



Warehouse automation – built for speed

Streamline operations with advanced technology, minimize human intervention, and optimize every step of the fulfillment process.

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FUTURE OF AUTOMATION

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speed,
built to
last.**

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Racing against the clock

Consumer expectations for fast delivery continue to reshape supply chains. The “Amazon Effect” has set new standards, making two-day and next-day shipping the norm. In industries like fresh food distribution, speed has always been critical to ensuring product quality and shelf life. As the need for rapid fulfillment grows across sectors, companies are exploring innovative ways to accelerate logistics and meet rising expectations.

Today’s consumers live in an age of convenience. A few taps or clicks and they can buy virtually anything they want in the world. But once an order is placed, it then becomes a race against the clock on the distribution side to fulfill that order—with the utmost accuracy and speed. For manufacturers, distributors and retailers, it can seem like a time trial, especially as consumer expectations for speed quickly outpace some facilities’ capabilities.

But where do these demands and expectations come from? Largely, they stem from “the Amazon

Effect,” where speeds like two-day and next-day shipping have become the norm. This has put mounting pressure on manufacturers and distributors of consumer goods to increase their supply chain velocity—whether they are shipping to stores or directly to consumers.

Yet at the same time, speed has constantly been a critical part of business in industries like fresh food distribution, where grocers and other retailers need to get perishable goods—e.g. fruits, vegetables, eggs, meats and baked goods—to store shelves

as fast as possible. Such organizations have to meet very short lead times to maintain the quality and freshness of their products and maximize shelf life.

With the “need for speed” rampant across industries, many companies are looking for innovative ways that they can accelerate their fulfillment and logistics operations.

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New ways to bolster velocity

In meeting consumer expectations, speed of delivery is not only a matter of operational efficiency, but also competitive differentiation. Those that can fulfill orders and deliver products to market rapidly and accurately have a clear leg up on their industry peers. After all, if a customer knows that you have their desired product and can deliver it quickly, they are far more likely to return. The same is true for freshness within the grocery business.

To avoid being left in the dust, many organizations are getting creative and using innovative means of bolstering their supply chain velocity. Here are a few examples.

1 Power in numbers

Some are opening multiple smaller, regional distribution centers. These mini-warehouses are strategically placed to be closer to stores and customers in a bid to shorten last-mile delivery time.

2 With a little help from friends

Others have partnered with third-party logistics (3PL) providers to extend and supplement their storage capacities and fulfillment capabilities.

3 Use what you have

For e-commerce, some have started using nearby brick-and-mortar stores to augment fulfillment from distribution centers for added efficiency. Grocery

commerce, in particular, relies on physical stores to fulfill online orders with delivery times of under two hours.

While these are all viable ways for organizations to accelerate their supply chains, one of the best solutions available now is by way of automation. No, not through autonomous truck driving—but through robotic warehouse automation.

What is the Amazon effect?

The Amazon Effect describes the impact of e-commerce—and leaders like Amazon—on traditional retail models and importantly consumer shopping behavior.

Consumers now expect

- A large variety of options to choose from
- Seamless integration between online and offline shopping
- Quick and frictionless checkout
- Rapid shipping and deliveries

Warehouse automation – built for speed

From automated guided vehicles (AGVs) to robotic order picking systems, there are numerous warehousing solutions that can store, pick and move products through a facility with high speed and precision, ensuring rapid handling and very short lead times. By design, automation offers numerous benefits for warehouses and distribution centers—including those handling perishable and non-perishable goods—to readily meet the modern demands of order fulfillment.

1 **Rapid robotic handling**

Notably, automated warehouses are up to six times more efficient than their manual counterparts. Robotic order picking systems can rapidly pick the required items from storage, assemble the orders, and prepare them for outbound shipping—far faster than humanly possible. There are also innovative solu-

tions on the market today that can perform all product handling and picking operations simultaneously. This is particularly beneficial to fresh food distribution.

Using such a solution, new products can arrive and be picked immediately, with robots providing buffer storage and order picking in one flexible operation.

Facilities can prepare orders closer to a truck's arrival for significant time savings. Fruits, vegetables and other goods then reach stores sooner, maintaining their optimal freshness and shelf life. This also helps to reduce chances of food spoilage, which in turn cuts back on waste and the supply chain's impact on the environment.

2 Less reliance on physical lab

Given the demand for faster fulfillment, order pickers in manual facilities are often left scrambling to get products out the door. With widespread labor shortages across industries, remaining employees must work extra hard to narrow the gap left in operations. Order fulfillment becomes dependent on individual physical endurance and speed. Unfortunately, this can increase the risks for order errors—and workplace injuries.

But when automation takes over the majority of operations, there is less human involvement—which can help facilities fill the labor gap. Further, an automated system can run 24/7 with all checks and balances done through software, eliminating picking errors. Products keep flowing and moving out the door, without slowing down.

3 Better space utilization

In traditional warehouse layouts, workers move through aisles picking orders, which consumes not only considerable time, but also space. Given recent trends towards greater product variation, the number of SKUs in most facilities is exploding, leaving little room to spare. However, high-density storage systems can store more products while using up to 50 percent less space.

Namely, warehouses can consider an overhead system where goods are stacked on the warehouse floor. There's no need for racking or aisles, as products are picked from above. In addition to faster fulfillment, facilities can do more with their existing footprint and offset the costs of possible new construction. For those in the food industry, such a system can clear the floor automatically for fast, hygienic cleaning.

4 Keep up even during seasonal peaks

Every business has times of the year when demand spikes and order fulfillment becomes a high-speed dash. For many consumer goods companies, this is around the holidays. Food & beverage manufacturers tend to see a spike in the summer when people host get-togethers.

The sudden influx of orders can put a toll on warehouses. Some try to hire seasonal staff to get by, but that comes with recruitment and training challenges. But automated systems—particularly those with a modular design—are flexible and scalable, enabling facilities to adapt to fluctuations in inventory and order volumes—during seasonal highs and lows.

Around the world, we can find examples of “frontrunners,” i.e. organizations that are realizing these benefits and lapping their competition—powered by automation.



The benefits

of automated warehouses and distribution centers

6x

more efficient

50%

less space used

24/7

operations

100%

order accuracy





Case study

Mercadona – grocery and fresh food distribution

Product freshness is a central part of Spanish supermarket giant Mercadona's corporate philosophy. To uphold this commitment, Mercadona chose to invest in automation in its new Guadix, Granada distribution center.

The distribution center was designed to handle around 6,000 SKUs with zones for different product types: one for dry produce, two for refrigerated products, one for frozen products and a production area for bread. Installed robots provide buffer storage and order picking as one flexible operation. They handle full crates of fresh fruit, vegetables and meat in the refrigerated

zones where there are around 300 different SKUs in some 30,000 crates. A warehouse control system (WCS) manages all systems and material flow through the facility, and provides complete product tracking and traceability. Fully integrated with its surrounding manual operations, the system moves products from goods reception to storage, retrieval, picking and sorting, and loads the orders for delivery. Notably, it can handle and prepare orders for Mercadona's over 1,600 supermarket stores in just six hours. Products reach stores with more time to spare, providing Mercadona consumers with only the freshest selection of products.

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The Guadix center has been so successful that Mercadona plans to automate fresh food distribution in four new distribution centers. The automation in these facilities will help ensure product freshness for 2 million of the 5 million households that shop at Mercadona every day.

Click here to read the Mercadona case study:

[cimcorp.com](https://www.cimcorp.com)



Case study

Kroger – grocery and dairy distribution

When it came time to build a new liquid milk plant, Kroger chose to develop a state-of-the-art facility centered around automation. Namely, Kroger wanted an automated facility to ensure the quality and freshness of its products and reduce workers' exposure to injury and work-related strain.

Dubbed "Mountain View Foods," the facility built in Denver, Colorado processes fresh conventional and organic milk, and packages aseptically processed milk, creams and juices. By installing a highly efficient, end-to-end automated solution,

Kroger can store up to 36,000 crates and pick 32,000 crates per day. The system handles stacks of single, plastic dairy cases on non-traditional, knee-high, plastic belt conveyors. Cases are picked according to specified sequences on one end of the facility and then palletized for truck loading at the other, with significant storage buffering in between.

A WCS controls all order processing, robot movements and stack transport. Similar to Mercadona, the software collects data on operations, giving Kroger complete product

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traceability to meet food safety requirements. Kroger benefits from orders picked with 100-percent accuracy, at faster speeds, which results in shorter lead times, longer shelf life and optimal product freshness for the end customer.

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In it for the long run

Automation represents a long-term commitment. Over time, the needs of a system may change as the operational needs of a facility and the industry at large change as well. Just think of the widespread impact of the Amazon effect. Only time will tell what the next major disruption will bring.

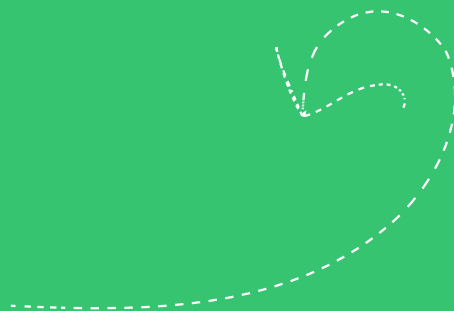
To ensure your facility continues to meet the need for speed—both now and into the future—look for suppliers that offer repair and replacement services, in addition to continued support over the long term to modernize any aging equipment and make upgrades.

A trusted partner can conduct preventive maintenance, monitor your equipment and provide reliable uptime of your system. They can analyze the changing needs of your business and propose ways to keep your facility running at its best and firing on all cylinders for years to come. After all, you want automation that is not only built for speed, but also built to last.



Future-proof your supply chain.

Your solution
could be here



Dreamfield

We are crafting a future where logistics excellency is not just a promise but a guarantee. It's not just our solution; it's your logistics strategy in action. Let's fulfill all your fresh food, beverage, bakery, and dairy supply chain needs!

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