

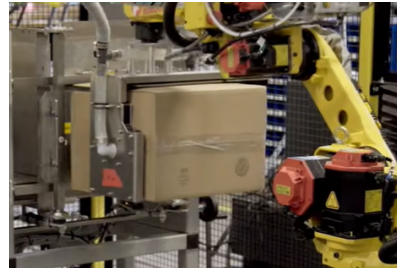


VERTICAL CASE PACKING

Determining the Robotic Solution Best-Suited to Your Operation

Increasingly, Pearson customers are needing packing solutions that can accommodate vertical product patterns per the requirements of the big box retailers they supply to. So what's the best way to get your products into display-ready cases that can go from shipping container to store shelf with minimal human labor? Below are a few of our most common, tried-and-true vertical packing solutions.

A Comparison of Pearson's Vertical Packing Strategies



Ideal Application

Rotating Bucket

Lay-flat or gusseted bags (from small/thin to large/heavy), single-serve snack bags, cartons, and more

Low-mid-high speed lines

Lines running a small number of SKUs

Robot-Held Case

Lay-flat or gusseted bags (from small/thin to large/heavy), single-serve snack bags, cartons, and more

Low-mid-high speed lines

Lines running multiple SKUs

Catcher's Mitt

Flat, non-slippery bag or sachet products, ideally with minimal product shifting

Lower-speed applications

Lines running multiple SKUs

How it Works

Upstream robot(s) form product patterns on the conveyor (or collating conveyors may be used depending on SKU count) and downstream robot(s) pick and place products horizontally into bucket(s). The buckets clamp and rotate, placing products vertically into the cases below.

Upstream robot(s) form product patterns on the conveyor and downstream robot(s) hold and position cases at a loading station. Products are cross-pushed via a mechanical plate into the awaiting cases. The robot rotates the filled case(s) upright and places them on the exit conveyor.

Upstream robot(s) form product patterns on the conveyor and downstream robot(s) move to "catch" products in bin-style tool (stacked orientation) at the end of the product conveyor. The tool clamps and rotates to place products vertically into the cases below.

Benefits/ Considerations

Easily and affordably scalable using extended tooling and multiple buckets (vs. multiple robots)

Comparatively smaller footprint than multi-robot solutions

Multi-SKU changeovers can be time consuming with tool + bucket adjustments

Scalable with multiple robots

Cost-competitive compared to stainless steel or washdown rotating bucket applications

Speed requirements may be limiting, although the solution is scalable with multiple robots