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Rocky Brands: Stepping up productivity

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Barbara Sherbourne,
Rocky Brands manager
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Stepping up productivity

When footwear maker Rocky Brands integrated its WMS and WCS, the results were improved visibility, better inventory control, and impressive productivity gains.

By Bob Trebilcock, Executive Editor

You've heard the old phrase: The whole is greater than the sum of its parts.

That phrase certainly applies to the makeover of a 210,000-square-foot distribution center in Logan, Ohio, operated by Rocky Brands, a manufacturer and distributor of work, western and outdoor footwear and apparel brands such as Rocky, Durango, Michelin, Georgia Boot and Mossy Oak.

Working with a systems integrator (enVista, www.envistacorp.com), Rocky Brands redesigned the processes in its primary distribution center in central Ohio. The redesign included a significant upgrade of its warehouse management system (WMS) and the integration of the WMS and the warehouse control system (WCS), which control the existing conveyor and sortation system.

Most of the materials handling and software parts were already in place, including the conveyor and sorter. But by rethinking processes, integrating systems and making better use of the available functionality, Rocky Brands has seen significant improvements over the past three years that exceed the sum of the parts, according to Michael Walker, senior vice president of product fulfillment. Those improvements include:

Improved turn times: Prior to the project, the average order turn was 2.8 days. This year, 96.5% of orders ship in 24 hours and 75% ship the same day.

Improved throughput: The facility is running 11,000 pairs of boots through the sorter during an 8-hour shift compared to 4,500 pairs per 8-hour shift in the past with no addition to the head count average—



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like many suppliers to retailers, the distribution center does have seasonal spikes in temporary labor. Overall throughput has increased from 1.6 million units annually to more than 3 million units per year.

Improved inventory accuracy: Inventory accuracy has improved from less than 95% to more than 98%, with a goal to reach 99.5% accuracy.

Looking forward, the warehouse management and control systems will continue to drive further operational efficiencies in the future. “We’re continuing to look for ways to continue to improve our processes,” says Walker. “We believe software is a major part of how we’re going to do that.”

Just this year, for instance, Rocky Brands implemented slotting to improve picking and wave efficiency. There are also plans to implement each picking functionality in the near future. “That will allow us to pick small order quantities and deliver them directly to their own pack station rather than send them through the sorter,” explains Barbara Sherbourne, manager of direct



Integrating the WMS and WCS systems has doubled the number of items sorted to the packing stations.

operations. “That will improve the performance of the sorter.”

Supporting growth

With its headquarters in Nelsonville, Ohio, publicly traded Rocky Brands Inc. designs, develops, manufactures and markets premium-quality rugged outdoor, occupational, and casual footwear, as well as branded apparel and accessories.

The original company was founded in 1932 as the Wm. Brooks Shoe Company by the grandfather of Rocky’s current chairman, Mike Brooks. The Rocky name was established in 1975. With manufacturing operations in Puerto Rico and the Dominican Republic and sourcing in Asia, the company’s footwear, apparel and accessories are marketed through several distribution channels under a number of brands including Rocky, Georgia Boot, Lehigh, Durango and the licensed brand Michelin. Most recently, Mossy Oak was added to the slate.

Rocky has also been focused on growing its business. In early 2005, the company acquired one of its major competitors, EJ Footwear, an acquisition that added a number of brands and more than doubled its size. That acquisition led the company to rethink its distribution strategy as well as the

technology that supports its order fulfillment operations.

“At the time, we owned this facility and EJ Footwear had a major facility in eastern Pennsylvania. A 3PL location was added a short time later,” says Walker. “We realized that we had a real opportunity to reduce our costs if we could consolidate two facilities into one and eliminate the need for a 3PL.”

There was also an opportunity to improve customer service. Although Rocky now owned brands manufactured and distributed by EJ Footwear, a customer ordering from multiple brands was still receiving two shipments for one order, because different brands were supported by different facilities.

With one of the most extensive highway networks in the country, the central Ohio location was the preferred location for distribution activities. The facility can service 50% of the U.S. population within five days. However, consolidating facilities would require a redesign of the existing systems and processes. “We simply weren’t designed to handle double our volume,” says Sherbourne.

To accommodate the additional inventory and orders, she adds, the facility needed to:

- increase the throughput of the existing sortation system,
 - increase storage capacity in the existing narrow aisle rack system, and
 - redesign the existing picking strategies.
- Most importantly, Rocky wanted to accommodate additional inventory,



To make better use of storage space, Rocky Brands picks from the lower levels of the pallet rack area while using the top levels for reserve storage.

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Next steps

The new processes and software went live in 2008. A year later, Rocky's management made a decision to ramp up its e-commerce sales to service direct-to-consumer customers and also to provide better service to its retail customers. "About 25% of our wholesale business is made up of a number of very large key accounts, like Dick's Sporting Goods and Tractor Supply," says Walker. "The rest are primarily smaller retailers and some direct-to-consumer."

As it examined those smaller accounts, Rocky realized that some customers were only ordering once a month to reduce their shipping costs. That also meant that their shelves might be empty until a replenishment shipment was delivered, costing sales for both the retailer and Rocky. To encourage more frequent deliveries, Rocky rolled out a free freight program for customers that would order a minimum amount of inventory every two weeks. Those customers can also place their orders online, making it easier to re-order. "That motivated them to place smaller and more frequent orders," Walker explains.

While the change has driven more business, it has also changed Rocky's order profile: Prior to 2008, 80% of orders were full cartons and 20% were mixed cartons. Today, those numbers have reversed, with only 17% of orders going out as full cartons.

The new system has been able to easily accommodate that change in strategy. "We have gone from sorting 4,500 pairs of boots per 8-hour shift to 11,000 pairs with the same number of associates," Walker says. This was the result of managing to service delivery expectations, aligning processes and infrastructure and re-aligning associate roles. "These were subsequently

supported by upgrading the WMS and WCS," he adds.

More evolutionary changes are planned going forward, including directed putaway and crossdocking. The company will also continue to enhance its e-fulfillment processes as e-com-

merce continues to grow.

"The market is changing," Walker says. "If we want to stay competitive, we have to offer more to our customers and we have to do everything quicker. Our distribution systems and software are what's going to allow us to do that." □

Stepping up productivity

Warehouse management and control systems are the key components to order fulfillment processes at Rocky Brands' revamped distribution center.

By Bob Trebilcock, Executive Editor

By bringing together a warehouse management (WMS) and warehouse control system (WCS), Rocky Brands has seen a significant increase in throughput and productivity. The systems enable the manufacturer and distributor of outdoor footwear and apparel to quickly and efficiently manage conventional replenishment orders to retailers as well as a growing e-commerce channel.

Receiving: Inbound trailers arriving at receiving (1) are floor loaded to maximize the cube of the trailer

Rocky Brands, Inc. Logan, Ohio

SIZE: 210,000 square feet, including a mezzanine area

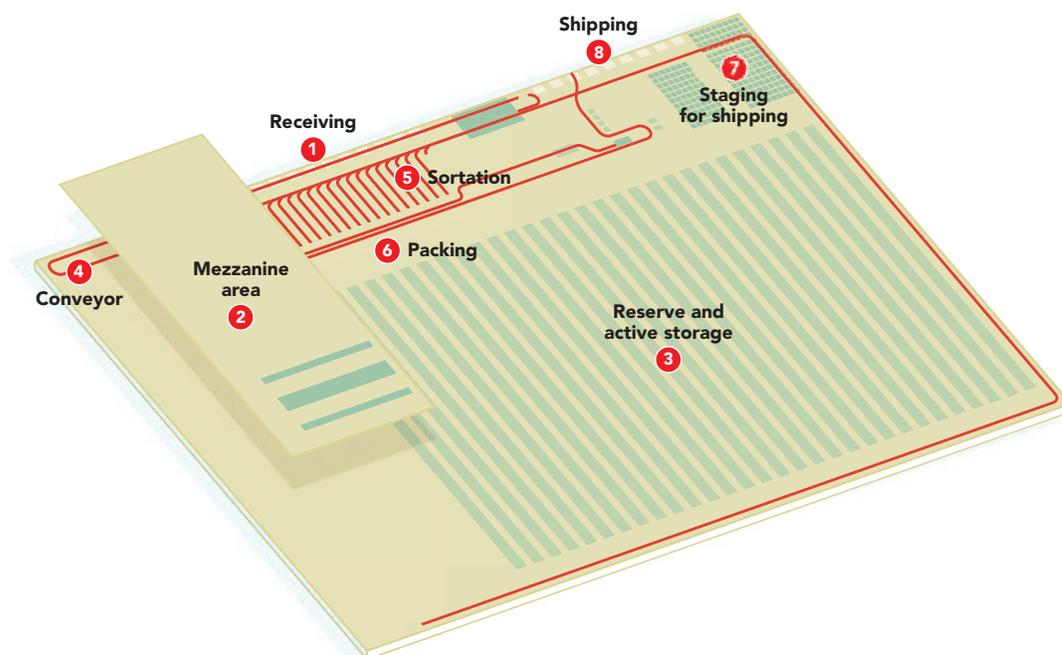
PRODUCTS: Footwear and apparel

STOCK KEEPING UNITS (SKU): 43,000

THROUGHPUT: From 10,000 to 48,000 units per day

SHIFTS: 5 days/3 shifts

EMPLOYEES: 67 full-time employees, plus seasonal fluctuations



or container. Once receivers verify the load, the contents are manually unloaded to pallets. Once a pallet is complete, it's staged under the mezzanine (2) and a license plate bar code label is applied. The product is now ready for putaway into the reserve and active storage area (3).

Putaway: Cases, rather than pallets, are stored in the high bay, narrow aisle reserve and active storage area (3). The lower area of the storage area is designated for active picking. Storage areas above 7 feet are used for reserve storage. Pallets are delivered to a cherry picker servicing the aisle selected for storage. Cartons are scanned then putaway, updating the WMS. In addition to the reserve and active storage area, slow moving items and apparel are stored and picked in the mezzanine area (2). There, cartons are also scanned into a storage location to confirm putaway in the WMS.

Picking: Picking is RF driven. Orders are received in the WMS and grouped into waves based on how they will be shipped. Once the waves are determined, tasks are created and delivered to a work group or area.

Footwear orders are picked in the reserve and active storage area (3). Associates pick to a table, or large rolling cart, on a pallet jack. Each table can hold up to 150 units. Once all of the items for that table have been picked, it is delivered to an induction area for the conveyor (4) and sortation (5) system. They are matched up with any other tables belonging to that wave and then inducted onto the conveyor (4).

At the present, apparel orders are picked to totes in the mezzanine area (2). Like tables, totes are then matched up with any other items for that wave

and inducted onto the conveyor (4).

Shipping: Items are scanned and sorted (5) to chutes and transported to a pack station in the packing area (6). There, the packing list and content and shipping labels are printed and applied. The shipping container is then sealed and pushed back onto the conveyor (4) for delivery to shipping (8). Depending on the size of the order, product will be palletized and staged (7) until it is loaded onto a truck. Or, it will be automatically conveyed into a truck (8) for delivery. □

System suppliers

System design and integration: enVista, www.envistacorp.com

WMS: Manhattan Associates, www.manh.com

WCS: Pyramid Controls, www.pyramidcontrols.com

Conveyor/Sortation: Hytrol, www.hytrol.com

WCS and automation support: Vargo, www.vargocompanies.com

Lift trucks: Crown, www.crown.com

Bar code scanning: Motorola Solutions, www.motorolasolutions.com

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Congratulations Rocky Brands!

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- 97% of orders ship within 24 hours
- Improved customer service and satisfaction!

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