UnboxSort system for Reverse Sorting

For a leading 3PL Brand

ABOUT THE CUSTOMER

Founded in 2011, this 3PL provides comprehensive end-to-end logistics solutions to over 2600 customers across various industries, including e-commerce, D2C e-tailers, and SMEs. Featuring 22 automated sort centres, 92 gateways, 93 fulfilment centres, 2751 direct delivery centres and a team of over 52700 people, these services allow our customers to benefit from increased efficiency and cost savings.

Location: Distribution centre located in Western India

THE CHALLENGE

With the high amount of return parcel volumes, the customer was facing issues in terms of personnel productivity and low sorting accuracy with the manual sorting processes of these return shipments. Prior to installing the UnboxSort system, the client was manually sorting inbound return parcels into 4 primary locations by four personnel and a secondary sorted into 20 locations by ten personnel. Any rejected parcels were then handled manually.

The customer wanted to automate the e-commerce return sortation of polybags, carton boxes, and small loose items in 77 unique destinations at the rate of 1800 packages per hour with a particular requirement of packages directly getting sorted in bags to reduce touch points in the system

SOLUTION

Industry	3PL
Process	Returns
Throughput	1800 pph
No. of Robots (SR450)	20
Destinations	96
Racks Type	3 level; direct to bag
Area	140 sqm.
Personnel (Feeding + Bag closing)	4 (2+2)

A linear segment layout was designed with feeding at both ends. With 77 unique destinations covered, this facility featured 32, 3-Level CS3 Racks, enabling parcels to be directly sorted into bags. Certain features like dynamic binning with extra bins for high volume destinations and battery swapping allowed minimising the no. of robots deployed. Handheld scanners were preferred for the feeding system due to the erratic nature of the returns packaging and labels. 2 associates were deployed for feeding the parcels and 2 more to retrieve packages from the chutes & trolleys.
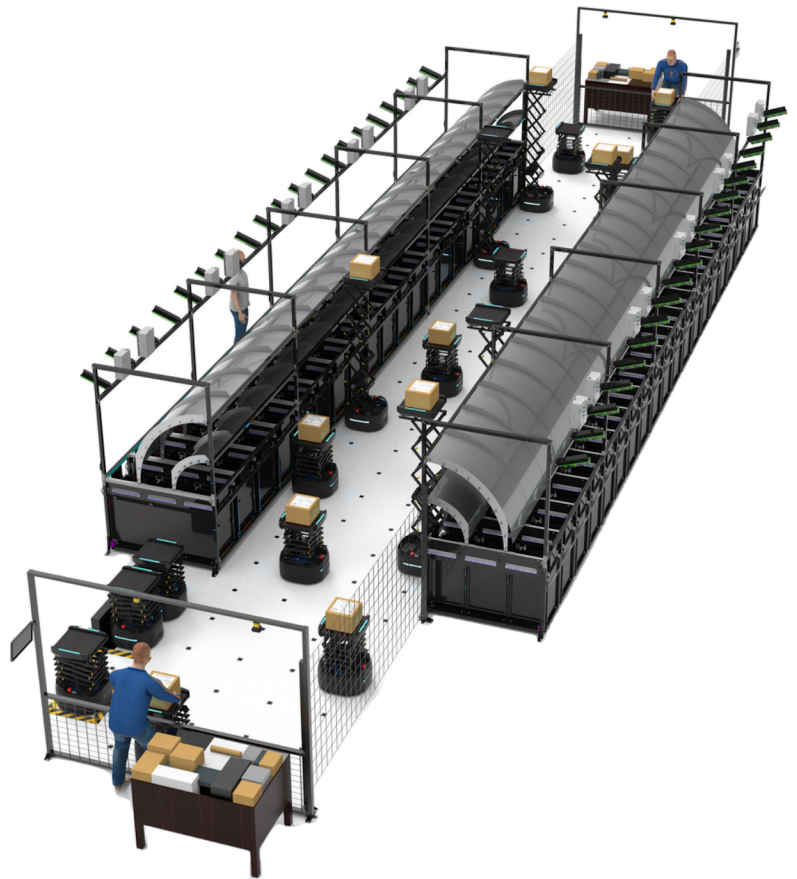
BENEFITS

- **Productivity Improvement:** Direct end-to-end sorting by UnboxSort allowed minimising handling, scanning and movement which enhanced productivity per person by 3X. Furthermore, the simple, playful and intuitive interface of the system apps allowed easier and faster training and onboarding of new personnel, and minimising induction efforts for the operations team.

- **Improvement in Sort Accuracy:** UnboxSort's simplicity of feeding and direct-to-bag sorting process along with intuitive interfacing apps enabled associates to perform near-perfect work (99.99% sort accuracy). This increased customer satisfaction and people retention and reduced internal order auditing and supervision costs.

- **Safe operating environment:** Compared with long, infrastructure heavy and dangerous conveyor sorters, UnboxSort is more flexible and safe, eliminating long walks to receive and deliver work and improved associates' jobs. This helped the company to recruit and retain the best associates.

- **Modular & Scalable System:** Modular system allowed the customer to stagger their capital investments as per scale instead of investing on capacity for 3-5 years upfront, saving around 40% of financing and maintenance costs. RaaS alternative helped the customer even further by seeing month-on-month savings from the get-go.