

## CASE STUDY

# PEPSI BOTTLING VENTURES GARNER, USA

## QUENCHING A THIRST TO MAXIMIZE WAREHOUSE CAPACITY

### THE CUSTOMERS AND THEIR REQUIREMENTS

Before Pepsi Bottling Ventures (PBV), Garner, NC, made the decision to install PAS PowerStore™ – the revolutionary cart and lift-based warehouse automation technology – pallets in the 54 000 square feet warehouse were stored on the floor, up to four high.

PBV, the nation's largest privately-held manufacturer, seller, and distributor of Pepsi-Cola beverages, chose PowerStore technology, already in use around the world, because it enabled the soft drink bottler/distributor to increase storage capacity by over 60 percent in their existing flat-ceiling building, nestled deep in an old-growth pine forest south of Raleigh, North Carolina, and better manage their inventory.

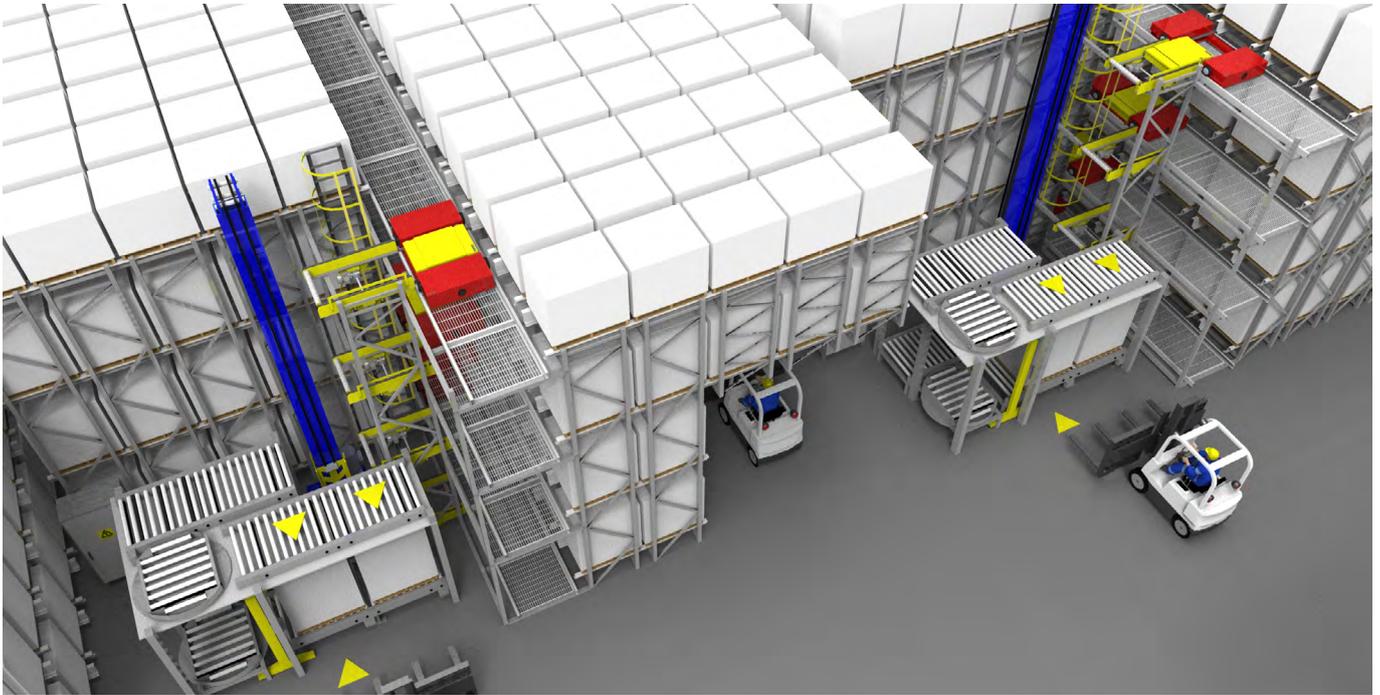
### POWERSTORE BENEFITS

PowerStore increases storage space, throughput and employee productivity while reducing energy reliance compared to traditional AS/RS crane-based systems. PowerStore is operated by a proprietary software, designed to direct pallet movement, collect inventory information and report back to the operator independently or while integrating seamlessly with an existing WMS system already in use in a warehouse.

### BEFORE PAS PowerStore

Floor stacking the 2 300 lbs. (1 043 kg) pallets in the warehouse accommodated up to 4 800 pallets, according to Tom Wiza, vice president of PBV operations and a 30-year warehouse veteran.

One of the detriments of floor stacking included pallet tumbles, which damaged product and created sticky spillage. Additionally, prior to PowerStore, PBV tracked pallet locations manually which resulted in an occasional inability to find particular pallets. As a result, product would be wasted when it was stored long past its due date and storage space was used less than efficiently.



## THE SOLUTION

Now that PBV has installed a seven module PowerStore, 7 800 pallets — nearly 60 percent more — can be stored in the same warehouse footprint. Most impressively, the company can pinpoint with certainty exactly where in its system a particular pallet is and withdraw it quickly. These improvements to PBV's logistics operation were achieved without adding new square footage or new warehouse laborers.

### CUSTOMIZED TO CUSTOMER'S GOALS

PBV's PowerStore was designed and configured around the company's desire to increase density in their existing warehouse and better manage their inventory. The system consists of seven modules, which are accessible by eight vertical conveyors, 27 Carrier sets and 14 turntables. Because the building's flat roof contained a slight slope, one of the modules is three levels, while the remaining modules are four levels with rows extending anywhere from six to twelve pallets deep. In order to maximize productivity and the building's shape, the seven modules were situated for maximum pallet storage and ease of access for the fork truck operators.



"We looked for solutions to increase the density of our current warehouse space. The traditional AS/RS vendors we interviewed all wanted to add a "box" to the outside of our building as a rack supported building. This would have taken up critically needed parking space as well as interrupted our truck and dock flow pattern. Our facility is also somewhat landlocked and would have been difficult to expand. An overall traditional expansion would have been less desirable because it builds in permanent, long term inefficiencies through greater fork-lift travel time and facility heating and cooling costs."

Executive VP  
Pepsi Bottling Ventures

## MAKING LIFE EASIER FOR LIFT DRIVERS

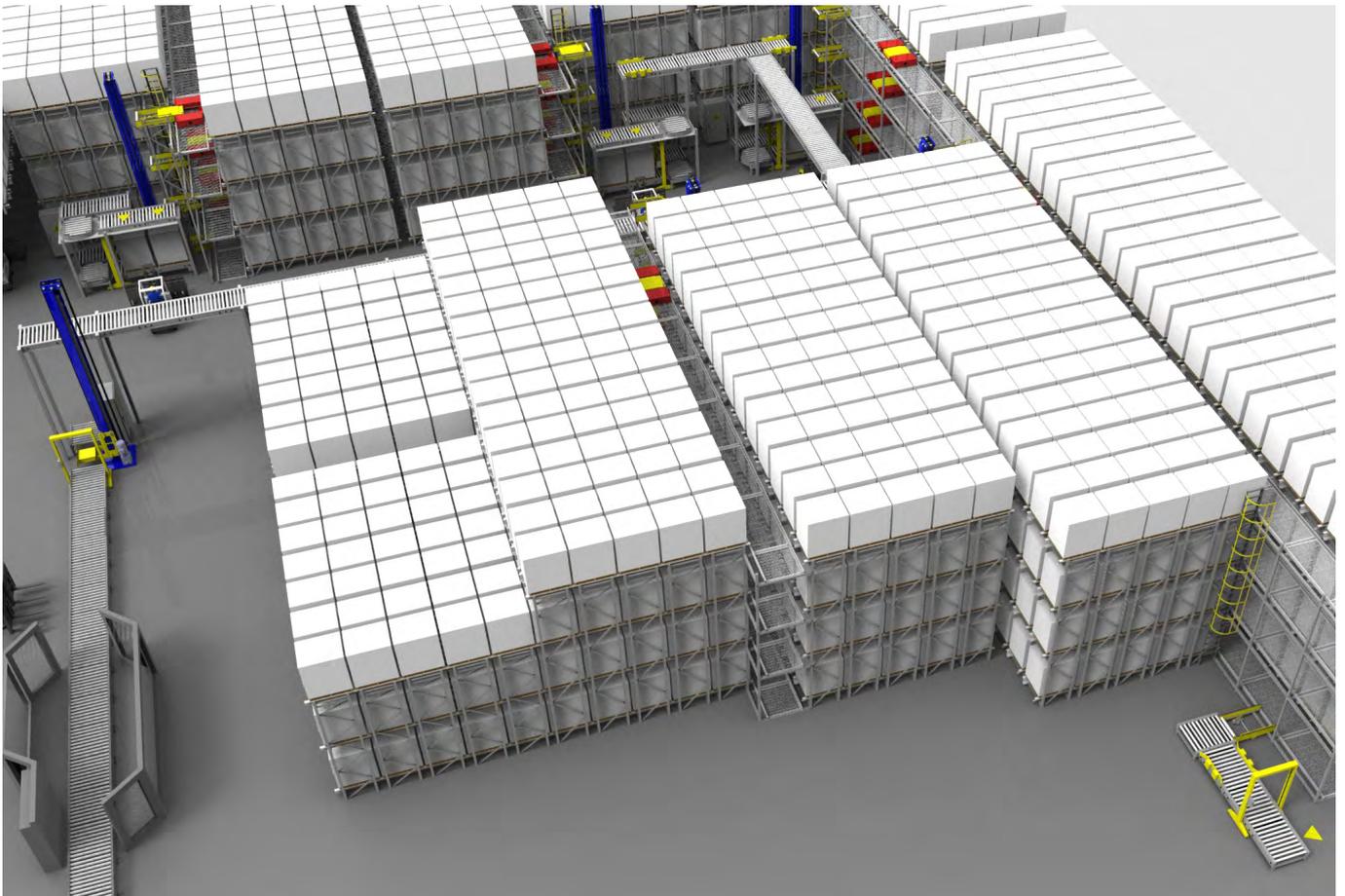
PBV's system was designed to allow fork truck drivers to input and deduct pallets into the system via a double-layer induction/ deduction conveyor. Large screen monitors direct operator/drivers as to which cargo is scheduled to go into and come out of which module in the system.

Today 7 800 pallets of Pepsi, Diet Pepsi, Mountain Dew, Diet Mountain Dew, Aqua

Fina bottled water, and various flavors and package assortments of Lipton Tea, Sunkist, Diet Sunkist and other bottled beverages can be quickly and easily stored and retrieved automatically to serve the company's distribution network seamlessly.

In 2013, PBV was named Bottler of the Year by Beverage Industry, a respected trade magazine. Additionally, in August of 2012,

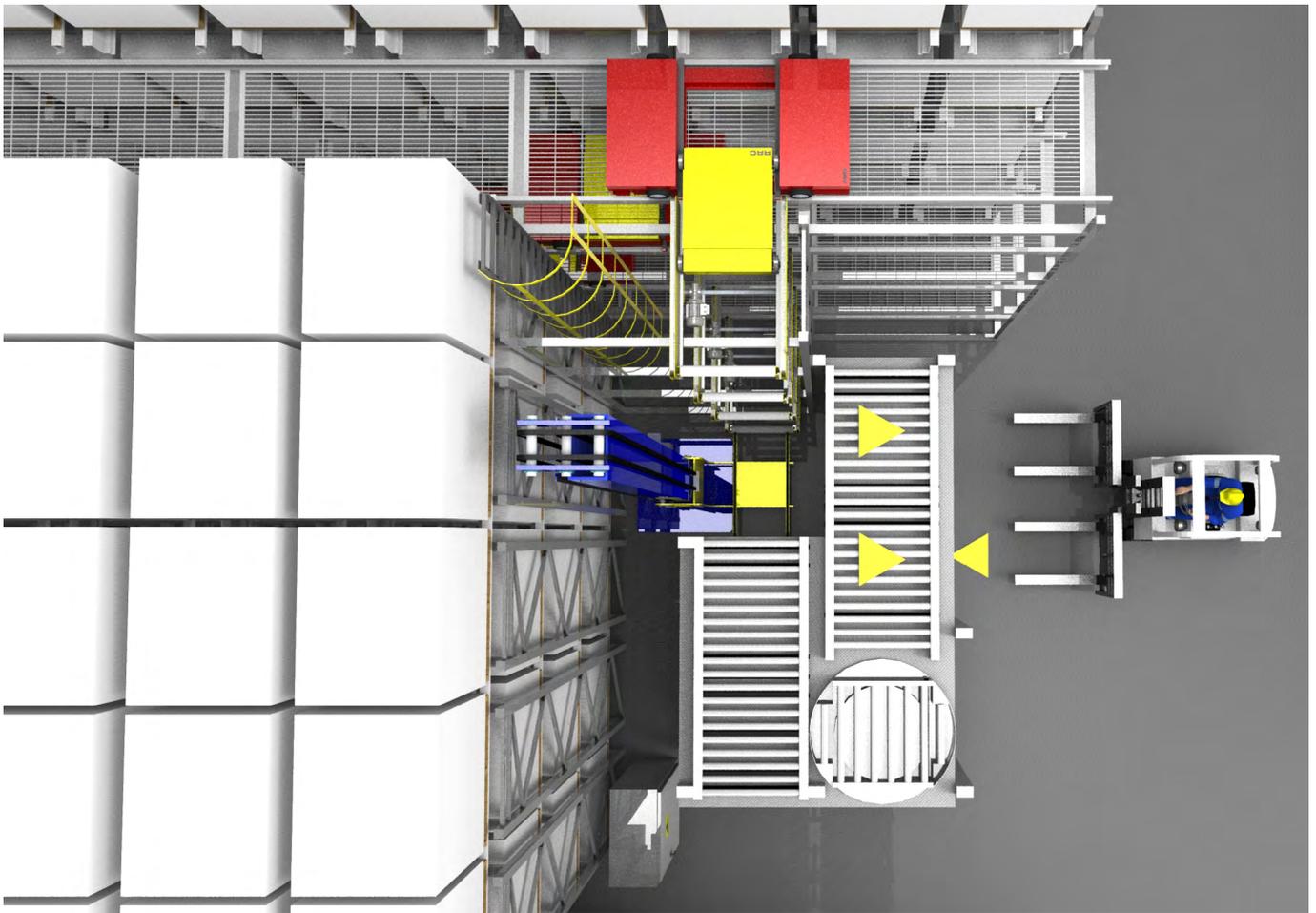
the company won for the second time the PepsiCo North America Caleb Bradham Platinum Award, a distinction of high honor within the Pepsi community. Both awards recognized the company's quality and innovation leadership in the selection process.



## CUSTOMER BENEFITS

- Increased storage capacity by 61.5%
- Improvements to operations in existing warehouse
- Seamless distribution of 7 800 pallets





## FACTS AND FIGURES AT A GLANCE

### Pepsi Bottling Ventures

Commissioned	2011
Size	7 800 Pallet Positions
Modules	7
Vertical Conveyors	8
Cart Sets	27
SKU's	760
Turntables	14
Software	Integrated into existing WMS