

CASE STUDY

NORTURA, NORWAY



National distribution center for fresh and frozen meat

«After the running-in period we can now see big operational advantages with the automated system, it seldom fails. The operation is stable and we can rely on the fact that deliveries are made on time.»

Bo Eriksson, Warehouse Manager

The customer and his requirements

Nortura was formed in 2006 through the merger of Prior Norge and Gilde Norsk Kjøtt. Both companies are distributors of frozen and fresh meat products.

The Hærland site distributes chicken and turkey, frozen or chilled, a total of 200 chilled and 50 frozen products.

In 2004 it was decided to concentrate order picking in a single location in order

to meet the need for more efficient handling combined with shorter lead times. The choice of location was based on proximity to the site where most of the products were manufactured, which was the Hærland facility. It was decided to go for an automated distribution center to save costs on labor and operations.

Swisslog was selected as the main contractor for the site, as their solution provided the best fit for Prior's requirements.

swisslog



The solution

The distribution center delivers fresh and frozen meat products to the whole of Norway. The products are delivered in crates and pallets. The Hærland DC handles goods manufactured on site as well as items coming in from outside the facility, such as eggs, fresh whole chickens, and processed meat (e.g., barbecued chicken). The products that are processed externally arrive back on site by truck.

Crates with chilled products from internal production and packaging lines are manually palletized to pallets per SKU. Each crate put on these pallets is identified for tracking purposes. The pallets are then manually transferred onto the conveyor bridge to the NDC. Once they have arrived at the NDC they are transported by conveyor to either the manual storage or the automated MultiPick storage.

All chilled SKU pallets that go into the MultiPick storage are automatically depalletized. These may be pallets from production, manual storage, or processed products from external sources. The depalletized crate stacks are transported to the automated MultiPick storage via light goods conveyors. MultiPick is used to order-pick full crates, which are then transferred to conveyors.

MultiPick will also pick crates to the flow racking for single-item pick. These items are manually picked into mixed order crates per customer. This picking operation is directed by pick-by-light technology. The mixed crates from the manual area and full crates from MultiPick are picked in customer sequence and then transported to a consolidation area.

In the consolidation area, consolidation lane conveyors buffer the crate stacks

LOGISTICS DATA

Hærland DC facility, overall

Total size DC	12 000 sq mt
Number of SKUs	200 chilled 50 frozen
Orders picked Fresh	30 464 tonnes p/a
Orders picked Frozen	4 536 tonnes p/a

High-bay warehouse

Number of stacker cranes	2
Number of pallet locations	4 000

Automated picking

MultiPick System	4 heads
Picking capacity	62 000 totes/week



created per sub-system (MultiPick 1-4). The stacks are then destacked and each crate is customer-labelled, after which the crates are restacked into stacks of a pre-defined height. The crate stacks are then automatically palletized and collected by shuttle car, which transports the pallets to the dispatch area.

Frozen goods are stored in an automated deep freeze high-bay warehouse. Pallets from the deep freeze warehouse are automatically transported to pick stations and/or to dispatch (for full pallet orders). At the picking station, mixed SKU pallets are created per individual customer order. The finished pallets are then buffered in the deep freeze automated warehouse or transported directly to dispatch. These pallets are automatically labelled. At the dispatch dock frozen goods are merged with chilled products. They are then loaded onto trucks and transported directly to the customers.

The benefits

- > Reduction of staff costs/kg of product
- > Low operating costs at high volume
- > On-time deliveries
- > Stable operation
- > MultiPick provides fast order picking
- > With MultiPick, the solution is "open" and doesn't require racking, which results in cost savings

Swisslog's scope of supply

- > Design and implementation of a new distribution facility
- > High-bay deep freeze warehouse with 4 000 pallet locations and two stacker cranes
- > Pallet conveyor system
- > MultiPick gantry robot system with four heads for full crate-picking in fresh area
- > Manual zone-to-zone mixed-crate picking with automated replenishment by MultiPick heads
- > Manual fresh goods pallet buffer storage
- > Automated palletizing of crates
- > Swisslog WarehouseManager WMS
- > Swisslog material flow control system

CUSTOMER DATA

Company / Location

The Nortura Hærland DC used to be Prior's CDC. Nortura has partnerships with over 30 000 farmers in Norway.

Brands

Nortura is Norway's leading supplier of fresh and frozen meat, with Prior being the country's leading supplier of eggs and white meat.



INTERVIEW WITH BO ERIKSSON, WAREHOUSE MANAGER

What was Nortura's main target in concentrating its distribution in Hærland?

"The main target was to concentrate order picking in one location. That location was to be the one where most of our products were produced."

Could you tell us a bit more about the Hærland site?

"The total size of the site, including production, is 26 000 m². The site distributes to the whole of Norway and operates from Monday through Friday on a two-shift system. Peak periods include January, Easter, May, June, and Christmas. Picking starts at 7 every morning. The goods are ready for loading at 11."

What made Nortura choose this solution?

"The main reason for choosing this solution was that it is efficient, easy and well presented. Particularly the "openness" of the MultiPick area is very appealing. We were sold on it after a site visit in Finland."

Why did Nortura choose Swisslog as the total integrator of the DC?

"Competing with two other suppliers, Swisslog was able to offer the best overall solution for Nortura."

How has the solution been received by your staff?

"People feel positive about it, even though it was a big change. Due to the automation we have had a huge reduction in staff, from 80-90 people down to 25."

What are Nortura's plans for the future?

"We plan to utilize the full capacity and all possibilities of the system while keeping an optimal pace with the increasing processing volume of the facility. We will also consider future development needs and solve bottlenecks. Furthermore, we will take a look at the total distribution picture. We are continually working towards the goal of making distribution as effective as possible and we will consider all distribution methods and opportunities."

Can you describe what Nortura's relationship with Swisslog is like nowadays?

"Today we have a close and tight relationship with Swisslog in the areas of both hardware and software, especially when it comes to the support and further development of the installation."