Solution Guide

Warehouse Automation

kardex

Warehouse automation for e-commerce

Are you lost in a warehouse of chaos with valuable products missing? Or have you already met your time and space-saving hero – an automated warehouse system?

As the e-commerce industry has grown, so have customer expectations. Today customers are placing orders more frequently, in fewer quantities, later in the day and expecting delivery faster than ever before. Customers now consider 2-day delivery slow with next-day and even same-day delivery becoming the standard. Shoppers think globally, demand personalization, desire immediate results, and request return refunds without a second thought. Although it doesn't have to be, it's difficult for many companies to keep up with this momentum. Often, we see those that are just launching their e-commerce sales channel or considering expanding struggling with intralogistics. The companies are suffering from obstacles:
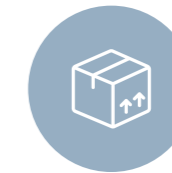
Space, accuracy & labor problems in the warehouse

Loosing consumer loyalty as a result of delivering incorrect orders

Incapability of managing personalization

Letting down shipping expectations

Where do you want to be?

When B2B warehouses can't deliver as promised, chaos is the result. Suppliers are left looking foolish and without the goods they need. Construction crews without materials, hospitals without supplies, car dealers without prime shopping week inventory: multiple layers of supplier disappointment and revenue impact can occur. On the B2C side, what's worse than ordering a birthday gift online to have it arrive late and in the wrong color?

According to Statista, the global e-commerce market is expected to grow by 8.9 percent annually until 2023. How does your business fit into this growth and will your warehouse operations help you reach your goals? Is your e-commerce channel just starting to grow? Are you out of warehouse space with your current set-up? Have there been some bumps along the way?

The table illustrates two scenarios: which do you prefer?

Traditional process: person-to-goods	Automated warehouse process: goods-to-person
50 lines per hour picked	600 lines per hour picked
120 bays of static shelving	Two Horizontal Carousel Modules (66% space savings), two Vertical Carousel Modules (75% space savings) or a single Vertical Lift Module (85% space savings)
Static, open shelving may result in dirty, dusty and potentially even expired inventory	Inventory Management Software equipped with a FIFO (first in, first out) or LIFO (last in, first out) picking, decreasing the risk of dirt and dust impacting stock
Overwhelmed by inventory, workers make errors	Picking accuracy of 99%
The height of a storage unit is determined based on the height of the staff – staff must be able to physically reach the items	Storage space is created based on the height of the ceiling, utilizing the maximum building height – automation enables the use of overhead space that would not normally be accessed by picking staff

Technology

Process

Improvement

Automation

Innovation

Productivity

Digital

Reliability
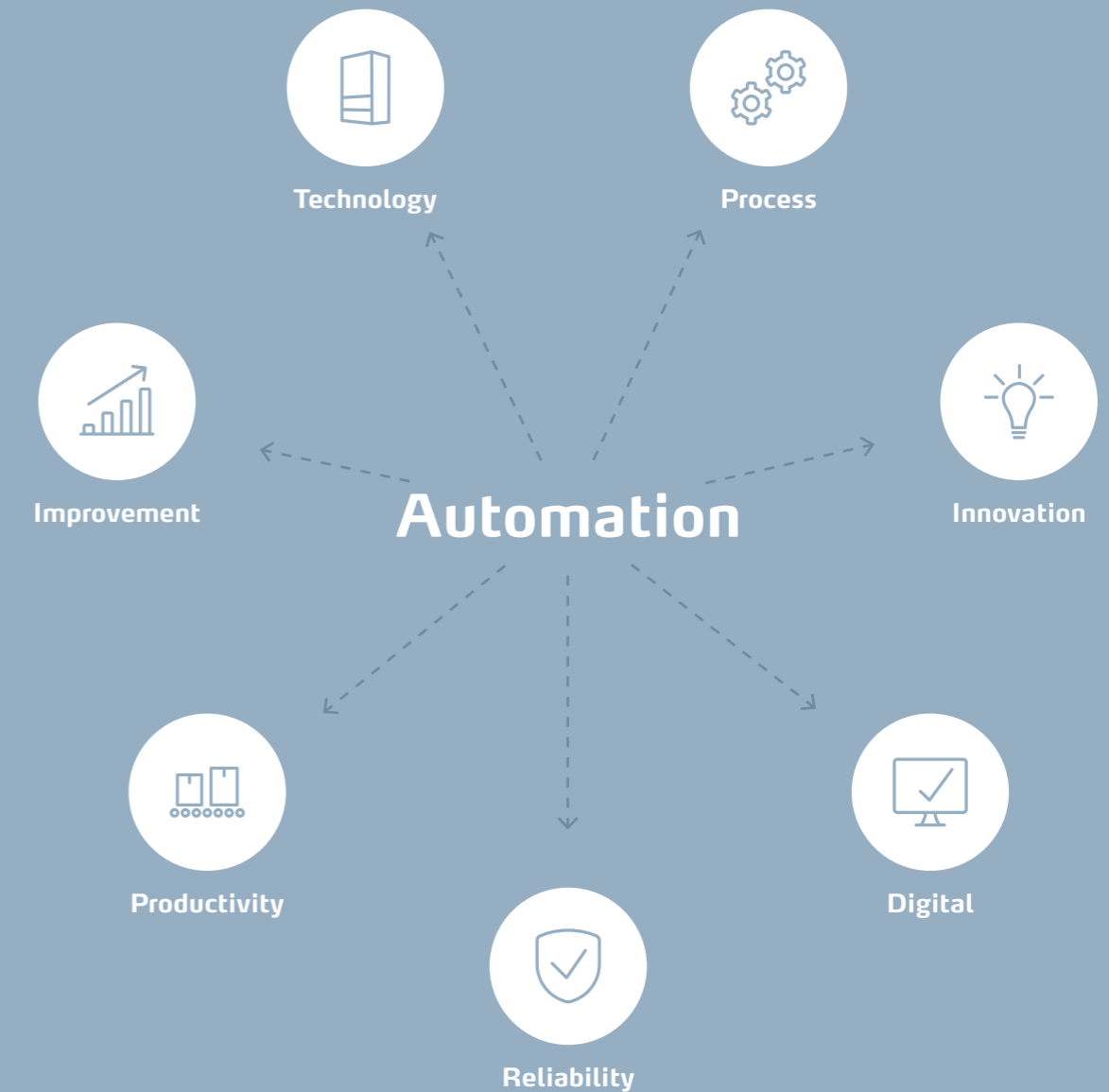
How to move forward?

According to Mark Dunaway, Kardex Remstar's North American President Finance and Administration, "over the next 5–10 years, the industry is going to see more automation with advanced capabilities, and with a much heavier reliance on automation and robotics. In fact, we think it will begin to grow even faster than demand for storage and retrieval equipment has. The idea of a 'dark building,' where robotics and automation run autonomously 24/7, is definitely making headway."

As companies transition to automated warehouse systems, the intralogistics industry will also change and grow. It's important to research and evaluate the best solution and find a reliable intralogistics partner.

Questions to consider when transitioning to warehouse automation should include:

How can I measure the strategic investment's long term profitability?

Do hardware and software adjust to sales peaks and inventory expansions?

Will a new system enable me to meet my goals?

Does the intralogistics partner have a strong reputation for providing excellent service?

Kardex Remstar Tip

To better envision how automation can improve a warehouse, it's helpful to see it in action. Businesses interested in partnering with Kardex may visit a current customer's facility allowing a first-hand look. During a visit, a Kardex representative will point out how the automated operations are currently working as well as how the equipment can adapt to meet peak seasonal shifts such as major holidays like Christmas or Black Friday and adjust based on customer behavior changes and long-term growth.

Inside Chocolate World's warehouse

Recently Kardex Remstar helped Chocolate World, the Belgium based chocolate mould manufacturer with customers in more than 110 countries, optimize their warehouse logistics. With the installation of two Vertical Buffer Modules Kardex Miniload-in-a-Box* and Kardex Power Pick System, they can now:

- Ensure same-day dispatch for orders placed by 3 pm
- Manage up to 500 orders and store 2,736 customized boxes per day
- Give their employees the tools to guarantee precise inventory overview and storage locations
- Keep operations flowing without intense employee training

This is one example of a business Kardex Remstar helped manage staggering change, a key component for being named #13 of the Top 20 Worldwide Materials Handling System Suppliers in 2019 by Modern Materials Handling.

* formerly Kardex Compact Buffer

Meet Kardex Remstar!

Kardex Remstar has created systems to boost order fulfillment for companies in the whole-sale, retail and e-commerce industry segments with 24-hour service and overnight delivery.

The Vertical Buffer Module Kardex Miniload-in-a-Box is one of the fastest vertical storage systems on the market, enabling businesses to increase picking performance and reduce costs. A single unit can present up to an impressive 150 storage bins per hour. To put this in perspective, that's 50% more than the number of trays a vertical lift module can present per hour. In addition, combining the solution with put frames enables to speed up order, minimize picking errors and walking distances, and optimize storage space. In fact, warehouse personnel foot traffic may be reduced by as much as 65%.

With the future in mind, systems can be implemented with minimum configuration and then expanded as required for both seasonal peaks and long-term growth.

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