CASE STUDY

PEAK PHARMACY

More Time for Care:

Peak Pharmacy's Modern Pharma Logistics

Version 1.0 | eng | 2025

Installations-video

Automation that benefits everyone

Relief for pharmacies and patients with maximum accuracy and efficiency

Since its founding in 1981, Peak Pharmacy, a family-run pharmacy chain headquartered in Bolsover near Chesterfield, has grown to become one of the UK's largest independent pharmacies. Boasting 135 stores and an online pharmacy, the company stands for ambition, quality and integrity by striving to ensure a consistent pharmaceutical supply of the highest standard.

A significant milestone of this development is the new state-of-the-art distribution center at their headquarters in Bolsover. Across 10,800 m² (just over 100,000 ft²), the system handles everything under one roof: the management, logistics and automated filling of prescriptions. The strategic rationale behind constructing a central logistics center was being able to provide all pharmacies with reliable next-day delivery while maximizing the efficiency, accuracy and scalability of the processes.

The automation solution was developed and implemented by KNAPP, who was chosen from a pool of eight suppliers after a thorough evaluation. On April 22, 2024, the system went into operation as scheduled, impressing with optimized workflows, minimal error rates and ultra reliable processes. In the temperature-controlled building, thousands of medication packs are processed every day. The products are delivered to pharmacies or directly to patients who order online. The system also facilitates the creation of monitored dosage systems (MDS), which are dosette boxes filled with pre-sorted medicines for individual patients.

The automated infrastructure ensures a reliable overnight supply of prescription drugs and other products to pharmacies while complying with all MHRA guidelines. All this means less work for pharmacy staff, allowing them to dedicate more time to patients and point-of-care services. This not only increases efficiency in pharmacies, but also creates a foundation for sustained growth and a supply concept with an even greater focus on patient services.

Sector
Pharmaceutical and healthcare

Business Areas
Omnichannel Logistics

Brick and mortar pharmacies, Online pharmacy and healthcare services, Logistics and distribution, NHS services

Location
Chesterfield, UK

In operation since
April 2024

Next-day-delivery
Delivery window in UK

120,000
Items/ day

1,500
Employees

600,000
Prescription drugs/ month

Technical solution
Central Belt System with SDA
A-frame ejectors
Pack2Patient lines
KiSoft WMS and WCS

51,500
Order lines/ day

PeakPharmacy

Processes optimized.
People relieved. Mission accomplished.

01

P2P-service (prescription-to-pharmacy)

A central driver of automation was the introduction of an end-to-end direct delivery service (P2P service) for all 135 pharmacies, which would reliably supply prescription drugs and other products overnight. Thanks to the Central Belt System and the Pack2Patient lines, this goal was accomplished with accuracy and efficiency.

02

Maximum efficiency – minimal error rate

A clear target was to make processes faster, more efficient and less prone to errors. The implementation of the solution immediately led to an increase in efficiency, with over 50 % of the volume being handled via the Pack2Patient lines.Simultaneously, it reduced the error rate to a minimum. At the P2P lines, the error rate went all the way down to 0,00083 % thanks to well-thought-out processes and automatic checkpoints within the system.

03

Fast lead times

The significantly reduced order lead time was a key success factor of the automation solution. Over 50 % of all deliveries shipped from the location run through the central picking system, which has greatly contributed to boosting efficiency. The order cut-off times for delivery the next morning are clearly defined: 1 p.m. for P2P orders and 4:30 p.m. for other pharmacy stock. This ensures a reliable, timely supply to all pharmacies.

04

Going live as planned

The modernization involved 3 warehouse locations which were merged to form one central distribution center. Another clear target was to meet all project milestones, especially the scheduled go-live date. Thanks to precise scheduling and great collaboration with KNAPP in the implementation phase, this goal was fully met.

05

Technical integration of existing high-end software

One of the greatest challenges of the project was the successful implementation of 4 separate software systems. Thanks to the dedication and expertise of the engineering team, this complex task was confidently mastered. In addition to the user-friendly picking procedure, the system ensures smooth replenishment processes, allowing Peak Pharmacy to overview, access and fully trace their stock at all times, which is a major contribution to process reliability and efficiency.

06

Accuracy without compromises

The new automation solution fulfills all requirements in terms of accuracy and quality: The medicinal products are stored at the right temperature, each stock movement can be fully traced and patient-specific picking is reliable and error-free as every patient order is checked and scanned automatically at several stations. This ensures maximum process reliability so that deliveries can be made confidently.

07

Improved working conditions for employees

The automation solution has significantly improved the work environment. The processes were optimized to become more ergonomic, the systems are user-friendly and picking has been made easy to take the strain off employees, creating a modern and pleasant work environment for the employees.

08

Meeting all MRHA[1] guidelines

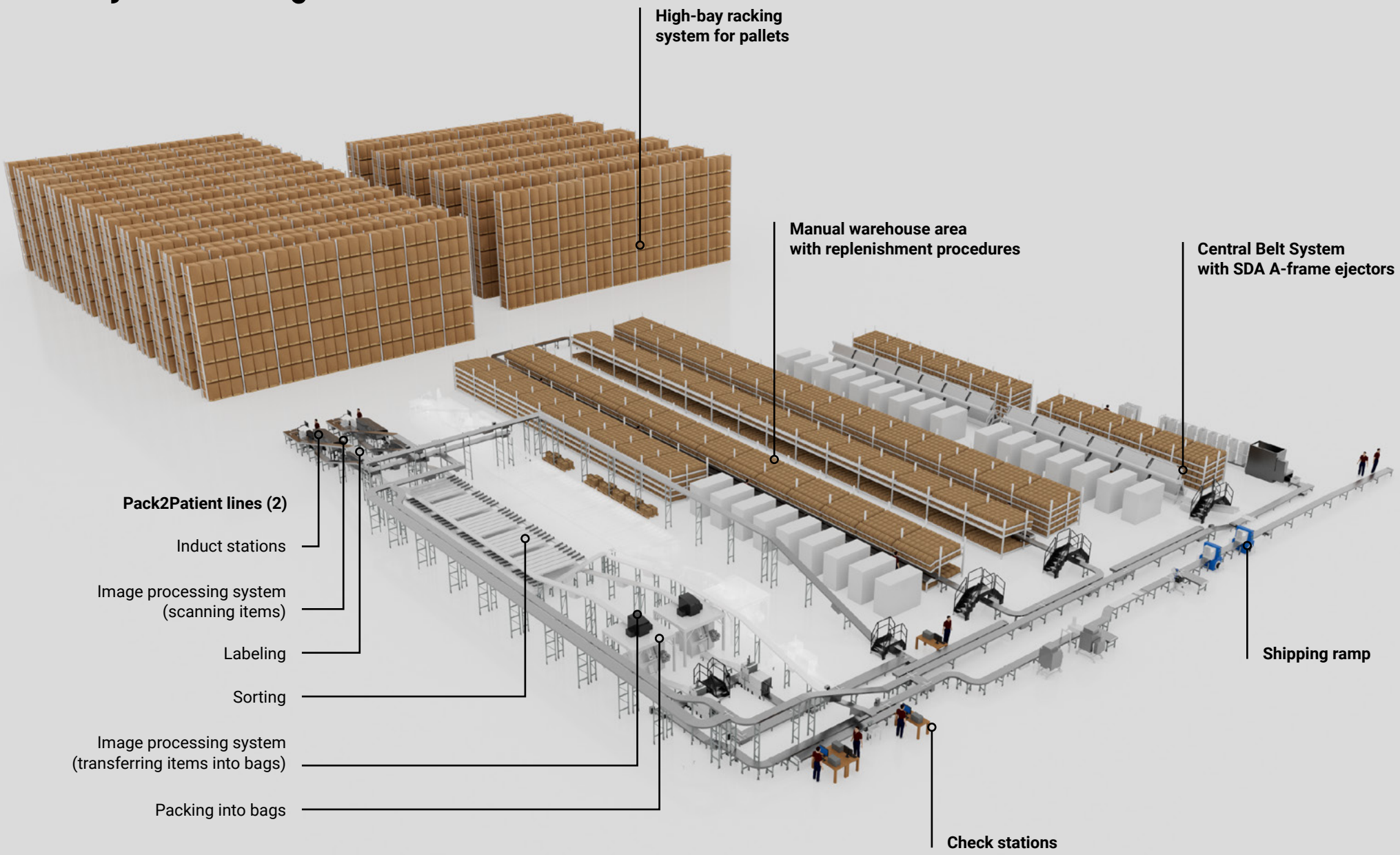
The MHRA guidelines require controlled storage conditions according to the product specifications (e.g. storage between 2–8 °C (36–46 °F)), seamless documentation and traceability, safe storage of highly sensitive medicinal products as well as comprehensive quality management. The automation solution by KNAPP meets all these criteria.

[1] MHRA – Medicines and Healthcare products Regulatory Agency is an agency in the United Kingdom which is responsible for the regulation of prescription drugs.

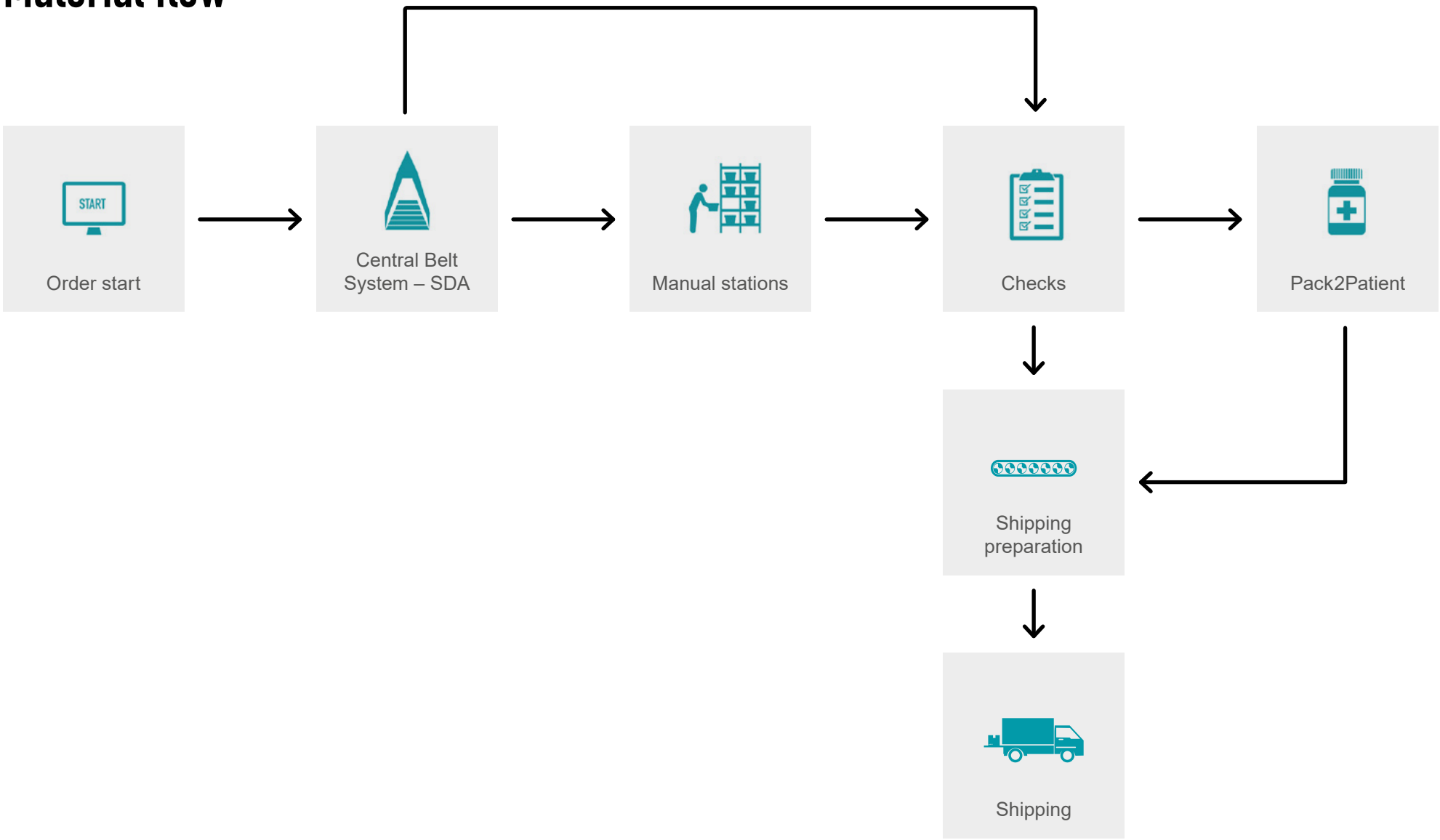
“Automation now plays a huge part in what we do in terms of freeing up staff capacity across our branch network and also supporting patients differently.”

Joe Cattee
Managing Director
Peak Pharmacy

The system at a glance



Material flow



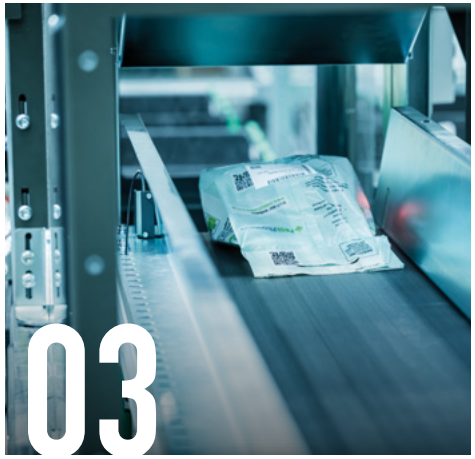
Central warehouse processes

Put away

Peak Pharmacy's ERP system reports any expected deliveries to KiSoft. Once they are booked in the KiSoft software, they're allocated to load units. Based on a replenishment workflow in KiSoft, the goods are then brought to the overstock area, the Central Belt System or the manual picking area as needed – the software requests goods automatically to meet the specified minimum stock level.

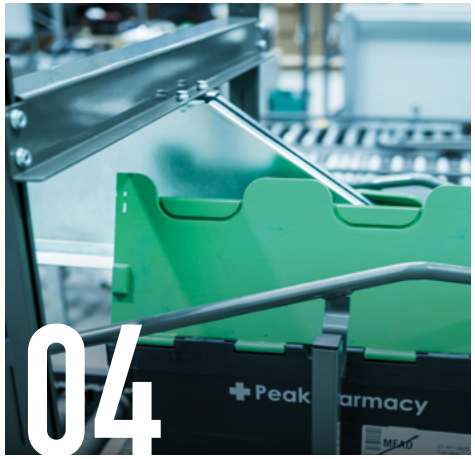
Picking using the SDA

The majority of all orders, roughly 67 %, are picked at the central belt conveyor using SDA A-frame ejectors. Before ending up in patient-specific packaging or in the shipping area for pharmacy replenishment deliveries, the load units are conveyed through the manual warehouse areas where items are added.



Patient-specific packing

After traveling on a long conveyor with a buffer function, the containers reach the two Pack2Patient lines. There, the orders are packed into patient-specific packaging: First, the items are fed manually into the system. Then, they are fully automatically recorded, allocated to a patient, labeled, sorted, packed into bags and allocated to a pharmacy container. During the entire process, they are checked multiple times with the help of a camera monitoring system.



Shipping

The shipping containers containing the bags and replenishment goods for pharmacies are automatically sealed, labeled and strapped. The containers are then conveyed to the loading ramp where they are ready for delivery as scheduled.

Efficient pharma logistics that focuses on the patient

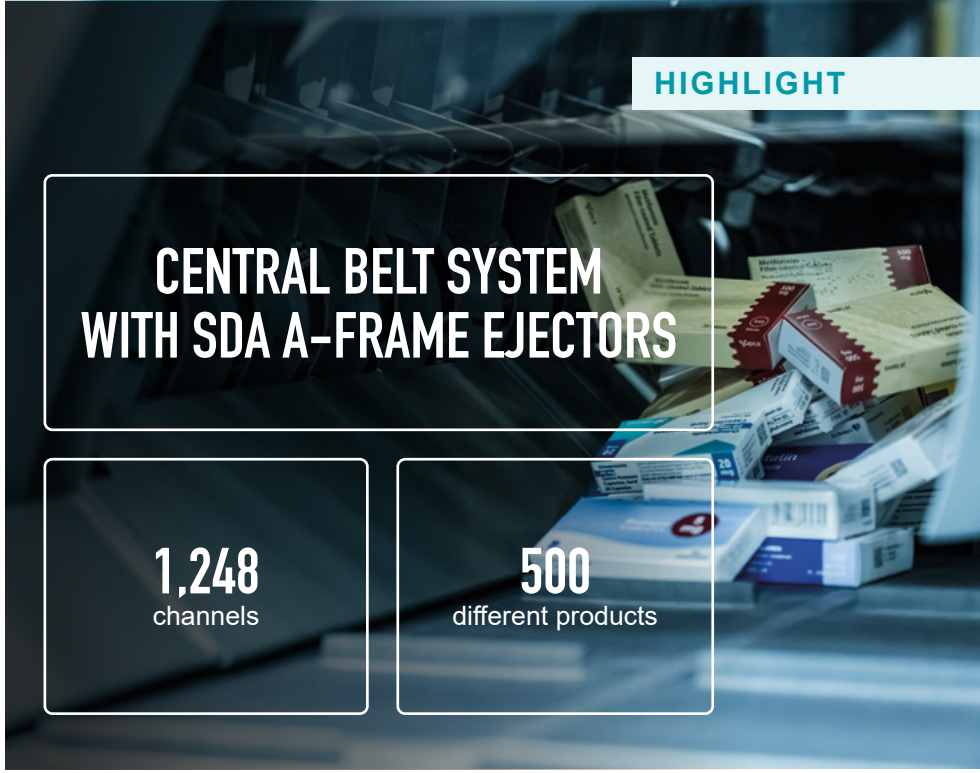
Three key technologies working together

Peak Pharmacy's logistics system is a highly intertwined combination of two innovative picking solutions with a powerful software platform. The combination of a Central Belt System, Pack2Patient technology and the warehouse management systems KiSoft WMS and WCS creates efficient, scalable and reliable infrastructure to ensure a cutting-edge supply of pharmaceuticals.

01

Central Belt System with SDA A-frame ejectors – a high-performance system for fast movers

The Central Belt System has been designed specifically to process fast-moving medicinal products. It comprises 1,248 manually filled channels containing about 500 different products. About 67 % of the total order volume is processed here, either for replenishment deliveries to pharmacies or for further patient-specific processing at the Pack2Patient lines. Thanks to the powerful SDA ejectors, medicines are sorted fast and precisely. The technology behind it impresses with extremely short lead times, high storage density and great compatibility with existing systems. Even during peak times, the system performs brilliantly, contributing immensely to efficiency and reliability throughout the entire process.



02 Pack2Patient – semi-automatic picking for patient-specific orders

Pack2Patient is a solution specially developed for filling patient-specific orders. First, employees manually place the items on the conveyor at ergonomic work stations. The remaining steps of the process are automatic:

- Labeling
- Allocation to patient
- Sorting
- Packing
- Allocation to pharmacy containers

Intelligent camera systems ensure seamless traceability and perform quality assurance. This technology takes the strain off employees, thereby increasing efficiency while remaining flexible and scalable. A sophisticated image recognition system records the lots and serial numbers. The automated filling of prescriptions outside of pharmacies frees up time for pharmacy staff so they can dedicate more time to counseling their customers, which in turn improves customer loyalty.

The automation solution ensures reliable next-day delivery for all patient-specific orders that are received by 1 p.m. Orders for replenishment deliveries are accepted until 4:30 p.m. and are also delivered the next business day. This level of service ensures high availability of medicines and maximum flexibility in daily operations.

03

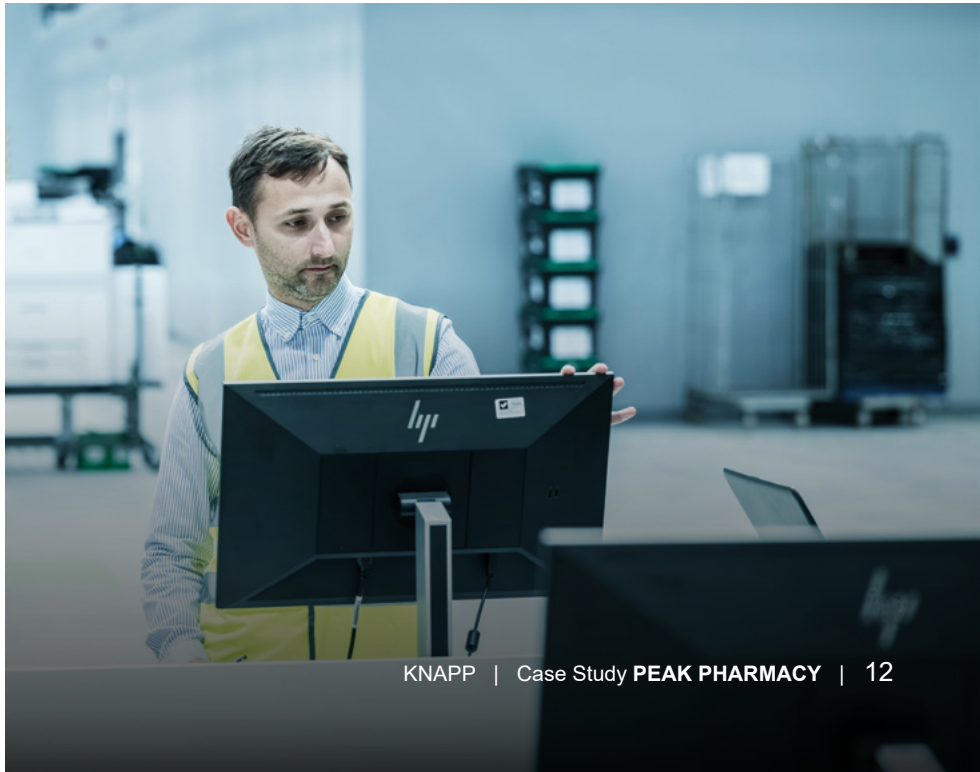
KiSoft WMS and WCS – intelligent software is key to successful system integration

The integration of the software posed a major challenge for the project since four software systems working independently of each other had to be linked up. In close collaboration with KNAPP's software engineering team, a detailed integration plan was developed and successfully implemented. The result was a seamless interconnection of all systems both in terms of functions and user-friendliness.

Special focus was placed on the warehouse management system (WMS) which ensures end-to-end traceability of all stock from the goods-in procedure to picking and shipping. Simultaneously, replenishment processes have to run like clockwork so that the maximum available inventory is in stock during the entire shift. These requirements were decisive for allowing Peak Pharmacy to overcome the limitations of the existing warehouse and fully benefit from the advantages of the new automation technology.

The integration of the warehouse management systems, KiSoft WMS and WCS to be specific, into the existing ERP system was another milestone. This was another matter that required close collaboration with the software team in order to deal with complex interfaces and to meet the deadlines set for testing. Thanks to the new solution, all warehouse processes are now centrally and transparently controlled using the intuitive user interface design easyUse, while intelligent image recognition ensures maximum process reliability.

The combination of modern automation technologies such as the Central Belt System and intelligent software forms the basis for a long-lasting logistics system that meets the highest requirements in terms of efficiency, scalability and quality.



“Pack2Patient was one of the driving factors for us for the project overall so that we could free up time in the pharmacies.”

Darryl Dethick
Head of Business Transformation
Peak Pharmacy

All-round service

Peak Pharmacy is striking out on a new path by maintaining their logistics solution with a comprehensive service package and in-person, on-site support. The KNAPP Resident Engineers are there to service and continually optimize the entire system. In doing so, the on-site technicians use KNAPP's electronic maintenance management tool KiSoft CMMS, handle everything to do with spare parts and are the first to respond to unforeseen events. They also communicate directly with KNAPP's Service Desk. To ensure stable and secure operation of the IT infrastructure, Peak Pharmacy also relies on a number of IT services. However, reactive and preventive services are not the only things that are vital for the British pharmacy chain; the company also uses KNAPP's big data solution, KiSoft Analytics. The intelligent software collects data from all warehouse areas and displays it on dashboards so that users always have an overview of the most relevant information for efficient warehouse operation.

"Collaborating closely has made us part of a large team with a clear goal in mind. That's exciting and it feels great."

Joshua Kayes
Site Engineer at Peak Pharmacy
KNAPP UK

left to right: Paresh Patel (Key Account Manager), Joshua Kayes (Site Engineer) – both KNAPP UK and Darryl Dethick (Head of Business Transformation), Joe Cattee (Managing Director) – both Peak Pharmacy

Collaboration based on shared values – from the first idea to the final project

From the very beginning, the partnership with KNAPP was characterized by a high level of mutual trust, professionalism and understanding. As a family-run business with clear values, it was very important to the management to make decisions transparently and with a sense of integrity while creating an open dialogue with the project teams. Thanks to this collaborative working culture, everyone involved had the opportunity to play an active role and create mutual understanding of the project goals. When interacting with an internationally active tech partner like KNAPP, it soon became apparent how valuable a work relationship on an equal footing was. A point of contact could always be reached, so close, trusting relationships formed naturally that have lasted even beyond this project.

Peak Pharmacy chose KNAPP after a careful evaluation of different suppliers. The decisive factor was the ability to efficiently process the planned volume and number of packs through the new hub. From the initial on-site visits at the very start, KNAPP made a stellar impression with their innovative technology, high system competence and dedicated team. What stood out in particular was their clear commitment to actively help carry the strategic plan and to implement it together as a team. Furthermore, KNAPP gave the impression from the beginning that they are not just a supplier but a real partner who has your back – a feeling which, in the course of the project, proved to be absolutely true and has immensely contributed to Peak Pharmacy's success today.

"When we set out on this journey, we viewed a number of different providers, and we felt, the balance of things, that KNAPP was the best solution for the volume and the number of packs that we wanted to put through our hub."

Joe Cattee
Managing Director
Peak Pharmacy

Fashion
Retail
Food Retail
Healthcare
Industry
Wholesale

VALUE CHAIN TECH PARTNER

Expand your competitive advantages

We work together with you to design and build a system tailored to suit your logistics requirements, growth targets and investment strategy.

At KNAPP, we don't deliver systems off the rack; we take the time that's needed to learn about your needs, business model and the challenges in the industry. Whether you want micro or macro, a semi-automatic system to help you get started or a fully automatic distribution center for top performance – we have just the right all-in-one solution for you.

We look forward to hearing from you:
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