



EVALUATING KARDEX FOR E-GROCERY FULFILLMENT

Superior picking efficiency with lower delivery costs

Goals - Cut the Cost of Picking Labor by 75%

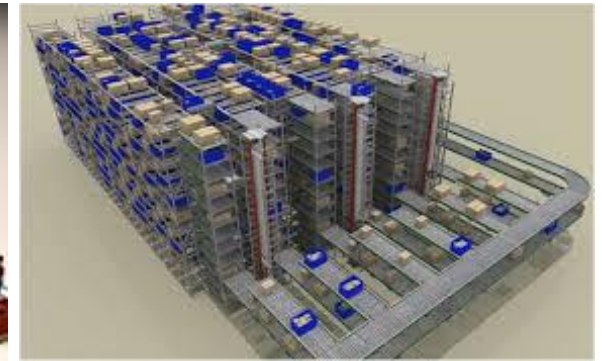
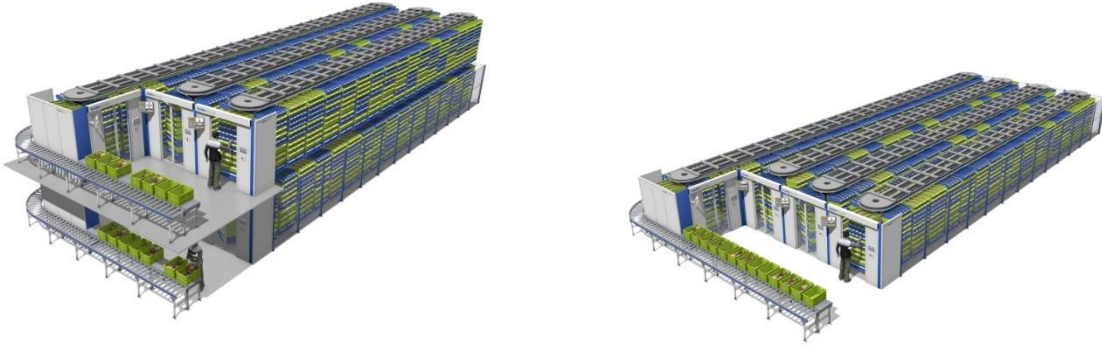
- Provide a simple solution to cutting the cost of in-store picking labor
- Eliminate the bottlenecks of picking labor in the store aisles
- Improve out of stock inventory by automating the back room
- Implement the system incrementally at one-third the cost of Takeoff, OPEX or Dematic



Horizontal Carousel

VS

Shuttle Tote Technology

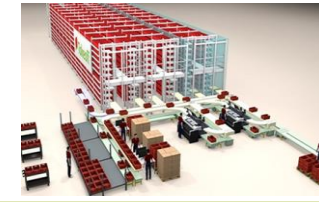


Simple

VS

Complexity

Comparison



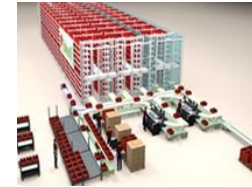
Comparison of Systems

Kardex Horizontal Carousels

Takeoff OPEX Dematic

System Picks per hour*	3488	1500
Cost per Cubic Ft of Storage	\$78	\$350
Cubic Feet of Storage	21,400	
Square Feet Required	5000	
Picks per person per hour	441	
Equipment Cost	\$1,670,000	
Labor Savings per year	\$ 2,219,299	
ROI	9 Months	

*Based on two picker per workstation during peak



Comparison of Systems	Kardex Horizontal Carousels	Takeoff OPEX Dematic
Start Small Scale as you Grow	✓	
Ability to double capacity by adding 2 nd Picker to each workstation	✓	
Ease of Installation	✓	
Proven Reliability	✓	
Accessibility if equipment is down	✓	
Requires Automated Bots to retrieve totes and automated workstations prone to failure		✓



Comparison of Systems

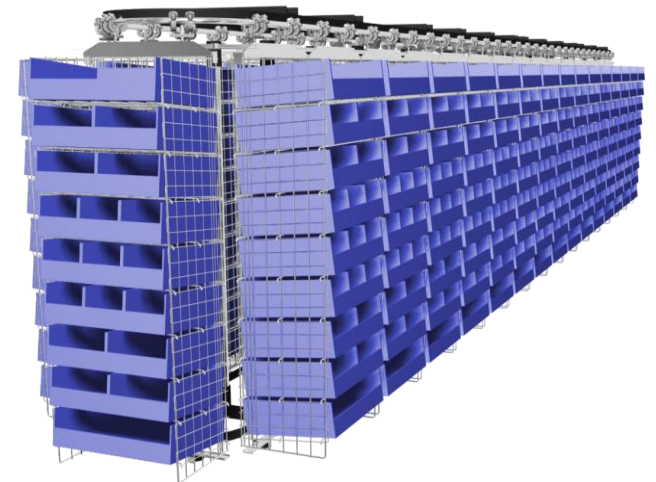
Kardex Horizontal Carousels

Takeoff OPEX Dematic

Annual Maintenance Cost	✓	
Kroger owns the Software with Simple JMIF Interface	✓	
Nationwide network of 24/7 – 365 Service Technicians	✓	
Proven off the shelf fully integrated software solution in 6 languages	✓	
Has the ability to double stack to take advantage of those locations where high density is required	✓	
The most economical and fastest way for Kroger to outflank the competition	✓	
Backed by a Billion Dollar Public Company (not a startup)	✓	
Safest Strategy no Risk	✓	
Automate large bulky items; brooms, paper items, dog food	37" x 24" x 84" Bin 1000 lbs capacity	
The most reliable automated storage system in the world with the most proven installations	✓	

Horizontal Carousel

- ❖ Proven – Reliable – Workhorse
- ❖ Economical
- ❖ Faster than Shuttle Tote Tech
- ❖ High Capacity
- ❖ Ability to add 2nd Picker to workstation during Peak
- ❖ Scalable

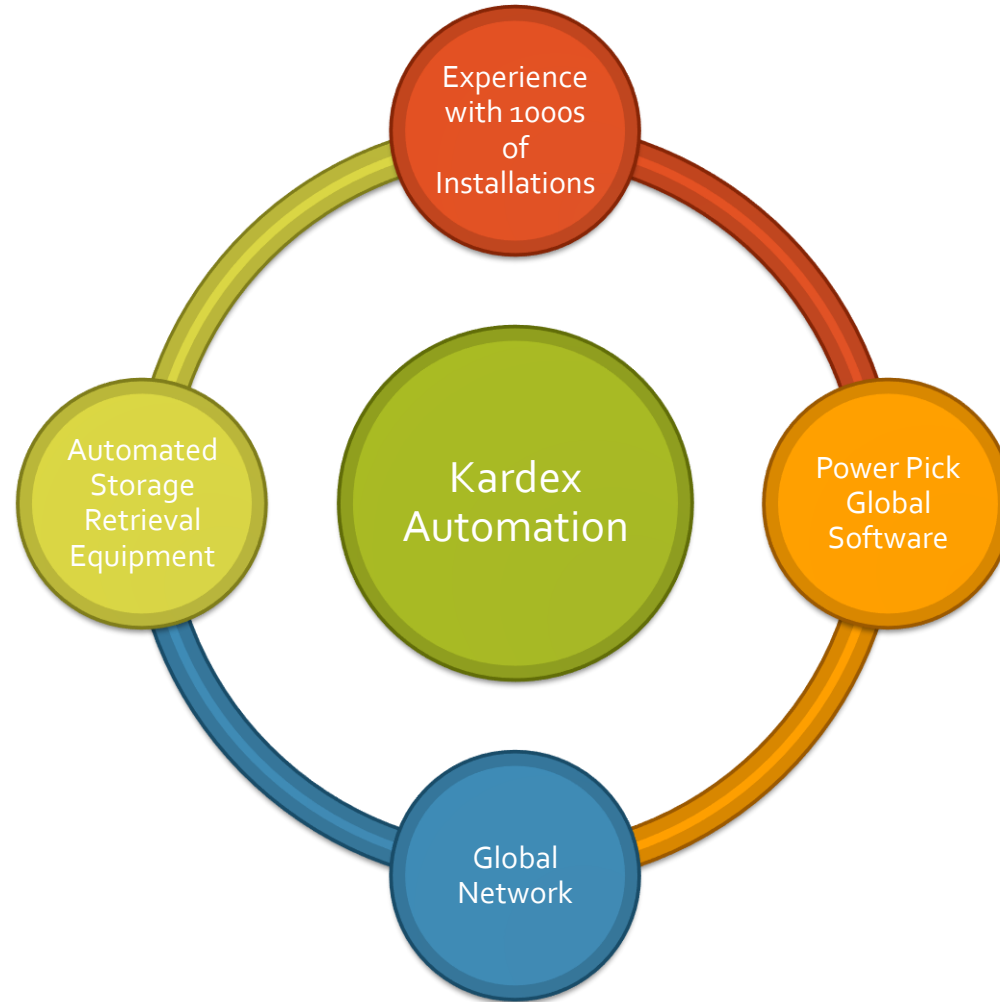


Kardex High Speed GHC

Kardex High Speed Model 12 Carousels - 4 Workstations	GHC-20 Bin	GHC-40 Bin
System Picks per Hour with 2 persons per Workstation	3488 picks per hour	3488 picks per hour
Cubic Storage Capacity	10,716 Cu. Ft. of Storage	21,420 Cu. Ft. of Storage
Cost Installed	\$1,114,000	\$1,670,000
Picks per Person per hour	441	441
Equipment 10 Yr Cost per pick	1 cent each	1.3 cents each
Cost per Cubic Foot	\$104	\$78
Conveyor Estimate additional	\$100,000	\$100,000

Labor Savings per Year	GHC-20 Bin	GHC-40 Bin
Cost Installed	\$1,114,000	\$1,670,000
Automated Picks / Person / hour	441	441
Manual Picks per hour	72	72
Savings per year	\$ 2,219,299.32	\$ 2,219,299.32
ROI	6 Months	9 Months

Our Strengths



The logo for Kardex Remstar, with 'kardex' in blue and 'remstar' in green, both in a sans-serif font.

kardexremstar

Kardex Remstar - A Brand You Can Trust

Kardex is one of the world's leading suppliers of automated storage and retrieval systems.

We have successfully installed more than 140,000 systems in manufacturing, distribution, warehouse, office, government and retail sectors since 1873

Kardex Group Kardex Remstar is a division of the Kardex Group, located in Zurich, Switzerland and is publically traded. Employing more than 2,000 people worldwide, our customers benefit from our expertise, service, support and training worldwide.

Worldwide Coverage The Kardex Remstar network is supported throughout the world by direct and distributor employees.



Investment in Kardex Automation will cut your picking labor cost by 75%

Fast Scalable Solution

The most economical automation available

Dependable - Reliable - Proven

Off the Shelf Software Solution easily integrated with Baymax

Key Benefits

Next Steps

Order Data

Submit Order Data to Kardex

- We will conduct analyze the findings.
- Then, we'll submit a plan based on order activity for evaluation.

Site Selection

Submit Site Selection to Kardex

- We will survey the site location
- We will provide a detailed proposal and drawings
- Implementation Plan for installation, training and Software

Pilot Program

Submit Pilot Program PO to Kardex

- Kardex will manage the installation of an automated solution
- We will provide 24/7 technical and software support