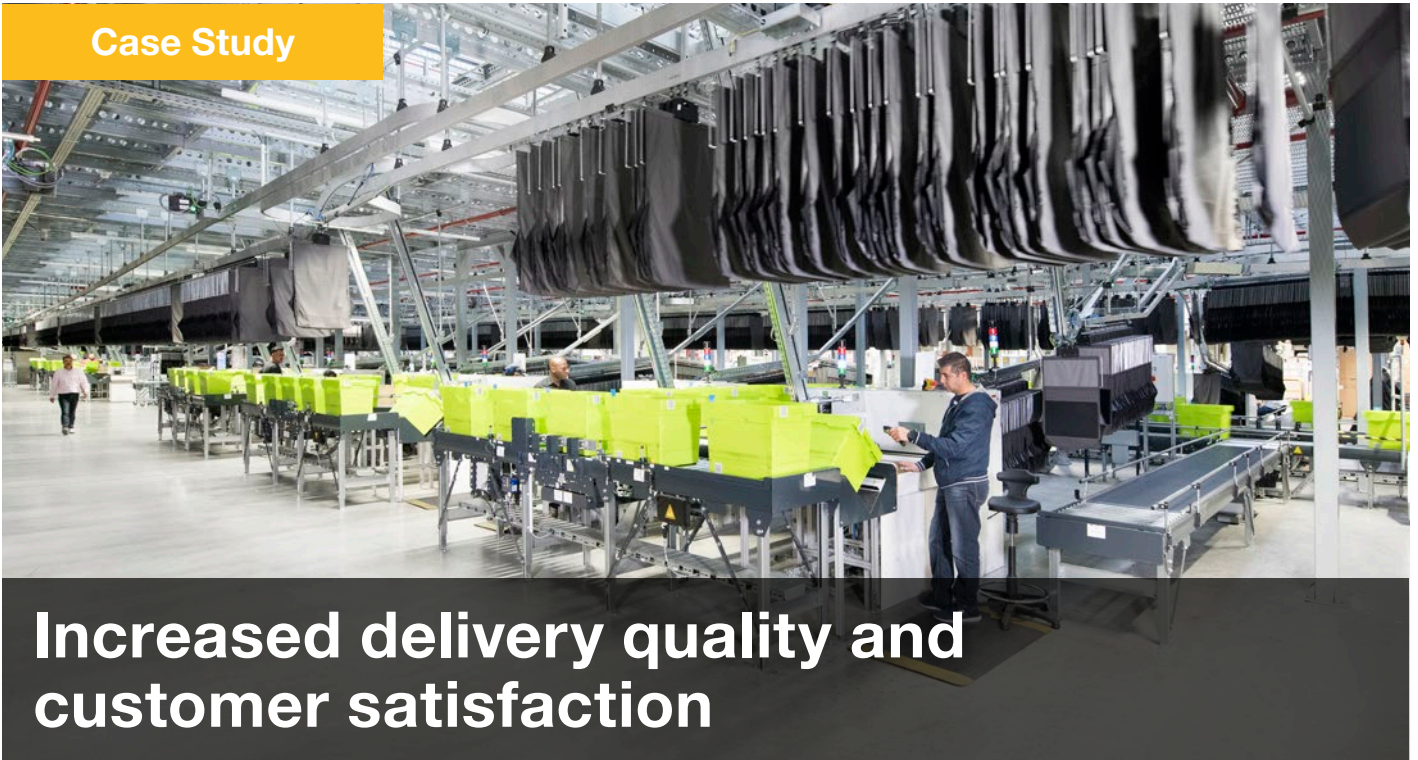# Increased delivery quality and customer satisfaction

Arvato e-Commerce / Hanover, Germany

Arvato's distribution centre in Hanover, where customers from the fashion industry are served, has the most modern pouch sorting system in Europe. The Dematic Pouch System, thanks to its high degree of flexibility, is able to accommodate a wide range of different types of goods and thus contribute to the success of e-commerce systems.

The Dematic Pouch System is the flexible and scalable solution that enables retailers to manage multi-line store replenishment and e-commerce direct to consumer orders using a single solution from within the same distribution centre.

Challenge

E-commerce growth is fueling the rise in omni-channel fulfilment. Retailers need a solution that supports store replenishment and direct to consumer orders from a single distribution centre. This solution must address the needs of an omni-channel operation and also accommodate growth, demand fluctuations, SKU proliferation and changes in order profiles. It also needs to seamlessly integrate the returns process into the fulfilment process to make the returned goods available for re-sale and picking immediately.

Solution

The Dematic Pouch System is a flexible and scalable solution that can be used to store, transport, sort and sequence individual items in support of pure e-commerce and omni-channel order fulfilment operations. The system uses pouches suspended from rollers that travel in an overhead track. Each pouch carries a single item, either placed inside the pouch or hanging from an attached hook (used for garments on hangers, such as dresses or coats). The system transports and sorts items based on

order requirements and delivers them to operators for order consolidation, value-added services and final packaging.

Implementation

At Arvato's pouch-sorting facility, up to 12,500 items per hour are picked, localised and provided for Europe-wide shipping. Spread over four levels, the Dematic Pouch System has 25 manual and four hanging induction machines as well as 13 returns inductions, a dynamic buffer, a presorting area, numerous packing stations and an empty pouch storage.

The pouch sorter is used to buffer returns goods and to sort customer orders. Arvato stores the returned goods in pouches directly after processing. The goods are identified and married to the pouch so that Arvato can track them at every point in the system.

In pre-sorting, 22,500 items can be processed simultaneously, via three comb sorters and 92 sorting lines. The returned goods then run into a dynamic buffer, which is located upstairs. The buffer consists of long loops that

hold inducted inventory and circulate continuously. There, the goods wait for new customer orders. In total, more than 153,000 bags are stored in the dynamic warehouse. The loops are fed by four sorters.

If a sales order cannot be completely fulfilled from the returned goods, goods can be picked from the manual static shelf. This product is then also loaded into pouches and both streams of goods – the flow of returned goods and the flow of new goods – then go together to the packing station and are sorted through the sorting modules so that they arrive at the packing place in the right order. The packing station consists of three packing modules, each with 16 stations, at which 5,000 items are packed per hour.

The intermediate storage for empty bags has a basic capacity of 40,000 bags. At peak business times, the dynamic buffer can also be used as an additional empty-bag storage and thus help to keep the material flow running smoothly.

Result

With the Dematic Pouch System, Arvato is now working much faster and increasing delivery quality.

"We are now working much faster with this system and thereby increasing customer satisfaction."

**Johannes Lahrmann,
Project Manager Arvato e-Commerce**

About Arvato e-Commerce

Arvato is an international service provider and is a division of Bertelsmann. Almost 70,000 Arvato employees design and implement innovative solutions for business customers for different business processes. These include financial, CRM, SCM and IT solutions.

Arvato SCM Solutions is a leading 3PL provider for e-commerce, consumer products and healthcare companies. Over the last 15 years, Arvato SCM Solutions has been developing online shops and designing mobile apps to support shipping, returns processing, final payment processes and customer services. In total, Arvato has more than 60 distribution centres in Europe, Asia and America.

Customer Benefits

– Single solution that can handle a wide range of product shapes and sizes, from cartons to hanging garments

– The Pouch System takes advantage of unused overhead space, making it ideal for space-constrained operations

– Integrated returns processing makes returned items in pouches immediately accessible for new orders

– Processing of very small orders as well as complex orders with many different items and sizes

– Reduced maintenance and operating costs

Technical Data

– Sortation of up to 12,500 item/h on four levels

– 25 manual and four hanging garment inductions as well as 13 returns inductions

– Pre-sorting of 22,000 items simultaneously through three comb sorters and 92 sorter lines

– Storage of over 153,000 pouches in the dynamic buffer warehouse, fed by four sorters

– At three packing modules with 16 stations each, 5,000 items per module are packed per hour

– Empty pouch storage with a basic capacity of 40,000 bags, additional empty bags can be stored in the dynamic buffer temporarily