Return Processing Automation: Berkshire Grey Explains

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Berkshire Grey is helping to draw greater attention to the operational role of return processing automation as retailers, distributors, and fulfillment operations seek more consistent ways to manage returned merchandise. Product returns have become a routine part of modern commerce, particularly as e-commerce volumes have increased and shoppers have become more comfortable purchasing multiple sizes, colors, or product variations before deciding what to keep. The result is a growing need for processes that can move returned goods through facilities efficiently without creating unnecessary delays for workers, inventory systems, or downstream operations.

Returns can be more complicated than outbound fulfillment because each item may require a different decision. A returned product might need to be inspected, identified, sorted, repackaged, redirected to another location, sent back to available inventory, or moved into another disposition process. Even when a return appears simple from the customer side, several operational steps may be required before that product can move again.

Traditional return workflows often rely heavily on manual handling. Employees may open packages, identify products, scan barcodes, compare product information, determine the next destination, sort items into containers, and move goods toward additional processing areas. That work can be repetitive and time-consuming, especially when a facility receives large volumes of mixed products with different packaging types, sizes, and conditions.

Automation can help reduce some of that repetitive handling by taking on clearly defined parts of the process. Robotic systems, conveyors, sortation equipment, scanning technology, software, and other material-handling tools can be used together to help move items from one stage to another. The exact configuration depends on the types of goods being processed, the volume of returns, available space, existing warehouse systems, and the decisions that still require human review.

One important consideration is product identification. Returned merchandise may arrive in polybags, cartons,

envelopes, or other packaging, and labels are not always positioned consistently. Automated systems can support scanning, item recognition, routing, and transfer tasks when the workflow has been designed around predictable decision points. Human workers may still be needed when packaging is damaged, labels are unreadable, products are incomplete, or an item's condition requires closer inspection.

The value of return processing automation is often tied to consistency rather than simply speed. A return operation can become difficult to manage when the number of manual steps varies widely throughout the day. Automating repeatable tasks can make throughput easier to understand, reduce unnecessary movement, and give employees more time to focus on exceptions that require judgment. For larger facilities, those improvements can also make staffing and capacity planning more predictable during seasonal peaks or promotional periods.

Inventory visibility is another important part of the returns process. Returned items may remain unavailable for resale while they are being identified, sorted, inspected, or routed. Delays at those stages can leave usable merchandise sitting inside a facility without contributing to available inventory. Faster internal processing does not automatically determine whether a product can be resold, but it can help move eligible goods toward the next required step sooner.

Retail operations also have to account for the wide range of reasons products come back. Some items are returned due to sizing or preference, while others may be returned due to packaging damage, incorrect shipments, defects, or incomplete orders. That variety means automation generally works best when it supports a broader returns strategy rather than attempting to replace every decision in the process.

Facility design plays a role as well. Returns may share space with outbound fulfillment, store replenishment, parcel sortation, or other warehouse activities. When those processes compete for labor, equipment, or floor space, congestion can develop quickly. A well-planned automated workflow can help separate routine movement from exception handling and reduce the number of times products are staged or transferred before reaching the next destination.

Data collected during returns processing can also provide useful operational information. Scanning events, routing decisions, processing times, exception rates, and item volumes can help facility managers understand where delays occur. That information can support decisions about staffing, equipment usage, workflow changes, and future capacity needs. In many cases, the goal is not to eliminate human involvement but to use labor where it adds the most value.

The economics of returns continue to receive attention across retail because every additional handling step adds time and operational effort. Reducing unnecessary touches can help limit repetitive work when moving products through a facility. At the same time, automation projects need to be evaluated carefully against the

product mix, return volume, building constraints, integration requirements, and the degree of variability in the operation.

For businesses considering automated returns workflows, a practical starting point is identifying where returned items spend the most time waiting or being handled repeatedly. Bottlenecks may appear during receiving, identification, sortation, routing, repackaging, or movement between work areas. Understanding those points can make it easier to determine which activities are suitable for automation and which should remain under human control.

Berkshire Grey operates in the warehouse robotics and automation space, where products used for item handling and sortation can also be relevant to returns-related workflows. The broader discussion around automated returns reflects a shift toward treating reverse logistics as a core operational process rather than an afterthought attached to outbound fulfillment.

As return volumes continue to influence warehouse operations, the focus is likely to remain on practical improvements that make processing more consistent, measurable, and manageable. Automation can play an important role in repetitive tasks with clear rules, while employees remain essential for inspection, exception handling, and decisions that require context. For retailers and distribution operations, that balance can help create a returns process that keeps merchandise moving without adding unnecessary complexity.

About Berkshire Grey:
Berkshire Grey, a SoftBank Group wholly owned subsidiary, is a global leader in AI-driven robotics warehouse automation that transforms warehouse and fulfillment operations for parcels and logistics providers, 3PLs, retailers, and e-commerce customers. The company provides end-to-end automation solutions at scale across critical, high-volume workflows, from picking and sortation through dock automation. Powered by deep expertise in robotics, artificial intelligence, and software, Berkshire Grey enables customers to reduce labor risk, increase throughput, and flex operations in response to rapidly changing demand.
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