



# Distribution Center MANAGEMENT

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Managing people, materials and costs in the warehouse or DC

## From the Golden Zone

### Want to get the most out of your DC? Look at these four areas

By Norman Saenz Jr.

In today's economy, many companies are delaying plans for heavy capital investments and are turning their focus toward getting more out of their existing resources.

Primary warehouse resources include space, equipment, labor, and software. Getting the most out of these resources can be done with little investment and is a smart approach to achieving quick productivity gains.

#### Space

Take a closer look at how items are being stored in your warehouse and you might be surprised at what space can be created. The most obvious yet challenging opportunity is to eliminate obsolete inventory — visually identified by the buildup of dust on cartons.

A supportive analysis will classify products that haven't been ordered for more than 12 months. Determine the units and dollars of inventory, the number of locations, and the cubic feet of space that are occupied with these "dead" items. The results of this analysis can be stunning and support the removal of obsolete items.

Other space-saving tips include using fewer and narrower aisles, utilizing the full clear height of your warehouse, location sizing, re-warehousing/consolidating products, and analyzing if you have the right mix of warehouse storage equipment.

#### Equipment

A best-in-class warehouse requires multiple storage equipment types within the reserve storage and forward picking areas. Determining the right mix of storage equipment is the key to maximizing storage capacity and throughput.

The configuration of the equipment is critical to utilizing these resources. The best way to maximize the use of your existing equipment is to analyze the cubic velocity (unit movement times unit cubic feet) and line velocity (number of times a product is ordered).

You might discover that moving some pallet beams or reconfiguring your shelving/carton flow rack could result in an increase in storage capacity and throughput in your warehouse.

Your material handling equipment options include manual carts, industrial trucks, conveyors, and various other automation including carousels, A-frames, AS/RS, and AGV's. Whatever the level of automation, there are likely simple changes to getting more out of your resources.

Study your layout configuration and make sure there is no backtracking, dead-end aisles, or long travel distances. The objective of a quality layout should be to shorten the travel time required to move product from one process to the next. In addition, a quality preventative

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buildup of dust on cartons.**

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maintenance program keeps your industrial trucks, conveyor, and other automation running smoothly.

## Labor

Labor productivity is impacted by technology, layout and equipment, product slotting, lighting, and other forces in an operation. Operator productivity is also affected by the quality of training and a person's motivation on the job. Improvements in these areas require no investment and can provide great results.

A worker's clear understanding of an operation is critical to achieving the full potential productivity. Much time can be wasted during the day re-doing activities, and there can be a trickling-down (or up) affect. For example, if replenishment is not executed properly, pickers may run out of stock during order fulfillment.

One useful tool to ensure that workers understand your operations and are trained properly is process flow mapping. An additional benefit of this tool is you might discover inefficient methods, delays, and repetitive tasks that can be corrected.

The mapping of exceptions should also be done to ensure that there is a procedure for handling them efficiently. Once the process is fully defined, standard operating procedures can be developed or updated and employees can be properly trained.

## Software

An efficient warehouse operation becomes more efficient with supportive software capabilities. However, warehouse software is not always used to its fullest potential. A warehouse management system (WMS) is the primary software used in a warehouse to manage activities to their fullest potential.

A good approach to making sure you are maximizing your WMS is to identify what functionality would be best to support your operation. Then,

identify the capabilities of your WMS and where the gaps are between your system and the ideal functionality.

Whether you have a legacy or best-of-breed WMS, changes should be investigated to get the functionality needed to best support your operation. However, even if the functionality exists, it is only as effective as the information put into the system — and then only if it is fully utilized.

For example, if you are using "cartonization" functionality (the system selects the shipping carton), but the product size data is not accurate, the system won't recommend the right carton. And if your system has "task interleaving" but the functionality is not used, then you are not taking advantage of the system's full capabilities.

**Taking advantage of all the open space in your facility and maintaining a disciplined routine of tidiness will boost productivity.**

## Get Started!

Squeezing the most of out of your existing warehouse resources should be the first step in improving your operation. You will be surprised at what gains can be realized from optimizing your current resources.

Once you have squeezed all you can from your current resources, evaluate various new equipment and systems/technologies. Define your future requirements; estimate the space, equipment, labor, and software investments and justify your solutions. If you have done all you can in the existing facility, then the next step is to consider moving or expanding.

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