

# Supply chain automation

Seamlessly integrate business processes and material flows



**Körber designs and implements supply chain solutions, comprising software and material handling automation, which span across your entire supply chain and seamlessly integrate your business processes and material flows.**

The nature of logistics is changing rapidly. Growing e-commerce demands from both consumers and businesses mean that warehouses have to handle an increasing range of goods, in much smaller quantities, in much less time. All these factors place increasing pressure on service levels.

To manage this complexity, all parties in the chain need to implement the right supply chain channels for their specific business – from dedicated distribution centers to omnichannel fulfilment. Considerations for setting up the best supply chain are wide-ranging, from the integration of existing sites and transportation constraints, to the cost and scarcity of labor resources.

Our supply chain automation services and solutions address these challenges. They streamline how you receive incoming goods, increase the efficiency of your order picking workflows, and make the best use of your storage areas. They address the complex and highly dynamic process from packaging, loading and shipping goods through to delivery.





## Receiving

Many organizations face growing complexity in processing incoming goods. Shipment sizes are becoming more variable, product ranges are broadening and our clients are experiencing increasing transportation constraints.

Körber automates your receiving processes from offloading and checking, to put-away, storage and cross-docking. We design our solutions to meet the needs of your order processing requirements.

### Key benefits

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#### Integrated solutions

Our automated applications span across the entire offloading, moving, checking and storage and retrieval process – from voice-directed forklifts, autonomous mobile robots and conveyor systems to automated storage and retrieval applications for pallets and small goods. To propose the best automated supply chain solution, we work with you to thoroughly analyze your needs and challenges. We then provide processes and systems to solve them.

#### Tailored for the purpose

We design stacker crane and pallet shuttle solutions optimized to the size and shape of your premises and the characteristics of your inbound flows. Our solutions make it quick and easy to place goods onto high density racking, then retrieve them when needed.

#### Cross-docking

Our cross-docking technologies allow you to offload directly onto outbound trucks, reducing the need for intermediate storage. In this way, we reduce the complexity of your receiving systems, reduce your inventory and optimize your outbound processes by shortening lead times for outbound orders.

**“With the introduction of high speed/  
high density shuttle solutions,  
automated storage is now more flexible  
and scalable than ever.”**

**Michiel Veenman**  
Körber

## Storage systems

Restricted space is often a constraint for both new and existing facilities. Many storage facilities are faced with a higher product variety and stock turnover, so it can be an issue to find space for a growing range of products. In addition, congestion caused by a growing number of forklift trucks is making it increasingly difficult for organizations to increase throughput.

Our clients in this area include large FMCG retailers and manufacturing companies. We look at your current storage processes and consult on how you can get the best performance from your throughput and storage requirements. We then work with you to develop throughput process and automation technologies. Our pallet shuttle systems and stacker cranes automate your entire process and maximize your storage utilization.

### Key benefits

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#### Smart storage

Automated storage and retrieval solutions eliminate the need for forklift trucks. You can store more because you can go higher and you only need to use very narrow aisles. Our automated stacker cranes can intelligently store and retrieve goods, giving you the most economical use of space.

With our pallet shuttle systems, you can achieve even higher storage density, whilst maintaining a high stock turnover.

#### Operational efficiency

Our state-of-the-art storage solutions drive operational efficiency, cost value and higher throughputs, enabling our customers to provide high levels of service. We understand that the single most important criterion for storage is cost per location. Körber offers flexibility and delivers higher throughputs within the same amount of space.

#### Scalable solutions

Throughputs are dynamic and can change over time. Our portfolio covers a range of situations, offering you flexibility and scalability as needed.

## Order picking

Retailers are creating separate or combined distribution centers for their B2B, B2C and online supply chains. This omnichannel approach with constantly changing distribution requirements makes order picking one of the most complex and dynamic of all logistical processes. At the same time, warehouses and distribution centers face growing product assortments, labor costs and scarcity.

Körber thoroughly analyzes your specific requirements, from business processes and the goods you handle, to material flows and order structures. Speed, accuracy and agility are paramount. We use data analysis and in-depth process experience to design the best order picking solutions and reduce your complexity.

### Key benefits

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#### Research-based

Körber's order picking and distribution solutions are firmly analysis-based: who your customers are, what you are distributing, at what frequency and through which supply chains. We look at your business processes and material flows, existing or planned floor and storage space, distribution channels, assortments and quantities, for both your current and future scenarios. In this way, we shape the optimal supply chain for you.

#### Technology-driven

The detailed data we gather determines the most efficient workflows, software and automated technologies you need across your multiple distribution channels. We design handheld solutions, voice-directed technologies, person-to-goods solutions supported by autonomous mobile robots, and advanced goods-to-person solutions using shuttles or mobile robots.

#### Custom applications

By combining technology with our thorough understanding of organizational process, we deliver custom-designed, risk-free projects on time and with the right result.

**“Our aim, first and foremost, is to be the best lifecycle partner for our customers.”**

**Thomas Metz**  
Körber

## Packing, sorting, dispatching, marshalling and shipping

With growing product lines and changing order structures, along with increasing logistics service level demands, it is becoming more complex to make sure the right goods are packaged correctly, shipped to the right customer and within the expected delivery time. With high customer expectations and significant time/cost implications, there is no room for human error.

Körber's automated solutions help you manage and integrate your entire packing, sorting, dispatching, marshalling and shipping process end-to-end, through intelligent sequencing software, 'just-in-time' processes in the distribution center, and advanced goods tracking systems.

### Key benefits

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#### Warehouse and transport management

Körber's Supply Chain Execution systems help you to manage even the most complex transportation scenarios. You can manage high levels of product diversity, short delivery times and varying quantities. The system determines which goods go into which vehicle and the order they are loaded, based on delivery sequences. "Just-in-time" processes ensure that order picking and packing are synchronized with staging and shipping. This will minimize order lead times as well as optimizing the required floor space. Our intelligent software ensures your customers receive the right product in the right place at the right time.

#### Intelligent applications

Through mobile devices, voice-directed technologies and robots, you optimize the speed and accuracy of your order picking. Our software tracks whether an order has been picked or loaded in real time. High speed sorting systems will consolidate orders and sort them to the correct loading dock. Loading is photographically documented, and each order is tracked through a unique identification. While on the road, drivers communicate all activities related to outbound deliveries, pick-ups and returns through a web-based app.

#### Advanced packing solutions

Our automated packing software calculates the required size of boxes and optimizes workload balancing over multiple packing stations. They automate the flow to and from packing stations and can even integrate automated packaging lines.

## Automation of material handling equipment (MHE)

More complex and time-bound deliveries through e-commerce trade create a huge challenge for manual material handling. First, there is a significant time factor involved. Second, there is a risk of quality problems through loss or damage. Third, it is becoming increasingly difficult to find and retain the right labor resources.

Körber's automated solutions handle and process diverse product lines quickly, safely, and in perfect condition. We help you exceed customer expectations through fast and error-free delivery. We are experienced in both designing bespoke solutions for new facilities, and providing retrofit upgrades for your existing premises.

### Key benefits

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#### Custom solutions

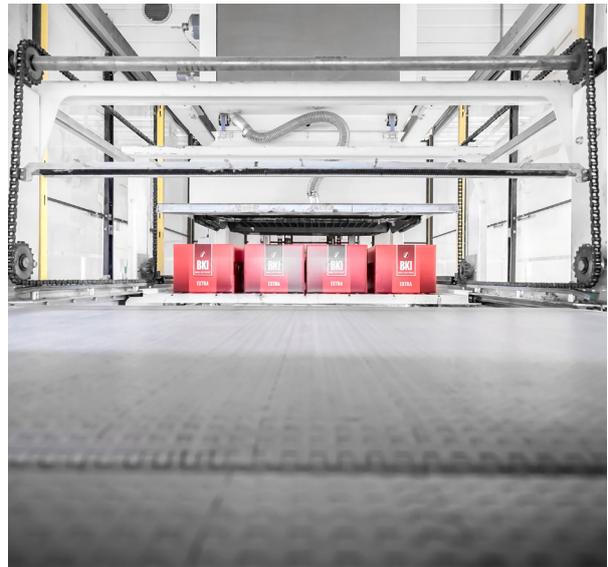
We visit your site to analyze your specific requirements. We gain an understanding of your challenges, your customers and how you run your current workflows. We then design an integrated system that closes the gap between your goods-in and goods-out, and addresses your challenges in meeting diverse and time-bound customer demands.

#### Material handling automation

Our layer pickers, stacker cranes and automated material handling equipment help you store and retrieve goods quickly and with the most economic use of space. We use lifting, rotating, pick-and-place technologies and conveyor systems to move goods across different workstations efficiently and safely. We design systems for batch deliveries through to single-item workflows, and can palletize/transport almost any product suited to your environment.

#### New build or retrofit

Körber has one of the most advanced software, robotics and automation competences in the market, both for new facilities and retrofit solutions for existing installations. We work with decision makers, customer project teams and external consultants to create an integrated solution that ticks all the boxes for all parties.



**“Our satisfaction is to bring a system to life, then hear the feedback we get from our customers. It makes it all worthwhile.”**

**Achim Aberle**  
Körber

#### The Körber difference

Our competitive strengths lie in our end-to-end service provision – from our initial site visit to understand your operations and advise on the right solution to meet your business needs, to the integrated software and automation solutions we design and provide. We work with a variety of customers to develop systems which range from manual to highly automated. Once installed, we monitor the system to ensure it is delivering maximum effectiveness.



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