

# Kardex Remstar Horizontal Carousel

An efficient solution for fast storage and picking





# Kardex Remstar Horizontal Carousel: Save time through rapid, direct and reliable access



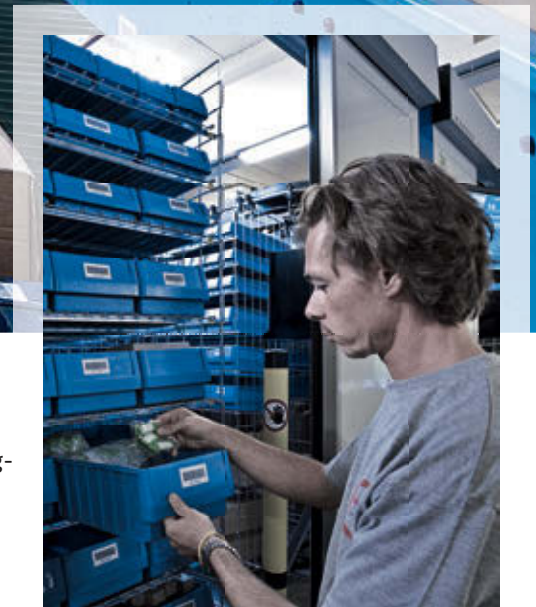
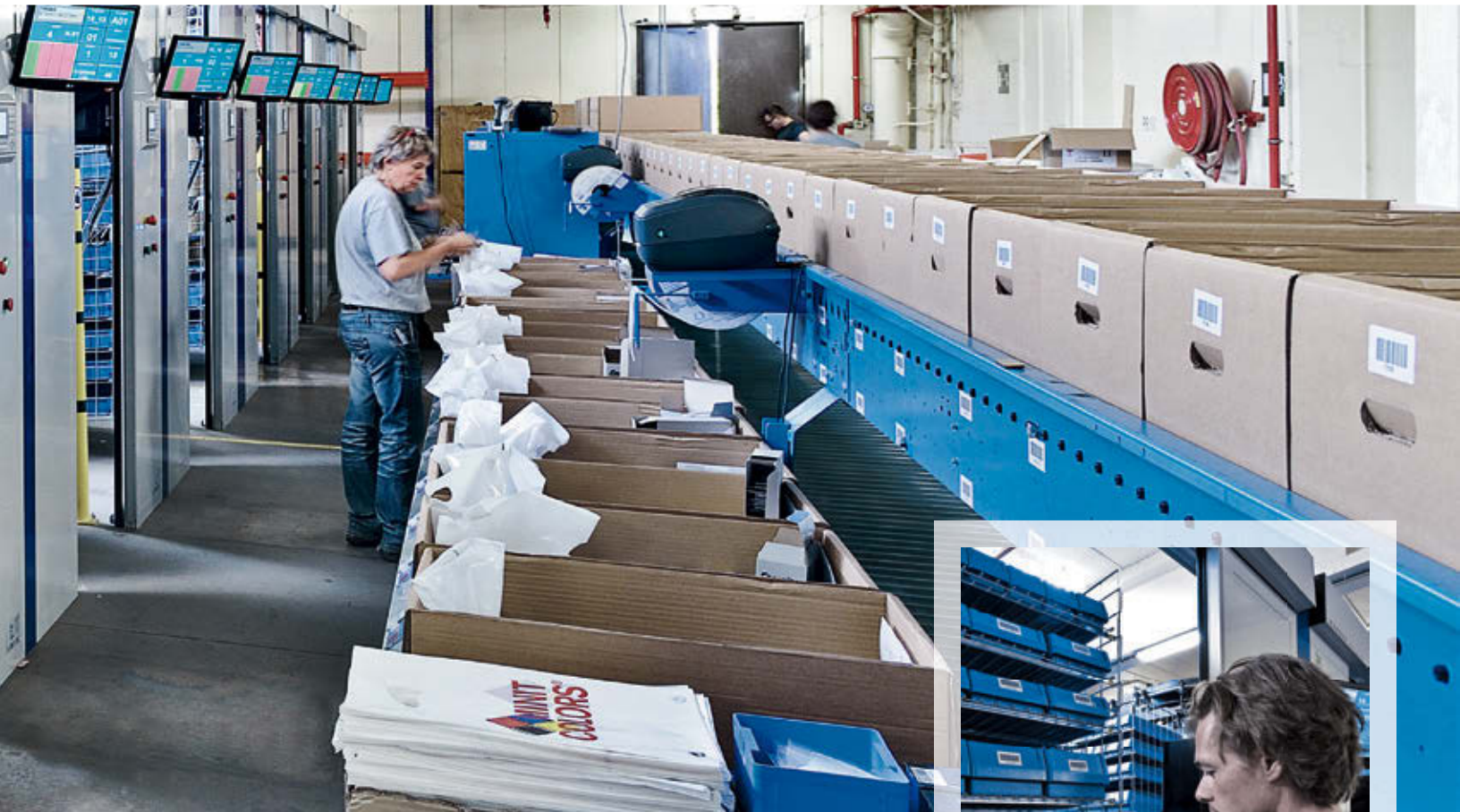
The Kardex Remstar Horizontal Carousel is used everywhere where fast, reliable and cost-efficient storage and picking of goods is vital. Whether in production or distribution, for applications requiring high throughput or for medium and slow-movers:

Horizontal Carousels are the perfect solution.



Further information:  
[www.kardexremstar.com](http://www.kardexremstar.com)

## Kardex Remstar Horizontal Carousel: Because fast access and efficiency matter.



### Efficient storage and retrieval system

Fast reaction times, high throughput and short delivery periods – these are only a few of the criteria distribution centers require for modern and efficient warehouse logistics. It is exactly at this point where the automated Horizontal Carousels from Kardex Remstar comes into action: designed to flexibly adapt to various order picking tasks for maximum order fulfillment efficiency.

Using the Kardex Remstar warehouse management software, you can rest easy knowing everything is running smoothly. The result: more efficient process flows, increased transparency and more flexibility are added to the storage and retrieval process – even in peak times.

### “Goods to person” principle

Whatever you store – a reliable and efficient storage and retrieval system significantly reduces labor and warehouse costs. Like any other storage system from Kardex Remstar, Horizontal Carousels work according to the “goods to person” principle, ensuring increased efficiency, optimum utilization of the storage space and reduced picking errors. Implementing batch picking, throughput can be significantly increased once more when desired.

One more benefit: All the units that belong to one station work simultaneously. This guarantees permanent goods access and reduces waiting times to a minimum.

### Benefits at a Glance:

- High picking performance and no waiting times through batch picking
- High picking accuracy through Pick- and Put-to-Light technology
- 24/7 availability

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– High picking accuracy through Pick- and Put-to-Light technology

– 24/7 availability



# Kardex Remstar Horizontal Carousel:

## Discover the horizontal dimension of your storage space



1

Carrier payload:  
1,000 lbs. 1,500  
lbs. 2,000 lbs.  
(450 kg. 680 kg.  
900 kg)

2

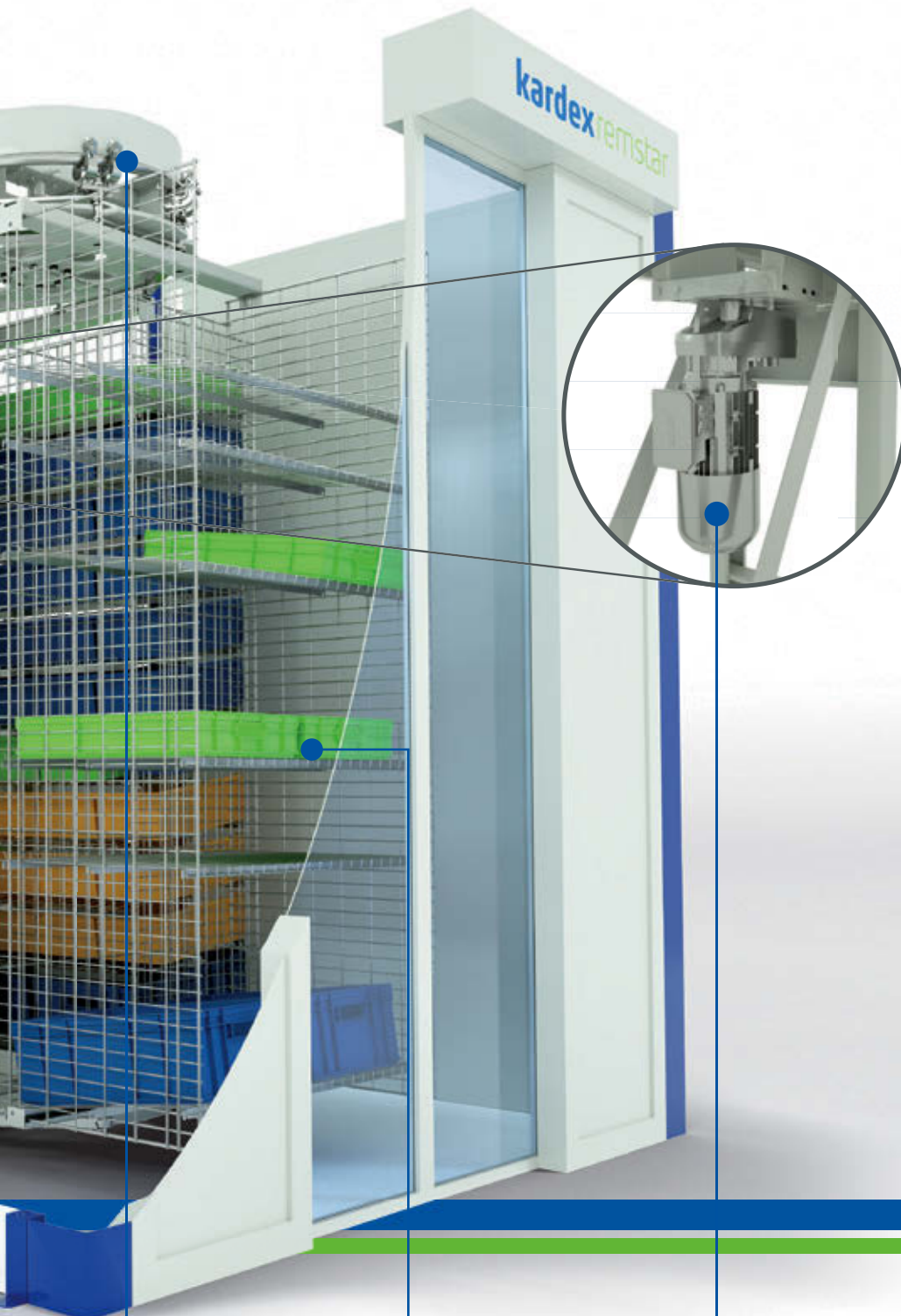
Flexible shelf spacing:  
– Adjustable carrier spacing 1.5" (38 mm).  
– Multifunctional shelf with integrated front lip that can be positioned in a forward or backward tilt or rotated 180 degrees.  
– Increased load flexibility with 200 lb reinforced shelf.

3

The useable carrier height of the Horizontal Carousel is between 6 ft and 12 ft (1.80 m and 3.65 m).

4

Robust, reliable and low maintenance unit due to its self-lubricating bearings.



## Technical data:

### Unit dimensions

#### Carousel length:

19 ft to 153 ft  
(5,900 mm to 46,700 mm)

#### Number of carriers:

Max. number depends  
on the carrier width (CW)  
CW 24.5 in : 16 to 120 carriers  
CW 32.5 in : 14 to 100 carriers  
CW 37.8 in : 12 to 90 carriers

### Carrier

#### Carrier width:

24.5 in, 32.5 in, 37.8 in  
(622 mm, 825 mm, 960 mm)

#### Carrier depth:

18 in, 22 in, 24 in  
(460 mm, 560 mm, 610 mm)

#### Carrier height:

6 ft to 12 ft  
(1,854 mm to 3,658 mm)

### Load capacity

#### Carrier payload:

1,000 lbs, 1,500 lbs, 2,000 lbs  
(450 kg, 680 kg and 900 kg)

#### Capacity per shelf:

200 lbs (90 kg)

### Performance data

#### Rotational speed:

85 ft/min (24 m/min)

Motors: 1.5 kW or 2.7 kW

### Shelf spacing

Standard: 1.5 in (38 mm)

Special spacing available on request

### Options

Carrier with closed rear wall  
and/or side walls made of  
plexiglass

Shelf lock

5

The height of the Horizontal Carousel can be between 7.2 ft and 13.5 ft (2.20 m and 4.10 m).

6

The rotational speed is 85 ft (24 m) per minute.

7

The motor inside the unit allows multilevel stacking.



# Kardex Remstar Horizontal Carousel: The carrier concept for maximum flexibility



**The modular carrier and shelf concept by Kardex Remstar provides operator comfort, increased stability and maximum security.**

## **Carrier design with 1.5" (38 mm) spacing**

A smaller spacing of 1.5" (38 mm) and twice the number of hook options for shelves: This is the formula for success of the Horizontal Carousel for increased warehouse capacity and flexibility. With a determined shelf spacing and using standard bins, you can gain one or several shelf levels.

### **Example 1:**

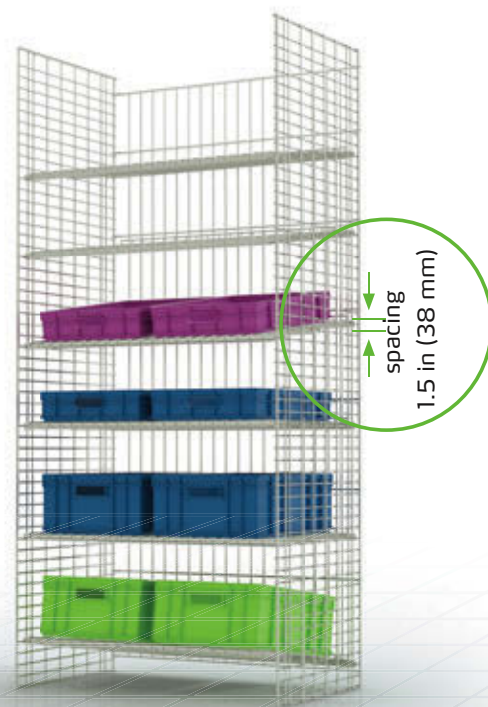
Tote/bin height 5 in – 6 in (130 mm - 160 mm) and carrier height 6 ft (1,854 mm)

**1 additional shelf level**

### **Example 2:**

Tote/bin height 5 in – 6 in (130 mm - 160 mm) and carrier height 7 ft (2,159 mm)

**2 additional shelf levels**



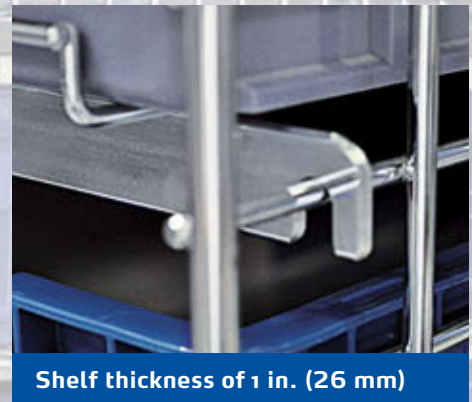




1.5" (38 mm) spacing



Shelf with 180° rotation



Shelf thickness of 1 in. (26 mm)

**EXCLUSIVE:**

**Shelf with 180° rotation**

Each product is different, each customer is different and has their own reoccurring challenges. This new modular concept for standard carriers and shelves can address any challenge. Shelves can be easily reconfigured in the way that suits the customer best. Through the 180° rotation, the shelves can be used in multifunctional ways – for a significantly improved handling of the goods and, thus, more flexibility in storage and retrieval.

Mounting the shelves:

- **tilted forwards (NEW)**
- **horizontal (NEW)**
- **tilted backwards**

The 0.5" (14 mm) lip on the edge of each shelf prevents the stored goods from slipping out of the shelf when the shelf is horizontal or tilt forward orientation.

**EXCLUSIVE:**

**Shelf thickness of 1 in. (26 mm)**

Shelves need to be able to carry and withstand heavy goods. The robust shelf helps to reduce shelf deflection and bowing with heavier loads.

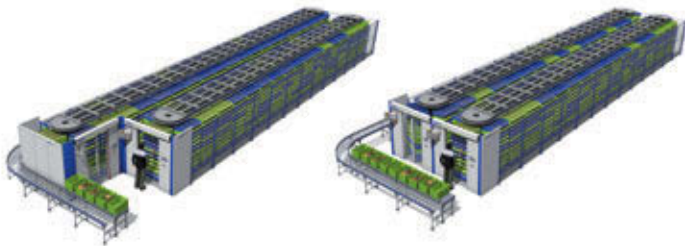
As an option, a shelf lock can be installed to minimize the vibration noise of unloaded shelves.

# Kardex Remstar Horizontal Carousel: For higher performance and fast delivery times



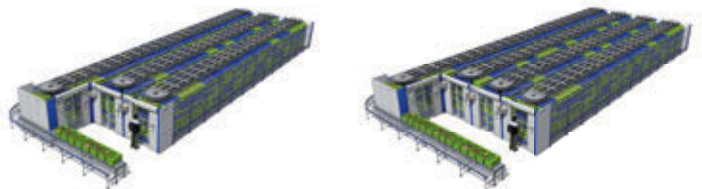
**For higher picking performance, Horizontal Carousels are usually arranged in stations. Depending on the installation size and concept, a number of different layouts are possible:**

## Dual station



The L-shaped dual station, with the access openings arranged in a right angle to each other is suitable for a room height of up to 9 feet (3 meters) and can be comfortably operated by just one person. Moreover, the L-shape reduces the travel distance of the picker by 3 feet (1 meter) compared to the I-shape, which improves goods handling and saves time.

## Triple and Quadruple stations



Triple and quadruple stations are ideal for a wide range of items that require frequent access. The unit layout is usually L-shaped but alternatively, the layout can be U-shaped or if all machines have the same length I-shaped. These layouts allow for picking with several operators.



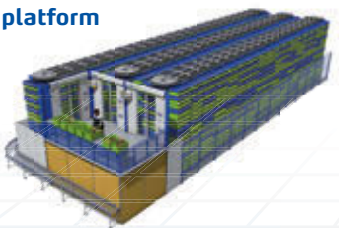


## Multilevel stations

### Multilevel station



### Tall station with lifting platform



For more comprehensive systems, multilevel stations can meet the requirements of a great variety of different material flow strategies. In multilevel stations with protruding platforms – here, two or three Horizontal Carousels can be stacked one on top of the other – allowing for picking and putting on different floor levels. Each level operates independently with the operating and picking stations located on the respective floor level. A conveyor system can be used to move material between the different levels. The multilevel stations are suitable for a maximum room height of 29 feet (9 meters).

With a tall station, existing overhead warehouse space is put to optimum use. A lifting platform always brings the operator to the appropriate height for ergonomic picking. To optimize time management, the height of the installation is divided into two to three picking zones by the Power Pick Global, warehouse management software: All items in one zone are picked before the lifting table moves to the next zone.

As you can see: The variety of possible combinations with Horizontal Carousels from Kardex Remstar is virtually endless. Our experts will gladly meet with you to find the solution best suitable for your individual requirements.



# Kardex Remstar Horizontal Carousel: Easy to operate for high precision



## Increase your success and optimize your throughput with Pick-to-Light technology by Kardex Remstar!

### Paperless picking

Pick lists on paper, excessive time spent searching, incorrect deliveries and stock shortages are a thing of the past: The touch screen operation terminal, display panel with all relevant picking information, Pick-to-Light/Put-to-Light displays, and confirmation buttons allow for fast, easy and paperless picking. Furthermore, peripheral devices such as printers, scanners and other displays can be integrated into the system with the appropriate software.

### No leeway for picking errors

Every pick counts. Unfortunately, every mispick does, too – for this costs time and money. The direct way to efficient picking and putting are Pick- and Put-to-Light technologies. They are used anywhere where high picking speed with a low error rate is required, and facilitate the allocation of goods and orders for the operator.

### Put / Batch Lights

No matter if it's about storage or retrieval of goods: The crucial factors for the outcome of the working process are accuracy and speed. By using Put- and Pick-to-Light techniques, you can optimize your workflows – which in turn results in an improved profitability.





**Information on the exact position and quantity of items to pick is communicated to the operator through screens and optical displays.**

**The Kardex Remstar Pick-to-Light technologies impress with five main functions:**

1. Storage and retrieval of items
2. Allocation of articles and orders
3. Information flow  
(quantity, description, etc.)
4. Process confirmation
5. Multi User Picking

#### **LED shelf display**

When doors are integrated into the Horizontal Carousel workstation, the LED shelf display is integrated into the side of the door. It signals the operator from which shelf they need to pick. For optimum adjustment to the tote/bin height, the LED position can be moved at a distance of 3 in. (76 mm).

#### **Pick- and Put-to-Light displays**

Information on the exact position and quantity of the items to be picked is conveyed to the operator via LED lights that are located on the pick light tower positioned next to the carousel.

**Information on other applications can be found on our website by clicking of the reference area: [www.kardexremstar.com](http://www.kardexremstar.com)**



# Kardex Remstar Horizontal Carousel: 9 reasons for optimum picking performance

**Kardex Remstar's formula for success: optimizing your productivity and increasing your throughput while reducing space requirements and achieving greater transparency in your warehouse.**



## Benefit: **Productivity**

With the "goods to person" principle, the requested items are transported to the operator – fast, directly and reliably – without any unproductive travel and search times. To accomplish this, the Horizontal Carousel always takes the shortest path to the access opening. The display-tool-feature shows the operator which goods and what quantities to pick from which storage location.



## Benefit: **Picking performance**

Simultaneous, independent travelling movements of multiple Horizontal Carousels in one combined station allow for a very fast overall system and high pick performance. One operator can work off 200 to 400 positions per station and hour. Optical displays on the machine and on the picking station allow for a pick and put accuracy of over 99%.



## Benefit: **Batch picking**

Paperless picking is possible while delivery notes and other relevant documents can continue to be printed. The warehouse management software combines several orders into a picking batch via PC control, allowing operator to pick multiple orders with reduced movements.



## Benefit: **High payloads**

The Horizontal is ideal for storage and retrieval of small and medium sized items. Moreover it is capable of storing items with a maximum payload of 54 tons. The load capacity is chosen according to the application.





5

## Benefit: Optimum space utilization

Items are stored compactly in a confined space; this eliminates unproductive travel and picking routes within the warehouse. The actual picking zone is as small as 54 to 108 square feet (5 to 10 square meters).



6

## Benefit: Reliability and compact design

From development and manufacturing to customer service: The Horizontal Carousel is a compact, reliable, low-maintenance unit with nearly 100 % availability – ensuring consistent and long-term operational safety.



7

## Benefit: Variability

To achieve high throughput during peak times and meet seasonal picking requirements the system can be divided into different stations at the push of a button. Thus, it's possible, for example, to have a system of four Horizontal Carousels operated not only by one person, but by several people simultaneously.



8

## Benefit: Safety

The Horizontal Carousels meet the highest safety requirements: The systems are closed all around and are surrounded by a safety fence which prevents accidents and protects from unauthorised access at the same time. Furthermore, the access opening on the station front side is equipped with safety doors that open and close automatically.



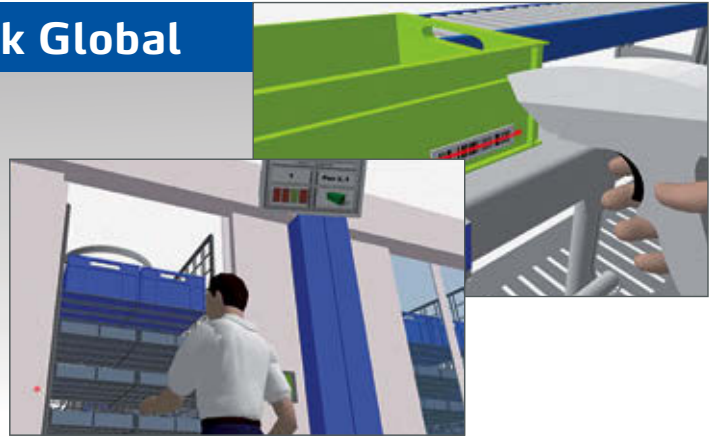
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## Benefit: Flexibility

The Horizontal Carousel is suitable for a variety of different applications and can store a diverse number of items. Within the carriers, you can choose individual shelf spacing and adapt them to the respective goods to be stored. Thus, even the efficient storage of bulky items is possible – up to the entire carrier height.

# Kardex Remstar Horizontal Carousel: The software innovation for controlling storage and retrieval solutions

## Functional principle of Power Pick Global



**Pick goods in dynamic storage systems quickly and ergonomically, significantly reduce picking times, unlock valuable storage resources, and increase productivity: With Power Pick Global you are perfectly equipped to adapt flexibly to changing demands now and in the future.**

### Efficiency

Several pickers can work simultaneously on a Horizontal Carousel (multi-user picking). Productivity is additionally increased by the integration of Power Pick Global in your workflows: It allows you to optimize batch orders, multiple order picking and time-optimized movement of storage systems (HoriOpt) to maximize up time and increase throughput.

### Accuracy

From the standard validation via barcode, handheld scanner or weight control to a wide range of others such as Pick-to-Light, Put-to-Light, Laser/LED Pointer: Kardex Remstar Power Pick Global reduce operator errors and increase picking accuracy to levels up to 99 %.

### Security

Thanks to the software integration, user and group rights can be controlled and managed; each access to the system can be tracked.

### Integration

From easy «Plug and Play» and middle-ware to customized solutions – all Power Pick Global software solutions are based on the latest Windows® technology\* and can interface with the majority of tier one and tier two WMS and ERP providers.

### Modularity

From the smallest store to a complex distribution center: Power Pick Global can be perfectly tailored to your requirements – with future security included in the package. This is because we carry out continuous development and expansion of the Power Pick Global system.

Besides individual configurations, the software is also available in predefined solution packages:

- **Smartpick 6000**  
Software package for professional picking with high pick rate
- **Smartpick 5200**  
Professional picking with high pick rates – specially for electronic industry

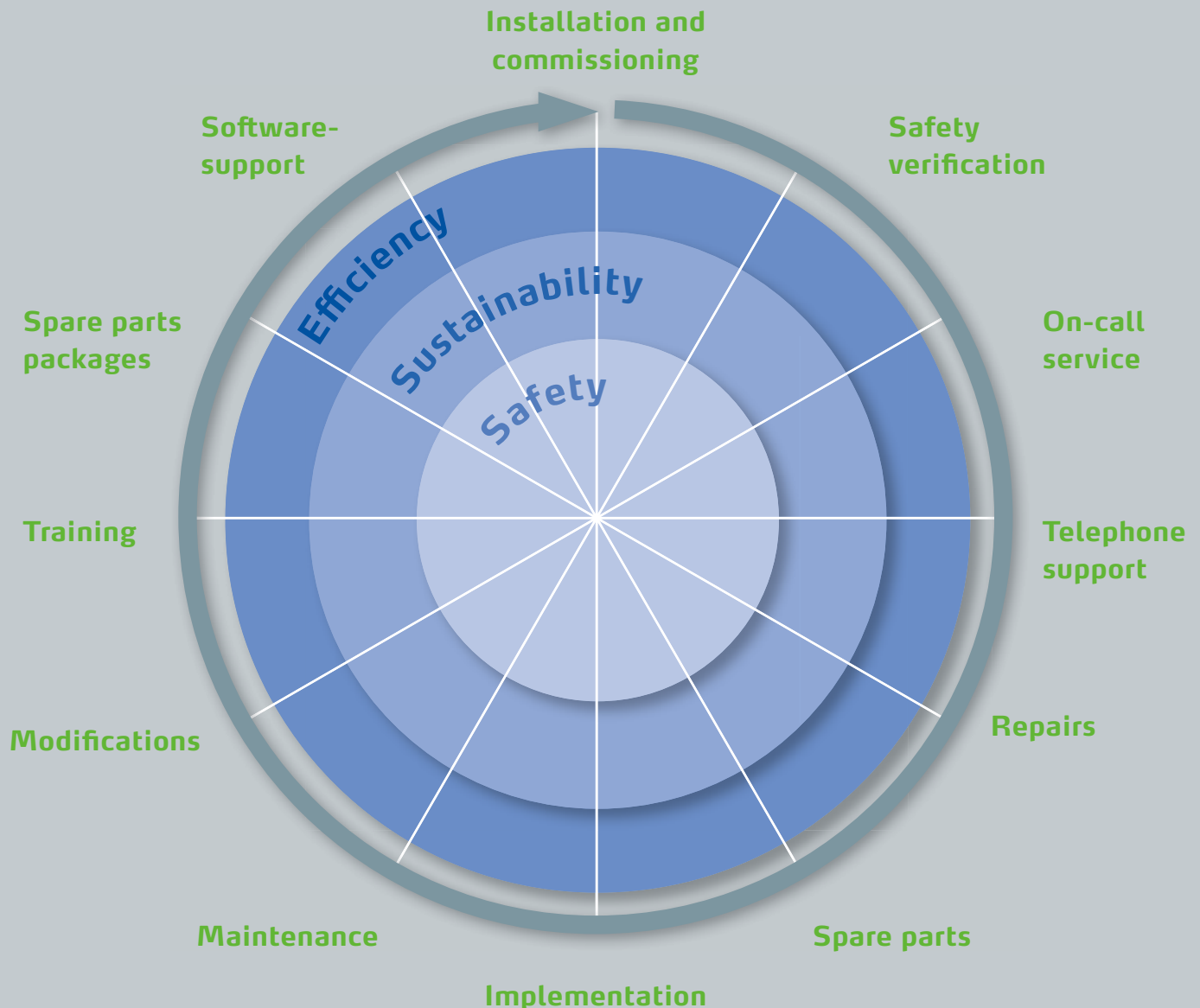
### Benefits at a Glance:

- High picking performance
- At peak times, you can flexibly react to the increased requests
- Increase of picking accuracy to 99%

\* Windows® is a registered trademark of the Microsoft Corporation.



# The Kardex Remstar service principle: 3 levels for your success – and more efficiency, sustainability, safety



Further information:  
[www.kardexremstar.com](http://www.kardexremstar.com)

**Do you want more service?**

No problem:  
Our service management will develop  
an individual concept together with you.  
Give us a challenge!

# Kardex Remstar: Always close to you – Worldwide



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**Further information:**  
[www.kardexremstar.com](http://www.kardexremstar.com)