

LABELING: Extended-text labels pack a lot in little space. **p. 38**



DESIGN: Regular-guy microbrewery opts to sell beer in cans. **p. 8**



DIGITAL PRINTING: Using generic cases cuts costs for foodmaker. **p. 30**

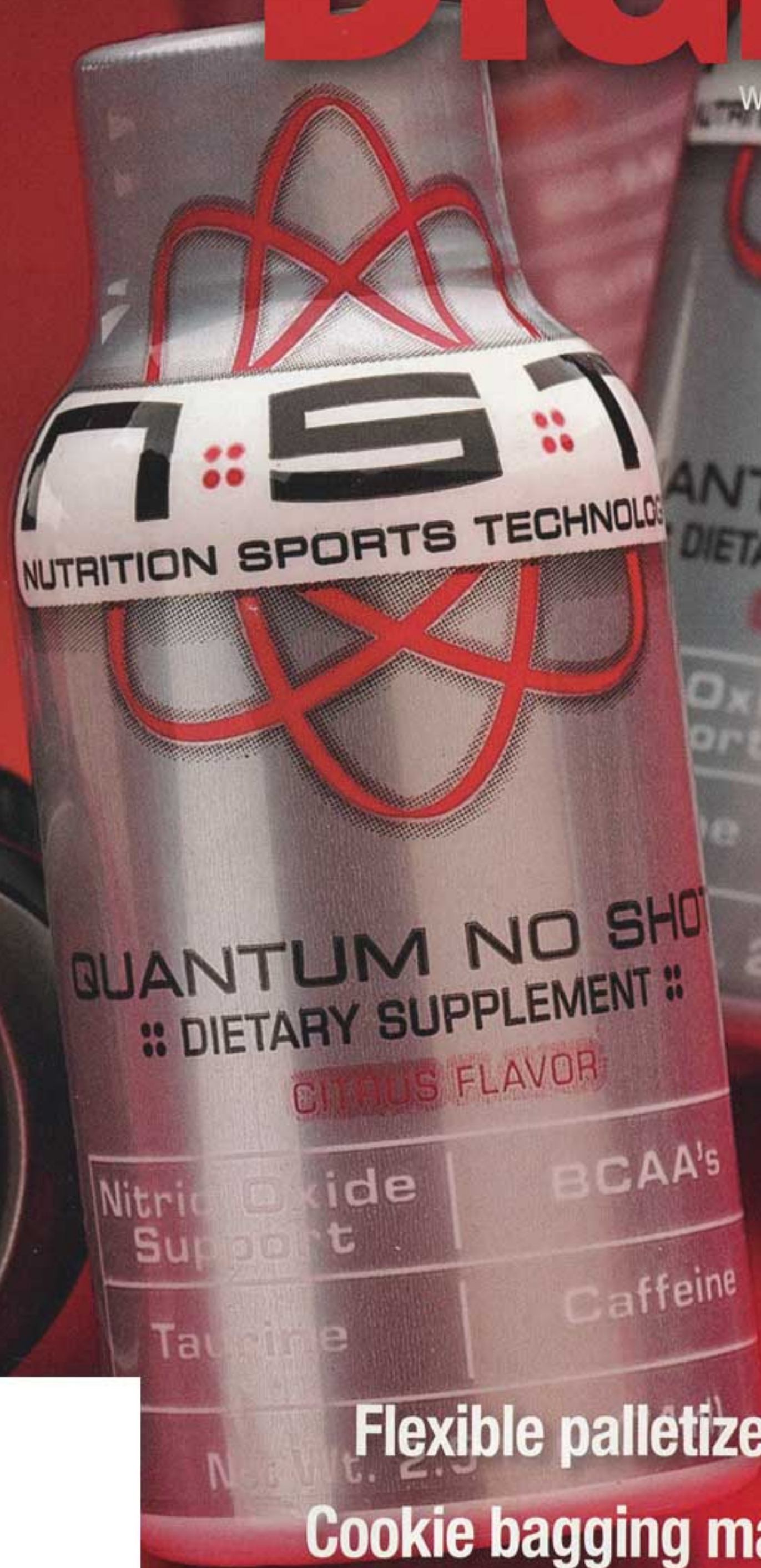
 Reed Business Information

February 2008

PACKAGING DIGEST

Healthy sales

Metallic sleeves pump up Bally's bottles 20



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Flexible palletizers stack up 24
Cookie bagging makes dough 32
Converter gains an edge 48

Shrink label printed with **METALLIC INK**
bulks up sales for Bally Total Fitness.™

Flexographic printing makes a quantum leap



Prime Graphics, Inc. (www.primegraphicsinc.com) has made a quantum jump in flexographic printing with the recent launch of the 2.1 oz Quantum NO Shot dietary supplement from Bally Total Fitness™ Corp., Chicago ("NO" stands for Nitric Oxide). The shrink-sleeve label for the liquid dietary supplement is flexo-printed with metallic ink, a difficult prospect until Prime Graphics got it right. "Traditionally, metallic ink could be used only in a high-quality gravure printing process. This is because the engraved gravure cylinder lays down more ink creating the high luster needed for metallics," explains Prime Graphics' vp of sales and marketing, Cy Harris, "However, flexographic printing is much less expensive."

"Cost savings are always very much on my mind," says Bally's director of corporate development, Lewis Curtright. "In the past, we've used paper labels, but the NO Shot is a niche product. There's no liquid dietary supplement like it on the market. So we wanted a shrink-sleeve label with metallic ink for a technical, clean look

that jumps off the shelf. The silver and red metallic conveys the product well and will signify brand identity for the whole line of Nutrition Sport Technology (N.S.T.) products. We also wanted the benefits of flexo printing."

Those benefits are many, but in one word: flexible. "Attaining a clean look is paramount for Bally, especially with the contour bottle and small six-point reverse type on the label. But so is the quick turnaround time afforded by the flexographic

To see how **KLÖCKNER PENTAPLAST'S** rigid film stands up to Microsoft's standards, go to www.packagingdigest.com/microsoft



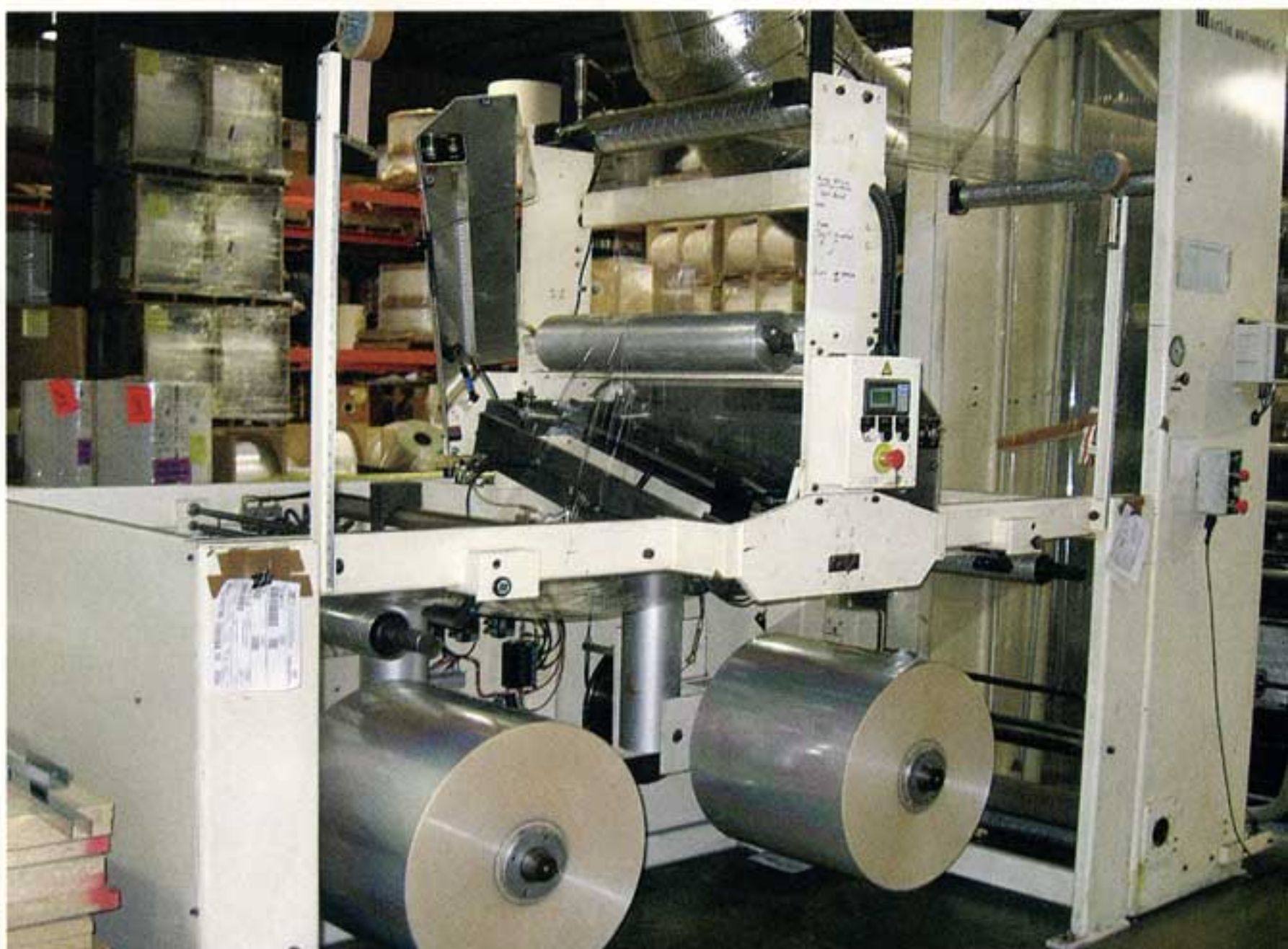
printing process, which is a major benefit," claims Greg Grasso, Prime Graphics' vp of operations, "For a high-profile job like this where we are breaking new ground with metallic ink, we turned to our predominant supplier of shrink film, **Klöckner Pentaplast (kpfilms.com)**. We know they have the global sourcing to get us an order

on short notice. Added to that, their Pentalabel® film is unfailingly consistent. But another factor in our choice of Klöckner Pentaplast is their ability to bring the future to us a year before anyone else does. They are on the cutting edge of technology, and they freely offer technical assistance in addition to high-quality films."

Lower inventory costs

On the subject of cost savings, the quick turnaround time provided by flexo printing especially means lowered inventory costs. Now, Bally does not have to maintain warehouse overhead for preprinted bottles. Curtright can just phone Prime Graphics with an order increase, which will in turn call their supplier, Klöckner Pentaplast. Both companies can turn on a dime so that within a short amount of time, Bally has a

The 22-in.-W flexo press below and left is a 10-color system that prints the shrink-sleeve roll label stock for Bally Total Fitness. Retractable cylinders with plate sleeves, left, can be easily cleaned, maintained and adjusted.



new shipment of shrink labels on the way to its copacker for application. Jim Mullen, business manager for shrink films at Klöckner Pentaplast explains, "Flexo printing with shrink film means that our customers can have shorter print runs because the setup is so much less expensive than gravure. There are cost efficiencies made possible by flexo. Bally can now operate Just-In-Time (JIT), needing less leadtime for a print run."

Explains Curtright: "We used to get our gravure labels from China because of decent pricing. Now, we get labels of equal quality—with a clean appearance—from across town. And the cost is lower. I've had shipments from China held up for weeks in customs. Or the shipment might be on a boat at sea thirty to forty-five days. You just never knew what could happen. So we would have to order labels with plenty of advance notice. It's just so much faster now. Going to a press check is a lot easier, too."

Says Mullen, "We provide services with plans that allow our customers to provide timely deliveries to their customers such as Bally, and this factor alone enables our domestic customers to be flexible in scheduling."

Minimal setup

The minimal setup and leadtimes of flexo printing also allow for label

If you were to look at the label before it goes through the shrink tunnel, the copy flairs out at the top. Yet when it shrinks, the copy is proportional.



customization. It's another example of flexo's cost-saving benefits. Curtright elaborates on having to order gravure labels from China months ahead. "We might have a quarter of a million cans discontinued by the time those labels reached U.S. shores. In the nutrition business, changes happen rapidly. With a shrink-sleeve label, we can apply new copy with updated formula information to the same bottles

already in use."

In fact, copy can also be targeted to different users of the same product. Curtright further points out that the 360-deg shrink-label coverage means that Bally can really upsell the product. And the full-body coverage has great shelf impact, as shown by sales figures for the NO Shot.

"I think the bottle's dramatic appearance has definitely contributed

to the high sales numbers," Curtright remarks, laughing, "We have already done better than our projections by fifteen percent since the product hit the shelves two months ago."

To accomplish the NO Shot's dramatic appearance, Prime Graphics uses a new type of water-based ink, which is more environmentally friendly than solvent-based inks.

Continued on page 22

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Yet commonly, when using water-based metallic ink on shrink film, often the metallic will lose its luster. This is what Prime Graphics managed to overcome in close collaboration with ink manufacturer **Environmental Inks and Coatings Corp.** (www.envinks.com) and with Klöckner Pentaplast. As a team, they performed several internal trials over a month. For the Bally job, Prime Graphics uses a Comco ProGlide flexographic printing press from **Mark Andy** (www.markandy.com). With the silver background color, the Quantum NO Shot label is a five-color job.

Printing challenges

"We had to reformulate the entire process to successfully attain a higher-print quality," says Grasso. "Flexographic printing uses an anilox roller rather than an engraved cylinder typical of gravure printing. The image is on a raised flexible printing plate. The anilox roller is like a gravure cylinder in that it rolls onto the plate in contact with the substrate, in this case Pentalabel®. An added challenge with Bally's label is that it's printed in reverse type whereby solid wording is knocked out like a negative. And as mentioned, the fine print is also reverse type. Meaning, Prime Graphics had



Front view of 10-color flexo press that prints metallic colors including the silver ink for Bally's new dietary supplement.

to find a way to print the label cleanly, with no feathered edges.

"The anilox roller dictates the volume of ink laid down," Grasso adds. "For metallic colors to pop, we had to control the volume of ink coming off the anilox. Admittedly, silver ink is difficult to print. It contains silver flake made from aluminum. Not only must the ink volume be exact, but also the shrink-sleeve tunnel is a particular challenge. With metallic inks, there are drying issues. Cure time takes longer. So there's the matter of applying enough heat to dry the label without it shrinking in the press." (Prime Graphics uses hot air to dry Bally's labels, not UV.)

"We really had to study the behavior of metallic inks and use advanced preparatory techniques," clarifies Harris. "We're always improving efficiencies

by preparing the equipment so colors are laid down on the press in the right order to have the most vibrancy. Also very importantly, we had to decide the proper-size anilox roller for the exact amount of required ink volume." The techniques he describes include fine-tuning the heat settings as well as the chill drum (or cool-down) settings, fine-tuning the ink volume laid down by the anilox roller, perfecting the impression pressure, and last but not least, identifying the correct durometer for plate material. Ultimately, Prime

Graphics chose a **DuPont** (www.cyrel.dupont.com) FAST plate for better printing surface coverage.

Upon completing a run through prepress, the printing press, the slitter, the seamer and the inspector, Prime Graphics ships 250,000 labels per order, 5,000 per roll, to a copacker. "In fact, Bally's copacker recommended us to Lewis Curtright," says Harris. "And we are glad they did because we feel we now have a niche product to offer. Bally gave us an opportunity to react to the retail market. With this project, we've gained knowledge to give our customers high-shelf impact using metallic ink, with all the economic advantages and benefits of flexo printing."

"Prime Graphics did a super job," according to Curtright. "They exceeded our expectations." He

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soon was able to see just how far Prime Graphics had succeeded. Bally Fitness Centers operate a chain of gyms nationwide, 375 of which house a retail shop. As Curtright observes, this is like Bally having its own "focus group" to test products before distribution to other retailers such as Rite Aid pharmacies, amazon.com and drugstore.com.

The target audience for the NO Shot is 18- to 35-year-old males concerned with health and wellness, primarily sports athletes and weight trainers. Important to this audience, the drink has only 100 calories.

Currently, there is no real competition for the NO Shot. Uniquely, it is the first liquid with a proprietary combination of ingredients that increase the action already performed by the body when working out. The nitric oxide brings more blood and oxygen into the muscles. Other ingredients include branch-chained amino acids (BCAAs), taurine, caffeine and L-arginine. The last helps the veins open more to provide oxygen-rich blood while carrying out lactic acid, which is a waste product resulting from muscle exertion.

The product's single-serve liquid form is key to its benefits. For one, liquid is absorbed more rapidly into the body. You can throw the bottle in your gym bag and drink it 30 to 40 minutes before working out with the goal of performance enhancement. Not so with old-fashioned powder, which needs

to be taken much earlier in order to enter the bloodstream. Also with a powder, five or six heaping tablespoons dissolved in water is not as convenient or easy to carry around in your gym bag. The NO Shot does not even need to be refrigerated.

Shrink-label advantage

Costing \$1.99 a bottle, the product is displayed on Bally's retail counters in a perforated box and a popup, similar to a paperboard six-pack. The metallic red depicts an atom on the silver-metallic background, signifying the high-tech formulation of the drink. Curtright cites another shrink-label advantage as that of built-in protection. The sleeve goes over the cap, which prevents tampering.

"I think the look of the bottle has definitely contributed to sales of the Quantum NO Shot," he states firmly, "The colors jump off the shelf. The water-based metallic inks work perfectly. And they don't flake or crack. We had an in-house graphic artist work with Prime Graphics to achieve the correct proportions on the bottle."

Harris explains: "The film shrinks more around the neck. Yet the neck is where the supplement facts are located on the label, which rise right up. Before the label goes through the shrink tunnel, the copy flairs out at the top. Yet when it shrinks, the copy is proportional because we compensated for distortion." Curtright concurs: "Prime Graphics

is very hands-on. They anticipated the shrink film pulling up a little and adjusted the font size around the neck accordingly." Klöckner Pentaplast's Mullen isn't surprised. "We make a film that controls distortion. Our shrink label films create labels which really stand out, increasing shelf impact, and consumer awareness. This technology is ideal for launching new products like Bally's."

Bally is also developing a \$2.49 single-serve protein drink called a Blast Energy Shot in the N.S.T. brand, and Prime Graphics will again print it with metallic ink on a shrink-film label. Klöckner Pentaplast will also be weighing in with technical knowledge and highly consistent Pentalabel® shrink-label film. "Even though we have cannibalized our similar powder dietary supplement with the NO Shot, we are very pleased with its sales. Prime Graphics has gone beyond our expectations," Curtright summarizes.

More information is available:

Klöckner Pentaplast, 540/832-1470.

www.kpfilms.com.

DuPont Packaging Graphics, 800/345-9999.

www.cyrel.dupont.com.

Environmental Inks and Coatings, 800/553-5222.

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