UnBoxSort System for Reverse Sorting

About the Customer
Established in 2011, this leading 3PL provider offers comprehensive logistics solutions to over 2,600 customers across sectors like e-commerce, D2C retailers, and SMEs. With 22 automated sort centres, 92 gateways, 93 fulfilment centres, and 2,751 direct delivery centres, supported by over 52,700 employees, the company ensures operational efficiency and cost savings for its clients.

Location: Distribution centre, Western India.

The Challenge
The client struggled with the high volume of return parcels, which resulted in reduced personnel productivity and inaccurate sorting when using manual processes. Before UnBoxSort, parcels were sorted manually into four primary locations by four staff and further sorted into 20 locations by ten additional personnel. Rejected parcels were manually processed. The client wanted to automate the return sorting of poly-bags, carton boxes, and small loose items to 77 unique destinations, handling 1,800 packages per hour. They specifically required parcels to be directly sorted into bags to reduce touchpoints.

Industry	3PL
Process	Returns
Throughput	1800 pph
No. of Robots (SR450)	20
Destinations	96
Rack Types	3 level; direct to bag
Area	140 sqm
Personnel (Feeding + Bag closing)	4 (2+2)
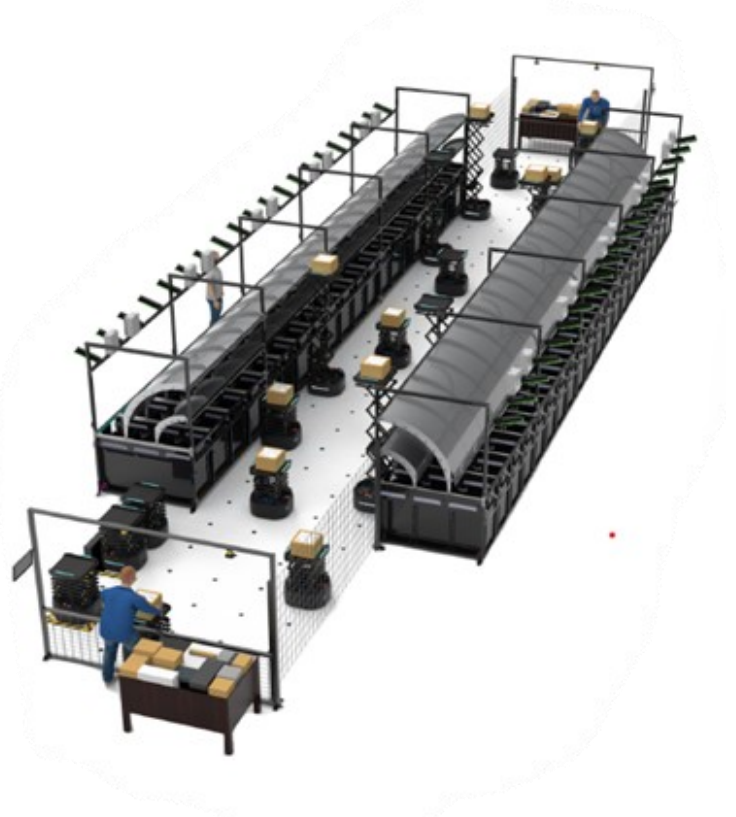
Solution
A linear layout with dual-end feeding was introduced, covering 77 destinations with 32 three-level C53 Rocks that allowed direct-to-bag sorting. Dynamic binning and battery swapping features optimised the number of robots required. Handheld scanners were chosen due to irregular packaging and labels. Two associates managed the feeding process, with two others retrieving parcels from the chutes and trolleys.

Benefits

- **Productivity Improvement**: UnBoxSort's direct sorting system reduced handling, scanning, and movement, tripling worker productivity. The intuitive interface of the system apps simplified training, reducing induction time and effort.

- **Improved Sort Accuracy**: The simple, direct-to-bag sorting process, supported by intuitive apps, enabled near-perfect accuracy (99.99%), improving customer satisfaction, reducing internal auditing, and cutting supervision costs.

- **Safer Operations**: UnBoxSort provided a safer, more flexible alternative to traditional conveyor systems, reducing long walks and physical strain for workers, which improved recruitment and retention.

- **Modular & Scalable**: The modular system allowed phased investments, saving around 40% on financing and maintenance costs. The R003 alternative brought immediate monthly savings.