



CASE STUDY

Sports Endeavors

CONVEYCO | Integrated
Solutions &
Software

OVERVIEW

Sports Endeavors partnered with Conveyco to modernize and expand its distribution network while minimizing capital expenditure and operational disruptions, leveraging existing infrastructure for maximum efficiency.



BACKGROUND

Located in Mebane, NC, Sports Endeavors is a leading apparel and sporting goods company that sought to revolutionize its packing & shipping operations. The company aimed to significantly reduce the labor-intensive sorting and packing processes, lower shipping expenses, cut order cycle times by slashing exorbitant backlog in packing, and improve overall efficiency to meet growing customer demand. Conveyco partnered with Sports Endeavors to design and implement a multi-part integrated automation solution that optimized labor utilization, increased throughput, and enhanced accuracy.

CHALLENGES

Sports Endeavors' manual packing and shipping processes led to high costs, slow processing, inefficiencies, and unmet service levels, requiring a solution to streamline operations and reduce labor.

Key Challenges

Sports Endeavors' previous packing and shipping processes relied heavily on manual labor, requiring a large workforce to sort and pack orders. This labor-intensive approach resulted in high operational costs, slower order processing speeds, excessive work-in-process levels, and resulted in an inability to meet service level requirements for shipping. Additionally, the system lacked right-sized packaging capabilities, leading to higher shipping costs and inefficiencies. The company needed a comprehensive solution that would streamline operations, reduce reliance on manual labor, and improve service levels to meet customer expectations.

SOLUTION

Conveyco implemented a semi-automated solution using the RightFIT methodology to optimize sorting, packing, and shipping, boosting productivity, reducing labor, and improving accuracy and efficiency.

THE RIGHTFIT SOLUTION

Conveyco implemented a semi-automated solution using the RightFIT methodology - applying automation in the right places for maximum impact and best use of human labor in the packing area. The system integrated multiple advanced technologies to optimize sorting, packing, and shipping processes. **Key components of the solution included:**

- **FastFetch Put-walls with Ring Scanners:** Enhanced order consolidation, improving productivity from 130 units per labor hour to an average of 320 units per labor hour, with some operators reaching over 400 units per labor hour. This system reduced sorting labor requirements from 10 operators to 4 per shift while achieving over 99.98% order accuracy.
- **Accutech Beck Apparel Bagger System:** Automated bagging, labeling, and right-sized packaging for both single-unit and multi-unit orders. This system increased efficiency, reduced packaging material waste, and lowered DIM weight shipping costs.
- **RCE MDR Accumulation Conveyor Feeding (3) Multis Induct Stations:** Aided the efficient induction of multi-unit orders into the bagging system by providing work-in-process buffers that decouple the delivery of orders in totes to the induct stations of the Apparel Autobagger, minimizing manual handling and maximizing throughput.
- **Regal Rexnord ARB Sorter with RCE PLC Controls:** Automatically distributed bagged orders across a Superchute with shark fin dividers, optimizing order buffering capacity of the chute and aiding human access to finished order packages in the final sortation to bulk mail containers for outbound shipping. There was an option for automating the sorting to the bulk mail containers using an eSort with 8 destinations that had approximately a 2.5-year ROI, but that investment was delayed due to budgetary constraints and can be easily implemented later.

The system enabled a consistent outbound average flow of 600 polybagged orders per hour with short term peaks up to 750 orders per hour, significantly reducing labor dependency while enhancing accuracy and speed.

RESULTS

Conveyco's solution reduced labor by 27 FTEs, saving \$1.29M annually, improved order accuracy to 99.98%, tripled productivity, cut peak season backlogs from 4-5 days to under 7 hours, lowered shipping costs with right-sized packaging, and streamlined workflow efficiency, achieving full operational stability within three weeks.

The implementation of Conveyco's solution delivered transformative results:

- **Labor Reduction:** Operator requirements decreased by approximately **27 FTEs** annually, resulting in **\$1.29M in annual labor savings** for sorting and packing.
- **Order Accuracy:** Improved to over **99.98%, eliminating an additional \$100K per year in labor** previously assigned to correcting sorting errors.
- **Throughput:**
 - Sorting productivity **increased from 130 to 320 units** per labor hour.
 - Multis order packing **increasing from 36 to 130 orders** per labor hour x **3 induct stations -> 390 orders per operational hour.**
 - And singles processing increased from **48 orders per labor hour to 310 orders per labor hour** x 1 station (also the managers station).
 - Inducting singles orders is usually done by the induct manager or at the manager station downstream of the multis induct station to fill in singles orders on the conveyor; the induct manager is spending roughly 50% of their time inducting singles orders and 50% of their time managing the area, dealing with no-read and other errors rejected into the error divert chute.
- **Order Cycle Time:** Backlogs during peak season were reduced from **4-5 days to less than 7 hours**, enabling same-day order processing with **on-time performance exceeding 99%.**
- **Shipping Cost Reduction:** Right-sized packaging **lowered DIM weight** and **reduced outbound shipping expenses.**
- **Work-in-Process Reduction:** **Streamlined material flow** reduced the opportunity for errors and **improved overall workflow efficiency.**

Despite minor delays, the system reached long-term **operational stability within three weeks of go-live**, meeting all performance targets.



KEY TAKEAWAYS

"Conveyco provided world-class project management and integration expertise, allowing us to focus on other automation improvements. Their structure not only ensured the success of this project but also helped strengthen our internal project management capabilities."

– Jonathan Kusnitz, SEI Vice President of Fulfillment Center Operations

FINAL INSIGHTS

- The project delivered a less than two-year return on investment on the \$2.6M investment.
- Annual labor savings of \$1.39M were achieved by reducing labor requirements by over 29 FTEs.
- The solution increased throughput, order accuracy, and packaging efficiency.
- Strong supplier partnerships and Conveyco's collaborative approach ensured the project met all performance goals.

Sports Endeavors leadership team is looking forward to future projects with Conveyco to further optimize their facilities and expand their capabilities!

ABOUT US

At Conveyco, we are your trusted system integration partner, dedicated to designing and implementing innovative, efficient, and reliable solutions tailored to your unique needs. With almost 50 years of experience, we specialize in creating seamless, end-to-end systems that optimize performance and deliver measurable results. Unlike OEMs tied to their own equipment, we independently select from vetted partners and technologies to deliver solutions that exceed expectations.

Our in-house software expertise ensures seamless integration and performance tailored to your operation. From system design to implementation, our industry-leading controls provide efficiency, reliability, and scalability. Led by a team of seasoned industry veterans, we prioritize building long-term relationships and delivering on our promises with the integrity of a family-owned business. Free from outside investors, we make decisions with your best interests in mind, allowing us to provide solutions without compromise.

Supporting Your Goals

We understand the increasing demands for efficiency in today's supply chain. Our processes are designed to enhance productivity, optimize resources, and streamline operations, helping your business achieve its warehousing automation goals without compromising performance.

Let's Build Your Future, Together

When you choose Conveyco, you're not just gaining an integrator—you're gaining a partner committed to helping you achieve your goals. We redefine what's possible, together.

Contact Us

To learn more about how Conveyco can help transform your operations, visit www.conveyco.com or reach out to our team at conveyco@conveyco.com.

