UnboxSort System for Order Consolidation
For a Leading Fashion Retail Brand

About the Customer

A prominent online retailer specialising in fashion and lifestyle products in India. They offer a vast selection of apparel, accessories, cosmetics, and footwear from over 500 renowned Indian and international brands. Their fulfilment centre is located in western India.

Location: Fulfillment Centre, Western India.

The Challenge

The manual order fulfilment process was hindered by low picking and consolidation staff productivity. This necessitated the recruitment and management of a large workforce, leading to extended order fulfilment times and increased costs.

The existing process involved bulk picking of order items based on end-customer orders, followed by manual sorting into 1,000 putwall locations. Upon retrieval, parcels were scanned again for verification. The customer sought to automate the order consolidation process for apparel, shoe boxes, and fashion accessory items, with a target throughput of 2500 packages per hour while minimising space requirements.

UnboxSort emerged as the ideal choice for an automated putwall solution due to its unique ability to vertically sort items into multiple levels with high productivity.

Solution

A comb-shaped layout was designed to accommodate 966 destinations using 6-level putwalls with variable-sized pigeon holes to handle orders ranging from 2 to 10 packages.

The system was installed on a mezzanine floor, which included multiple pillars within the layout, without compromising overall system performance or scalability. The pick-to-pack time was reduced to 60 minutes, with end-to-end sorting and minimal touchpoints.

Industry	Fashion E-Commerce
Process	Order Consolidation
Throughput	2,500 pph
No. of Robots (SR450)	41
Destinations	966
Racks Type	6 level; chutes
Area	350 Sqm
Personnel (Feeding + Order	9 (3+6)
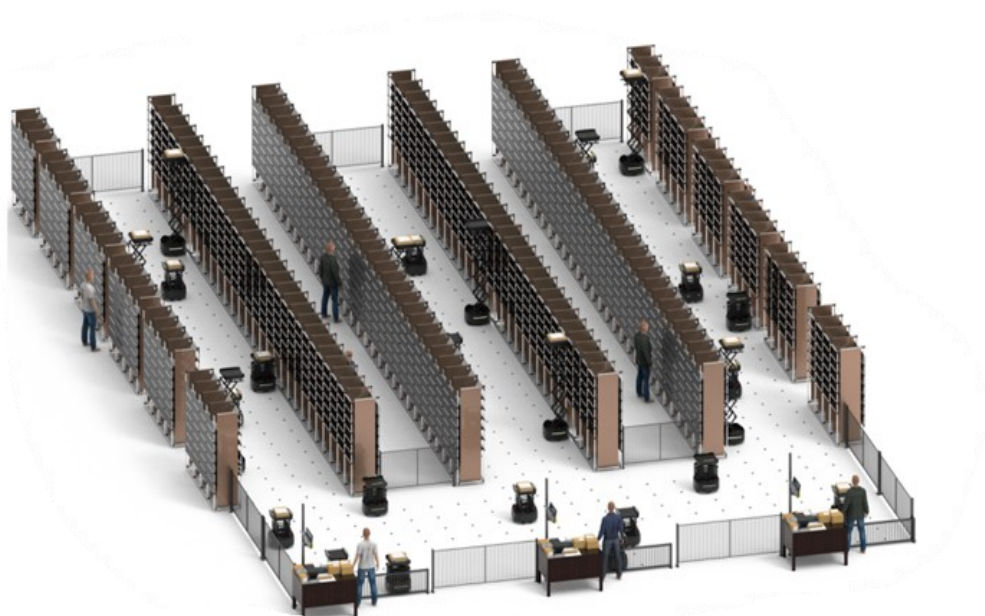
Benefits

- **Compact Automated Put-Wall:** UnboxSort compressed nearly 1000 pigeon holes of varying dimensions into a floor space of just 350 square metres, reducing touchpoints and improving productivity by 3 times while also enhancing sorting accuracy.

- **Improved Pick-to-Pack SLA:** Processing time decreased by nearly 40% due to reduced touchpoints and end-to-end sorting, resulting in faster order processing and improved SLA compliance. This was a critical factor in ensuring customer satisfaction within the fashion fulfilment industry.

- **Customised System Design and Integration:** To accommodate the dynamic nature of trends and order profiles in the fashion e-commerce space, the system was designed to handle varying load profiles and parcel types and sizes. Additional features like Rejection at Source and Manual Merging helped the customer manage potential overload situations.

- **Pay-per-Use:** The RaaS (Robotics as a Service) model allowed the customer to achieve month-on-month savings from the outset. The modular system enabled the customer to stagger their capital investments according to scale, rather than investing upfront in capacity for 3-5 years.