

VELOCITY VIDEO CASE HISTORY

A DC VELOCITY SPEED CHALLENGE

Newegg hatches a smart and scalable fulfillment system

Perfect Pick has doubled productivity, improved security, and provided near-perfect order accuracy for this leading computer components and electronics e-tailer.

HIGH TECH IS HOT. AND AS ONE OF E-COMMERCE'S FASTEST-growing suppliers of computer components and electronics, Newegg found itself challenged with handling its exponential growth while maintaining its promised "lightning-fast delivery" to its more than 25 million registered users. Founded in 2001, the company now has multiple distribution centers, with the most recent opening in Indianapolis in 2014. The facility supplies a wide range of products, including hard drives, computer memory, printers, televisions and monitors, and other small electronics.

Newegg boasts a vast inventory of products, which includes many small high-value items. The company wanted a way to store them securely and damage-free. It also needed to retrieve these products quickly and accurately, and do so with less labor. Newegg found the answer to all of these objectives in Perfect Pick, engineered and manufactured by OPEX Corporation. Perfect Pick is a cutting-edge robotic goods-to-person order fulfillment system. The Perfect Pick in Indianapolis consists of two enclosed aisles of dense storage with processing workstations located on the ends of each aisle.

NO MORE TRAVEL TIME

Items stored inside Perfect Pick include small parts, cameras, computer drives, cellphones, and other fast-moving products. They represent about 4,400 of the building's 20,000 overall SKUs. The Perfect Pick storage aisles are 32 feet high and hold 3,500 totes that are transferred in and out of their positions with small robots called iBOTS. There are 15 iBOTS per aisle – 30 in total.

To fill orders, the iBOTS bring totes containing the inventory directly to the four picking stations that are integrated into the aisle itself. This unique goods-to-person design reduces travel time and product handling. "There are very few touches now," explains Chuck Cornwell, warehouse manager. "And the iBOTS present the totes to workers right at the proper height for picking."



Once the pick is completed into an order tote via pick-to-light, the product tote is taken away and the next tote is immediately presented. This allows workers to typically pick over 400 items an hour, compared with the 200 items that workers in the facility's pick module select, so it is twice as productive. Orders can now be completed within 30 minute of being inducted, which allows Newegg to meet its same-day shipping goals.

"We are e-commerce, so we strive to set ourselves apart," says Cornwell. "This system is very productive since the products come to you. It helps us

reach our customers as soon as possible."

Items are also very secure inside the system, as people cannot access the products except at the pick stations. And the Perfect Pick system is easily scalable to grow as volumes increase. In fact, when the company designed the Indianapolis facility, space was set aside to add additional Perfect Pick aisles. More iBOTS can also be added to the existing aisles. As currently configured, the four fulfillment stations of Perfect Pick can complete 18,000 orders per day during peak season.

"We wanted a system with a small footprint and the latest technology," says Cornwell. "Perfect Pick has been fantastic. It pretty much is the ultimate solution."

For more information, visit opex.com. To see a video of the Perfect Pick in action at Newegg, go to dcvtv.com and click on the Newegg Velocity Video on Channel 2.