

Solution Guide

AutoStore Cost Justifications



Calculate the cost of efficiency

At first the thought of automation seems daunting. The misconceptions surrounding costs might persuade warehouses to continue with outdated, manual practices leaving them unable to manage business demands and ultimately facing disgruntled customers and stagnant growth. However, businesses can make a pivotal step towards a profitable future by adding automation and high speed robotics.

AutoStore empowered by Kardex offers an expected ROI of 2-3 years. The fully automated storage and retrieval system expands storage capacity four times, increases performance ten times and easily scales without impacting ongoing operations. In fact, AutoStore is the fastest order fulfillment system per square foot on the market. It reduces costs associated with labor, inaccurate order fulfillment and unpredictable demand spikes. It is a 24/7 solution for operations that cannot physically keep up with fulfillment demands and those that want to prepare for the future.

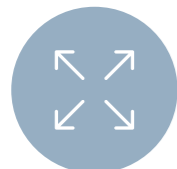
Adaptable to a building's shape and size, AutoStore high-speed robots pick and deliver inventory along an aluminum cubic grid system. Providing full transparency, the corresponding software knows every bin, robot, port and SKU location. Warehouses can connect an existing WMS/ERP or use the Kardex WMS/WCS and the AutoStore controller.



Reduce labor costs and associated challenges including recruitment, training, retention and temporary labor



Increase picking performance significantly by decreasing mispicks and adjusting throughput based on daily demands



Expand capacity without additional real estate investments or relocation expenses



Stabilize labor costs

Historically, labor is one of the highest line items and the list of expenses relating to it is quite lengthy. Considering all costs from recruitment, training and uniforms to electricity, break rooms and overtime; it can be difficult to pinpoint one number to encompass all labor-related costs. Recently, labor has also become widely unavailable and operations are struggling to find enough workers.

A recent study surveying 250 supply chain and distribution managers across the United Kingdom, France, Germany and the United States found “distribution centers are losing an average of nearly EUR 390,000 per year due to mispicks.”¹ A substantial and unnecessary loss not shared by Kardex customers.

With AutoStore, inventory is securely held within the system and protected from unauthorized access. As a goods-to-person picking system, the high-speed robots always present the exact inventory to the employee that is currently needed for order processing. The Kardex WMS/WCS software guides employees through the picking process using simple, intuitive dialogues on the screen. This significantly reduces staffing requirements and its associated costs and challenges.



Hedge against labor volatility

In another international study, MHI (Material Handling Institute) found out that 54% of the companies surveyed named finding, hiring and retaining skilled labor as one of the biggest challenges within supply chain.² Adding fuel to this fire, labor is one of the most expensive costs for warehouses - gobbling up 50 to 70% of the overall budget. The financial amount this percentage translates to has escalated in recent years, mainly due to strong competition for a limited number of workers and labor-intensity arising from e-commerce.

The Statistical Office of the European Union (Eurostat) is reporting that since 2016, labor costs have continuously risen in Europe. In the second quarter of 2022, the hourly labor costs rose by 4% in Europe, compared with the same quarter of the previous year. The highest labor cost growth rates in the EU were recorded in Hungary (+14.9%), Bulgaria (+14.6%), Lithuania (+12.4%), Romania (+11.7%) and Poland (+11.1%).³

The line items relating to labor costs are quite extensive. For example, seasonal peaks often require 1.5 to 3 times the number of workers, which may extend over a month and even incur a higher fee than a regular worker. A recent survey showed that “35% of warehouses have a seasonal surge in the number of workers they employ of over 20%”.⁴ On the contrary, AutoStore robots work any hour and any day of the year under the same conditions and can easily scale up or down based on seasonal demands.

Don't let labor shortages slow down growth

AutoStore solutions from Kardex enable scalable growth without additional labor or floor space. AutoStore also improves delivery reliability through significantly faster speed and accuracy during order picking. The goods-to-person system supports your existing warehouse team by adding state-of-the-art technology. Intelligent robots quickly pick up storage bins and transport them to the intuitively and ergonomically designed employee workstations. Long walking distances and constant bending and stretching in the warehouse are a thing of the past. This significant improvement in working conditions offers high productivity potential and ensures the long-term well-being and performance of your employees.

¹ “Unlocking Hidden Cost in the Distribution Center,” accessed May 5, 2022
<https://country.honeywellaidc.com/CatalogDocuments/unlocking-hidden-costs-distribution-center-research-paper-A4.pdf>

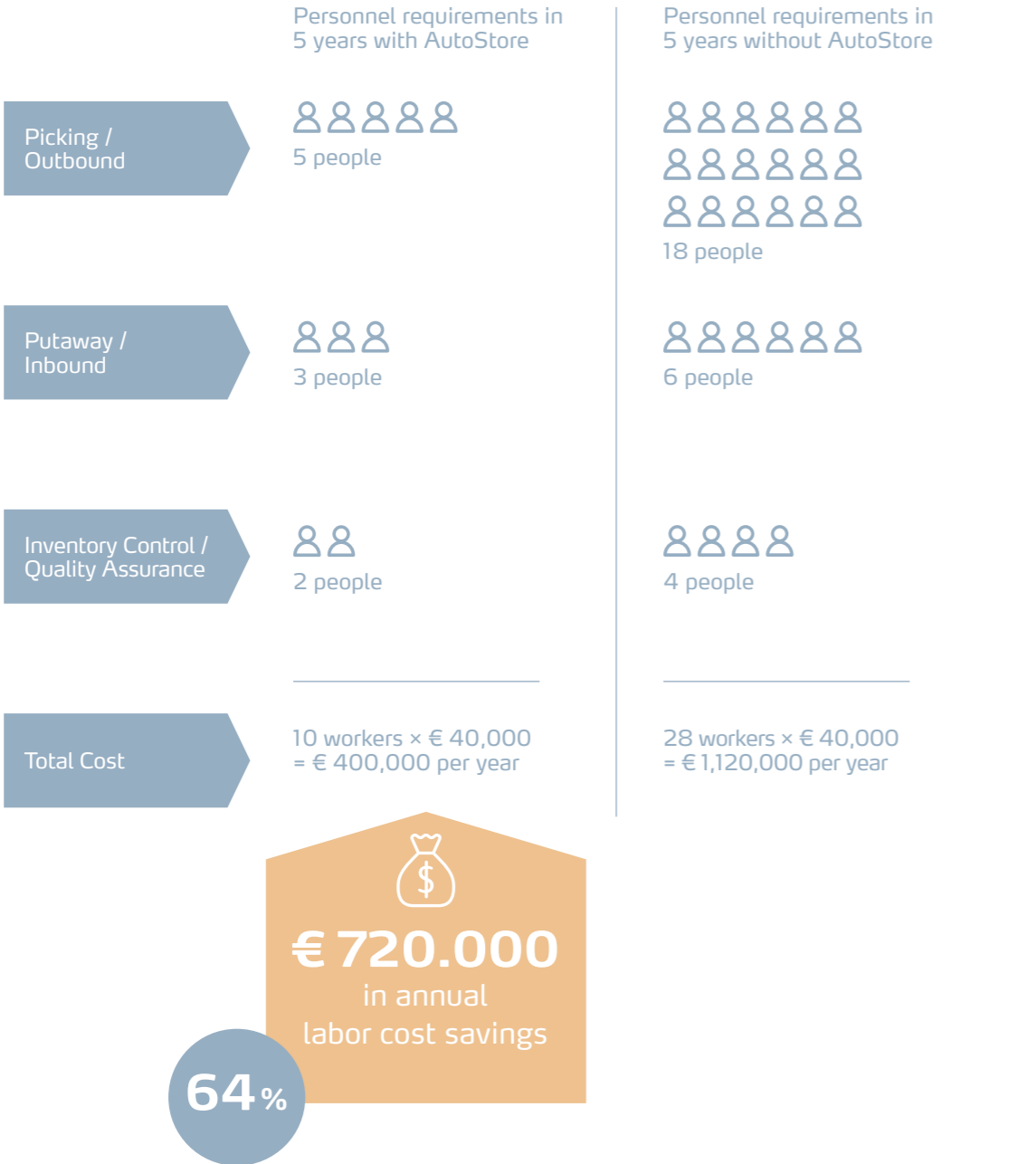
² 2022 MHI Annual Report: “Evolution to Revolution. Building the Supply Chains of tomorrow”, accessed September 28, 2022.

³ Eurostat report: Annual increase in labour costs at 4.0% in euro area. Accessed September 15, 2022.
<https://ec.europa.eu/eurostat/documents/2995521/14698153/3-15092022-BP-EN.pdf/d5da5db3-aca7-a087-07ba-4393501ccd22>

⁴ Banker, Steve. Forbes. Warehouse Labor Woes are Worse than Ever; October 12, 2021

Real labor savings

Let's dig deeper – As an example, if a company today has a team of 10 warehouse workers earning EUR 40,000 annually each, the company is spending nearly half a million euros a year just in salaries and benefits. Not only in the wake of the pandemic but also due to the constant growth of e-commerce, it is increasingly noticeable that logistics needs more hands. And these hands need to be well equipped and qualified to cope with new challenges such as digitization, just-in-time deliveries, increased order volumes and small-scale orders. However, depending on the growth targets and prerequisites of a company, the need for additional employees can be enormous. Finding and retaining them in the long term is not only very challenging, but also involves significant costs. A real world example is shown in the infographic below.



Save that electric bill

AutoStore is so energy-efficient that conventional 230 V sockets are sufficient as power supply for operation. Ten AutoStore robots require as much energy as a conventional vacuum cleaner - they can even be powered by solar energy. AutoStore also does not require aisles, which significantly reduces the areas that need to be illuminated in a warehouse. With very low power consumption, savings on lighting and heating (temperature range 2 to 35 degrees Celcius), and much more compact storage, the energy footprint of an AutoStore solution is very small compared to other automated solutions. Companies that have invested in AutoStore solutions have been able to reduce their electricity costs by up to 75%.⁵

⁵ "Go Green with AutoStore", accessed September 21, 2022. <https://www.autostoresystem.com/insights/go-green-withautostore>



Cutting-edge performance

Has the lack of qualified staff forced your business to miss a shipment deadline, stop a production line or disappoint a customer? Perhaps the lack of a qualified workforce didn't allow operations to handle a sudden spike in orders? Is your company's growth plan in jeopardy of succeeding due to fulfillment inefficiencies? Fulfillment operations are living in an era of unprecedented shipment and delivery deadlines made further challenging by a global labor shortage. It is time to rethink logistics!

AutoStore equips warehouses with the required flexibility to navigate today's murky waters. With density, speed, accuracy and efficiency as core values, AutoStore redefines order fulfillment.

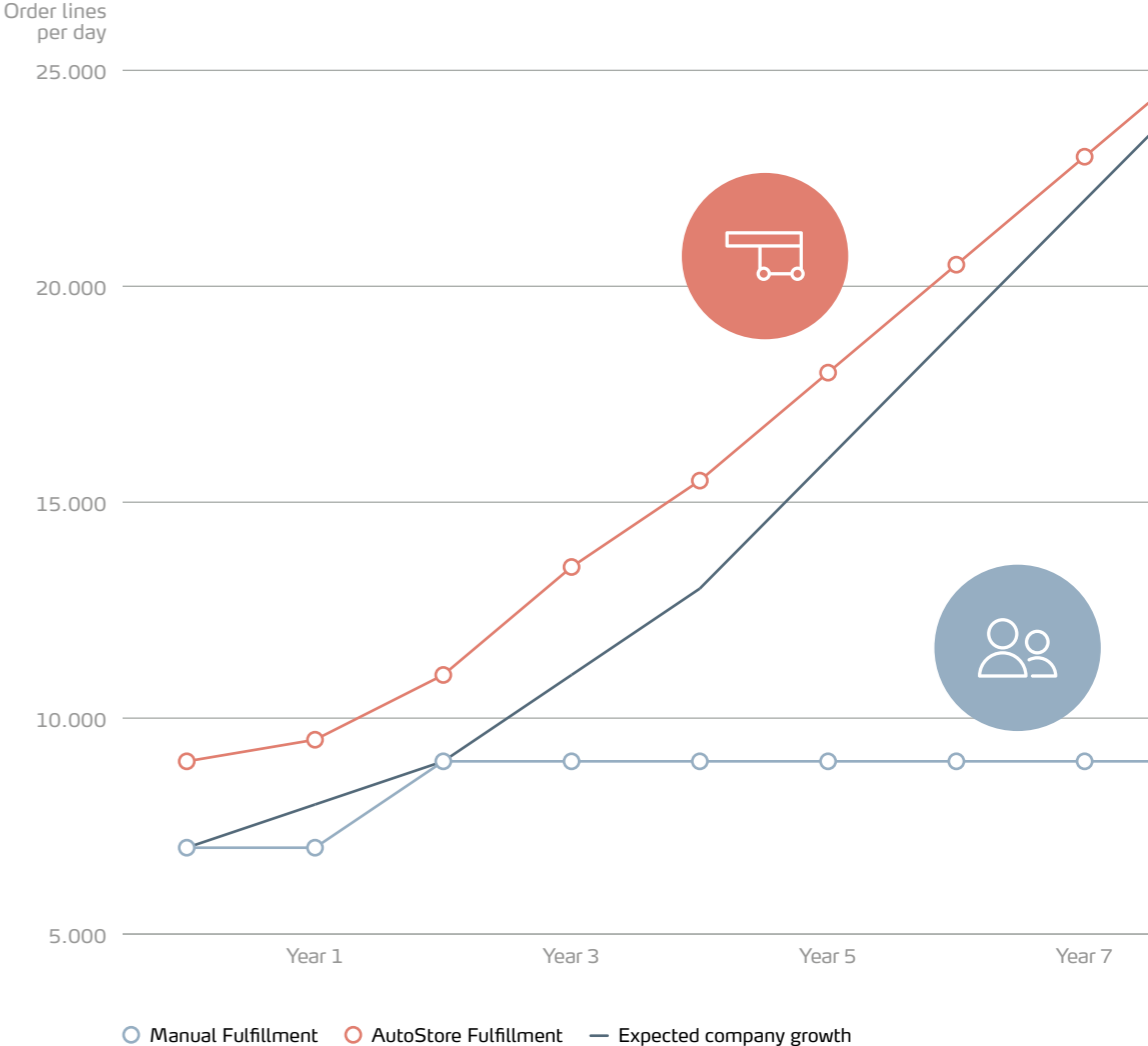
Enabling growth through speed and precision

AutoStore provides the tools to take warehouse performance to the next level. It is the fastest order fulfillment system per square meter on the market with the ability to efficiently manage complex orders – an essential tool in this age of mass customization and the transition to piece picking. It provides precise picking while offering an accurate count of inventory at all times – a key to avoiding stock outs, inefficiencies, and simply maintaining a smooth order fulfillment process.

What will drive your company's growth in the coming years? Same-day shipments or ultra short lead-time demands? Volume increases or increased SKU counts? All of these considerations require fast (yet accurate) throughput as a fulfillment priority. For companies that strive for growth in the near future, AutoStore is an investment that delivers immediate cost savings while preparing for future throughput needs.

AutoStore vs. manual warehouse solution

In the infographic below we evaluate manual order fulfillment vs AutoStore order fulfillment, and how each keeps pace with the expected company growth while staying in your current facility.



Space-efficient storage

AutoStore well surpasses competing automated systems in terms of space efficiency. It is the densest order fulfillment system available on the market and has the ability to quadruple a warehouse's capacity. Whether you're adding a product line, bringing on a new client or diving into e-commerce, AutoStore easily scales up operations as demands increase.

AutoStore is extremely flexible and optimizes a facility's space. Through detailed design, the Kardex team molds and shapes the system to fit a specific space or size and configures the layout to a company's unique business operations, including working around facility obstacles. The Kardex team can also build AutoStore systems on a mezzanine or across different floor levels to fully optimize the available space. The average AutoStore system holds 34,000 bins, but this can vary. AutoStore solutions have been built with only a few hundred bins or, in some cases, with more than 300,000 bins. It's an ideal system for a wide variety of applications and operations.



Increase storage capacity 4 times

As a modular system, operations can easily add robots and workstations based on increased demands without interruptions to daily operations. As a warehouse starts to out-grow its facility, instead of building or leasing an additional facility, it can expand its AutoStore – a simple and efficient solution. It's why globally more than 40% of all AutoStore systems have been expanded at least once. With AutoStore, an operation can stay in its current facility longer.

This is extremely appealing from a cost-perspective when considering how facility availability is decreasing while rental prices are increasing. Throughout 2021, European logistics vacancy rates went from 5.1% to 3.5%⁵ and in parts of Europe vacancy rates were one of the lowest worldwide.⁶ To amplify this situation, "strong demand for logistics premises and rising construction costs continue to exert upward pressure on prime rents, which grew a further 2.9% over the quarter across Europe pushing annual growth to 8.9% with Germany and the UK reporting some of the strongest rental increases."⁷

In short, available warehouse space is harder to find than ever, industrial rents are rising drastically, and the industrial construction pipeline is the largest it's ever been. With AutoStore, you can maximize the space you have, stay in your current facility and increase your operational efficiencies to support your growth goals.

 [See how AutoStore works](#)

⁵ Savills. Spotlight: European Logistics Outlook. Accessed 23, February 2022. <https://tinyurl.com/vb47a9eb>

⁶ Prologis. What's Next for the European Logistics Real Estate Market. Accessed 23, February 2022. <https://tinyurl.com/62ueebcm>

⁷ Cushman & Wakefield. European Real Estate Market Data. Accessed 23, February 2022. <https://tinyurl.com/352w7w5x>

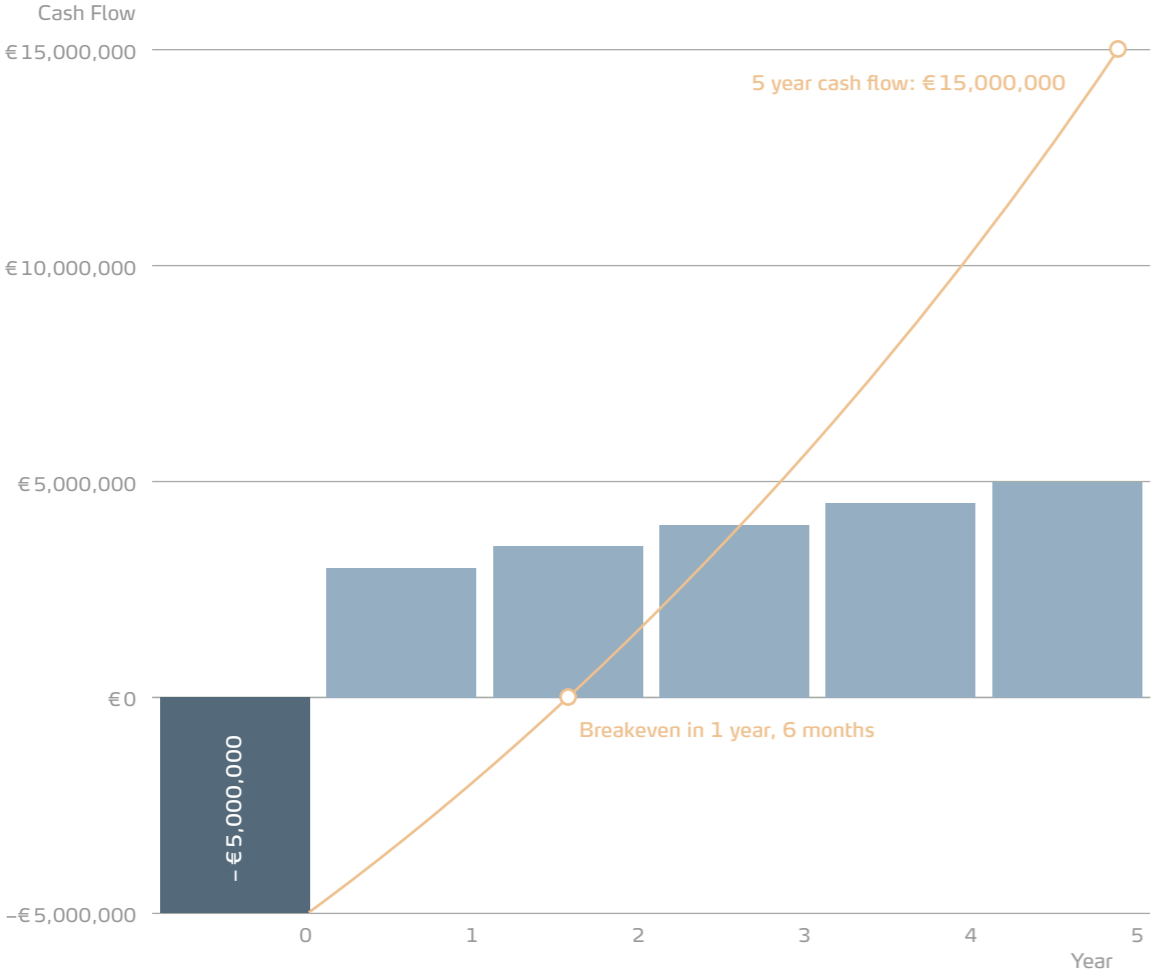
Calculate your savings

In the end, there are many cost justification factors that support purchasing an AutoStore solution. It is important to consider which apply to your operations. Don't forget to consider the non-tangible aspects such as how an ergonomic work environment will lead to fewer injuries and higher staff satisfaction.

Your local Kardex Sales & Consulting Representative can create a complimentary cost analysis and explain how AutoStore can positively impact your specific operations and contribute to your bottom line.

Return on Investment

Spend vs Annual Savings with straightline breakeven



Why partner with Kardex for AutoStore?

When selecting an intralogistics partner, it is critical to ensure a seamless relationship from the start. With AutoStore and Kardex, customers receive a customized solution specific to their unique industry or business requirements and a commitment to transparency in the design process.

Implementing AutoStore can be a major change for any organization. This is why the Kardex team works hand-in-hand with customers every step of the way ensuring a smooth integration with existing systems and minimizing operational downtime. Once live, Kardex offers expert support throughout the entire systems' lifecycle. Having a highly-experienced partner with local customer care and the flexibility to scale systems when needed as business evolves is essential!


As your dedicated intralogistics partner, Kardex offers

- Dedicated project management and ongoing project support for integration with existing systems
- Guaranteed installation and onsite ramp-up support to ensure the business case/ROI is met on-time
- Attainable and accountable project plans with constant communication and a pro-active approach to solving problems before they occur
- Extensive global service and support network with ongoing options for onsite and remote training, onsite and remote support and long-term Life Cycle Services



We understand you. Now let us support you on your journey.

Navigating today's customer demands and innovative purchasing outlets forces warehouses to rethink internal operations. Companies, regardless if they are an established industry leader or small start-up, will not be able to surpass competitors in today's market without flexible, fast and high-density storage and order fulfillment solutions. AutoStore allows warehouses to expand storage capacity four times without moving warehouses, increase performance ten times without hiring and unlock new order fulfillment potential.

 [Contact a specialist](#)