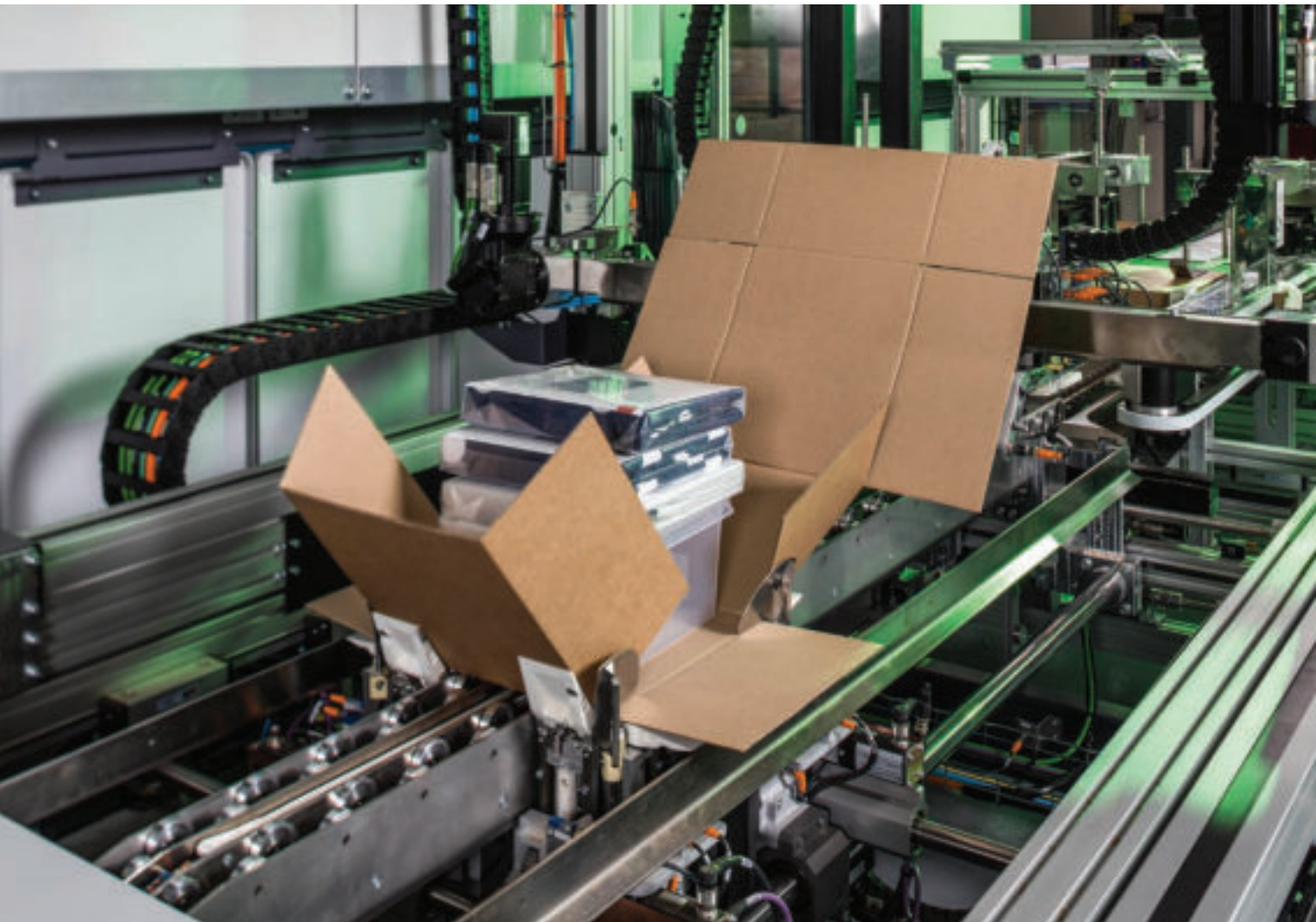


MAKING THE CASE FOR Automated Packaging Systems



How automated packaging systems help companies effectively balance higher order throughput with labor utilization and cost savings in today's fast-paced fulfillment environment.





High-speed automated packaging to support high-tech warehouses

GROWING E-COMMERCE ORDER VOLUMES, labor constraints, final-mile challenges, and heightened delivery expectations are all putting unique pressures on the nation's fulfillment operations. With many of these operations still reliant on manual processes, spreadsheets, and aging technology systems, keeping up with the competition and meeting ever-changing customer demands are difficult at best.

By implementing warehouse automation, companies can effectively overcome most of these challenges while also future-proofing their operations and preparing them for the next potential disruption. But automation doesn't work in a bubble; it requires human support and interaction.

It also encompasses various different aspects of a fulfillment operation. For example, an automated conveyor system is only as good as its weakest link (e.g., the many manual functions taking place in and around the automated equipment).

A task that's ripe for automation, parcel packaging is one link in the fulfillment chain that's still handled by employees who receive the goods, select the shipping box, pack the goods, insert the void fill, label the parcel, and then send it to the shipping department. This critical, but redundant task, can easily be handled by automated equipment that, in turn, lets employees focus on more important activities inside the warehouse.

"In most operations, parcel packaging is a very manual, labor-intensive process," says Holly Busalacki, director of marketing at Sparck. "Couple that with seasonal labor swings, new workplace requirements, and the shift from store shelf to the doorstep, and the argument in favor of automation becomes pretty compelling for most companies."



THE RACE FOR FAST AND FREE

Accustomed to the promises of next-day and two-day deliveries, today's consumers expect their online orders to arrive quickly. With their next competitor just a single screen tap or mouse click away, companies can't afford to disappoint buyers for whom "fast and free" matter more than anything else. Meeting these demands requires an omni-channel fulfillment strategy that allows consumers to research, shop, and return on their own terms.

"To keep up with these and other demands," says Busalacki, "companies are reimagining their fulfillment operations and placing a bigger focus on operational sustainability." Consumers' demands don't end there.

In fact, today's buyers also want to know that the companies they're buying from are operating sustainably, treating their employees well, and doing what they can to eliminate waste. On the packaging front, the "unboxing" movement—whereby someone takes a video of themselves opening a package and then posts it online—has put a spotlight on how well companies pack and ship their boxes.

"If someone gets a box that's beat up, caved in, or clearly not packed very well, the red flags go up pretty quickly," says Busalacki. Regardless of how the damage was actually inflicted, the company will likely be blamed for it.

The same goes for the consumer who receives one tiny item (e.g., a pair of socks) in a box meant to hold a set of pots and pans. Or, the one who receives oodles of unnecessary dunnage (e.g., air pillows and bubble wrap) in a box that contains an unbreakable item like a pair of sneakers.



"In most operations, parcel packaging is a very manual, labor-intensive process. Couple that with seasonal labor swings, new workplace requirements, and the shift from store shelf to the doorstep, and the argument in favor of automation becomes pretty compelling for most companies!"

— Holly Busalacki, director of marketing, Sparck



THE HIGH COST OF SHIPPING “AIR”

These and other mistakes can usually be traced back to the parcel shipping area of a fulfillment center, where manual approaches find employees largely up to their own devices when selecting, packing, and labeling boxes.

No large boxes left to pack that pillow set in? Fine, we'll just use four small ones instead, even though that will mean higher shipping fees and more dunnage. Or, no flat packages left to accommodate that tablet or e-reader? No problem, we'll just put it in a box meant to hold multiple household goods and ship it out the door.



“Companies often assume that the fastest way to deliver items is by throwing them into a standard-sized box, but they’re not factoring in the extra costs and recipient’s experience, which has become critical during the e-commerce boom.”

— Holly Busalacki, director of marketing, Sparck

This will not only dismay the recipient, but it also compounds transportation costs in a world where dimensional (DIM) weight matters and shipping “air” is extremely expensive—and, unfortunately, very common.

“Companies often assume that the fastest way to deliver items is by throwing them into a standard-sized box, but they’re not factoring in the extra costs and recipient’s experience, which has become critical during the e-commerce boom,” says Busalacki. “Not only do they have to deal with it at the point of delivery, but they also have to get rid of all of that excessive packaging and dunnage—a big concern for sustainability-focused consumers.”

Smart companies have learned that the point of delivery truly is their first chance to make a great impression on their customers. To make sure that impression is a positive one every time, more of them are utilizing automated packaging systems that reduce the need for labor while allowing them to redeploy their human resources to more important tasks, improve productivity, and enhance efficiencies.

In this Making the Case, we look at the role that automated packaging solutions are playing in today’s high-volume fulfillment environments and show how these systems are helping companies save significant time, resources and money while also operating in a more sustainable manner.



Automated packaging helps companies do more with less

TODAY’S MANUFACTURERS, DISTRIBUTORS, E-COMMERCE COMPANIES, AND RETAILERS want lower packaging and shipping costs. Their customers expect fast, free and sustainable delivery and packaging. Automated packaging technology checks off all of these boxes while delivering a host of other benefits for the companies that use them.

The typical manual packaging process handles a maximum of 30 to 40 boxes per hour. It’s a labor-intensive task that can be sped up by 10 to 15 times using one operator with an auto-boxing system like the CVP Impack. A next-generation solution, the CVP Everest cuts even more time out of the process by supporting higher throughput levels while maintaining high levels of accuracy, employee safety, and productivity. The CVP is also scalable and able to eliminate multiple, standard

box SKUs that have to be kept on hand (e.g., to accommodate seasonal labor swings).

With productivity as an important key performance indicator (KPI) for today’s fulfillment centers, automated packaging systems help companies offset labor constraints and help them allocate workers to important tasks like picking orders. With the CVP handling the bulk of the work, employees can also be assigned to packaging overflow during peak or holiday seasons.

The typical manual packaging process handles a maximum of 30-40 boxes per hour. It’s a labor-intensive task that can be sped up by 10-15 times using one operator with an auto-boxing system like the CVP Impack.



“Most e-commerce companies are having a difficult time finding and retaining labor right now,” says Bas van Steenoven, global director of marketing for automated packaging solutions at Sparck. Labor force consistency adds to the problem, as does the need to have enough people available to handle full production capacity. Once they put in an automated packaging system, those worries immediately fade and operations can scale up as the machine takes on the box selection and entire packing process.

Sparck’s automated packaging machines decrease the need for excess labor and can save companies the cost of up to 16 laborers per shift—labor that can be upskilled to more important activities.

Sparck’s automated packaging machines decrease the need for excess labor and can save companies the cost of up to 16 laborers per shift—labor that can be upskilled to more important activities

The machines also help ensure optimal labor, material, shipping and transportation savings, especially during peak seasons.

Multiply that activity across 100,000 to 200,000 parcels per day, and the value of automated packaging becomes extremely clear. Simply having to manage all of the different

box sizes needed to accommodate orders in the most sustainable, cost-effective manner possible is a monumental task—let alone ensuring

that those options are available at multiple packing tables. Even better, transportation costs drop significantly and CO2 emissions are reduced when the right sized box is used to transport goods to their destinations.



CREATING THE PERFECT PACKAGE, EVERY TIME

Utilized by a wide variety of industries, including e-commerce, retail, third-party logistics (3PL), wholesale, and manufacturing, automated packaging can improve the customer experience while solving many of today’s shipper’s biggest pain points. Because they use multiple different widths of fan-fold corrugated cardboard, the CVP Impact and CVP Everest allow companies to size boxes to the products they’re shipping, and not the other way around.

Auto-boxers that optimize all aspects of package fulfillment, the machines create fit-to-size boxes for variable dimension single- or multi-item orders. They size, construct, seal, weight and label every order, thus creating the perfect package and eliminating the need for void filler materials.

Once an employee scans an order to start communicating with the warehouse management system first and then (WMS), he or she simply places it on a conveyor belt and



With a maximum speed of 1,100 boxes per hour, the CVP Everest is the fastest automated packaging solution on the market for fit-to-size boxes.

presses “start.” The automated packaging machine takes over. It scans the order’s dimensions, determines what size box to make, a box is created around the order, and then tapes, weighs, and labels the box.

“The fact that automated packaging manages so many different redundant tasks removes a lot of hassle from the packaging process,” says van Steenoven. As an added bonus, the procurement department doesn’t have to worry about ordering a wide variety of boxes; it simply places an order for

the fan-fold corrugated material.

THE NEXT GENERATION OF AUTOMATED PACKAGING

In early-2020, Sparck introduced its next-generation auto-boxer to the world. The CVP Everest does everything that the CVP Impact does, but it boasts higher throughput capabilities that address the needs of the modern e-commerce fulfillment center. With a maximum speed of 1,100 boxes per hour, the CVP Everest is the fastest automated packaging solution on the market for fit-to-size boxes.

Like the CVP Impact, the machine auto-boxes single- and multi-item orders of both hard and soft goods without the need for additional equipment or operators, thus saving companies valuable time and money. Built with advanced software, both solutions integrate with any WMS to create a streamlined fulfillment process within the four walls of any warehouse or DC operation.

The automated packaging systems are also ergonomically-friendly for operators, and eliminate many of the “pains” of standing at a packing station, selecting and packing orders for an entire shift. As companies seek out new ways to improve efficiencies, save money, and meet their customers’ ever-changing demands, more are turning to automation for help.

Using automated packaging solutions, these companies can generate the smallest parcel needed, optimize all steps of parcel fulfillment, and reduce their labor, shipping, and material costs.



Taylor Corp.: Creating immediate, positive impacts on productivity and labor costs

OPERATING FROM 15 HIGH-VOLUME DISTRIBUTION CENTERS (DCS), Minnesota-based Taylor Corp. provides kitting, fulfillment, and other value-added services to a diverse group of Fortune 500 companies. The privately held, family-run business' distribution services have expanded at a compound annual growth rate (CAGR) in the high single digits over the last four years.

Distributing goods that have a degree of stock keeping unit (SKU) diversity, Taylor recently took an introspective look at its warehouse operations, where it wanted to reduce its high-cost/highly-manual efforts. Zeroing in on its outbound shipping processes, the company realized that automating its packaging processes could save both time and money while supporting its customer service commitments.

“We were running 10+ packing stations across multiple shifts, and using a host of different carton sizes,” explains Rick Martin, director of distribution operations. “Many of those cartons include customer-specific branding.” Wanting to move away from manual management of those cartons and overcome its labor constraints, Taylor reviewed three different suppliers of automated packaging systems.

“From the automation standpoint, we’re always looking for a pretty quick payback, and we’re seeing higher labor savings than we expected.”

— Rick Martin, Taylor Corp.

“We visited their current customers—mainly large e-tailers—looking for a solution that could manage our diverse set of SKUs,” says Martin, “and without degrading our throughput

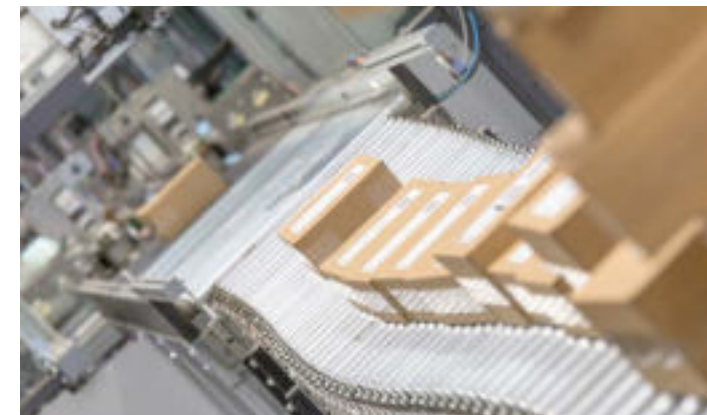
speeds.” He says Sparck’s tailor-made, fit-to-size CVP Impack Automated Packaging Solution stood out on its ability to process complex, multi-unit, multi-SKU orders.

Being able to choose between tape (for Impack) and glue (Everest) when sealing packages was another important box that Sparck’s machines checked off, says Martin, as was the direct, positive feedback that the vendor’s current clients provided during the onsite visits.

“We tested our products on a demo unit in Europe and engaged UPS to perform some package-testing,” Martin explains. “The machine was well engineered and stable, and the installation process was quick.”

FROM MANUAL TO AUTOMATED

With its new automated packaging solution in place, the company saw an immediate positive impact on productivity and labor costs—both



of which were key measures for its return on investment (ROI) expectations. “From the automation standpoint, we’re always looking for a pretty quick payback,” says Martin, “and we’re seeing higher labor savings than we expected.”

Working with a Fortune 500 client base that’s very interested in operating sustainably, Taylor can reduce package sizes, dunnage, and the use of other materials that might be looked upon as “excessive” from the recipient’s point of view. This benefits both Taylor and its customers, which can rest easier knowing that the company is doing what it can to use less dunnage and load more shipments onto a single truck.

End users get a fit-to-size box that’s easy to recycle, versus an oversized package that’s packed with a bunch of extra void fill. Taylor’s customers have also been able to reduce their use of corrugated cardboard while saving money and increasing efficiency—yet another plus in a world focused on sustainability and environmentally-friendly practices.

Right now, the automated packaging solution is in use at one of Taylor’s DCs. It will soon be in good company, as Taylor recently issued a purchase order for a second CVP unit. Martin says the unit is durable,

“The uptime is incredible; we’re using it over a couple of shifts a day, five days a week...It’s very dependable.”

— Rick Martin, Taylor Corp.

robust, and able to withstand the rigors of the company’s fast-paced fulfillment environment. “The uptime is incredible; we’re using it over a couple of shifts a day, five days a week,” says Martin. “It’s very dependable.”



MAKING THE CASE FOR Automated Packaging Solutions Systems

When companies invest in automated packaging systems, everyone wins.



FOR LOGISTICS MANAGERS: Pressured to increase throughput, decrease costs, and keep their workforces safe and healthy, today's logistics managers are increasingly turning to automation for help solving these and other pain points. Most are also seeking improved production speeds, improved quality control, reduced error rates, and lower labor costs, all of which can be achieved with a state-of-the-art automated packaging solution.

With the right solution in place, for example, companies can effectively boost their production speeds and product throughputs to the levels demanded by today's e-commerce fulfillment environment. Automated packaging systems also help logistics managers more efficiently scale their operations, knowing that the machines can handle anywhere from 500 to 1,100 packages per hour (depending on which model is installed).

"Managers also get reliable and dependable throughput and production from their operation," says Sean Webb, Sparck's director, automated packaging solutions, NA. "By eliminating a lot of those uncertainties, logistics managers are freed up to address other issues, knowing that their packaging process is working like it should be."



FOR THE VP OF SUPPLY CHAIN: Responsible for the strategic and operational functions of their organizations' supply chains, these professionals need assurances that the technology their companies are investing in is producing return on investment (ROI) and performing up to task. They also want to know that such investments align well with their strategic planning, goal setting, and corporate objectives—all of which must support the company's current and future growth needs.

As highly-scalable solutions that allow employees to focus on more important projects, automated packaging machines help streamline the very root of the modern supply: the individual packing of every box that leaves a warehouse or DC. They also help VPs of supply chains create a more consistent (i.e., through corporate branding options) and sustainable experience for the end user, who is "wowed" when a package arrives on time, in good shape, and perfectly suited to its contents.

"Managers also get reliable and dependable throughput and production from their operation. By eliminating a lot of those uncertainties, logistics managers are freed up to address other issues, knowing that their packaging process is working like it should be."

— Sean Webb, director, automated packaging solutions, NA, Sparck



FOR THE CFO: The financial benefits of using automated packaging systems can't be understated, which is why CFOs usually sit up and take notice when these investments are being discussed in the boardroom. For starters, the average company realizes an 88% savings in warehouse labor as soon as the machines are turned on.

The subsequent transportation savings are equally as impressive, with reductions in DIM (dimensional) weight charges being just one of many ways companies will save money with automated packaging. Because the boxes themselves are "fit-to-size," more of them can be loaded onto vehicles that would otherwise be limited by standard box sizes.

"Companies using our machines see anywhere from 20% to 50% savings in volume, which translates directly into transportation cost savings," says Webb. These savings only scale upward as order volumes increase, and usually produce target ROIs within 15 months or less. "The more volume you're dealing with," he adds, "the bigger the savings and the faster the ROI."

"Companies using our machines see anywhere from 20% to 50% savings in volume, which translates directly into transportation cost savings...The more volume you're dealing with, the bigger the savings and the faster the ROI."

— Sean Webb, director, automated packaging solutions, NA, Sparck





Future-proofing your fulfillment operations

ONE OF THE COSTLIEST ASPECTS OF RUNNING A WAREHOUSE OR DC, the packaging and shipping process consumes valuable time, money, and labor resources. A process that should never be standardized or taken lightly, packing, boxing, labeling, and shipping have become table stakes for companies that want to create a good impression where it counts the most: when the end customers get the box and open it up.

With automated packaging solutions, companies can “wow” those end customers while also gaining major efficiencies, labor savings, and cost savings within the four walls of their warehouses or DCs. As outlined in this Making the Case, the benefits of such solutions for all organizational areas are both substantial and well documented.

Under pressure to do more with less while maintaining high levels of quality and worker safety, companies need all the help they can get in meeting these mandates while remaining productive and profitable. They also have to future-proof their operations in a business environment where supply chain disruptions and other obstacles are lurking around the next corner. “To remain competitive,” says Webb, “companies need to be able to work smarter, faster, and with a higher level of accuracy.”

A fully-automated system that transforms corrugated into fit-to-size boxes can be a game-changer in the packaging area of a warehouse, which isn’t always a target for improvements or enhancements. Instead, they automate upstream activities (i.e., picking) and leave their packaging to chance. That unintentional short sightedness presents significant opportunity for the company that does automate this aspect of its operations.

“Companies really can’t afford not to invest in automation in the packaging area right now,” Webb concludes. “Those that don’t focus on it now will miss out on a major opportunity to get ahead of the curve and gain significant competitive advantage.”

“Companies really can’t afford not to invest in automation in the packaging area right now. Those that don’t focus on it now will miss out on a major opportunity to get ahead of the curve and gain significant competitive advantage.”

— Sean Webb, director, automated packaging solutions, NA, Sparck



FIND OUT MORE ABOUT HOW SPARCK CAN HELP YOU BE MORE PRODUCTIVE.
VISIT [SPARCKTECHNOLOGIES.COM](https://sparcktechnologies.com)

UNITED STATES
195 CHASTAIN MEADOWS CT NW, SUITE 110
KENNESAW, GA 30144
PHONE: 678-819-1599

