



Best Practices: Inventory Management for the Small to Medium-Sized Business

You don't have to be a big business to use technology to improve your inventory management processes. In fact, if you are a smaller company it's that much more important that you control even minor costs. A well-designed inventory control system will save you money, improve customer service and reduce stress for your manufacturing and warehouse personnel.

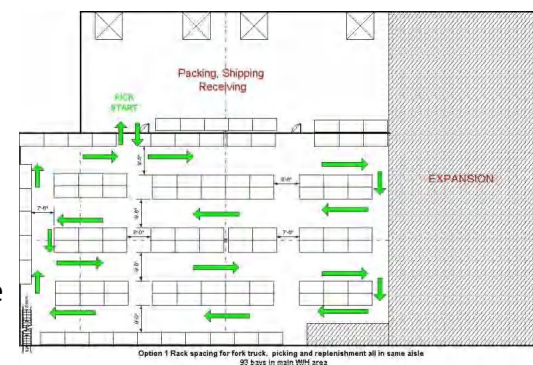
Inventory management software, especially one that uses barcode technology, is a key tool to the success of controlling your inventory – but it isn't the first step. Before installing any software or other technology products, it's important to have a well-designed warehouse and a process of moving inventory in and out of the warehouse that works smoothly.

Choose a leader for this project – someone who understands the multiple departments and uses of your inventory. If you're a small company, one person may be enough. If you're larger, form a committee from different departments – it will not only produce a better plan but when people are involved in planning there is more overall buy-in.

Warehouse Design

There are companies that specialize in laying out efficient warehouses – it can be a complex planning process. Unless you have literally thousands of items and need some advanced warehouse management processes, the best way to lay out your warehouse, is by using common sense.

- Group the fast-moving items together and toward the front of the warehouse for easier access.
- Decide if you want to store in order of part number or if the size of your items is too variable for that – but in any case use a logical layout. Put groups of like items together, for example. You want it to be intuitive for your warehouse workers.
- Are you using shelving? Leave room for new part numbers or excess inventory – and/or figure out where you can put overages if the shelves are full.



- Are some of the items in large boxes or too large individually for shelving? Designating a floor “location” is often the best choice. The location can be up against a wall or taped off in the middle of the warehouse.
- Determine a numbering scheme for your locations. (Example: Section A, Shelf 1 = Location A1)
- Are the inventory items going to be boxed or bagged? If they are not, you will need bins for the smaller items. Some companies ask their vendors to package smaller items in specific quantities for easier picking. If you always use the item in quantities of 10, get them pre-packaged that way.

Label the Warehouse

Locations:

Now that you have the warehouse layout designed, you will need to put barcode labels on your locations and items. There are options for location labeling that include:

- A barcode label on the shelf that can be adhered to the shelf or on a magnetic strip that A series of barcode labels at eye-height on one end of the shelving unit (this works if the top shelves are too high to scan effectively) with the locations encoded.
- Putting a large barcode label on the floor or hanging from the ceiling are ways to label areas that don’t have shelving. (The type of label material in this case will be specialized – get help from a label expert before spending time on something that won’t work.)

Items:

Item barcodes are typically the actual part numbers. Much of today’s inventory comes already labeled with barcodes. There are a number of decisions to make when labeling, so make sure you partner with a company that has a good working knowledge of the materials and adhesives available for barcode technology – not all barcode resellers or inventory software companies understand labeling.

- Do you want to label each item individually?
- Would you rather label a case, bag, box?
- Are some parts too small and not packaged for labeling? The best solution is to place loose items in a labeled bin.
- Most barcode readers are capable of scanning multiple barcode schemes, so if your items that come already labeled are coded with a different barcode than the one you want to use on your other inventory items, that’s OK. For example, many manufacturers put a UPC code on their boxes, but a lot of companies prefer an alphanumeric barcode such as Code 128 for greater flexibility in their numbering scheme. The same scanner can be used for both codes. Inventory management software should be able to cross-reference between manufacturer’s part number and your company’s part number.



- What do you want on your label? Part number and description, serial number? If you handle any type of perishable you might also want expiration dates.
- The label is important. If your inventory will be in a challenging environment (a cooler or freezer or if its stacks of lumber that sit in the rain, for example) you'll need specialty label material and/or adhesives.

Define Your Inventory Management Process

You know your business better than anyone. Now is the time to evaluate the process with which you receive, record, count, use and ship your inventory. The most profitable companies statistically have an effective inventory management system and you want to be on that list! One of the best ways to define your inventory management processes is by creating a flow chart by function. If you design the process before you select software, you have a better chance of success. The software you choose might not meet your processes exactly, but minor modifications are better than selecting software with no predetermined process at all.

The main functions within an inventory process are:

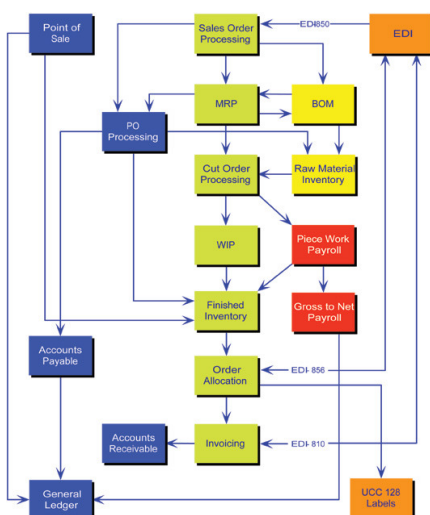
Receiving:

This is the action of receiving a new shipment of items - verifying the shipment is correct, getting quality approvals (if necessary), putting the items on the shelf and recording the receipt in the software system. Questions to ask yourself:

- Do you want to receive against a Purchase Order, do a Blind Receipt (receive without a PO) or both? Make sure you think of all possibilities and plan for contingencies because too rigid a system can cause time management issues.
- Do you need or want to print an item barcode label at receiving?
- Will you be putting the items away immediately or will there be a holding area?
- Do you want to know where your inventory is at every moment? For example, are you going to receive into the holding area and QC "locations" or will it move through those areas fast enough that you don't need to receive it until it's put into its location?
- Do you need to record lots or serial numbers for traceability purposes?
- Do you want to receive by "case" but issue or ship by "each"?

Move:

The function of moving an item or issuing to a job or work order is not a requirement in all companies. If it is something that you need to do, the process is fairly straight forward. Moves record when the inventory item is taken from one location to another. The main step here is making sure that each location is numbered. You could use "virtual" numbers if an item moves to a vehicle or some other where it doesn't make sense to have a location label. Use a sheet of barcodes or printed, laminated badges with barcodes as an alternative. Moving inventory does not relieve the inventory quantities – it simply puts it in a different place.



Shipping:

We use the term “shipping” to indicate the process of relieving your inventory of items. It could be something that is consumed internally (gloves or glue), an item that is issued to a job to be used and not returned, or an item that is shipped to a customer. In any case, there must be a method of eliminating that item from your inventory while recording where it went for audit purposes. Some things to consider in the shipping function:

- A process to reduce inventory of consumables that are consumed internally could include a requisition, internal work order or expense form – or simply a scan into the software with the right cost code.
- Issuing to a job or work order will occur primarily in manufacturing, field service or construction environments. The paperwork that moves with the job can be barcoded, so the steps would be “scan the work order number, scan the item”. The issuing of an item takes it out of inventory and assumes it is not coming back.
- Do I need to verify in any way against a Sales Order or Packing Slip that I am shipping the correct item? Is it OK to do partial shipments?
- Does my customer require a specific type of shipping label format that I need to produce?
- What if I make a mistake and ship the wrong thing? How do I want to handle this situation?



Count Inventory

Periodic Inventory Count:

A periodic inventory count is one where the entire inventory is counted at some pre-determined interval. It could be monthly, quarterly, semi-annually or annually. The process of counting the entire inventory is time consuming, even when barcode is used. The count won't be accurate if the business is functioning normally (meaning receiving new items, shipping, etc.) during the count. A periodic inventory count requires that all functions that affect inventory levels stop until the items are counted and the count is reconciled.

Cycle Counts:

Because taking a periodic inventory count is such a major undertaking, even in a small business, many companies perform cycle counts throughout the year and a periodic count only at year-end as an audit. Once an effective cycle count program is installed, many companies eliminate the periodic inventory count altogether!

The concept of an inventory cycle count is that by counting smaller sections of the inventory at frequent intervals (even daily), the process of the count is much less onerous and the inventory remains more accurate. Errors in recording inventory quantities (received 4 but actually got 40)

will be identified quickly. By continually confirming on-hand quantities, outages will be significantly reduced and the result will be a more accurate real-time inventory.

- Determine which items to count at what intervals. High usage items or those that are especially valuable should be counted frequently.
- After each cycle count, evaluate the adjustments necessary and use it as an opportunity for process improvement. Why was the inventory inaccurate? Plug the holes and improve the quality of your information on the fly rather than waiting for a year-end review.

Purchasing

Your purchasing processes directly affect your inventory and your company's cash flow. It's a fine line between having the inventory you need to produce a product or complete a customer order and having too much inventory.

Among the consequences of too little inventory are:

- Delayed shipments therefore slower cash flow.
- Unhappy customers and more time spent on customer service.
- Higher freight costs and expediting fees.

Excess inventory affects a company's financial health in several ways:

- It ties up cash that could be used to grow the business.
- Aging inventory loses value and at some point becomes obsolete resulting in write-offs.
- Inventory handling costs are increased – more time to count it, more square footage required to store it to name a couple of costs.

A lot has been written about "Just In Time", "Lean" and "Kanban" Process Systems. The bottom line is to make your company efficient, tie up less cash and produce predictable and consistent results, and the purchasing function is one key to making this happen. A formal purchasing process will maximize the return on your inventory.

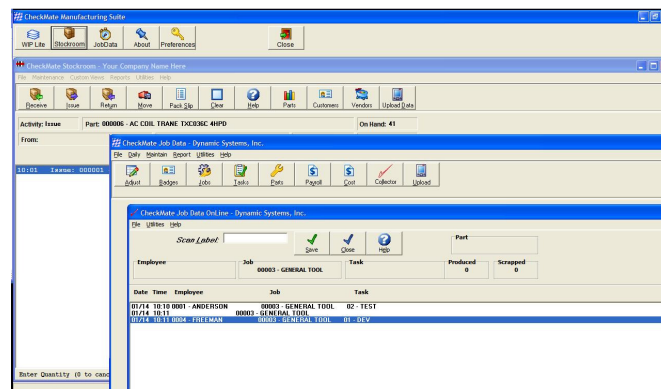
- Do you want to use approved requisitions for consumables and parts?
- Do you do custom manufacturing that requires engineering drawings and vendor approval with a purchase?
- Can you set minimum/maximum levels for quantities on hand that trigger purchases?
- What is the "economic order quantity" for each item? If you purchase 20 instead of 10 do you get a price break?
- Will your vendors stock, stage or package product for you?

Picking the Right Inventory Management Software for your Small to Medium-sized Business

Often smaller to mid-sized businesses try to use the inventory software that comes with their accounting system to manage their warehouse. Most accounting systems aren't set up to handle the details required for optimum inventory management, including tracking of lots or

serial numbers, multiple units of measure, multiple locations and/or multiple warehouses, issuing to jobs, the capability of using barcode data entry, etc.

Stand-alone inventory management software can bring all the functionality your company requires and is affordable. You understand your business better than anyone – make a list of your “must have” and your “would be great but not required” features, then evaluate based on your list. This system will be a powerful management tool, so make sure it has the ability to record and present (in reports or queries) all of the information you consider important.



A list of potential requirements:

- Easy to use, requires minimal training and start-up time (watch out for companies that quote weeks of installation time)
- Uses barcode for accuracy
- Flexible item set-up – can modify terminology to fit my business
- Has all the basic functionality – Receiving, Shipping, Counting
- Has a Purchasing Module
- Can accept a Sales Order
- Can print barcode labels for items
- Can use the manufacturer’s SKU and barcode or my SKU and barcode
- Can attach a picture of the item if necessary
- Can hyperlink to or attach drawings
- Allows for multiple units of measure (each, box, quart, inch, etc.)
- Can track inventory by multiple locations and multiple warehouses
- Can set minimum/maximum levels by item and by warehouse or location
- Allows for “blind” receiving or receiving against a purchase order or other document
- Can move inventory from one location to another with minimal steps
- Automates the inventory counting process – allows for periodic and cycle counts
- Can issue inventory to work orders or jobs
- Has a Bill of Materials and Manufacturing Order

- Has the costing method I can use
- Has all of the reports available that I need or can create these reports
- Help Desk average response time is good
- Company has experience with barcodes and labeling requirements
- Offers connectivity to other software modules that I need (for example, manufacturing job costing)
- Offers connectivity to my accounting system

Conclusion

A well-designed and effective inventory management system will have a major impact on the health of your business. It will save you money, improve customer service, and help comply with traceability regulations. The use of barcode in the warehouse increases accuracy of data entry to over 99% and efficiencies by over 80%. Taking the time to plan for the system and include your people will assure the success of your installation.