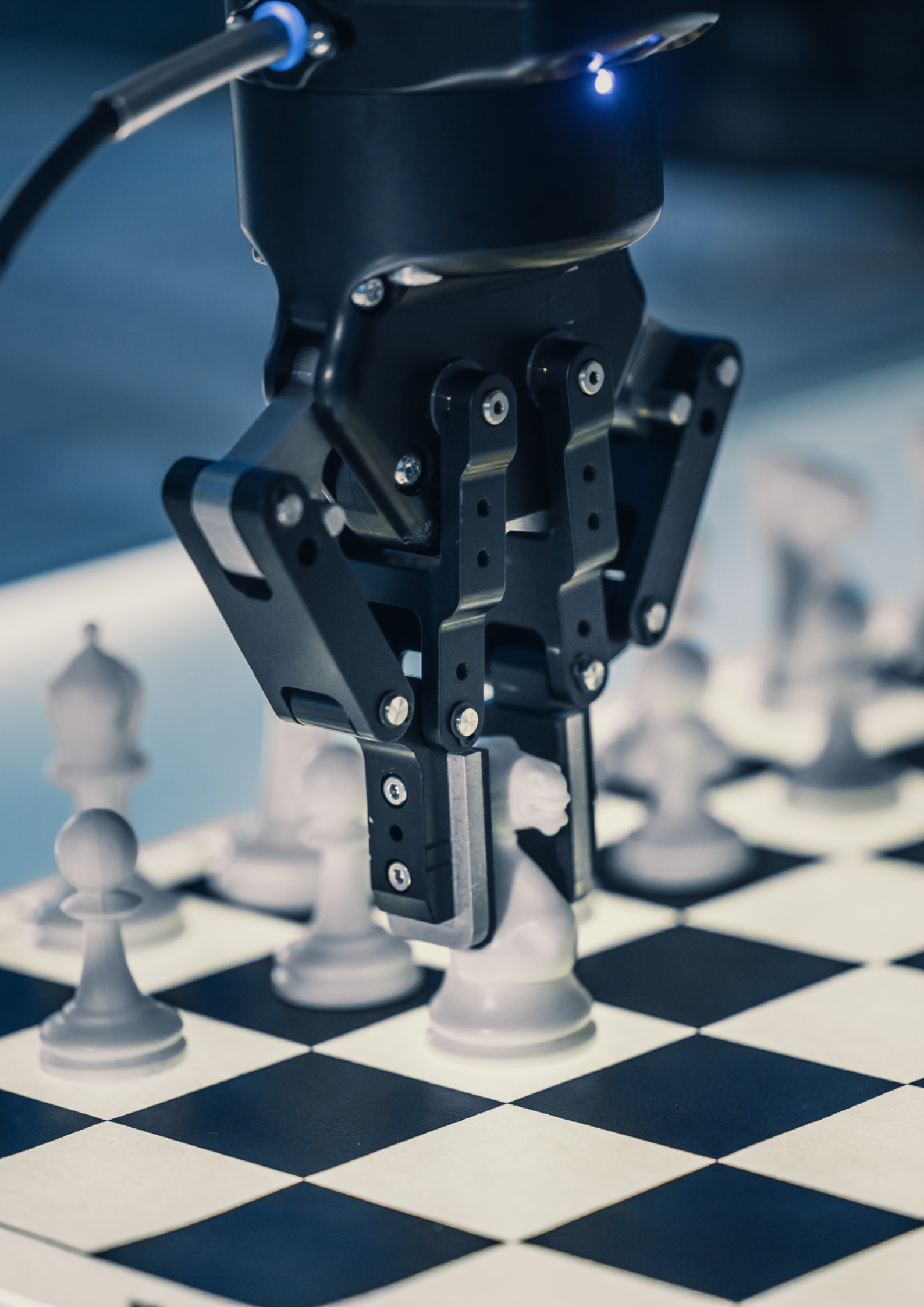


Solution Guide

Optimized System Utilization





Small changes make big impacts

The smartest and latest technology will move companies from good to great if they utilize the features to their ultimate potential. By leveraging warehouse automation to its limits, order fulfillment will see significant cost savings and enhanced performance. As a result, companies can stay ahead of competition by meeting market requirements, such as same-day delivery and buy online, pick up in store.

In association with robotics experts, such as Robomotive, Kardex provides pick and place robotics solutions that will move the needle on the warehouse optimization barometer. They provide Kardex customers with a substantial advantage by integrating robots that pick, handle and place single items from [AutoStore](#) or other automated storage systems. Pick and place robots work flawlessly 24 hours a day 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.



More hands –
fewer costs



Product security



High quality
order fulfillment



Meet highest demands (e.g.,
same-day delivery)

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.

Exceptional picking

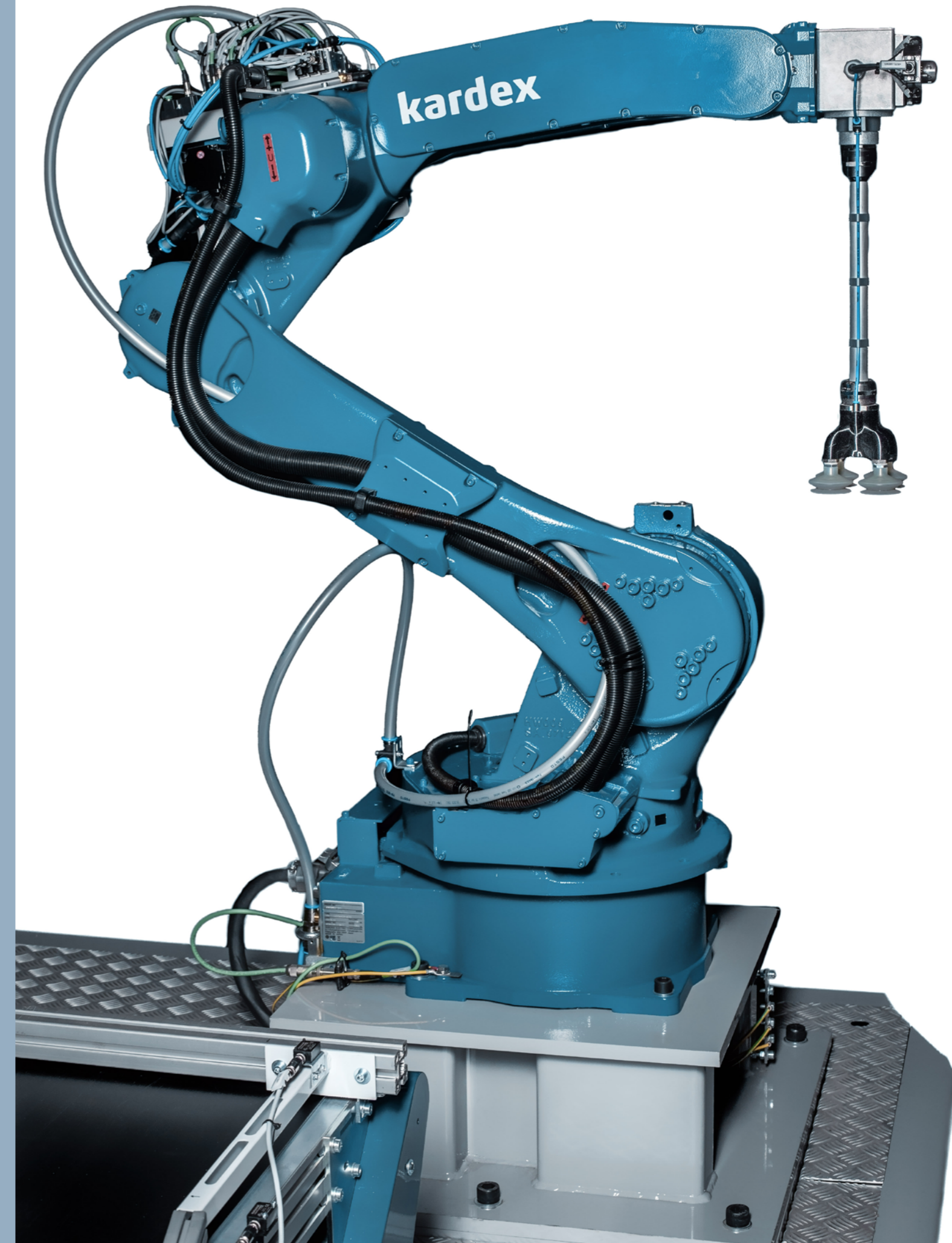
Take picking performance to the next level with 24/7 availability and a high-speed rate of up to 1,200 picks per hour

Extended operation models

Pick and place robots unleash more time by utilizing AutoStore beyond "normal" working hours (e.g., picking during the night shift)

High profitability

Operational costs go down while overall profits go up





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

As a partner of AutoStore and in association with robotics experts, Kardex provides customers fully integrated robotics solutions. By introducing these highly sophisticated enhancements, your investments in warehouse automation can be optimized. Operational efficiency, at the same time, will increase significantly.

 [Contact a specialist](#)