



INSIGHTS TO OPTIMIZE A DISTRIBUTION CENTER FOR eCOMMERCE FULFILLMENT

Whether opening a new direct-to-consumer operation or transitioning an existing distribution center to ship individual orders, efficient technology-driven solutions are required to meet customer demands.

Picking/Packing. Labor costs typically represent the second largest expense for a pick and pack system versus case pallet loading. An efficient way to reduce labor costs is to reduce travel for picking by:

- Picking multiple orders in a single pass
- Batching orders for travel efficiency
- Implementing a pick and pass system that moves the order to the picker
- Reducing walk paths and/or creating forward pick zones for fast movers or e-commerce only SKUs
- Utilizing a WMS (Warehouse Management System) to analyze SKU level data to implement inventory reorganization for maximum efficiency

When inventory is optimally positioned, the packing process can be addressed for optimal throughput.

- Evaluate all tasks that are performed at the packing stations
- Identify tasks that could be pushed upstream, eliminated, or automated

Packaging. One size packaging usually does not fit all in an e-commerce environment.

- Minimize packaging dimensions for each shipment by implementing cubing software or WMS, this will reduce waste for excess corrugate and void fill
- As business expands, negotiate with corrugate and void fill vendors to take advantage of increased consumption/volume benefits

Shipping. Outbound shipping is often the biggest expense related to fulfillment of e-commerce orders.

- Shop shippers for multiple quotes and continue to evaluate these costs as your business expands
- Consider SurePost and SmartPost programs that use private parcel carriers for the long haul before transitioning to USPS for the final delivery

Automation. Modern Materials Handling reported that 63% of warehouses and distribution centers have partially automated their reporting processes and 52% have partially automated their labeling processes.

Automation solutions that fit well in a direct-to-consumer environment include:

- Pick-to-Light/Voice
- Goods-to-Person
- AS/RS
- AVG/VGV
- Conveyor
- Sortation
- Rack
- Shelving/Storage
- Carousels
- Packing & Automation
- Print & Apply

Automation ROI improves as ecommerce expands leading to a reduction in labor dependency for daily operations and seasonal spikes.

Space Constraints. According to Prologis, warehouse space availability is expected to remain at 4.6 percent through 2019. Expansion isn't always an option as available warehouse space currently doesn't meet demand.

- To optimize existing space, reduce the amount of inventory on-hand
- Implement a WMS to automate inventory audits and inventory consolidation
- If there is open space, there is opportunity. Consider using vertical space for additional storage or to add a mezzanine. Can aisles be narrowed and SKUs stored with greater density? Is it possible to add another pick level to the shelving?
- Creative consolidation can maximize the operation footprint
- If a new distribution center is an option, forward thinking is a must. Now is the time to consider growth and space demands

Software. In an environment where data-driven decision making is imperative, accessing data is a necessity. Knowing how efficiently inventory is managed, how quickly inventory is stored, how quickly items are picked, and which areas are lagging is key to managing an efficient warehouse. WMS software can provide this critical data. When evaluating a new WMS system, consider:

- Will the vendor support new processes, equipment, and product flow?
- Does the functionality and interface match the operational needs such as cubing, batching or waving orders, or printing labels?
- Is the interface to enterprise resource planning simple for order closeout?
- Does the vendor host the software allowing you to focus on optimizing operations?

Getting Started. Choosing a material handling integrator with expertise in automation and storage solutions is a great start toward solving your operational challenges.

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