



Integrated Line Provides Packaging Efficiency for Disinfectant Products

EXECUTIVE SUMMARY

A leading multi-national manufacturer and marketer of consumer and professional products recently approached ID Technology, a ProMach product brand offering labeling, coding, and marking systems, and Benchmark, a ProMach product brand of distribution and loading solutions, about providing an integrated case transfer and labeling solution for its namesake bleach and cleaning products. The customer's current system was experiencing jams and required repositioning of machinery for different case sizes thus misaligning labels. Benchmark's solution, using Intralox Activated Roller Belt (ARB™) Technology, automatically guided cases towards one side of the conveyor, eliminating the need for static rails to guide the product over. Filled cases were transported past a Print and Apply unit that labeled the cases.



Customer Challenge

Our customer wanted a system that did not use rails to move filled cases for labeling. In order for the labelers to work properly in a repeatable fashion, cases needed to be consistently positioned when transferred to the label application phase. Our customer's previous system used static rails to move the case over as it traveled down the conveyor, causing jams and inconsistent labeling if the filled cases were even slightly moved. Also, the previous system required readjustment of the static rails for different case sizes.

The Solution

Benchmark's conveyors utilizing Intralox's 400 Series Activated Roller Belt (ARB™) was the ideal solution for our customer as it is operated by transporting product on angled rollers that rotate independent of the belt, eliminating the need for static rails to move the cases. These rollers extended above and below the belt surface allowing them to be activated by carryway surface below the belt. This project consisted of two identical conveyors: one to replace existing equipment, and another for a new line.

The ARB™ conveyors took filled cases and side justified them as they were transported the length of the conveyor and through ID Technology Case Labelers. ARB™ Technology was appropriate for this project as it was specified wipedown construction and allowed cases to be moved across the surface of the belt without the use of actuators, minimizing jams and allowing for a variety of case sizes without readjusting rails.

This Benchmark conveyor application utilized ARB™ Series 400 belting and was constructed with 30-degree rollers, that when activated, moved product laterally across the belt. The ARB™ belt was activated when riding on wear strips located between the belt product surface and return surface. The wear strips were made from ArmorX, an ultra-high molecular weight polyethylene (UHMW) that is extremely tough. Activated rollers transported the product in the direction the rollers were driven until it contacted the fixed side rail.

PRINT & APPLY LABELING UNIT

For this application, a pair of ID Technology 255 Allen-Bradley controlled print/apply labelers - in a zero downtime configuration - were matched with innovative PowerMerge™ applicator modules to ensure maximum efficiency from the packaging line.

ID Technology's 255 PowerMerge™ is a label applicator module, designed to be used with the 255 label printer applicator. PowerMerge™ uses a driven vacuum belt to transfer the label from the print engine to the point of application.

The PowerMerge™ module has the effect of decoupling the print speed from the application speed, allowing labels to be applied at faster conveyor speeds than other applicator types.

Additional Highlights

- Handling label lengths from 4 to 13 inches.
- High-speed labeling - conveyor speeds over 200 ft/min.
- Designed for labeling cases and trays.
- Can apply labels to side of pack as well as corner-wrap (with secondary wipe unit).
- Easily reaches 6" across conveyor.
- No plant air needed.



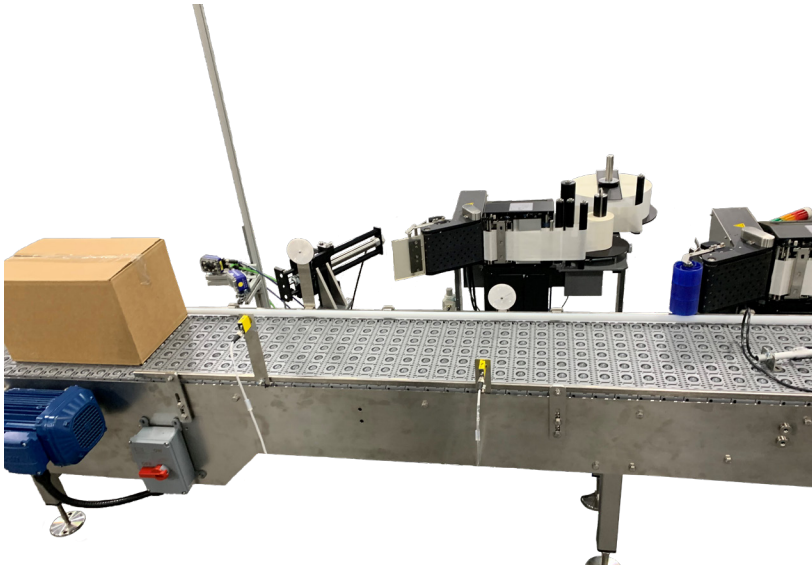
BENCHMARK FILLED CASE CONVEYOR



INTRALOX 400 SERIES ARB™



ID TECHNOLOGY 255 POWERMERGE™



BENCHMARK CONVEYOR WITH INTRALOX BELTING & ID TECHNOLOGY PRINT & APPLY UNIT

RESULTS

In this scenario, ARB™ belting side justified the cases against a rail as they were conveyed and positioned cases in front of an ID Technology Print and Apply unit for labeling. The left side of the ARB™ conveyor was equipped with a labeler and a fixed rail that is 1.25" above the belt surface allowing the label to be applied near the bottom of the box. A mounting on the opposite side of the labelers was provided to fine-tune the position of reflectors and eyes. When the case was on the activated portion of the belt, the case traveled at a speed faster than the belt speed. The minimum recommended speed to ensure proper product travel on the belt was 100 feet per minute. ArmorX strips were not present in the labeling area allowing the ARB™ rollers to drop beneath the surface of the belt. Without a surface for the rollers to travel along, the rollers were deactivated, and the case reset on the belt as it traveled the same speed as the belt through the labeling section of the conveyor.



BENCHMARK CONVEYOR WITH INTRALOX ARB™ 400 SERIES BELTING & RAIL



DISINFECTANT PRODUCTS WITHIN CASE

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Benchmark designs and manufactures high-performance, low-maintenance, easy-to-operate product handling systems for manufacturers, including distribution systems, automatic cartoner infeeds, shuttle and disk feeders, stackers, mergers, tray loaders, and slug loaders. Benchmark is a product brand of ProMach, a global leader in packaging line solutions. As part of the ProMach Handling & Sterilizing business line, Benchmark helps our packaging customers protect and grow the reputation and trust of their customers. ProMach is performance, and the proof is in every package. Learn more about Benchmark at www.BenchmarkAutomation.net and more about ProMach at ProMachBuilt.com.

Customers across America depend on ID Technology to design, build, integrate and install the most effective product, case, and pallet identification systems for their product lines. ID Technology is a leading provider of labeling, coding and marking equipment that also supplies quality flexographic, digital, blank and shell labels in run volumes of any size from numerous regional label converting facilities across North America. ID Technology is a product brand of ProMach, a global leader in packaging line solutions. As part of the ProMach Labeling & Coding business line, ID Technology helps our packaging customers protect their reputation and grow the trust of their consumers. ProMach is performance, and the proof is in every package. Learn more about ID Technology at www.IDTechnology.com and more about ProMach at www.ProMachBuilt.com.