

UnboxSort System for Forward Sorting

For a leading global E-commerce giant

ABOUT THE CUSTOMER

Established in 1994, this company has evolved into the world's largest e-commerce brand, specializing in retail, groceries and now extending its logistics platform for other D2C brands and retailers for increasing its foothold in the logistics space.

Location: Distribution centre located in Southern India

THE CHALLENGE

The customer is experiencing difficulties in effectively managing labour and decreasing sortation accuracy due to increased touch points. In the current process Incoming shipments are manually sorted into 10 primary locations by eleven personnel and then secondary sorted into 16 locations by twenty-two personnel.

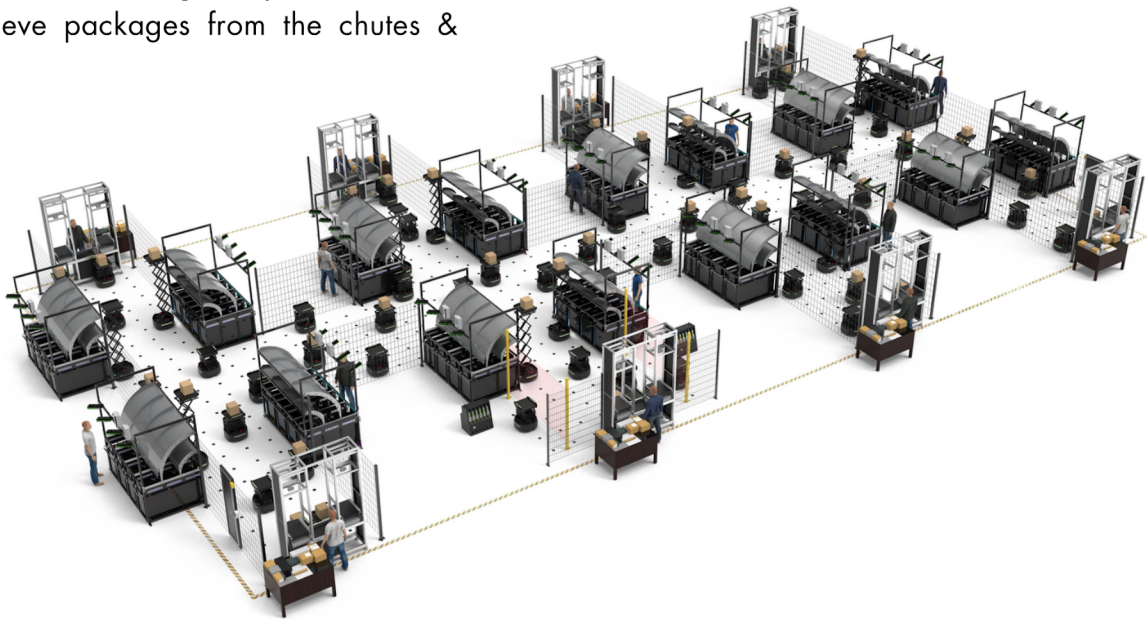
Considering the current human intervention in the process the customer wants to automate the sorting of polybags, carton boxes, apparel, and other e-commerce parcels in 156 chutes at a rate of 8000 packages per hour, with the additional requirement that all packages are directly sorted into a bag to reduce touchpoints of the system.

The most important metric for the customer is ROI, and is looking at it from a Total Cost of Ownership point of view over long term.

SOLUTION

A linear segment layout was designed with feeding at both ends. With 264 unique destinations covered, this facility featured 88, 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. 8 personnel were deployed for feeding the parcels and 8 more to retrieve packages from the chutes & trolleys.

Industry	E-Commerce
Process	Forward
Throughput	8000 pph
No. of Robots (SR450)	99
Destinations	264
Racks Type	3 level; direct to bag
Area	600 sqm.
Personnel (Feeding + Bag closing)	16 (8+8)



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.
- **Increased capacity:** With a 25% annual growth, the operation would have outgrown the facility capacity in 2 years with their current operations. UnboxSort helped to extend the projected useful life of the building by 6 years, deferring a huge amount of relocation or expansion 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.