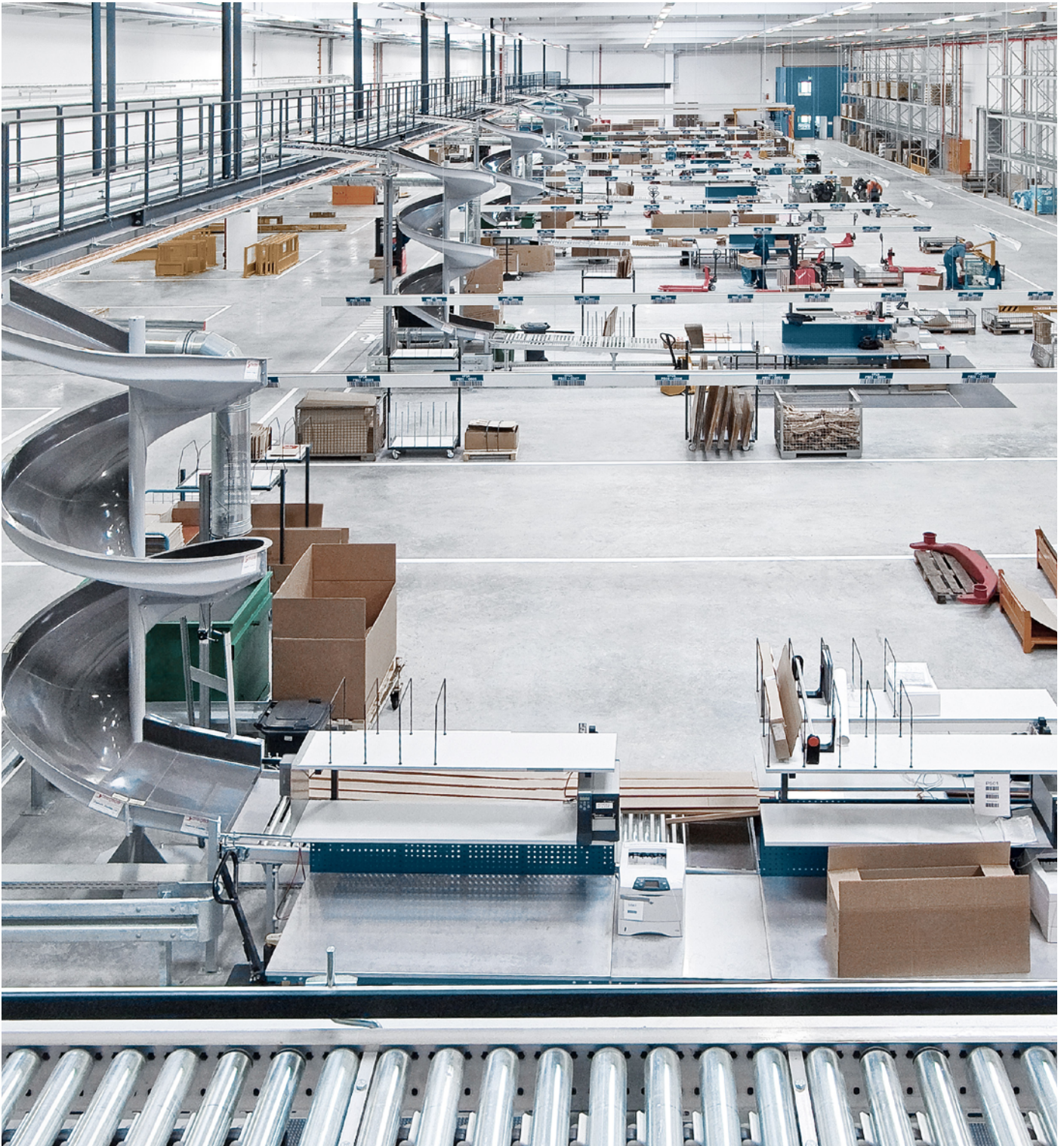


Solution Guide

Overcome Labor Shortage



kardex



Reliable solutions for unstable times

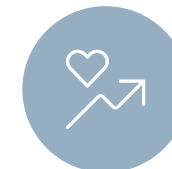
As companies strive to grow, today's consumer behaviors and global economic situations are causing constant bumps in the road. Labor shortages, volatile workloads and consumer expectations make it difficult to achieve sustainable growth. With the right warehouse tools in place, companies can overcome these challenges and stay ahead of their competitors.

Switching the mindset from manual to automated tools is a step in the right direction. Stop spending endless hours finding qualified staff or training new team members. Instead, focus on options that enable your warehouse to benefit from both financial and performance growth.

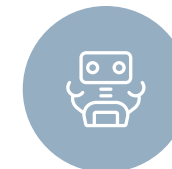
In association with robotics experts and as a partner of [AutoStore](#), Kardex provides customers with an extreme advantage by integrating robots that pick, process and place single items and full cases to and from any picking station. Pick and place robots work flawlessly 24 hours a day, and at a high-speed rate of up to 1,200 picks per hour. Using hardware-independent 3D vision software, pick and place robots can replicate the exact precision and synchronization of a human's eye-hand coordination to create a multifunctional and versatile robotic solution.



Manage fluctuating demand and peak loads



Improve workplace ergonomics



Mitigate risks caused by labor shortages and fluctuations



Operate 24/7 and enable a more efficient utilization of AutoStore ports

Piece picking in today's market

Piece picking has traditionally been performed manually. In today's reality with constantly increasing SKU diversification, changing order structures, and the ongoing trend towards e-commerce, new order fulfillment solutions are needed. Solutions that are fast, flexible and economical.

Many companies face significant challenges with order picking due to the increasing complexity of market requirements. In some instances, workers first separate products visually and then pick and place them. In other cases, workers pick single pieces from the storage system and then bring them to another source (e.g., packing machine or sorting system). Both applications are characterized by high demands on workforce accompanied by corresponding monotony.

Robotics solutions offered by Kardex combine software and hardware mechanisms by using 3D cameras, grippers and smart software algorithms. The technology allows the robots to recognize, grip and locate objects precisely. They provide safe, high-performance picking and placing for various items commonly seen in e-commerce such as cubes, tubes, cylinders and various other shapes.

Robotics solutions are a key ingredient to a successful and competitive order fulfillment system. Using flexible mechanical grippers capable of picking and placing, pick and place robots will propel your automated storage system into the future. They equip them with accelerated speed and accuracy, significantly and sustainably surpassing the throughput rates of "real" human hands or "picking only" robots.

Seamless warehouse integration

Pick and place robots easily integrate with AutoStore systems achieving what was once unimaginable performance rates. They separate, orientate, measure, sort, scan and transport products from A to B without requiring master data or a teach-in process.

- Works with various AutoStore processes including pick-to-tote, pick-to-belt, pick-to-pallet, consolidation and even replenishment
- Connects to various storage systems, sorter systems, packing lines, etc.
- Communicates with Warehouse Management Systems (WMS) and Warehouse Control Systems (WCS)
- Picks unknown items randomly placed in a goods-to-person system as well as from a segmented bin

Modern order fulfillment

Pick and place robots work flawlessly 24 hours a day, 7 days a week. This is a critical component when working in an industry where customers place orders around the clock from every corner of the globe. Advanced features allow the robots to manage a diverse and continuously changing product range.

- Pick up to 1,200 items per hour
- Reach and lift adjusts based on needs
- Manage single items as well as entire totes
- Ideal for piece picking and replenishment
- Automatically measure products to place them appropriately and smoothly

Process quality

All business processes and material flows are fully transparent. Robotics provide a 100% digitized workflow, which helps to improve the quality and reliability of warehouse processes significantly.

- Optimization of picking quality
- Reduction of customer complaints
- Avoidance of inventory inconsistency
- Flawless information flow (e.g., to procurement, production, shipping, etc.)
- Solid base for process audits

Benefits

Robotics solutions are applicable across various industries and are designed to benefit highly competitive order fulfillment.

Flexible

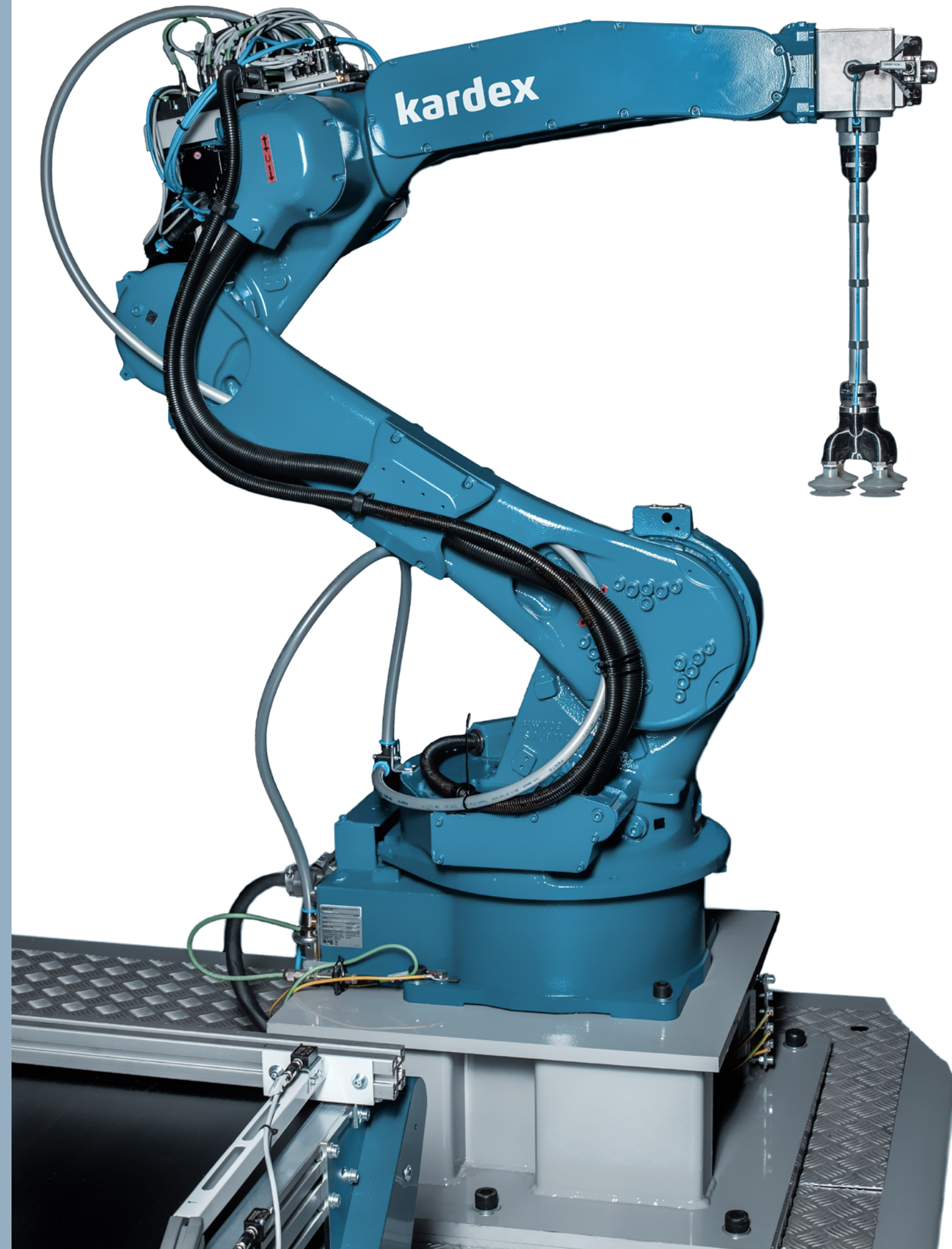
Pick and place robots are extremely flexible – they seamlessly manage product diversity, order structure, business processes and material flows

Adaptable

As products and seasons change, demands change. Pick and place robots can adjust to project specific requirements

Financially-savvy

Warehouse performance goes up while reducing dependency on labor availability





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

As a partner of AutoStore and in association with robotics experts, such as Robomotive, Kardex provides customers integrated robotics solutions. By introducing these highly sophisticated warehouse enhancements, companies can grow product lines stress-free. Pick and place robots work sustainably without training 24 hours a day, 7 days a week. The endless search for qualified workers and fear of continuously changing staff requirements are eliminated.



Contact a specialist