

CASE STUDY



**New Sortation
System Increases
Throughput
and Profits for
Sportswear
Retailer**



When Eastbay, a former e-commerce supplier of athletic footwear, apparel and sports equipment (now merged with Champs Sports), decided to double the size of the current facility to over 500,000 sq. ft., they requested direction and input from three qualified system integrators. The current material handling system would require a complete redesign to handle to projected case rates of 60,000 orders per day. It was determined that a series of tote-handling conveyors and package-handling conveyors would be needed to fill the orders at the current and projected rates.

WAVE PICKING

Orders are generated from the current warehouse management system and printed overnight to a paper pick ticket. The orders are placed in the pick racks for the operators. Operators then pick orders to totes and place the completed pick on one of two 300' long live roller take-away conveyors running the width of the building. The two take-away lines incline and merge into a Hytrol high-speed 2:1 roller merge.

Eastbay can pick up to 30 totes per minute for their multiple and single orders that are generated by catalog and internet sales. It was the vision of Eastbay to automate the Batch pick process that existed. The goal was to reduce the wave time and increase the efficiency of the operators required to "slot" the multiple orders. Required was a hardware and software solution designed and installed to scan, track, and sort orders into "batch" destinations, which was completed using Hytrol's high-speed pneumatic pusher design. The software solution allows Eastbay to greatly reduce the time combining multiple items scheduled for a customer order. All multiple orders are grouped and sorted using the "Batch" sequence PC software solution.



The Hytrol ProSort 100 Shoe Sorter operates at 230 cases per minute and can handle 60,000 packages a day.

SINGLE ITEMS

Single items are picked to a color tote that allows the packers to determine their required destination. Single items are defined as one item to one customer. Single items are automatically conveyed directly to packing and placed in a box or a bag and released to shipping. The packing operator places the pre-generated tracking label on the case and places the item on the outbound shipping line.

SHIPPING SORTER

It was agreed that two Pro-Sort 100 sliding shoe sorters would be required for the suggested layout and throughputs. The unique shape and size of the product mix created challenges the engineering team. Accumulating, Transportation, Merging and Sorting equipment was developed that would fit the specific needs of the products to be handled. A PC mapping and releasing software package was developed and installed that allowed Eastbay to significantly reduce the labor hours required during their peak production. The solution, installation and start-up provided for a significant increase in worker productivity. Installation and commissioning were completed without impact on normal operations.

Want to learn more? Let's have a conversation.®

"The transition, the timing of the installation, the delivery of the product, everything went smoothly without any glitches. I right now personally would not use anyone else."
-Pat Schmidt, Eastbay D.C. Director

300 FT. TAKE-AWAY LINE

300 FT. TAKE-AWAY LINE

VERTICAL BELT MERGE

PRO-SORT 100

This is a vertical belt merge used to re-circulate products from the main shipping shoe sorter when lanes are full. When the infeed stops, the "swing belt" lowers. A slug release directs products onto the lower line and re-feeds the sorter.

Hytrol zero-pressure conveyors move products through the system, holding them until the sorter is ready. This line can store approximately 95 full totes.