

# Dynamic Storage & Retrieval Systems

# Scalable Solutions for Efficient Processes

**As a leading global partner for intralogistics solutions, Kardex delivers automated storage, retrieval, and material handling systems tailored to your industry and operational requirements.**

The portfolio ranges from dynamic storage solutions for small and medium-sized parts to automated high-bay warehouses for palletized goods, complemented by integrated material handling systems. With more than 140,000 installations worldwide, you benefit from proven technology and first-class Life Cycle Service that supports reliable performance and long-term operational stability.

By combining hardware, software, and Life Cycle Service into one seamlessly integrated ecosystem, Kardex ensures your warehouse is connected, scalable, and ready for the future.



**Grow**  
without limits

**Connect**  
every process

Rely on  
**proven  
technology**

# Find the solution for your specific needs

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# Why automate

No matter the product, automated storage and material handling systems reduce manual effort and create more reliable, efficient warehouse operations.

Kardex solutions apply the goods-to-person principle to deliver the right goods directly to the operator. Designed for flexibility, they handle everything from small items to heavy and oversized loads.

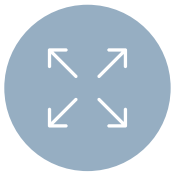
Kardex supports you at every stage of your automation journey. Whether you are implementing your first automated storage solution or expanding a fully integrated warehouse environment, Kardex provides scalable systems that evolve with your operational needs.

The result: higher throughput, optimized space utilization, and long-term operational flexibility.

## Benefits at a glance



Increase productivity significantly



Utilize up to 80% more of the space

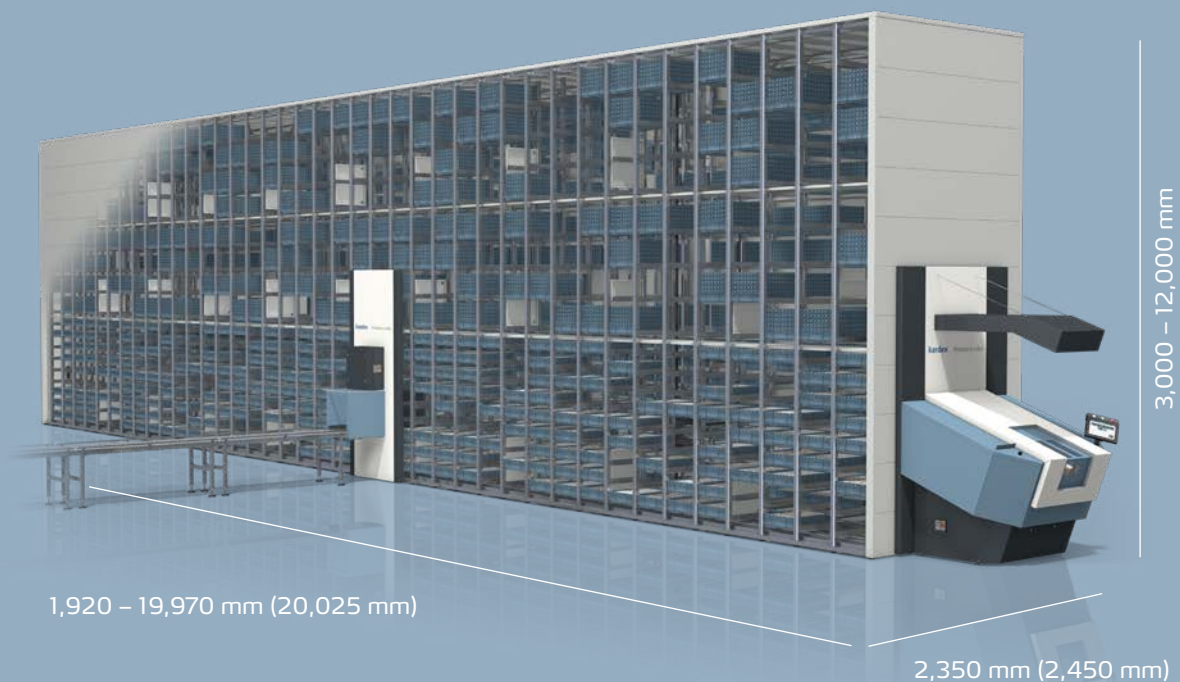


Scale as you grow

# Kardex Miniload-in-a-Box

The Kardex Miniload-in-a-Box belongs to the product family of the Vertical Buffer Module (VBM) and provides solutions for fast-growing product ranges with limited storage space.

The system uses a lightweight mini-load crane with a telescopic gripper to individually transport bins or trays to the access opening point. The energy consumption is reduced by up to 60% against comparable systems. It is very efficient for fast order picking, efficient order consolidation and assembly kitting.



**Fast &  
accurate  
picking**

**Flexible  
system  
integration**

**Fully  
scalable  
design**

### **Fast & accurate picking**

- Virtually zero error rate thanks to a single controlled bin
- Fast and precise picking using pick-by-light tools
- Cuts costs with automatic replenishment

### **Flexible system integration**

- Provides a wide choice of inbound and outbound automated interfaces to integrate seamlessly with both existing processes or technology and future automation
- Easily connects with AGVs/AMRs, robotics and conveyor systems
- Fast project completion/delivery

### **Fully scalable design**

- The scalable design can adapt to processes and building layouts
- Customers can choose from several access opening types
- Customizable unit dimensions of up to 20-meters long and 12-meters high

The Kardex Miniload-in-a-Box stores a wide range of products using a mixture of trays and bins. The Kardex VBM Box is tailor-made for the Kardex Miniload-in-a-Box and available in the dimensions 600 × 400 mm and 640 × 440 mm. It flexibly divides and quickly adapts at any time using transverse and longitudinal dividers. The Kardex Miniload-in-a-Box offers a high storage capacity combined with fast access times.

 [Click here to learn more](#)



# Kardex Shuttle

The Kardex Shuttle belongs to the product family of the Vertical Lift Module (VLM) and stores two columns of trays vertically on the front and rear of the machine. An extractor located in the middle of the VLM automatically moves trays to the access opening. Optiflex technology measures the height of the stored goods on each tray and assigns them to an ideal storage location. It is very efficient for tool storage, order picking and semi-finished products and spare parts.



High  
**storage  
density**

Wide range  
**of storage  
goods**

Modular  
**unit design**

### **High storage density**

- 25 millimeters storage intervals
- Recover up to 85% of occupied floor space
- Small footprint and dynamic storage space allocation

### **Wide range of storage goods**

- It stores articles in various sizes and weights
- Different product types are available (Kardex Shuttle 250/500 for smaller parts, Kardex Shuttle 700 for medium loads and Kardex Shuttle 1000 for heavy loads or pallets)

### **Modular unit design**

- The unit height can be adjusted quickly and individually
- Multiple access openings (on front and rear side) across several floors possible

The Kardex Shuttle ideally stores light and heavy goods. In combination with the Kardex VLM Box and the Display LED-Navigator users benefit from clear guidance and reduce mispicks to a minimum. The Kardex Shuttle can even become fully-automated by integrating robotics.

 [Click here to learn more](#)



# Kardex Megamat

The Kardex Megamat belongs to the product family of the Vertical Carousel Module (VCM) and uses the paternoster principle to provide quick and precise access to stored goods. This future oriented system, based on the latest technologies, is built with a series of carriers attached in fixed locations to a chain drive. A motor powers the carriers to move in a vertical loop around a track in both forward and reverse directions. It is very efficient for order picking, spare parts management and SMD handling.



High  
**picking  
performance**

Minimal  
**footprint**

Ideal for  
**uniform  
storage  
goods**

### High picking performance

- Fast order picking through the use of smart batching strategies
- Optimized and condensed storage spaces
- Fewer picking errors thanks to position indicators


### Minimal footprint

- Up to 60% more storage capacity
- Organized storage of small parts in a minimum footprint

### Ideal for uniform storage goods

- Maximum use of available space with uniform storage goods
- Different product types are available (Kardex Megamat 180 for light loads such as textiles and small parts, Kardex Megamat 350 for medium loads like spare parts, Kardex Megamat 650 for heavy loads)
- Many customers use the Kardex Megamat for their SMD handling, it easily handles SMD reels and increases access accuracy rates

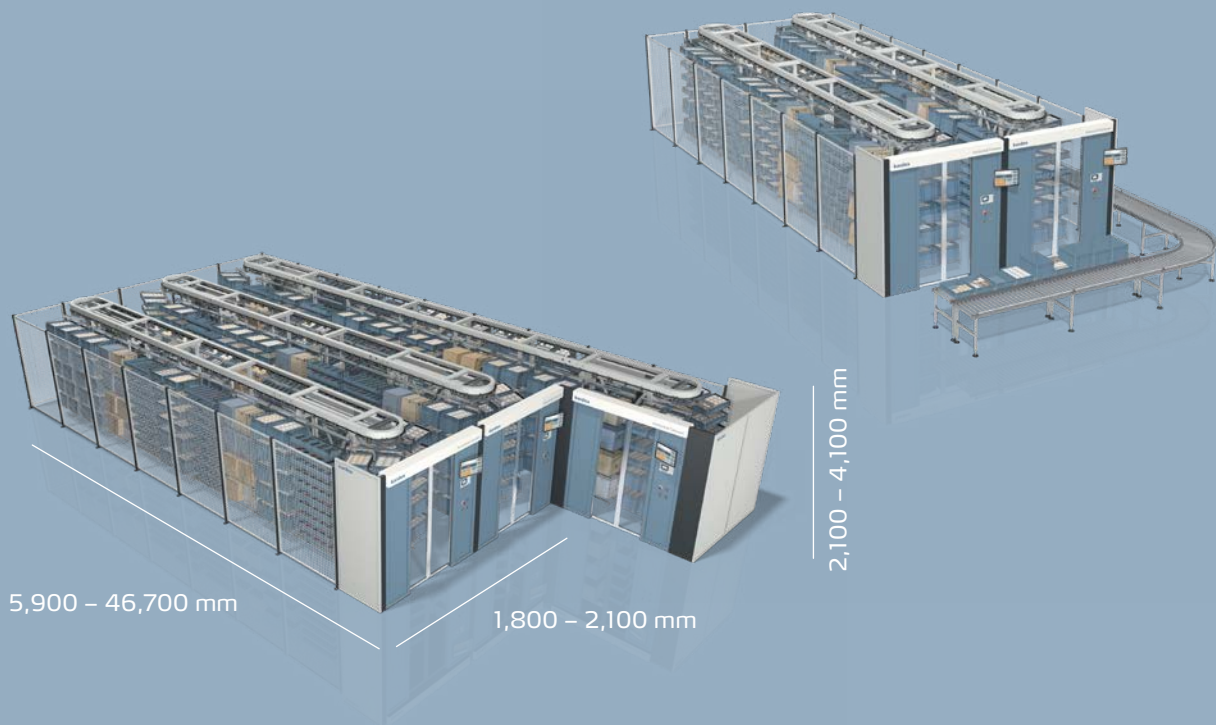
The Kardex Megamat enables fast access to needed goods while optimizing storage space. In combination with the Kardex VCM Box it provides organized storage locations.

 [Click here to learn more](#)



# Kardex Horizontal Carousel

The Kardex Horizontal Carousel is used for fast, reliable and cost-efficient storage and picking of goods. It features an oval-shaped track surrounded by carriers equipped with shelves and storage bins. A motor moves the carrier around the track horizontally, stopping at a pre-determined access point for storing and retrieving goods. It is very efficient for order picking, fast parts delivery and in halls with low ceilings.



High  
throughput

Small &  
medium sized  
storage  
goods

Flexible  
workstations  
& carriers

### **High throughput**

- Taking the shortest route to the access opening and simultaneous carousel movements that are independent of one another ensure high order picking performance
- Display tool assists the operator with order picking
- Batching and simultaneous picking of several orders enable significantly fewer journeys to the shelves

### **Small & medium sized storage goods**

- Suitable for a variety of different applications and ideal for storing a wide range of items

### **Flexible work stations & carriers**

- Order picking at several stations enables high throughput even at peak times and during seasonal fluctuations
- Several people can operate a system at the same time
- Individual shelf steps within the carriers

Kardex Horizontal Carousels provide full flexibility. One picking station can consist of two to four machines. Various layouts, even multilevel applications, are possible.

 [Click here to learn more](#)



# Kardex Megamat 115/120

The Kardex Megamat 115/120 belongs to the product family of the Vertical Carousel Module (VCM) and is an efficient office system. Using the goods-to-person principle it provides quick and precise access to thousands of media types. It is equipped with a series of carriers that attach to a chain drive in multiple, fixed locations. A motor powers the carriers to move in a vertical loop around a track in both forward and reverse directions. It is an efficient solution for the storage of documents, files and confidential media.



Secure  
**storage**

Minimal  
**footprint**

Worker  
**ergonomics**

### **Secure storage**

- Confidential documents are securely stored
- Legal regulations to protect the rights of individuals can be met
- Possibility to activate access codes or PINs so only selected individuals can use it

### **Minimal footprint**

- A smaller footprint is required compared to manual systems (e.g., drawer and cabinet systems)
- Optimize space with floor to ceiling installations
- They units can extend over several floors

### **Worker ergonomics**

- Automated retrieval (requested item is conveyed to the user)
- No physical demands, such as long walks or bending and stretching when fetching documents
- People with disabilities or restricted physical mobility can easily work with the solution

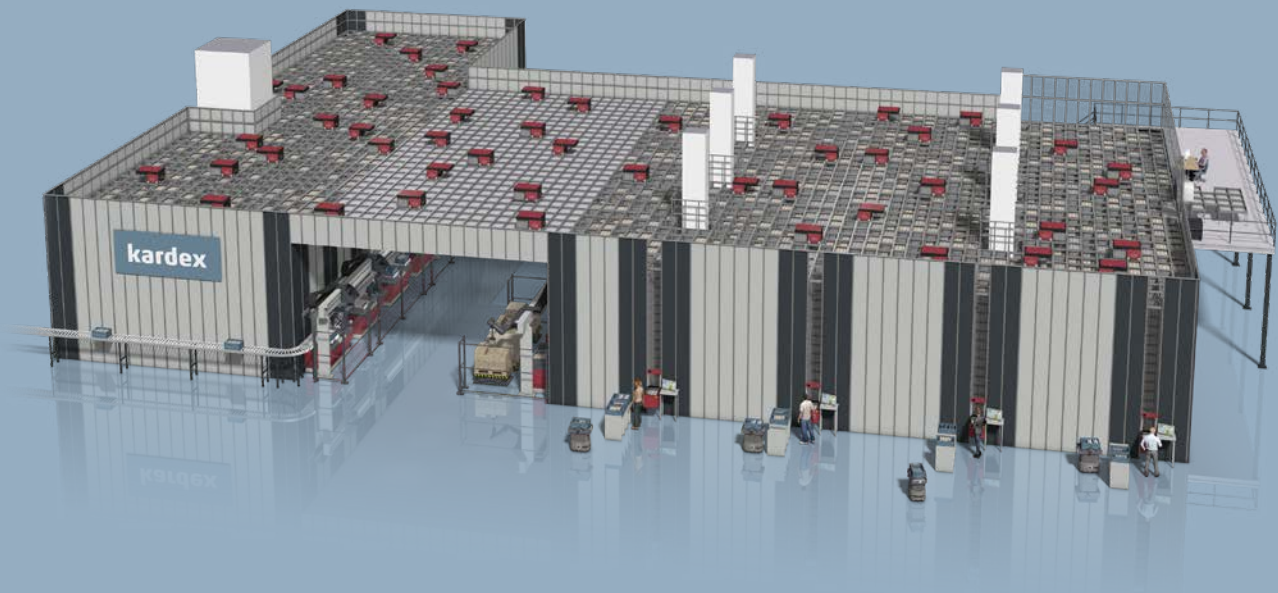
The Kardex Megamat 115/120 is a secure investment that easily integrates into existing offices and improves productivity while reducing needed space. Companies may customize the unit's color to fit internal branding.

 [Click here to learn more](#)



# AutoStore™

AutoStore empowered by Kardex is a high-density storage and order fulfillment solution designed to maximize warehouse capacity and throughput. Battery-powered robots move on top of an aluminum grid where bins are stacked vertically, retrieving and delivering bins directly to connected workstations for picking and replenishment. Thanks to its modular cube design, AutoStore can expand without impacting ongoing operations.



**Maximum  
space**

**Scalable  
design**

**Fast  
order  
fulfillment**

### Maximum space utilization

- Vertically stacked bins maximize storage density
- Up to 4× more inventory in the same footprint vs. conventional systems
- Flexible grid layout fits different warehouse sizes and shapes


### Future-proof & scalable

- Modular design makes expansion simple as business needs grow
- Add capacity without disrupting ongoing operations
- Supports a wide range of small parts across industries

### Fastest order fulfillment

- Battery-powered robots deliver bins directly to picking and replenishment ports
- Robots continuously retrieve, rearrange, and present inventory on demand
- Proven performance with 99.6% global average availability.

AutoStore empowered by Kardex is a highly efficient storage and order fulfillment solution designed for a wide range of industries and applications. With a flexible, modular grid system, high-density storage, and fast robot-based goods-to-person delivery, it supports reliable operations today and scalable growth for tomorrow.

 [Click here to learn more](#)



# Automated High-Bay Warehouse

As a general contractor for high-bay warehouses, Kardex provides all services and components from a single source. Our expertise covers planning and project management through to implementation and system optimization during ongoing operations.

The movable elements that are important for operating a high-bay warehouse originate from our in-house design and manufacturing teams.



Flexible  
**solution  
configuration**

High  
**process safety**

Long-term  
**investment  
security**

### Ensuring product stock

- Compact high-density storage for large volumes within minimal floor space
- Secure supply of raw materials, semi-finished, and trade goods
- Maintained production capacity and protected inventory levels, even during supply chain disruptions

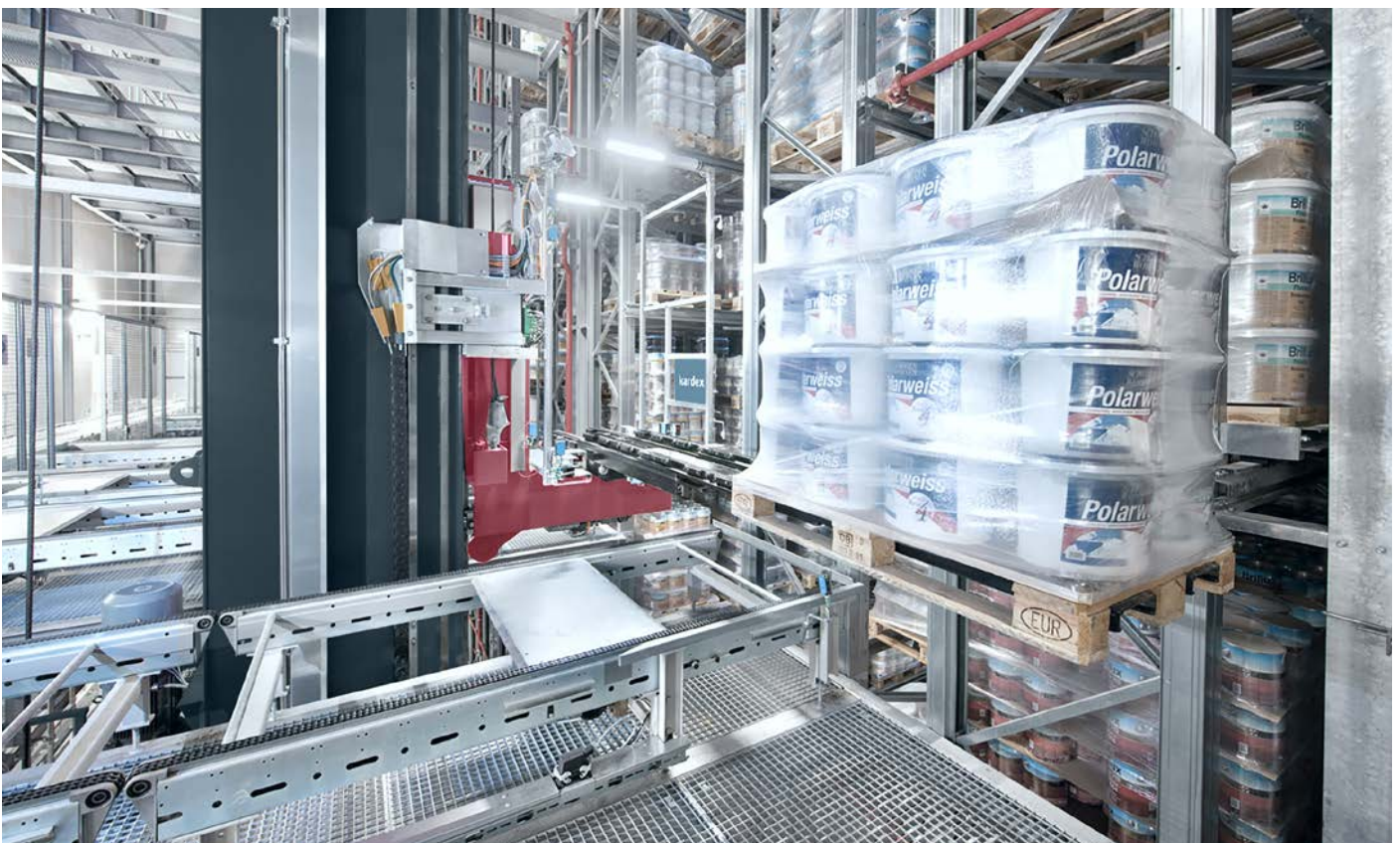
### Transparency and inventory control

- Transparent processes with permanent inventory visibility
- End-to-end traceability of batches and production units
- Reliable documentation supported by integrated storage and software solutions

### Optimized distribution logistics

- Fast and accurate staging of ready-to-ship goods
- Reduced logistics costs and minimized incorrect deliveries
- Flexible material flow solutions for efficient distribution processes

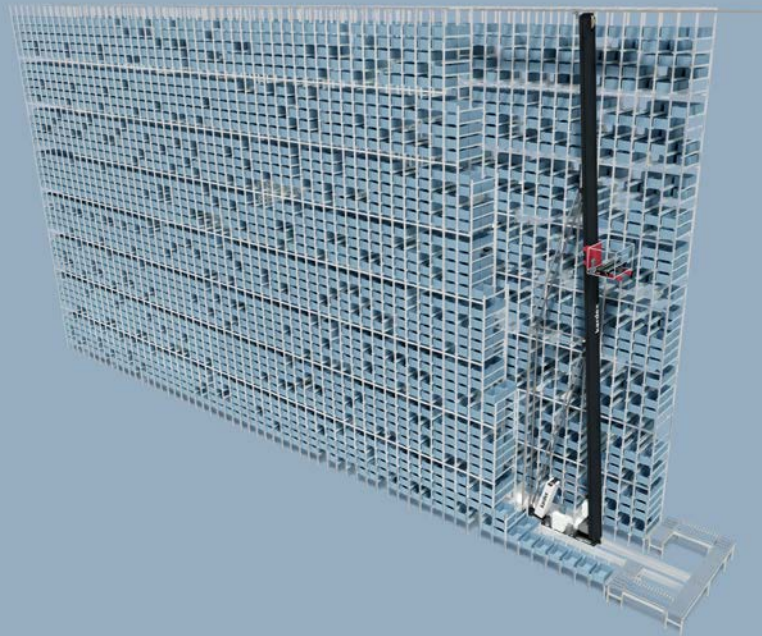
 [Click here to learn more](#)



# Miniload System

The Miniload Systems, featuring stacker cranes with heights of up to 20 meters, enable single- or multiple-deep storage configurations. Depending on operational requirements, various load handling devices can be deployed.

The system ensures efficient storage of bins, cartons, and trays while delivering highly dynamic handling of load units up to 50 kg. Its modular and extendable design allows future adaptations and modifications, providing long-term investment security.



**Space utilization**  
with up to  
20 m height

**Optimal price-  
performance  
ratio**

**Load capacity**  
up to 50 kg

### **Efficient process chain in 24/7 operation**

- Decouples adjacent process steps for continuous operations
- Ensures reliable supply to production and downstream areas
- Enables flexible reaction to fluctuations in distribution

### **Wide range of products with guaranteed availability of goods**

- High availability combined with reliable staging
- Supports supply strategies such as Kanban or one-piece flow combined with real-time transparency
- Reduces stock levels while maintaining supply security

### **Compact storage with short staging periods**

- Fast and accurate staging of ready-to-ship goods
- Handles slow movers, peak loads, and returns efficiently
- Flexible storage solutions tailored to operational requirements



[Click here to learn more](#)

## Warehouse Modernization

Over time, automated high-bay warehouses and miniload systems require refurbishment to maintain performance, efficiency and safety. Kardex supports sustainable modernization to extend the life cycle of existing systems.

### **Reliability & Efficiency**

- Increases availability while reducing downtime
- Optimizes processes, boosts throughput, and ensures precise inventory management

### **Energy & Sustainability**

- Reduces energy consumption through efficient systems
- Lowers operating costs and supports long-term sustainability goals

### **Safety & Compliance**

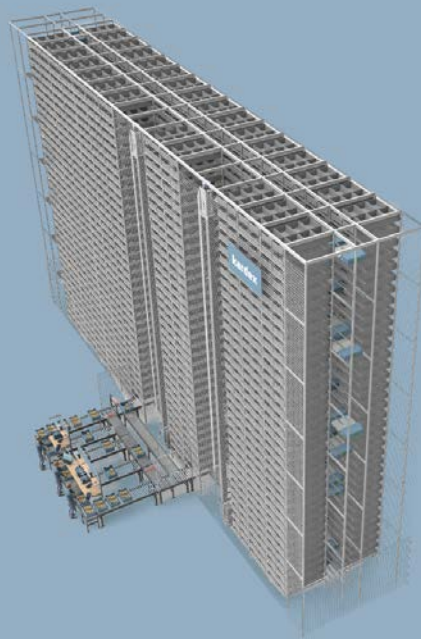
- Enhances personnel safety with modern safety solutions
- Ensures regulatory compliance while minimizing operational risks

# Bin Shuttle System

Powered by ROCKET SOLUTION

The Bin Shuttle System is a highly compact, robust, and fail-safe bin and tray storage system developed specifically for demanding intralogistics applications. It enables four-deep storage for bins or trays weighing up to 50 kg, or alternatively six-deep storage for bins or trays with a maximum load of 35 kg, which significantly exceeds conventional industry standards. It is designed for system heights of up to 26 meters and aisle lengths exceeding 100 meters.

While many systems rely on roaming shuttles and additional components to adjust performance, the Bin Shuttle System achieves the same effect without level or aisle changes. Each shuttle independently serves, regardless of four- or six-deep storage, either 8 or 12 Z-positions at high access speeds. This eliminates the need for additional functions, avoids single points of failure, and significantly reduces the risk of disruptions.



Maximum  
**storage  
density**

Fail-safe  
**architecture**

Scalable  
**throughput**

### **The most compact automated bin shuttle system**

- Four-deep/six-deep storage with system heights of up to 26 m
- Up to 30% more storage locations
- 100% storage capacity

### **Maximum flexibility and versatility of use**

- Scalable performance via the number of lifts to synchronize with shuttle throughput
- Flexible integration into existing buildings
- Suitable for a wide range of industries: fashion, automotive, e-commerce/3PL, healthcare, and electronics

### **Maximum system availability**

- Flexible concepts for spare parts, maintenance, and service
- Integrated camera systems
- Low wear and component-friendly operation
- No conveyor technology within the racking system

 [Click here to learn more](#)



# Software Solutions

**Warehouses are becoming smarter, more connected, and increasingly data-driven. Their full potential is unlocked through software.**

Kardex offers a comprehensive portfolio of software solutions covering:

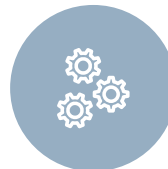
- Warehouse Execution Systems (e.g., Kardex Control Center, Kardex Power Pick Cloud, Kardex FulfillX)
- Machine Monitoring (e.g., Kardex Connect)
- Performance Insights (e.g., Kardex Analytics)
- Secure Remote Access
- and much more

All Kardex systems and warehouse processes are **powered by the KardexOne Software Platform**. By connecting automation, material flow, and business systems, you benefit from seamless interaction between hardware and software across all levels of automation.

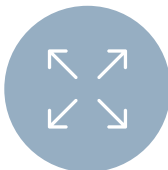
## Benefits at a glance



Intuitive interfaces and guided workflows simplify daily operations



Easily adapt workflows, rules, and screens without disrupting daily business



Expand users, sites, and functionality seamlessly as your business grows



Protect operations with encrypted data transmission, access control, and regular security updates



# Life Cycle Services

Long-term performance of automated solutions requires continuous support. Kardex Life Cycle Service supports your system throughout its life cycle, maintaining performance, protecting your investment, and preparing your operations for the future.

Our service approach follows a continuous cycle:

## **Smooth go-live**

Professional commissioning, operator training, and ramp-up support ensure a seamless start and stable system performance from day one.

## **Ensure availability**

Preventive maintenance, original spare parts, safety services, and responsive helpdesk support safeguard maximum uptime and operational reliability.

## **Optimize performance**

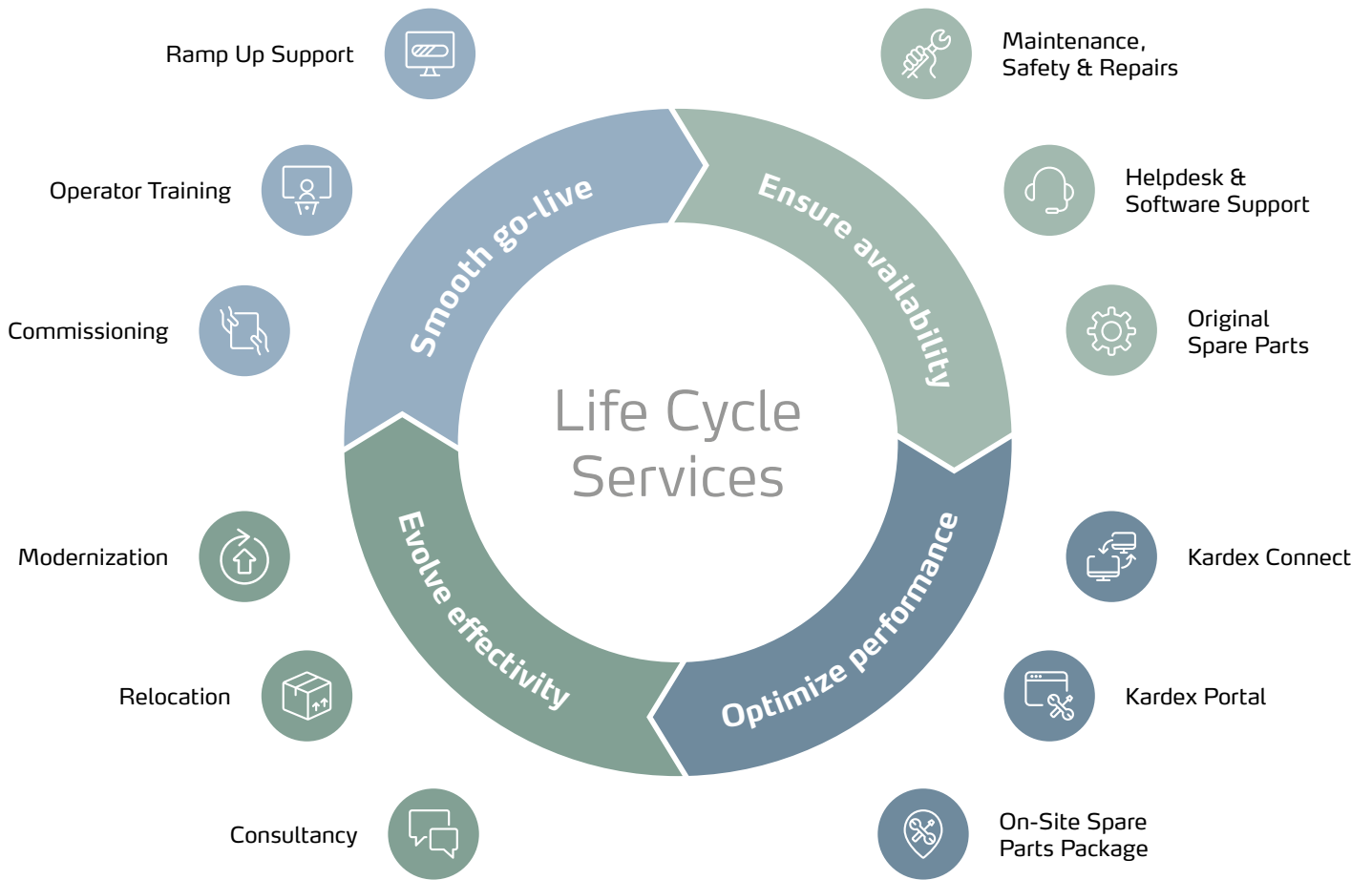
Digital services such as Kardex Connect with remote support and Kardex Analytics enhance transparency, improve performance, and reduce unplanned downtime.

## **Evolve effectiveness**

Modernization, relocation, and consultancy services adapt your system to new requirements and ensure long-term investment security.



[Click here to learn more](#)



# Global Expertise with Local Presence

Kardex is your global partner for smart intralogistics solutions delivering semi and fully automated systems worldwide. With a strong international footprint and a broad network of local specialists, Kardex supports you from initial concept and system design to implementation and long-term operational support.

By combining global expertise, unified software solutions, and Life Cycle Service, Kardex supports sustainable warehouse performance for customers from various industries worldwide.

Take your intralogistics to the next level and contact a local team member for a complimentary, on-site consultation.

 Get in touch

