



WELCOME TO OUR MAY 2016 eBook

ON THE LABELING, CODING & MARKING SEGMENT

Labeling, coding and marking machinery is used in all industries from food to pharmaceutical, beverage and personal care and just about everything in between. Here, we offer you insights, case studies, new technologies and machinery that are propelling the segment forward. We also deliver articles about what's new in labels and smart packaging, as they both create more innovation across various markets.

We've pulled content from some of our sister brands to help us deliver to you a comprehensive view of labeling, coding and marking. *Flexible Packaging* and *Food Engineering* lent us a helping hand for a deeper dive into the industry as a whole.

This is the first of two eBooks we will be deploying this year on this expansive topic. Don't miss the next edition in September. Happy reading. **PS**

Best,



ELISABETH CUNEO
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LABELING, PRINTING & CODING

MARKET VIEW OF THE INDUSTRY

An overview of labels and the labeling, printing & coding industry.

Label demand as a whole in the U.S. is projected to increase 4.2% annually to \$19.1 billion in 2017, reports the Freedonia Group (freedoniagroup.com). So what's new in labels, and what's not so new, but still working well? Tried and true pressure-sensitive labels are still thriving within the packaging sphere, according to the group, but there is growing competition lurking. Alternative labeling methods such as heat-shrink and stretch sleeve, and in-mold labels are gaining in popularity. Heat-shrink will experience the fastest gain through 2017, thanks to their ability to form-fit contoured containers, as well as their strong visual appeal afforded by 360-degree graphics, which enable maximum promotional area and consumer attention.

According to the study, glue-applied labels, despite their lower unit costs and speed of application, will face further

Label demand as a whole in the U.S. is projected to increase 4.2% annually to \$19.1 billion in 2017.

loss of share due to competition from higher-performing labels, especially in key markets such as beer and wine.

From a material perspective, paper will continue to account for the majority of label stock over the forecast period based on its cost advantages and the ability to be coated for enhanced durability. The use of higher-end materials, such as metallic and holographic papers, will also promote value growth. However, plastic stock will continue to capture share from paper in a broad range of label applications based on aesthetic and performance advantages, along with a shift in

the overall packaging trend toward plastics. The popularity of the no-label look, which nods to the rising trend of transparency in packaging, will also bode well for plastic labels. By 2017, plastic will account for more than 30% of label demand in value terms.

PRINTING, CODING AND MARKING

Currently, the leading label printing technology is flexography, due to its low cost, versatility and suitability for use in the large pressure-sensitive segment and the faster growing sleeve label segment. While flexography is the leading technology, it is not the one that will see the most growth, according to Freedonia. The digital label printing industry is growing and is expected to see double-digit annual growth through 2017 as it continues to replace traditional methods like lithography and flexography.

Advances will reflect improvements in print quality and speed that will fuel growing adoption by label converters and printers. Digital printing offers many advantages like increased design flexibility, shortened lead times, and lower costs, especially for short run projects, since there are no plate charges or setup fees. In addition, the benefits of digital label printing coincide with the trend in many packaged goods

The global coding and marking market is driven by many growth factors, one of which is the increasing need for product authentication and brand protection.

markets toward more product variation and target marketing, both of which tend to result in smaller quantity runs.

Analysts at Research & Markets (researchandmarkets.com) forecast the global coding and marking market to grow at a CAGR of 4.68% over the period 2014-2018. It's no surprise that one of the key factors contributing to this market growth is the increasing need for product identification and brand protection. The global coding and marking market has also been witnessing the increasing competition between laser and thermal inkjet techniques. However, the issues related to traceability of products could pose a challenge to the growth of this market.

“The global coding and marking market is witnessing better integration capabilities between the marking and coding products and the machinery used in production and packaging lines. This is helping vendors enjoy seamless integration

across both the production and packaging lines. This helps the vendors to ensure that coding on the cases ties into the actual package. Thus, better integration capabilities is one of the emerging trends in the global coding and marking market, and is expected to boost its growth during the forecast period,” comments an analyst from the team.

According to the report, the global coding and marking market is driven by many growth factors, one of which is the

increasing need for product authentication and brand protection. The coding and marking on products helps users to have information about the authenticity of the products they are using. Furthermore, it helps manufacturers protect their brand against counterfeits in the market.

These industries overall are growing and adapting to changes in the marketplace. New technologies promise better marketing, better aesthetics, less downtime and anti-counterfeiting efforts. **PS**



BUILDING WORLD CLASS LABELING SYSTEMS

Introducing the 3600a Series Printer Applicator evolved from the industry standard 3600 Series Platform. The 3600a Printer Applicator is a rugged and versatile, high speed thermal transfer labeler used to print and apply pressure sensitive labels to various products. A Sato, Zebra or Datamax print engine is integrated into an applicator to form a self-contained unit to print variable data. The 3600a PLC control include a remote 4.3 inch color touchscreen operator interface display, user friendly and easy to read with an intuitive menu structure for operating parameters, and I/O diagnostics for use in labeler setup and troubleshooting of interface connectivity. An enhanced set up and testing capability provides for feeding of blank labels. Multi-layers of password protection offer security at operator and technical access levels.

Assembled with right or left hand printer modules the unit can be mounted in various positions to apply labels to the tops, sides or bottoms of a multitude of products with its proven tamp-blow application.

The operating program includes an encoder based velocity compensation feature creating improved label placement accuracy at varying process line speeds. Various onboard I/O signals are pre-wired to an external connector; additional built-in ports allow optional features to be added in the field with minimum investment.

Building world class labeling systems is no big deal at CTM Labeling. It's expected! Here in America's heartland, our "Made in the USA" pride won't accept anything less. From the design and engineering phase of each project through final

system set-up and QC, exceptional expertise and craftsmanship at every level forge the finest labeling machines available on the market. Setting benchmarks is difficult. Maintaining those benchmarks is even tougher. The benchmark that we are most proud of is our support “after the sale.”

At CTM, supporting our customers before, during and after the sale is paramount. Our management team and dedicated support staff are driven by some of the most experienced, established and well-respected professionals in the industry. From Semi – automatic applications to the most demanding high speed, high accuracy labeling solutions, we understand your needs. More importantly, we understand how to convert your needs into successful production!

In an effort to maintain unparalleled quality standards,

every facet of our manufacturing needs is housed under one roof. When the raw material leaves the racks, it travels through the most automated manufacturing facility in our industry. State of the art manufacturing equipment coupled with true craftsmen at the controls equals an impeccable finished product. Our challenge to you: “If you can find BETTER QUALITY, BETTER SERVICE AND A BETTER DELIVERY more economically, BUY IT!”

We welcome you to tour our facility and experience first-hand, the “CTM Commitment to Excellence.” Give us a call @ 330-332-1800 to learn more about the New 3600a Series Printer Applicator, or to learn more about our entire product offering. Feel free to visit us at www.ctmlabelingsystems.com. PS

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to look at our System Solutions and the logo is Number Four!



1 New Ergonomic Designs

2

Enhanced Operator
Interface Remote Display



Touchscreen

Intuitive Menu Structure

I/O Diagnostics – Ease of Set-Up/Troubleshooting



3

Integrated Sato, Zebra
or Datamax Print Engines

4 and, as promised ... our new logo:



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Setting Global Standards
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ANTI-COUNTERFEITING LABELS

TRUTAGS DELIVER INVISIBLE PACKAGE TRACKING

Anti-counterfeiting labels make big strides.

A packaging tracking innovation has won the 2014 *R&D Magazine* R&D 100 Award, making it one of the most significant technology inventions in the U.S. that year.

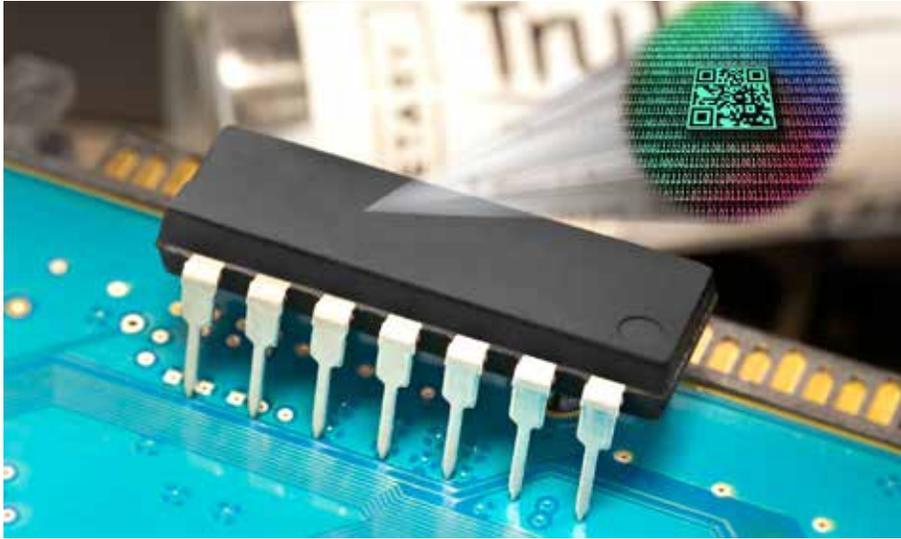
TruTag Technologies (trutags.com) is the developer of a hidden security platform that addresses the trillion-dollar global counterfeit goods threat. Consisting of silicon particles about the thickness of a human hair, the “tags” can be programmed with a wide range of codes that can be read by special scanners. The tags can be invisibly mixed into the materials used to create products at almost any stage of manufacture and withstand rugged conditions, including heat of 1,000 degrees.

And, says the FDA, they are also safe to eat.

President Kent Mansfield said the Kapolei, HI, company is currently targeting the pharmaceutical industry, which is among those hardest hit by fake materials and final products. One of the company’s prime investors is Wu Xi Pharma Tech,



TruTags can be integrated into a product’s materials, making them invisible yet readable by a proprietary scanner.



which also is helping three-year-old TruTag develop and market the product. Headquartered in Shanghai, Wu Xi offers laboratory and manufacturing services for the pharmaceutical and biotech industries. It also runs a corporate venture fund that invests in life sciences companies.

“We look at it as sort of the ultimate audit for products,” Mansfield said in an interview with Packaging Strategies. “Because of sophisticated counterfeiting, you just can’t trust what is printed on labels and packages today.”

TruTags is ramping up production to commercial levels and plans to manufacture in Hawaii near company headquarters, Mansfield said. He added pharmaceutical customers are beta testing the product but declined to identify them.

In addition to pharma, TruTag said it will focus on “products presenting the highest value.” That might include luxury goods, another prime victim of counterfeiting. Eventually, the company wants to deliver scanners inexpensive enough for consumers to use to directly authenticate products.

But Mansfield also said security is not the only application. He noted that 2D barcodes and QR codes are ubiquitous on packaging as a quick reference to information about products through relational database retrieval. Of course, the codes also provide tracking information about the products.

Mansfield said there is no reason some codes that “clutter” packages couldn’t be replaced by invisible TruTags within the packaging material itself. “Integrating the tag with the packaging material also provides an extra layer of security because the tracking and security can’t be removed,” he said.

Mansfield said the company eventually will move to “develop partnerships with conversion and labeling makers,” something that will widely expand the use of his company’s “invisible barcodes.”

The R&D 100 Awards were created by the magazine in 1963 to honor significant technology advances and innovations. Past winners include the ATM, the fax machine and the ink-jet printer. **PS**



JUST SAY NO TO CIJ PRINTERS

Finally, a Real Alternative to CIJ Printers

Historically, companies looking for a coder to print barcodes, expiry and lot date in a packaging environment really only had one major print technology to consider – Continuous InkJet (CIJ). It could print on almost everything, from metal to plastics and more. However it came at a price – complex operation, costly downtime issues and the interminable smell from the solvent used. Today, however, there is an alternative that overcomes all the problems previously encountered – Thermal InkJet (TIJ) from inc.jet.



THE PROBLEM WITH CIJ

A CIJ Printer is a complex piece of equipment with many pumps, pressure regulators, valves and electronics. All of this comes at a cost in terms of reliability and maintenance. They are all a point of failure and do require upkeep on an ongoing basis, from cleaning to filter replacement and the addition of makeup fluid. As this is a skilled exercise and one that often requires external services, this can be a significant cost in the long run. Then there's the mess and the smell. You know if someone

is using a CIJ Printer by the ink stains all over the floor and equipment and the pervading odor of solvents in the air. We have a large scale installation where the workers complained so much that the plant manager replaced over 70 CIJ lines!

AND WHAT'S THE SOLUTION?

TIJ solutions have come of age in the packaging industry. What was once a stretch for the technology in printing on non-porous substrates has now become the norm with the introduction of solvent based inks into the product portfolio.



LABELING, CODING & MARKING

The many downsides of CIJ – maintenance, cleanliness, and complexity – are overcome with TIJ. There is no maintenance – every time you swap a print cartridge, you get a new printer; it's effortlessly simple and deskilled – just plug it in and go; and it has the greatest uptime and reliability – it comes with a 100% total Lifetime Warranty!

For those of you that have had enough of your CIJ printer, perhaps it is time to say No to it and look to a different and better alternative. **PS**

Now there's a
no mess, no stress
alternative to
CIJ printers



Are you fed up with the mess, the smell, and the costly and frustrating delays associated with your CIJ printer? Now you have options!

inc.jet puts an end to your pain with a no mess, no stress alternative to CIJ. Powered by HP Thermal Inkjet technology, inc.jet's coding solution is cleaner, easier, faster, and—most importantly—it's totally reliable with a true Lifetime Warranty.

incjet
PROBLEM SOLVED

Go to www.incjet.com/SayNo to learn more about the alternative.

LABELING

DECORATIVE LABEL TECHNIQUES FOR FLEXIBLE PACKAGING

by **JEREMY TEACHMAN** and **BOB O'BOYLE**, *Contributing writers*

Differentiation is the buzz word brand owners use today to describe how the packaging of their products needs to appear in the store aisles. The packaging has to draw the attention of shoppers so that it stands out on the shelf.

To achieve that standout, brand owners are pushing for a variety of new inks and coatings technologies to enhance the decoration on their packaging. Labels are a unique type of flexible packaging that brand owners are especially targeting. Much of the label printing and converting equipment in use today combine multiple printing and decorating processes, such as flexo, gravure, screen, and offset printing as well as foil stamping, embossing, etc., which inherently provide brand owners with a broad range of options in terms of achievable effects that can attract and engage consumers.

Advancements in ink and coating products and technologies that leverage these production capabilities to provide

further enhanced effects and performance provide new and improved opportunities for differentiation.

HIGH-GROWTH LABEL APPLICATIONS

A couple of specific label application segments, shrink/stretch sleeve labels and in mold labels, have seen dramatic growth over recent years and offer unique branding and consumer experience opportunities.

Both of these applications allow for high-end graphic reproduction that can cover nearly all of the package as compared to printing and decorating approaches previously and most commonly utilized, which were limited in both graphic capabilities and package coverage.

Sleeve labels also allow for unique package design opportunities for brand owners to be able to use various contoured packages that are both attractive and ergonomic for consumer use.

LABEL-LESS LOOK EFFECTS

One of the attractive values of label applications is the ability to create an effect where the label blends into the primary packaging, creating a label-less look effect. This is most often employed in applications where the actual product is desired to be shown through the labeled packaging. However, in order for the graphic portion of the label to stand out, opaque whites are typically applied as the foundation.

Recent advancements in design of opaque white inks across the range of ink technologies (screen, flexo and gravure, UV/EB-cured, water-based, solvent-based) have continued to increase the hiding power as well as brightness of these whites, which further improves the effects of the graphics employed on top of them.

USING SPECIAL EFFECT INKS AND COATINGS

One technique that flexo printers can utilize to differentiate the product packaging of its customers includes special



◀◀ Shrink-sleeve and in-mold labels are a growing type of flexible packaging thanks to the ability to incorporate appealing visual content.

effect inks and coatings, which offer a variety of visual special effects, including high-luster metallic, fluorescent, glitter, pearlescent, iridescent, frosted and gloss.

Historically, the use of metallic coatings on packaging has been limited, and therefore is not commonly seen on the store shelves, but now there are a wide range of coatings that can take on a unique metallic tone. Using bright mirror-like silver and gold coatings and effects, for example, can separate a package from the competition on the shelves.

Use of a cold foil adhesive is another special-effect coating that can help products pop off the shelf. Designed for flexographic or litho applications, the coating system allows for simpler foil stamping that yields economical replacements for metalized and holographic substrates and can be used on a variety of substrates.

Newer pigmented coatings can yield an effect that changes color depending on the angle of view. This is very enticing to customers since the package seems to morph as they pass by the display. These types of coatings can come in a variety of colors from blue to green or yellow to orange shifting.

Glitter coatings incorporate small holographic bits of glitter to generate other appealing visual effects. Best applied with a roll coater, the effect from this coating is most pronounced over dark colors.

Other coatings offer a unique matte/gloss effect which creates a pronounced contrast between the glossy UV coating and the smooth matte appearance where the spot overprint varnish (OPV) is under the coating.

Other coatings can be designed to produce a pearlescent effect when applied over or under an ink or on a substrate. These coatings can mute an image when applied over ink.

Similar to the pearlescent effects coatings are the iridescent coatings, which are rather flat and weakly colored when viewed at one angle, but take on the metallic sheen of another color when the viewing angle is changed. While not the best choice for small detailed work, this effect can be used to simulate metallic effects, depending on the thickness of the coating used.

In addition to grabbing the attention of consumers, some inks can take a package to a whole different level with interaction.

Thermochromic inks, for example, change color with temperature. A beer can could turn blue when cold and remain silver when warm. The colors can match common heat and cold sources, from the fridge, skin, or microwave, and can make multiple transitions. Thermochromics can also be used to promote frozen candy bars where a unique graphic appears when the temperature drops below 40 degrees.

Thermochromic applications can be used for hidden messages, interactive games for children on packages and other sweepstakes and promotional gimmicks. In addition, photochromic coatings can cause colors to appear on a package when exposed to UV light or sunlight.

Consumers can also interact with packaging that glows in the dark. A candy bar logo could glow, for example, or a package could use the effect for special promotions or seasonal items.

When a consumer touches a package on a shelf, there is a 70% chance it will end up in the shopping cart. By enhancing the package with simple coatings that provide a textured effect, the odds of that package going in the cart only increase.

One of these types of coatings varies the finished dried films from a smooth dull appearance into a reticulated texture effect (such as a wrinkled “alligator” hide).

The use of embossing and debossing to enhance a package is well known, but specific dies must be set up, which adds cost and lead time for a job. The use of a thick, flexo-applied UV coating can duplicate the effect of embossing and provide a low-cost alternative that allows for quicker turnaround. Designed as a high-viscosity coating, these types of coatings give a tactile feel of an embossed product when spot applied.

Tactile coatings can come in a range of particle sizes for different effects and offer gloss, matte or satin finishes, allowing for very rough to soft and silky feel options. Suitable for flexo applications, these coatings can be surface-printed on paper or film.

Other coatings create a matte surface that has a soft feel. Designed for a wide variety of substrates, these types of coatings have the advantages of not being used on a hard scuff-resistant surface and not producing the “vinyl” feel that other coatings have to offer.

PRINTING HIGH-DEFINITION GRAPHICS

High-definition graphics are another way to help packaging stand out on store shelves. Conventional digital plates are



⚡ Using a reactive to low-power CO₂ or fiber laser to produce a black image on a special coating allows converters to add high-contrast coding information after filling and closure of the package.

the standard technology used by most package printers, and while they are a significant advancement from CTF plate-making technology, they still have some limitations.

Conventional digital-produced dots are very pixilated, which creates dot gain, inconsistent results and fluting. Dot gain and dirty print are just the first concern – image quality is another. Typically, conventional digital plate image quality reaches approximately 2,540 ppi.

Those printers that switch to high-definition plate technology can print with an image quality of up to 4,000 ppi, resulting in expanded tonal range, wider color gamut and increased screen lpi to produce sharper, more vibrant images and colors.

Combining HD benefits and quality with flat-top dot plate technology increases capabilities by printing with 30 to 60% less impression sensitivity compared to standard digital plates, which allows for longer, cleaner, more consistent runs with fewer stops for press adjustments and plate cleaning.

HD plate technology enables quality to match offset and digital print for label printers, making repurpose of designs easy. In flexible packaging, HD plates give stronger solids for more shelf impact, thanks to expanded tonal range and easier printing.

UTILIZING LASER MARKING SOLUTIONS

The use of variable data in supply chain logistics and retail marketing is commonplace, but the conventional packag-

ing supply chain is not yet optimized for the late-stage application of variable data on the package.

Prevailing solutions for data application typically involve secondary labels and inkjet coding and marking technology, which complicate and slow down the packaging supply chain. Poor quality or inconsistent inkjet coding can be a cause of costly product returns and fines from retailers.

In a conventional workflow, preprinted substrates are converted into finished packs, so key product information is an intrinsic element of the package design. The addition of promotional information or competitions has significant implications, requiring complex planning and long lead times to introduce promotional packs into the supply chain, while unused or obsolete promotional packaging generates unacceptable material waste.

These challenges can be resolved by printing a patch of a specially developed transparent or tinted coating onto the generic packaging stock at the artwork printing stage. This coating is reactive to a low-power CO₂ or fiber laser, producing a black image under a laser, enabling the converter to add high-contrast coding information after filling and closure, without complicating the packaging process and with

no risks to the packaged product.

This type of coating can be used for regular product information and barcodes, as well as cross-media devices such as QR codes to enable consumers to access more in-depth product information, or to participate in brand communities and individualized games and competitions.

CONCLUSION

Brand owners want their labels to stand out on the shelf. To achieve this differentiation, there are many decorative

techniques that can be utilized, including special-effect inks and coatings, HD plate technology, 3D printing, laser marking solutions, smart labels, and even a composition that can de-seam a flexible printed sleeve from a PET bottle. Other solutions are available as well, from brand protection solutions to color matching. The options brand owners can take to achieve differentiation are virtually limitless. **PS**

Jeremy Teachman is a field marketing manager for narrow web, tag and label inks and Bob O'Boyle is the product manager of coatings at Sun Chemical.



A LOOK AT PAXTON PRODUCTS

Paxton Products manufactures high-efficiency centrifugal blowers and custom-engineered air delivery devices, used for drying, blow off and air rinsing, to improve product quality through better labeling, marking & coding, and converting. Paxton Air Systems use as much as 80% less energy than compressed air drying and blow off, while achieving superior performance. Better drying yields better coding and labeling; and Paxton builds systems for bottles, cans, pouches, kegs, and all types of product surfaces.

Centrifugal Blowers by Paxton are highly efficient, providing 150-1500 cfm of air at pressures of 30-100 inches of water. Available in sizes from 3-20 hp, all Paxton blowers carry a full three-year warranty. The new **PX-series blowers** achieve efficiencies up to 75%, generating more air power per horsepower than any other blower on the market.

Air Delivery Devices are custom-engineered to maximize drying and blow off of products or surfaces. From an air knife design to air manifolds to air halos that encircle the product to individual nozzles, we'll configure what's needed for your application.

The **Power Dry Drying System** is a pre-configured drying system, originally designed for date coding applications, but now setting the standard for a complete Air System that can be used for drying and blow off for a wide variety of cans, bottles and jars.

Paxton's **Ionized Air System** efficiently removes particulates, dust and contaminants using powerful ionization coupled with Paxton's blowers and air delivery devices. Ionizing air systems provide static control and static elimination, so that dirt and dust do not adhere to surfaces.

The **CapDryer** by Paxton Products was developed in cooperation with a major U.S. bottler to reduce vision system false rejects due to moisture on the cap and neck. It provides complete drying of the bottle neck and lid, and improves the quality of coding, tamper banding, labeling and vision system results. It is available in two sizes, to fit most bottle types & conveyor configurations.

The Ionized Air System has been configured for a variety of applications:

- **Ionizing Bottle Rinsers**, for glass or PET bottles and jars, high-speed and low-speed lines, including the hard-to-clean narrow-mouth PET and two-liter bottles.
- **Ionizing Can Rinsers**, for both high-speed and low-speed lines.

- Dust and debris removal prior to coating or packaging, using static control and elimination.
- Removal of dust, debris, cuttings or shavings prior to rolling or packaging.

Paxton Products is a division of the Fortune 200 firm Illinois Tool Works (ITW). Paxton created the first high-performance supercharger in the 1950s, enabling the racing industry to utilize engine speed and performance. During the 1970s energy crisis, Paxton reconfigured this air delivery technology for commercial purposes, creating the first centrifugal blower for industrial applications. Paxton has continued to keep pace with the air product needs of commercial and industrial facilities, and provides custom-engineered drying, blow off and air rinsing systems to meet the needs of the packaging industry. **PS**

BETTER

DRYING • CODING • LABELING

Paxton Air Systems provide targeted drying for cans, bottles, kegs and pouches to improve product quality.

Each Paxton Air System is custom-engineered to maximize performance and reduce energy usage; to improve sustainability and return on investment.

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SMART PACKAGING

FOOD PACKAGING: THE PACKAGE AS NARRATOR

In the future, some food and beverage containers will hold not only their contents, but also a route into the digital world.

by **DEBRA SCHUG**, Features editor, Food Engineering

Traditionally, brands have viewed packaging as one of the most important opportunities for communicating to their customers. Now, new technology is giving brands the opportunity not to just communicate, but to interact with their customers through “smart” packages enabled by mobile technology.

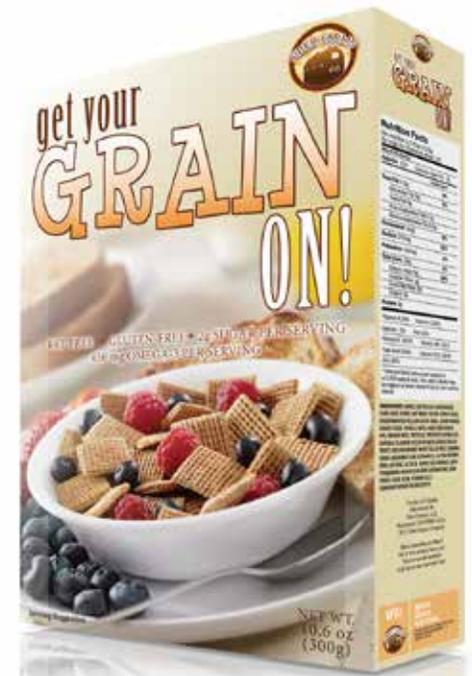
Mobile phones can connect to a brand via a watermark on the packaging, allowing a beer label or box of crackers to send a specific message to consumers without any traditional advertising venues. To fulfill this vision, Digimarc (digimarc.com) is creating technology that transforms



Performs like this.



The invisible barcode embedded on the cereal box shown here can be easily scanned and read by mobile phones without taking up space on the package. *Source: Digimarc*



Looks like this.

a food and beverage package from an inanimate, solitary object into something that can trigger a coupon, an offer or even video content. Digimarc, whose motto is “The barcode of everything,” aims to make barcodes more efficient, as well as invisible, to enable quick scanning and reading by mobile devices. The company sees multiple benefits of embedding this technology onto food and beverage packages. For instance, in the retail aisle, a shopper who points a smartphone at a package can be automatically engaged with a brand. “You can tell the customer everything you’d like to without adding more visual symbols,” explains Larry Logan, Digimarc chief marketing officer.

Content development is almost limitless, he adds, because a package can link to product information and reviews, how-to videos, sweepstakes, etc. The technology allows the code to be fixed to the package, and the content the code links to can

be updated anytime using Digimarc’s asset manager.

“It doesn’t take someone in IT, programming or web development,” Logan says. “Even a marketing intern can redirect where the code points and change the brand experience in one minute.”

He gives the example of a box of cereal within the home being a source of “edutainment” for children as they eat breakfast. By using a phone to connect to the brand, they could get a different experience every day, potentially building brand loyalty and engagement. “The package can be the ongoing touchpoint for brand experiences well beyond the point of sale,” says Logan.

The technology also makes a package more integral to the marketing channel mix and provides a more consistent tag across all the campaigns and brand impressions. Moreover, Digimarc offers software tools to drop its technology into a retailer or brand’s app. **PS**



markem·imaje

a  company

MARKEM-IMAJE'S ONE STOP UDI SOLUTION

In 2013, the FDA finalized unique device identifier (UDI) regulations to assist in tracking medical devices through their distribution and use. When fully implemented, most devices are required to display both a unique device identifier (DI) and relevant production identifiers (PI) in both human and machine-readable formats. The most urgent upcoming deadline is Sept. 2016 but the exact impact depends on the type of medical device and more information can be found on the FDA website.

For poly and Tyvek bags, Markem-Imaje offers a turnkey solution in collaboration with Bosch and Cognex which

can be installed with minimal customization related to your specific needs. We also offer similar turnkey solutions in collaboration with Formost Fuji and other OEMs for all other packaging types.

The heart of this entire implementation is our in-house and proprietary CoLOS software which connects the printers to the vision system, the ERP/CRM systems and other data sources, across production lines and through the supply chain. We have over 25 years of experience with CoLOS and over 17,000 installations around the world.

Another key component of the solution is a Mark & Read system. Mark & Read is a Cognex vision system embedded for code validation and verification for every package being produced. We have deployed several hundred Mark & Read systems.

The integration also enables a single HMI screen to operate the packaging machine, the printer and the cameras, making it easier to validate, operate and configure.

All of this experience enables in-house and rapid customization to assist you in creating the required validation before the deadlines.

Markem-Imaje has local teams in 14 different sub-regions across the Americas that can manage and support the final implementation and validation at the customers' site. We also provide a 24-hour free Helpdesk and ongoing local field services support. The M-I Helpdesk has a first time fix rate exceeding 90%!

For more information, watch our UDI video at <https://youtu.be/npfHvOlJq1Y>. Call or email us at 1-866-263-4644 or marketing@markem-ijaje.com. PS

1. <http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/UniqueDeviceIdentification/>

The UDI Solution is just one example of what is possible when you choose Markem-Imaje as a partner.

COMPANY BACKGROUND

Markem-Imaje is a trusted global manufacturer of product identification and traceability solutions. We deliver fully integrated solutions that enable product quality and safety, regulatory and retailer compliance, better product recalls and improved manufacturing processes. We also have a long history of providing integrated solutions in collaboration with all major packaging OEMs like Bosch, Hayssen Flexible Systems, Sidel, Ishida, Viking, Ilapack, etc.

Markem-Imaje can rely on 30 subsidiaries worldwide to supply more than 50,000 customers with optimal product marking and coding solutions. We provide strong local support with 10 support centers throughout the Americas, over 100 sales engineers and over 170 experts in technical and after-sales

service. Additionally, Markem-Imaje customers are supported by six technology centers, several equipment repair centers and manufacturing plants with the most comprehensive marking and coding portfolio available in the marketplace.

From retail pack to pallet load, Markem-Imaje offers a unique portfolio of coding and labeling technologies, including:

SMALL CHARACTER INKJET: reliable full-featured continuous and hot melt inkjet systems for a wide spread of applications.

THERMAL TRANSFER OVERPRINTING: high-quality coding for flexible packaging and labeling.

LASER CODING: fast, permanent marking of cartons, PET and glass packaging.

LARGE CHARACTER INKJET: high-resolution hot melt and liquid ink printers plus valve-jet coders for shipping cases.

PRINT AND APPLY LABELING: thermal transfer print quality plus a wide range of label application techniques for cases, shrink-wraps and pallets.

SOFTWARE SOLUTIONS: remotely secure data and facilitated message management.

SUPPLIES: inks, additives, ribbons and labels.

SUPPORT: 24/7 free helpdesk **PS**

At Markem-Imaje, we're partnering with our customers to improve their packaging operations and meet their printing requirements. We're working together in every corner of the world to create and implement innovative marking, printing solutions...



With the right solutions, anything is possible.

- **Complete range of solutions** to meet your traceability, compliance, productivity and coding challenges
- **Most advanced printer & software technologies** backed by extensive research, development and testing capabilities
- **Extensive global network** providing strong local support throughout the Americas including 10 support centers, 24-hour Help Desk; and over 170 experts in technical, CRM and after sales service

Markem-Imaje is thinking bigger and reaching further to help our customers achieve more than they ever imagined. *What's your possible?*



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LABELS

A STICKY SITUATION

Will the flexible packaging industry see fruit stickers as an opportunity to innovate and problem solve?

by **NIRAV DESAI**, *Contributing writer*

A crate of avocados traveled from California to British Columbia. Upon receiving the shipment, the distributor realized the whole crate of fruit was rotten and completely unsellable.

What happened to the avocados? They should have been thrown in the compost to become nutrient-rich fertilizer.

Unfortunately, fruit stickers – made with polyethylene and conventional adhesive – which were found on every single one of the avocados are not compostable. They are garbage. The time it would have taken to have someone peel off hundreds of these stickers is not insignificant, especially when the end result bears no value for the distributor.

So what actually happened to the avocados? The whole crate of fruit got tossed in the garbage, adding unnecessary volume to the landfill and potent methane to the atmosphere.

THE CUMULATIVE EFFECT

If the avocado situation were a one-time event, it wouldn't be a story worth telling. But it happens all the time, whether it's the cumulative effect of individual consumers forgetting about the sticker or crates getting dumped en masse.

Regardless of the offender, when fruit stickers are not peeled off, it's problematic wherever the waste ends up. It's either organic waste in the dump or plastic waste in the compost. In the compost scenario, once organics arrive at industrial composting facilities, when the food has started decomposing, it's nearly impossible to remove all of the labels, so pieces of plastic do end up in bags of soil.

One Seattle-based composter, Cedar Grove Compost, made national news for creating an incentive program for consumers to peel off stickers. The company distributed sheets

resembling Bingo cards – when a family filled all 20 squares with fruit stickers, they received a free bag of compost.

A SWEET OPPORTUNITY

Why spend so much time talking about fruit stickers? Because this situation represents an opportunity for our industry to solve a real problem and push ourselves toward innovation and sustainability. The need is apparent, and the materials exist. We just need the industry to see the potential. Those who take it seriously will stand out for being on the leading edge.

Take Fresno, Calif.-based Sinclair Systems, for example. Sinclair is the only North American company (that I am aware of) to provide compostable, bioplastic fruit labels. Within 22 weeks of undergoing industrial composting, its labels disappear into the environment without leaving any



⚡ Internationally-recognized composting standards.

harmful traces.

The labels are made from polylactic acid (PLA), which can be derived from renewable sources such as corn, and a biodegradable adhesive. Having personally seen the labels, there

is no visual difference to the look, feel or performance of the compostable material. It adheres well to all types of fruit.

WHAT DOES IT TAKE TO MAKE COMPOSTABLE LABELS?

Sinclair has the market right now, but there is a lot of room for competition. The technology required to create compostable labels is readily available and the majority of fruit companies still have yet to convert to compostable.

Creating these labels requires three things.

The first is the film. You will need a multilayer PLA film, as monolayer film isn't suitable for meeting opacity requirements. Quality film is necessary here. You will need to ensure the film has blemish-free, white opacities with flat sheeting (no folds or wrinkles across the web). Consistent gauge is also necessary for the smooth coating and printing of universal product codes (UPCs). Any pigments or additives in the film will also need to be compostable.

The second element is the biodegradable adhesive that is made specifically for direct contact with foods.¹ Avery Dennison, for example, has an adhesive that works well here. Once the adhesive coating is applied, the (typically) 20-inch rolls are ready to be printed and die cut.

Finally, you need to get your labels certified through one or all of the right channels to ensure they are suitable for composting. This is a one-time step. This could take considerable effort, unless you source your film and adhesives from pre-certified sources.

BEYOND FRUIT STICKERS

One day, it will probably be inconceivable that fruit labels were ever non-compostable. The movement is starting, but it needs momentum and now is a great time to get into it, when we are still ahead of the curve.

If your business doesn't make fruit stickers, the principle still applies, especially as it relates to sustainability, whether it's making packaging recyclable, biodegradable or sourced with post-consumer recycled materials. Industries and consumers alike have problems to solve and desires to tap in to. We just have to be proactive in identifying those areas and serving our customers. **PS**

-
- In some cases, adhesives and ink might not be required to be compostable based on the coverage; however they do have to be FDA/CFIA-approved.***
-

Nirav Desai is the director of operations at Haremar Plastics Manufacturing Division.



SHRINK LABEL PRINTING PROCESS PRODUCES VISUALLY STRIKING PRODUCTS

Sleeve Seal offers the fastest, most intelligent shrink-sleeve labeling machines in the industry with speeds from 100 to 1600 CPM. Equipped with intelligent Allen Bradley controls that provide unparalleled flexibility and dependability, the Sleeve Seal line of labelers are self contained, versatile shrink-sleeve labelers with stunning performance. Combine the robust Sleeve Seal labelers with any of our label accumulation systems or our auto splice system to run flawlessly for countless hours.

As we enter the age of 20 micron substrates we recognize the need for higher-precision manufacturing. Sleeve Seal’s engineering teams, located in Little Rock, Arkansas are producing machines ready for the future. Sleeve Seal’s fast, robust

machines are built and supported by our “Customer Service First” attitude. We continue to deliver state-of-the-art machines and printed shrink-sleeve labels for the fastest growing segment of the packaging industry.

The Sleeve Seal integrated shrink label printing process produces the most visually striking products on the shelf. Our 10-color Rotogravure press allows us to shrink label printing of the highest quality, producing the most beautiful product labels in the packaging industry. Ten color printing offers vibrant colors and custom finishes for a variety of looks limited only by your imagination. Four-color CMYK, plus PMS spot colors, with gloss, matte or pearl finishes can be combined in a single run to create labels that stand out from the

competition on overcrowded shelves. Shrink-sleeves are also a more durable, scuff resistant, water resistant alternative to other labeling options. A quick visit to any retailer will reveal shrink labeled products, with everything from full body labels to holographic tamper bands produced by our integrated process. Our start-to-finish manufacturing and printing processes give you complete quality control at the most competitive prices available. Rotogravure shrink label printing is the flexible packaging industry's highest quality printing process. The 100-year-old technology has been refined and engineered to create the fastest, most consistent shrink label printing with the highest level of image rendering. Rotogravure printing utilizes lower cost inks, but delivers more ink to substrates and beautiful, saturated colors. Color options are limitless – from metallic to fluorescents with PMS Spot Color accuracy. The rotary method of applying ink to the film in the Rotogravure process delivers high definition rendering of art that can be run in massive volumes without degradation of image quality. Rotogravure is popular for shrink-sleeve printing due to the low costs associated with high production runs, accuracy,

repeatability of quality printing and the precise control required to print on the thinnest of shrink films.

Sleeve Seal is built on 65 years of good old fashioned, built-to-last American manufacturing expertise. We address modern production needs and deliver state-of-the-art, customized label machinery solutions and best-of-class printed labels for the product labeling industry. Today, we manufacture with the most developed technologies and print on the best materials, but we will never forget how to build high-performance machines that can run endlessly or how to deliver quality, eye catching shrink-sleeve labels. Sleeve Seal was started out of GC Evans, which has been a leading name in the food packaging industry since 1949. Starting with hot water solution heaters, GC Evans has grown to include everything from cooling tunnels to shell and pallet handling equipment. GC Evans now produces unique solutions for some of the world's largest food manufacturers, both here in the U.S. and abroad. From this history of success and the knowledge base of GC Evans, Sleeve Seal has become the sole source for the fastest, most highly evolved labeling machines and best printed, most advanced label materials. **PS**

INTELLIGENT MUSCLE



BLAZING SPEED HAS JUST BECOME **INSANE SPEED**

- Up to 1600 CPM with newly designed drive train
- Two rugged and indexable multipurpose heads
- Improved and precise label placement system
- Integrated ethernet/IP CIP motion A-B controls

25 micron film is here. Sleeve Seal offers both machines and printing for the new age of thinner films.

Sleeve Seal Vertical Labelers feature the most advanced drive train for sleeve labeling in the industry, with a rugged, modular design for rapid toolless changeovers between formats.

Our ten-color Rotogravure printing offers CMYK, plus spot colors and gloss, with matte and/or pearl finishes in a single run.

Save money with thinner film - thinner substrate materials costs less but maintain the high quality visual impact of your labels. Call **501-492-3893** or visit our website at **www.sleeveseal.com** today for more info.



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MACHINERY

WANTED: LABELING AND PRINTING MACHINES

New machinery adds efficiency, technology and speed to its repertoire.

by **LIZ CUNEO**, *Editor-in-chief*

Today's labelers and printers are up for the job, offering attention to detail, time management and high proficiency to their resumes. Labeling, coding and marking machinery is constantly reinventing itself to produce faster speeds, increased flexibility and upgrades to improve the user experience.

TWO HEADS ARE BETTER THAN ONE

Great speed must come with great accuracy to truly be called efficient. For quick and accurate labeling, Weber Packaging Solutions introduces the new Model 114, a system capable of applying labels to one or two sides of a product simultaneously.

The Weber 114 is a self-contained unit that features one or two Alpha Compact label applicators mounted on a sturdy, fully-adjustable base. The 114 is perfect for applying pressure-sensitive labels on straight-wall containers and has a label placement accuracy of $\pm 0.03''$, making it as precise as similar labeling systems used in larger-scale operations. The system has adjustable guard rails, so that it is capable of applying labels up to six inches high and 12 inches long.

Products are delivered to the applicator via a conveyor, which permits item transfers at both the entry and discharge ends. Products are secured by a top hold-down belt right before the label is applied, ensuring that the items do not shift.

During application, labels are peeled away from the liner and securely affixed to products through the use of a wipe-on applicator. The Weber 114 is ideal for up to 25 products per minute, making it a cost-effective solution for low-volume two-sided labeling such as square-sided beverage containers that have unique front and back labels.

TIME MANAGEMENT IS A STRONG SUIT

For glue-free cut-and-stack labeling, Weiler Labeling Systems offers minimized downtime paired with a high-quality label application. The new RL-840N features NuLabel activatable adhesive technology, thus eliminating the need for glue to apply the label.

“We believe the RL-840N is just the first step towards changing the way the industry approaches cut-and-stack labeling. Customers frequently complain about the daily challenges of using glue, such as changeovers, critical setups, and of course frequent cleaning. Integrating NuLabel technology into the RL-840N results in a higher-quality label application while increasing OEE through minimized downtime, two advantages usually associated with pressure-sensitive labeling,” says Philippe Maraval, vice president of sales & marketing at WLS.

PRINTING MACHINERY DELIVERS SOPHISTICATION AND PRECISION

FoxJet, an ITW company, announces the global launch of its innovative, new Marksman Matrix controller for inkjet printing systems. The Marksman Matrix provides several unique-in-the-industry features at a price point that is competitive with standard inkjet system controllers.

The new technology is ideally suited for use in systems that print alphanumeric, graphics and barcodes onto porous packaging substrates like corrugated boxes for a wide variety of food and beverage applications.

The color 10-inch touchscreen featured on the Marksman Matrix provides enhanced functionality compared to traditional five- to seven-inch controller screens. Whereas traditional screens require front-office editing, the larger 10-inch size allows for quick, on-floor administrator editing of printed codes. The system is also compatible with front-office editing via Windows Remote Desktop. Additionally, the Marksman Matrix can control as many as four printheads on two production lines.

The graphics-driven, intuitive user interface on the Marksman Matrix is driven by the highly flexible and feature-rich Windows environment. Unlike many controllers that feature an omnipresent keyboard that detracts from

valuable screen space, the Marksman Matrix keyboard only appears when necessary. The keyboard can quickly be re-programmed to a wide variety of languages, and thanks to the larger screen size, the keyboard (and hence individual keys, font sizes, etc.) is significantly larger than traditional controller keyboards, reducing costly user error by as much as 25%. The bigger screen size also allows users to quickly

view complete spatial relationships in 3D renderings of their package for enhanced user ease.

Labeling and coding machines are ready for the job at hand with more user-friendly features, sophistication and improved efficiencies. These machines know how to get the job done and done well, offering even more than in years past, proving to be the best candidates for the position. **PS**



A LOOK AT SQUID INK

Squid Ink is a manufacturer of coding and marking systems for product identification and traceability, providing superior quality inks and low-maintenance printing equipment.

Squid Ink began in 1991, supplying high-quality replacement ink jet fluids. Since then, the company has grown and expanded to include printing systems as well as replacement inks. Our printers and ink are designed to print the highest-quality barcodes, batch numbers, date codes, logos and large or small character text, directly onto corrugated cases, plastics, metals, glass, wood and other substrates. Squid Ink printing systems are used in industries including food and beverage, building products, medical and pharmaceutical, consumer goods and other manufactured products.

Squid Ink continues to design new products that are reliable, easy to use and cost effective. Our latest example is our CoPilot 382 printing system. The feature-rich high-resolution printer offers 2.1” of print height per printhead and the ability to run up to two printheads from a single controller. CoPilot 382’s 4.3” full color touchscreen provides access to the system’s internal messages and print functions. Messages are created and edited on Squid Ink’s easy-to-use Orion™ PC Software and transferred via Ethernet or USB device. For larger applications, a virtually unlimited number of CoPilot 382 printing systems can be connected via Ethernet or wirelessly and controlled through one central Orion™ print station.

Today, Squid Ink continues to focus on its core purpose to “help companies deliver products to the world.” An

expanding line of integrated products and services reflect Squid Ink's commitment to meet new needs and new challenges, and ensure that customers have reliable systems for their packaging application.

Squid Ink's corporate building in Brooklyn Park, MN provides the base for efficient, streamlined operations, as the company continues to integrate packaging line solutions. The company has facilities in Rogers, MN, Spring Lake Park, MN, Corona, CA, The Hague, Netherlands, and Shanghai, China. Squid Ink continues to expand sales and services, with authorized distributors strategically located throughout

the U.S. and the rest of the world.

Squid Ink operates as a subsidiary of Engage Technologies, parent company of Squid Ink, Eastey Enterprises, AFM, and Cogent Technologies. Eastey (eastey.com) is a leading manufacturer of heavy-duty shrink packaging equipment and automated case sealing systems for packaging applications. American Film & Machinery (afmsleeves.com) supplies shrink labeling equipment, shrink labels, tamper bands and contract labeling services. Cogent Technologies (cogent-tech.com) manufactures infrared drying systems used to dry ink in the industrial and graphics industries. **PS**

ONE SIZE DOESN'T FIT ALL

Squid Ink's new family of **CoPilot Printing Systems** offers 3 different print heights for your different applications.

Squid Ink's CoPilot 128 is a proven choice for printing small character codes or barcodes on egg cartons, PVC pipe, corrugate cases or more. The CoPilot 382 is ideal for replacing costly print and apply labels or printing GS1 barcodes on the side of a box. The CoPilot 256 fits right in between, making Squid Ink's CoPilot family the ideal solution for your specific coding and marking applications.

For more information visit www.squidink.com or call **1-800-877-5658** for your local Authorized Squid Ink Distributor today.



CO Pilot 128

Up to 0.7" Print Height



CO Pilot 256

Up to 1.4" Print Height



CO Pilot 382

Up to 2.1" Print Height



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SHRINK-SLEEVE LABELING

EVIDENTLY, TAMPER-EVIDENT PACKAGING IS GROWING

Shrink-sleevers and banders work hard to ensure product safety.

by **LIZ CUNEO**, *Editor-in-chief*

New equipment for tamper-evident packaging has emerged to ensure product safety and deliver technology that is fast, efficient and cutting edge. The tamper-evident sleeve or band is necessary to protect the contents inside and maintain brand integrity.

“When it comes to trends in the food and beverage sector, none is more important than food safety. A tamper-evident band on the outside of the cap or container provides a physical and visible confirmation to the consumer that the product inside has not been altered since leaving the production facility,” says Bob Williams, VP sales & marketing, Axon Corp.

THE SHRINK EFFECT

Axon, powered by Pro Mach, has launched a stainless steel option for the Lanzara, the company’s next-generation

shrink-sleeve applicator. The Lanzara is a servo-controlled, mandrel-style machine that delivers speeds up to 400 units per minute. There are two options for the Lanzara’s stainless steel frame – the 304 grade for wet-filling rooms and the 316 grade for increased corrosion resistance. These new frames are ideal for beverage, pharmaceutical, nutraceutical and dairy packagers looking for the performance and versatility of stainless steel.

At the heart of the Lanzara is the PacDrive™ 3 automation platform from Schneider Electric™, which integrates discrete, motion and IT functionality, which together produce excellent motion control and overall flexibility. For example, with the new Axon Smart Speed Control feature, Lanzara can automatically increase or decrease the sleeving rate, matching upstream and downstream line speed without operator involvement.

Axon has made improvements to the machine from past-generation equipment for higher throughput and more user-friendly features. The new 10-inch HMI color touchscreen display provides an intuitive, highly visual interface for operators and service technicians. The HMI is the window into the Lanzara's smart diagnostics program that monitors machine performance, makes calculations based on that performance and history of preventative maintenance, and alerts operators to the exact date a maintenance procedure should be carried out.

The 90-Series Shrinksealers from PDC International Corp. perform at high speeds with efficiency and high productivity on small, difficult-to-handle bottles. The 90-Series was engineered for continuous, higher-speed production lines of 200 to over 400 cpm, depending on sleeve height and diameter. The new 90-E TSCB model features special product handling; a timing screw transfers small bottles into a cleated belt. This provides stability during neck band application and pre-shrinking in position, for consistent band placement and functionality.

PDC boasts three important technologies that are exclusive to the company. First, a "zero downtime" automatic reel changeover feature allows an operator to load a second reel of material without stopping or slowing production. Second,

PDC's patented Tetrahedron Wedge technology positively delivers sleeving film through the feeding, cutting and application process, performing at the extremely high operating efficiencies demanded by the pharmaceutical and food industries. Third, 90-Series Shrinksealers use PDC's patented blade assemblies. Manufactured from severe-service tool steels with superior hardness and edge profile, they operate dust-free to prevent the "hairs" that are often problematic for users of spinning knife devices. Also, unlike spinning knives, PDC blades can be re-sharpened, and most are double-edged.

The Tampertec product line from Karlville Development offers dedicated technology for tamper-evident sleeve applications for cap sealing needs. The company's shrink-sleeve tamper application systems can apply from 50 to 1,200 bpm with only one machine.

The Tampertec line has been redesigned this past year to gain on efficiency and performance, and improve the ease of operation. Completely servo-motorized, the machine functions are easy to set up (recipe, format changes, etc.) and easy to troubleshoot in case of incident. The Tampertec line also boasts high reliability with a 99.5% efficiency rate, continuous sleeve motion and fast changeover speeds of less than five minutes. **PS**

The benefits of shrink-sleeve labeling

An interview with Bob Williams, VP sales & marketing, Axon Corp.

PACKAGING STRATEGIES: Why do some companies choose shrink labeling over other labeling options?

WILLIAMS: There are a number of advantages to using a full-body sleeve to differentiate a product and grab a consumer’s attention. Shrink-sleeve labels cover the entire package and provide the brand manager with a 360-degree canvas on which to communicate a brand’s image, nutritional information or a product’s unique characteristics. Technology advances in resins are creating new films with brighter graphics and bolder colors than ever before, and with different finishes, i.e. shiny, or matte.

Shrink-sleeves offer significant sustainability advantages over other forms of labeling. Shrink-sleeves do not “stick” to the bottle or container, and can therefore

be removed more easily during the recycling process. As a result of recent advances in film manufacturing technology, sleeves are getting thinner, and using less material. The amount of material in some sleeve labels today has been reduced by 30-50%.

PS: Is there any market that is using shrink-sleeve labeling in a unique way?

WILLIAMS: Several growing markets are utilizing sleeve labeling technology today. The craft beer industry is exploding and many breweries are utilizing cans and sleeves to take their products to market. The bright colors and graphics available with sleeve labels help today’s craft beers stand out on the shelf with eye-catching graphics. The breweries also like the flexibility of being able to stock different sleeve labels for small runs, promotions and new product introductions.

Another growing market here in the U.S. is the distilled spirits industry. This bourbon industry is exploding

and we are getting a lot of requests from big and small producers in this segment. Many established brands are looking for automatic sleeving lines as volumes have increased, along with the need for a good looking tamper-evident band. We are also seeing

⋮ full-body sleeves being added to bottles for seasonal promotions such as The Kentucky Derby. Finally, as competition increases, new and old brands alike are experimenting with different flavors and bottle styles – anything to stand out on the shelf. **PS**

LABELING

THE NEXT GENERATION OF LABELING

Andy Cook, managing director of FFEI – a UK-based supplier of digital imaging technology – offers his insight on the labeling industry.

by **KORI WINTERS**, *Contributing writer*

Q. Briefly explain your company's role in label converting.

Andy Cook: Label converting is undergoing revolutionary changes that are challenging both the technological and financial side of businesses. Digital printing has reset the expectations of print buyers in terms of quality, quantity and speed of delivery, sending shockwaves along the whole length of the supply chain.

To be truly effective, the digital press ideally needs to be able to print to the same color and quality standards, and on the same substrates, as the analogue jobs. With this flex-

ibility, decisions on which jobs should be run conventionally or digitally can be made on the basis of production requirements, not just run length.

Taking account of the whole picture is part of the digital proposition, and that's what we tried to do when developing the Graphium digital inkjet press. We are on a mission to really change the way people view and use the technology. We see many new opportunities for converting traditionally printed applications to inkjet digital. The potential in this technology to evolve is huge, and inkjet technology in a narrow-web format is really just starting to push the boundaries of what's possible to print.

Q: WHAT ARE SOME OF YOUR NOTABLE PRODUCTS?

Cook: We have launched the Graphium – our second-generation digital inkjet press – and invested a lot of time and effort to talk to customers, prospects and opinion leaders in the field.

Graphium is a modular digital UV inkjet press that puts choice, flexibility and productivity into the users’ hands, allowing them to embrace complex projects requiring a wide color gamut on virtually any substrate. Graphium has the unique capability of integrating optional flexo stations for hybrid production and optional inline finishing for converting in one pass.

Graphium takes its name from a genus of vibrantly colored butterflies. During their lifetime, they represent a truly stunning transformation; one we feel is echoed by Graphium’s ability to convert digital files into high-quality labels and specialty print. Ultimately, we wanted to develop a new generation of digital inkjet press aimed at the narrow-web market, offering high-quality print, unparalleled productivity and enabling the most versatile range of applications.

Q: WHAT ARE SOME NEW TRENDS YOU SEE DEVELOPING IN THE LABELING INDUSTRY?

Cook: As a whole, I believe that inkjet will become the dominant technology for label converters. Its benefits of rapid job changeovers, high print quality and substrate versatility mean that an extremely wide range of label jobs can be handled.

Label converters continue to need to increase margins; at the same time, they need to respond to brand demands for higher print quality and color standards, and environmental demands. As a result, converters are optimizing services, becoming more efficient, more automated and finding ways of selling more to existing customers.

The recession put pressure on brands who have responded with more SKUs to increase shelf presence. Along with product proliferation, they have demanded a wider color gamut (the increase in the use of orange in branding is noteworthy) and bolder designs to maximize attention. Cross-media initiatives have seen the rise of quick-response codes to take consumers to websites for special offers, contests and other data-collection opportunities

while enhancing the customer experience. Some label converters are even offering web services to ensure that the QR links are worth following.

Q: WHAT DO YOU BELIEVE IS MISSING FROM THE INDUSTRY?

Cook: As with any industry, there is continual room for improvement. In the labels industry there is still the need for greater awareness of the potential and possibilities of digital

labels by brands and agencies.

More digital finishing equipment is needed for easy, automated job changeovers, with selection and configuration of enhancements automatically programmed by bar or QR codes for minimal operator intervention.

Presses with speeds that make inline finishing more efficient will increase the migration to digital, as will wider web widths. With scalable inkjet technology, FFEI and Graphium are well placed as part of the foundation for these developments. **PS**

PACKAGING STRATEGIES

would like to thank its sponsors for supporting this eBook.



We hope you learned more about labeling, coding and marking.