

# SEVEN STRATEGIES

to Improve Warehouse Operations



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**PROCAT DISTRIBUTION TECHNOLOGIES**

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**Managing a food industry warehouse is not a set-it-and-forget-it operation.** Space is finite; new products and sizes proliferate; old ones fall out of favor; stock changes seasonally; and technology improves. Examining infrastructure and reviewing layout and systems should be an ongoing process so you can squeeze every ounce of efficiency out of your operation.

Industry estimates say labor makes up more than half of a warehouse's total operations cost. If your

warehouse is inefficient, pickers are walking longer distances and searching more, resulting in wasted time and resources. Not to mention increased fatigue, which increases error rates.

**Many factors contribute to a productive and efficient warehouse operation** – layout, product location, naming conventions, picking methods, technology, and staff training. All of these factors can impact a company's bottom line. Here are seven strategies to help you improve operations and add significant financial and time savings.



## Strategy #1: Design your layout for growth

Warehouses are often designed to handle a defined amount of product, with some degree of increased volume expectations built in. But it doesn't matter how fast and efficient your employees are if you don't have enough room to grow your operation and increase revenue. You don't want to lose customers because you don't have the space to supply what they're looking for. Some industry estimates say a distribution center is technically out of space when it reaches 85% occupancy. Above that, things tend to get congested and you make extra work moving product around that you don't really have room for, or you use valuable staging space for storage.

The key is to take a long-term perspective when planning your space and evaluate it often to ensure you have room to grow and add product, efficiently.

### Consider:

- The location of your picking operation in relation to shipping and storage – plan for the flow from picking to packaging to shipping.
- Cluttered floor space and clogged aisles are a sure sign you need to reorganize and find more space.

- Keep an eye on product trends in your industry to be prepared for changes. Will the products you are warehousing in future years be the same weights and dimensions as those you have now?
- If your business is seasonal, design for peak season.
- Take advantage of stackable bins that can accommodate additional SKUs.
- Don't take shortcuts. As volumes increase, warehouse operations teams often take shortcuts (such as putting two SKUs in the same bin, see strategy #4) which will have ramifications down the road in terms of picking errors and productivity.
- If you're constructing a brand-new warehouse, become familiar with your local building codes and fire safety codes for things like shelving height, hanging weights, etc.

### How PickRight helps:

PickRight identifies slow-moving items to help you refine layout and declutter. Review these slow-moving items frequently to determine if they should be removed or downsized to make way for new products.





## Strategy #2: Design for traffic & efficiency

If your warehouse layout is confusing or inefficient, your people are wasting time, and time is money.

### Traffic:

- Ensure you have considered aisle spacing and traffic barriers. Congestion doesn't only cause slower picking, but creates safety hazards for your staff.
- Labeling the traffic flow helps streamline people and equipment paths, eliminating congestion and safety hazards.
- Post maps frequently to aid navigation.

### Efficiency:

- Create pick zones based on product type, which will simplify picking and restocking because similar items are grouped together.
- Reduce travel time by storing the most popular/ frequently picked items in accessible locations.
- Put larger and heavier items on the floor or on lower shelving units. This allows for more accessible and safer picking of bulkier items.
- Don't feel you have to keep vendor products together. With today's distribution software this approach simply isn't necessary and might even add to inefficiency. Thanks to the ability of software tools to quickly identify and use bin locations, products can be arranged based on other factors, such as sales volume, or weight, or cube.

- Use space wisely and ensure the bin space makes sense for the items being stored. If a rack location was designed for a 4'x4' box and you store a 3'x3' box there, you're paying to store the air around it.

### How PickRight Helps:

PickRight directs pickers to select orders in pick path sequence, so they work more efficiently and minimize travel time.







## Strategy #3: Be consistent & clear in your naming conventions and flow

**Is it a Zone? Or an Area? A Rack or a Bay?** If everyone's not speaking the same language – from pickers to stockers to managers – you're left with a confusing and inefficient Tower of Babel that wastes time searching back and forth.

Location names are a key component for both stocking and picking your products. Pickers, stockers and those responsible for putting away incoming product must also know bin locations to place stock in the correct location. Every physical space used for picking or backstock should have a location name, and every location should be clearly labeled.

The first step in developing your naming structure is to determine how many segments you will have. Depending on your warehouse size, a common system starts with a zone or section, then works downward by aisle or row, to rack or bay, to level or shelf, then to position or bin. The terminology may differ, but the concept remains the same. Each segment should follow the same protocols throughout your facility and everyone should be trained on them.

For the sake of this example, we'll use some common, standard terms that might vary slightly by company.

### **Zone/Section/Area**

This is the largest breakout of inventory. A zone should be defined by general characteristics of the product, such as frozen foods, produce, or dry goods.

A common practice is to assign a letter (i.e. A, B, C) to each pick zone, section, or area.

### **Aisle**

Within the section or zone, each aisle should be identified by either a number or letter, starting with the aisle nearest the entry to the section. Very large warehouses may find that numbers provide an advantage over letters because the alphabet is restricted to 26 options. Others may sequentially assign aisles A-Z then double up on letters when they reach Z (i.e. AA, AB, AC).

### **Rack/Unit/Bay**

The rack, unit, or bay is typically the space between upright supports of the shelving unit. When numbering these spaces, you have options such as a standard naming approach or "serpentine" design. How you name the locations in your aisles will determine the sequence in which products are selected by your pickers, and the way products are positioned on a pallet or placed in a shipping container. The ideal naming sequence for your operation depends on your warehouse, your products, and your order profiles.

A standard naming approach is to have all racks ascending from the same direction, so that aisle AA might contain racks 01, 03, 05, etc. from left to right on one side, and racks 02, 04, 06, etc. on the other side. The picker can then select items from both sides of the aisle as they walk the length of it. When finished with one aisle, they travel to the front of the next aisle to start picking.



In this model, the naming convention is the same in all aisles, which simplifies finding pick locations for replenishment.

Alternatively, the serpentine approach may reduce picker travel for some warehouses. This approach alternates the direction of the numbering of the racks. So if Aisle AA has the rack numbers start near the main aisle, or the north side of the warehouse, then Aisle AB would have the rack numbers start at the end opposite the main aisle, or the south side of the warehouse. As a result, pickers pick products up one aisle and then back down the next, weaving up and down aisles. So Aisle AA might contain racks 01, 02, 03 on one side working left to right, but racks 04, 05, 06 on the other side would flow right to left. The picker finishes the aisle at the same spot they started. This layout is simpler to understand but results in doubling the steps each picker takes every time they pick orders.

#### **Level/Shelf**

Common level names are a single digit: level 1 representing the floor, level 2 representing the first shelf, level 3 representing the second shelf, etc. But should you number shelves top to bottom, or bottom up? While it might seem intuitive to work top to bottom, a practical approach to naming this segment works from the bottom up. Why? When your operation grows and you add vertical space to your rack, you can continue counting upward without having to relabel your shelves and change the inventory coding – a time-consuming effort.

**Pro Tip:** Consider allowing multiple levels to have the same location name to allow for extra stocking of certain products with high volume sales or that take up large amounts of shelf space. Then pickers can pick products from any level without negatively impacting the inventory quantities in the Warehouse Management System (WMS).

#### **Bin/Position**

Now we're down to the granular level. The bin or position is typically the smallest segment in a naming system. Bins will obviously vary by size, depending on product, and are generally numbered left to right when

facing the merchandise. Ultimately, a bin location will have an assigned name that looks like:

Zone A – Aisle 1– Rack 3 – Shelf 1– Bin 05.

Common bin positions are a two-digit number: Position 1 on the shelf is 01, for example. Common location names are AB01-101, AB01-102, etc. These locations would be found in Area A, aisle B, rack 01, level 1, position 01 and position 02.

#### **Numbers or Letters?**

For all levels of naming conventions, there are competing points of view on whether it is best to work strictly in numerals or to include letters in the numbering system. On one hand, incorporating alphanumeric characters helps avoid confusion between location name and SKU number. On the other hand, the brain doesn't process alphabetic order as quickly as it does numeric order, so incorporating letters can slow the picking process. Regardless of how you use letters and numbers, be consistent. Nothing can disrupt a pick operation like a confusing or frequently changing system.

#### **How PickRight Helps:**

PickRight supports batching of orders that allow a single picker to pick multiple orders concurrently. The picker is prompted to the next pick location based on the warehouse pick path that has been defined.







## Strategy #4: Stick to only one SKU per pick bin location

Product and SKU proliferation is off the charts in today's warehouses. Consumers demand more choice than ever before – more flavors, sizes, and health-conscious offerings. Food and beverage companies have responded, expanding their product lines to include more options. The result is never-ending SKU proliferation.

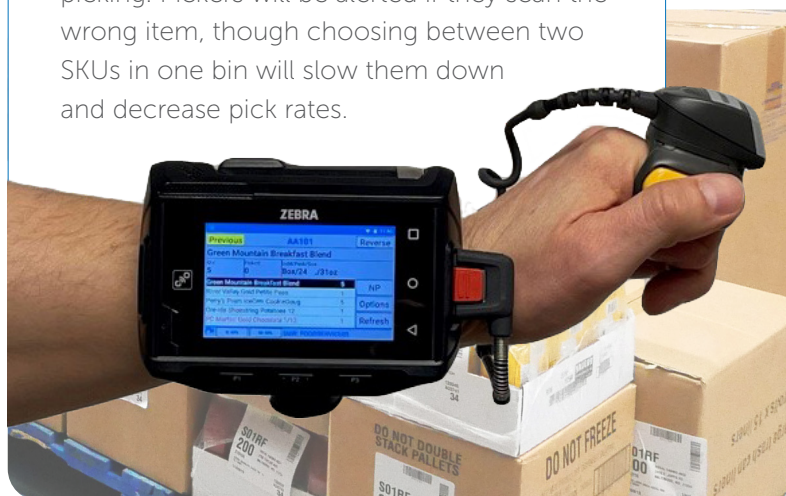
As the demand for carrying greater selection increases, it can be tempting to place multiple SKUs into a single bin location for a quick fix. But it's a road that leads only to picking errors and low productivity and should be avoided. The only time to slot multiple products in a single pick location is if you're scanning barcodes, but even then, we don't recommend it.

Instead, to accommodate additional products increase the number of potential locations by using stackable bins or other containers, and keep individual SKUs in their own homes.



### How PickRight Helps:

If you're short on space but must increase the number of SKUs per pick bin, investing in a hands-free barcoding solution such as PickRight will increase accuracy in your order picking. Pickers will be alerted if they scan the wrong item, though choosing between two SKUs in one bin will slow them down and decrease pick rates.







## Strategy #5: Make technology work for you

One of the most effective ways to build a well-planned warehouse inventory location system is by tapping into the power of technology.

Warehouse management software can support organized inventory retrieval and storage. The more robust plan you have, the easier your operations are, compared to designing a warehouse layout without anything in mind. If you have in-house software, developers can make enhancements to meet your specific needs. Most companies use ERPs who specialize in their industry. Ask your ERP about add-on technology solutions that can make your operations more productive.

Using technology, you might find the arrangement of your inventory would lend itself better to single-order, multi-order, zone picking or batch picking. Let data help you determine which works best. As a guide:

- **Single-order** – pickers move through the warehouse and retrieve SKUs one by one to fulfill one order at a time.  
*Who it's for:* works well for small warehouses that handle simple orders with just a few items.
- **Batch picking** – workers use a consolidated pick list to retrieve SKUs in bulk to fill multiple orders at a time. Minimizes travel time and speeds up fulfillment.  
*Who it's for:* works well for warehouses that receive multiple orders containing the same SKUs.
- **Team pick** – multiple pickers pick one large order at the same time.  
*Who it's for:* any size warehouse that wants to divide the labor and have more than one picker working on a single order at the same time. For

example, those using paper picking will typically cut a paper in half and assign the order to two people to make picking easier.

- **Zone picking** – workers are assigned to a dedicated zone and retrieve SKUs stored in their zone, then pass the order carton on to other zones, then orders are merged in a central location.

*Who it's for:* larger warehouses divided into zones. This approach can reduce travel time since workers stay within their assigned zones.

### How PickRight Technology Helps:

This multi-order picking solution uses hands-free barcode scanning and an easy-to-learn system. Scanning product UPC codes ensures the correct pick, with up to 99.95% accuracy. And, customers report that picker productivity increased 20-40% while customer claims were reduced by 90%. It also includes specifically designed features for the foodservice and convenience store industries, such as catch weight, GS1 data capture, expiration date testing, repack picking and batch picking. These cutting-edge features deliver high accuracy and high productivity.

### Plus:

- On-screen prompts help workers pick faster.
- Reduced new hire training time.
- Real-time label printing saves costs of preprinting labels.







## Strategy #6: Harness the power of your data

*There's a reason the world is buzzing about Big Data* – it gives you the power to measure real-time metrics and gives you the insights you need to make improvements and optimize warehouse performance. Incorporating today's technology (See strategy #5), gives you the software you need to take a deep dive into your operation and measure warehouse efficiency like never before. Not just speed, but accuracy too. Some of the most popular metrics that warehouse managers monitor are:

- Order fill rate
- Order picking accuracy
- On-time shipment to customer
- Warehouse capacity

Depending on your system, real-time metrics are just a few clicks away: order status, inventory details, even individual employee performance can be measured and managed. Scanning barcodes can simplify data collection and auditing, significantly improving some vital processes during a warehouse audit.

By measuring and analyzing results, you can gain insight into the inefficiencies that may be limiting your facility.

### *How PickRight Data Helps:*

PickRight has an expansive real-time reporting suite that gives management minute-by-minute insights and visibility into distribution center performance.

It offers an extensive reporting suite with over 70 reports to help with shift management. For example, the Pick Area Summary by Picker report lists the pick rate for each picker by area so you can compare against a target pick rate. This helps you understand who your strongest and weakest performers are. Reports enable you to forecast the nightly pick shift completion time and can efficiently place pickers in certain areas to expedite pick shifts based on actual warehouse data.







## Strategy #7: Give your staff the tools and training they need

*Distribution Center staffing has always been challenging, but even more so with the onset of COVID-19 and a low-unemployment-rate economy.*

Workers are in demand, and sick days and turnover are a constant concern. In fact, turnover in the warehouse industry was 32.5% at the end of 2018, one of the highest rates in recent times.

To attract and retain top talent, your warehouse layout must be easy to understand, and your picking system must be easy to learn and use. If all your product is stacked by bin numbers, and all that information is fed into a portal via barcode scanning, any new employee can find any product that you want in your warehouse.

One way to determine if your warehouse location system is simplistic and effective is known as the “temp test.” If you were to bring in a temporary employee, would that person be productively picking in your distribution center within a few hours? If the answer is “yes,” you have an effective product location system. If not, it may be time to investigate some options. Beyond picking, staff should have a good

understanding of how to handle different products and equipment. Displaying tips in different locations throughout the warehouse for safe handling gives workers a quick reference. Also, consider training sessions to show workers how to use the right tools for the right job.

### *How PickRight Helps:*

Because it is so easy to use and has a short learning curve, PickRight can help respond to staffing challenges. A PickRight customer in the food service industry, a distribution center with 15 pickers, lost half their staff due to COVID-19 quarantining. They were able to train administrative and HR staff on PickRight’s technology in 20 minutes. Employees who had never picked before were out on the floor confidently picking with 100% accuracy in less than half an hour. Customer orders continued to be picked seamlessly, accurately, and quickly.





## Conclusion

Every warehouse decision can have a significant impact on operational efficiency, productivity, scalability, and profit margin. Don't be lulled into complacency with your current layout and systems - review both at least

annually. Consider new technologies and reconfigure old ones as needed to ensure your operation is performing in tip-top shape.

## About ProCat Distribution Technologies

*ProCat Distribution Technologies* helps small to medium size distribution centers implement barcode scanning technology into their operations. ProCat has developed a suite of 14 modular software solutions that improve accuracy and productivity in every part of a

warehouse. PickRight, ProCat's order picking solution, has proven to achieve 99.99% order accuracy and a 90% reduction in customer claims. PickRight is able to interface with any ERP and does not require any changes to your current WMS.



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