

VarioPick induction at PostNord sorting center in Rosersberg

Company name: PostNord Sweden



Körber and PostNord have jointly launched the first AI robot pilot project. Körber learned of PostNord's keen interest in developing and testing new technologies to improve their business operations. They opted to run an AI robot pilot project to meet today's automation needs and be well-prepared for the demands of tomorrow. PostNord chose Körber because we best meet their requirements for throughput, the required range of formats including bundles, and tight schedule. Our VarioPick has been successfully sorting bulk mail in the Rosersberg mail terminal for the past six months.

The customer

PostNord is the leading provider of communication and logistics solutions to, from, and within the Nordic region. The company provides postal services to private and businesses in Sweden and Denmark and operates as a logistics and freight distributor in all Nordic countries.

The company's strategic goal is to be a leader in parcel distribution and e-commerce, and to run a sustainable, demand-driven mail delivery business.

The project

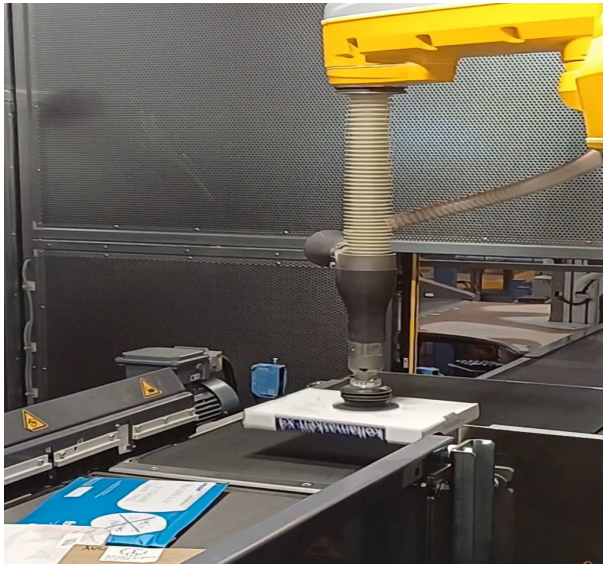
Goals

The objectives were to automate workplaces, streamline processes, and improve efficiency. The aim was also to investigate how the AI robot could be used to enhance both work environment and employee safety.

Challenges

The AI robot was to take over the work that was previously done manually by two employees: feeding parcels from the smallest packages to bundles weighing 7 kg. It has to singulate them from a moving bulk stream and place them precisely on an induction belt. The VarioPick also has to sort out the non-conveyable items. The AI robot also had to be installed in a very small space in the existing Rosersberg mail center within a short timeframe.





Benefits and features

- Daily operation accommodates three shifts: Two shifts for bulk-stream items and one shift for bundles
- VarioPick replaces two manual workstations
- Sorting capacity of up to 2,000 parcels per hour (pph) of bulk-stream items and 600 bundles per hour
- Wide range of consignments including bulk-stream items and bundles
- Consignment dimensions: min. 120x50x5 mm – max. 350x450x250 mm
- Consignment weight: 0.05 - 3 kg, 7 kg bundles
- The system was successfully tested during the peak season of Christmas 2023

The solution

We deployed our highly efficient VarioPick robotic solution for dynamic picking. The system includes a sophisticated AI-based vision system for accurate item identification. In addition, a pusher ensures seamless removal. PostNord also integrated a container tipper to enhance overall functionality.

The process in more details:

The 3D bulk stream generated by the container tipper is delayed into a 2D bulk stream and fed to Körber's AI-based vision system. The system identifies the individual items and sends the corresponding information to the VarioPick.

The system uses this information to process one of three cases:

- Picking and placing conveyable items onto a sorter infeed line
- Placing non-conveyable items on a conveyor belt that leads to a designated container
- Using the pusher to remove items that the gripper cannot process

“PostNord strives to meet automation needs of today and be well prepared for tomorrow. With the flexible VarioPick, Körber provides exact the right technology to take our automation to the next level. The AI-based robotic picking solution operates 24/7, enhanced our productivity and reduced our costs. Together with Körber, we managed a quick implementation. It now improves our work environment and contributes to increased productivity of our sorting center in Rosersberg.”

Magnus Lundin

Head of Machinery and Maintenance, PostNord Sweden

