



SUMMARY



Customer
DynaEnergetics U.S., Inc.



Partner
SAP

Industry
Manufacturing

Challenge
Manual inventory tracking and reporting were causing inventory tracking problems in a precision-driven industry.

- Benefits/Outcomes**
- Detailed, real-time inventory-related data capture that eliminates reporting delays and increases accuracy of location data down to the specific shelf and bin
 - Ability to track batch shelf life, making first-in, first-out product utilization sustainable
 - Simplified inventory movement reporting into SAP EWM expands warehouse operations visibility for floor workers and decision-makers
 - The ability to quickly hire and train workers, as they don't need to have SAP experience
 - Increased trust in the data capture system and stored inventory data, making it possible to respond quickly to product and production-related inquiries from customers, regulatory authorities and other stakeholders
 - Expanded SAP EWM capabilities that make it easier for IT to find new cloud and mobility-powered solutions to emerging business challenges without significant additional investment

- Solution**
- SAP® Extended Warehouse Management (EWM)
 - SAP S/4HANA® Cloud
 - Zebra Picking Plus API designed specifically to integrate with SAP EWM Cloud for inventory tracking and reporting workflows
 - Rugged Android Mobile Touch Computers

DynaEnergetics Gains Game-Changing Inventory Visibility with Extended Warehouse Management Solution from SAP and Zebra

Highly regulated explosives manufacturer uses Zebra Picking Plus API to unlock real-time inventory reporting and tracking capabilities, a necessity for its industry.

DynaEnergetics U.S., Inc. is one of only a few manufacturers in the world that produces its own perforation explosive components and related hardware in house. It designs, manufactures and supplies a comprehensive suite of perforating products and systems for the global oil and gas industry from its facilities in the United States and Germany.

Pen and Paper Processes Challenge Compliance, Customer Satisfaction

Due to the complex products being created and stored in DynaEnergetics' manufacturing and warehousing environments, the company must comply with very strict industry-level inventory tracking requirements. However, this task is difficult with manual tracking methods, and DynaEnergetics started experiencing problems with its inventory logging processes.

Any time a product was moved on the floor, the employee would have to write it down on a pad of paper then later go to the back office and type the previously executed movements into the enterprise resource planning (ERP) system. This threw off the timing of data capture and left room for manual data entry errors. Plus, extra time was needed to go back and check stock levels and locations to correct any mistakes and reconcile with back-office records. The resulting inefficiencies skewed reporting and production planning data, and that made it difficult for DynaEnergetics to meet industry standards and customer expectations. It needed to modernize its warehouse and inventory management systems so workers could enter data on the go, right from the warehouse floor.

The Key to Fast Digital Transformation, Decision-Making and Reporting

Keeping track of the materials moving around, in, and out of DynaEnergetics' warehouses is complex. So, DynaEnergetics approached SAP® to see if there were technologies that could simplify material handling and inventory management processes and reduce transaction overhead time.

To kick off DynaEnergetics' digital transformation, SAP recommended Zebra Picking Plus, an API developed by Zebra Technologies to enhance the capabilities of the SAP Extended Warehouse Management (EWM) system. Zebra Picking Plus API—when paired with rugged mobile touch computers—streamlines the data capture process in the SAP EWM system down to a few simple steps. This was game-changing for DynaEnergetics' decision makers and front-line workers, as it enabled the physical inventory movements occurring in the warehouse to be linked in real time with the systematic movements being recorded in SAP EWM.

Using their rugged mobile computers, workers can scan a barcode on a specific item, pallet or shelf to report or retrieve its location and shelf-life data. All collected data is stored automatically in a central location using SAP EWM and SAP S/4HANA® Cloud and can be accessed by DynaEnergetics' 300+ staff members when they need to confirm product locations. This granular locationing is especially useful for maintaining and tracking shelf life for specific products, as using older batches before new ones is a necessity. It also helps them quickly reconcile and report inventory status with to-the-bin precision.

“Technically, we could have digitalized our data capture processes using just SAP EWM. But workers would have had to follow a more complex, multi-step process directly in SAP to get that item information documented in the system,” explains Alex Rizinde, Supply Chain Analyst at DynaEnergetics U.S., Inc. “We are very grateful SAP recommended this Zebra API, which gives workers a simple flow of intuitive steps to follow, shielding them from the complexity going in the background. The inventory tracking process has become so much easier, and we can maintain timely reporting per industry requirements.”

Additionally, the intuitive nature of the Zebra Picking Plus API means there is little to no training for new employees, as workers do not need to be an SAP expert to effectively operate or benefit from the SAP cloud technology.

“Before deploying Zebra and SAP technology, our inventory management was manual. Now we are eliminating errors on the inventory side. Anytime anything moves—even if it slides over one bin—you can see it and report on it.”

Alex Rizinde,
Supply Chain Analyst,
DynaEnergetics U.S., Inc.



SUCCESS STORY
DYNAENERGETICS

“New workers can come in at short notice, and now we don’t have to teach them how to use SAP EWM. We can’t expect every new hire to have prior SAP experience either,” adds Rizinde. “With the addition of the Zebra API to our cloud-based SAP solution, we can have them fully trained and familiar with the tracking and reporting system within minutes. They can get started in the warehouse almost immediately, which is especially critical in peak periods.”

Though a Big Step Forward, This is Just the Start

Introducing the Zebra Picking Plus API into the digitalized process has helped DynaEnergetics respond more nimbly to product demand and make better informed production planning decisions.

The reports used to monitor product movement actions, current stock counts and low inventory alerts are more enhanced and simplified. As a result, decision makers can now confidently confirm which raw materials need reordering, how many finished goods are currently available, and whether they can fulfill customer orders on time based on current production tempos. This helps to reduce waste, overstocks and the overall cost of inventory.

The powerful integration enabled by the API has also reduced the amount of time it takes to locate products, respond to customer or compliance inquiries and onboard employees, all of which translates into cost savings. The benefits will only grow as DynaEnergetics continues to scale its workforce and operations to sustain or boost production and fulfillment capacity. In fact, the expanded SAP EWM capabilities created by Zebra Picking Plus will make it easier for IT staff to find new solutions to existing and emerging business challenges, as the API is a tool to build upon to support additional production and warehousing workflows.



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