

Flexco Narrow Gap Transfer Plate Clears Choke Points at Parcel Handling Facility

Industry

Parcel Handling

Application

Power Curve Conveyor Systems

Product

Flexco Narrow Gap
Segmented Transfer Plate

Objective

- Minimize product choke points

Conveyor Detail

Rough-top belting



Problem:

A large parcel handling operation was experiencing problems with packages getting stuck in the transfer point between the power curves and straight conveyors. Transfer points between power curves and straight conveyors are particularly challenging, featuring speed variations, changes in the direction of the material flow, and differences in the conveyor height or width, creating restrictions in the flow of material and a high number of returns inside the conveyor system. In this case, the continuous flow of material was releasing the captive package, but at the cost of damaging the packaging. In some cases, it was even creating a barrier for other packages to pass, compounding the effect. A secondary problem derived from the main concern is that boxes sometimes will tumble and the barcode will no longer be readable because the box changed position and the barcode tag is now out of the line of sight of the electronic sensor. This creates a large amount of returns in the system and requires an employee to manually set the box right-side up so the scanner can read it. Both the original equipment manufacturer's transfer guards and the homemade finger guards deployed by the onsite maintenance crew were not capable of keeping the packages moving through the power curve. Other transfer point solutions weren't useable because of the narrow nature of the gaps and limited space available.

Solution:

After seeing a Flexco Segmented Transfer Plate product demonstration, the maintenance manager was impressed and decided to try it in his power curves. Segmented Transfer Plates provide a safe transition of products throughout the sortation process to help prevent unscheduled downtime. The narrow gap version of the plates was installed in this application to provide smooth movement through power curve gaps from 38 mm to 75 mm (1.5" to 3") in width. A combination of paired segments lock together inside the support bar to create the span required for the application.

Result:

Thanks to the Narrow Gap Segmented Transfer Plate from Flexco, the number of returned packages within the conveyor system was eliminated, the operator stationed in the returns section was reassigned to other duties, and the package barcode can be read with no problem, ensuring safe and quick delivery to its next destination. The addition of this product to the power curves allowed members of the operations team to focus on regular productivity tasks instead of constantly having to clear the choke points. Packages are now freely flowing, allowing the facility to increase their output and achieve package processing goals.