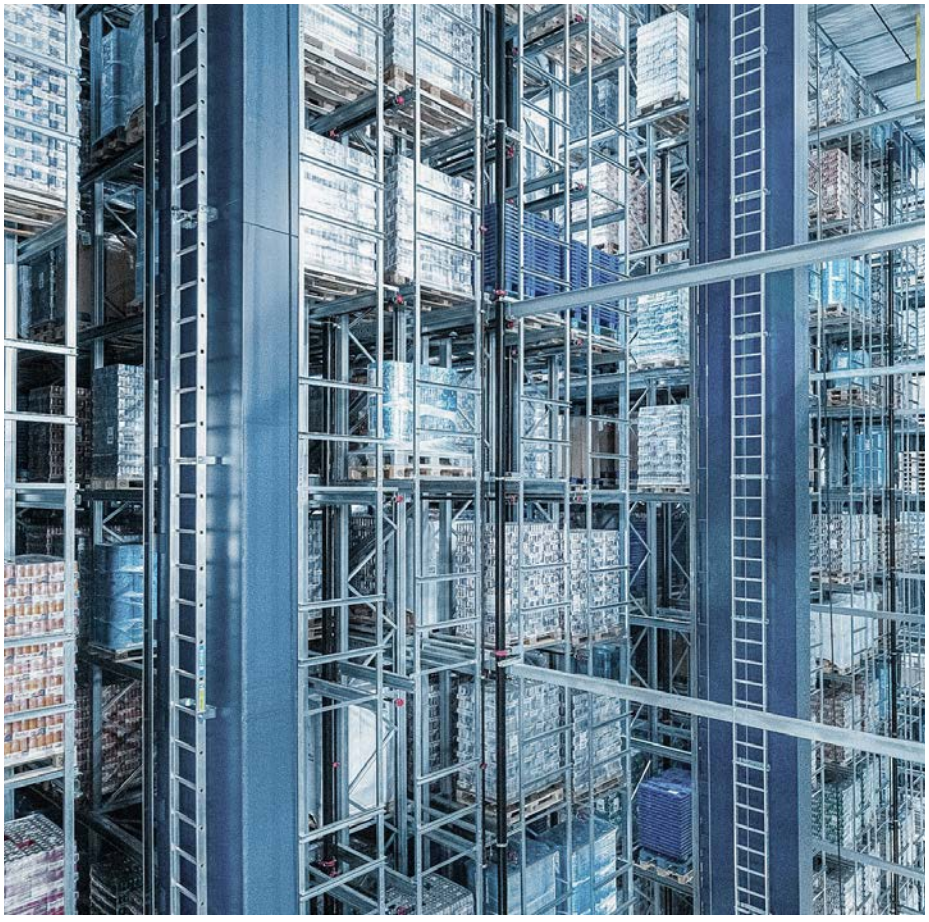
Success Story

DACHSER

The future is automation



DACHSER
Intelligent Logistics



kardex



At a glance

Location
Memmingen (Allgäu)

Use case
As a global logistics service provider, DACHSER has a worldwide transport network. Highly efficient storage facilities were created in Memmingen for new and existing customers.

Solution
An 8-aisle automated high-bay warehouse for 52,640 pallets and up to 400 pallet movements per hour. Supported by cameras, the system can store diverse load units automatically.

Premiere in Memmingen

In the largest-ever extension of its logistics center in the Allgäu, DACHSER has created additional capacity for new and existing customers.

The family-owned DACHSER company, based in Kempten in Bavaria, provides transport logistics, warehousing, and customer-tailored services within two business fields: DACHSER Air & Sea Logistics and DACHSER Road Logistics. The latter consists of two Business Lines: DACHSER European Logistics and DACHSER Food Logistics. Cross-industry contract logistics services and industry-specific solutions complete the portfolio.

An extensive European and intercontinental transport network and fully integrated information systems ensure intelligent logistics solutions across the globe.

DACHSER operates its national subsidiaries in 41 countries and employs approximately 32,850 people at 379 locations. The new location is the first construction project for a fully automated high-bay warehouse in the more than 90-year history of the company.

High **level of automation**

Premiere for **DACHSER**

400 pallet movements per hour



Efficient and sustainable

Acting as general contractor for the DACHSER company, Kardex Mlog constructed a high-bay warehouse to store ambient foodstuffs and food packaging.

Few logistics service providers operate automated high-bay warehouses, making the DACHSER investment even more impressive. The new plant was commissioned in the summer of 2022 at the company's largest operational site in Memmingen. On a surface area of just 7,320 square meters (120 × 61 meters), general contractor Kardex Mlog constructed a 32-meter-high building with 52,640 pallet storage spaces for the storage of ambient foodstuffs and food packaging.

The project, completed within 52 weeks, targeted maximum efficiency and sustainability. "We are very happy with the expert advice and the high-quality construction work carried out by Kardex Mlog. During the entire course of the project, we knew we were in safe hands with the very experienced and helpful Kardex Mlog employees," says Thomas Henkel, General Manager at the DACHSER Allgäu logistics center.

Capability for 7 load units

At the heart of the investment are 8 stacker cranes of type Kardex MSingle B-1000/33-ZT. The name stands for a payload of 1,000 kilograms with a height of 33 meters and double-deep storage functionality (ZT, zweifach-tief = double deep). Next to the high-bay structure is a conveying system with approximately 260 drives, two transfer carriages in the goods issue area, and a vertical conveyor.

This allows fully automated transportation of seven different load units and fully automated storage and retrieval. Load units that do not meet the required criteria get split into subpallets, for example, for pallets with damaged planks or with insufficient space for the forks, and for all transport units that do not correspond to DIN EN 13698-1 / DIN EN 13698-2. The subpalleting takes place at two stations that each have automated pallet dispensers.



8 stacker cranes of type Kardex MSingle B1000/33-ZT



Conveying system with approx. 260 drives,
2 transfer carriages and a vertical conveyor



Comprehensive Life Cycle Service including maintenance,
spare parts supply, on-site service, and hotline



Kardex Control Center including Kardex WMS and
Kardex MVisu

Features and background

The DACHSER automated high-bay warehouse features highly efficient processes with minimal manual intervention.

Goods receipt is supported by automated truck unloading, where two vehicles can be handled simultaneously. Another 4 of the total 22 loading and unloading bays are available for manual unloading.

Finally, a camera-based system ensures automated recognition of the load units, which are then moved to the high-bay warehouse directly or via the pallet-splitting area.

On subsequent retrieval, the subpallets are removed at a central location (depalletized) and stacked in two pallet collectors. From here, the goods travel to one of two goods issue areas, where they are consolidated and buffered into complete loads for up to 10 trucks. Above the loading area, a 2,300-square-meter floor area is available for manual picking and packing. Overall, the Kardex Mlog automated high-bay warehouse has a maximum capacity of approximately 400 pallet movements per hour – 200 pallets each in goods receipt and goods issue.





At a glance

The focus on sustainability is underlined by the photovoltaic installation on the facility's roof, which generates most of the energy required to operate the 8-aisle high-bay warehouse. Inside the building, the Kardex Mlog-designed and installed technology relieves the approximately 40 employees of most of the previous manual storage and retrieval activities.

The modular software solution Kardex Control Center, including the Kardex WMS warehouse management system and the Kardex MVisu plant visualization system, ensures optimized material flows in the high-bay warehouse. Using Kardex MVisu, the operators can graphically map the entire conveying technology and the stacker cranes and show their operating status.

The article information is administered in the WMS Mikado system, which DACHSER programs. Any changes or amendments made are transferred automatically to the Kardex Control Center. Mikado is used by more than 5,400 DACHSER employees worldwide at more than 163 warehouse locations to manage more than 2.7 million pallet storage spaces.

"With the use of intelligent automation technology, we free up our employees from most of the previous manual storage and retrieval activities. This means that they can concentrate on higher-quality value-added services."

Thomas Heckel, General Manager

Maximum operational security

The project is completed by the Kardex Mlog comprehensive Life Cycle Service.

The "all-inclusive worry-free package" includes maintenance, spare parts supply, on-site service, and hotline, with an initial term of 5 years. The Kardex Life Cycle Service supports logistics plants throughout their lifetime, ensures maximum operational security, and maintains state-of-the-art technology. Customers can configure a tailor-made maintenance concept from the six available service modules.



Flagship project

"We looked long and hard to find the best possible interaction of diverse smart system components. The result is a genuine flagship project for automated pallet transport. From truck unloading to storage and retrieval in the high-bay warehouse to automated staging in the shipping area. This meets the requirements of the customers at the Memmingen location, and thanks to the built-in technical refinements, it also offers us the necessary flexibility for the future."

Matthias Breuer, Project leader

Click here to view the DACHSER automated high-bay warehouse.



Conclusion

With its first automated high-bay warehouse, the logistics service provider DACHSER has spared no effort, and the new facility ensures highly efficient processes with a minimum of manual intervention. The approximately 40 employees can now concentrate on providing high-quality, value-adding services.