

FORTNA

Client Success Series

Returns System Upgrade Sets up Internetstores for Continued Growth



INTERNET
— STORES

photo credit: David Schultheiß

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Internetstores GmbH, a rapidly growing e-commerce company in Stuttgart, Germany, projected 20% annual growth. A subsidiary of Signa Sports United, the company operates 40 online shops, with nearly 1,300 brands and 130,000 products, shipping bicycles, parts and outdoor accessories to 14 European countries. To ensure that its logistics capabilities can keep pace with the company's growth forecast, FORTNA developed a comprehensive retrofit expansion project. Having already made investments in automating and optimizing order picking at the company's logistics center in Esslingen, Germany, the next phase of the plan included the implementation of an innovative system that would enable efficient order returns processing at the company's Untertürkheim location.



Redesigned workstations allow for ergonomic handling of returns.

The Challenge

Consumers have high expectations for returns processing, which can place a strain on a company's e-commerce fulfillment processes. Best practices include: customer credit issued immediately upon receipt of goods, quality inspection, quick return of goods to inventory for resale, re-packaging, processing of returns, and leveraging returns inventory to fulfill new orders. Internetstores sought improvements to the existing returns processes in terms of customer service and profitability.

According to Markus Knöller, Head of Group Fulfillment and Logistics at Signa Sports United, "We had exhausted all available possibilities in terms of space usage within incoming goods areas and experienced diminishing productivity in returns processing," Knöller said. "We required higher returns productivity as soon as possible."

The Solution

The solution was based on an innovative driver-less transport system – referred to as the “E-BoxT” – to handle smaller items suitable for containers. Incoming returns are automatically opened at processing workstations and sorted into containers according to their product characteristics. The E-BoxT units transport returns between different work areas for further processing, such as textile and hardware rework departments. The bots also store and retrieve containers in a specially designed horizontal storage unit.

The new returns processing system automates processes, such as in film packaging and package opening areas. The use of autonomous vehicles for transport and interim storage capabilities enabled specialized workstations and the grouping and prioritization of returned products for increased efficiency. The workstations were also redesigned for ergonomics and efficiency and feature visually appealing lighting, variable height adjustability and individual temperature control – creating an ideal working atmosphere for each employee.



AGVs enable significantly more efficient returns processing.

E-BoxT units also feed the containers directly onto the conveyors that deliver products for resale to the warehouse, for a seamless return to inventory. To ensure future scalability, the components of the new returns system were designed for modular expansion as returns volumes increase.

A final innovative aspect of the returns system was the integration of automatic guided vehicles (AGVs) for the transport of loose textile parts. The new design also enabled Internetstores to repurpose an overhead conveyor system – which was previously utilized for textile logistics – to transport bicycle tires.

The Results

According to Eduard Jesser, Head of Returns for Internetstores, the redesign of the workstations eliminated unnecessary employee foot travel and resulted in a productivity increase. In addition to the return on their investment, the new returns processing solution increased Internetstores' efficiency and flexibility.

“Thanks to these measures, we have achieved significant improvements in returns processing. Now items are more quickly received and made available for resale,” said Jesser.

According to Thomas Petrovic, Head of Project Management Logistics at Internetstores, productivity and profitability are on the rise. “Our calculations have shown that with 120 single cycles per hour, 250 operations would be required for a conventional return system with conveyor technology. With the E-BoxT system, we need just eight vehicles to match this productivity level, achieving financial savings of 30% and significantly reducing energy consumption,” said Petrovic.

And with the modular nature of the system design, Internetstores is poised to meet its ambitious growth targets without overburdening their returns processing capabilities.

FORTNA

About FORTNA

FORTNA partners with the world's leading brands to transform omnichannel and parcel distribution operations. Known world-wide for enabling companies to keep pace with digital disruption and growth objectives, we design and deliver solutions, powered by intelligent software, to optimize fast, accurate and cost-effective order fulfillment and last mile delivery. Our people, innovative approach and proprietary algorithms and tools ensure optimal operations design and material and information flow.

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