



Distribution Center MANAGEMENT

May 2012

Managing people, materials and costs in the warehouse or DC

From the Golden Zone

Using a “put” strategy to optimize order fulfillment

By Ken Ruebrdanz, Dematic

Distribution operations that are required to ship product to the same location on a recurring basis can increase productivity with an order fulfillment strategy referred to as “put.”

Put systems offer a greater range of process control, increased order fulfillment efficiency, and improved access to operator metrics.

Retailers and wholesalers are prime candidates for introducing a put system in their distribution operations. That’s because order fulfillment is performed on a regular schedule with many of the same items being sent to all or a majority of the stores. Typical delivery schedules may range from daily, every other day, three times a week, or perhaps once a week.

With put-directed order fulfillment, operators put product to a location instead of picking product from a location. In most operations, the typical practice is to move through the warehouse and build an order. Instead of picking items as they are passed, a single product is allocated (put) to the orders that require this SKU.

A put system is typically considered a “goods to the person” configuration. A container of one product SKU is delivered to an order fulfillment zone where an operator is stationed. The operator will then put the SKU into shipping containers that will go to the retail store, industrial user,

or consumer. There is no wasted space in a container since the operators continue to put into the container until it is full. Specific carton contents are tracked.

Put systems can be expanded to support the pre-pick of the SKUs and direct the putaway and cycle counting of residual product. Bulky or non-conveyable items being shipped along with traditional cartons or store totes can also be incorporated into the put system design.

With put-directed order fulfillment, operators put product to a location instead of picking product from a location.

The major benefit of the put configuration is the elimination of the dedicated pick face. This means no need for slotting and re-slotting the warehouse.

In most put configurations, all items are brought to the order selection operator; therefore, the order fulfillment staff does not need to move through the warehouse.

Pick rates for put systems are typically higher than conventional “person to the goods” configurations where there is a pick face for every SKU. Systems that migrate to put order fulfillment can increase picking rates from 1.5 to 3 times depending on the system configuration.

Here are just three examples of how companies use put systems to improve productivity:

This article was reprinted from the May 2012 issue of *Distribution Center Management*.

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Case 1: A general merchandise retailer. This company redesigned its operation to incorporate put order fulfillment. With 125 stores, there is one pallet position dedicated to each store. A pallet of one SKU is moved via pallet jack to each store pallet location.

Stores that require this SKU receive the required number of cases. Put instructions are provided to the operator via a wearable voice device. Pick rates in this case improved from 70 cartons per hour per picker to 122, while providing real-time tracking of product.

Case 2: An Internet retailer. This company uses a high-density staging device to store thousands of SKUs instead of providing dedicated pick faces. Multiple operator put stations are connected to the storage system via a conveyor network.

SKUs required to fill orders are delivered to the put stations where operators put the items into a shipping container. When the single- or multiline

orders are complete, the conveyor network takes the carton to shipping.

In this configuration, put operators can reach up to 500 to 700 lines per operator per hour. Other benefits include reduced warehouse space requirements, controlled access to product, and improved accuracy.

Case 3: An apparel retailer. This operation uses a zone put system. There are 20 put zones in the system; there are 1,000 stores and 50 store carton positions per zone. One operator works in a zone. Cartons containing one SKU are removed from storage and routed to put zones that require the SKU. A carton of one SKU travels only to the zones where the store has ordered that SKU. The zone put system enables 325 puts per operator per hour.

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Distribution Center Management™ is published monthly by Alexander Communications Group, Inc., which provides news, data and information on key distribution and warehousing topics through newsletters, books and website.



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