

Shuttle-based pallet storage

Shuttle-based pallet storage provides an automated storage and retrieval system across an unlimited number of aisles, rows and levels. This system is designed to optimize storage and maximize warehouse space by storing and retrieving loads on different lanes.

Use and application

In most cases, this type of solution can operate according to FIFO (First in First out) and LIFO (Last in First out) logistics, depending on the particular system configuration.

The system creates many advantages, both for customers and manufacturers, as it simultaneously delivers high-performance and high-density storage. This flexible, modular solution can also adjust to the customer's specific load-handling requirements, as well as to existing layout conditions.

Function

The shuttle-based pallet storage system includes two of the most important pieces of equipment: the in-rack shuttle car and the satellite vehicle.



“There is a lot of innovation happening, and we stay agile by integrating with the latest and greatest technology.”

Michiel Veenman
Körber

Key benefits

Technology agnostic

We don't stick to any single technology. We deploy the technologies that work best to increase your process innovation and reduce your business complexity.

Practical thinking

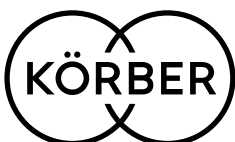
By understanding the business processes and material flows you need to optimize your competitiveness, we shape the optimal supply chain solution for you.

Risk-free delivery

We deploy the newest technologies only after thoroughly evaluating their design, reliability and effectiveness. In this way, we deliver risk-free projects on time and with the right result.

Research-based results

By taking the time to understand your business operations and value chain, we deliver custom solutions for your B2B, B2C and online supply streams.



The shuttle car comprises a rail guided vehicle that travels along the aisles and carries the load transfer system (satellite) and the unit load between different storage lanes.

The shuttle car can be equipped with a chain conveyor to transfer unit loads between unloading/loading stations typically located at the end of each aisle.

On the other hand, the satellite vehicle handles the loads – transferring them between different storage positions within storage lanes and/or between input and output stations.

The satellite vehicle can also be used in systems based on stacker cranes, where the movements of the shuttle car and the lifts are performed by the crane.

For the vertical movements, the shuttle-based pallet storage system uses auxiliary equipment such as lifts to transport the shuttle car, satellite vehicle or load-only between different storage levels.

Benefits

Shuttle-based pallet storage is a flexible multi-deep automated storage system with wide application possibilities in terms of its load capacity, operating temperatures, throughput performance and warehouse capacity.

The system, which can be used across all industry segments, maintains high performance in a wide range of temperatures (-30°C to +40°C).

Further benefits include:

- Compact layouts ensuring high capacity while using low warehousing space
- High throughput performance thanks to FIFO (First in First out) and LIFO (Last in First out) capabilities
- High efficiency and redundancy of the system by adapting the number of vehicles according to each project specifications
- Low energy consumption with smart and efficient energy supplies
- Easy scalability: flexible design and modularity of the system allowing layout changes by extending rack capacity and increasing performance with additional vehicles whenever necessary

The Körber difference

We map your existing processes and customer requirements, and implement targeted, meaningful solutions. By applying integrated technologies developed by the leading industry innovators, we remain responsive and agile to our clients' changing needs.

“Our aim, first and foremost, is to be the best lifecycle partner for our customers.”

Thomas Metz
Körber

