

How-to Guide

Automate Heavy Goods Storage





Introduction

Do you want to automate the storage of heavy goods?

Kardex introduces 6 ways to optimize the storage and retrieval of heavy and large loads through the use of automation.

Handling heavy goods is part of everyday life in production, retrieval and storage processes for many companies. Automatic loading and unloading solutions offer several tangible benefits!



Implements safer and healthier methods for staff



Increases efficiencies



Maximizes warehouse space

6 ways for warehouse optimization

Here we show six ways to optimize the storage and retrieval of heavy, large and difficult to store loads

#1 How to automate storing and retrieval of heavy loads

With the development of novel and more resilient trays, some Vertical Lift Modules (e.g., [Kardex Shuttle 1000](#)) are especially suitable for use with big loads. Each heavy-duty tray handles loads weighing up to 1,000 kg and measuring up to 4.05 meters across. It's ideal for picking medium-heavy to heavy parts in terms of load-bearing capacity.



Vertical Lift System Kardex Shuttle with integrated hoisting crane

#2 Gain flexibility when storing parts of different sizes

A single Vertical Lift Module works with trays of different load-bearing capacities. Aside from reduced costs, mixing trays allows customers to simultaneously handle heavy storage items and large quantities of small parts in a single shelf system. Automated storage and retrieval (e.g., [Kardex Shuttle 700](#)) adapts to changing sizes/weights.



#3 Simplify the process loading and unloading pallets

Some Vertical Lift Modules (e.g., [Kardex Shuttle 1000](#)) have a tray technology as a pallet shelf, picking up two side-by-side pallets. Pallets move by a manual or automatic tray extraction device with a stacker and get stored directly. It stacks pallets up to 20 m, achieves faster access, and minimizes the time needed for loading and unloading.

#4 Integrate a hoisting crane with ASRS for fast & safe storage

A factory-assembled hoisting crane, integrated into a Vertical Lift Module (e.g., [Kardex Shuttle 1000](#)) makes heavy loads weighing up to a ton an easy task. The electrically-operated crane puts them on the trays. Without additional hoisting, bases, or cranes, it extends to the tray extraction and picks and returns. It's ergonomic and stores heavy loads safely.

#5 Automate storing and retrieval of extremely heavy and long goods

Stock with extreme dimensions and heavy goods require strategic logistics. Poor use of space for storing long goods, metal, sheets, tools, pallets or mesh cages causes extremely complex handling issues and higher, long-term costs.

TowerMat Vertical Lift Modules are perfect to optimize space for very heavy items.



#6 Don't let unused space and long distances interfere with operations

Extreme layouts limit warehouses. Installing a bridge carousel (e.g., Kardex InterMat) above the production area enables optimal use of space. Round and heavy goods occupy minimal storage space and easily move to the access opening thanks to a multi-loop design.

A goods-to-person principle, is much faster and supports workers' physical well-being.