



Easy-release adhesive is sprayed from nozzles onto the trays of produce as they convey to the palletizer in the Monroe Township, NJ, distribution center.

Costco saves; the environment benefits

By switching from cases stabilized with cornerboards to a unitizing agent, the retail giant saves on material costs and labor, while also reducing solid waste.



Cornerboards were a time-consuming problem for Costco when it had to break down pallets of apples for shipment to its clubstores.

Cornerboards were also a problem for suppliers like C.M. Holzinger Fruit Co. when they were banding pallets for shipment to Costco. Both companies were extremely pleased when a plausible alternative was proposed by **Lock 'N Pop** (www.locknpop.com). This alternative has proven to save in excess of \$2,500 per day, according to Greg Hardenbrook, general manager of Costco's 200,000-sq ft distribution center in Monroe Township, NJ.

Holzinger packs a variety of apples in 14x17x12-in. D trays. Each case has a partially open cover that has a "strap," a 3-in.-W strip on each side. Prior to the use of Lock 'N Pop, the cases were stacked up to seven layers and manually banded at the top, middle and bottom with cornerboards. Mike Bromley, Holzinger's plant manager, says, "This is an awkward, time-consuming process, costing at least six dollars per pallet in materials and labor."

Lock 'N Pop is a water-based, easy-release adhesive formulated with food-grade components. The product is formulated for most environments and can be used in refrigerated or frozen facilities. Cartons moving on a conveyor to the palletizing area pass under two nozzles that place a narrow spray on the 3-in. tray straps. Bromley likes the size, simplicity and reliability of the application systems. The only maintenance is the occasional dusting of the photocell. "Lock 'N Pop takes up little room compared to the storage of cornerboards, and palletizing costs are down to eighteen cents per pallet," says Bromley.

For Costco, depalletization was a costly process. Upon receipt of the pallet loads at the distribution warehouse, distribution center personnel had to split each pallet load into three smaller pallets for shipment to the clubstores. Employees manually sawed the cornerboards, and a clamp lift was used to move the freed layers to another pallet. This process produced three separate pallets for distribution. Costco's experience has shown that Lock 'N Pop adds enough stability to totally eliminate the cornerboards, and its low tensile vertical strength allows for easy separation of cases manually or with the clamp

device. Hardenbrook states, "Not only is Lock 'N Pop saving us a significant amount of labor, but it also means that we no longer have to handle and dispose of additional packaging materials." He hopes to use Lock 'N Pop on merchandise routinely shipped with cornerboards nailed to pallets. "The nails cause injuries, and additionally, this would eliminate the safety problem of employees being injured when they cut up cornerboards to fit in the compacter," Hardenbrook contends.

Christine Andreychuk, Costco's corporate packaging development manager, is looking to evaluate the use of Lock 'N Pop throughout the produce department. According to Andreychuk, "Cost reduction is not the only reason for converting to Lock 'N Pop. Costco also recognizes its positive environmental contribution," she



Unitized pallet loads are staged in the distribution center for shipment to the clubstores. Eliminating cornerboards saves the stores in time and labor.

says. Environmentally, the unitizer virtually eliminates solid waste. One cubic foot of Lock 'N Pop eliminates thousands of cubic feet of corrugated materials. When used to reduce or eliminate stretch wrap, the ratio is 176 cu ft of solid waste per cubic foot of Lock 'N Pop. Hardenbrook appreciates this and is looking to use Lock 'N Pop on all products transferred through his refrigerated facility.

More information is available:

Unitizer: **Lock 'N Pop**, 800/225-5539.
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