

Case Study:

OAKHURST DIARY

Portland, Maine USA



Oakhurst Dairy, Maine's oldest producer of milk and dairy products, needed a logistical solution to handle an anticipated doubling of storage capacity while maintaining plant efficiency. They were anticipating major strains on their existing logistical systems due to an influx of new business, and a new line of 10-ounce containers developed for institutional and school customers.

Rather than build a new facility or relocate, Oakhurst made the decision to retain its original facility and design a more efficient cold storage / distribution center. Extensive improvements were planned over a five year period, beginning with the filling machines.

As part of the major renovations, Westfalia installed a high speed Custom Convertible Bottle Caser to accommodate the new bottle line, and a *Savanna.NET*[®] Warehouse Management System to efficiently control and manage all the products flowing throughout the facility.

- *Savanna.NET*[®]
- Bottle Caser

The Challenge:



Doubling Demand Highlighted Warehouse Bottlenecks

Oakhurst anticipated doubling output, which would have required increasing storage capacity by more than 100 percent. Also, the company wanted to expand their product line to 10 oz. bottles for the school market.

Other issues persisted: trucks often had to wait for orders to be filled; production had to be held up for lack of storage; certain products had to be stored more than a mile away; and the plant was functioning out of a single cooler, which was more than 25 years old. Oakhurst saw the improvements as a way to be able to attract new business as well as serve existing customers more efficiently.



Westfalia's integrated their *Savanna*. NET® Warehouse Management System (WMS) and a custom round bottle caser into Oakhurst's logistics solution. In addition, the system now includes a new five-story cooler, two new raw milk receiving bays, and the capacity to hold up to three days of finished product. The entire filling operation was upgraded by moving, replacing

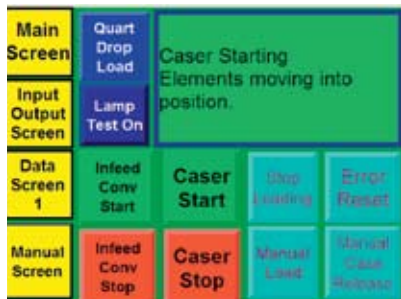
or repurposing every filler. Paul Connolly Jr., Vice President of Technology Services and CIO for Oakhurst, worked with Westfalia to design the new production system with a number of proprietary operational components, including a "pick-to-light" system, which enables pickers to fulfill orders using hand-held computers.



The Solution:

Savanna.NET® WMS and Custom Convertible Milk Caser

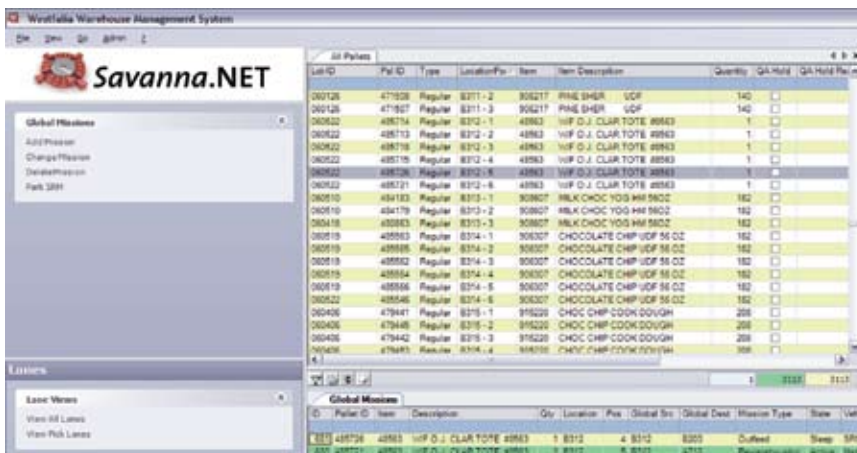
The new fillers are supplemented by a custom-designed plastic bottle caser from Westfalia's Deam Systems Division. This innovative gravity caser is "energy free" compared to the powered caser it replaced. The caser creates and tier loads 10 oz bottles in an off-set pattern with a vacuum load head, and converts easily to handle quart bottles in single tier using a cushion drop-load concept. This high speed custom caser packs 10 oz. bottles at 180 bottles/minute and quart size bottles at 120 bottles/minute.



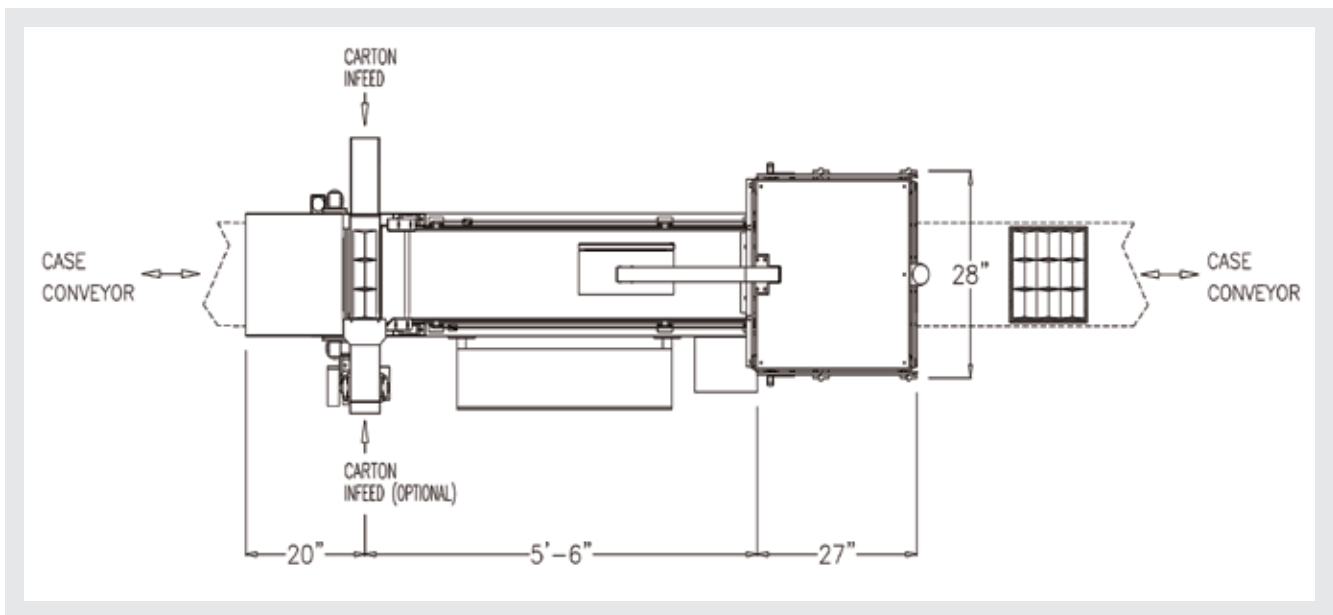
| System Features | |
|-----------------|---|
| Technology | Custom Convertible Plastic Bottle Caser <ul style="list-style-type: none"> Energy free Converts easily from 10 oz. to quart size bottles High speed packing: 10 oz. at 180/min. & quart at 120/min. |
| WMS | Savanna.NET® controls warehouse product flows, integrating pick-to-light, handheld computers and computers mounted on fork-lift trucks |

In order to improve the product flows throughout the entire warehouse, Oakhurst selected Westfalia's Savanna.NET® WMS. As products are filled, labels are attached, and Savanna tracks the product flow for both immediate orders and storage placement. If placed in storage, Savanna.NET® manages the FIFO flow of products to ensure product freshness.

"The WMS software facilitates storage and retrieval of product using the FIFO (first in/first out) method utilizing a pushback rack system," explains Connolly. "All the hand-held computers, the computers mounted on fork trucks and the pick-to-light devices are employed and controlled by Savanna.NET®. Westfalia customized their basic software package for the specific requirements of the installation."



Note: This screen is not an Oakhurst WMS screen shot. Savanna.NET is shown.



As with any upgrade, Connolly notes that the system at Oakhurst was not without initial glitches. “There was an error involving the electrical connections that were engineered to the pick-to-lights, which required us to re-terminate every connection to every light in the entire warehouse,” he says. “Westfalia stood behind the installation and provided labor to work with our team to fix the issue. All the work needed to be completed on a Sunday.”



Benefits

- Handling growth of a new product line -- 10 oz. bottles with Custom Caser -- within existing facility
- High speed caser improves case packing efficiency
- Up-to-date WMS technology provides efficient product flow throughout the filling and storage areas
- Pick-to-light order picking resulting in more efficient order fulfillment

The WMS installation was fully functional by July of 2005. Additionally, Oakhurst recently integrated a yard management system for truck movement. Future plans include the expansion of the software system, and other plant upgrades.

“The Oakhurst Dairy project is a prime example of how today’s warehouse technology can help a company re-purpose an existing structure,” says Westfalia president Dan Labell. “The result is that they now have a more efficient, more ergonomic and ultimately, more economical operation.”



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