

Solution Guide

Kardex Color Pick System





Improve order fulfillment

Efficient and modern order processing is even more important today than yesterday. Internal processes must be put to the test over and over again, and new challenges keep surprising us. The retail sector increasingly requests “on-demand” orders with shorter delivery times.

It's no secret that demand fluctuation is also a big challenge for manufacturers and distributors, but this problem has become even more apparent recently. In fact, many fast-moving consumer goods (FMCG) manufacturers and distributors are experiencing their highest spikes ever. They are facing an unprecedented predicament right now! How to produce an overwhelming demand for essential FMCG (e.g., prepared food, cleaning products, non-prescription medicines, toiletries) while facing a surge in e-commerce sales. The answer starts with an underlying foundation: a well-organized and efficient production and order fulfillment process.

This guide will explain the benefits of the Kardex Color Pick System and show the strategies for warehouse managers to



Improve order fulfillment



Maximize order processing



Manage fluctuating order volume



Reduce space and minimize intralogistics costs

System overview

Combining daily, weekly, or seasonal order demand fluctuations with a rapidly growing company leaves supply-chain managers eager for a solution. The Kardex Color Pick System is an extensive picking strategy for your order fulfillment.

Why the Kardex Color Pick System is the right picking strategy?

The Kardex Color Pick System uses colors to guide multiple operators through the picking process. The flexible and simple process of the system allows warehouse managers to add or reduce staff based on current order demands. It improves performance, increases picking throughput, and optimizes labor costs.



 Watch the KICKS Customer Video.

How the Kardex Color Pick System works

A typical Kardex Color Pick System work zone could include six Vertical Carousel Modules (VCMs) – three on each side with a pick lane between them. Orders are transferred from the host system to the Kardex Power Pick System. The operator creates batches of orders based on customer criteria (e.g., required delivery date, shipping method, line of business).

When the batch starts, the system automatically assigns a color to the cart and all units with order lines for that batch show the matching color and retrieve the items. All carts consecutively pass through each area. The operator follows the colors during the entire picking process, allowing the worker to pick and put goods easily and quickly with the correct order (box in the cart). The same cart is assigned a different color in another storage area or in a new batch.

Each operator processes items as they are displayed. When there are no more lines required for the batch, the cart moves on to the next work zone for fulfillment or to shipping, and the following cart gets activated (new color). Each item is a new process – there aren't fixed assignments between operators and orders/carts. Any number of operators pick in one area or jump in to support another area.

- + Kardex solutions, such as a Kardex Shuttle or Kardex Megamat, store and automatically provide picking materials.
- + A display shows the color, article, quantity, and destination/cart position.
- + The operator confirms the pick.
- + The matching cart shows the matching color. Numbered compartments ensure accuracy.
- + Operators know where to pick next when they see a nearby storage system display a colored pick screen.
- + Operators can pick and put batches simultaneously.

An example

The batch for the green picking cart starts. One or more operators pick articles from the picking locations with a green display. They place them into the corresponding cart's correct compartment. As soon as the storage system is empty, the display turns to the next color. Then, the blue cart comes into this zone. This is how dynamic zones, where any number of operators may process batches, are created.

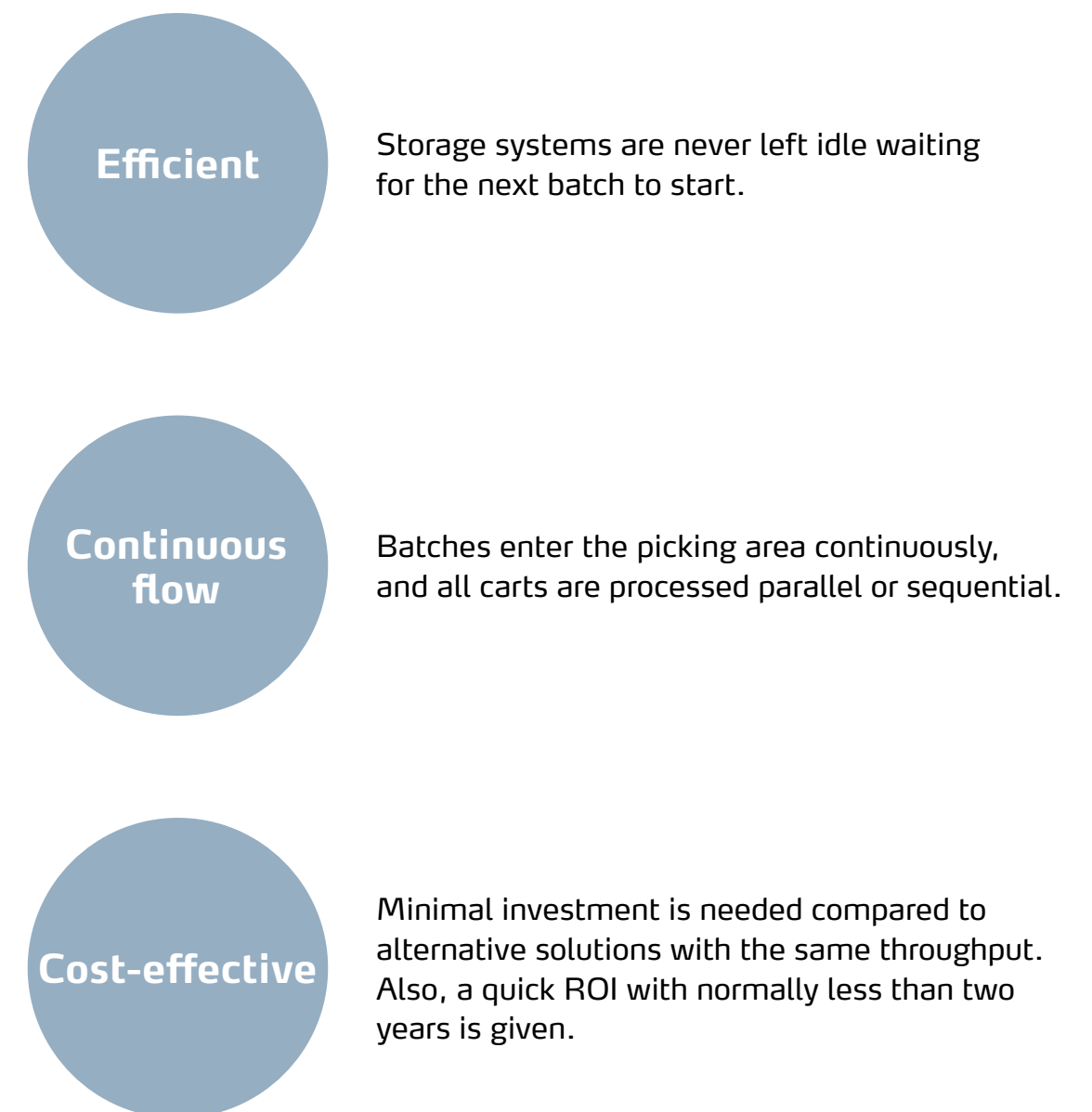
There may also be the case that a unit does not contain any articles for a batch and then skips this color. If, for example, a unit has no articles for the upcoming blue batch after the green batch finishes, it switches directly to red. Within the zones, however, there is no overtaking. This means that the red operator will not overtake or pass the blue picking cart, but he/she might support the blue batch operator. This prevents deadlocks within the zone.

The aim is to get the carts through the aisle(s) as quickly as possible, one after the other.



Why the Kardex Color Pick System?

With the Kardex Color Pick System, fluctuating demand is no longer a challenge. Throughput and work efficiency both increase. The Kardex Color Pick System is faster and more cost-efficient than other picking processes for several reasons:



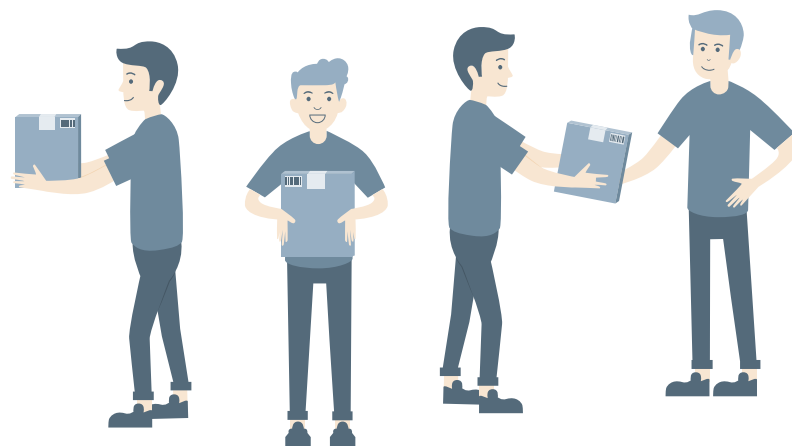
Characteristics of the Kardex Color Pick System

Efficient order fulfillment is your all-around tool to combat fluctuating demand, high costs, inventory chaos, limited warehouse space, and short delivery times. To enable sustainable growth and high performance, we outlined 6 features of the Kardex Color Pick System, that will optimize your fulfillment process.

Easily adjust labor resources to meet order demands

With the Kardex Color Pick System, it's easy to increase and decrease staff based on order demand. The picking process is flexible and doesn't require significant system changes. Several operators support one another by working simultaneously on the same batch. The number of staff needed for the Kardex Color Pick System is determined based on order demand – fixed overhead staff costs are not necessary.

The labor used within the system can scale to meet order demand at any given hour. Let's look at an example: On Monday morning, you are surprised to find order volume very high. No problem – add a team of six operators. If suddenly on Tuesday morning order demand drops by 70–80%, reduce your workforce to two operators.

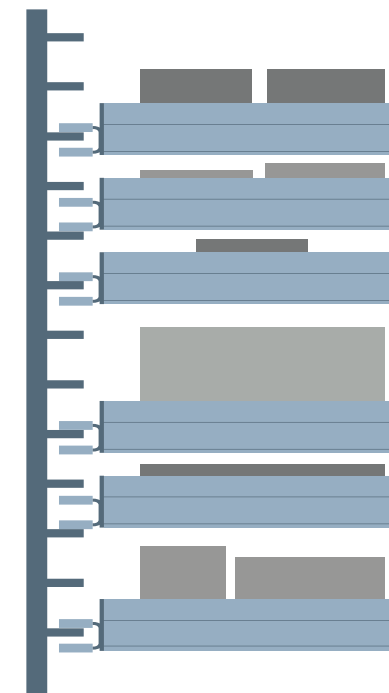


Manage a variety of products

Kardex systems are flexible enough to balance the seesaw of order fluctuation and they efficiently manage a variety of products in the same unit regardless of their shape or size. If we take a look at the Kardex Color Pick System, it uses a combination of ASRS. This enables you to implement different systems based on the needs of the goods that will be stored and picked. A Kardex Color Pick System solution easily extends to more units, as demand grows. For example, if you start with small-sized parts with a VCM, you can transition the solution to cover medium-sized parts with a Vertical Lift Module (VLM).

Changes in demand (e.g., new or seasonal articles) require a reorganization of the storage locations from time to time. The integrated WMS Kardex Color Pick System organizes inventory and their storage location in all ASRS units.

The first in, first out (FIFO) principle can be used to manage all articles. If one storage location is empty after the last picking process, it automatically becomes the next replenishment spot. You decide the picking rules based on what works for your business.



Ensure constant availability of products

Continuous availability is essential for an order fulfillment process to be efficient. Instead of wasting time searching and waiting for a replenishment, critical products must be available when requested. The WMS system guarantees articles are distributed equally between the various ASRS units. Products stored in numerous units are still available even if one unit needs maintenance or has a system failure.

The system also shows real-time inventory counts, so that you always know what you have on hand. Reorder points take this one step further by signaling when stock is low.

The Kardex Color Pick System also maximizes pick and put times. The inbound process happens in sync with the outbound process: operators simultaneously pick and put. A typical day might require picking during peak times and then a mix of picking and putting the rest of the day.



Manage multiple order lines for higher performance

Also known as batch picking, the Kardex Color Pick System fills orders in batches. Several orders are combined into a batch and processed at once. Using colors allows several operators to pick from dynamic work zones, filling multiple orders at a time. Colors are an easy way to direct the operator to the correct pick location and matching batch cart.

The result is significantly higher throughput, reduced search time, and fewer errors. With the Kardex Color Pick System, picking performance increases 100–300%. Up to 300 order lines per hour per operator are possible.

Easy and fast employee training

It's critical to have a fulfillment system that's easy to use with minimal training required. With the Kardex Color Pick System, training takes no time at all. New employees start immediately – they simply need to follow colors and display instructions.

In addition to being efficient, this is also quite cost-effective. The number of operators adjusts as needed. When demand spikes, employees from other departments or with other tasks easily jump in to help.



Enable business growth

The Kardex Color Pick System solutions are modular, scalable, and cost-effective. The up-front initial investment is comparably low considering the output received. It's possible to start small and then grow as the business grows or adapt as inventory changes (e.g., starting with small-sized parts and adding medium-sized parts later).





About Kardex

Kardex is a worldwide industry partner that offers semi and fully automated intralogistics solutions. Its global footprint allows a strong basis to provide sales and services worldwide.

Local specialists assist customers from project analysis to realization and provide service throughout a solution's entire life cycle. When you are ready to take your intralogistics to the next level, contact a local team member for a complimentary, on-site consultation.



Contact a specialist