



Dale Andersen
President,
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STRAIGHT DOWN THE LINE

U.S.-based manufacturer of end-of-line packaging machines works to provide sustainability solutions for its CPG clients

It's not easy being green: just ask any of the legions of packaging equipment manufacturers all over the world being pressured by their prized clients in the global CPG (consumer packaged goods) industries to rethink, redefine and revamp the way they do business.

However, thanks to the innovative efforts of companies like the Minneapolis, Minn.-based packaging machinery manufacturer **Delkor Systems, Inc.**, achieving and implementing meaningful greener sustainability goals is becoming more attainable all the time.

Founded in 1973, the privately-owned company is one of North America's leading manufacturers of end-of-line packaging equipment—including tray-packers, case-packaging, flat-pad packaging systems, tray and carton formers and closers, robotic palletizers, etc.—enjoying a well earned status as the Number One supplier of this sort of equipment to the U.S. and Canadian dairy producers.

After most of the company's existing product lines were acquired by international packaging equipment conglomerates R.A Jones & Company Inc. and SIG Dobby Inc. in 1990, two Delkor employees engineered a buyout of Delkor's remaining assets to start rebuilding the company virtually from scratch.

One of those employees, Dale Andersen, is today a president of a burgeoning packaging machinery business employing 100 people at two facilities, with last year's sales topping the US\$33-million mark.

"When I became the majority owner in 1999," says Andersen, "at that time we had rebuilt the business up to about US\$5 million in annual revenues."

According to Andersen, much of the rapid business growth enjoyed by Delkor in the years since can be directly attributed to the company's continuous commitment to product and design innovation.

"From my years of working for Delkor as a salesman, I saw first-hand that there was a real need for innovation to challenge the traditional methods of shipping product to market," Andersen told **Canadian Packaging** recently.

"Too many products were going to market with very inefficient and, quite frankly, far too much wasteful packaging," he asserts. "At the time, the standard use of corrugated boxes and trays, for example, was just begging for some more progressive alternatives."

To capitalize on the promising niche opportunity, Delkor proceeded to restructure its new product development efforts around the central theme of innovation in how the final packages are shipped to customers.

One of the big success stories to emerge from this endeavor

has been the development and commercialization of the Spot-Pak packaging system, claimed by the company to be the lowest-cost secondary packaging in the industry today, thanks to a breakthrough design that incorporates far less packaging material than other comparable secondary packaging formats.

States Andersen: "We realized that if we could solve the age-old problem of packaging product with flat corrugated pads, we could eliminate between 60 and 80 per cent of the packaging material typically required to ship products to market.

"And because we were shrinking the size of the shipping package, the pallet density could be increased from eight to 12 per cent," he says.

According to Andersen, the project



Dan Altman, sales engineer with Delkor, stands in front of outbound pallet-loads of products ready for shipment using the company's Spot-Pak secondary packaging system, which the company claims can achieve up to 65-percent reduction in material usage and a 12-percent increase in the pallet density.

PHOTOS COURTESY OF DELKOR SYSTEMS, INC.



worked like a charm thanks to Delkor's innovative use of a temporary bonding adhesive to ensure good load stability in flat-bad packaging applications.

But although the idea worked well enough to become patented, the initial market reaction to the package was disappointingly under-whelming, Andersen recalls.

ROUGH START

"It was such an unpleasant realization to discover that introducing a shipping package was simply not as easy a task as we had imagined," he says, adding that the new packaging concept might have simply arrived before its time.

"Perhaps we erred by trying too many companies so fast, but once we began to focus on changing one company at a time, the chips began to fall into place," relates Andersen.

"Today, I'm proud to state that Delkor has nearly 200 Spot-Pak installations throughout North America, including a number in Canada at companies such as Parmalat, Saputo, Farmer's Dairy, Gay Lea Foods and Lucerne."

Based on the customers' feedback so far, Andersen estimates that the average installation has helped its clients to reduce the amount packaging required to ship product to market by 60 per cent, while increasing the pallet density by an average of eight per cent.

"As a result, these packaging lines are now collectively saving about 7,000 truckloads of corrugated per year," beams Andersen, "while thanks to the increased pallet density, the number of truckloads of finished product going to market has been reduced by approximately 5,000 truckloads per year."

Once such savings and benefits became self-evident, the Spot-Pak packaging system quickly became a bestseller in the dairy industry, according to Andersen,

adding that Spot-Pak is currently being used by nearly a half of all the North American producers of cultured dairy products like sour cream, cottage cheese and yogurt.

Andersen says that Delkor is now working on extending the advantages of the Spot-Pak technology to other food industries outside of the dairy sector, as well as to packagers of non-food products.

In similar vein, the company has also addressed the problem of distribution inefficiencies related to the shipping of POP (point-of-purchase) and merchandising packaging displays.

"We realized that with the increased use of display packaging at the retail store, there is a major issue involved with shipping this type of product display to market," says Andersen.

"In the large majority of situations, we found that the display tray is too small to be a shipper, and the shipper is too large to be a display tray, or that the display tray itself was simply not strong enough to be a shipping package.

"As a result, there is a lot of built-in inefficiency—resulting in the use of excessive packaging being used to serve both the needs of the display and the shipping packaging requirements."

Andersen recounts that many of the mass merchandisers he talked to were keen to have a display tray that could be quickly converted from a shipping 'carrier' into a display tray without requiring any significant modifications to be done by the store staff.

BRAIN POWER

After a year of brainstorming for an effective and cost-efficient solution, Delkor eventually produced a design for which it has since obtained patent protection in both Canada and the U.S.

"We discovered that most display trays could be combined into a shipper by simply unifying them through the use of an independent top member," Andersen relates.

Called Tray-Pak, the concept is based on using properly-shaped packages to ensure built-in stability during transport—requiring only the removal of the top layer of corrugated inserted between palletized layers at the receiving end to make the packaged products ready to go on the store-shelves.

With no cutting, tearing or other signifi-

cant modifications required to ensure stability, Andersen says he's really looking forward to launching the first fully-automated Tray-Pak packaging line at the upcoming Pack Expo International 2008 trade show in Chicago this fall.

In the meantime, the company is busy developing another revolutionary concept that is currently in the testing phase.

"It's a replacement for the bliss-style boxes typically used to ship blow-molded jugs to market for products like bottled water, milk or window washer fluid," states Andersen. "It is currently a patent-pending technology that we expect to be in production later this summer."

Andersen adds that Delkor makes every effort to apply the same principles across its entire machinery range to make life easier for its clients.

"In most cases, the same machine that can package product into a tray can also package it into a Spot-Pak package or a Tray-Pak package," asserts Andersen. "The market is definitely changing in that producers are now required to offer more than just a traditional shipping package.

"As a result, the machinery must be adaptable to this changing environment," remarks Andersen, using Delkor's modular design philosophy as an example of the growing need for greater compatibility between today's highly-automated packaging machines.

"In fact, we are one of the few companies in our industry that has standardized all our equipment with the new Logix control platform technology from Rockwell Automation," Andersen points out, "which permits plants the ability to unify the entire plant operation efficiently."

Says Andersen: "We've recently gained a number of customers that elected to purchase a Delkor tray-packing line simply because our equipment provided them with multiple packaging options that were not available from the competition.

"While it's true that the packaging machinery industry is a very competitive one," he concludes, "I am a strong believer that competition is what drives innovation

"And thanks to that competition, I believe that our new sustainability-driven solutions will really help our customers to save time, money and the environment."

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