

End of line automation

How our automated solution helped fulfill a food production company's unique needs



Snapshot

Company	Fatland
Industry	Food production
Number of Employees	620
Production Size	200 tons of processed meat per day
Körber Competency	Automation and material handling equipment
Solution(s)	End of line automation

Complexity

To process a wide variety of products more productively, while also minimizing faults and waste.

Best practice

An automated end of line solution, including crate conveyance, sorting, miniload, robot palletizing, pallet conveyance and buffering, handling up to 3,000 boxes per hour from 15–20 production lines.

Overall input capacity of

3000

products/h from production

Overall output capacity of

70

EUR-pallets/h

From low to

100%

automation

Keeping up with production

Fatland is a family-owned meat company. Rasmus Fatland started the slaughtering business back in 1892 in Vikedal, Norway, and it is now operated by the fourth generation of the family. The slaughterhouse in Ølen, Norway, produces consumer packed meat – approximately 200 tons of processed meat per day, divided into 50–100,000 small crates weighing between 500 grams and 5 kilograms.

The Fatland plant includes 22 different production lines, handling relatively small series and a wide variety of products within each line. This places heavy demands on the storage system, and in 2016 it proved necessary to automate production, not only to maintain and increase productivity, but also to minimize errors and waste.

Facing unique challenges

Fatland requested a customized solution adapted to their existing production set-up. Their main concern was space. They knew a system like the one they needed would normally call for up to 15 meters of building height to work at full capacity. However, their buildings were only 5 meters high.



Plus, the system needed to handle a high number of different products of different weights and sizes. The storage and palletizing solution also had to be able to build customized pallets with a mix of different products, as well as full pallets with a single type of product.

At that point, their storage control system was taking a very long time readjusting and preparing for new types of goods. This was one of Fatland's biggest challenges: handling relatively small series and a high variety of goods in the same packing line. To keep up, as new products kept being introduced, they quickly realized all goods needed to be handled automatically.

Customizing the solution

They knew their production levels and facilities called for a new sorter and buffer system for the various products, capable of conveying goods to mixed pallets at the required times. That's why they came to us as experts in end of line automated solutions.

Together, we developed a system that fit their unique needs. With our solution, after sortation, the products enter trays and form one pallet layer per tray. The products are then conveyed either into buffer storage – consisting of a miniload storage with three cranes – or directly to palletizing. The assembly of customer-adapted pallets is handled by two palletizing robots. Products arrive either from the production area or from the miniload storage. The completed pallets are shrink-wrapped and then proceed to a pallet buffer that handles the sortation in preparation for destinations or customers before further conveyance. Conveyance and storage are managed by a warehouse control system that optimizes coordination of the production, storage palletizing and dispatch.

This way, the new warehouse and palletizing solution successfully increased both speed and flexibility – all keeping within their facility's height limit.

Collaborating for the win

Fatland welcomed our collaborative approach. We first made sure to understand their challenges in depth, to then bring them the right solution for their goals. It was also essential that our teams cooperated well, as they worked closely together for months, assembling and implementing the customized system.

“I can safely recommend Körber as supplier of this type of system. Our cooperation worked really well. They understood our challenges and solved them for us – and on time. This was essential to us, since time is an incredibly important factor for such a large system.”

Inge Fatland
Co-owner and Technical Manager

Thanks to our end of line solution, the company can now easily operate different goods on different pallets, customizing each layer to the customers' needs. The system is adapted to fit Fatland's growing needs and targets, as well as achieving the original goal of improving productivity, while reducing errors and waste.

“Körber delivered on time on the dates they had given us during the contract phase,” said Fatland's Co-owner and Technical Manager Inge Fatland, adding: “For instance, when they would arrive on site and start installation, and the dates when we would start test running. They stuck to all these deadlines. That was also very important to us.”

Looking for an end of the line solution customized to your unique needs and facilities?

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