

Lot Traceability in Manufacturing

Why you (and your ERP) need it

It's accountability, accountability, and today, even more accountability that's mandatory for virtually any product that travels through the supply chain – where manufacturers must be fully accountable for everything they produce and sell to their end customers.



Accountability in the manufacturing process is powered by traceability, and more specifically, lot traceability, and how manufacturers create and maintain transparent, responsible, and accountable production, from the receipt of raw materials to the shop floor and assembly lines and distribution to the customers' front door.



So, what is lot traceability, and why is it so vitally important for manufacturers, no matter their size or scope? How does an ERP system support lot traceability in today's complex manufacturing processes, and why are some organizations still finding it inherently tough to implement? Questions duly asked, and answered, **below.**

What is Lot Traceability (or "How do you trace your lots?")

Lot traceability is a group or "lot" of products that were made together in the same production run and produced using the same materials. When adding 'traceability' to the mix, it allows manufacturers to track products throughout the supply chain. This is done by assigning identification labels to each production run which can then be tracked.

Lot traceability applies to raw materials, finished goods, and everything in between, where its prime objective is a batch of manufactured products that are traceable at every stage of the production process, with consistent, clearly-written, and trackable documentation, from start to finish. What makes

lot traceability even more efficient, is its ability to be bi-directional. In other words, manufacturers or any stakeholder in the supply chain can easily trace (track) any lot, back upstream, to its raw materials and production process, and downstream, to its distributors, resellers, and end customers.



Vertical industries, such as pharmaceutical, medical device, electronics, and food and beverage manufacturers, rely heavily on lot traceability, to ensure their products meet stringent industry and government regulations and quality assurance procedures. Of the numerous value-added benefits of lot traceability, first and foremost – it can help save lives.



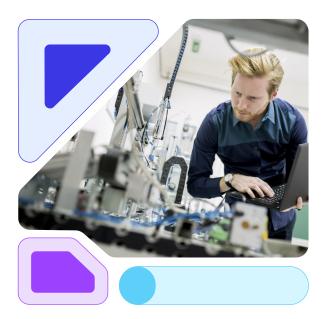
When both raw materials AND finished products can be traced along the production and distribution chain, it is exceedingly easier to zero in on manufacturing defects or expired shelf-life, and recall faulty or hazardous products, faster. What's more, lot traceability enhances overall warehousing and logistics efficiency. It also fuels better customer service, by helping deliver finished products on time, and on budget.

The Meeting Point: Lot traceability, manufacturing, and ERP

Due to improving product quality, and the surge in safety awareness in recent years, lot traceability in manufacturing has never been more vitally important than it is today. Despite its urgency, there are still manufacturers out there who either have not or cannot successfully implement lot traceability into their workflow.



In and of itself, lot traceability demands that reams of operational data be uploaded to a strong and viable central database, that it be seamlessly integrated into the various hardware (machines) in the production facility, and that it be easily accessible by all relevant stakeholders in the supply chain via a shared, companywide software platform.



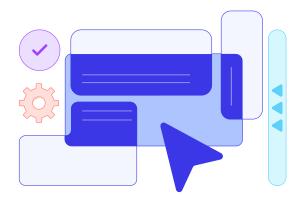
For many manufacturers who may still be using legacy standalone solutions, this is a "big ask" to fulfill, implement, and master. But when lot traceability functionality is seamlessly integrated into manufacturing ERP, it takes on a whole new dimension, powered by an ERP system's automated and optimized operational processes. Because a modern ERP is a single unified platform that enables operational data to flow through the many stages of a manufacturing process, and be consistently tracked and analyzed by the system's integrated BI tools and functionality, only a dedicated manufacturing ERP can support continuous and reliable lot traceability.

The role of ERP in lot traceability

An ERP system designed exclusively for manufacturers raises the bar on implementing and maintaining quality assurance and compliance in every production run. For starters, the software's robust search capabilities, product shelf-life management, quality tracking, supplier performance reporting, and landed cost tracking tools, enable manufacturers to consistently be on top of their production processes, with always available, always accessible real-time information at every stage.

Always available Always accessible real-time information at every stage

Not only does a manufacturing ERP's integrated lot traceability tools help manage the collection and retention of process data and documentation required for highly-regulated products, such as food and pharmaceuticals, it also includes dual units of measure, upstream/downstream traceability of serialized parts, from receipt through put-away, subsequent warehouse transfers, picking, and delivery.



The system's advanced lot genealogy keeps track of lot components and maintains lot attributes when lots are split, merged, or transferred within the organization.

To take lot traceability even further, modern ERP systems provide full support for mobile devices, barcode labeling, and RFID tags, where warehouse technicians are granted real-time access to relevant information from any mobile device or tablet, to facilitate better-informed decisions and handle multiple tasks, to reduce processing time, and increase warehouse efficiency. With mobile ERP functionality, system users can update task details based on actual task performance, open new warehouse tasks, scan and print barcode labels, and REID tags, and view

and print barcode labels, and RFID tags, and view current inventory levels for a given warehouse or part – all from their mobile device.



The Manufacturing ERP Checklist

If you're keen on implementing lot traceability in your manufacturing processes, and if you're shopping around for a new ERP or upgrading your current system, here's what you need to look for in an ERP system, and demand from your ERP software vendor.

Your ERP software vendor must be able to provide you with an efficient and robust ERP system

As a rule of thumb, your prospective ERP software vendor must be able to provide you with a system that can track raw materials when received, track materials through production, and track finished products through the distribution channel, right to the end customer. To do this efficiently, your ERP system's lot traceability functionality should include (but not be limited to):

Provide automated QA/quality control checks that flag defects/anomalies in the production process and the distribution channel



Track distribution channels to verify and document the final destination of every production lot and every finished product received by end customers



Track third-party vendors to trace raw materials back to their original supplier



Track manufacturing and expiration (shelf-life) dates



Fully integrate system-generated lot data with production hardware/software, e.g., barcode scanners and RFID tags

Checklist



But long before diving in and actually purchasing a new or replacement ERP, you want to ensure the system's lot traceability functionality can provide you with accurate and reliable answers to these questions:



Lot traceability is an essential tool for any and all production processes, and dedicated manufacturing ERP software will ensure timely, accurate, and reliable inventory and production workflows and reporting.

In turn, manufacturers will achieve high-level, companywide traceability, to ultimately reduce time, valuable resources, and the costs incurred by defective processes or the recall of defective or unsafe products.



With the surge in e-commerce and online shopping, now more than ever, manufacturers must meet tough consumer demands for a no less than "perfect" finished product, and have no choice but to implement lot traceability into their business.

Recognized as a leading global ERP vendor

Priority has been recognized as a leading global ERP vendor by analysts such as IDC and Gartner®, the later of which as positioned Priority in its Magic Quadrant[™] for Product-Centric Enterprises for multiple years.

6

"After using Priority for just a few months, we saved 20% in overall manufacturing time. Our shop managers now have better control of their production processes, more accurate inventory management and control, and our raw materials make it to the production line faster."

Nadav Razon, CEO, Solara Adjustable Patio Covers, Phoenix, AZ



Lot Traceability in Manufacturing

www.priority-software.com priority@priority-software.com



Priority Software is a registered trademarks of Priority Software Ltd. Specifications are subject to change without prior notification. © All rights reserved, February 2024