

# PHARMACEUTICAL & MEDICAL Packaging NEWS

THE PACKAGING MAGAZINE FOR THE HEALTHCARE INDUSTRY

## PharmaBioTransport

### Automating Order Fulfillment

*A nutraceutical company changes from boxing to bagging, requiring investments in new equipment.*

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Consumers are ordering a wide range of vitamins and supplements through mail order. Interest is driven in part by the ease of ordering over the Internet. While most companies still manually box products for shipment using the ever-popular popcorn to cushion goods, some are looking for other means to protect and fulfill orders.

One major company was at a stalemate. Staff couldn't meet customer demand in a timely manner. Also, shipping costs were growing just as fast as business. The company had to find a solution that would reduce costs and increase productivity without compromising quality or customer satisfaction.

Staff had been fulfilling orders manually by hand-picking bottled products and packing them into cardboard boxes. The hand-packed, personally inspected shipments were a critical part of the firm's reputation. The goal was to perform it faster, with less labor and lower shipping costs, while maintaining quality.

The company considered standard automated packaging equipment, but decided that it required a custom solution. It turned to R/X Automation Solutions (Longmont, CO), a packaging systems integrator with experience in the pharmaceutical industry. R/X

Automation consulted with the customer and recommended an automated bag packaging system to streamline fulfillment and deliver material and shipping cost savings.

R/X Automation partnered with Automated Packaging Systems Inc. (Streetsboro, OH). The solution consisted of integrating an Auto-bag AB 180 bagging system with proprietary pharmacy fulfillment software developed by R/X Automation. Because R/X Automation had been working with Automated Packaging Systems to develop custom packaging systems for the pharmaceutical mail-order industry for three years, modifying the system to fit the needs of this nutraceutical line was a minor issue.

Switching from manual to automated bag packaging using bag-on-roll technology lowered costs (both labor and postage) and increased efficiency. But switching to this form of order fulfillment required more than just buying some equipment and learning how to use it. The benefits of the new method also had to be accepted by customers. There always was the option of automated cartoning, but



R/X Automation Solutions aimed to reduce cost and labor by shipping product in bags, not boxes.

that would only speed up processing. While either way offered a way to speed up fulfillment, only the bag technology also offered reduced material and shipping costs.

Customers would not know or care whether fulfillment was automated. But they might care when receiving products in a bag instead of the familiar carton. Boxes had been the standard container for the nutraceutical company's entire business history, and boxes were used by most competitors. Therefore, the company was concerned that

bag packaging might cheapen the perceived quality. Product quality and service have been extremely important components of the company's brand reputation, and the firm did not want to compromise it.

Rather than jumping right into a solution, the company decided to hold off and test the basics of the new delivery packaging for several months before making a final change.

A semiautomatic bagger was set up in-house. Products and paperwork along with a customer satisfaction card were manually inserted into bags and shipped to several thousand customers. The company monitored customer reaction to the bag mailer versus traditional boxes, and it found customer response to be very positive. There was virtually no concern about the quality or integrity of this shipping method from any customers.

The R/X Automation "Script Pack" system uses the Autobag AB 180 Bagger as its heart. It takes the bags, supplied on a roll, and automatically preopens them so the operator can insert the order and paperwork. Next, the machine seals the bags and prints the customer address and order information directly onto the bag.

Additions to the automated system included software and bar code scanners; modifications had to be made to conveyor infeeds and delivery mechanisms. Total customization of the system took six months from concept to

completion. System testing was performed at the R/X Automation facility before final installation.

Since the Script Pack utilizes a



**Automated Packaging Systems Inc. integrated an Autobag AB 180 bagging system with proprietary pharmacy fulfillment software developed by R/X Automation to provide a customer solution.**

plug-and-play design, installation was not difficult. While the system can be considered semiautomated, virtually every action is system controlled with the exception of the operator placing the product and paperwork into the bag that is presented by the system for this step. Software controls everything else about the order, using bar codes to track and verify that products match orders. Conveyor infeeds deliver the product to the workstation, and a bar coder reader triggers the printer to print the correct paperwork. The printer also folds the

paperwork and delivers it to a conveyor at the workstation. The system sends a signal to the bagger that will print the address directly onto the bag before it is loaded. Another bar code scanner verifies bag content to make sure it matches the order; if it does not match, an alarm will sound. After verification, the bag is then sealed and sorted to the most cost-effective carrier. For tracking, the system stores shipping information for each order in a database, and then links to the carrier's tracking system (typically FedEx or UPS).

Productivity improvements were immediate. Material costs for bags-on-a-roll versus boxes went down well over twofold. Storage space for bags was a fraction of that required for flat boxes. Product fulfillment increased from 150 to 300 packages per hour.

An average shipping bag weighs 4 ounces less than the standard 6 × 6 × 6-in. box. While actual costs depend upon the order, savings in shipping costs average about \$1.00 per order.

The productivity enhancements plus the material and postage savings have yielded a return on investment (ROI) of less than one year. The best result, however, was that the new package, with nearly 100% verified accuracy, increased customer satisfaction. The company has found that its customers are more than happy to receive products in a secure delivery bag rather than a bulky box. ■

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