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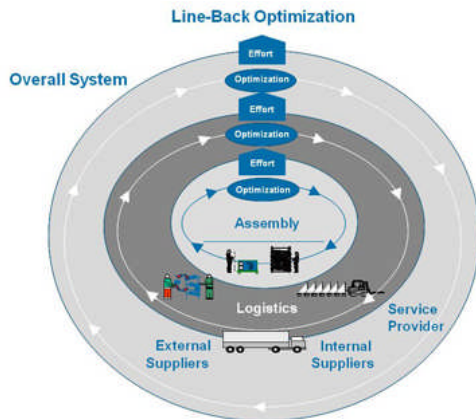


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Saving Costs with Lean Inventory Management

A common worry of many manufacturers is how to properly maintain inventory levels to effectively accommodate product demand. Having enough stock on hand is important, but it's easy to overestimate, which can quickly lead to waste with too many products taking up too much space in the warehouse, or worse yet, in the production areas. That means money lost on excess inventory and additional drains on efficiency due to a cluttered production environment and unnecessary storage costs.

One of the best ways to address this issue is focusing on removing excess inventory from the production line level and optimizing the entire supply chain.



Workers get the exact tools and materials they need, when they need them, for the exact part on which they're working; similar to how, during surgery, a doctor is handed the right tools at the right moment by the assisting nurse. This process ensures that there are no unnecessary material buffers.

Ultimately, when it comes to streamlining inventory management, companies should consider taking the following steps



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1. Change the mindset. The tendency of those in charge of material requirements planning is usually to play it safe, which often results in stocking too much, rather than too little, inventory. Changing this approach calls for a major shift in corporate culture, as inventory, especially the one in and around the production line, is often considered a “sacred cow.” But with the right professional support, this necessary change can be effectively addressed. Ingenics has worked with many companies to review their regular replenishment quantities and frequencies, and create new rules as to when and how much needs to be reordered.

2. De clutter the production area. When streamlining inventory management, it is imperative to first clearly define and document production processes, then train users accordingly. This includes creating order in the production area to ensure a smooth operation. For example, materials should not be stocked in the production area unless it is an absolute necessity. In addition, buffer zones must be clearly marked so excess inventory becomes instantly apparent. This can be done quite easily: simply mark an area on the floor, and post a sign with the relevant part number from the ceiling. When the bins with the matching numbers spill over the designated area, you know that the production has not adhered to the defined processes.

3. Implement Just In Time (JIT) and Just-In-Sequence (JIS) material supply. These methods ensure optimal inventory levels by timing the arrival of materials and parts to the assembly line just as they’re needed, and by sending them in the sequence that is required. For example, if a car manufacturer is working on a blue, a green, and a red car, the assembly line receives all parts in



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the right production sequence. So if a container arrives with three front bumpers, it first dispenses the blue, then the green, and finally the red one.

4. Create a clear plan for warehouse & supplier logistics. The idea is all about moving material costs and buffers upward in the supply chain away from the production line, and towards the supplier. For instance, you may be able to negotiate consignment stock agreements with smaller suppliers who are not equipped to support JIT delivery. They purchase space in your logistics center (a storage and staging area close to production) so they still own the materials, and you buy them only when you need them. This way you make sure you have the necessary supplies, but don't pay for them before you actually use them. You can also negotiate blanket order agreements, specifying a quantity of items that you will purchase from your supplier over time often quarterly, semi annually, or yearly to give the supplier some security, without over committing yourself to unnecessary inventory upfront.

5. Organize things in "bite-sized" portions outside the factory doors. Picture this: the truck with the supplies arrives. Supplies are transferred onto large bins. They're then allocated into smaller bins, in the exact sequence needed for the next batch. All this can and should happen before the supplies even enter the doors of the assembly hall. To address this, consider using the "one bin principle," rather than the more commonly used "two bin" approach to maximize efficiency. In this case, only one bin of certain part numbers would be positioned next to the line. Once that bin is empty, the worker cannot proceed by simply taking out the first part from the second bin; rather, he must be able to rely on the perfectly timed fresh supply of the next bin. This ultra-precise material flow may not sound easy to implement, but it can be done and it usually accounts for



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a major uptick in production efficiency. Another option would be to assemble “sets,” that is various parts for various processes in a single bin.

These set bins are then placed directly by the product on the assembly line, and workers only need to use one bin per product rather than walking to different bins to get the different parts. This approach not only saves time but also reduces the amount of inventory at the assembly line increasing overall production efficiency.

6. Measure costs as well as cost savings. Of course, introducing any change often also involves adding new costs. For example, you might need more manpower to handle sorting and rearranging things to adhere to the one-bin principle. The key is to look at each new cost and compare it to the savings potential to determine whether the change is worthwhile. More often than not, you’ll find that implementing smarter, leaner tactics will pay off. In the automobile industry, for example, several studies have shown that manufacturers saved the average equivalent of two full days of a complete assembly line standstill per year, thanks to the introduction of the above mentioned lean inventory tactics.

For more information on how Ingenics can help you reinvent your inventory strategies and better manage costs, please contact us at **contactICA@ingenics.com**.



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