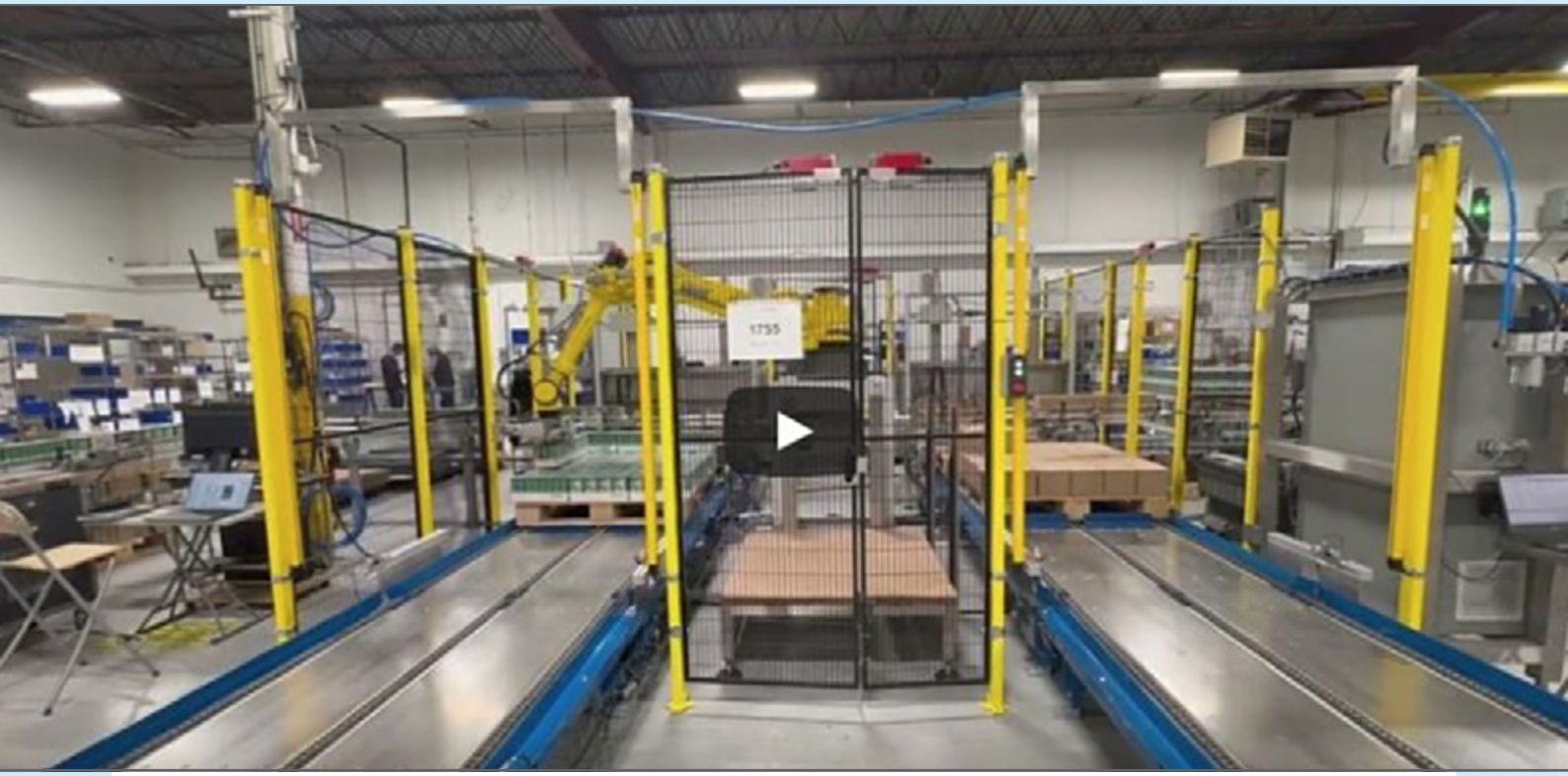
Case Study

Creatively Crafted Conveyors Carry Cases of Coffee



Overview

It's no secret the world runs on coffee. These little beans fuel our mornings with energy and provide a pick-me-up that people across the globe have come to rely on. As demand continues to grow, reliable automation becomes essential for the companies responsible for delivering this liquid phenomenon.

A leader in automation solutions for end of line packaging, Rychiger (pronounced Rye-He-Ger), once again turned to Alba Manufacturing—this time for a project requiring Alba's industry-leading pallet handling expertise. The goal: to efficiently convey pallets through a robotic palletizer positioned downstream of Rychiger's case/tray packing system. Rychiger engineered a solution using their WCP-10 Wrap Around Case/Tray Packer, followed by palletizing the finished loads with their NRP-10 Robotic Palletizer. The product being handled? Vacuum-packed coffee bricks.

The WCP-10 Packer accepts bags at speeds of up to 55 per minute. This versatile system forms either wrap-around style cases or four-corner trays, then horizontally loads the bags in a precise pack pattern before sealing each case with glue.

The NRP-10 Automatic Palletizing System receives full cases or trays (wide-side leading) from two shrink wrap bundlers, operating at speeds of up to 13.75 cases per minute per line. The system collated the incoming product and, using a FANUC R-1000iA/80H robot, automatically placed one, two, or four cases/trays per cycle onto an empty pallet in a specified pattern.

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Overview (continued)

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This flexible palletizer could handle a variety of pack patterns, operating at a maximum combined rate of 27 cases or trays per minute across both parallel conveyor lines. When running trays, the robot automatically picked slip sheets from a magazine and placed them on the top layer. For 10 oz. trays, the robot placed slip sheets between layers to improve load stability.

Alba supplied two conveyor lanes designed for building both GMA and CHEP pallet loads. Each lane consisted of an 8'-4" long Model DC-R80-2S Drag Chain Conveyor for empty pallet staging, followed downstream by an 8'-4" long Model DC-R80-3S Drag Chain Conveyor equipped with a blade stop positioned within the palletizing zone. Once the robot completed palletizing the cases or trays, each full pallet was conveyed downstream to a pickup point for forklift removal, making room for the next empty pallet to be staged and processed.

To support this process, Alba provided an empty pallet blade stop on each conveyor lane. These stops served as datum points, working in conjunction with side guides to help the robot accurately place empty pallets and begin palletizing cases or trays. The final conveyor in each lane was an 8'-4" long Drag Chain Conveyor, which carried the completed full pallets out of the palletizing cell, where they were picked up by a fork truck at the end of the line.

The end result was a reliable and flexible conveyor system, capable of handling a wide variety of product packaging configurations. The customer was extremely satisfied with Alba's conveyor solution, and the end user was pleased to have a durable system that will deliver a strong return on investment for years to come.





For manufacturers looking to automate their end-of-line processes with reliable and rock-solid conveyors, Alba Manufacturing offers more than equipment – we deliver peace of mind. Learn more at www.albamfg.com or call 866.252.2634 today.

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