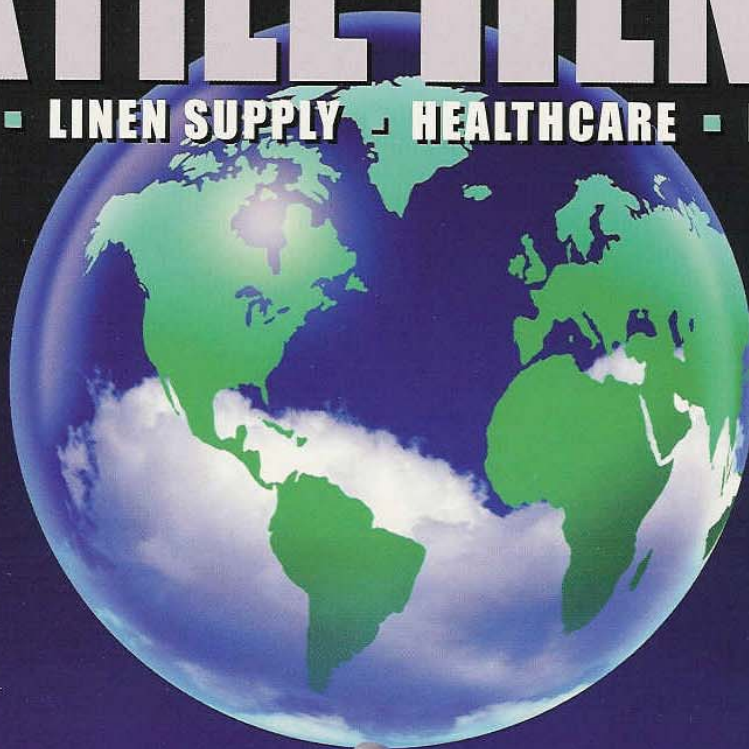


TEXTILE RENTAL

DECEMBER 2003

UNIFORMS ■ LINEN SUPPLY ■ HEALTHCARE ■ DUST CONTROL



Technology: Global Improvements

Speed, Productivity, Control

Unitex Plant
A World Apart

RFID
Precision Product Flow

Handhelds
Route-Friendly Dynamic

Plant Automation
Targeting Downtime

Chip Simple

*The marriage of RFID
and an innovative
hanging system helps
WH Linen sort, track
and make-up its routes*

By George Ferencz Jr.

“**T**echnology” has an aura about it. It’s believed that technology must be complicated, complex and costly. But it doesn’t have to be. In the textile rental industry, Radio Frequency Identification (RFID) is one those innovations that can revolutionize the industry through its simplicity.

William Hermanns, owner of W.H. Linen Rental, Clifton, NJ, believes technology can greatly improve his operations. The industrial engineer has constantly upgraded his plant since joining the company in 1967. But every time Hermanns and W.H. Linen contemplate an upgrade, he always has one demand. “Our philosophy is not to change the way we do business unless there are significant benefits,” he says. “The technology has to work within our system.”

The technology will come along

In the mid 1990s, Hermanns knew he had to do something. His garments, about 35% of the company’s overall business, were still being counted and sorted manually. The task was becoming arduous as Hermanns and his sales staff brought on more and more garments. The bar code solution most companies were using at that time didn’t appeal to Hermanns at first. “We looked at the bar codes, but we knew there was a better solution that was coming,” he says.

The solution was RFID. But through the end of the last decade, Hermanns remained frustrated by the lack of successful installa-



RFID chips are heat sealed with a bar code on items entered into inventory.

tions. The technology remained expensive and unproven in the textile rental industry. By early in 2001, Hermanns had to give in. “We went to bar coding and did that for the merchandise control and to gain credibility with the customers,” he says.

Having implemented bar coding in his plant, Hermanns might have shelved RFID for another decade. But his commitment to technology led him to keep his eye on RFID as it came into its own. Radio chips would start to become more prevalent in textile rental facilities in Europe and in the United States.

Keep it simple

Hermanns’ outlook changed after meeting Herb Markman at Clean ’01 in New Orleans. Markman has been bringing technology to the textile rental industry for more than three decades. One of the founders of Laundry Logic before creating systems for the dry-cleaning industry, he is now back working with textile rental com-

panies as owner of Positek RFID. Positek implements RFID technology in the industry using a Tagsys 13.56 Mhz RFID Tag.

Hermanns explained to Markman that even though W.H. Linen had moved to bar coding and improved its merchandise control, sorting and preparing garments to route make-up still was time consuming. "We had six full time people in the department," says

label is used as visual identification for the customer and the RFID chip is used by W.H. Linen to soil scan, assemble and control the garments. Positek RFID—with the committed help of Laundry Logic—facilitated the integration of the RFID information into W.H. Linen's Route Accounting System.

There are three locations in the plant where the garment is



Hermanns. "The system required very skilled people." This skill level needed to match items to routes meant training had to be more detailed and labor costs were higher.

Markman knew he had the solution: Computer-assisted sorting. "CA-Sort uses RFID technology to help make-up routes and it requires very little training or equipment investment," he says.

CA-Sort starts with the chip

In order to get the benefit of computer-aided sorting, an identification method is needed. The reading ability of RFID readers makes RF chips a productive choice. Since W.H. Linen also uses bar coding, a system had to be developed to marry the bar code and the chip.

Together, Markman and Hermanns determined the best method would be to scan the bar code on the man-readable label and then read the RFID chip, marrying the two numbers. The heat seal labels are created in the office and then attached and cross referenced to the RFID chip in the stockroom. This makes the process easier, faster and provides back up. From that point forward the heat-seal

W.H. Linen utilizes RFID technology to track garments throughout the plant, improving customer service in the process. (Above left) Garments are separated into groups on the 12-sort spider, and then sorted into routes (right).

scanned. First, when the item comes into the plant soiled, it is scanned as it goes into the vacuum system. To ensure that all items are scanned, there are both visual and audio alerts to indicate if an item was read properly. Now, with the radio chips, W.H. Linen knows when and where a specific garment is in the plant.

Following cleaning and finishing, the garments move to the first sort. A sorter presents the garment to a radio frequency antenna. The CA-Sort Pre-sort software informs the sorter to place the garment on a specific hook with a visual and audible commands. The garments are accumulated by computer-assigned electronic lots (groups). The use of electronic lots does away with the requirement that the route number be part of the garment ID, so rerouting can be accomplished without remarking.

A second sort at W.H. Linen occurs on a 12-sort spider. The

Plant Technology

groups are further defined prior to final assembly, again using visual and audible commands. The final sort assembles the garments for delivery by route, account and man twice as fast as manually.

Training in Minutes

Previously, a W.H. Linen employee needed to know what cus-

What also intrigued Hermanns was how simple CA-Sort is. There are no moving parts to break in the assembly system, and the software has proven to be extremely sound. W.H. Linen was able to incorporate their existing sorting equipment without moving it. This saved money and allowed W.H. to transition to the new system without disrupting production.



RFID technology can be found throughout the W.H. Linen plant, including inventory (top left) the soil room (center left) route make-up (bottom left) and sorting (above right).

tomers belonged on what routes in order to make-up the routes. But with CA-Sort, that knowledge is kept within the computer system, rather than with the employee.

A recent demonstration at W.H. Linen showed how easy it is to train someone on the system. An employee who had never sorted on the "spider" before stepped up to the platform with the trainer, who showed the employee how to scan the item and listen for the numbered slot in which to place the item. The employee took over after a few demonstration scans and within five minutes she was able to quickly sort the garments into their routes.

The simplicity of the CA-Sort System was a big selling point for Hermanns. "We've gone from needing very skilled labor to requiring very little training," he says. "We've gone from requiring six full-time people in this area to five and we will be down to four shortly."

Payback

Hermanns is very pleased with the return on his investment in RFID and CA-Sort. The RFID tags are reusable and last multiple garment lives. And other benefits made the project worthwhile. "I would have done this even if I didn't get as quick an ROI," he says. Hermanns reports that since implementing RFID in his plant in May, W.H. Linen has received fewer calls from customers concerning the accuracy of their deliveries.

"Our route drivers, customer-service representatives and production staff have confidence that we are returning what was picked up," he says. "The advantage is that we finally have control and are improving our customer service. It's changed our business." **TR**



George Ferencz Jr. is vice president of operations for TRSA and a frequent contributor to Textile Rental.