

Case Study:

BLUE BELL CREAMERIES

Sylacauga, Alabama USA



Blue Bell Creameries, established in 1907 in Brenham, Texas, recently celebrated its 100th anniversary as a producer of ice cream and frozen snacks. Its offerings include around 50 ice cream flavors, frozen yogurt, sherbet, frozen snacks and no sugar ice cream products. Sold throughout the south and mid-west, Blue Bell is ranked as one of the top three best selling ice creams in the country.

In order to keep up with Blue Bell's growth, their key distribution center in Sylacauga, Alabama needed to improve and streamline their operations. Their key partner in finding and executing the right solution and technology was Westfalia Technologies, Inc. Blue Bell Creameries recently installed a Westfalia Automated Storage and Retrieval System (AS/RS), *Savanna.NET*[®] Warehouse

Management System (WMS) and a new Conveying System in its deep freeze (-30° F) storage facility in Sylacauga. This main distribution center moves ice cream and frozen snacks from the production line to storage, directly out to customers, or to 17 smaller distribution centers throughout the country.

- **AS/RS**
- ***Savanna.NET*[®]**

The Challenge:



Running Out of Storage Room and Looking Up

The Sylacauga facility was operating with about 3,000 pallet positions, and Blue Bell was quickly running out of room. “Because we are a two-story facility, we knew that we would need to go up to gain more storage space,” says Kevin Wood, General Manager. The combination of automation and experience in freezer environments helped Blue Bell select Westfalia Technologies, Inc. as its partner.

“The initial phase of the project included a pallet conveying system which was necessary to bridge the 400’ distance between production and the new AS/RS,” explains John Hinchey, Vice President of Sales at Westfalia. In total, the Conveying System includes pallet transport and accumulation conveyors, an automatic label applicator, and a transfer car (T-car) which distributes 2 pallets at a time toward the freezers.



To streamline Blue Bell’s production and storage facility, the project’s second phase included installing an Automated Storage and Retrieval System (AS/RS) consisting of two Storage Retrieval Machines (S/RM) operating in one aisle. This design provides redundancy should an SRM require maintenance. For this particular operation, the individual SRM holds 2 pallets, and has its own designated “working area” and safety zone.

“The system is nine levels high and includes more than 7,000 pallet storage locations in only 14,000 sq. ft. of freezer space,” says Hinchey. Each SRM transports 2 pallets at a time, which provides throughput capacity of 100 pallets per hour per SRM.



The Solution:

High Density Freezer AS/RS and *Savanna.NET*® WMS

The Blue Bell AS/RS is designed to store multiple size pallets 8 or 10 deep in the racks. Westfalia's patented Satellite® technology enables this multiple deep design. The storage racking structure is divided into storage blocks, each with 45 rows and 9 levels. As usual with Westfalia's designs, all pallets are triple supported within the rack structure. This adds a degree of reliability for Blue Bell because it eliminates pallet deflection.

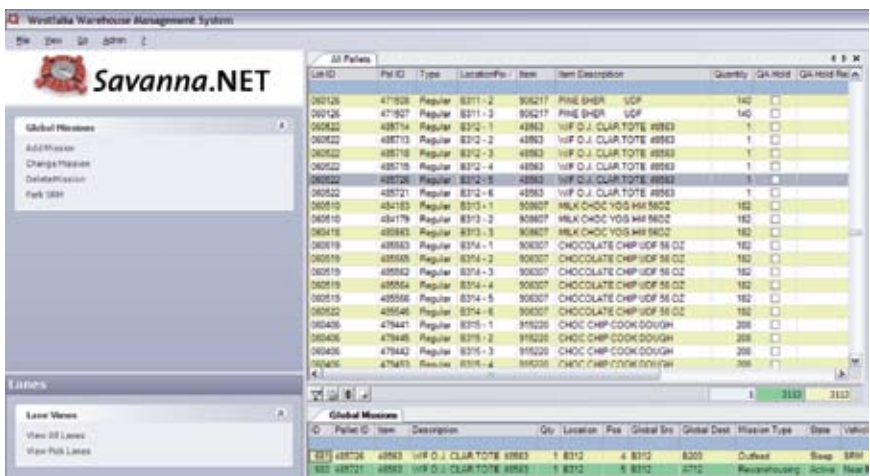
Westfalia's *Savanna.NET*® Warehouse Management Software (WMS) controls, tracks and records the product flows throughout Blue Bell's facility. Westfalia's WMS replaced Blue Bell's existing WMS which operated in a mostly manual environment. *Savanna.NET*® is a modular WMS consisting of a central "base" of logistics functions,

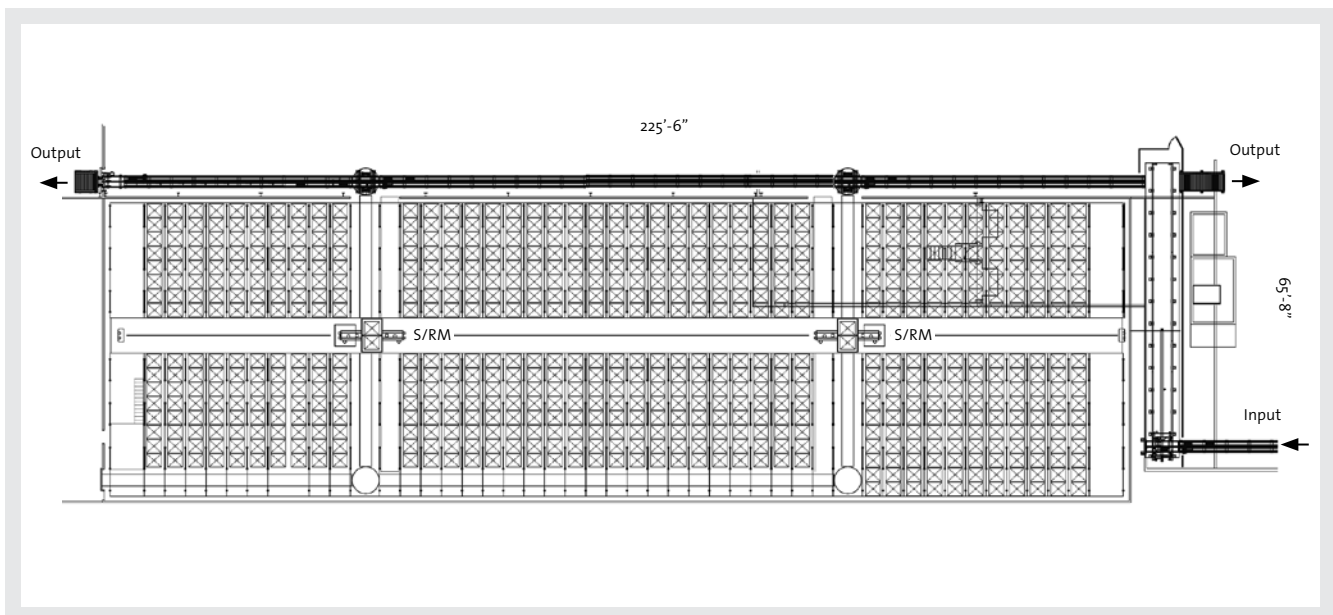


System Features	
Size	225' long x 67' wide x 70' high
Capacity	<ul style="list-style-type: none"> over 7,000 pallet positions 9-level rack
Technology	<ul style="list-style-type: none"> 2 Storage/Retrieval Machines in one aisle 8 to 10-deep stored pallets in each storage lane Each SRM transports 2 pallets at a time, providing throughput of 100 pallets/hour/SRM 400' Conveying System: 13 chain conveyors, 1 CDLR conveyor and 2 turntables Triple supported pallets within the rack structure
WMS	<i>Savanna.NET</i> ®

which can be added and adapted to specific customer needs by adding modules. Blue Bell's *Savanna.NET*® includes order picking, order management and warehouse balancing mod

ules. Additionally, *Savanna.NET*® may be used to automatically re-warehouse products in order to optimize storage capacity.





Automating the product flow -- from palletizing to shrink-wrapping to conveyors and into the AS/RS -- provided seamless warehousing and major labor savings for Blue Bell. When it comes time to pick the product for orders, the WMS calls for the product and the AS/RS delivers it to the conveyor.



Benefits

- 115% increase in storage capacity
- Fast, efficient product flow up to 200 pallets/hour
- 80% drop in forklift traffic
- Less damage to products = reduced waste costs
- Up-to-date WMS technology with *Savanna.NET*®

“The system has helped us reduce forklift traffic by 80 percent,” says Wood. “There’s less damage to our products and we’ve had a huge labor savings.”

In the future, Blue Bell will be further enhancing its new system with a conventional software module within

Savanna.NET®, for its packaging materials inventories, and possibly a robotic palletizer to replace its manual palletizing operations.

“This is an excellent system for us, says Wood. “We will be able to use it to push forward and grow our sales.”



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