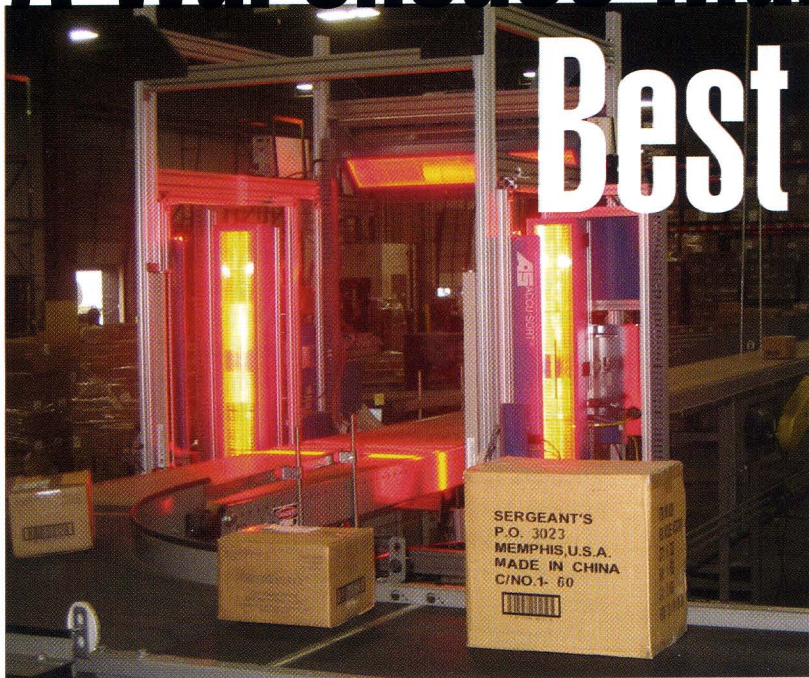


New warehouse control software automates order fulfillment processes for Sergeant's Pet Care Products.

# Material Handling

## MANAGEMENT

# A Warehouse Manager's Best Friend



*Tech King SmartMoves warehouse control software sorts cases based on vendor data collected by a scan tunnel from Accu-Sort (Philadelphia, [www.accusort.com](http://www.accusort.com)).*

scanners to improve picking accuracy, or go for something bigger. Sergeant's managers went for a complete overall of their warehouse processes.

Sergeant's initial move to a more automated system happened quickly. Working with system integrator Grafc0, Inc. (Memphis, [www.grafco-inc.com](http://www.grafco-inc.com)) and software developer Tech King (Cincinnati), in three months the project was defined, equipment was installed and the warehouse control software was customized and interfaced with a legacy system. The middleware provides functions that are needed for conveyor control, eliminating the need to make major modifications to Sergeant's existing order processing software.

Sergeant's employees started using the new system in February 2006. As the project evolved other goals were achieved, including improved batch picking efficiency, a re-organized facility layout and a dedicated pick area. The project led to a review of the entire operation including bulk storage, full case picking, split-case samples picking and shipping.

**S**hipment volumes at the 150,000 sq.-ft. Memphis distribution center of Sergeant's Pet Care Products had doubled. As the number of shipments increased, so did the number of picking and shipping errors.

**By Lisa M. Kempfer**

Managers of the Omaha, Neb.-based company ([www.sergeants.com](http://www.sergeants.com)) knew they needed to better organize and streamline the order fulfillment process. The privately held firm distributes more than 700 SKUs that include flea and tick control products (collars, shampoos, and sprays) as well as vitamins, food for birds, fish and small animals, and pet treats. Its customers in-

clude pet superstores, grocery and big box retailers.

Sergeant's managers were also concerned about rising labor costs as its business continued to grow. "We knew if we did not implement some type of automated system we were going to have labor problems," says Nick Gubser, v.p. operations.

Before making the transition to some kind of automated warehouse control system, they had to decide if they were going to just add bar code

"We totally reconfigured and re-racked our warehouse to accommodate the new system," Gubser says. In the process they were able to increase the pallet density by 20%.

The new warehouse layout has one conveyor lane with pick aisles on each side. Items are slotted and picked in waves—heaviest to lightest—so pallets can be built properly. The system brings fast-moving items to the conveyor line.

Pick requirements are given in the order in which order pickers work down the aisle. The system is designed to generate an exception report immediately if an item is not in its slot.

Tech King's SmartMoves warehouse control system and CHAMP conveyor-control system communicate directly with Sergeant's legacy WMS system. The WMS sends item master and order information, SKUs and product location. The item master determines how many cartons make a pallet quantity. The software uses such information to determine if an item will be picked to a conveyor or if a lift truck operator will be dispatched to pick an entire pallet out of the reserve rack.

The warehouse control software generates pick plans, pick lists and various status reports. With proper authorization, system operators can use the web-based software from any computer terminal to manage the release of orders and waves.

Sergeant's buys its product from many vendors, all of which have different labels. Since it does not re-label cases, cartons pass through a scan tunnel at the beginning of the sortation unit. The scanner reads vendor or manufacturer bar codes on four sides of each box.

The scanner reports SKUs to the CHAMP conveyor controller, which communicates with the warehouse control system to identify which lane cartons should be assigned to. The conveyor control reports back to the control system what has been sorted so orders can be tracked. A final scan is done in the order lane for verification of the manifest. This information is sent to the company's accounting system, which is not integrated with the warehouse control system.

Some companies shy away from automation because of its cost. However, says Greg Graflund, executive v.p. for Grafco, managers need to determine how much errors



**Sergeant's Pet Care Products automated its picking process by installing a conveyor and swing-arm sorter from TGW-Ermanco (Spring Lake, Mich., [www.tgw-ermanco.com](http://www.tgw-ermanco.com)), and warehouse control software from Tech King.**

and mistakes cost them, not only to their bottom line, but to their image with customers.

"You balance accuracy and efficiency against the cost of equipment," he says. Some managers don't do that. "They see it as an expense and not as an investment and a payback." Graflund estimates the total cost of the project at Sergeant's at around \$500,000. Less than a year later, Sergeant's managers say

they are getting a return on their investment.

According to Tech King President Mike VanderMolen, for such projects to succeed, companies need to be prepared to do some of the things Sergeant did, like structuring how product is presented to automated equipment. Sergeant's implementation, he notes, shows that such a project does not have to be terribly expensive, and it can be finished quickly.

"Automated equipment is great, but it has some restrictions. You have to present product and bar code to it properly in order for it to work properly," he says. "A lot of people don't want to take these steps because they think it is a very expensive process and it will take a long time."

Companies also get intimidated by the big WMS systems, he says, but not all of them have to be of that scale. "Warehouses and DCs can automate parts of their processes like picking and sortation and keep their same manifesting process. You can improve things incrementally," says VanderMolen.

In the end, Sergeant's was able to reduce operating hours from two shifts to one, decrease the size of its pallet staging area and achieve a 30% improvement in picking efficiency. "We were able to control labor, reduce overtime, increase efficiency and reduce wear and tear on our forklifts, improve order accuracy dramatically and improve customer satisfaction," Gubser confirms.

MHM



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