



# GLOBAL LOGISTICS & SUPPLY CHAIN STRATEGIES

DECEMBER 2004

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## **Picking & Shipping Contact Lens Maker Sees Better Distribution**

### ***Total Solution***

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"The *GBI* Item Sorter puts us ahead in efficiency and output for years to come."

— Joe Stannard of CooperVision

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# CooperVision Scales Up Logistics Operations To Keep Pace With Rapid Growth

By JEAN V. MURPHY

*CooperVision was rapidly growing its contact lens business even before recent acquisitions that added significant new volume. Fortunately, the company already had a plan to increase and improve its logistics capabilities well under way.*

**W**hen The Cooper Companies completes its most recent acquisition, its CooperVision unit will become the world's third-largest contact lens manufacturer and perhaps the fastest growing. In 2002, CooperVision's purchase of Biocompatibles Eye-care added \$56m to revenue and the acquisition of Ocular Sciences, to be completed this quarter, will be worth an additional \$345m. When added to CooperVision's \$385m in sales (based on 2004 estimates), this transaction will nearly double the vision-care company's operations.

While growing in size, the Fairport, N.Y.-based CooperVision also is expanding in scope, both geographically and from a product standpoint. The Ocular acquisition, in particular, will add contact lens lines that complement CooperVision's line of specialty lenses, making the combined entity competitive in all major contact lens product categories. It also will expand the company's presence outside North America, with Ocular's strength in Japan, the Asia Pacific region and Germany augmenting CooperVision's presence in Britain, France, Italy and Spain.

To accommodate this growth—and to support CooperVision's commitment to superior customer service—the company needed

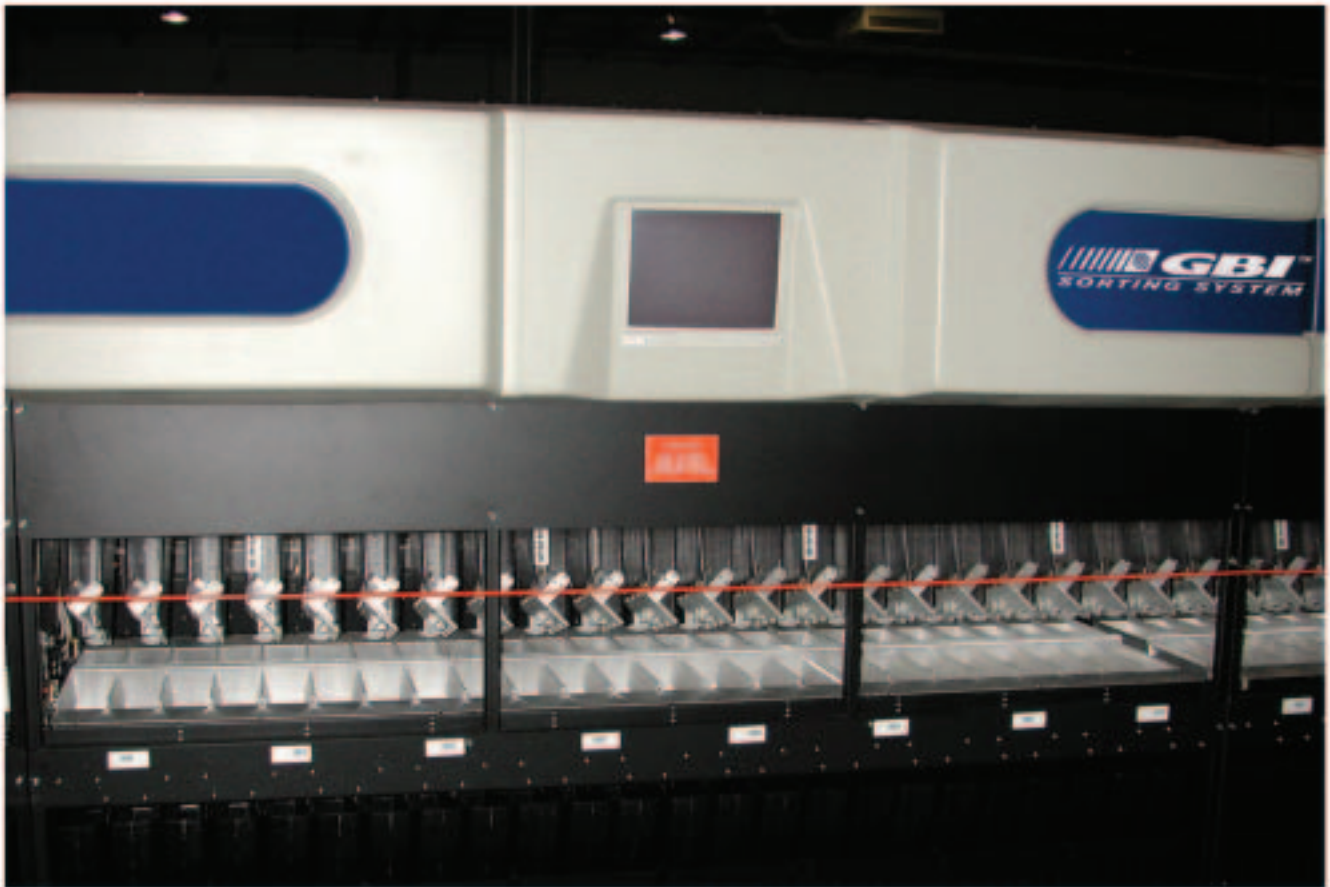
to upgrade its ability to fill and deliver both domestic and international customer orders. "We embarked on a multimillion-dollar capital expansion program last year," says Joe Stannard, vice president of logistics. "And that was before we even knew about this latest acquisition."

Elements of the new solution include a voice-picking system from Voxware, Princeton, N.J.; a multi-station picking and packing system from Kewill Systems, Marlborough, Mass.; and a high-speed sorter from GBI Sorting Systems, Deerfield, Fla. CooperVision also doubled the size of its primary distribution center in Rochester, N.Y., where a Baan enterprise system provides warehousing and order processing functionality.

CooperVision partnered with Warehouse Management Consultants, Portsmouth, N.H., to help manage the upgrade and to identify leaders in various technologies, says Stannard. After putting out requests for information and then requests for proposals, Stannard made numerous site visits. "I have been to at least 50 different DCs over the last 18 months looking at various types of automation," he says. Final selection decisions were made by a logistics executive committee that included staff from several departments at CooperVision as well as the consultant. Stannard headed the team. "Our



GBI's Bomb-Bay Style Item Sorter



Sort section showing vertical carriers with inside and outside sort points, including verification.

decisions were based on a long list of criteria and on an intensive evaluation of the proposals,” he says.

Voice picking was the first technology that CooperVision implemented. Contact lenses are particularly well suited to this technology, Stannard says, because every order must be “each” picked. Accuracy is tantamount since each contact lens must match an individual’s prescription for vision correction and eye curvature.

The Voxware solution, called VoiceLogistics, is based on a new generation of voice technology that is more vocabulary-rich and user-friendly than earlier versions, says Steve Gerrard, vice president of marketing for Voxware. Based on 802.11 broadband radio frequency, he says

a coded location. Pickers wear a transmitter and headset that directs them to a particular aisle, bay and lane. As an added validation, each location has a check digit. “So a picker is told, for example, to go to aisle 11, bay 1, lane F2,” says Stannard. “When they are in front of that location, they repeat the check digit that is posted at the site. Then the voice system tells them how many to pick.” When that task is complete, the picker is directed to the next location, with the system creating the pick path that is most efficient.

“Those check digits really improved our picking accuracy,” says Stannard. As a further accuracy check, each item’s UPC code is scanned before packing “to absolutely guarantee that we get the right prescription. Contact lenses are not like detergent. If you get

For a company growing as fast as CooperVision, an increase in picking speed has important implications for cost as well as efficiency. Labor is the biggest component of warehouse expense and most labor dollars are spent in the picking function. Halving its picking time means CooperVision can double its business without having to add new people.

### Room to Grow

Another nice by product of the VoiceLogistics system, he adds, is that it “brought us into the new world of 802.11, so we now have state-of-the-art RF bandwidth.” CooperVision pans to piggyback off that bandwidth for other things. “We already have some portable printers and we now are able to run some of our PCs off a wireless card because we have this RF system in the building,” says Stannard.

In addition to gravity-fed racks, the 112,000-square-foot Rochester facility uses three other systems to store its 600,000 SKUs. Slower moving items are stored in carousels, on static shelves and in blueprint-type trays and there is still plenty of room to accommodate new stock expected after the acquisition of Ocular. “I got lucky because I had a five-year plan with built-in extra capacity, even though the plan did not include a major acquisition,” Stannard says.

The distribution center operates 24 hours a day, with most orders coming in from eye professionals by phone or fax. “The contact lens industry has very high customer service levels,” says Stannard. “If an order is placed by 2:00 p.m., it is expected to go out the same day.” Since this applies to orders coming from the West Coast as well as the East, late afternoons at Rochester typically are a very busy time. The facility ships 10,000 small packages a day on average, with peaks reaching as high as 15,000.

The company’s old shipping system could not effectively handle this volume and certainly was insufficient for projected growth. It also was able to handle only domestic parcels, forcing a separate, manual process for international and LTL shipments. Moreover, the prior system was stand-alone and not integrated into CooperVision’s enterprise system. Stannard hoped to correct all these flaws when he went shopping for a new solution.

“A really big focus for us was to have an enterprise-based system where everything

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*“There has been a pretty fundamental shift in how companies use shipping systems today versus a few years ago.”*

— *Brian Hodgson of Kewill Systems*

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VoiceLogistics “allows workers to capitalize on a constant, two-way communications channel.” This enables them to immediately communicate exceptions and to deal with unexpected situations, such as an aisle being blocked, he says.

### Location, Location

At CooperVision voice picking is used for faster moving items, which are stored in 28-foot-high, gravity-fed racks. The picking area is at eye level and workers pick orders into rolling carts. Before VoiceLogistics was installed, Stannard says, lenses were stored by brand, whose locations had to be memorized by the pickers. To find the correct lens, workers had to get to the right area and then read a series of small numbers denoting the lens prescription. This is typically three separate digits but in the case of CooperVision’s toric lens, which corrects astigmatism, a fourth number is added. “All the boxes look alike, so they had to read these numbers carefully to be sure they were getting the right lens,” says Stannard. “Now it is much easier.”

Today, each item in the racks is stored in

the wrong prescription, it has to be returned and no one is served by that,” he says.

Gerrard underscores this point. “Most people don’t realize that over half of the errors that are made in the warehouse are made because the worker is not in the right location,” he says. “They think they are in the right place but they are one slot to the left or right and they end up picking the wrong product as a result. So knowing that the worker is in the right location is extremely important.”

Depending on the number of line items in an order, the picker is instructed to either place the picked item in a tote that is associated with a discrete order or into a commingled cart that typically holds 40 to 80 orders. Commingled items are later sent through the GBI high-speed sorter, which scans and re-sequences them into individual orders.

Stannard says the Voxware system improved picking accuracy at CooperVision from 95 percent to 99 percent. Even more dramatic was its impact on picking speed, which “doubled virtually overnight,” an achievement that also was aided by the GBI sorter.



resides on the server because the stations we had before continually had communications problems,” says Stannard. “Also, with an enterprise solution, the volume potential is basically unlimited because you can add packing stations relatively easily.”

Stannard’s team decided on the Javelin enterprise shipping solution from Kewill Systems. Now, workers at shipping stations no longer need two PCs in order to work in both the shipping system and the ERP system. “I don’t need a separate PC running my shipping system,” he says. “The enterprise one is there, and if the shipping system is all someone needs, that is all they see.” Eliminating the need for separate PCs and scanners “saves our employees from having to deal with a whole other level of complexity,” he says.

### **Safety Net**

This integration enables Stannard to implement an additional accuracy check as well. “We were able to program the Javelin system to go back to our Baan ERP and check to make sure an order has been scanned before it is shipped,” says Stannard. “If not, the system will reject it and force a scan. That helps make sure that our goal of 100 percent accuracy is met.” This type of rejection happens only about a dozen times a day, he says, “but that’s 12 orders where I could be exposed and it’s a capability that we never had before.”

CooperVision’s enterprise approach to its pack-and-ship stations represents industry best practice, according to Brian Hodgson, vice president of marketing and alliances at Kewill. “There has been a pretty fundamental shift in how companies use shipping systems today versus a few years ago,” he says. “Before, shipping stations typically were at the end of the line, right before an order went on a truck,” he says. “There was a shipping screen where a worker would type in the order number and put a label on the package — really a hands-on activity. Now, though, a majority of our enterprise customers use our system in what we call black-box mode, which is tightly integrated to the enterprise. They may not even use a screen, except perhaps for exceptions. Rather, they are using our system to integrate to a broader variety of touchpoints in the order process.”

The result is that companies are able to eliminate steps and deploy workers more effectively, Hodgson says.

*“This is a leap-frog technology for us. It puts us ahead in efficiency and output for years to come.”*

— Joe Stannard of CooperVision

One step CooperVision has eliminated is using scales to weigh shipments. “Before, we would box something up and put it on a scale,” says Stannard. “That would register in the Airborne manifest, for example, and Airborne would know what to charge me. Now I can skip that scale process because we are programming the weight in the Kewill system.” The weight of each order is calculated separately based on its contents, the shipping characteristics of which have all been entered into the Kewill system. “Now, once I scan in that order number, it automatically sends the weight,” says Stannard. “That takes a whole step out of my packing process and was a great leap forward for us.”

#### Total Solution

Javelin also gives Stannard the ability to handle domestic parcel, domestic less-than-truckload and international shipments all in the same system. “This is great from a customer service standpoint because we used to be able to track only the domestic parcel shipments,” says Stannard. “Now everything will have a tracking number.” In addition, the Baan system is automatically updated when every order is shipped, another task that previously had to be done manually for international and LTL. “What we have now is a total solution rather than just a domestic solution,” says Stannard.

Another part of the CooperVision solution that Stannard “is very proud of” is the GBI item sorter. “This is a leap-frog technology for us,” he says. “It puts us ahead in efficiency and output for years to come.” The high-speed sorter, coupled with voice picking, is responsible for the company’s dramatic increase in picking speed. “Before, we would go out and pick each discrete order into totes on a cart,” says Stannard. “With the GBI system, we can go out there with one large cart and just place all the items in it and let the sorter scan and re-sequence them.” The sorter has 372 order slots and is able to

scan 7,000 pieces an hour, dropping each item into the right slot. Stannard plans eventually to use the sorter for processing returns as well, though he says he is not likely to get to that for another year.

Since contact lenses are so small, the vast majority of CooperVision’s shipments go out by parcel carrier, with DHL and Airborne being the company’s preferred carriers. When a customer orders four or more multi-packs, it can opt for free shipping, in which case the order typically is tendered to Airborne ground. Otherwise, the customer can select the carrier and mode it prefers.

Airborne and DHL keep tractor-trailer positioned at CooperVision’s Rochester facility, with other carriers making daily pickups. “Our warehouse is a 24-hour

operation,” Stannard notes, with the last truck scheduled to leave its dock at 1:30 a.m. Pickups begin again at 9:30 the following morning.

CooperVision has options in its new solutions that it has not yet turned on, and it has plans to roll out many elements of its Rochester solution to facilities in Europe and Asia, but it will do so slowly. “CooperVision has a general philosophy that we don’t go after the big bang,” says Stannard. “We want a smooth implementation and we’d rather do more small pieces than try to do it all at one time.”

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