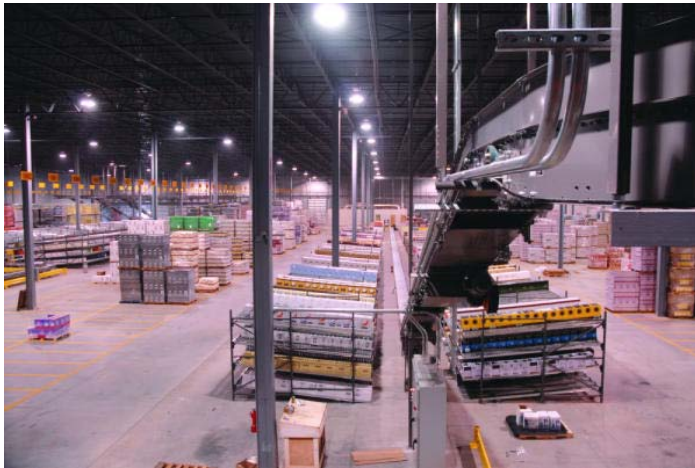


Empire Distributors Uncorks a Warehouse Controls System, Eliminating Bottlenecks



*Empire's eight distribution centers
total 850,000 square feet*

Founded in Atlanta in 1940, Empire Distributors is one of the largest distributors supplying wholesale beer, wine, spirits and non-alcoholic bar beverages to retailers, restaurants, and bars in the Southeast. Sixty-five years ago, the company started with two trucks, eight brands, and just 149 customers. Now the company carries over 8,000 SKUs, represents 750 wineries and 140 liquor brands, and has expanded to eight branches throughout North Carolina and Georgia. Their Atlanta facility alone has more than 6,000 feet of conveyor.

Benefits

- **Throughput increased by 43%**
- **Reduced costs by closing two warehouses, yet continued processing the same amount of inventory**
- **Significantly increased number of cases processed per night yet increased warehouse headcount by only three people over four years**
- **More flexibility between operator interface and machinery**

Challenge

In 2003, Empire moved to a new Atlanta facility and had reached full capacity, processing 8,000 cases per night. The warehouse utilized a console operator for quality assurance and invoicing. As boxes moved down the line, two people armed with invoices checked each case before it went to loading. The quantity of cases that could be processed was limited by the amount of time it took the two workers to check each case. In those early days, they could only load two trucks at a time.

“With the conveyor controls system, I can do more with the same number of people so I’m actually saving on labor costs while increasing productivity.”
—Dyrc McLeod, Director of Operations



By 2006, the company realized that they needed an automatic control system. Empire first purchased a system from a large conveyor manufacturer, who developed the software and controls in-house, rather than hire a software and controls expert. Once the project got started, the conveyor company received a very large order for an airport baggage handling system and was suddenly short of software and controls resources. This resulted in a situation where one engineer developed the software as a custom one-off system, while the controls system was implemented by another, more junior member of the team.

Solution

Two years later, the lone software engineer who could support this project left the conveyor company, who was then unable to support the two-year-old system that they had sold to Empire. At this time, Empire wanted to automate a new distribution center but hadn't yet gotten their existing controls system operating efficiently. Ultimately, Empire required the original conveyor manufacturer to hire Reddwerks to replace the existing software and controls and replace it with Reddwerks Planning, Accumulation, and Sortation System (PASS) enterprise controls system software.

Reddwerks installed a common software platform across both sites, simplifying support and training across all sites as sites were added. Now, the distribution company can competitively send out to bid each conveyor project to as many vendors as they like because the controls software is agnostic to the brand of conveyor hardware.

Results

Since implementing the Reddwerks warehouse control system software, Empire Distributors has experienced a throughput increase of 43% with only a 9% increase in costs. Because the company was able to increase capacity in their existing warehouses, they shut down two warehouses, cross docking everything out of their Atlanta distribution facility, and have needed to hire only three additional warehouse personnel over the last four years.

Additionally, the company has greatly improved their picking accuracy. Each time an operator goes to a location within the warehouse, Reddwerks PASS directs the operator to pick, in wave order, the cases required for one or more orders for each truck being loaded in shipping. Additionally, PASS uses the demand of a wave, the physical layout of the pick modules, the warehouse's labor standards, and the throughput of all conveyor equipment to properly plan the necessary number of pick zones.

By maintaining wave integrity in picking as well as creating an optimized number of pick zones, PASS seamlessly feeds the conveyor equipment and accurately sequences product flow into the trucks, optimizing loading activities while saving time and money.

