ZEBRA

SIERRA NEVADA BREWS UP BETTER WAREHOUSE MANAGEMENT

MOTOROLA MC 9190 DEVICES HELP SIERRA NEVADA TO PACKAGE UP TO 50,000 CASES OF BEER EVERY DAY

CUSTOMER PROFILE

Organization
- Sierra Nevada Brewing Co.

Industry
- Manufacturing

Application
- Warehouse Management

Solution
- Motorola MC 9190 dual-scan 1D/2D devices
- Savant Software warehouse management system (WMS)

Benefits
- Automated operations ensure better product quality by supporting "first-in, first-out" distribution
- Dual-scan devices allow warehouse personnel to scan all barcodes using one device
- Built-in barcode scanner saves thousands of hours of productivity daily
- Ruggedized devices with swappable parts reduce repairs and downtime
- Better efficiency streamlines distribution operations, saves time and improves sustainability

SITUATION

Sierra Nevada Brewing Co. wanted to streamline its beer bottling, warehousing and distribution operations.

A few years ago, Sierra Nevada employed manual processes and paper-based systems for record keeping. But the company was growing fast, and by the time it was operating its fourth warehouse, it knew it needed a better system.

SOLUTION

Sierra Nevada turned to Motorola handheld devices and a Mobile Warehouse Solution to manage its beer – from production through packaging and beyond.

Today, the advanced scanning and tracking capabilities of Motorola MC 9190 devices – combined with easy-to-use warehouse management system (WMS) software from Savant Software – help Sierra Nevada take the paper and the pain out of the beer-making and distribution process.

RESULT

Sierra Nevada has increased efficiency, streamlined inventory management, eliminated paper records and improved overall quality for its customers.

Together the devices and the WMS have helped Sierra Nevada not only better track its warehouse operations, it has helped the brewer assure the quality of its product with an automated "first in, first out" distribution process.

> **"The primary benefit of the devices and the system is that it gives us more information, more accurate information and more readily available information. That allows us to be better at what we do."**
>
> - Jeff White, Systems Integration Director, Sierra Nevada Brewing Company

FROM THE BOTTLE TO THE BAR, SIERRA NEVADA CRAFTS A BETTER QUALITY BEER

Ken Grossman was interested in beer from an early age and in 1976 opened a homebrew supply store in Chico, Calif. He brewed his first Sierra Nevada beers back in 1980, years before the concept of "craft beer" became popular. The company has grown quickly in recent years and has built a second production facility in Mills River, N.C., to support its growth. It's now on track to brew approximately one million barrels – that's more than $200 million in sales – of beer per year.

A few years ago, the company began experiencing some growing pains, particularly in its warehousing operations. That's because the company still managed its inventory using the same manual process it had used for years.

PAPER-BASED PROCESS NEEDED AN UPGRADE

"Prior to implementing the warehouse management system, we did everything manually. We had lots of Excel spreadsheets scattered around, and people spent a lot of time looking for people who knew where stuff was," said Bill Bales, Sierra Nevada Brewing Company's CFO and former IT director.

"Everything was done by hand, and dates were written outside the shrink wrap surrounding the beer. It was all visual, and we were dependent on each warehouse to know where beer was located," Bales said. "Once we opened our fourth warehouse, relying on people's memories to track beer didn't work so well. From an internal control and processing standpoint, we realized the manual system was no longer practical. Something needed to be done."

Sierra Nevada executives began looking for an automated warehouse management system – one that allowed them to increase productivity by better tracking, controlling and distributing Sierra Nevada beer and other products.

THE SEARCH FOR SUPERIOR DURABILITY, FLEXIBILITY

As part of that system, Sierra Nevada wanted rugged devices with high durability. "Our warehouse personnel like the ruggedized feature set on the Motorola mobile devices. Durability is crucial for us," said Matt Grago, IT systems analyst for Sierra Nevada. "These devices even let us change out keyboards so that if a keyboard breaks, we don't have to send the whole device out for repair."

They also wanted a device that could scan both 1D and 2D barcodes. The 1D barcodes – located on the pallets – needed to be scanned from a distance by forklift operators, while the 2D barcodes were located on kegs and required short-range scanners.

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Sierra Nevada eventually found the dual-scan functionality it was searching for in the Motorola MC 9190 devices, which allow warehouse personnel to scan both 1D and 2D barcodes and carry just one piece of hardware.

The MC9190 is designed for medium- to long-range read applications and delivers best-in-class RFID read range and accuracy in an ergonomic, integrated RFID and barcode device. Its rugged form factor excels in virtually any environment, indoors or outdoors.

MAKING IT EASIER TO GET BEER IN AND OUT FASTER

Today, when a pallet of beer comes off the production line, a Zebra printer generates a barcode label. The label is then routed to a machine that places the barcode label onto the pallet. The pallet is then placed on a conveyer and moved to the warehouse, where it is scanned to mark its location. After each pallet passes inspection, it is marked ready to be distributed.

SIERRA NEVADA CRAFT BEER PRODUCED IN CHICO AND MILLS RIVER FACILITIES COMBINED

1 MILLION
BARRELS PER YEAR

1,700
BOTTLES PER MINUTE

1,500
CANS PER MINUTE

32,500 — 50,000
CASES PER DAY

"From an operational point of view, implementing a WMS has provided us with the controls necessary to better manage inventory, which lets us locate product faster," said Bales. "That means we don't have to waste time searching for the right product anymore."

When an order comes in, warehouse personnel use the Motorola MC 9190 devices to locate the beer to fulfill that order. It is now easy for warehouse personnel to locate and load the beer using a "first in, first out" distribution system.

"Our products are very time-sensitive. We don't want old beer in our warehouse. We want to keep the freshest beer going out to our distributors," said Bales. "The warehouse management system lets us easily move product on a first-in, first-out basis. From a quality perspective, that's very important."

PERFECTING THE CRAFT OF TRACKING BEER

The Savant WMS software and MC 9190 scanners also give Sierra Nevada the ability to easily track the exact end destination of each pallet it ships, which is critical as well — particularly in case of a product recall. Today, the company does mock recalls on a regular basis to make sure they can identify the final destination of each pallet and whom to contact in the event of a recall.

The WMS software also gives Sierra Nevada the ability to maintain an electronic transaction log that tracks every move made in the warehouse. If an error is made in the packaging or distribution process, Sierra Nevada can use this system to find out exactly what happened.

From an IT perspective, "having one unified platform makes the system easy to manage," said Ron Mayfield, IT systems analyst for Sierra Nevada.

HOPPING INTO THE FUTURE

Sierra Nevada is currently using the devices and the WMS to support its inbound operations. In the future, the company plans to integrate the WMS software with their electronic data interchange (EDI) system on both the inbound/raw materials and the outbound/warehousing and distribution side.

This will allow Sierra Nevada to eventually receive notification from its suppliers before raw materials actually arrive — and to notify its distributors in advance of when final product is ready for shipping.

This system will also help Sierra Nevada keep better records and expedite the processing of both raw and finished product.

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SUPPORTING SUSTAINABILITY

The handheld devices and the WMS solution also help Sierra Nevada support its long-standing commitment to sustainability.

"We now have better control over both raw material inventory and finished goods," said Bales. "Therefore we utilize raw materials more efficiently, and our loss rate on our product is less. That not only reduces our waste, it also allows us to reduce the amount of raw material being transported in."

When asked what advice they would give other companies, Sierra Nevada executives suggested finding a solution that provides flexibility — and that doesn't require a complete overhaul of existing business processes.

"You need to be open-minded about your warehouse solutions and your own internal business processes and find a good match," Jeff White, systems integration director at Sierra Nevada. "You don't necessarily want to find something that will mimic your existing processes or something that requires you to completely change your processes. You want some flexibility so you can find an improved middle ground."

THE BOTTOM LINE

"We make at least four times as many beers as we used to, so the complexity of our business is much higher now," said White. "Thanks to the mobile devices and the WMS solution, we've been able to successfully weather the growth and complexity challenges we've faced. Managing our growth and our expanded operations manually would have been impossible."

"The primary benefit of the devices and the system is that it gives us more information, more accurate information and more readily available information," added White. "That allows us to be better at what we do."

PARTNER PROFILE

Company Name/ Location
- Savant Software Phoenix, Arizona

Industry
- Supply chain industry

About the Company
- Savant Software, Inc. provides software, hardware and implementation services to the supply chain industry.

For more information on how Zebra can help your warehouse solutions brief, please visit us at: **www.zebra.com/warehousing**

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