

A DIFFERENT KIND OF RELIABILITY

B.C. food firm opts for **digital case printing** system to solve carton coding problem

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Special to Canadian Packaging

Basic Foods Ltd. is a leading manufacturer of rice-based snack foods operating in Canada and the United States, and it serves international markets in North and South America as well as Africa. The company continues to enjoy enormous success, but it has also had its share of challenges.

"Originally, we used pre-printed cartons for our products and hand-stamped the variable data when it was needed," says Hans Hoepfner, the Vancouver plant manager, "but that option was very inefficient and we were losing four man-months per year due to repetitive motion injuries."

As the demand increased for readable barcodes on each carton, so did the packaging requirements. While the company uses only a handful of different carton sizes, the printing specifications are slightly different for each of its 100 different SKUs. And so the challenge was to find an economical way to handle the need for variable data, especially barcodes, on relatively standard corrugated boxes.

Before variable data and barcodes became a constant requirement, pre-printed cartons provided good value in spite of the inconvenience and cost of maintaining a large inventory of boxes. "But eventually it became a serious problem to maintain the necessary levels of pre-printed cartons," recalls Hoepfner. "A new box would take us three weeks to receive because of the time-consuming process of designing, proofing, and manufacturing a new printing plate."

The indirect cost of pre-printed cartons was also a problem, according to other company sources. Considerable space for storage and repeated material handling are obvious costs, but obsolescence was a constant, if less apparent, cost. "If a case became obsolete for any reason, so did the inventory of that case," notes Hoepfner. "Every time a case became obsolete, we lost a significant investment--up to 90 per cent of the original carton cost."

After quickly rejecting the option of using labels based on cost alone--10 cents per case for two 3x12 inch labels. Ink-jet printers were also investigated as a possible solution for printing variable information. In fact, an off-line shuttle system was proposed, but it did not satisfy the need for barcode reliability.

"On top of our quality concerns," adds another staff member, "we discovered that there was no carton re-stacker at the output end, so our boxes would fall into a large bin and need to be manually squared and stacked, making the ink-jet system both labor and maintenance intensive."

At about the time Basic Foods had ruled out conventional systems because of various problems, the company came across a new concept that satisfied all of its requirements. The concept: digital carton printing, which was developed in the United States by Iconotech and distributed in Canada by Resolution Technologies Corp., of Vancouver. It is a pre-production system which prints high-resolution graphics, unlimited text styles, and in-spec barcodes over a large print area in a single pass. According to the manufacturer, this is achieved at a fraction of the cost of a single label.

The DCP not only provides quality printing and economical operation, it also makes creating and changing print messages quick and easy. "I can control the WINDOWS-based software that comes with the system to create text, barcodes and computer-generated or scanned-in graphics in a matter of minutes," notes Hoepfner, who operates the system's PC.

Adds Hoepfner: "The software program has a very short learning curve. In only a half hour, prior to installation, I was able to design 14 new carton layouts, ready for printing. When my message is completed, I can get a film stencil from the system's thermal imager in less than two minutes. And when I'm done, I can store the message in the computer to simplify production the next time that case is needed."

The operator of the system's printer is equally enthusiastic about the DCP: "I just mount the thermal film on the drum of the printer, load KD cartons into the magazine, and start the press. Printed cases are automatically squared in the machine and discharged from the printer in bundles. It only took a few hours to get the hang of it. What's more, I've been verifying the bar codes with a PSC Quickchek 350 Verifier and we're consistently getting overall ANSI readings of "A". That was better than we ever expected."

[October 1997 Issue/ Canadian Packaging/ Bizlink](#)