



Shuttle XP

Vertical Lift Module for high density storage and order picking in a compact footprint

Kardex Remstar Shuttle XP

Practically unlimited storage, cost-effective and easy access

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The combination of optimal storage density, flexible, storage strategies, ergonomics and security makes the Shuttle XP a highly efficient storage solution.

The Principle

The Vertical Lift Module is an enclosed system. Trays can be inserted vertically via the front and rear of the unit. In the middle there is an extractor that automatically delivers trays to the access opening with the push of a button or scan of a barcode.

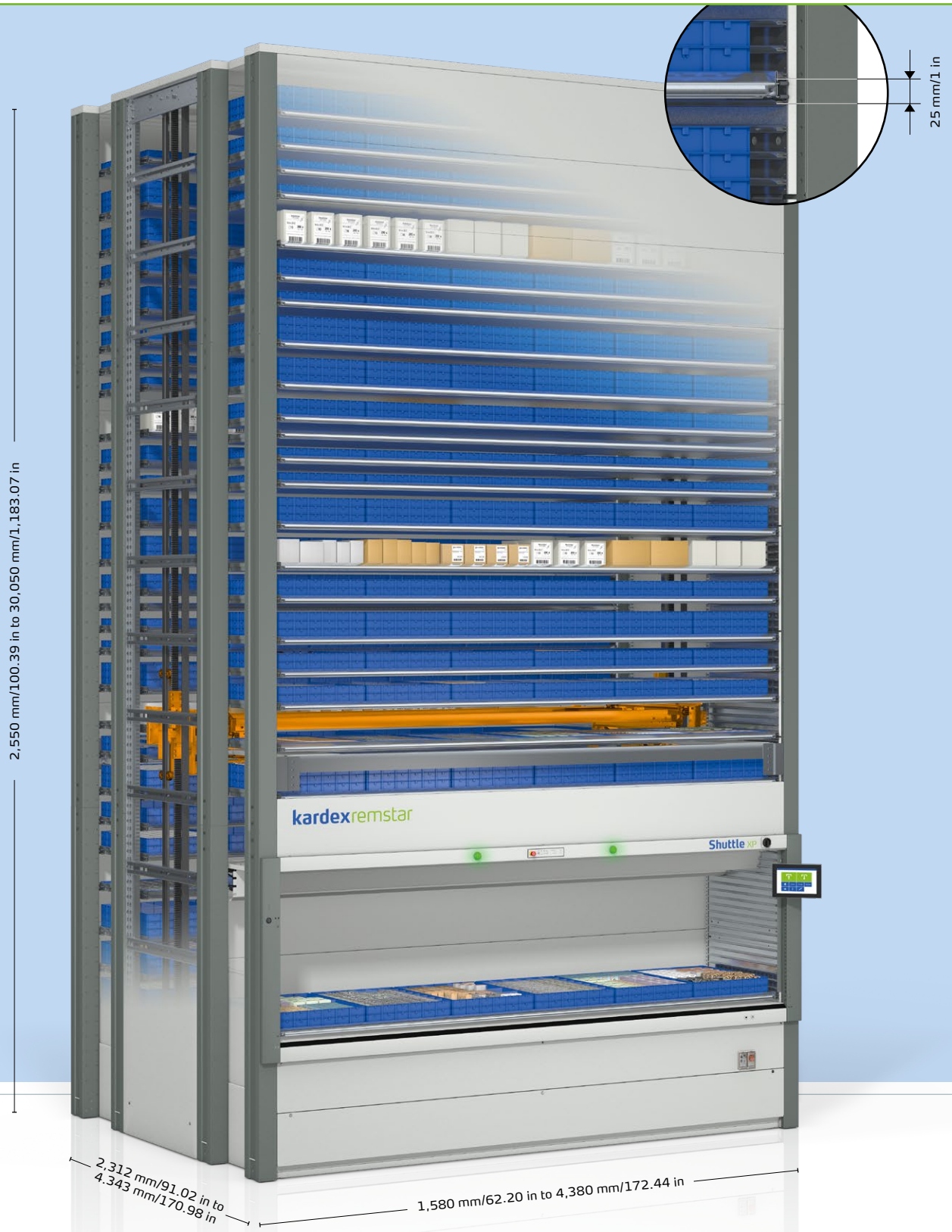
Thanks to its flexible design, the Shuttle XP can be adapted at any time to meet modified volumes and heights. Depending on the ceiling height, space savings of at least 85% are possible. Each tray is scanned automatically by the Optiflex technology. The trays are then assigned to the ideal storage location with a spacing of 1 inch increments (25 mm). It is also possible to customize the number of access openings.

Advantages at a Glance

- **More storage space in a small footprint**
- **Fast access times**
- **Exact inventory levels through connection to inventory management systems**
- **Expandable and scalable**
- **Maximum flexibility**
- **Enhanced ergonomics**
- **Greater safety and protection for operators and stored goods**

Kardex Remstar Shuttle XP

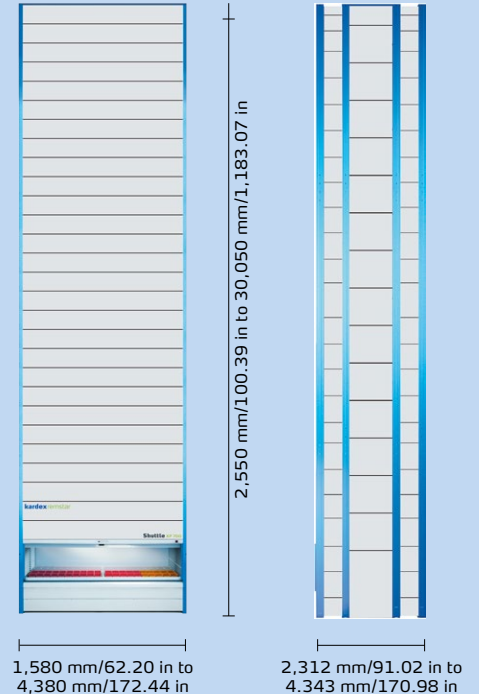
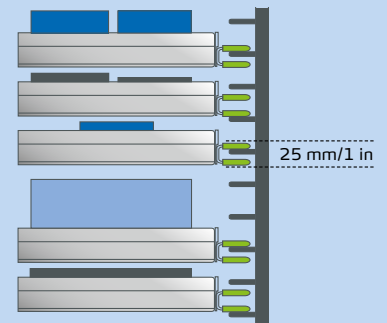
Overview of technical data



Every Kardex Remstar Shuttle XP can be configured to meet your needs.

Technical data

Vertical Lift Module	XP 250 XP 500	XP 700	XP 1000
Unit Dimensions			
Width	from 1,580 mm/62.20 in to 4,380 mm/172.44 in	from 1,580 mm/62.20 in to 4,380 mm/172.44 in	from 1,580 mm/62.20 in to 4,380 mm/172.44 in
Depth	from 2,312 mm/91.02 in to 4,292 mm/168.98 in	from 2,363 mm/93.03 in to 4,343 mm/170.98 in	from 2,363 mm/93.03 in to 4,343 mm/170.98 in
Height	from 2,550 mm/100.39 in to 30,050 mm/1,183.07 in	from 2,550 mm/100.39 in to 20,050 mm/789.37 in	from 2,550 mm/100.39 in to 20,050 mm/789.37 in
Unit height pitch	100 mm steps/3.94 in	100 mm steps/3.94 in	100 mm steps/3.94 in
Performance data			
Vertical speed individually adjustable	up to 2.0 m/s 78.74 in/s	2.0 m/s 78.74 in/s	up to 0.75 m/s per tray 29.53 in/s
Storage/retrieval speed adjustable	up to 0.7 m/s 27.56 in/s	up to 0.39 m/s 15.35 in/s	Up to 0.39 m/s 15.35 in/s
Maximum load	67/120 t	Max. 70/120 t	67/120 t
Tray			
Width	from 1,250 mm/49.21 in to 4,050 mm/159.45 in	from 1,250 mm/49.21 in to 4,050 mm/159.45 in	from 1,250 mm/49.21 in to 4,050 mm/159.45 in
Depth	from 610 mm/24.00 in to 1,270 mm/50.00 in	from 610 mm/24.00 in to 1,270 mm/50.00 in	from 610 mm/24.00 in to 1,778 mm/70.00 in
Storage space pitch	25 mm/0.98 in	50 mm/1.97 in	All intermediate sizes possible in 50 mm/1.97 in pitch
Min. tray spacing	75 mm/2.95 in	100 mm/3.94 in	150 mm/5.90 in
Maximum load	up to 560 kg/1,234.5 lbs	725 kg/1,598.34 lbs	up to 1,000 kg/2,204.60 lbs
Width		Load per tray	
1,250 mm/49.21 in	up to 560 kg/1,234.5 lbs	up to 725 kg/1,598.34 lbs	1,000 kg/2,204.60 lbs
2,450 mm/96.46 in	up to 535 kg/1,179.46 lbs	up to 695 kg/1,532.21 lbs	900 kg/1,984.14 lbs
4,050 mm/159.45 in	up to 490 kg/1,080.25 lbs	up to 650 kg/1,432.99 lbs	800 kg/1,763.68 lbs



The values shown in the illustration and in the table are in reference to standard configurations. Other devices can also be constructed with different width, depth and height dimensions.

Kardex Remstar Shuttle XP

Technical Design Features



Extractor

The extractor moves the desired tray directly to the access opening or back to a free storage space.



Shutter Door

The Lift Door is included in the standard accessories of each device to protect people, machines, stored goods and reduce noise and drafts.



Shelf Rail

The trays are provided in the access opening by shelf rails. If necessary they can also work on different levels for optimum ergonomics and workspace.



Safety Light Curtain

If the Safety Light Curtain is triggered directly in front of the access opening, all components are stopped immediately to protect operators and stored goods.



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Shuttle XP

Shuttle XP

Kardex Remstar Shuttle XP

Overview of device types



Shuttle XP 250/500

Flexible solution for small parts and lightweight goods

The Shuttle XP 250/500 is a flexible solution for storing and easily accessing small-volume articles.

With trays ranging from 49.2 in/1250 mm to 159.45 in/4050 mm wide and a tray load capacity up to 1235 lbs/560 kg.

The Shuttle XP 250/500's compact device design allows it to be adapted to space requirements – offering maximum storage volume in a minimal floor space.

Shuttle XP 700

Highly compact storage of medium loads

The Shuttle XP 700 is used for storage and retrieval of goods. With trays ranging from 49.2 in/1250 mm to 159.45 in/4050 mm wide and a tray load capacity up to 1598 lbs/725 kg.

It can be adjusted to a device height of 789.37 in/20,050 mm making it suitable for larger storage volumes.

The Shuttle XP 700 is ideal for efficiently storing and easily retrieving heavy tools, components or spare parts.



Shuttle XP 1000

The Shuttle XP 1000 offers added value in a straightforward way – managing heavy duty loads up to 1,000 kg.

Heavy Duty Tray

Unparalleled high performance: With trays ranging from 49.2in/1250mm loading up to 2205lbs/1000kg and a tray 159.45in/4050mm wide and a tray load capacity up to 1819lbs/825kg.

Achieving new load carrying capacity standards, it's ideally suited for storing medium to heavy parts.

Pallet Storage

Special trays for storage of EURO pallets and mesh boxes can be stacked in the device using a forklift truck.

This saves space and makes it possible to find goods more easily. This helps lower costs, boost productivity and increase safety.

Crane Handling

A factory-installed crane can be used to move stored goods easily resulting in decreased working times and costs.

Essential for your employees: Optimized ergonomics and excellent safety are two important advantages.

Kardex Remstar Shuttle XP

Options for individual requirements



The wide range of add-ons (which can be integrated either before or after installation) provide even greater flexibility for the Kardex Remstar Shuttle XP.

Pick-to-light

To improve operators' productivity, throughput and accuracy levels, Kardex Remstar offers several integrated pick-to-light technologies. The Shuttle XP can be equipped with TIC (transaction information center), position indicators, light pointers and confirmation bars in the access opening.

Light Pointer

The article to be picked is specifically illuminated with a spotlight or laser beam so it can be identified immediately by the user.

Automatic/Semi-Automatic Tray Extraction Device

The tray extraction device makes it easier to handle heavy or bulky stored goods. The tray is provided for loading and unloading in front of the access opening.

Dual Tray Function

While order picking is in progress on one tray, the next tray needed is being prepared simultaneously behind the access opening. Once work on the first tray is complete, the next tray is moved to the second level and into the access opening while the first tray is picked up for storage.

Other Options:

- Confirmation Button
- Multi-Level Trays
- Manual Folding
- Tray Extraction Device
- Tray locking mechanism
- Weight Management
- Tray Extraction Device for Forklift Operation
- User Management
- Transport Cart
- ESD Version

Kardex Remstar Shuttle XP

Storage and order picking under controlled conditions



Extreme competence for unique technical requirements: storage systems from Kardex Remstar include temperature-control, humidity-control, clean room storage environments and more.

Parts, raw materials and products often have particular requirements for storage conditions. Do you need specific temperatures, precise humidity levels, sterile environments or all of the above? Room within a room or freestanding? Take your pick. With systems from Kardex Remstar, you can store your products under controlled conditions. They can be adjusted to your needs without structural restrictions and, where necessary, connected to existing areas (e.g., clean rooms). For example, only the access opening can be located in the clean room.

Kardex Remstar Dry Solution (humidity):

- 10% relative humidity by means of nitrogen removal
- 5% relative humidity by means of Absorption drying (application: storage of SMD components)
- ESD-compatible design

Kardex Remstar Clima Solution (temperature) (depending on device type):

- Down to -35°C for deep-freeze storage
- Up to $+60^{\circ}\text{C}$ for high temperature storage
- Constant temperature of ± 1 degree C

Kardex Remstar Clean Solution (clean room):

- Clean room classes from EN-ISO 5 to 8 (5 on request)
- Correct and accurate pressure
- Hygienic design

Kardex Remstar Shuttle XP

These advantages speak for themselves

Save Space and use Maximum Room Height

- Continuously maximizing the density within the unit using only 1 in/25 mm dividing spaces trays
- Space savings of up to 85%



Reduce Personnel Costs

- Eliminates unprofitable walking and searching time with "goods-to-person" principle
- Reduces personnel costs
- New personnel may be incorporated swiftly and easily



We enable our customers to significantly improve work productivity via: less space requirements, optimum handling and inventory level control.

Ergonomic Design

- "Goods-to-person" principle
- Requested articles are provided automatically in the access opening
- Trays can be provided at an individual work height

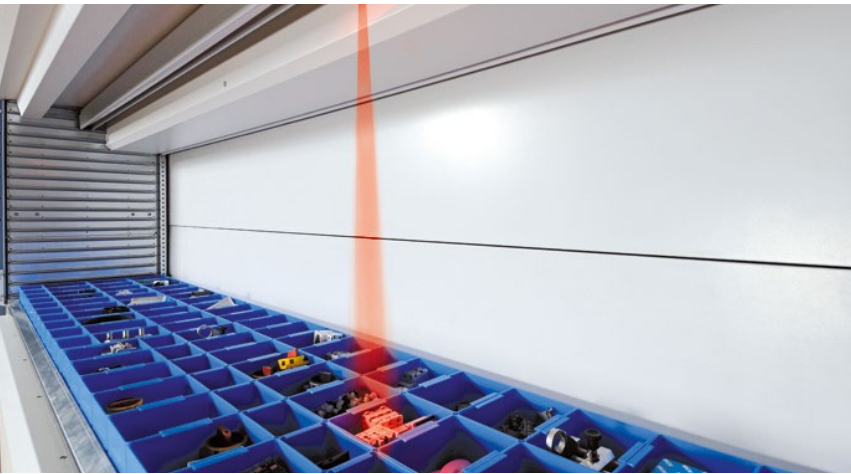


Protection of Stored Goods

- User management ensures only authorized and qualified people are given access to the device and/or individual trays
- The shutter door considerably reduces noise emissions while also protecting operating personnel and stored goods



Vertical Lift Module



Accuracy

- Optionally integrated pick-to-light technology supports the operator in order picking
- Accuracy is increased by up to 99.9% with pick-to-light technology or barcode scanners

Flexibility

- Load-dependent for manual adjustment of device/ individual tray speeds. For example, sensitive articles travel at slower speeds
- Frequently required articles are stored close to the access opening
- Different tray types with different loads can be stored in a single device



Modularity

- Interchangeable Capabilities
- Device height can be quickly and individually adjusted as needed to suit changing workflows or inventory profiles

Reliability

Used by thousands daily, the Shuttle XP's design, construction and performance features combined with its structure and services prove why it is one of the leading global products in its field.



Kardex Remstar Shuttle XP

Solutions for individual requirements



Thanks to numerous options, the Kardex Remstar Shuttle XP provides maximum flexibility. The system can be expanded, reduced, moved to another location and adapted to new requirements.

Installation possibilities

Multilevel Installation

The Shuttle XP can extend over several floors and can be equipped with up to 6 access openings on the front and rear of the unit. This makes it possible to work on multiple levels simultaneously. For example, storing goods and retrieving them at different access points.

Outdoor-Installation

To increase existing system capacity, the Shuttle XP from Kardex Remstar can also be installed outside of buildings. In this case access to the stored goods is via an opening in the wall provided especially for this purpose.

Maximize your success with integrated technology!
From individual units to complex systems, Kardex Remstar offers you many possibilities.

The following technologies can easily be incorporated:



Barcode Readers

Fast and easy integration of barcode readers for order picking, order identification, picking articles and the stacking and retrieval process.



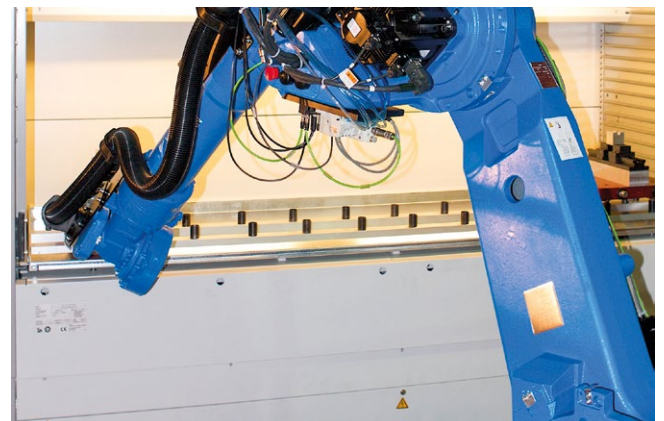
Conveyor Technology

For faster order picking and consolidation, work zones can be efficiently connected with conveyor technology.



Lifting Equipment

Easy integration of lifting equipment. Cranes and grippers enable ergonomic storage and retrieval of goods.



Robot Connection

Automatic handling devices such as robots provide more efficient automated storage and retrieval.

Kardex VLM Box

The tailor-made solution



The Kardex VLM Box was developed especially for the Kardex Remstar Vertical Lift Module. It further increases the efficiency of this storage solution.

Perfectly Coordinated with the Kardex Remstar Vertical Lift Module Product Family

The dimensions of the Kardex VLM Box fit seamlessly into a Kardex Remstar Shuttle XP. The special initial height of 2 in/50 mm also fits lower tray frames.

Box Layout is Easy to Change

Since the VLM Box from Kardex Remstar can be restructured and changed at any time, it is an investment in the future. This is a great advantage compared to other box systems where changing the storage requirements also means buying new boxes.

Flexible Height, Width and Depth for Different Storage Compartments

The Kardex VLM Box makes it possible for you to adjust the storage compartment structure and tray to match your requirements.

Intelligent Separator Concept

The transparent separators in the Kardex VLM Box make it easier for you to adjust each storage compartment exactly to your needs.



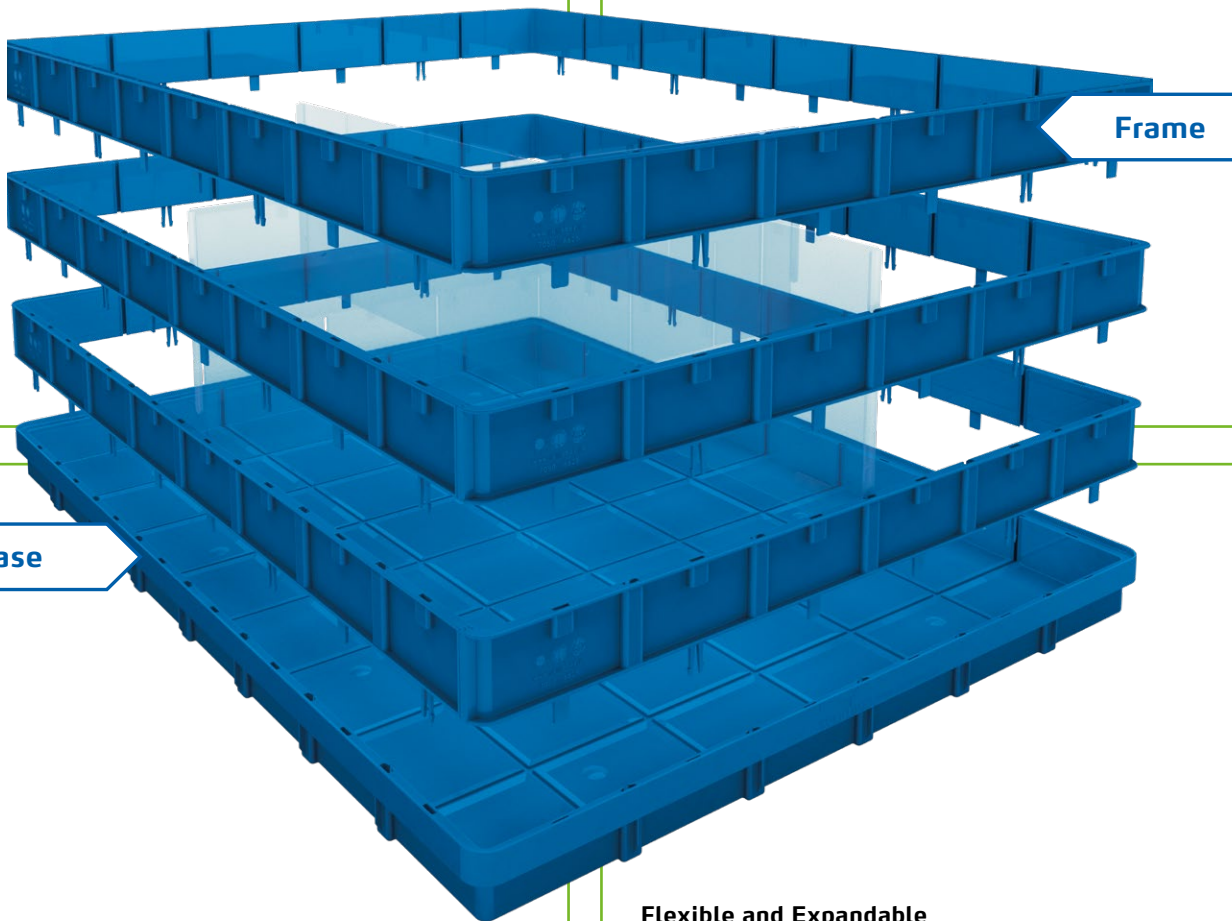


Developed for the Kardex Remstar Vertical Lift Module

The dimensions of the Kardex VLM Box (31.5 x 23.6 x 50 in/800 x 600 x 50 mm) fit perfectly into a Kardex Remstar Vertical Lift Module. The special initial height of 2 in/50 mm also fits lower tray frames.

Connector System with Easy Click Fastening

Fast, easy and reliable. The intelligent frame fastening of the Kardex VLM Box makes it possible to increase the volume of the box within minutes. If the size needs to be changed, the frames and separators can also be removed.



Base

Frame

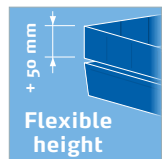


The Separator Concept enables Multiple Possibilities and Storage Compartment Variations

Stay flexible and be well organized at the same time! Choose between 8 transparent separators in different sizes to create the right Kardex VLM Box for your needs.

Flexible and Expandable

The 2 in/50 mm initial frame height of the Kardex VLM Box makes it possible to create storage compartments that are 3.94 in/100 mm, 5.91 in/150 mm or 7.87 in/200 mm high. Whenever you need to store your warehouse goods neatly and in an organized manner, Kardex VLM Box is ready for you!





Kardex Remstar Power Pick Solutions

Intelligent Inventory Control Software



Order picking optimized for time and distance saves warehouse resources and boosts productivity – all with Power Pick solutions.

Power Pick Onboard

Fully Integrated Warehouse Management System

The existing machine controller consisting of hardware, software and a control unit is an efficient solution for fast order picking and retrieval. Featuring the latest generation of controllers, Power Pick Onboard offers the many standard features plus a larger control panel, easier operator navigation, a basic inventory function and connection to a host system.

Power Pick Global

Warehouse Management System for Intralogistics Solutions

The basic package of Power Pick Global covers the standard functions of a flexible warehouse management solution. That includes managing users and accounts as well as material, storage places, bins, reports and logs. Any number of preferences can also be selected from the option modules to increase the performance and functionality of Power Pick Global.

Advantages of Power Pick Onboard

- ⊕ Modern, intuitive operating concept
- ⊕ Integrated hardware means lower costs
- ⊕ ROI in 12 to 24 months
- ⊕ Ergonomic working conditions

Advantages of Power Pick Global

- ⊕ Software-supported processes and checks
- ⊕ Efficient use of dynamic storage systems
- ⊕ Functional scalability – modular architecture
- ⊕ Contemporary IT architecture (client/server)

Kardex Remstar Service contracts

Scalable to your requirements

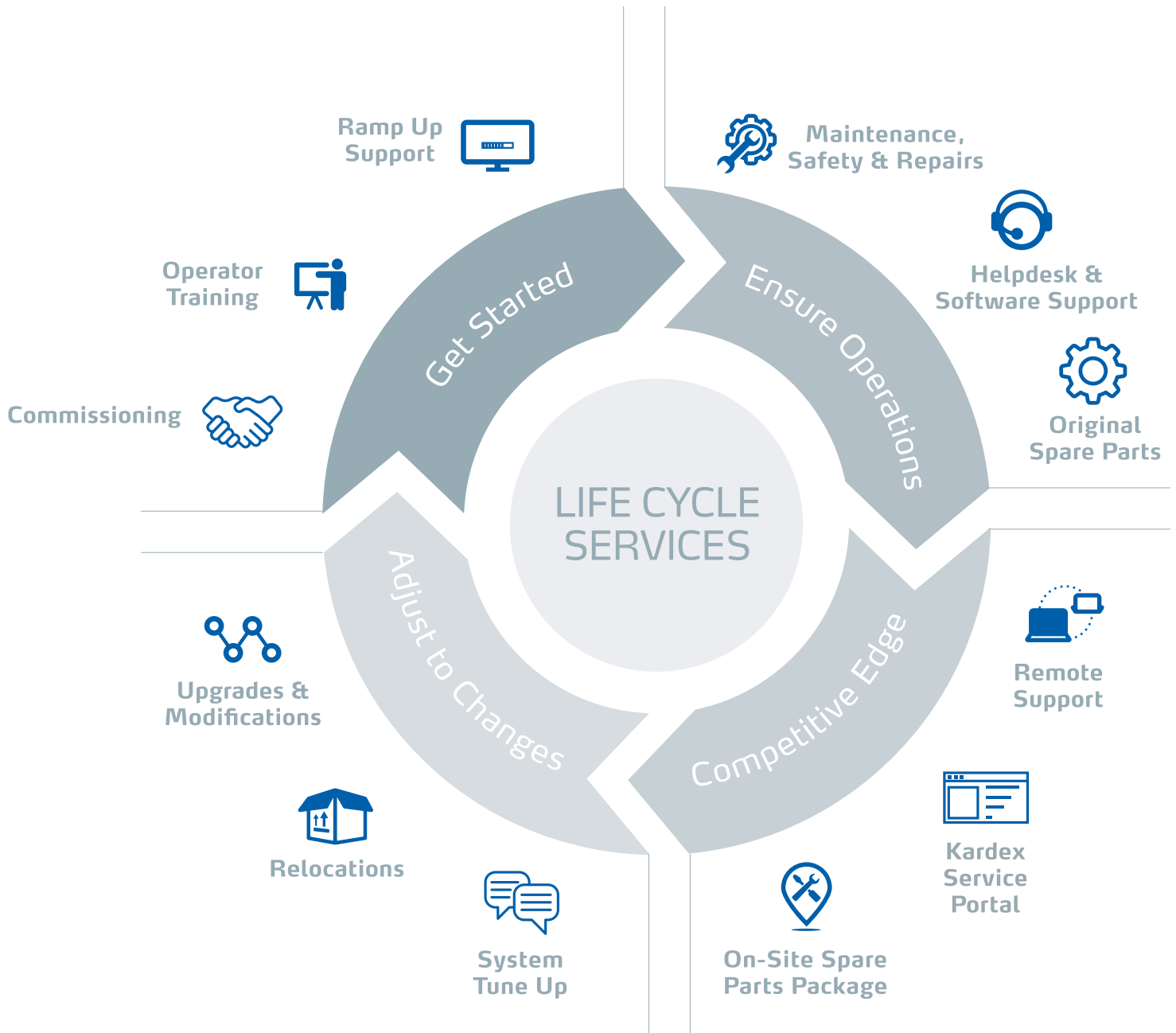
	<p>"I need reliable and dependable systems."</p> <p>BASE Care</p>	<p>"I need guaranteed rapid response in case of malfunction."</p> <p>FLEX Care</p>	<p>"I need maximum availability at predictable costs."</p> <p>FULL Care</p>
Annual maintenance and inspection	✓	✓	✓
Multiple maintenance and inspections per year	optional	optional	optional
Priority Support	✓	✓	✓
Helpdesk unlimited calls		✓	✓
Helpdesk reaction time < 2h		✓	✓
Up to 1h Helpdesk reaction time ¹		optional	optional
Up to 24/7 Helpdesk support ¹		optional	optional
On-Site repairs		optional ²	✓
Spare Parts			✓
On-Site reaction time < 16h		✓	✓
Up to 2h On-Site reaction time ¹		optional	optional
Up to 24/7 On-Site support ¹		optional	optional
Remote Assistance & Analytics ³		optional	✓
Access to Kardex portal ^{1,3}			

¹ Subject to availability. Support might not be available in local language.

² Labour cost included during warranty.

³ E-Mail, knowledge base, cases.

With Life Cycle Service, Kardex Remstar offers you an end-to-end, modularly structured service program to ensure your logistics and warehouse solutions are fit for use over their entire lifecycle.



Would you like more service?

No problem! Our Service Management will be pleased to create a suitable solution for you.

Kardex Remstar

Always close to you – Worldwide



Australia
Austria
Belgium
Brazil
Canada
Chile
China
Colombia

Cyprus
Czech Republic
Denmark
Finland
France
Germany
Great Britain
Hungary

India
Italy
Malaysia
Mexico
Netherlands
Norway
Poland
Romania

Portugal
Russia
South Africa
Spain
Sweden
Switzerland
Turkey
USA



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