

MAKING A DIFFERENCE

Results that Matter

Sortation Helps Speed Growth

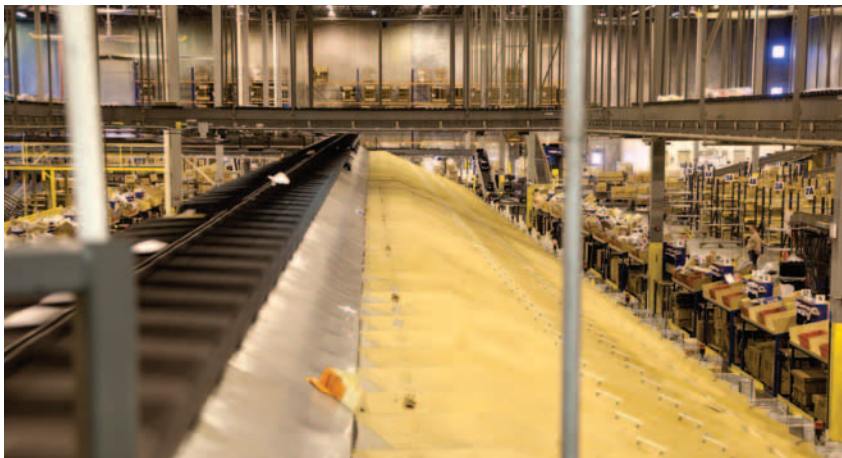
Double-density tilt tray sorter (i.e., split tray) transforms order fulfillment for Oriental Trading Company

As the nation's largest direct-to-consumer retailer and distributor of value-priced party supplies, toys and novelties, Oriental Trading Company lives by its motto: "We work hard to make the world a better place to live, work and play." That "hard work" included investing in a major upgrade of the systems that run the company's 750,000 square foot distribution center in LaVista, Nebraska.

"The BEUMER sorter has proven to be very reliable and sorts at an accuracy rate of 99.8% while sorting a very diverse assortment of items."

A key component of that investment is a sophisticated new tilt tray sorter from BEUMER Group. The system feeds 600 packout stations and was configured to efficiently support an increase in the company's product offerings—to up to 50,000 SKUs—and improve both productivity and order accuracy.

The BEUMER double-density tilt tray sorter combines smooth handling and patented technology that fully controls the tilting process to ensure smooth,



❖ The BEUMER sorter has enabled Oriental Trading Company to sort over 400,000 units during its peak day.

At a glance

AT A GLANCE: When Oriental Trading Company decided to upgrade the systems that run their 750,000 square foot distribution center in LaVista, Neb., they called on the BEUMER Group to provide a sophisticated new tilt tray sorter that feeds their 600 packout stations and efficiently supports their increased product offering.

CHALLENGES: With a high volume of product moving out of the distribution center each day, productivity and order accuracy were key when selecting the right system for their upgrade.

BEUMER SOLUTION: BEUMER's double-density tilt tray sorter offered key advantages to Oriental Trading Company: High throughput in a highly compact system footprint. The double-density design makes it possible to double the sorter system capacity, enabling the company to meet its increased throughput goals. The BEUMER sortation system is also designed to use the distribution center's available space with optimal efficiency, enabling more stations in the same footprint, compared to industry standards.

RESULTS: In 2011, the LaVista distribution center picked and packed 79 million units; productivity has increased by 45%, while order accuracy improved from 99.25% to 99.93%.

BEUMER's double-density tilt tray sorter has been critical to the success of Oriental Trading Company's "explode and assemble" fulfillment methodology.

gentle discharge of transported products from either side of the sorter with industry leading sort accuracy. Oriental Trading Company's new system uses a picking methodology that the company refers to as "explode and assemble."

"The explode and assemble process enables our system to explode customer order items into large unit waves," said Deon Wagner, Vice President Fulfillment Center Operations. "And then reassemble these orders into packout locations utilizing a high-speed unit sorter from BEUMER."

Bringing together multiple data management systems, voice-picking technology and built around the BEUMER sortation system, order processing works like this: To "explode" the orders, four picking and packing subwaves are created from the original wave; picking tasks are assigned to an induction location on the double-density tilt tray sorter, and orders are assigned to a chute leading to one of 600 packout locations.

BEUMER's double-density tilt tray sorter offered two key advantages to Oriental Trading Company: High throughput in a highly compact system footprint. The double-density ("split tray") design makes it possible to double the sorter system capacity, enabling the company to meet its increased throughput goals. The BEUMER sortation system is also designed to use the distribution center's available space with optimal efficiency. For example, the chute width at the packout stations was optimized to enable more stations in the same footprint, compared to industry standards.

For the "assemble" part of the orders, the tilt tray sorter identifies all of the items for a single order

and sends them to a packout location. After an order is packed into a shipping container, it is scanned again and the system determines whether the carton is 100% complete. If so, it is sorted to an automated tape-sealing machine and continues to the shipping sorter. If there are exceptions, it is conveyed to an exception handling station to be completed.

According to Wagner, the BEUMER sorter has enabled Oriental Trading Company to sort over 400,000 units during its peak day. "The BEUMER sorter has proven to be very reliable and sorts at an accuracy rate of 99.8% while sorting a very diverse assortment of items from a shape, size and weight perspective," he said.

"BEUMER's double-density tilt tray sorter offered key advantages to Oriental Trading Company."

He added that the sortation capacity of BEUMER's double-density tilt tray sorter has been critical to the success of Oriental Trading Company's "explode and assemble" fulfillment methodology. Since the BEUMER sorter is capable of sorting over 43,000 units per hour, Oriental Trading Company is able to leverage wave size to increase pick density and reduce visits to pick locations to once per wave. "As a result, we pick waves that are greater than 80,000 units and then assemble those units back to orders using the BEUMER sorter," he said.

The results continue to be strong: In 2011, the LaVista distribution center picked and packed 79 million units; productivity has increased by 45%, while order accuracy improved from 99.25% to 99.93%.



For more information, visit: <http://bit.ly/SYrM9I>



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