



Poly Bags No Longer Hard-to-Handle with Cost-Effective Merge Solution

Features and Benefits

With a two-to-one merge for poly bags and corrugated cartons:

\$45,000 annual cost savings

Labor reduced by 1 person/shift

Jams virtually eliminated

No-reads, missorts, and manual product handling at shipping sorter significantly reduced

Industry Group:
OFS

“We have had zero jams, and we’ve reduced the shipping department staff by one person per shift due to the new Intralox merge.”



Challenge

The client, an apparel distributor, handles a variety of package sizes and weights, with package contents ranging from lightweight items such as handkerchiefs and earrings to heavier items such as shoes and sweaters.

At a two-to-one vertical belt merge on the center’s conveyor line, running at approximately 200 feet/minute, light and/or loosely packed poly bags caused frequent problems that led to decreased throughput. When traveling from right to left in the merge, these light packages would often drag against the vertical belt rail or hit the rail and spin. This resulted in side-by-side packages that either jammed at the merge point or caused no-reads at the scanner. These interruptions in steady product flow affected the spacing of the packages, which must be maintained for downstream scanning and sortation. Low-profile poly bags also often got caught underneath the vertical belt rail, causing line jams both at the merge location and further downstream.

Poly bags were getting stuck at the merge—the lightness of the bags and the timing from the two conveyor lanes were factors in the jams. The jams occurred so frequently that the distribution center had to staff one person per shift solely for the task of

spacing out the bags and clearing jams. Workers were also needed for the essential task of manually sorting the side-by-side packages that resulted from the merge. Without proper spacing, the packages were in danger of being inaccurately scanned, causing them to be sorted to the wrong hub truck for shipping. Finding an ideal solution to this problem presented a dilemma: the lightweight, loosely packed poly bags needed to travel on a belted conveying surface rather than on rollers; however, belted conveying systems typically require rails (such as vertical belt rails and plow rails) in order to merge products from one line to another. What [the client] needed was a belted conveying surface that could merge products together without of rails.

Solution

While regular belts only convey products, Intralox's Activated Roller Belt™ (ARB) technology, without using complex controls, enables the belt to act on the product being conveyed. With built-in rollers set at an angle to the belt's direction of travel, ARB-equipped conveyors have the ability to change the direction of an item, and to move items to the left, right, or center of the conveyor belt without the use of rails or other devices that touch the product.

Because Intralox's ARB merge offers a belted conveying surface and does not require rails, it is ideal for handling difficult products like poly bags. The client decided to replace the old merge equipment and install an ARB two-to-one merge. The induction merge efficiently bring the lines together and gaps products prior to sortation.

Results

The merge eliminated the previous problems that interrupted product flow and decreased scanner/sorter throughput. Because the merge works successfully and consistently, gapping between products is now maintained, resulting in fewer jams and a lesser need for manual intervention at the merge and manual sortation downstream. The DC increased overall throughput with Intralox technology, without accelerating the merge speed, and reported a savings of \$45,000.



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