

IntelliTrack

Barcodes in Small Scale Facilities: Is It Worth It?

Determining if a barcoding system is right for your organization



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Many distribution centers, warehouses or facilities that receive products without supplier barcodes wonder if implementing a barcoding solution is worth it, especially when they consider themselves to be a small scale facility. If you fall into this category, know that you're not alone.

Executive teams can be turned off before looking deeper into the available technology solutions in the market because they assume it comes with a big price tag that is unaffordable. Fortunately, that's not always the case. Companies that explore the benefits are oftentimes surprised at the value and expected return on investment (ROI) that they can gain. Additionally, they find that they can add to their bottom line because those same benefits can be passed on to their suppliers and partners.

In this white paper we will explore the benefits and value of implementing a barcoding system to help you determine if it is the right solution for your organization!

What you'll learn:

- 3 Characteristics of a Small Scale Facility
- 4 The True Value of Barcoding System
- 5 Validating the Investment Costs
- 7 How YOU Can Improve YOUR Operations
- 7 Final Takeaways

What's Considered a Small Scale Facility?

Notice that we did not say small in terms of size. From years of experience working with customers, we've learned that companies of different sizes consider themselves to be small scale. That is because facilities with less than 20,000 square feet sometimes suffer from the same issues as large 500,000+ square foot facilities.

As an industry we need to stop associating square footage with size; it is operational characteristics that determine if a facility is small or large scale. Small scale facilities have problems with lack of free space, disorganization, large quantities of product or have solely paper-based operations. They can also have limited resources that their operations rely heavily on to perform various, manual tasks.

Manufacturers with warehouses that try to operate with these issues tend to run inefficiently and lose revenue. In an effort to turn this around, an increasing amount of manufacturers have turned to technology solutions, such as barcoding systems. The 2016 MHI Annual Industry Report states that while current adoption rates of wearables and mobile technologies (such as hand-held barcode scanners) in supply chains is currently 26 percent, the rate is expected to surge to 75 percent over the next six to 10 years. By implementing a barcoding system, manufacturers are empowered to cut costs, generate more revenue and improve customer satisfaction.

Our goal was to streamline our operations through three major processes—receiving, customs clearing, and ship load out. Barcoding and its team were able to deliver a complete solution that did just that.

-Rex Wheeler, President, Canton Port Services, LLC

What's the Value of Barcoding System?

Now that we've broken down what a small scale facility is, it's time to answer the big question: *What is the value of a barcoding system?* Since there are a number of benefits that can be gained from implementing a barcoding system, let's touch on the top three:

1. Speed up the data collection process: With a barcoding system in place, you can dramatically speed up the data collection process since you're reducing the need for manual data entry. Previous studies have demonstrated that while human data entry has an error rate of approximately 1 in 300, the use of barcodes can reduce this to less than one in 2,000,000. By minimizing the amount of data entry errors, manufacturers have more accurate information to make better informed decisions.

2. Gain more inventory accuracy and awareness: For warehouses that have an accuracy level of below 90 percent or are unsure of the inventory on the floor, the use of barcoding technology integrated with a warehouse management system (WMS) can help improve warehouse inventory accuracy and awareness. The picking and receiving processes will be more streamlined and gives you far greater inventory knowledge so that you can keep less stock in your warehouse.

3. Improve operational efficiency: The number one cost of picking an order is travel. This refers to the distance an employee walks in between the picks or how far the product must move in the warehouse to reach the worker in order to be picked. To minimize this we need to ask ourselves: How many redundant efforts in the picking process can be reduced to lower the amount of product touch points? Each time you touch the product it costs money and slows efficiency. By moving to a barcoding system and redesigning the layout of your facility, you can reduce the amount of travel time and the amount of touch points, resulting in greater efficiency and money saved.

Reducing Product Touch Point Examples

Example: The first worker picks the product and takes it to a staging area (1), another worker packs the picked product (2) and then finally an additional worker ships the package (3). This process requires the three different workers, in three different areas, touching the product in order to get ready to go out. That's three touch points where each has the opportunity to create an error.

Process Improvement Scenario 1:

With barcode scanning, the product is scanned when the first worker picks it and places it into a shippable container. Thereby, when the product gets to the shipping station, the second worker seals, labels and ships the box out the door. By scanning the barcode and prepackaging the product, it streamlines the process and touch points have been reduced by one, leaving only two touch points.

Process Improvement Scenario 2: If a warehouse is shipping full cases that weigh the same amount, carrier-compliant labels can be created and placed directly on the cases upfront. The worker would then scan the case barcode on the way out of the door. By doing so, the product has bypassed the packing and shipping stations, meaning the original process has been reduced from three touches to one.

How Do You Validate the Investment Costs?

The benefits that we have covered should be validation enough to implement barcoding technology integrated with a WMS. However, if you are still on the fence, the implementation of a system provides you with a number of ways to validate the cost that you give you a high level ROI:

Streamlined savings

You can receive about 65 percent of your ROI just by moving from paper-based operations to barcoding due to the ability of streamlining operations. Instead of manually having to inventory products with paper and pen and then inputting the data into another software application to create the invoice, you can now scan the products and when something gets picked, it pushes that information back to the enterprise resource planning system (ERP). From there, the invoice can be created immediately, saving time and resources.



Improved resource allocation

Aside from escalated ROI from streamlined savings, you can also increase savings by reducing your overhead costs. With improved inventory visibility, you'll be able to have a better handle on the amount of inventory you need, which means you can keep less in your warehouse. If you can keep less in your warehouse, you'll be able to spend less on your inventory, as well as pay fewer taxes on that inventory. Reductions in inventory levels enable you to free up capital and can generate ongoing annual savings in carrying cost. In some cases, this can provide you with the working capital needed to cover the cost of implementing the new system.

The same idea of relocating savings can be applied to one of your bigger fixed expenses- labor. Reducing the amount of manual work and data entry, you can staff your warehouse more appropriately. For example, you can minimize the amount of workers assigned to inventory management because it will be taken care of by your barcoding system.

Labor savings can also result from a reduction in the number of employees required to manage current customer demand or from being able to handle an increase in customer demand without the need to increase staff. Every organization has the ability to benefit from productivity gains, but they must be achieved through the discipline, organization and streamlined processes. Labor efficiencies can allow the workforce to minimize the amount of training required for new hires, leverage resources across job functions or roles, and effectively absorb business growth and increased volume in the warehouse with existing resources.

Increased Sales

This one's easy. Accurate, on time deliveries and a high percentage of shipments completed will improve customer satisfaction. A happy customer can lead to an increase in sales. It's as straight-forward as it gets.

Phased approach pricing

If the large up-front cost of implementing an entire system into your facility is out of your budget, you also have the option to implement a system in a phased approach. This allows you to take baby steps to minimize the initial expense and spread it out over time.



Once you've decided that a phased approach is right for your organization, the next thing you should do is look internally. Are there existing systems in place that you can leverage? For example, many ERP systems have basic WMS capabilities. Organizations can use the inventory control functionality from their ERP system for 6-18 months until they reach their next growth milestone. When they reach that milestone, it is at that point that they can look into implementing a best-in-class WMS.

If you do not have that choice, you'll want to invest in a software solution that is best-in-class, but is also designed to grow as your organization grows. There are systems that have add-on modules that can roll out when needed. As you reach different milestones, you can pay an additional investment to have certain modules or features turned on. This enables you to only invest in the functionality you need, when you need it.

Example summary of savings

Evaluating and quantifying the areas of savings will go a long way towards providing the information needed to build an ROI for a potential project. While the actual ROI will be unique to each company based on its current and future operations, we've listed out some of the possible savings to help provide some insights on what can be expected:

- Improvements in direct and indirect labor productivity up to 30 percent and even higher for administrative labor
- Better space utilization, up to 30 percent
- Improved utilization of equipment, up to 25 percent
- Elimination of physical inventory cost
- Reduction in inventory carrying cost by as much as 15 percent
- Decline in customer returns, up to 25 percent
- Decrease in the amount of rework by as much as 25 percent

Improve Your Operations with Barcoding Benefits

Now is the time to look into solutions that will help your warehouse be more efficient and have the ability to not only grow, but stay competitive in the market. Implementing a barcoding system will give your facility the added visibility and awareness into operations that can be improved in order to do so moving forward.

Final Takeaways

- Take a look at your current operations and processes
- Determine if a barcoding system is right for you- now and into the future
- Establish a timeline, including growth milestones, and a budget
- Seek help from a knowledge provider



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