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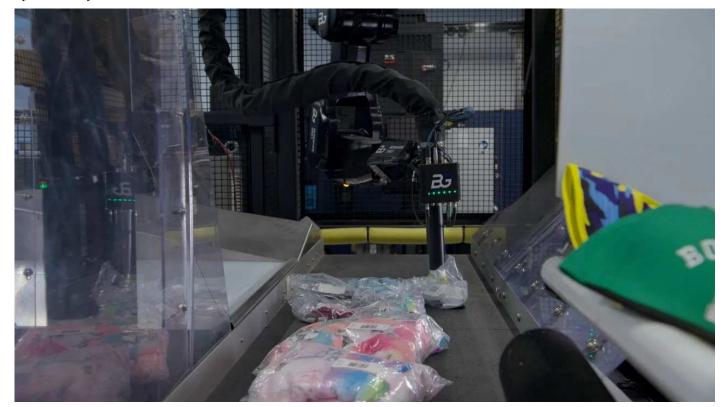
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How Berkshire Grey's New Robotics System Boosts Apparel Sortation in COVID-19

By Glenn Taylor

CREDIT: Berkshire Grey

Stores are opening but will consumers return? Join Cushman & Wakefield and rue21 for the Retail in Recovery webinar June 17 at 2 pm ET.

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Robotics company Berkshire Grey has launched Robotic Induction Station (RIS) solutions designed to enhance capacity and efficiency for e-commerce and apparel operations built around traditional sortation systems used in warehouses, distribution centers and micro-fulfillment operations.

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The stations can automate the task of sorting individual items and parcels in order to alleviate labor constraints, enhance social distancing within distribution operations and maximize the use of existing sorters.

"There was this huge investment in sorter systems across apparel, and these companies spent millions of dollars on them. But they wanted help with robotic induction, and it had been hard finding people to oversee the sorting of the merchandise," Steve Johnson, Berkshire Grey chief operating officer, told Sourcing Journal. "What's happened post-COVID is we've had a major spike in interest because all these fulfillment centers and distribution centers need social distancing, so robotics are a pretty good to answer for that. We had customers saying 'Help me get more out of my sorter investment. We don't know how to come back to full production and still be socially distant.'"

Berkshire Grey estimates that RIS users will typically see 25 percent to 50 percent increases in throughput capacity (rate of production) without incurring additional labor.

Berkshire Grey's RIS solutions leverage picking technology built on advanced machine vision and machine learning, which is core to all of the company's robotic automation solutions, which also include goods-to-robot stations, robotic e-commerce fulfillment, robotic store replenishment and robotic parcel sortation systems. The company said its customers typically optimize picking labor costs in break-pack and e-commerce operations by up to 70 percent.

Stations outfitted with Berkshire Grey's patented HyperScanner omni-directional optical identification technology handle pick-and-place from mixed-item bins and conveyor belts alike, and are compatible with a variety of transport, sortation and packing solutions.

Johnson noted that while assisting warehouses through COVID-19 is the "short arc" of the RIS launch and Berkshire Grey's overall business, the "long arc" remains the ability to automate otherwise mundane tasks.

"A lot of our customers are seeing their staff move from one type of a role to another role where they're monitoring the robots and troubleshooting if there is any issue," said Johnson. "In many ways it's becoming less physically challenging and is a different kind of job that a lot of them are really happy about."

In May, MIT economists released a series of studies finding that robotics are most prevalent in four manufacturing industries, with none of them being apparel, which is more than ripe for robotics investment. In the U.S., these manufacturing industries account for 70 percent of robots: automakers (38 percent of robots in use), electronics (15 percent), plastics and chemicals (10 percent) and metals manufacturers (7 percent).

Robotics is clearly on the rise in warehousing and logistics, and apparel retailers should keep an eye on the industry's growth and aim to capitalize on it. Tractica, a market intelligence firm that focuses on emerging technologies, forecast in its report, "Warehousing and Logistics Robots," that worldwide shipments of warehousing and logistics robots will grow to 938,000 units annually by 2022 from 194,000 units last year. Tractica estimates that worldwide revenue for the category will increase to $30.8 billion in 2022 from $8.3 billion in 2018, providing significant opportunities for established participants and emerging players.

"Prior to the pandemic, people might say 'Well we might have to automate at some point,'" Johnson said. "Now it's more, 'I can really see why we need to automate, and that this really has the potential to become a mission-critical add for the supply chain.' That's where we sit and where we're looking ahead."

With the machine-learning capabilities, Berkshire Grey solutions can continuously improve speed and performance through autonomous learning, which means they optimally perform at a more productive rate the more they are used. The solutions constantly react to changes in the environment such as containers filling and products shifting in order to optimize performance, and robots performs preemptive self-diagnoses for preventative maintenance purposes.

The RIS solutions are offered via either an upfront one-time purchase or on a Robots as a Service (RaaS) subscription basis.

In January, Berkshire Grey secured $263 million in series B funding led by SoftBank. Khosla Ventures, New Enterprise Associates, and Canaan participated in the round.

The company had initially planned to debut the RIS solutions in March at MODEX 2020 in Atlanta, but the company canceled its participation in the trade show due to health and safety concerns related to COVID-19. That month, Berkshire Grey debuted its Robotic Store Replenishment (RSR) solution, which is designed to automate break-pack operations. With this solution, orders are picked and shipped in customer-specified containers to stores where associates re-stock shelves.

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