

New Warehouse Management Solution Triples Prime Cargo's Capacity

The Challenge

The rise of e-commerce is a major challenge for third-party logistics (3PL) companies – even for Prime Cargo, a large international 3PL based in Kolding, Denmark. The company is well-equipped to process orders for its customers using the Tecsys warehouse management solution (WMS). However, e-commerce is growing by 15-20% annually and customers continue to demand fast delivery and high service quality.

Prime Cargo realized it needed to be in a better position to stay competitive, especially when one of its customers, Magasin, a large Danish department store chain, announced plans to significantly increase its e-commerce investment. Not only would Prime Cargo need to handle those expansion plans, but also ensure they can withstand 10-20 times the normal number of packages on major e-commerce days such as Black Friday.

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The Solution

Prime Cargo commissioned a warehouse automation project with its existing Tecsys WMS, which was implemented in 2007 and has been continuously enhanced throughout the years. The Autostore® automation project was simply one more step in Prime Cargo's warehouse optimization process.

"This was a major investment, but a necessary one to ensure competitiveness. And we are pleased with the success of the project to date," says Morten Høilund, CEO of Prime Cargo Kolding.

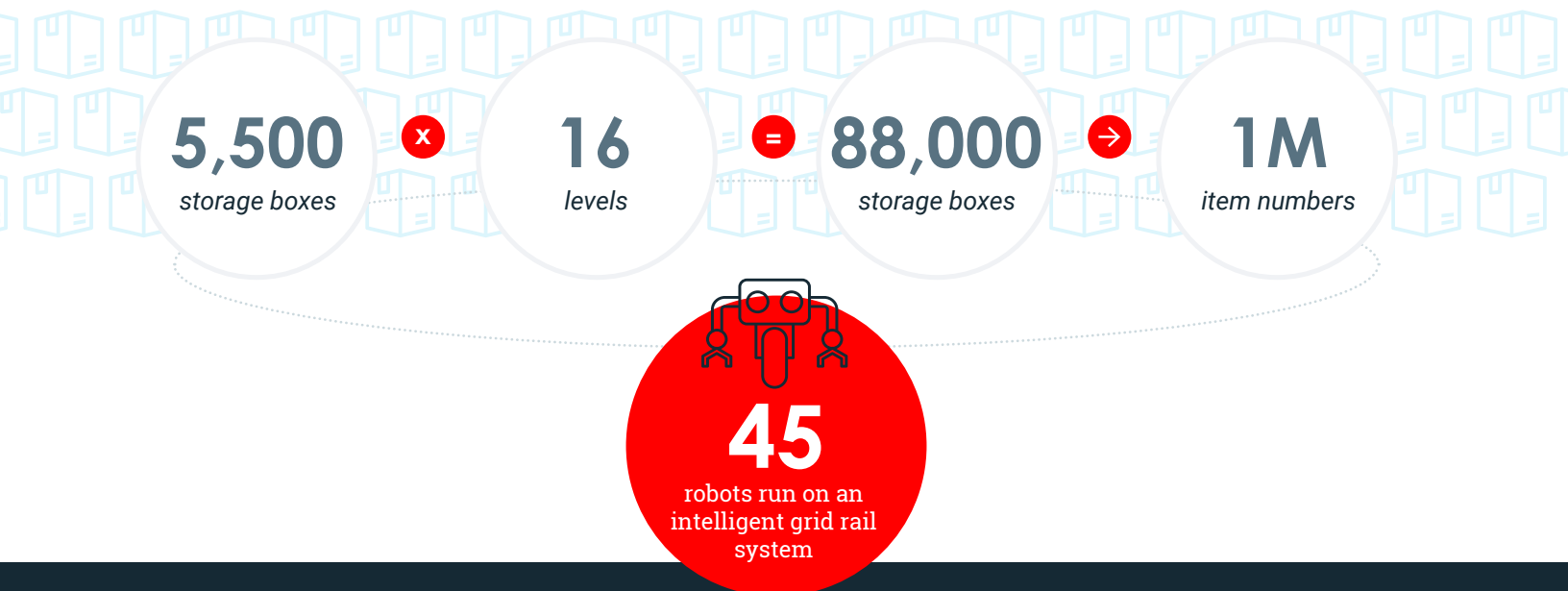
To gain maximum efficiency, Prime Cargo committed to automating as much of the processing as possible. Two 43,000 square foot halls were converted to the Autostore® system. Instead of traditional storage racks with space between them, where employees can go in and pick, the entire surface is covered by a total of 5,500 storage boxes. The boxes can be stored 16-high, so the warehouse holds 88,000 boxes. Depending on the size of the items, a box can hold up to 12 item numbers. This means a system capacity of more than one million item numbers in the new warehouse.

Forty-five robots run on an intelligent grid rail system over the boxes and dive down to the location of the desired item, collect the box and send it to a manned outbound station. Box after box.



"Order-picking automation has several secondary effects. The manual side of the operation is now a lot more manageable. We avoid much of the stress that can arise before the holiday season and especially after Black Friday, when we have 100,000 shipments."

Morten Høilund, CEO, Prime Cargo Kolding



"The Tecsys warehouse management system tells the robot where the items are and in which order the boxes must be collected and delivered so that the process runs smoothly and efficiently. The challenge is for the system to deliver data at the right speed and logic in relation to the physical layout. Artificial Intelligence (AI) is used to record events for ongoing use in optimizing the process."

Michael Ynill, WMS Specialist, Tecsys

The Outcome

From the time Prime Cargo started the project, it took eight to nine months to build and test the system. At the beginning of 2019, they started emptying two existing halls to make room for new grids. By July, the new equipment was in place and the remainder of the summer was spent testing all the aspects. Tecsys also provided advice on the physical structure.

“We went live in September and the implementation process was the best I have experienced in my 20 years in the industry,” says Høilund. **“There was pressure to meet deadlines, but we made it. Tecsys and the rest of our supplier partners were flexible and contributed in the best possible way.”**

To be competitive internationally, 3PLs must be highly efficient. An investment in an automatic warehouse where robots find the goods for shipment can save employees many miles every day and stress on the busy days, like the holiday season.

“We can have three times as many products in the same place and employees spend a third of the time they used to spend on each shipment. With the increased capacity, we are well-equipped to serve our customers’ growth and bring in new customers,” says Høilund.

Nonetheless, Prime Cargo’s new, larger capacity is not expected to reach far into the future. The company expects its growth to outpace the rapidly expanding e-commerce fulfillment marketplace by more than 25%. They are already looking at expansion options and with the results of this project, they expect to invest further in capacity. In Kolding, Denmark, Prime Cargo has an additional 172,000 sq. ft. of halls used for e-commerce.



“In three years, we will have the world’s largest Autostore® terminal for 3PL. E-commerce is growing and consumers expect fast delivery. With Tecsys WMS and our autostore, we have a strong competitive parameter that ensures service quality and short delivery times at internationally competitive prices.”

Morten Høilund
CEO, Prime Cargo Kolding

About **Tecsys**

Since our founding in 1983, so much has changed in supply chain technology. But one thing has remained consistent across industries, geographies and decades – by transforming their supply chains, good organizations can become great.

Our solutions and services create clarity from operational complexity with end-to-end supply chain visibility. Our customers reduce operating costs, improve customer service and uncover optimization opportunities.

We believe that visionary organizations should have the opportunity to thrive. And they should not have to sacrifice their core values and principles as they grow. Our approach to supply chain transformation enables growing organizations to realize their aspirations.



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