Inventory Management Programs

National Bronze MFG. MICHIGAN

Is an Inventory Management Program Right for You?

There are many conflicting opinions concerning inventory management. Minimizing lead times while reducing costs is a daily juggling act that all procurement and inventory management professionals face. While there is no silver bullet or quick fix to this complex issue, there are ways to better control your inventory without sacrificing service.

Too much vs. not enough inventory

Companies seem to have a love-hate relationship with this necessary evil. On one hand it is a constant reminder of the cost of money, while on the other it is a necessity whose importance goes far beyond its cost. Companies need enough stock to get product to market faster, increase market share, capture opportunistic sales, and ultimately exceed their customers' expectations.

Inventory is not just an up-front cost. It actually becomes increasingly expensive over time – especially if the inventory turnover rate is low (frequency with which a company liquidates or sells all inventory before replacing it). The longer a company holds its inventory or is unable to sell it, the more costly it becomes. What makes the situation even worse is the fact that most companies are unaware of and/ or fail to measure the true cost of their inventory.

Procurement professionals operate in a calculating, number-crunching world where their success is measured mainly by their ability to minimize unit costs while still meeting the immediate requirements of sales. Unfortunately, many companies do not understand the real cost of inventory, and so purchasing departments tend to rely on two popular techniques to mitigate their inventory cost:

1) Using a method of spot order fulfillment, which entails purchasing only what's needed to fill that particular order. This often limits a company's ability to use economies of scale and bulk purchasing power to negotiate better pricing. This can also lead to delays, if the product is not readily available, or high freight costs for rush shipments.

2) Compromising their selection criteria for good suppliers by purchasing the cheapest available option. This can negatively impact quality, service and delivery. It is still common that many purchasers will switch between suppliers to secure the lowest price. While this practice can ensure the lowest cost per piece there are many hidden cost from using this method. Extra inventory space will be needed to store the bronze component until it is ready for production. There is also a risk taken when switching to a supplier that you do not have experience with. This way of purchasing also requires more administrative costs re negotiating every time you supply runs out. This process can also delay the fulfillment of your new stock.

These approaches will often limit a company's ability to put its best foot forward in price negotiations with its suppliers, and will inevitably put them at the bottom of the priority list when it comes to being serviced.

In order to address the issue of inventory costs and how to reduce it, we first need to properly identify and understand the real costs of inventory. This includes a number of factors that often go unmeasured.

To illustrate the severity of some of these factors, we have put an estimated dollar value on each cost. Consider the example on the following page, which is based on $1,000,000 worth of inventory and $5,000,000 in annual sales.

CATEGORY	$ ANNUAL COST	% COST*
Freight costs: If inventory is not available you must pay for expedited orders and rush shipments to your customers	$15,000	1.5%
Lost business due to late deliveries & lack of inventory: Estimate that 2% of those customers are going to leave to buy elsewhere due to lack of inventory and poor service.	$20,000	2.0%
Overtime in shipping & receiving: Employees need to arrive early or stay late to meet customer demands due to a lack of inventory or late deliveries.	$15,000	1.5%
Cost of money: To sustain an adequate inventory level assume you borrow $1M at 7.5%*	$75,000	7.5%
Inventory damage: Estimate $25,000 of inventory lost to poor handling and storage methods.	$25,000	2.5%
Cost of managing idle parts: Products with strong sales histories that suddenly stop selling and remain in inventory.	$30,000	3.0%
Dead stock: Products forecasted by sales that are no longer required due to obsolescence. These are often sold at a discount or scrapped – a cost that is often hidden or	$20,000	2.0%

ignored.		
Warehouse cost: Cost related to rent, maintenance, electricity, general utilities etc…	$60,000	6.0%
Extra warehouse space: Assuming 20%-30% of your warehouse space is occupied by dead or slow-moving inventory, you must rent additional space to meet the demand of faster-moving products.	$30,000	3.0%
Cost of managing excess inventory: Costs include overtime spent handling, counting, and managing excess inventory.	$10,000	1.0%
REAL INVENTORY COST	**$300,000**	**30%**

(* rates subject to fluctuate)

Not all companies face the same issues, but all are surprised to find that their inventory is costing them more than they would like in ways they never anticipated. Inventory cost is not simply the unit cost of the item, but includes all of the items listed above as well.

> *"Know how much inventory is on hand. Inventory is money. Old and obsolete inventory can paralyze your business"*
>
> *Source: "Handbook for Small Business" from the U.S. Small Business Administration*

Now that we have properly identified a company's true cost of inventory, we can analyze how to reduce that cost. Companies typically use rough estimates to figure out their cost of inventory. As we have shown above, the standard rule of thumb is roughly 30% of inventory value on hand. More importantly, managing idle parts represents 3% of that cost. This is not to be confused with dead stock. Idle stock can be defined as products that have a strong sales history, albeit cyclical, but suddenly stop selling and remain in inventory for extended periods.

The cost of purchasing and/or manufacturing product to sell is often a company's largest expense. With the stakes so high, it is essential for you to know how much of a product is available to sell and where it is located.

Keeping too much inventory on hand may tie up cash that could be put to better use in other areas, such as marketing, new stores, employees, etc. You also risk having your products expire or go out of style before they are sold. Cash-flow problems are a major cause of business failures. Keeping too little inventory on hand risks frustrating customers with out-of-stock items, which results in losing sales and repeat customers.

Manufacturers worry about production line constraints. Inventory sitting on the production line between processes needlessly ties up cash and storage space. It also points to areas where improvements can be made to increase the speed and throughput of your manufacturing process.

Shrinkage is a concern for anyone with raw goods and products to sell. Whether from theft, damage, material losses, obsolescence, or changing demand trends, inventory has a way of decreasing in value over time. Companies need to be aware of these issues and improve processes to minimize them.

As mentioned, your inventory cost is made up of more than just the cost of the product. Freight cost to and from your warehouse is a huge component of your overall inventory costs. Finding ways to limit the impact of this cost will help your bottom line. Inventory Management Programs are an ideal way to accomplish this by ensuring the agreements with your suppliers limit your lead times.

Inventory Management Program Strategy

Under this type of agreement your supplier will maintain an agreed upon finished product inventory for you. These are products that are completely packaged and ready to ship. Your supplier will also maintain semi-finished product ready to replenish the finished product inventory, thereby minimizing your future stock replenishment time. A good rule of thumb is a 2:3 ratio. This will account for any unforeseen spikes in demand.

When negotiating inventory volumes you should try and come as close to your supplier’s EOQ (Economic Order Quantity) as possible. This is the volume whereby any additional amount ordered, does not lower their costs or your price. It may not be possible to always reach this amount, but discussing it up front with your supplier will help open the door to lower pricing. Purchasing one widget at a time for ten straight days will never be as cost effective as ordering ten widgets in a single shipment.

What does an Inventory Management Program agreement mean for your company?

1) You must commit to a fixed quantity of finished product inventory for each shipment. Since you own this stock and are in charge of this quantity, you can limit your exposure to risk. As part of the agreement, your supplier will be responsible for maintaining a consistent inventory of both finished and semi-finished product as a key contributor to your supply chain. For this strategy to be successful, however, you cannot change these volumes at a moments notice since it will no longer be a win-win situation for both parties.

2) The finished product inventory is a “closed sale” for your supplier, meaning these products are a guaranteed sale – although when they will be shipped and invoiced or how long they will be held is up for negotiation.

3) You will monitor your own quarterly sales volumes and confer with Sales and Inventory Management, before suggesting any changes to these volumes with your supplier.

Remember, your supplier is going to put aside product for you that could otherwise be sold to a competitor, so don’t give them a reason to do it. Respect the agreement in place, because in the end, you want to deal with well managed companies who understand the importance of partnership. Lead by example and weed out the weak performers.

How does this help?

1) It will better control freight costs and ultimately lower a key cost of your inventory.

2) Using both finished product and semi-finished inventory levels will strengthen your negotiating power. Volumes are a powerful tool.

3) It could actually save you the 2-3% cost of managing idle parts as your supplier will share the burden of your inventory costs.

4) It will reduce the risk of damage to your inventory, which we have shown can represent 2.5% of your inventory cost. As long as the inventory remains at your supplier, they are responsible for any damage incurred to it.

Every business is different, and so are their specific needs. Over the last 100 plus years we have successfully accommodated many of them. When it comes to inventory management, we have developed multiple approaches to best suit our customers.

Inventory programs are not for every company. If your requirement is a smaller quantity of constantly changing bronze parts, there isn't much benefit from an inventory program. Generally companies who benefit from our inventory programs have the following characteristics:

- A fairly consistent demand for one or more bronze components
- An ability to predict with decent accuracy how rapidly they will use the component and require replenishment.

If these are true for your company, then an inventory management program can offer numerous cost savings and productivity improvements.

While we tend to customize each program based on our customer unique needs, our inventory programs all have the same basic structure. These programs allow our customers to receive small more frequent shipments of inventory based on their production needs. This will free up their warehousing space as well as working capital.

Our inventory programs are based on building a long lasting, mutually beneficial relationship with our customers. By working closely with our customers, we become in tune with your immediate needs.

We suggest using the following 4 steps to help build a successful Inventory Management Program.

1. Establish long-term agreements

Long-term contracts give suppliers some financial security and express your level of commitment. As a result, the supplier is more likely to make the necessary efforts to deliver high-quality products on time.

In a JIT (Just In Time) context, this often means signing a blanket order or stocking agreements with your suppliers.

Blanket orders or stocking agreements are another way to avoid holding large inventories. In this case, the buyer issues a blanket purchase order and the supplier agrees to ship materials at different times throughout a set time period (once a month, every quarter, etc.) at predetermined prices. This means that the supplier must agree to keep the stock of finished products for some time (sometimes in exchange for a stocking fee), and that the buyer must accept to buy a minimum quantity at the end of the contract.

2. Improve communication with your suppliers

Regardless of the type of agreement you sign with your suppliers, keeping a constant and direct line of communication with your suppliers is the easiest way to ensure on-time deliveries.

This can be facilitated by technology, but sometimes it is as easy as establishing a single point of contact for your suppliers or creating a formal supplier program that keep suppliers informed on topics of mutual interest .

3. Use supplier expertise to improve design manufacturability and reduce product cost

This is an area of collaboration that is often overlooked, but when you involve a supplier early in the design phase of a new product, he or she will often make suggestions that can improve the design of the end product . For example, your supplier may suggest using a different material to produce a specific part or a slightly modified design. As a result, the end product may be easier to produce, and if the production lead time is decreased, you won't need to keep as much inventory.

4. Create a true partnership with your suppliers

To understand what a true partnership means, just think for a minute about the qualities you appreciate from your own best customers. Chances are you value customers who treat you as partners and not just commodity providers, order consistently, pay on time, sign long-term agreements to support your inventory, and adhere to their forecasts. Those are exactly the same qualities suppliers expect from you. In return, they will put you at the top of their priority list and make sure you get what you need, on time, every time… just like you do for your own best customers.

In conclusion, there is no real trick to achieve JIT delivery. It's a process, and it takes time to form strong relationship with suppliers, but you are more likely to succeed if you make it easy for your suppliers to deliver on-time. This means working with a smaller group of suppliers that understand your business and priorities, signing mutually beneficial contracts that help them justify keeping inventory on your behalf, and treating them as true partners.