



RFID INNOVATIONS

LEAN MANUFACTURING

# For Tool Tracking & Chemical Inventory Management



A COMPREHENSIVE GUIDE TO  
UNDERSTANDING RFID INNOVATIONS  
TO PAVE THE WAY TO LEAN  
MANUFACTURING.



*Going Beyond The Mark!*

# RFID INNOVATIONS

*Accomplish more with less effort. Cut costs by removing time-wasting steps while retaining quality. Employ efficient methods by making sustainable changes. Efficiency while retaining quality—These are the cornerstones of lean manufacturing, and they are readily accomplished with the latest RFID technology. ID Integration introduces groundbreaking methods for chemical inventory management, tool tracking, and tool calibration compliance.*

## THE PROBLEM

Asset tracking, accounting for inventory, monitoring the comings and goings of parts and chemicals in your facility, and keeping up with expired chemicals can be a drudgery. With barcode technology, only one tag can be read at a time, and scanners must be pointed directly at a label to read a tag. Turning to the old-fashioned pen-and-paper technique slows down this process even further and adds the real possibility of human error.

Quality assurance is compromised when accuracy is questioned. For instance, measuring expiration dates on chemical containers, adhesives, and parts is crucial to verify quality and compliance. Improper disposal of potentially hazardous chemicals presents a safety concern. Misplaced chemicals and materials used in manufacturing can lead to waste, causing unnecessary duplicate purchases. And of course, lack of an organized system for inventory management slows audit preparation to a crawl.



The results of inefficient inventory management are wasted time in labor, potentially scrapped supplies and parts, compliancy fines, costs of remanufacturing batches to correct compliance violations, cancellation of lucrative contracts, and ultimately, loss of reputation.

## THE SOLUTION

Across all industries, from military and defense, to aerospace, to hospital and healthcare, RFID revolutionizes the management of assets, chemicals, and tool inventory. A straight line of sight for scanning labels is unnecessary, and labels can be scanned from a distance.

Scanning multiple tags at once is much faster than barcode scanning and eliminates the human error inherent in pen-and-paper inventory methods. In fact, research indicates there is no contest: to read labels on 48 bottles, RFID scanning took just over 4 seconds, barcode scanning took 2.5 minutes, and pen-and-paper took over 9 minutes. Another finding demonstrates that 1,000 chemical containers takes only 30 minutes to scan with RFID scanning as compared to 4 to 5 hours with barcode scanning. In a nutshell, RFID wins in efficiency. (Source: Pacific Northwest National Laboratory and Brookhaven National Laboratory).



Imagine how quickly chemicals and tools are located when their containers bear RFID labels—Simply wave your mobile scanner above shelved chemicals in glove boxes, desiccators, and refrigerators.

**Ensuring Chemical Inventory Efficiency**—The accuracy of scanning RFID labels on containers minimizes the time needed for inventory reconciliations (matching physical inventory on hand with existing figures in the accounting books). Find a needle in a haystack and breeze through audits: locate any RFID labeled container within the most densely populated storage facility. By reducing the time devoted to locating chemicals, pharmaceuticals, and equipment in your laboratory setting or manufacturing plant, you'll eliminate the costly need to dispose expired chemicals and pay for replacement chemicals.

**Ensuring Chemical Quality and Safety**--Easily locate and account for highly hazardous chemicals to confirm best practices are followed for safe storage, inspection, testing, and shipping. Prevent accidental chemical exposure and breakage by reducing the need for handling containers. With RFID no-touch scanning, remove the chance of ergonomic hazards caused by moving, climbing, and bending to access containers.

**Ensuring Label Durability**—The latest RFID tech continues to roll out advancements for both passive and active tags. They are becoming smaller, more affordable, and more capable of undergoing the harshest of environmental requirements. RFID labels on manufactured tools and surgical equipment can now withstand the extreme heat of the autoclaving process. RFID labels on military and aerospace parts destined for the rugged outdoors can now soldier through.

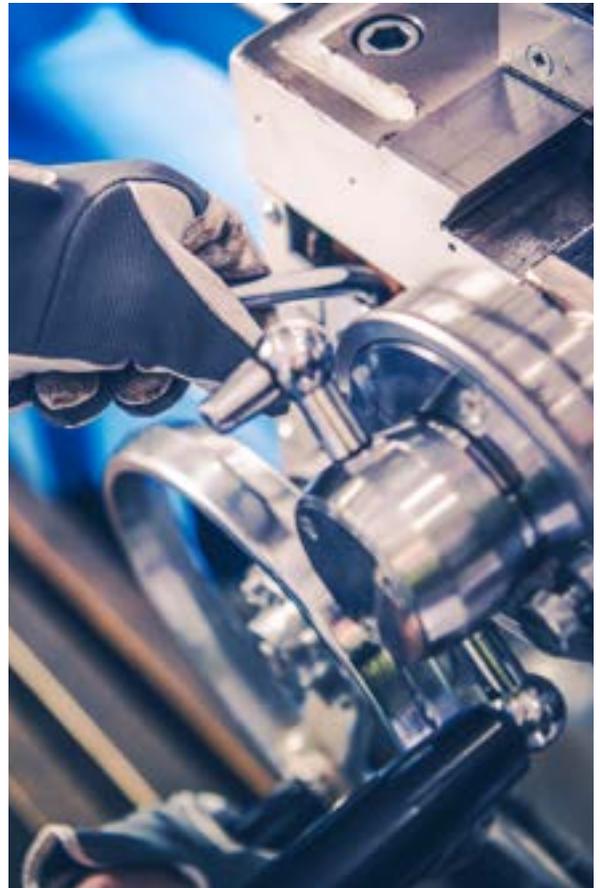


**Ensuring Proper Tool Calibration**—Track and manage metrology info to provide enhanced visibility into the calibration process. Adhere to calibration certification timelines and rest in the knowledge that products produced from properly calibrated tools are producing compliant parts. Keep your finger on the pulse of exacting tool calibration requirements and the locations of these necessary tools. Save time and money: avoid searching for misplaced tools and the unexpected expenditure of buying replacements. Ensure worker safety and quality patient care with properly calibrated manufacturing tools and surgical equipment.

Industries ranging from aerospace and defense, manufacturing and energy, repair and operations, and hospital and pharmaceuticals are using RFID technology as their key to entering the world of lean manufacturing.

### THE TECHNOLOGY

Here at ID Integration, we devote time to discovering the most recent strides in RFID technology. We offer only tested and proven hardware and software to meet our client's budget considerations.



Don't rely on cookie cutter solutions. Every facility relies on a distinct set of inventory items, containers sizes, tool calibration requirements, environmental contingencies, and management practices that demand customization. Run your own pilot test to make changes where necessary prior to investing full-scale. Try several tag and reader configurations using various storage scenarios. Investigate substituting similar size and shapes of existing inventory labels with RFID labels. Then when ready, launch your new RFID system at full production mode.

**Find the perfect fit with ID Integration's vast inventory of RFID software and hardware solutions:**

- Choose RFID tags that suit the sizes, shapes, and materials of the items to be tracked. Consider the mounting, operating, and application temperatures. Determine the use for the labeled item: tool tracking, weapon tracking, instrument tracking, medical device management, and source tracking, and we have the RFID tag to match. Contact us today to discuss the numerous options that exist for specialized applications.
- Select from our premier line of handheld intelligent scanners that securely perform the function of both barcode and RFID scanning: We offer the world's only scanner equipped with patented Firewall protection. Avoid a breach of security caused by malicious operating system commands embedded within label symbologies.
- Explore the power of cloud-based asset tracking with intuitive, map-based real-time visibility. This revolutionary approach combines IoT, cloud computing, mobile technology, and artificial intelligence to deliver a transformative solution for asset tracking and process visibility in line with Industry 4.0. With easy installation and user-friendly interfaces, our systems enable seamless monitoring of tagged items directly from your mobile device, requiring no prior programming knowledge. Tailor your real-time data display to align with your lean manufacturing objectives and make data-driven decisions that enhance efficiency and reduce manual workload. Experience smart manufacturing that adapts to your specific industry needs, providing critical insights and operational control without the complexity.

Our team of in house RFID consultants guide you to making the best choice of RFID lean manufacturing solutions, given your industry, materials, application, storage areas, container sizes, and budget.

**Contact us today to get started at (425) 438-2533.**

