Industrie Service and Kardex Mlog.**

Over the past two decades, Kardex Mlog and Würth Industrie Service have collaborated on eight construction stages to reach the current total of 26 stacker cranes and 230,000 pallet storage spaces.

“We know that we can rely on Kardex Mlog. Our collaboration is based on a partnership of equals.”

**Helmut Eisenkolb**, General Manager Logistics at Würth Industrie Service







# Summary

## **Integration brings economic benefits**

With the extension of the Würth industrial park in Bad Mergentheim, approximately 59,000 additional pallet storage spaces were created on a floorspace of only 4,000 square meters and integrated into the existing material flow. The project is a prime example of consistent location development with optimal usage of floorspace. The highly compact construction method and the centralization at a single logistics location also bring economic benefits – a positive result made possible primarily due to the 46-meter-tall stacker cranes manufactured by Kardex Mlog.