



IMPLEMENTATION
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CASE
STUDY

Inventory accuracy

Improvements, new tools allow client to impress, win customer

An Implementation Engineers Engagement



Discrepancies lead to quarterly physical counts

During a 15-year period, our client had grown to \$220 million in sales, which was generated by 1,600 associates. Approximately 92 percent of the company's products were shipped to Honda, Chrysler, and Toyota. At the time of our assignment, there were more than 3,000 active part numbers and between 3,500 and 4,000 inactive part numbers contained in the MRPII system, whose capabilities were not fully utilized. Total raw material, WIP, and finished goods inventories had been as high as \$22 million in recent months. Every year in the history of the company, there has been inventory shrinkage, which was approximately \$2 million the year before we arrived at the site. To try and identify the source of this problem, the company had elected to perform a physical inventory approximately once every quarter.

Pull systems, visuals improve material flow through factory

The work was completed through layered team-based activity, including the following:

- Steering Team
- Joint Team
- Process Definition Team
- IT Strategy Team
- BOM/Routings Team
- Organization Definition Team

Process Design and Pilot Implementation Team

IT Implementation Team

The project was organized into three phases with monthly gate reviews by the Steering Team:

- Phase 1: Definition and Design (10 weeks)
- Phase 2: Pilot Implementation (10 weeks)
- Phase 3: Full Implementation (20 weeks)

The solutions being derived to solve the inventory accuracy issue were based on Lean manufacturing principles and took a holistic view of the business in order to address the root cause of the problem. The primary approach was to eliminate non-value-added tasks, reduce inventory transactions, and improve transaction accuracy. Once the transactions were stabilized, pull systems and visual factory techniques were employed to control the flow of the materials through the factory.

Resolving inaccuracies boosts improvement in other areas

As the project progressed, the data revealed that inventory accuracy was a significant contributor to multiple operations issues. Six teams were created based on the initial analysis to resolve the root causes in the transaction discrepancies in following areas: receiving/vendors, production reporting, scrap, cycle counting, transaction reporting (warehouse location accuracy), and bills-of-material accuracy. Parallel to the teams' efforts, we identified two areas – the stamping facility and the warehouse – that would accelerate the accuracy and assist the teams in their efforts. In doing so, heavy emphasis was placed on accurate initial counts, scale counting, vendor certification, and audits.

In doing detailed day-to-day transaction verification, we discovered that transaction reporting accuracy within the stamping facility was 99.1 percent accurate. However, this accuracy was at the container level not at the piece-part quantity level. Sixteen scales were installed at primary operations, so that 100 percent of all products leaving the facility were now scale-counted. Random audits were implemented on all receiving at all warehouses. This change assisted the receiving/vendors, transaction reporting, and production reporting teams in their efforts.

At the warehouse level, we developed a secondary bar-code scanning point using “smart labels” to verify that the production reporting was correctly done and that the back-flush took place, while at the same time routing product to specific warehouse locations. This was called the Gatekeeper Plus. This verification mirrored normal warehouse receiving functions, but had never been applied to internal production. This new process was done to consolidate multiple existing processes, eliminating an additional location accuracy issue.

The results were outstanding. A physical inventory using a double-blind technique was performed about six weeks after IE handed off to the management team. The inventory accuracy was over 98 percent, warehouse locations accuracy improved over 40 percent, and the inventory shrink was only \$159,000 compared to \$1 million to \$2 million in prior years.

Our client's team presented to a major customer all the improvements made as it related to the customer's area. They decreased overall finished-goods inventory by 33 percent and WIP by 35 percent. In addition, they significantly reduced part shortages and improved on-time delivery. The customer was very impressed with the system and how much the facility had improved in just nine months. The results were sustained, and our client became a benchmark for improvement with other automotive suppliers.

NEXT STEPS >

- > Schedule a meeting with our team to learn about our enCompass® methodology and how IE can improve your operations.
- > Interested in learning more about the topic covered in this case study?
Call us at 1-312-474-6184 and reference the paper you're interested in. We would love to discuss your initiatives.
- > Visit www.implementation.com to find out more about our services.



At our core, Implementation Engineers is a data-driven, global firm with a razor-sharp focus on enhancing mining and manufacturing operations.

We have volumes of success stories, and they can all be attributed to our revolutionary enCompass® methodology. This industry-first approach gives us not only the knowledge to inform you of what needs to be done, but the power to actually implement those solutions for lasting impact.

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