

Jungheinrich customer reference

Versatile automation for Bohus Norway.

 **JUNGHEINRICH**

Streamlined warehouse solution for a vast range of products.

An exciting adventure. That's how CEO Hakon Bredde-Prytz describes the first automation project conducted at Bohus, Norway's largest furniture and furnishings company. The new headquarters in Lillestrøm now boasts an automated high-bay warehouse delivering maximum dynamics within the logistics process, while incorporating energy-efficient practices to contribute to sustainability and cost-effectiveness. There's a place for every item in this warehouse, from delicate Christmas baubles to heavy-duty dining tables. Precision planning and a custom solution comprising various load carriers, as well as suitable racking and conveying systems, were essential in meeting truly challenging requirements.

KICK-STARTING A NEW ERA.

Norway is renowned for its particular charm. It is a long, narrow country with breathtaking countryside and a small population. The flip side of the coin is that logistics and transport costs are extremely high. To meet the increasing customer requirements in terms of stock availability and delivery efficiency, while simultaneously reducing energy consumption and improving cost-effectiveness, Bohus opted for an automated warehouse for the first time. "We were reliant on an expert partner like Jungheinrich to see us through the implementation, to accompany us through the entire process and safeguard against so-called rookie mistakes," explains Bredde-Prytz.

AUTOMATED WAREHOUSE WITH THE UTMOST FLEXIBILITY.

With approximately 32,000 storage locations, the extensive pallet and small-parts warehouse has plenty of space for the extremely varied range of products. Small parts are handled in the automated small parts warehouse, while heavy items of furniture are stored on "blue pallets" made of steel. There are three different order picking areas for loading containers, Euro pallets and special pallets, providing structure and order. This allows stock levels to be built up quickly and required items to be supplied to stores and customers as needed. "In the age of online sales and 24-hour shipping, every second counts," says Bredde-Prytz from experience, keen to give his furniture retailing brand an edge over the competition.

PERFECT LOGISTICAL INTERACTION.

Racking systems, software and all the other components involved, work together seamlessly in the new central warehouse. The Jungheinrich WCS controls the transport movements within the automated system and is also connected to the internal customer ERP and Warehouse Management System. Even the "blue pallet" developed by Bohus, measuring 1,400 x 2,400 mm and able

to hold up to 1,300 kilogrammes, was able to be incorporated into the automated warehouse system following examination by the Jungheinrich experts.

17% ENERGY SAVINGS AS CONTRIBUTION TO SUSTAINABILITY AND COST-EFFECTIVENESS.

In addition to the process-related improvements that Bohus wanted to achieve with its new automated warehouse, the topic of sustainability played a major role. Bohus opted for energy-efficient components and processes wherever possible. Thus, all manual trucks are powered by Li-ion batteries and the miniload stacker crane is equipped with SuperCaps, which enable energy regeneration. The more efficient and leaner flow of goods, resulting in fewer internal transports, the utilisation of height, resulting in a smaller footprint and shorter internal transports, and the goods-to-person concept, resulting in fewer picking errors, have also led to energy savings. To summarise, Bohus was able to achieve a 17% reduction in energy consumption with its automated warehouse in conjunction with manual trucks compared to the previously fully manually operated warehouse.*

A SUCCESSFUL PROJECT WITH A STEEP LEARNING CURVE.

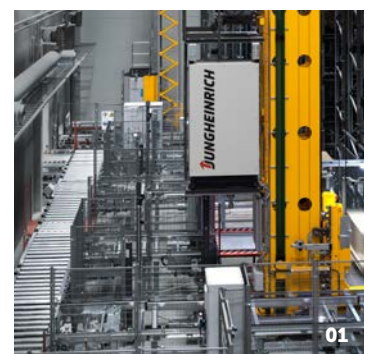
The new warehouse solution provides customer benefits on a daily basis: faster processes, greater reliability, higher throughput and fewer picking errors, and last but not least, energy savings, which make a decisive contribution to sustainability. "For us, technology is the most important tool but it's people that make the difference," explains Jens Gjerlaug, former head of the system department at Jungheinrich Norway. He oversaw the project from day one, and is impressed by the positive effect on the customer relationship stemming from the joint learning process with regard to the automated system. Open communication and transparent decisions are set to remain the bedrock of the collaborative partnership in future.

01

Stacker cranes for automated storage and removal convey the wide range of products to their intended destination with maximum throughput.

02

The comparison between two similar periods, one with fully manual processes and the other with the new automated system in conjunction with manual trucks, reveals a 17% reduction in energy consumption.*



Manual (kWh) – Year 1
Automated in conjunction with manual (kWh) – Year 2

*study conducted by Bohus and Jungheinrich over a period of 2 years; no significant change in total volume between the two periods; energy used for heating is excluded from the figures



// High performance, increased reliability and improved delivery capability – our brave decision to go automated pays off every day. //

Hakon Bredde-Prytz
Logistics Director of
Bohus Logistikk AS

**We speak to
Hakon Bredde-Prytz,
Logistics Director of
Bohus Logistikk AS**

What is special about the new warehouse solution in Lillestrøm and why did you choose an automated solution?

The new central warehouse has turned our vision of a streamlined warehouse with short delivery times into a reality. Jungheinrich provided a huge amount of support in achieving this: we had no prior experience with automation and were able to go through the pros and cons in detailed discussions with the Jungheinrich experts. It quickly became apparent that an automated solution was the best way to manage the complexity of our warehouse and the huge range of products. We can now efficiently pick both small, delicate goods and large, heavy items under one roof without damaging the products or making our operations excessively expensive.

Which products are used in your automated system and what are the main benefits of the solution?

The system comprises an automated small parts warehouse, three pallet stacker cranes and two stacker cranes for so-called „blue pallets“, designed to transport large and heavy products weighing up to 1,300 kilogrammes. Separate order picking and infeed stations for all three systems have been put in place. The process for transporting goods is extremely well-structured, with picking errors virtually eliminated. We maintain an overview of our stock levels and are able to get goods to our customers faster. In terms of software, the Jungheinrich WCS and our internal ERP and Warehouse Management System work hand-in-hand, a process that has run flawlessly from the start.

Were you happy with how the project progressed and would you recommend Jungheinrich as a partner?

The entire project was an adventure for us and we as a company developed significantly as a result. We learned something new every day and were able to keep optimising our processes. After commissioning, our employees received in-depth training from Jungheinrich on how to control the system without mistakes. From the sales phase, through the implementation phase and right through to the after-sales service phase, the chemistry between Bohus and Jungheinrich was clear to see. The Jungheinrich service engineers always react promptly with a solution-focused approach: just how we like it. I don't see why we cannot continue working together successfully for the next twenty to thirty years.

AN OVERVIEW OF THE PROJECT

Bohus

Client:	Bohus Logistikk AS
Industry:	furniture retail
Size of the company:	65 employees
Location:	Lillestrøm, Norway
Warehouse size:	approx. 30,000 m ² storage space

CHALLENGE

Automating goods transportation to ensure efficient handling of a wide and very varied range of products, and the long-term increase in reliability, warehouse capacity and delivery capability.

JUNGHEINRICH SOLUTION

Automated pallet and small parts warehouse with double-depth storage for around 32,000 storage locations, individual order picking stations for the various loading devices and a combined software solution to control the system.

RESULTS

In addition to increased process reliability and higher goods throughput and energy efficiency, Bohus benefits from faster processing with a minimised risk of picking errors and energy cost savings.

IMPRESSIONS



Precisely configured pallet and container conveying technology ensures maximum efficiency in the material flow.



Particularly heavy items are loaded at the order picking stations designed to handle the "blue pallets" developed by Bohus.



Manual handling in the miniload container warehouse enables small, fragile goods to reach the customer undamaged.