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Digital print and finishing finds a growing niche in flexibles and cartons, allowing brands to connect with consumers

MEIKEI MAKES PLANS

Chinese converter makes ambitious plans to bring together entire supply chain from raw materials to label buyers

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Labels & Labeling's website presents daily news and exclusive content generated by its international editorial team



Omet moves into package printing (feature)

Omet's Marco Calcagni explains the rationale behind the new Varyflex V2 Offset 850 and Omet's decision to move into package printing



An industry under change (opinion) Mike Fairley gives his thoughts on how the label industry is being changed through acquisitions and mergers



Smyth Companies and its Domino N610i (video) Smyth Companies has invested in a Domino N610i digital UV inkjet label press



Label Academy webinar (video) Discusses the need for new education and training initiatives, and sets out the nature and role of the Label Academy as a global industry resource

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Ten years ago (L&L issue 3, 2006)



Front Cover Among the subjects covered in this issue were: the L&L editor's first chairing of a label summit in Japan, organized with L&L partner publication Label Shimbun; Kocher + Beck breaking ground on its new US facility; a workshop looking at the latest developments in RFID – still seen as the next big thing for label converters – and interesting converter stories including Vox in Portugal, marrying Screen with digital technology in the port market.



P. 16 The Japan Summit happened as the traditionally insular Japanese label industry began to look for new markets in Asia-Pacific as the local economy continued to stagnate. Delegates were told that the structure of the Japanese market is unique, with over 1,000 small converters mainly using semi-rotary letterpress, hot foil and screen to produce some of the highest quality packaging produced in the world.



P.37 Perhaps the best demonstration of how digital printing was finding a niche among more traditional narrow web converting technology, Portuguese converter Vox was using a combination of HP Indigo ws4050 and Smag Galaxie flatbed screen finishing machines to produce superb port labels. An overhead rail system allowed jobs to move from digital press through two Galaxies to add tactile and high deposition effects.



P. 78 Leading Texas-based converter McDowell Label & Screen Printing told L&L's Katy Wight how they diversified from PS to shrink sleeve labels and flexible packaging, offering a one-stop shop, following the installation of an MPS EP410 press. The company was finding a profitable niche against rotogravure printers, both on quality and on delivering shorter runs; in terms of flexibles,.The converter was already offering single-serve sachets and stand-up pouches.

What you're looking at...



What have visitors to labelsandlabeling.com been looking at recently

News: The latest applications of digital printing by brands have generated interest online, including Coca-Cola's 'Share a Coke and a Song' campaign, and Mr Peanut, the mascot of Planters, celebrating his 100th birthday with custom packaging created using HP SmartStream Mosaic technology (read more about brands and their use of digital printing on p51). Developments in IoT have seen Avery Dennison and Evrythng working together to enable a minimum of 10 billion apparel and footwear products for some of the world's largest fashion and performance brands to be given unique digital identities and data profiles in the cloud over the next three years - the largest number of IoT-connected products in a single deal ever, the two

companies believe. RR Donnelley and Smartrac have partnered to jointly market a process for RAIN RFID implementation that will enable growth in the number of products connected to the Internet of Things through smart packaging.

Installations: Global

investments in package printing technology include: Germany's Bizerba Labels & Consumables install an MPS EF4 flexo press equipped with nitrogen-inerted UV curing technology from GEW to boost its production capacity; Clondalkin Flexible Packaging install an 8-color Comexi Flexo F4; and Alexir Partnership install a digital folding carton workflow featuring a Xerox iGen 4 and a Tresu Pinta coater.

Reducing waste Editor's note

eading substrate manufacturers estimate that 60 percent of a self-adhesive roll is wasted between delivery to the converter and placement on the final container. We tend to concentrate too much on liner waste recycling and not enough on elimination of waste at the converter level.

Over-production is one of the biggest problems. New inspection technology – developed originally for digital presses – allows the press operator to see a running count of good labels, allowing the press to be stopped when the total label count is reached. Inspection and quality control is carried out on the press, before bad labels are produced.

More waste occurs because of lack of information flowing between end user and converters. If end users are unwilling to share scheduling information, orders are called off at short notice, with all the inefficiencies that entails. And converters are still holding too much customer stock. With the rapid changes in the legislative and marketing environment, this is often obsolescent stock.

At a time when the self-adhesive industry faces potential legislative threats around liner waste, any progress we can make towards waste reduction at the plant can only help the wider cause of defending the industry.

Andy Thomas Group Managing Editor

News



Avery Dennison is giving label converters access to more specialist products.

Avery Dennison acquires Mactac Europe

Transaction excludes the Mactac business in the US, Canada and Mexico and its North American exports

Avery Dennison has acquired the European business of Mactac from Platinum Equity, a California-based private equity firm.

With 2015 year-end run-rate revenues of 147 million EUR (approximately 170 million USD), and around 470 employees, the business is a leading manufacturer of high-quality pressure-sensitive materials, serving several high-value segments, including graphics, specialty labels and industrial tapes. Mactac's core product lines complement Avery Dennison's existing graphics portfolio.

'The acquisition of Mactac Europe enhances our competitiveness in high-value graphics, where we have sustained above-average growth over the past few years,' said Dean Scarborough, Avery Dennison chairman and CEO. 'Known for high product quality and outstanding service, Mactac complements our existing business with a strong brand and loyal customer base, expanding our product offering, capabilities, and distributor network.'

With a manufacturing facility in Soignies, Belgium, along with sales offices and warehouses in Europe and Asia, the Mactac business expands Avery Dennison's global footprint. Through export sales, Mactac Europe also serves customers in South America, Asia Pacific, the Middle East, and North Africa. The transaction excludes the Mactac business in the US, Canada and Mexico and its North American exports.

Avery Dennison will maintain the Mactac brand for graphic films, building on its existing strengths and customer relationships. Commented Mitch Butier, president and COO, Avery Dennison: 'We plan to continue operating Mactac's manufacturing facility in Soignies, Belgium, and to make the facility and its people a key driver of Avery Dennison's future innovation and growth in Europe.'



For latest news on Avery Dennison's pressure-sensitive reclosables project, see p143

.....



and Max. Aarts have agreed a merger

Dutch converters join forces

Four Dutch converters create new company for self-adhesive labels, flexible packaging and other products

W&R Etiketten, Etiket Nederland, Vila Etiketten and Max. Aarts have agreed a merger to create a new company covering self-adhesive labels, flexible packaging and other printed products.

W&R Etiketten specializes in printing large volume UV flexo and mid-sized digital print runs for customers in the food, logistic and retail, horticultural and chemical industries, particularly in southern Netherlands and Belgium. Etiket Nederland is a printer of self-adhesive labels for customers in the food, logistic and retail industries, and is mainly active in west and central Netherlands. Vila Etiketten is a digital printing specialist in the field of self-adhesive labels, and focuses on the graphic industry and on small print runs.

Max. Aarts specializes in UV flexo printing of self-adhesive labels, wet-glue labels, multilayer labels, security seals, gummed tapes, foils and flexible packaging for clients in the food, logistic and retail.

The companies will operate independently at their current locations, and the individual company names will continue to be used. An overall group management team will be formed.

The merger creates a business with a 50 million EUR (57 million USD) turnover with 220 employees and an equipment portfolio including 14 UV flexo presses and six digital printing machines. W&R Etiketten ordered its sixth MPS press at Labelexpo Europe 2015, while Etiket Nederland recently installed its third MPS press, and fifth in total.

Supplier News

Avery Dennison allies with Evrythng

Avery Dennison RBIS and Evrythng are embarking on the world's largest Internet of Things (IoT) deal to 'switch on' the apparel and footwear industry. They are working to give a minimum of 10 billion apparel and footwear products a unique digital identity and data profile in the cloud over the next three years. Consumers can interact with their products via smartphones.

RotoMetrics acquires NELA cylinders

RotoMetrics has acquired NELA Brueder Neumeister's magnetic cylinder business, including the European manufacturing and distribution rights.

For 25 years RotoMetrics has exclusively manufactured magnetic cylinders in the US based on NELA's technology, while becoming NELA's biggest European sales partner.



Leonhard Kurz's Digital Metal combines digital print with a metal transfer process

Kurz becomes HP partner

Leonhard Kurz has been made a member of the HP SmartStream Solutions Partner Program for its Digital Metal process. Digital Metal combines digital print with a metal transfer process, creating glossy, metalized surfaces. It can be used for short runs, as well as individual personalized and numbered prints.

Acquisition news

Smyth acquires Flexible Container Systems

Smyth Companies has acquired Flexible Container Systems of Pleasantville, New Jersey. Flexible Container Systems specializes in tube labeling services for the personal care and health and beauty markets.

Scott Fisher, president of Smyth Companies, said: 'Smyth's acquisition of Flexible Container Systems is a great complement to the products and services we currently offer in the personal care and health and beauty markets. We see this segment of the market needing new and innovative solutions, and by bringing Flexible Container Systems into Smyth Companies we can accelerate and deliver new decorating capabilities and label application solutions to our customers.'

'With Smyth's extensive experience in label materials and printing, along with their national presence in health and beauty, it will be exciting to watch our teams as we grow and offer new and innovative products to the market,' said Wayne Mauro, owner of Flexible Container Systems.

Smyth Companies is headquartered in Minnesota and has 10 facilities in North America, employing close to 560 associates.

IPG acquires Hyde Park Label

Infinite Packaging Group (IPG) has acquired Texas-based Hyde Park Label.

IPG is a portfolio company of Svoboda Capital Partners and a provider of packaging products, including pressure-sensitive and shrink sleeve labels, and pouches.

It operates out of three production sites in Dallas, Tulsa and now Austin, giving it a strong presence in the central/southwest region of the US.

Hyde Park Label is headquartered just north of Austin in Round Rock, and provides labels printed using flexography and digital. It was named as TLMI's 2015 Converter of the Year.

By virtue of the acquisition, IPG is now the only company in Texas with two HP Indigo WS6600 digital presses, which will provide greater capacity for short runs of labels, sleeves and pouches.

Lynn Higgs, IPG CEO, said: 'The Hyde Park Label acquisition expands our geographic footprint and adds capacity to provide our customers with great quality and service.

'We remain committed to growing IPG through acquisitions and organic growth.'

Inland acquires Valley Label

Move follows acquisition of flexo converter Monet Graphics in Pennsylvania last October

Inland has acquired fellow Wisconsin converter Valley Label, a move which follows the acquisition of flexo converter Monet Graphics in Pennsylvania last October.

'While the acquisition last fall was focused on supporting our rapid growth in the pressure-sensitive category, the purchase of Valley Label is motivated by growth in the flexible packaging market, in addition to expanding our shrink and roll-fed label capabilities,' said Mark Glendenning, CEO and owner of Inland.

Valley Label, a flexo printer of flexible packaging, pressure-sensitive, shrink and roll-fed labels, was founded in 2000. It employs 35 people at its 48,400sq ft facility in Neenah, Wisconsin.

In a related move, Inland has joined the Flexible Packaging Association (FPA). Last year the converter, dropping 'Label' from its corporate identity.

'This association was a perfect fit for Inland as we continue to expand our capabilities in flexible and resealable packaging,' commented Scott May, senior vice president of sales and marketing. 'We want to be assured that we're staying up to date on the latest industry trends and proactively providing the best product offerings for our customers.'

Arconvert opens US converting facility

Fedrigoni Group company enters market with facility in California

Arconvert has entered the US market with the opening of a label converting facility in California.

.....

Arconvert is a member of the Fedrigoni Group, which specializes in manufacturing a range of self-adhesive papers and films for flexo and HP Indigo digital printing technologies. Its new converting and sales facility, located outside of Los Angeles in Cerritos, will focus on materials for market including gourmet foods, wine and craft beverages.

Arconvert has production facilities in Italy, Brazil and Spain. The company is also known for the Manter brand of luxury labeling products specifically designed for the wine and spirits market.

The new 62,000sq ft plant and distribution center includes state-of-the-art converting equipment. The facility will be shared with fellow Fedrigoni Group company GPA.

Fedrigoni Group CEO Claudio Alfonsi commented: 'We are extremely pleased to introduce Arconvert and the Manter brand in the US. We look forward to the opportunities this will create for the luxury packaging and labeling sectors.'





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News



L-R: David Muncaster of Goss International, Remko Koolbergen of DG press, Bert Schoonderbeek of Goss International and Peter Kloppers of DG press

Goss and DG press form partnership

Goss International and DG press have formed a strategic partnership, with Goss acquiring the Thallo product line to expand its web offset packaging portfolio.

DG press will continue to manufacture the Thallo press platform and service/sell the system in Europe, while Goss uses its global sales, service and distribution network to target customers in the USA, Africa and the Asia-Pacific region.

Thallo is a hybrid web offset printing system designed for flexible packaging production, and joins Goss's VPak line of offset press systems.

RotoMetrics to host European open house

RotoMetrics' next European open house takes place on September 27-28 in the UK, supported by industry associations BPIF Labels, EFIA and Finat.

The two-day event, held every two years since 2012, will be the biggest yet, with more than 400 attendees anticipated.

Alongside tabletop displays will be a series of presentations including a retail perspective from frozen food retailer Iceland and Lakes Distillery, while Rugby World Cup-winning coach Sir Clive Woodward will give the keynote presentation.

Gold sponsors for the event are: Focus Label Machinery, Graphic Republik, Herma, Nilpeter UK, Platinum Paper and Thermal Transfer Solutions. Partner sponsors are: AB Graphic, Afinia Label, API Foils, Avery Dennison, Dantex, Epson, GEW, Grafisk Maskinfabrik, GSM UK, JM Heaford, JFM Plates, IST UK, Kodak, Label Traxx, Mark Andy UK, Paragon Inks, Prati, Sandon Global, Xeikon, UPM Raflatac, Vetaphone and Zeller + Gmelin.

Neil Lilly, RotoMetrics sales director, is responsible for registration and can be contacted at neil.lilly@rotometrics.com.



Ritrama Caribe is located in the Dominican Republic's capital of Santo Domingo

Ritrama strengthens in Latin America

Setting up Ritrama Caribe in the Dominican Republic and Ritrama Peru will give converters shorter delivery times and a wider range of products from its coating facilities in Europe, USA and Chile. The company already has a local presence in Mexico, Costa Rica, Guatemala, Colombia, Brazil and Chile.



Sappi's Algro Sol SNC is now offered at 82gsm, 85gsm and 98gsm

Sappi invests in release liners

The rebuild of Sappi's PM 2 line at its Alfled plant in Germany has allowed the development of lower grammage Algro Sol base papers. Algro Sol SNC is now offered at 82gsm, 85gsm and 98gsm, with good reverse side scoring (crack back), 'outstanding' siliconization properties, minimum silicone consumption and excellent hold-out.

Supplier news

Hybrid and Cerm

form partnership Hybrid's Cloudflow gains a JDF interface to the Cerm server enabling 1-up remote approval for label designs, while Cerm MIS operators and Web4Labels users now have the option to utilize Hybrid's remote soft proofing system, Proofscope. Cloudflow will use step and repeat information from the MIS system to create its own step and repeat output files. Commented Jan Ruysschaert, MD of Hybrid Software: 'Combining our two product portfolios creates some very exciting new possibilities for label printers, who increasingly need to automate the entire printing process, rather than just pre-press."

Geert Van Damme, MD of Cerm, added: 'This agreement is not merely a case of developing an interface. Our two sales teams are currently undergoing cross-training and we intend to collaborate closely in the future.'

HB Fuller completes Advanced Adhesives acquisition

HB Fuller has finalized the purchase of Advanced Adhesives, a provider of industrial adhesives in Australia and New Zealand. Advanced Adhesives serves a wide range of industries, including consumer packaged goods, woodworking and product assembly applications. Based in Sydney and Auckland, this new business will be included in HB Fuller's Asia-Pacific region operating segment.

Toyo Ink now PantoneLive partner

X-Rite has named Toyo Ink as an accredited PantoneLive partner in Japan, broadening PantoneLive's presence in Asia.

Toyo Ink will use PantoneLive internally to help match Pantone colors, including options for a variety of substrates and printing processes.

Said Toyo GM Takashi Yamauchi, 'PantoneLive revolutionizes the way color is communicated and ensures accurate color in printing across multiple geographic locations and printing partners.'

X-Rite has also formed a partnership with Flexolahti to bring the Pantone Certified Printer program to the Nordic region.

Avery Dennison

enhances Select Avery Dennison is giving label converters access to more specialist products under its Fasson Exact and Ready Width Select Solutions programs.

The portfolio now includes more than 150 Select Solutions products including security and digital labels, removables, reclosures and holographic labels. Fasson Exact allows rolls to be ordered at precise roll widths, in predetermined lengths, while Fasson Ready Width offers small rolls at standard widths and lengths – now including rolls down to 500 linear meters. Lead time for low volume orders is one day.

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News



The new campaign swaps names for song lyrics

Coca-Cola launches new label promotion

'Share a Coke and a Song' will feature more than 70 song lyrics – from classic hits to recent chart-toppers

Coca-Cola is capitalizing on the success of its 'Share a Coke' campaign and will swap names for song lyrics in a new marketing campaign launching this spring in the US.

'Share a Coke and a Song' will feature more than 70 song lyrics – from classic hits to recent chart-toppers – on 8oz glass bottles, 7.5oz mini cans, 20oz bottles, 1.25- and 2-liter bottles and 12oz cans of Coca-Cola, Diet Coke, Coke Zero and Coca-Cola Life.

'Share a Coke' originated in Australia in 2011 and has since rolled out in more than 70 countries, and was a huge hit in Europe and in the US. It's been one of the company's most successful US campaigns ever.

'We're proud of the success of "Share a Coke" over the last two years,' said Racquel Harris Mason, vice president, Coca-Cola/Coke Zero. 'We've seen incredible enthusiasm from consumers who love the campaign's personal touch, and we wanted to push ourselves to innovate and provide our fans with new experiences.'

The wildly successful campaign represented a shift in the label industry toward personalized products and interactive promotional marketing. These programs, as well as other big brands who have leveraged digital printing in these ways, were highlighted at Dscoop San Antonio last week.

Alon Bar-Shany, HP vice president and general manager of HP Indigo, said at Dscoop: 'The soft drink industry gets it. They're looking at advertising campaigns as a way to attract new customers.'

'Share a Song' also lets fans sing along. With the Shazam mobile app, consumers can scan the lyric on Coke bottle, then record a digital lip-sync video to share on social media with the hashtag #ShareaCoke.

'We're creating an entirely new and different way to connect with music through our packaging,' said Joe Belliotti, head of global music marketing for Coca-Cola. 'It will be interesting to see this campaign trigger memories of songs fans may have forgotten as well as help them discover new favorites.' The complete list of lyrics featured on pack will be available at www.shareacoke.com.



Planters, a Kraft Heinz Company brand, partnered with HP to create one-of-a-kind designs on Planters' classic dry roasted Mr Peanut jars, using HP SmartStream Mosaic technology

Planters brand celebrates 100th birthday with custom label

Iconic mascot's birthday marked with packaging created with HP

Planters brand peanuts is celebrating the 100th birthday of its iconic mascot Mr Peanut with custom packaging created with HP SmartStream Mosaic technology.

Planters, a Kraft Heinz Company brand, partnered with HP to create one-of-a-kind designs on Planters' classic dry roasted Mr Peanut jars, using HP SmartStream Mosaic technology. This limited edition packaging features a dancing Mr Peanut amidst bright and fireworks in a multitude of colors and designs.

Three million special edition Mr Peanut labels were printed using HP Indigo digital presses on 50-micron PETg film. The one-of-a kind labels leveraged six base Mr Peanut design files, which utilized two HP SmartStream Mosaic seed files each, ensuring that no two Mr Peanut jars are identical.

'Increased competition, multiple SKUs and consumers with high expectations are causing brands to reassess their product packaging to boost sales,' said Doris Brown-McNally, worldwide strategic business and brand development at HP. 'HP Indigo digital printing and HP SmartStream Mosaic technologies enable classic brands, like Planters, to reinvent their traditional packaging to drive maximum impact and create unique brand experiences for customers with minimal risk.'

These special edition jars are currently being sold at select US stores. 'Mr Peanut's continued popularity is a testament to America's love of Planters nuts,' said Sean Marks, vice president of marketing at Planters. 'Mr Peanut's 100th birthday will pay homage to his lifetime of nutty achievements by making celebrations even more remarkable for fans this year.'

Mr Peanut was created in 1916 when 14-year-old Suffolk, Virginia, resident Antonio Gentile won a Planters-sponsored sketch contest calling for a new brand icon. An advertising agency on the brand later added Mr Peanut's top hat, cane, monocle, white gloves and spats. This mascot has it all – a national fan club of Peanut Pals and a plaque on the Madison Avenue Advertising Walk of Fame.

lwatsu press meets short run demands

Iwatsu has announced multiple installations of its EM-250A/W UV inkjet press at Japanese companies specialized in short runs of value-added substrates. Andy Thomas reports

hemicals industry label manufacturer Kyoshinsya K.K., based in Osaka, Japan, has installed multiple Iwatsu EM-250A/W UV inkjet presses to increase production efficiency on a wide range of short run products.

Iwatsu launched its EM-250A LabelMeister inkjet press at Labelexpo Europe 2015. The digital press prints at up to 50m/min at 600 x 600dpi, and at 25m/min at 600 x 1200dpi in the machine direction, with four selectable droplet sizes for smoother gradations. Repeat length is up to two meters and maximum image width 220mm, with zero gap continuous image printing. The heads are all self-cleaning.

More recently Iwatsu added the options of a White station to the CMYK configuration, designated the EM-250A/W. The EM-250A can be retrofitted with the White unit, opening up applications on aluminum foil and transparent films.

The EM-250W uses a combination of LED curing for ink fixing and UV lamp for final cure. As is usually the case with UV inkjet, no pre-coating of substrates is required. An in-line intermittent finishing unit - designed and developed together with Iwasaki Tekkok - is optional, and the press can also print on pre-die-cut label rolls for late stage versioning. Iwatsu provides its own LabelMeister RIP, incorporating ICC profile color management per substrate, and Label Bijin workflow software for functions including bar code generation, imposition and die cut marks. The software can also calculate ink usage and cost per job.

Case study

Kyoshinsya produces 180-200 different kinds of reagent labels in a day. As the reagents are being used for many different purposes, including chemical analysis, sample verification and R&D, short run production is required. Kyoshinsya invested in Iwatsu's EM-250A when it was launched in 2011 and reduced its production lead time on these products in a high product-mix/ low-volume production workflow. Subsequently, Kyoshinsya invested in two more EM-250A/W digital press lines to cover an increasing demand for its labeling services.

Importantly for Kyoshinsya, the Iwatsu presses use UV inkjet inks. Reagents contain a range of dangerous drugs, so synthetic papers with a high degree of chemical resistance are used for the labels. The adhesiveness and drying characteristics of UV inks on the synthetic paper are a critical factor for Kyoshinsya. Following the installation of its Iwatsu presses, Kyoshinsya has reduced delivery time on its reagent labels from one month to just three days. Along with more efficient short run print production, Kyoshinsya has switched from over-printing pre-printed labels to using blank, pre-die-cut labels and a web ordering system linked with its clients' production management systems.

Kyoshinsya has narrowed down the range of substrates it offers to just four, and reduced the number of job changes by its precise production planning which includes preparation of 200 different label dies.

Another important factor favoring the Iwatsu digital presses is the increasing use of variable data on reagent labels. Some inspection agencies read printed barcodes to record production lot and usage conditions. And where precise data recording is required, such as blood test agents, variable printing is must-have item, as several different barcodes are attached to these labels. In the future, requirements for traceability and preventing counterfeit products entering the supply chain are expected to increase.

Growing list

Kyoshinsya joins a growing list of Japanese companies which have adopted multiple EM-250A/W presses. L&L previously reported on an early adopter, pharma label converting specialist Kyoshinsha Co, which has installed two lwatsu digital inkjet presses.

According to company president Teruhisa Kubo, average run lengths ranged from 'several dozen to several thousand labels at most', even within a longer 30,000-40,000 label order. The company may print as many as 100 jobs per day, and most must be delivered in three days, down from an average of three weeks. Most labels use 2-3 solid process colors and often include variable data such as lot number and variable barcode.

The LabelMeister press was selected because it could print on a wide range of materials including synthetic papers and because it came standard with the pre-die-cut label printing function. 'The original specification did not have this function, but the manufacturer developed the technology specially to support our production lines,' says Kubo.







Teruhisa Kubo, president of Kyoshinsha



Iwatsu EM-250AW presses installed at Kyoshinsya



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Environmental News



Ritrama Chile will propose the PET recycling option to all its customers

PET liners will be transformed into clamshells and trays for packaging

PET liners will be transformed into clamshells and trays for packaging

Ritrama's production site in Chile has started a business partnership with a recycling company in the country that will see PET liners transformed into clamshells and trays for packaging. This new PET recycling option provides label printers and brand end users in the beverage, home and personal care markers with a sustainable recycling option for PET release liners once these have been used as carriers of PSA labels. The self-adhesive material manufacturer says this initiative is of clear environmental benefit as it offers cost and waste savings in the use of the end product. Its high RPET (post-consumer recycled material) content helps to reduce carbon footprints.

Ritrama Chile will propose the PET recycling option to all its customers, and if successful the system could be implemented in other geographical areas. The collection of the waste material is arranged through local waste disposal services.

A Ritrama spokesperson commented: 'Increased awareness among consumers regarding the impact of everyday items on the environment has led to a greater need for greener packaging options to sustain a healthier future. Ritrama Group considers environmental policies an essential part of its sustainable development and is committed to continually implement these in all it does. The development in Chile is an important step in the group's commitment to further promote initiatives towards a more sustainable labeling process through its worldwide production and distribution network.'

Stora Enso and Rennovia develop bio chemicals

Renewable materials company Stora Enso and specialty chemicals company Rennovia have agreed a joint development and license deal to cooperate on bio-based chemicals development. Under the terms of the agreement, the two companies will cooperate to develop processes for bio-based chemicals of interest to Stora Enso, employing Rennovia's high-throughput catalyst discovery infrastructure and process development expertise.

Stora Enso's Biomaterials division is a provider of pulp grades to meet the demands of various paper, board and tissue producers. The mission of the Biomaterials division is to find new, innovative ways to maximize the value extractable from wood, as well as other kind of ligno-cellulosic biomasses. Stora Enso divests ownership in IL Recycling Stora Enso has signed an agreement to divest its 33.33 percent ownership in Swedish recycled materials company IL Recycling to Stena Metall.

IL Recycling is a Swedish recycled materials company owned by Stora Enso, Fiskeby Board, SCA, and Smurfit Kappa. Stena Metall is purchasing the shareholding of all the current owners.

Stora Enso uses paper for recycling in its production at four paper mills and two packaging mills in Europe. However, the company said its need for paper for recycling in Sweden has decreased during the past years, and needed volumes can be sourced from the market. Stora Enso has negotiated an agreement for the supply of paper for recycling with Stena Metall. The group's focus is to secure the same volumes as currently purchased via IL Recycling to its Hylte Mill in Sweden.

Stena Metall Group recycles and processes metals, paper, electronics, hazardous waste and chemicals. Its operations also include international trading in steel, metals and oil.

UPM Raflatac and Cielo e Terra study wine impact

Life cycle assessment to assess environmental impact of wine bottles

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UPM Raflatac has cooperated with Italian wine producer Cielo e Terra on a life cycle assessment (LCA) to study the environmental impact of wine bottles.

The comprehensive study took into account the full life cycle of the wine bottle and related packaging elements, and was performed in accordance with ISO 14040/44 standards.

The LCA demonstrated that glass production has the most significant

environmental impact in the wine bottle product life cycle. Energy and fuels used on site, as well as secondary and tertiary packaging such as boxes, pallets and plastic wrapping, are also significant for a number of life cycle impact categories.

'Our aim is to better understand the environmental impacts related to our products and, together with our suppliers, find new ways to reduce them,' commented Giampietro Povolo, finance and operation manager at Cielo e Terra.

'The impacts of our recent investments in renewable energy are clearly visible in the results of the LCA study. When comparing the years before and after the investments, we can identify reductions in greenhouse gas emissions of 10 percent and water consumption of 24 percent during the life cycle of a wine bottle.'

Cielo e Terra prints a significant proportion of its labels on UPM Raflatac's FSC and PEFC certified materials, sourced from sustainably managed forests. Cielo e Terra also participates in UPM Raflatac's RafCycle program, where the discarded glassine backing paper from the label application process is collected and recycled into new paper at UPM Raflatac's specialist Plattling mill in Germany.



UPM Raflatac has cooperated with Italian wine producer Cielo e Terra on a life cycle assessment



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PICTURED 1. HP Indigo 8000 digital

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- press
- 2 AB Graphic Fast Track die3. UPM Raflatac PET Extra
- Matt Silver TC 50
- Matt Silver TC 50

• 8000 digital press *HP Indigo*

The HP Indigo 8000 digital press is constructed from two WS6800 print engines in line, with a common infeed and outfeed. In operation, the web is accelerated into the first engine which prints an entire frame, then leaves a frame blank in a 'chequerboard' pattern which the company calls 'stamp and run'. The second engine, in 'master-slave' mode, prints a perfectly registered frame in the gaps, creating a continuous roll of printed labels.

Fast Track die AB Graphic

Fast Track die can run at speeds of up to 150m/min in semi-rotary mode, with a repeat range of 250-508mm. It can be configured either in- or off-line with the new HP Indigo 8000 digital press. With a patent applied for (GB1509471.7), AB Graphic claims the module represents a 'quantum leap' in semi-rotary die-cutting technology.

PET Extra Matt Silver TC 50

UPM Raflatac

Available in Europe, PET Extra Matt Silver TC 50 has less than 20 percent gloss. UPM Raflatac said this minimizes light-scatter and directs more light back to barcode readers, increasing the effective contrast and the consistency of scanning. Pre-printed information, such as tracking and unit information, is also protected for the lifetime of the label by a scratch, smudge and chemical resistant topcoat. PET Extra Matt Silver TC 50 is available with non-solvent adhesives featuring high temperature and chemical resistance - RC15 provides 'outstanding' adhesion on polar surfaces like glass, steel and ABS, and RC18 is designed for polar as well as non-polar surfaces such as PE and PP plastics.

Honyalu

Omet/Rossini The new sleeve technology developed for the Italian press manufacturer's Varyflex V2 Offset 850 press is designed to optimize performance in job changeover by overcoming difficulties due to the large size and weight of sleeves. Honyalu sleeves use a honeycomb material between the base and aluminum tubing, which allows the sleeve to be lighter thanks to its open cell structure. It also absorbs vibrations and reduces bounce during printing.

03

New Products



© Sicura Nutriflex LEDTec *Siegwerk*

With this ink series, Siegwerk said it is the first company in the market to offer UV LED flexo printing inks for food and pharmaceutical packaging. Siegwerk ink specialists demonstrated the use of inks, which had been matched to the specific radiation spectrum of UV LED light, on a Gallus EM 280 at Labelexpo Europe 2009. The latest development follows a series of extensive and successful production tests.

HydroSperse

Wikoff Color

HydroSperse is a highly adaptable dispenser base mixing series for the water-based flexo market, and is well suited for a variety of substrates including paperboard, labels, non-absorbent films and matte stocks, making it suitable for an array of end-use applications. HydroSperse is compatible with a wide range of dispenser sizes and pump systems, and it offers a low viscosity range and 'excellent' pH stability. Wikoff Color stated that exceptional color reproducibility can be achieved with the high strength properties of the 17 available pre-letdown dispenser bases. The HydroSperse mixing series offers three levels of lightfast performance lightfast (LF, 48-150 hours), very lightfast (VLF, 150-300 hours) and extreme lightfast (XLF, 300+

hours) – depending on color. HydroSperse can be paired with multiple Wikoff Color extenders to impart the desired end-use properties of each customer.

© eXact Xp

X-Rite eXact Xp is the latest member of eXact spectrophotometer family, and is designed to help package printers and converters more accurately measure color on flexible film materials. The X-Rite eXact Xp supports the measurement modes M0, M1, M2 and includes all of the same features as the other devices in the eXact range of spectrophotometers, including X-Rite eXact Scan. It fully supports ISO color measurement standards and measurements are compatible with common measurement modes of the standard eXact on printed materials. The eXact Xp is also supported with existing eXact software and applications.

LED-3

Unilux

LED-3, available as handheld and fixed mount versions, can be configured for flood or spot lighting patterns and can emit standard (white light) or UV spectrum light for security printing. The fixed mount model features remote operation and trigger inputs for instant synchronization to movement. Multiple strobes can be connected across a machine to synchronize frequency in various locations or allow simultaneous use of UV and standard inspection lights. The portable handheld model weighs 2.4lbs (1.1kg). It has a battery life of up to four hours for full-spectrum lighting and up to eight hours for UV. The new light can be used for spot checking production defects and mechanical troubleshooting on package printing and converting systems, and it can be an effective complement to automated inspection systems.

@WhisperCool

Phoseon Technology

WhisperCool uses proprietary and patented Phoseon innovations to maximum UV output while keeping the sound level to a minimum. This involves utilizing a holistic, system architecture approach combining more than a decade of semiconductor light matrix (SLM) LED array experience, advanced thermal management, computational fluid dynamic (CFD), and electronic control. Phoseon sees LED curing being installed on many digital inkjet presses, in addition to enjoying rapid growth in both coating and adhesive applications. Collaboration between light source providers, materials

companies and machine builders have advanced LED curing capability to deliver three primary benefits: advanced capabilities, low operating economics and environmental advantages.

Taginnov Converting Line 350 GIC

Taginnov 350 is a modular RFID converting system, producing a wide range of products including RFID encapsulation in self-adhesive labels, tickets, textile labels, packaging and baggage labels.



Go to www.labelsandlabeling.com/news/new-products for more product launches

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- PICTURED 4. Siegwerk Sicura
- Nutriflex LEDTec 5. Phoseon
- WhisperCool
- 6. X-Rite Xp







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Installations



Nilpeter Panorama

Ikonprint, Denmark Danish print house Ikonprint has installed Denmark's first Nilpeter Panorama. Ikonprint's investment decision is a direct result of an increased number of incoming orders, resulting in the need to expand its production capacity. The first test runs made during Ikonprint's acquisition of the Panorama were of such high quality that the company decided to skip further testing and jumped straight into the production of two customer orders – the production of around 500,000 wristbands for Bakken Amusement Park and the labels for Braunstein's organic Easter beer. Other products Ikonprint's Panorama will be used to produce include labels for industrial coating and paints, wine and spirits, and cosmetics.

Durst Tau 330

The Label Makers, UK The Label Makers installed the UK's first Durst Tau 330 three years ago. Since then, it has been so successful in developing new business using digital UV inkjet that it has taken a second system that is now in full production at its headquarters in Bradford, according to Durst. The new Tau 330 comes with improved web tension control and a chill drum for printing flexible film and difficult heat-sensitive materials. Like its sister press, it also has the ability to print a strong white for clear materials. Seven colors help The Label Makers hit 94 percent of all Pantone colors.

Domino N610i

Outlook Group, USA Outlook Group has moved into full color digital label printing with the purchase of a Domino N610i UV inkjet label press and AzTech DieMaster RR finishing unit. Domino's N610i press offers 5-color printing on a 13in web and is able to print on a variety of paper and film substrates. The AzTech finishing unit is located near-line and is equipped with a UV coating station, overlamination unit and die-cutting station. The Domino press serves as complementary technology to existing flexo-based label printing and provides increased capacity at Outlook Group's facility in Wisconsin.

HP Indigo WS6800 Tapp Label, USA

North American converter Tapp Label has installed two new HP Indigo WS6800 digital presses and upgraded two existing HP Indigo WS6600 models to the WS6800 platform. The new HP Indigo WS6800 digital presses allow the company to gain new efficiencies, such as on-press proofing and reduced set-up time, and transfer more of its waterless offset and flexography jobs to digital.

FFEI Graphium

Tailored Label Products, USA Tailored Label Products has installed a Graphium hybrid UV digital inkjet press at its plant in Menomonee Falls, Wisconsin. The Graphium hybrid flexographic and digital UV inkjet press is specifically designed for labels, packaging and specialty print. Soon after installing its new Graphium, Tailored Label Products had a rush job for one of the largest home improvement stores in North America. The job included digital 4-color process and large solid areas best produced using traditional flexo. 'With the Graphium, we were able to go straight to press, and we were able to turn this job very quickly,' said Jeff Kerlin, president and CEO, Tailored Label Products.

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Mark Andy Performance Series P7

Hammer Packaging, USA Rochester, New York-based Hammer Packaging chose a Mark Andy Performance Series press based on its fast changeover, reduced waste and increased productivity. The new 17-inch, 10-color P7 press includes combination hot air drying/ UV curing, a Mark Andy QCDC unit, web turnbar, cold foil and lamination capabilities. The early results from the Mark Andy P7 press show that Hammer Packaging's productivity is up close to 60 percent over its current flexo machines and speeds have increased due to better registration and new blade holder technology. A Rotoflex VLI 440 finishing system has also been installed by the North American company. The Rotoflex VLI 440 inspection rewind system is designed for high-speed production of film, film packaging, and other tension-sensitive substrates. The system acquired by Hammer Packaging includes a roll mapping option that coordinates with

press-side inspection systems to provide a defect map for individual rolls.

Rotoflex DSI

N & R Labels, South Africa N & R Labels is a Cape Town-based label printer serving a range of companies in the surrounding area. Due to higher demand for print runs on its Mark Andy 2200 press, the DSI has been ordered for precise off-line die-cutting of blank labels. Configured to also run in inspection mode with a Unilux LED2000 series inspection strobe light, the DSI provides N & R Labels the flexibility of slitting, rewinding and inspection of finished label rolls, as well as die-cutting.

Mark Andy Performance Series P5

Excel Graphics, India Delhi-based label printer Excel Graphics has installed a Mark Andy Performance Series P5 flexo press and a Rotoflex VSI 330 as it seeks to satisfy the demands of its customers. The Mark Andy P5 is its first narrow web press, and Atul Bansal, owner for Excel Graphics, said: 'The Mark Andy Performance Series impressed us with its advanced capabilities and waste savings. The Performance Series P5 has everything we need in our presses. We can now fully satisfy the demands of our customers and provide them the quality labels. It allows us to further expand our business.'

© Comexi Nexus L20000 HP, Spain

Comexi's water-based laminator is specially designed to complement the HP Indigo 20000, and is being shown at HP Spain's Graphic Arts Experience Center in Sant Cugat del Vallés, close to Barcelona, alongside the digital press to highlight their capabilities for digital flexible package printing and converting.

Grafotronic HI2

Bailprint Labels, UK The UK printer has invested in an HI2 inspection machine from Grafotronic, which will be the first in the UK of the second generation of Grafotronic machines. Grafotronic, which is represented in the UK by Printech Services for service and support of all new and existing installations, recently introduced a new generation of modular finishing machines.

Ihle slitting machine

Typerite, Northern Ireland Northern Ireland's sole producer of thermal transfer ribbons, has commissioned a new slitting machine to meet increasing demand from new markets. The slitting machine from Germany's Ihle Maschinenbau runs at 400m/min and has a semi-automatic leader table. The machine, Typerite's sixth, has the capacity to slit over one million meters per week.

Xeikon 3030

Access Labels, Canada Canadian-based Access Labels has installed a Xeikon 3030 digital color press and plans to use the new press to supplement its flexo equipment and expand into new markets. Since 1993, Access Labels has serviced customers from its facility in



Nova Scotia. Adopting the Xeikon 3030 has enabled Access Labels to expand its business to include the high quality, short run, prime label production jobs.

Xerox iGen 4/Tresu Pinta workflow

Alexir, UK

UK folding carton supplier Alexir Partnership has successfully introduced a digital sheet-fed folding carton workflow to its operations to meet demand from emerging small food businesses. The workflow features a Xerox iGen 4 sheet-fed digital press with a Tresu Pinta coater integrated in-line and, near-line, a Kama ProFold 74 folder gluer and Kongsberg plotter. Capable of printing up to 110 sheets a minute, the 4-color iGen 4 includes an in-line spectrophotometer that automates color adjustments and calibration, automatic density control, and high-definition linearization that eliminates the need for grayscale calibration. Post-print coating through the Tresu Pinta in-line flexo coater provides a

layer of protection and enhances aesthetic appeal.

Lemorau EBR 330

Codimarc, Portugal The Portuguese self-adhesive label printer has invested in a Lemorau EBR 330 die-cutting to register machine with lamination station as it seeks to increase its production capacity. The EBR 330 for Codimarc has a 330 web width, full servo drive, automatic web tension control system, paper and matrix break detection, web guide, splice table with pneumatic clamps, 250 job memory, labels in/labels out counter, lamination station, remote assistance through an internet connection, counters for the number of labels, meters and rolls, and total counter in labels and meters.

• Fujifilm Jet Press 7208 P4P, Belgium

Packaging for Professionals (P4P) has installed Europe's first Fujifilm Jet Press 720S, which it is to use for folding carton applications. P4P was founded in 2015 by a small team with decades of experience in lean manufacturing systems and the packaging industry, and has been established to produce on-demand high quality, low volume packaging for high quality, low volume packaging. The Fujifilm Jet Press 720S is a B2 format sheet-fed inkjet press, offering 4-color (CMYK) printing, a native resolution of 1200 x 1200 DPI and productivity of up to 2,700sph. The Jet Press 720S also features new generation Samba printheads, with each B2 width print bar containing 17 individually replaceable modular printheads, each with 2,048 nozzles. Replaceable modular printheads reduce the necessity for system downtime and minimize breaks in production for press maintenance, with a traditional offset-fed paper feed mechanism providing high

registration accuracy and reliable operation. The print bar uses VersaDrop technology, allowing the size and shape of each ink drop to be precisely controlled and placed on the paper.

Highcon Beam

Glossop Cartons, UK UK converter Glossop Cartons has installed the world's first Highcon Beam digital cutting and creasing machine, which is currently being beta tested at the company's new Stockport premises. Beam offers fast speeds, improved software and finishing capabilities for mainstream carton and commercial production. It can handle a wide range of substrates, including 2mm E-flute corrugated board.

Go to www.labelsandlabeling.com/news/installations for more installation news

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Appointments



Kevin Tuschl Regional sales manager, KBA-Flexotecnica KBA North America He will represent the full line of KBA-Flexotecnica CI flexo presses for the flexible packaging market in the eastern half of the US.



Harry Vinson EVP Komori

Vinson has a background of more than 25 years in the printing and packaging industries with a long tenure at Cenveo, where he served most recently as president for commercial print, global packaging and envelope.



Luigi Martinese COO Europe Treofan

Martinese has been with Treofan since 1995 and has been responsible for the group's Italian sites for more than 15 years. As COO Europe, Martinese will be in charge of the German plant in Neunkirchen as well as the Italian plants in Battipaglia and Terni.

Mark Gilbert

Head of sales, Northern and Central Europe API

Promotion of Gilbert has seen Mike Kitchen join as its new UK national sales and distribution manager to fill the vacated position. He will lead the UK sales and service team, with overall responsibility for sales in the UK and Ireland.



Dr Wolfgang Josten Managing director Actega Terra Takes on responsibility for research and development, production, quality control, finance and administration, and moves over from his current position as managing director of Actega Colorchemie.



Gareth Spencer Production controller CS Labels Spencer has joined CS Labels from global flexible packaging company Amcor, and has more than 10 years of experience in flexible packaging. His experience covers process improvement, quality management, continuous improvement and technical development.



Michael Offerman Parts and service manager Colordyne Technologies He will be responsible for technical support, training, field service and parts activities in order to provide superior customer service to Colordyne's clients.

Ronald 'Lee' Kluttz President Harper Corporation of America Kluttz is the grandson of founders Ron and Katherine Harper. His previous roles have included various manufacturing positions, technical analyst, customer service and production supervisor, manufacturing manager, vice president of manufacturing operations and, most recently, vice president of operations.



Marcel Hage Chairman of the board Unilux Hage joined the Unilux board in 2013 and is

also chairman of XOL Automation, a diversified engineering company serving industrial/ manufacturing companies in the Middle East and North Africa.

Guenther Birkner Healthcare & Specialty, president CCL Label Birkner joined CCL after its founding investment in the food and beverage market with Austria's Pachem in 2003. He has most recently served as president of the Food & Beverage business of CCL, a role he will combine with his new responsibilities.

William J. Smith

Chief sales and marketing officer Fortis Solutions Group Company intends to complement Smith's sales initiatives by continuing its pursuit of attractive acquisitions to further the breadth of product offerings and locations which can serve its customer base.

Vince Musacchio Global Flexibles president, ProAmpac Musacchio has been in the flexible packaging industry for over 18 years and most recently served as president of Prolamina's Canadian operations. Prior to that, he owned Excel Pac before it was acquired by Prolamina in 2011.



Alex Henderson Operations director, UK Parkside Flexibles Henderson is an experienced general manager and has worked in the print industry for more than 30 years, having previously been employed by Trinity Mirror Printing, News International Newspapers and Smurfit Newspress.



Nicolas Rozencwajg Regional sales manager, France, Microscan Rozencwajg brings over 20 years of experience in the automatic identification and data capture (AIDC) market to Microscan in France from companies such as Intermec, Sato and Avnet.

Peter Van Tesseling Global director of operations Dscoop With over four years' experience as regional director of its EMEA operation, Dscoop said he has implemented numerous successful initiatives and best practices within that regional structure.



For more industry appointments, go to labelsandlabeling.com/news/appointments

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Label & Packaging Showcase



Savanna cider

Constantia Flexibles, South Africa

Constantia created a new look for Savanna cider, moving the bottle decoration from ACL to a pressure-sensitive label while maintaining the same level of tactility. The main front label is refined with a clean finish. The small, lower base label isolates the variant name which allows it to stand out.

Bud Light

Constantia Flexibles, USA The new Bud Light graphics use metalized pressure-sensitive film and gravure printing to highlight the new design and maximize shelf impact.

Heinz BBQ sauce

Inland, USA Inland created a PS labels with a combination of glossy tactile varnish and matte finishes. Unique patterns for these embellishments were chosen to exemplify the authenticity of each of the five flavors – including Kansas City, Memphis, Texas, Carolina and Classic.

⁽¹⁾ Casillero del Diablo Leyenda

Collotype Labels, Chile Collotype Labels Chile's Casillero del Diablo Leyenda wine label, for the Concha y Toro vineyard, won a Best in Category prize in the flexo category at the 2015 Premier Print Awards, organized by Printing Industries of America (PIA). The winning label was printed on Starlight self-adhesive material from Ritrama, and featured foiling, embossing and varnishing.




04





AWA Shrink Sleeve Awards 2016

Heat TD Shrink Sleeve Award

Syracuse Label & Surround Printing

For brand owner Braided Oaks Spirits, Syracuse Label & Surround Printing created an attractive label with effective graphics which help this Cosa Salvajé vodka stand out on the shelf.

Roll-fed MD Shrink Sleeve Award

Printpack, USA The joint entry by Campbell Soup Company and Printpack took the prize for best Roll-fed MD Shrink Sleeves 2016. The judges recognized the bold move to change to a foam container.

Best Sleeve Label Award

McDowell Label, USA With its entry 'Mad Hot Tingle Bronzer', an indoor tanning bottle by JWOWW, McDowell Label stole the show with a label described by the judges as 'Amazing, classy, and adventurous'.



This regular feature is dedicated to the best designed printed packaging from around the world. If you would like your product featured here, email labelexposure@labelsandlabeling.com. We require a high resolution photograph and supporting text.

.....

Removable / Repositionable PET

Secondary liner during die cutting

process

Temporary pre-mask

Open/close mechanism on

flexible packaging

20

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Opinion

In? Out? Trump? Clinton? With a number of major political events on the horizon in the coming weeks and months, such as the UK's referendum on whether to remain in the EU and the 2016 US presidential election, Labels & Labeling polled the industry on how these events and more will impact the business environment

"Political situations can have an impact on our business. Generally, businesses might hold back on making investment until elections are over, because elections create a bit of uncertainty. Both the US and the UK market are key to us, but we have not noticed any effect yet. Since we have expanded to many other regions globally, we are not so dependent on one country. We look forward to the outcome of these elections, but we expect the trends in labels and packaging not to change. People will still consume and the trend of digital, short run, fast delivery and versioning/personalization, will continue."

Wim Maes, president, Flint Group Digital Printing Solutions, and Xeikon CEO "It's not going to have any bearing. In America, there is a lot of talk but at the end of the day it's a capitalist society, everyone wants to make money and everyone is going to push. When you look at the EU question, the only ones debating are the analysts and the politicians. Everyone else is going to work."

Warren Werbitt, founder, Pazazz Printing



"Global companies such as Nilpeter – with manufacturing on four continents and business in 65 countries – every year face some kind of significant turbulence - be it political, environmental, geological or commercial. 2016/17 won't be any different – the EU is picking up after almost 10 years of stagnation, Latin America is very troubled by political and financial issues, USA has a very expensive dollar to cope with plus a very different election campaign running, and the EU faces the challenge of an excessive number of refugees from Syria. How will all this effect our business? Certainly not positively on a regional level but working in a global environment, we seek out regions where the industry is in positive development rather than the ones in regression."

Jakob Landberg, sales and marketing director, Nilpeter

"I recognize the importance of the referendum and the choice facing the country, but it is a shame that with the world facing an economic slowdown, our politicians have decided to add to this political and economic uncertainty by choosing to hold a referendum where no one can be certain what the outcome will be if we vote no. We are already experiencing the cost of this uncertainty with rising material costs caused by the recent fall in sterling."

Simon Smith, managing director, CS Labels

L&L.com poll results

To what extent will the outcome of major political events this year impact your business?

- Don't know 10%
- □ A great deal **41%**
- Not very much 49%



Go to www.labelsandlabeling.com/ opinion for more opinion pieces

As head of packaging M&A at Moorgate Capital, occasional skier and polo fan Nicholas Mockett has spent two decades advising the global packaging industry to help maximize its performance. In that time, he has seen the market consolidate and change beyond recognition, culminating in last year's record-setting level of packaging M&A. He is an active Liveryman of the Worshipful Company of Stationers and Newspapermakers, and has recently concluded a 10-year term with charity Breast Cancer Care as a trustee. Interview by David Pittman

L&L: Who is Moorgate Capital and what is your role at the company?

NM: Moorgate Capital is a corporate finance and mergers and acquisitions (M&A) advisory firm. This means that it helps people to buy and sell companies, as well as other corporate finance assignments such as raising capital (equity and debt), management buy-outs and defending against hostile bids. Its clients are multinational public companies, private equity houses and their portfolio companies, management teams, family businesses, banks and lending institutions and state owned enterprises. Moorgate works with clients around the globe in America, Asia, Australasia, Latin America, the Middle East and Africa, as well as throughout Europe - east and west. Most of the deals are in the 100 million USD to one billion USD value range although some mandates have been for transactions of several billion dollars. Moorgate's key differentiator, compared with the bulge bracket multi-faceted investment banks, is that it does not compete against clients or expect them to borrow money. My role is to head up our specialism in the packaging related industries, the sector I have covered for over 20 years.

L&L: How did you come to be involved with packaging M&A?

NM: Early on in my corporate finance career I realized that understanding the client's industry was critically important. So, I decided to pick one sector and focus on it exclusively. By then, I'd advised on transactions in retail, building products, packaging and IT. At that time, pharmaceutical manufacturers were going through a massive wave of consolidation, such as Glaxo merging with Wellcome, so I applied some business school training, including Porters 5 Forces, and concluded that suppliers to the pharmaceutical industry would need to consolidate, hence packaging. It proved to be an excellent decision. At that juncture there were about 25 public packaging companies listed on the London Stock Exchange. Packaging even had its own sector heading in the stock price pages of the Financial Times. Now there are only three or four PLCs. With the move from public ownership, investment banks can no longer sell broking or analyst services, and without those departments sourcing deal leads, to throw over the 'Chinese Wall' to the corporate finance department, those investment banks discontinued dedicated corporate finance coverage for packaging. I was fortunate to have the then world's largest packaging company, Stone Container Corporation of Chicago, as my first client and MY Holdings, which was listed on the London Stock Exchange, as my second. Now 20 years on, I have never looked back and enjoy great relations with the industry which is packed with talent yet remarkably down to earth.

L&L: How big is the appetite for M&A in the packaging market at the moment? How does this compare historically?

NM: It has never been bigger. 2015 saw the highest ever level of packaging M&A with over 35 billion USD of deals – even higher than the 33 billion USD 2007 peak before the credit crunch. We're continuously educating investors of the merits of the packaging industry. For example, over a 10-year period from 2005 to 2015, with 100 GBP invested in the FTSE100 (the largest 100 companies quoted on the London Stock Exchange) the value would have grown by 1.5 percent. In the Containers & Packaging index it would have been 61.8 percent. You would be surprised how many financial institutions, including private equity houses, have become much more interested in packaging M&A armed with that data.

L&L: What trends are shaping the current and future of M&A in the packaging market?

NM: I would say three things: concentration, expansion and valuation. For most niches in packaging, particularly paper, plastics and labels, industry concentration is too low, or too fragmented. Industrial economics theory suggests that if an industry wants to improve

"2015 saw the highest ever level of packaging M&A with over 35 billion USD of deals – even higher than the 33 billion USD 2007 peak before the credit crunch"

performance (profits) it needs to become more concentrated. This will allow better behavior, better pricing and better negotiating with suppliers. So the structure of the industry will drive M&A. Expansion, or quest for growth, is an important factor in M&A. Companies continuously seek new technology, new customers and new geographies, including emerging markets. This factor also includes growing profits as M&A often leads to synergies and economies of scale. R&D expense can be spread over a wider manufacturing footprint, driving higher margins and RoI. Valuation is a particularly interesting area currently. If you look at the multiples which public packaging companies are trading on (enterprise value to EBITDA ratio) they are above the long term trend. This is good news for the public companies as it effectively means they can raise equity cheaply (to make acquisitions) and they could pay a multiple for a target up to their level and still be earnings enhancing. However, the average multiples which deals are happening at are some way behind the public multiples, although well above 2009 levels, so there is scope for arbitrage. The reasons for this include the relative scale of the public companies, which tend to be significant and more broadly spread - hence perceived as inherently less risky. Also, in packaging consistently 60-70 percent of deals are undertaken by private companies, which may be using valuation multiples reflecting the longer term averages rather than marking to market.

L&L: In which markets do you see big developments taking place in M&A?

NM: We are seeing developed world packaging manufacturers targeting emerging markets as their customers penetrate there and prefer continuity and consistency of supply. Similarly, these western packaging companies seek trade with indigenous brand owners in emerging markets, where stronger growth is expected. Moorgate Capital is particularly enthusiastic about Brazil. Its burgeoning middle class, its position as a global food producer and its wealth of natural resources render it a compelling market for packaging M&A. Conversely, recent years brought a spate of Asian FMCG companies acquiring European FMCGs, such as Weetabix and Pizza Express. Hence, we are seeing interest from Asian packaging manufacturers in acquiring European producers to service such clientele. Another benefit for European vendors is that, in light of lower growth in some emerging markets, some acquirers, including North Americans, are focusing M&A efforts on western Europe. Although there may be modest growth, they expect limited volatility and more scope for synergies.

L&L: What are the main challenges facing companies conducting M&A?

NM: It depends whether you are a buyer or a seller. For vendors, a main challenge is how you go to market. If you agree to the typical broadcast to dozens of potential counterparties you run the risk of customers finding out, rivals pinching your trade secrets, and tire kickers wasting the time of the management team who would otherwise be developing the business. For acquirers, you may be concerned about those process issues too as you don't want to buy tarnished goods. If a buyer is participating in a broad auction it



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"Practice makes perfect. Read the financial press and spend time with people in the M&A industry"

risks running up significant costs and being kicked out of the process even when rival, higher, bidders are ultimately less deliverable. There are the perennial problems of reaching consensus on valuation, matters arising in due diligence, and financing issues including recent tightening in debt markets and US interest rate rises. On top of that, there may be anti-trust clearance or other regulatory hurdles, such as shareholder approval, particularly with a PLC.

L&L: What are the different ways M&A is funded, and which is the most prevalent?

NM: To an extent it depends on the acquirer type. Strategic acquirers (corporates) may use existing cash on the balance sheet, which may be from retained earnings or the sale of a non-core divestiture or disposal. If a corporate does not have sufficient cash it may borrow from a bank or other lending institution or issue a bond. In terms of equity, a public company may issues shares, for example by way of a private placing. A PLC may persuade the shareholders in the target company to take its shares as payment, particularly if they are highly liquid. A private company may also sell shares, for example to a private equity house. A private equity acquirer investing in a new 'platform' will typically be leveraging the balance sheet using senior and junior debt and mezzanine finance from sources including banks, acquisition or leverage finance houses, and hedge funds. It may issue a bond if the deal size is the right magnitude. The institutional strip will typically be ordinary shares (equity) and institutional loan notes. The private equity house may hold the investment in its entirety or syndicate to other private equity funds

L&L: What is the best way for companies to learn more about M&A? NM: Practice makes perfect. Read the financial press and spend time with people in the M&A industry.

L&L: What are the best ways to ensure the successful closure of an M&A deal?

NM: Three things: preparation, professionals and pragmatism. Being prepared means different things with different scenarios. If the vendor is a private company, it's advisable to plan far in advance of actually going to market. Shareholders who are involved in the management are particularly pivotal and must have clear intentions. When it is time to market, a key step, which has evolved since the mid 1990s, is vendor due diligence. This can add value, or reduce the risk of diminution, and expedite the process. A vendor's choice of professional advisers is also a value driver. It can be difficult to argue with people who don't like lawyers, but the right M&A lawyer can make a material difference. Over 20 years I have worked with a handful who stood out from their peers and ultimately delivered better deals for their clients. Often shareholders, particularly private family companies, expect to use the chap who helped them with commercial legal matters historically. That may not be the best man for the job. Similarly, rather than appointing a corporate finance adviser some companies may opt for auditors or accountants to try to run the process. Also, building a relationship with professional advisers well in advance is advisable. Pragmatism is a quality which vendors in particular need. Deals can run aground because a family shareholder attaches an emotional price rather than an economic one. He thinks about all the Sundays spent

in the factory, building the company rather than teaching his son football. So EBITDA multiples on comparable deals just don't interest him. Experienced professional advisers can help keep feet on the ground and level heads when life-changing decisions are being made.

L&L: Is there a standout story from your time working in packaging M&A?

NM: A few years ago, an established CEO contact called advising that his board had appointed a famous bulge bracket investment bank to sell a major division with an enterprise value of around 250 million EUR. He asked if we would work on the buy-side with an acquirer. The investment bank initiated such a broad scattergun process that it became public knowledge and the key, valuable division started to lose customers at an alarming rate. Ultimately this contributed to the disposal being terminated. That bank's reward for this failure was a three million EUR abort fee. Incredible.

L&L: Outside work, what are your main interests?

NM: I find skiing is a good way to banish the winter blues and acts as a catalyst to reunite good friends. Other sports, where I am consigned to the spectator category, are rugby, rowing and polo. I enjoy opera when I can predict four hours free. I'm an active Liveryman of the Worshipful Company of Stationers and Newspapermakers (more business than hobby) and recently concluded a 10-year term with charity Breast Cancer Care as a trustee and chairman of the investment committee.



For more information, see L&L issue 2 2016 'Opinion' feature, and read Bob Cronin's regular column in the magazine

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Secrets of M&A success

Bob Cronin of The Open Approach outlines the key elements of a successful sale or acquisition

s a longtime M&A advisor, I continue to hear variations on results and general impressions about buying or selling. Sometimes, there is significant gain; other times, it is a total disaster. From the largest majors to smallest private companies, even those who have executed other successful deals make some devastating plays. Having steered numerous transactions over the last 30 years as either CEO or advisor, I have seen one single activity make the difference – planning.

You need to plan for your sale or your acquisition. Results are a combination of planning and timing, and the best results are those that draw upon a strategic plan that works to maximize your long-term objectives. You need to plan for the integration and resulting new enterprise from day one (or even better, from the day you start looking for the acquisition). The considerations that follow are a starting point.

Five essential buyer considerations

1. What value does the acquisition bring now and in the future?

Value is not simply a straight addition of an acquisition's prior year's revenues or profits. Real value is captured through production efficiencies and synergies in combining the businesses, as well as increased buying power. The purchased company should also open up new territories in which the acquirer can sell its products, and, along with such territories, better freight savings. Then there are new product combos, new capabilities, new intellectual capital, and new directions to grow in the future. Make sure that a target acquisition brings value in all of these capacities – now and in the future.

2. How will my employees and customers view the purchase?

Staff and customers need to see the deal as a positive and not as a threat. Help them understand that acquisition is important – and how it will benefit them. Focus on assets/capabilities you will be acquiring (i.e., digital equipment, new vertical specializations), and get them thinking about how those assets might enhance their jobs or get their work done more efficiently.

Before you start making acquisitions, consider what your customers want most. Have they expressed the desire for a certain capability? Are there production bottlenecks or extra time needed because you are outsourcing a key function? Are there programs and services that you could acquire to serve them better? It is important that your customer view any acquisition as new abilities they can leverage, better ways by which they can build their business, or time and cost savings they can gain. Plan ahead so that they indeed are, then make sure to promote these new offerings as soon as they are available.

3. What is my ability to finance a deal and manage financial obligations the deal puts on my business going forward?

Many companies back down from acquisitions because of potential finances, and some get into deals unprepared for the true investment. Planning finances is critical.

It is important to have an experienced advisor who can help you leverage banking relationships, find modes of financing, and structure deals so that they work within your abilities. Beyond the negotiated purchase price, you can expect to spend thousands, or even millions, on ensuing integration activities, depending on the size of the deal.

Determine what you are willing to invest ahead of time – in terms of cash and sweat equity, and stick to your plan.

4. What risks does this acquisition bring?

The bigger the acquisition, the bigger the risk. But even small acquisitions should be scrutinized for their potential downsides. Risk factors can include clashing cultures Think through obstacles acquisition candidates present. Consider the worst "Think through obstacles acquisition candidates present. Consider the worst that can happen, and determine whether you are prepared to overcome this. Then, take measures to mitigate the negatives"

that can happen, and determine whether you are prepared to overcome this. Then, take preventive measures to mitigate the negatives. or employee personalities, overlap in salesperson territories, customer contract issues, conflicts of interest, turnover, and ongoing financial requirements. Think through obstacles acquisition candidates present. Consider the worst that can happen, and determine whether you are prepared to overcome this. Then, take preventive measures to mitigate the negatives. Think through risks from every angle. Even the smallest, unexpected challenge can derail a great opportunity.

5. Do I have the existing talent to handle new business integration, or will I acquire it during the purchase? Integration can be challenging because it

can involve people who don't understand the deal, don't support the deal, or lack the skill sets to do the integration work. Many companies mistakenly expect the two sets of employees to 'work through' things and narrow down employee pools by attrition (The Darwin Theory). However, this typically results in the loss of the best employees, leaving you the stubborn ones who can't get hired elsewhere.

Identify the people on your team – or the acquired company – who can champion integration efforts effectively. Determine how much time this will take away from their other roles and make accommodations for it. Hire a part-timer or contractor to take over some routine projects. If neither team can supply the talent, hire an experienced integration consultant. While you will have to factor these costs into your overall acquisition decision, such expert support will pay back immensely.

Five essential seller considerations

1. What is happening with similar transactions in my segment? Understanding the dynamics of the selling



market is key to helping you understand potential opportunities and form realistic expectations. Don't make your decision based on what your neighbor told you he got, or what was happening in the market six months ago. While public company deal information may be known, private company deal specifics are tougher to find. Label-specific M&A advisors or industry analysts are your best source of insights, since they are handling current deals. Follow stories in Labels & Labeling and other trusted publications or reports for additional trends. Gain a good understanding of the current marketplace, and decide whether the selling market is right for you. How you are positioned as part of the sale process will determine how your value will compare to other transactions.

2. Have you followed a plan over the last few years that maximizes your present value?

The earlier you plan and prepare for sale the better. Examine what segments and customers you are in, and adjust your efforts to move into the most vibrant territories. In addition, get rid of superfluous equipment, resources, and staff. Acquirers tend to look at the last three years of financials. Do everything you can to maximize your profitability to increase your appeal.

3. What's the best way to go to market? How do I find the best buyer?

While some companies opt for a limited offering (or sell to their neighbor), most others prefer to widen their buyer pools. However, unless you want everybody to know you are up for sale, a mass generalist offering is not a good option. Besides losing all discretion, this strategy typically reduces your value because you are perceived as a commodity. Online M&A sites also have their downsides, as their listing descriptions make it easy to determine that it's your company they are describing. Your best bet is to find advisors with experience in your specialties, then work with them to present your company to 10 or 15 of your best possible buyers. These advisors often have experience with the buyers, so you know upfront how these buyers value and integrate their acquisitions, and whether that will align with your objectives.

4. How will my employees and customers view the purchase?

A pending sale can cause anxiety amongst staff and customers alike. Craft a plan to communicate your sale, and make sure it articulates the new advantages to all your constituencies. Make sure they know it was a wellthought-out consideration, and show them what the new arrangement will bring to them. For top employees and customers, you may want to get them on board early and ask for their thoughts, so you can accommodate these. Customers and staff are integral assets in a deal. You'll want to plan for their security.

5. Am I ready and prepared (financially and emotionally) to exit my business?

Finally, you need to make sure you have made a satisfying plan for you to move on to retirement or a new opportunity. You sell your business only once, and you need to do it with no regret. Take the time you need to make certain that a sale is right for you before you get started. It can be expensive and destructive to try to stop it in mid-swing.

Successful M&A requires more than wisdom and good timing. It takes thoughtful planning. Establishing a well-crafted plan – and sticking to it – is the best way to ensure your transaction delivers the greatest reward.



Bob Cronin is managing partner of The Open Approach, an M&A firm focused exclusively on the world of print. In addition to spearheading several large label and packaging industry transactions, the firm regularly handles value-enhancement initiatives and organizational workouts/turnarounds. To learn more, visit www.theopenapproach.net, email Bob Cronin at bobrcronin@aol.com, or call (+1) 630 323 9700



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Baumgarten concludes pioneering LCA study

The Brazil-based multinational converter submitted two products to a Life Cycle Analysis to measure their environmental impact. James Quirk reports

hoosing between two products – while taking into account which generates less environmental impact – is not an easy task. To achieve an accurate definition, the factors that must be observed go beyond, for example, the type of raw material and the consumption of natural resources used to develop each of the materials. This is a set of parameters that involves the entire production chain.

With this in mind, and aligned to its sustainability strategy, Baumgarten Gráfica, a multinational converter based in Brazil and with production units in Mexico and Argentina, has undertaken a pioneering product Life Cycle Analysis (LCA). The study began in the second half of 2014 and involved a team of internal professionals working alongside researchers from local graphic arts school SENAI. It included all processes from the extraction of raw materials to the delivery of printed labels to customers. The results were reviewed by a panel of Brazilian environmental consultants and presented in early 2016.

The study compared a self-adhesive label and back label set manufactured with a PET liner (adhesive bonding support), and another with a glassine liner, measuring the environmental impact that each can generate. The first was made of polyethylene terephthalate, material of fossil origin, and the second was made of paper, material taken from a renewable source, and a silicon layer. Of a total of 17 items analyzed, the PET liner showed a tendency to generate less environmental impact in 15 cases.

'With the results of the LCA, Baumgarten is ready to provide the market with information about the environmental impact of self-adhesive products, and the inclusion of the environmental variable in the purchase decision – which is too often focused on price,' explains Baumgarten's executive director Fernando Gabel. 'Furthermore, there is the possibility of extending the Life Cycle Analysis to our customers' products. Investing in LCA is in line with our sustainability strategy for the coming years.'

The survey also identified areas for improvement and process optimization which Baumgarten has put into practice. Using the LCA data, the company can more easily choose processes and technologies which are less harmful to the environment. Baumgarten staff were trained to inform customers about the environmental impact generated by the two types of product.

Study

Gabriela Neves Ferri, R&D manager at Baumgarten and coordinator of the process, explains that eco-friendly design is part of the company's strategy. To put it into practice, they needed to implement a methodology for measuring the environmental impact of products, thus being able to identify the production stages that most contribute to the generation of these effects.

'The life cycle approach allowed us to map the supply chain and identify opportunities

to improve our internal processes, so we can produce labels with less impact on the environment,' she says. 'Only with real product and process data are we able to innovate with a focus on sustainability.'

The methodology used for the LCA has ISO 14044 and ISO 14040 as a technical base, and takes into account the impact of the whole supply chain up to the delivery of product to customer: from production processes through to transport, waste generation, consumption of water and energy resources, generation of CO2, and more. Statistics were collected from printing and converting units and the remaining inventories came from the 'Ecoinvent 3.01' database. Related activities were divided into two categories: foreground performed by the company and suppliers of raw materials – and background, such as energy consumption, transport systems, waste and effluents. Data related to Baumgarten's external processes was raised through forms developed by the company and sent throughout the supply chain.

Among the findings, the study shows that glassine liner has a bigger environmental



impact on the supply chain than PET liner (which showed a tendency to generate less impact in 15 categories). With its greater weight, the glassine liner has a bigger impact on transport and the generation of waste to be sent for treatment. The glassine liner showed better performance in categories that evaluated eco-toxicity (effects of chemical products on living organisms and the community in general) and fossil energy demand.

The main areas of impact are mostly linked to the supplier chain of raw materials, such as ink, self-adhesive material and varnish, and to the production stages of the self-adhesive substrate. The LCA shows that, in these areas, the results are the same for both types of liners.

The study also indicates that around 49 percent of the substrate coil with PET liner and 47 percent of the substrate coil with glassine liner are destined to become waste at some stage between the self-adhesive substrate production and the delivery of labels to the customer. This matches information released by Brazilian graphic arts association ABTG, which cites the self-adhesive substrate as the major contributor in waste generation.

Another finding is that the platemaking process and washing of printing systems consume a significant amount of water and energy, impacting the performance of the two sets of labels and back labels regardless of the type of liner.

The analysis suggests logistics as an important area for reducing environmental impact: restructuring a supplier network can result in more efficient distances and modes of transport.

The study also highlights the importance of seeking more efficient printing and finishing processes, which can contribute significantly to the reduction of waste.

For the customer, the final product is the

PET LINER SUPPORT

Layer of polyethylene terephthalate that functions as a base for the label until labeling

- Fossil origin (oil)
- Recyclable (cost reduction of waste destination)
- Higher productivity during the labeling process



REDUCTION OF ENVIRONMENTAL IMPACT



Reduction of 73% in degraded soil Approximate mass of eucalyptus tree = 270kg Equivalent to the mass of 35 trees



Reduction of 33% in hydric resources consumption Average liters used in one laundry cycle in machine of 11kg = 136L Equivalent to 3015 laundry cycles

same whether using a glassine or PET liner, but the two materials' environmental performance along the production chain is different. A conscientious customer's choice can help reduce impact to the environment.

The LCA shows that the material made of PET brings, for example, a 73 percent reduction in degraded soil (equal to the mass of 35 eucalyptus trees); a 15 percent decrease in CO2 emissions (equivalent to a commercial flight from Rio de Janeiro to Buenos Aires); and a 20 percent reduction in the generation of solid waste (which corresponds to the daily waste generated by 488 people). Another comparison shows that the PET option reduces water consumption by 33 percent, equivalent to 3,015 laundry cycles (counting average liters used in the wash cycle of a machine with an 11kg capacity).

GLASSINE LINER SUPPORT

Layer of silicone and paper that functions as a base for the label until labeling

- Renewable origin (trees)
- Hard to recycle (the silicon layer in paper makes it difficult to recycle)
- Lower productivity during the labeling process





Reduction of 15% in CO₂ emission Commercial air travel trip Equivalent to a trip from Rio de Janeiro to Buenos Aires



Reduction of 20% in solid waste generation Average of waste produced for one Brazilian/day: 0.963 kg Equivalent to daily waste of 488 people

Next steps

With its first product Life Cycle Analysis (LCA) concluded, Baumgarten is now working on the second part of the process. A new analysis started late last year and will conclude in September 2016, allowing for one year of research.

The new study analyzes metallic material and transparent material from two different suppliers. In the first phase the substrates were manufactured by the same company.

Also new is the inclusion of flexo. In the first study Baumgarten only focused the analysis on offset printing.

'The first study gave us a basis to work with the methodology, which was internally developed based on ISO 14040. Now we have the methodology ready (data collection spreadsheet and methods of measurement, for example), we have expanded the scope to measure four different substrates from two different supplier s and have added another printing system,' explains R&D manager Gabriela Neves Ferri.

Baumgarten intends to use the results of both LCA studies to inform its commercial strategies.



For more information about Baumgarten's sustainability efforts, go to www.baumgarten.com.br/en/ sustentabilidade

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A pilot digital printing project for water brand Perrier used HP Indigo print technology and HP SmartStream Mosaic

Brands talk digital package printing

Big brands and agencies see digital print as key to the packaging of tomorrow. David Pittman reports

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igital printing can serve as the gateway to the next generation of packaging, with Mondelez's Patrick Poitevin stating that 'smart and intelligent packaging is the future' and 'everything is digital these days, so why not packaging?'

'We must think about the future. I am passionate about packaging and am hungry for innovation. Packaging will be different in five years, and will have different functionality and requirements. It must change quickly and react to the fast-paced world we live in.'

His comments came during an engaging panel discussion looking at brand owners and their use of HP Indigo digital print technology. Poitevin, Mondelez's senior associate principal scientist, next-generation packaging, was joined by Marco Bernasconi, Nestle's head of worldwide packaging, and Maayan Reshef, CEO and co-founder of Israel-based branding agency Shake Design.

Both Mondelez and Nestlé have been exposed to the benefits of digital printing already, with their respective Oreo festive cookie packaging campaign in North America and Perrier pilot project using street art designs, as seen at Labelexpo Europe 2015, recent examples.

Digital benefits

Both of these highlighted one important part of the digital package printing equation: speed to market. While the Perrier pilot project was intended as a project to allow Nestlé to see what could be achieved, the reaction to the brand's use of digital and the requirements to get personalized bottles on the shelf, it was realized in little over a month. Mondelez's Oreo campaign took 89 days go from ideation to being delivered to the consumer. A normal cycle using conventional print may take up to nine months to go from idea to the shelf, and

even longer if validation and qualification tests are required.

The projects also acted as a lever to gain the attention of the companies' respective marketing teams to the benefits of digital, and how they can open up new avenues of engagement with consumers. 'The reaction on social media was huge,' says Poitevin of the Oreo digital print activation. 'Even Kim Kardashian posted an image of herself with a pack of Oreos to her eight million followers. Can you imagine the impact that has?'

Poitevin continues that the campaign created a short-term uplift in the value of sales, with packs normally selling in-store for around 2.50 USD but consumers willing to pay 10 USD for a personalized version. 'It was a great revenue generator for a short period, and is only the tip of the iceberg in terms of what can be done with digital printing."

'A lot of what we have used digital for previously has been niche exercises and not



A million unique wrappers were created for an 80-year-old Israeli confectionery brand

on a big scale,' notes Bernasconi. 'That has changed. Digital has moved on and now allows us to engage with consumers in a different way."

Shake Design's use of digital printing was to reinvigorate an 80-year-old confectionery brand. Packaging for the Strauss Group's דלוקוש הרפ, which translates as chocolate cow, has featured a cow as the primary graphic since the middle of the last century. To update the look, refresh the brand and find a new way to engage with younger consumers, HP SmartStream Mosaic was used to create one million different wrappers that were designed to be folded into a cow, with the campaign named 'Origamoo'. The Oreo and Perrier projects relied on the proprietary HP design tool to innovate their packaging also.

Origamoo was a great success, says Reshef. 'Strauss wanted to bring new life and excitement to an established brand and we initially thought about having 20 different designs on the shelf to create an impact. When we met with the HP Indigo team, they asked "why only 20, why not do a million different designs?" It created a wow effect, and did a wonderful job on shelf. We also set-up a website and invited consumers to fold their packaging, photograph it and share on social media. 'The campaign achieved two things: it introduced refreshing and colorful packaging to the shelf, and engaged and connected a new generation of consumers with an 80-year-old brand.'

Dscoop EMEA 5

The panel of Poitevin, Bernasconi and Reshef formed part of this year's Dscoop EMEA conference program. The fifth Dscoop EMEA conference visited Israel and saw 853 industry professionals from



The Oreo festive cookie campaign helped generate a short-term uplift in revenue for Mondelez



The unique chocolate bar wrappers could be folded into an origami cow

352 companies located in 50 countries attend. They were welcomed by a host of partner companies, such as software specialists Esko and Hybrid Solutions/Packz, material supplier Iggesund, and finishing equipment manufacturers AB Graphic, Sei Laser, Highcon and Scodix. HP Indigo was also a major supporter of the conference, as it is with all other Dscoop events across the Americas, the Asia-Pacific region and Japan. The digital press manufacturer took the opportunity to present a total of 33 presses at its Kiryat Gat facility on the final day of the event, including the new HP Indigo 8000, plus HP Indigo 20000 and HP Indigo 30000 models showcasing their ability to produce a variety of packaging products.

The conference demonstrated the capabilities of digital printers already using HP Indigo digital print technology, through awards presented on the first day (see boxout, Awards showcase EMEA 'Inkspiration'), and education, networking and collaboration. Brands that are already successfully using digital were showcased too, such as with the panel discussion. HP Indigo's Christian Menegon, who is responsible for worldwide brand business development, was also part of the panel discussion, and spoke of how HP Indigo is working to raise awareness of digital for the benefit of the whole package

Awards showcase EMEA 'Inkspiration'

HP Indigo used the latest Dscoop EMEA conference to present the second set of Inkspiration Awards to the region's converters using its digital printing technology.

Some 250 jobs were submitted as entries by 100 companies from across the EMEA region. These were spread across eight categories, from Self-promotion and Publishing, to Labels, Flexible Packaging and Folding Carton.

The Labels category was won by Israel's Pitkit Printing Enterprises, who beat the UK's Amberley Adhesive Labels and Russia's Aleithe. The Flexible Packaging prize went to Foxpak Flexibles of Ireland, who beat Germany's Linhardt and UK printer Ultimate Digital. France's Digital Packaging took away the Folding Carton trophy, with Germany's Dygy and Spain's Serafi as runners-up.

Prior to the presentation of that final award, it was announced that the Folding Carton category would be dedicated to former HP Indigo employee Sven Fischenich, who sadly died last year in a plane crash. His father Jürgen took to the stage to present the award to a standing ovation from attendees.



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Pictured (from left): Poitevin, Bernasconi, Menegon and Reshef, with panel chair Marcelo Akierman

printing supply chain. 'We work with brands to educate them on the capabilities of digital printing, introduce their marketing and creative teams to the opportunities this presents, and work with them to help qualify the process, such as inks, materials and finishing.'

Considerations

Poitevin noted that qualification is an important step in integrating digital into mainstream production. As an example, he references cold seal applications on the inside of some packaging to allow reclosing of the pack. 'These change the adhesion characteristics of the ink as there is a different coating required where the cold seal is applied. We have worked with HP Indigo and its partners to resolve this.'

The use of existing substrates has allowed Mondelez to bring digitally printed packaging to market quickly. The usual qualifications and tests are still in place, but working with partners in lamination, varnishing and other technical areas has streamlined the integration. Nestlé has approved Michelman's DigiPrime 4431, 050, 680, and the Michem In-Line Primer 030, as compliant with its inks guidance document, which the consumables supplier said opens the door to new opportunities for its digital label and packaging customers with the brand owner.

Existing supply chains and operations are a further consideration for brands. How are short runs and personalized products delivered? Can they be delivered through existing channels? If the user is generating the content, which checks are in place to ensure they do not cause any legal issues?

'It is also an issue of ideation, and devising the right ideas for the right brands,' says Poitevin. 'Milka is quite conservative, while Cadbury is more playful. With Toblerone, we already do some personalization of packaging.'

"It's amazing what you can do; the options are endless"

'You need the brand, you need the right fit and you need to create the connection to the consumer and show what's in it for them,' affirms Bernasconi. 'It can have an eye-catching effect, but if you do it with the wrong brand you can destroy it.'

He adds that brands must be sure to maintain their compliance work and not lose sight of their responsibility to quality and legality. 'It is easy to tweak a design, which can be a danger as well as an advantage. You have to make sure the artwork you are using is correct and the most up-to-date version. We can't allow ourselves to become like Microsoft or Apple, releasing a product then issuing an update a few weeks later because of mistakes. That is a challenge of digital.'

Coca-Cola at it again

Coca-Cola's latest label promotion sees the global beverage brand using song lyrics to create a connection between consumers and its products.

'Share a Coke and a Song' features on more than 70 song lyrics – from classic hits to recent chart-toppers – on 80z glass bottles, 7.50z mini cans, 200z bottles, 1.25- and 2-liter bottles and 120z cans of Coca-Cola, Diet Coke, Coke Zero and Coca-Cola Life.

It is the latest packaging innovation from Coca-Cola, following the original 'Share a Coke' campaign, 'It's Mine' and bow label.

Fast-moving train

Reshef sees digital as offering both challenges and opportunities. 'We can never do Origamoo or what Coca-Cola has done again, so we have to rethink what we are doing every time, and look at how we are using the technology and its capabilities. The opportunity is to embrace personalization and the possibilities that offers, and incorporate it in to the right brand identity.'

'It's amazing what you can do,' adds Bernasconi. 'The options are endless.'

For Poitevin, the time is right for the implementation of digital projects, so giving digital printers a big target to aim at. 'Everything is available now. It is a fast-moving train, and now is the time to jump on board if you're not already.'



For more information, read an update on the market for digital package printing on p126

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Ireland's Foxpak Flexibles took home the Flexible Packaging category prize









Panel session (L-R) María Olcese of Sato South America an Argentine converter Achernar, Carlos Rodriguez of Graphic Image in Mexico, Alma Beltran of US-based Graphic Image Label, and Jorge Arias of Colombian converter Coditeq



L-R Cristian Reyes of Maya Pack, Alex Cruz and LouAnn Knapp of Yupo, Cristian Lopez of Maya Pack, Rey Cabanos of Yupo

at Avery Dennison, gives the keynote presentation

Label Summit Latin America reviewed

The two-day conference and table-top exhibition hosted 621 people in Cartagena on Colombia's Caribbean coast. Chelsea McDougall and James Quirk report

he 13th edition of Label Summit Latin America hosted 81 exhibitors and 621 attendees at Hotel Las Americas Convention Center in Cartagena, Colombia, on April 26-27.

The two-day conference and table-top exhibition welcomed exhibitors and visitors from 30 countries, with the highest numbers coming from Colombia followed by the USA, Mexico, Brazil, Argentina and Chile respectively. Latin American visitors also came from Bolivia, Costa Rica, Ecuador, Guatemala, Panama, Paraguay, Peru, Uruguay and Venezuela.

The event featured 81 international exhibitors (see boxout) while a total of 15 conference sessions covered topics ranging from industry trends and new technologies to flexible packaging, sustainability and product design.

Day one

In the keynote presentation, Georges Gravanis, president of the materials group at Avery Dennison, discussed changes in the local pressure-sensitive industry. Though 'headlines are filled with a lot of gloom', and many South American countries are struggling with economic instability, Gravanis said there is much cause for optimism, with global consumption - which has doubled in size - driving growth in the label industry.

Thomas Hagmaier, president of European association Finat, Danielle Jershchefske, business development manager at US converter Outlook Group and representing North American association TLMI, and María Alexandra Gruesso, president of Colombian graphic arts association Andigraf, each gave a presentation covering trends and statistics from

their respective regions.

A panel session dedicated to setting up businesses in foreign markets - whether from scratch or through acquisition - brought together María Olcese of Sato South America and Argentine converter Achernar, Jorge Arias of Colombian converter Coditeq, Alma Beltran of US-based Graphic Image Label and Carlos Rodriguez of sister company Graphic Image in Mexico. When setting up new printing plants in foreign markets, the panelists agreed, flexibility is the key to remaining competitive. 'Of course bigger companies are going to have access to bigger [resources],' said Carlos Rodriguez, but often bigger companies have a lot of red tape to cut through."

New applications in digital printing were shared by Alejandro España of Mexican converter Grupo Ercus and HP's Alexander Mercon. 'When we refer to a digital revolution, we don't talk about it in the future: it is in the present,' said Mercon. 'If you don't have a digital machine these days you've come to the table quite late.'

Juan Pablo Patino of Nilpeter and Impresos y Acabados' Luis Fernando Herrera looked at conventional and hybrid printing processes. Jorge Munoz of GMG Americas discussed accurate color management across different substrates. Alex Cruz of Yupo and Maya Pack Group's Cristian Reyes provided an in-mold labeling case study.

The first day closed with a round-up of the latest niche

Summit heads to Santiago Label Summit Latin America 2017 will take place at Espacio

Riesco in Santiago, Chile, on May 16-17.



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Jorge Arias of Coditeq and María Olcese of Sato South America during the Beer Label Workshop sponsored by UPM Raflatac



technologies with short presentations from AVT, Harper Corporation, Epson, AB Graphic and Label Traxx.

Day two

Day two opened with Andreu Gombau and Liliana Quintero of UPM Raflatac discussing thin film labeling and its increasing popularity in the wine, beer and spirit markets. Consumers are 'obsessed' with the look and feel of the prime label, while designs on the back label is an emerging trend with spirit producers, said Quintero, sales manager for UPM Raflatac in Colombia and Ecuador.

In his day two presentation on environmental sustainability, Thomas Hagmaier discussed Finat's on-going study in cooperation with TLMI, surveying European countries to assess recycling availability, laws and barriers in the region. 'The goal of the project is to create a common understanding of life cycle assessment and the hotspots within the labeling value chain,' he said.

Sean Murphy of Accraply highlighted the great opportunity for shrink sleeves in Colombia, particularly in home cleaning products. 'The market of thermal shrinkable sleeves is about to grow a great deal,' he said. Much of the growth comes from brand owners seeing the benefits of 360 degree packaging. 'Why are the brand

owners investing in shrink sleeve labels? It's a very short answer: the products are sold faster. We have evident of that shrink sleeve labels can improve sales.'

Luis Fernando Herrera of Colombian converter Impresos y Acabados talked about the company's move from sheet-fed to roll-to-roll flexo label printing. Germark's Iban Cid showed how RFID and augmented reality can increase sales and consumer interaction with case studies from Munich Sports and Actimel. Dr Henry Castillo of NeuroMind discussed the incorporation of neuroscience and eye tracking into packaging design. Carolina Alzate and David Freyre, co-founders of award-winning designer imasD, shared their expertise in creative packaging design with a client case study from La Reina.

The Summit ended with beer sampling and an interactive workshop, sponsored by UPM Raflatac, where delegates heard about the brewing and label design process from Arfroni Arango of Bavarian-owned brand Club Colombia, Hernán Saldarriaga of converter Etipress, David Freyre of label designer imasD, and Liliana Quintero of UPM Raflatac.

Jorge Arias of Colombian converter Coditeq, who formed part of a conference panel session, said of the event: 'The experience of Label Summit Latin America



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HP Indigo's Alexander Mercon (left) on stage with Alejandro España of Mexican converter Grupo Ercus

Exhibitors enjoy successful show

Label Summit Latin America featured 81 international exhibitors including Avery Dennison, Arclad, Armor, Bobst, Epson, Esko, Flint Group, Fujifilm, Gallus, HP, Mark Andy, MPS, Nilpeter, Omet, Sun Chemical, UPM Raflatac and Xeikon. 'The Label Summit in Cartagena exceeded our expectations and we will definitely be participating in the next Label Summit in Santiago, Chile,' said Mike Jelinsky of Martin Automatic.

Henry Cadena of Formyflex commented: '[The event] provided an insight of the general direction in which the market in Colombia – and neighboring countries – is heading. We were impressed with the number of high-level decision-makers who attended this event eager to learn about new trends and technologies. In that sense, our high tech RFID, holograms and security inks received high interest from dozens of visitors. We hope to close 2-3 sales of at least 50k USD each within the next few months.' Jesper Jørgensen of Nilpeter said: 'We sensed a rush of enthusiasm and optimism amongst the hundreds of delegates who stopped by our booth. We look forward to joining the Summit next year in Chile.'

Carmen Eide of CGS Publishing Technologies said: 'During Label Summit Latin America we announced our new alliance with Novaflex as our dealer. They will be focusing on the packaging markets in Colombia. We were also able to sign on a new dealer from a country outside of Colombia. It was great to see other countries participate in the show, which we were not expecting.' Susana Teixeira of first-time exhibitor Lemorau said: 'Label Summit Latin America was a big success for Lemorau. We had many visitors to our booth during the two-day event, some orders reached and others for the near future, and we also reached some partnership agreements with new distributors to represent Lemorau in Latin America.'

Kees Nijenhuis of MPS North America commented: 'I am very impressed by the quality of clients who visited Label Summit Latin America from the Andean region and all other parts of Latin America.'

Deborah Puschner of PC Industries said: 'PC Industries' range of print inspection solutions has been well received by visitors. Both our Guardian OLP off-line inspection system and our Guardian PQV in-line 100 percent inspection system have generated a lot of interest. We have observed that printers from Colombia and across South and Central America are looking into stepping up from simple web viewing cameras to automated and intelligent inspection systems. In addition, there is a growing need for barcode and variable data verification.'

was great, not only for sharing technical information with suppliers and colleagues but for knowing the trends that our industry is facing in these competitive times. The opportunity to learn about topics that will improve our performance and reliability in the market we serve has no price.'

Tasha Ventimiglia, Americas event director for Labelexpo, said: 'This year's Label



"The market of thermal shrinkable sleeves is about to grow a great deal. Why are the brand owners investing in shrink sleeve labels? It's a very short answer: the products are sold faster. We have evidence shrink sleeve labels can improve sales"

Summit Latin Americas has provided another fantastic platform for delegates to expand their horizons, learn from other organizations and share best practice. Both the exhibition and conference sessions were packed as the Latin American market is buoyant and attendees were hungry for information. The Summit gives an invaluable opportunity for label and packaging printers to widen their commercial networks and engage with other likeminded professionals to explore new and better ways of working. We thank everyone who participated in Cartagena and look forward to bringing the Summit to Espacio Riesco, Santiago in Chile during May 16-17, 2017.'



Go to Label Society on page 152 for pictures from the Label Summit networking party, sponsored by Sun Chemical

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Speaker Gino Wickman discusses the six methods for success



Dennis Stauffer gave a presentation called 'The Innovator's Mindset'

Aloha, Mr President

Attending his first TLMI meeting in Hawaii, new president Mark Tibbetts comes from outside the industry and is helping the association usher in a period of change. Chelsea McDougall reports

ewly minted TLMI president Mark Tibbetts got a warm welcome from about 54 label converters and suppliers at his first official industry event in Hawaii.

The annual Label Converter meeting was held on March 6-8 at the Grand Hyatt Resort in Koloa, Hawaii. Themed 'The power of strategy, the magic of innovation,' the event included motivational speakers, an awards dinner and even a hula lesson.

As for Tibbetts, he was taking it all in: the networking, the awards dinner, the motivational speakers, the sun.

Sunburn notwithstanding, Tibbetts is off to a good start.

New to the industry but not to association management, Tibbetts admits his recent appointment comes with a learning curve, but he is eager to learn and speak with members about the future of the association. He started in January.

'I'm new to the industry, but at this point I've figured out what a converter is,' Tibbetts joked to a room full of label converters.

Later he told the crowd: 'I will freely admit at this point, while I



New TLMI president Mark Tibbetts

"The most valuable parts of TLMI are the intangible aspects of it. It's the ability for converters to talk, and network. The relationships they build through these meetings strengthen their business"

have a lot of ideas, I haven't made any decisions yet; partly because they're your decisions, not mine.'

'Time for a change'

Tibbetts replaces longtime TLMI president Frank Sablone, who stepped down from his day-to-day duties in January. It was a lengthy process to find the man who would lead TLMI in the future, and the search committee didn't take the opportunity for a fresh start lightly.

'There was a strong belief from the beginning that we didn't want someone from the industry,' TLMI chairman Dan Muenzer said in an interview with Labels & Labeling at the converter meeting. 'Because at the end of the day, he doesn't have to be an expert on the industry, he has to be an expert on association management.'

Tibbetts brings with him extensive management experience, having led the Thermostat Recycling Corporation within the HVAC industry prior to joining TLMI.

'We recognized as a board and as a search committee that it was time for change,' Muenzer said. 'TLMI's philosophy from the beginning has been "we're a damn good organization," but we want to be great. Help us become great.'

A roadmap for the future

Later this year, TLMI will write a new three-year strategic plan. Tibbetts was reluctant to discuss what the planning session, or the future of TLMI will look like. Not that he was being secretive, but because he himself doesn't quite know.





Mark Tibbetts and wife Courtney attended the awards dinner at the TLMI annual converter's meeting

"There are three weeks out of the year that TLMI does great: the annual meeting, the converter meeting and Labelexpo Americas. But there are 49 other weeks in the year"

'I have some ideas, but that's what the purpose of the strategic planning will be. To look at what we do, what we don't do, and ask ourselves, "How can we improve that?"' Tibbetts told L&L, adding that he's looking to TLMI members for input.

'TLMI isn't an organization that needs to be blown up,' he said. 'TLMI is doing things really well. The question is, what else can we be doing?'

Added Muenzer: 'I think historically, the strategic planning was more tweaking what we were already doing rather than questioning who we are and where we want to go in the future.'

Though Tibbetts was brought on board to lead change, that doesn't mean he's planning a major shake-up. Especially when it comes to the meetings like the converter meeting and the annual meeting, which is scheduled for Oct. 16 to 19 in Palm Beach, Florida. 'There are three weeks out of the year that TLMI does great: the annual meeting, the converter meeting and Labelexpo Americas,' Muenzer said. 'But there are 49 other weeks in the year.'

Tibbetts said the well-attended meetings and active member base are perhaps TLMI's greatest assets.

'The most valuable parts of TLMI are the intangible aspects of it,' Tibbetts said. 'It's the ability for converters to talk, and network,' he said. 'The ability to build relationships with peers in this business and exchange information and ideas with them is the most valuable aspect of TLMI. You don't get that unless you attend these meetings.'

TLMI has a total of 350 members, 160 of whom are label converters.

Label Converter meeting

The theme of the TLMI annual converter meeting was 'The power of strategy, the magic of innovation,' and the event sought to help attendees learn business strategies for success.

Included in the agenda was motivational speaker Gino Wickman, author of 'Traction: Get a Grip on Your Business,' and creator of Entrepreneurial Operating System, or EOS. EOS is a method for helping companies achieve greatness by focusing on six key components: vision, people, data, issues, process and traction.

Dennis Stauffer was the keynote on the final day of the two-day meeting, and his discussion centered on what he called 'the innovator's mindset' or rethinking one's business strategy to better achieve goals. He is author of the book 'Thinking Clockwise: A Field Guide for the Innovative Leader.'

Also presenting was Daniel Murphy, principal of Barney & Barney who offered attendees an informative lesson on how the US Affordable Care Act affects business owners.

Finally, Tasha Ventimiglia, event director of Labelexpo Americas, offered an update on the show, which will be held on September 13-16 in Chicago. Rosalyn Bandy of Avery Dennison gave an update on changes to TLMI's environmental initiative LIFE program.



For more information, go to www.tlmi.com

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HP showcased for the first time in the US its Indigo 8000 digital press at Dscoop in San Antonio, Texas





Collaboration in the air at Dscoop 11

Dscoop's 11th annual conference was held on April 14-16 in San Antonio, Texas. Participants shared ideas, were motivated by speakers and saw the launch of new technology. Chelsea McDougall reports

he organizers of the annual Digital Solutions Cooperative, or Dscoop, conference celebrated a record number of attendees at its 11th annual event. About 2,500 attendees turned out for the event held on April 14-16, and **all these companies are** featured educational presentations, peer-to-peer moderated sessions, a technology showcase, charity events and offered participants the opportunity to network with others in the digital print industry.

This year's Dscoop chairman Mike Duggal noted the variety of attendees at the event, which was hosted at the Harry B. Gonzalez Convention Center in the heart of San Antonio, Texas. 'From the beginning Dscoop has brought together thought leaders from all corners of the industry, from leading digital print companies and material suppliers, to software developers and machine manufacturers,' he said.

To those attending, the word 'collaboration' was used most often when describing the conference. 'There's a significant feeling of collaboration at Dscoop,' says Ed Wiegand, president of Jetfx, who leads the labels and packaging committee at Dscoop. 'Conventional printing has been shrinking over the years, so the competitive market has only grown. With Dscoop, and with digital printing, this feeling of sharing and collaborating is because all these

With Dscoop, and with digital printing, this feeling of sharing and collaborating is because growing together"

companies are growing together, and in growth environments that are relatively new, everyone needs to educate themselves.'

At Dscoop's Solution Showcase, HP demonstrated for the first time in the US its new HP Indigo 8000. The press runs at speeds up to 262ft/ min and features two WS6800 print engines and an in-line finishing unit specially developed by AB Graphic. HP's general manager of the Indigo Division Alon Bar-Shany noted the development in his keynote address. He has said it will 'revolutionize' the label industry.

Keynote addresses featured Silicon Valley icon, Steve Wozniak, who played a key role in the early days of Apple, Kevin O'Leary from reality TV's 'Shark Tank', former White House events director Laura Schwartz, country music drummer Rich Redmond, and former NFL head coach Herm Edwards.



Go to www.dscoop.org for more information

Dscoop and HP name winners of inaugural HP Inkspiration Awards

HP, in partnership with Dscoop, named the winners of the first-ever HP Inkspiration Awards for the Americas at Dscoop San Antonio. The awards for the Rod Key Marketing Excellence recognized companies with the creative marketing campaigns.

Twenty-seven awards were presented to 21 HP customers in multiple categories across general commercial printing, labels and packaging and large-format printing segments for unique applications. There were over 150 entries from more than 50 HP customers in the Americas. The 2016 HP Inkspiration Awards for the Americas and Rod Key Marketing Excellence Award winners in the labels and packaging categories went to:

- Alcoholic Beverage: CMC Group doing business as Century Label
- **Beauty: Digital Label Solutions**
- Flexible Packaging: Grupo Ercus
- Folding Cartons: Tap Packaging Solutions
- Food: Summit Print Corporation
- Other: Digital Label Solutions
- Rod Key Marketing Excellence Award: Innovative Labeling Solutions
- Wine and Spirits Labels: Innovative Labeling Solutions

'It was an honor to judge the HP Inkspiration Awards for the Americas and Rod Key Marketing Excellence Awards. The number of entries, the quality and the selection were all excellent,' says Jim Hamilton, group director, InfoTrends. 'When I think about the submissions across all categories, a number of things were remarkable: the number of substrates - there were so many colors of paper and many types of paper; use of special effects to bring out foil or metallic looks or hot pink; and then design-wise the entries were very nicely done as well.'



Finat looks to the future

Mike Fairley reports from Barcelona on Finat's recent Technical Seminar and highlights some of the presentations covering emerging technologies and future developments

'ith a theme of 'Labeling – the future and beyond', this year's Finat Technical seminar in Barcelona provided some interesting insights into both emerging technologies and future developments of significance to the world of labeling. Sessions included papers on printable electronics, digital direct printing, a new type of label thermal printing material, the manufacture of release liner using multi-layer release coating, the converting of release paper waste into insulation material and innovations in pre-press.

Looking at how printable electronics can introduce magical added-value for products, Chris Jones of Novalia reviewed printed electronics and the use of conductive print layers that can be run at flexo production speeds, offering consistent conductive print layers which are thin and flexible and can be applied to inexpensive substrates. Today, such solutions offer high volume manufacturing and low cost to provide conductive layers that can be attached to printed circuit boards and other types of manufactured products.

In a similar vein, Corey Reardon of AWA discussed today's direct printing technologies that are currently used for the printing of cans, cartons, flexible packaging, labels and screen printing, before moving on to review both the advantages and disadvantages of direct digital printing.

Looking at the advantages of direct digital printing onto containers and packs, Reardon highlighted optimized changeover times and immediate application of images, the reduction in time to market, a shortened value chain and the potential of light-weighting of containers. Against these advantages were the cost of the digital inks, capital equipment cost, the current speed of digital direct printing lines, possible recycling implications (currently undergoing evaluation) and the limited use of PET bottles in the beer market.

Digital direct printing, said Reardon, is already advanced at Krones and KHS, with a limited number of machines already in full commercial operation. Target markets for this technology were seen as beverages and health and personal care, with probably pressure-sensitive and wet-glue labeling technologies most under pressure in the short- to medium-term.

Innovation

Denis Rousseau of Jindal Films Europe presented an interesting disruptive technical innovation in label direct thermal printing. Instead of using current thermal direct and thermal transfer technologies, Jindal has developed a single polymer film extruded in one step without coating. This multilayer extrusion incorporates a thin transparent top layer, a voided layer, a black pigment layer, a white opaque cavitated layer and a thin transparent skin.

In operation, heat and pressure from the print head collapse the voids in the voided layer so that the layer becomes clear, enabling the black pigmented layer to become visible. In this way, the thermal image is both embedded and protected by the thin transparent skin layer. The end result is a thermal product that provides outstanding printability using standard thermal and barcode printers and enabling sharp, durable and fade proof images that are ideal for both indoor and outdoor applications.

The manufacture of release liner by multilayer silicone coating



Arjan Diepenbach describes multi-layer silicone coating techniques

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Marc Büttgenbach of Bizerba on the multi-functionality of label

"Instead of using current thermal direct and thermal transfer technologies, Jindal has developed a single polymer film extruded in one step without coating"

was the subject of a presentation by Arjan Diepenbach from Avery Dennison. The traditional method of producing a release liner is to transform a paper grade into one that can be siliconized, which is not normally undertaken in-line with siliconizing. In multilayer coating the drying of the base layer and curing the silicone is done simultaneously in the same oven.

Using the multilayer coating technology makes it possible to convert almost any paper into a release liner for pressure-sensitive labels, with very good lay-flat characteristics being achieved in a wide range of temperatures and humidities.

With Avery Dennison looking at new ways of manufacturing release liner, another speaker - Eric Van Pottlebergh of RecuLiner described how his company had developed a system for taking used release liner and processing it in convenient locations into a saleable product, making the recycling of release liner as accessible as other paper recycling processes.

Using pre-press and MIS to drive production efficiency was the basis of a joint presentation by Geert Van Damme of Cerm and Stijn Govaert of Esko. Summarizing a White Paper, they described how Cerm's MIS and Esko's 'Automation Engine' pre-press workflow server are integrated so as to automate and drive production efficiency, taking automation into finishing line set-up, identifying 'print frames', creating inspection files per print frame (in an AVT folder), pre-printing a barcode of the print frame and sending job instructions will set up the slitter.



Eric van Pottelbergh speaks about a new liner recycling syste



Denis Rousseau introduces Findal Films' direct thermal technology

There were also a number of sessions providing updates on Finat Test Methods, the Finat/TLMI LCA guide, and Finat regulatory affairs, as well as sessions on migration- compliant UV products, energy curable inks for food packaging and deriving products from renewable raw materials. Olivier De Lataulade of L'Oréal talked about printed label quality and performance, including evaluation and industry challenges.

The final session was a look at the future of labels from the perspective of Marc Büttgenbach of Bizerba. This excellent presentation looked at the multi-functionality of pressure-sensitive labels in terms of being an indicator of, say, freshness; as a packaging component; in market realization (brand name, recipes, corporate design, etc); as a communicator (RFID, QR code) and as a production component. He explained that the label was the only variable in a highly standardized packaging process.

He continued by looking at trends and developments for the future - more functionality, continued demand for sustainability, mass individuality, machines communicating with each other, products based on individual customer requirements, mass customization and the cost advantages of mass serialization.

In his conclusions Büttgenbach said he believed that the label will still exist in 30 years' time. The industry has always been flexible, innovative and fast moving, and this would continue. He expected the industry to invest more heavily in finishing as customers demand more complex labels. Craftsmanship will not be the focus of the industry anymore, he said; it would be focused on product engineering and in finding new solutions.

Held at the Crowne Plaza Barcelona Fira Center on March 16-18, the Finat Technical Seminar also offered a visit to the HP Graphic Experience Center and a Finat/TLM LCA implementation workshop.

The Finat European Label Forum takes place between 16-18 June in Amsterdam, see www.finat.com

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GEW Nuva 2 UV system for wide web presses

GEW | 75

GEW launches new UV systems

Important announcements were made by GEW at drupa, including a new multi-point dose measurement system, wider UV lamps and inert nitrogen curing. Andy Thomas reports

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t drupa, GEW launched a range of systems designed to enhance its existing UV curing platforms and to open up new opportunities for converting specialists.

A ground-breaking launch was GEW's Multipoint in-line UV dose control, which allows comprehensive monitoring of the UV output during the curing process. It acts as a built-in UV dose and intensity meter and measures the actual output across the full width of the lamp. Low dose or intensity which would not adequately cure is thus avoided, as is insufficient output from a degraded lamp.

Said Malcolm Rae, managing director, GEW (EC), 'Unnecessary downtime is therefore eliminated and production efficiency accordingly improved. This technology is ideally suited to monitoring the curing of low migration inks for products intended for food use.'

GEW also launched its latest NUVA2 UV system which looks to extend UV curing further into wide web applications, available in widths up to 2.5m from a single lamp. The NUVA2 is a fully air-cooled UV system for web or sheet-fed applications in the printing, coating and converting industries. The active air cooling and optically tuned reflectors maximize lamp curing effect while reducing heat radiation onto the substrate.

NUVA2 systems can at a later stage easily be upgraded to LED operation. An arc lamp cassette and an LED cassette can be operated interchangeably and seamlessly on the same print unit using the same Rhino ArcLED electronic power supply, control panel and cabling – the only tool needed to change over is an Allen key.

When used together with the multi-point UV dose control system, these new wider UV lamps could help promote the adoption of UV curing in the wide-web flexible packaging sector.

Direct food contact

GEW's third launch was also targeted at the direct food contact sector – an inert atmosphere UV curing system. Inert atmosphere curing is an important feature in the production of silicone release liners as well as direct food contact packaging, with the curing process takes place under controlled conditions in a sealed nitrogen chamber.

'New applications in printing, coating and packaging mean that there is an increasing demand for inert atmosphere UV curing to achieve thinner coats, improved curing and increased production "A ground-breaking launch was GEW's Multipoint in-line UV dose control, which allows comprehensive monitoring of the UV output during the curing process. It acts as a built-in UV dose and intensity meter and measures the actual output across the full width of the lamp"

speeds at the same or lesser power levels,' commented Rae.

GEW's inert atmosphere curing unit can be supplied as an add-on or as a retrofit and comes with an embedded oxygen level analyzer to ensure process consistency and production efficiency. The nitrogen control panel gives the operator visual feedback allowing accurate control of the volume of nitrogen required in the chamber to optimize the curing process.

'Our inert atmosphere curing solution ensures complete process consistency and production efficiency by keeping the oxygen level within tightly maintained limits,' said Rae.

GEW also demonstrated ArcLED, capable of running mercury arc lamps and LEDs using the same Rhino power supply. Commented Rae: 'Rob Rae joined GEW to focus solely on the development of LED systems. GEW LED technology uses a very different approach to the other LED system suppliers. Not only is our technology efficient, it is also fully compatible with our range of arc lamps making upgradability and interchangeability a practical, cost effective option.'



r more information on UV and LED from a GEW spective see 'Working Without Waste' feature in L&L sue 2

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DataLase brings digital print to the end of the line

End of line digital imaging delivers a new level of pack differentiation, and only requires label converters to apply a special coating on a conventional press. David Pittman reports

ataLase is an in-line digital printing specialist whose technology has historically been seen in product coding and marking applications. The core technology is laser reactive pigments, and DataLase works with consumables manufacturers by supplying them with these pigments which they formulate into inks and coatings that are then supplied to printers and converters. These can be many different formulations. from water-based flexo and solvent-based gravure, to UV flexo. These products are applied to the substrate using conventional print technologies, then passed to the end user where a laser, traditionally a CO2 unit, installed on the filling line is used to convert the patch with specific and unique data.

Its latest development, Variprint promises to take this technology a step further, and to deliver true real time messaging and variable data printing on-pack in a selection of monochrome colors, including blue, green and red. Described as a 'breakthrough in laser in-line digital printing', this technology uses the same patented laser reactive pigments that are incorporated into a coating or conventionally printed onto the substrate, but with the option of using a near-infrared (NIR) diode laser array to create the color change. DataLase has introduced the NIR laser option to allow high speed converting. The DataLase technology can be applied on a variety of primary and secondary packaging materials, to enable the laser to print text and graphics up to 100mm high and 2m/s with one laser, which equates to 100,000 per hour that can be identical or unique.

Production gains

For Mark Naples, vice president of business development for Europe and the Asia-Pacific region at DataLase, this development has enormous potential. He uses the example of bottled water, a commodity product, to highlight this.

'One brand can have three varieties that are sold across multiple markets. Each market requires labels and packaging of each variety to be printed in the local language. These all need to be designed, printed, checked, shipped, stored and then applied. That requires specific logistics and supply chain management. If the brand then wants to embark on a consumer engagement campaign, the whole process needs to start over. There might also be an issue in the supply of raw materials, meaning the recipe needs to change and this has to be reflected in the ingredients shown on the pack. That's quite inefficient in the modern world, and creates a lot of waste along the supply chain if labels need to be scrapped or revised. 'With our technology, you can produce the exact labels as you need them, and where they are needed, all from a single design.'

Marketing gains

Production efficiencies benefit the supply chain, but for brand owners, the benefits are also evident in new marketing methods to maximize their relevance to consumers, so increasing the value of labels and packaging.

'They are looking to tap into human emotions related to events and sporting triumphs, such as the Olympics. We have calculated that for maximum impact and value there is a window of 24-48 hours. This means we need to shorten the time it takes to get labels and packaging on to the shelf. Using hybrid printing, you're looking at a window of 2-14 weeks, and longer if you're pre-printing with conventional processes. The technology wasn't there before to allow this to happen, but it is now.

'Brands can capitalize on national sentiments and the emotions and feelings of consumers by having products on the shelf shortly after events happen.'

End of line gains

Being able to print messages and marketing directly on the filling line means customization can be left until the latest possible moment. While this is done in some forms already, for example with CIJ units printing codes and variable data, the DataLase system is essentially inkless at the point of printing so removing the requirement for consumables on the filling line. It also avoids issues associated with ablation, and inkjet and thermal printing, such as equipment maintenance costs, overspray and ink particulate contamination. Further, DataLase said it negates the risk of low quality graphics and codes, resulting in reduced returns and supply chain waste.

For label and packaging printers and converters, the DataLase technology requires no investment in new technology as it leverages their existing hardware and knowhow. The coating is applied using installed equipment, giving then the opportunity to offer their customers a new option in producing high value digitally





"It is a true breakthrough in the market and will change the way brand owners print packaging and interact with consumers"

printed labels and packaging without needing to invest in a digital module or off-line digital capacity.

Future developments

DataLase has identified five applications that its new technology is ideally suited for – product coding, case coding, mailing and addressing, folding cartons and labeling – with CEO Chris Wyres saying the technology delivers enhanced flexibility, quality, productivity and consumer interaction.

'It is a true breakthrough in the market and will change the way brand owners print packaging and interact with consumers.

'Digital print is growing because it offers a significant advantage over conventional print techniques, delivering capability for responsive and timely customized marketing and promotion on packs and products. Our ground-breaking technology is cost effective and efficient, providing a high added-value solution for today's print market and meets the needs of brand owners, retailers and packaging converters alike.'

The next step along the DataLase product roadmap is delivering multiple colors in a single coating. This is something the company is researching and developing as a further innovation for the near future, under the name Infinity.

'When we talk to customers and ask them what the future of in-line digital printing will look like in 5, 10 or 15 years, they tell us this will be the future,' states Naples.

International aspirations

DataLase is targeting a global pool of customers with its new technology. Introduced to an international audience at drupa in early June, the company has already established partnerships and a footprint around the world. Headquartered in the UK and with offices in the US and Japan, it has recently entered into a strategic partnership with Mundi Technology to strengthen its position in the Benelux countries. This will see Mundi Technology and DataLase combine their knowledge in the development and design of laser marking technology to provide 'revolutionary' in-line digital printing systems.

It is also working with Intralink to develop channel partnerships with coding and marking companies in China, as well as developing strategic partnerships with manufacturers of laser diodes and sub-systems for utilization of its in-line digital printing.

This partnership builds on the success of the launch of SpeciaLase, a new division of Sato, to market DataLase's CO2 laser coding and marketing technology in Japan and the Asia-Pacific region. SpeciaLase is conducting sales of DataLase's heat-sensitive pigment in Japan and around the Asia-Pacific region. It is also forging business partnerships with laser and ink manufacturers, conducting sales of coding agents and equipment, and developing new ways to utilize the technology.

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For further info, see the technical feature on digital finishing on p112 and the digital package printing market update on p126

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IST's LED-based trio

Barry Hunt reports on IST's new UV curing range with integrated LED technology

t has been a busy year for LED UV curing technology, with new lamp systems, inks and coatings. One major development is the decision by IST Metz to revamp its long-standing MBS series into an all-round system for label printing that combines the new and conventional curing technologies. Backed by a flexible upgrade path, the LED UV component follows a decade of development work in partnership with Integration Technology, its wholly-owned UK-based subsidiary.

At a trade press meeting at the group's headquarters in Nürtingen, Germany, Holger Khün, managing director, referred to a survey by US-based IT Strategies which claims that by 2020 LED UV curing will account for 30 percent of the global UV/EB/LED market, based on an annual 4 percent growth rate. UV curing's share of the market is expected to decline from 75 percent in 2012 to 60 percent in 2020. These figures refer to the total curing market, which includes many industrial applications, but they offer a rough guide to what is happening in the printing industry.

Despite its declining market share, conventional UV curing will remain the dominant means of 'accelerated drying' for labels and packaging for many years to come. LED UV curing is therefore a complementary process, but with real environmental and economic benefits. Competing systems all offer variations based on interchangeable cassettes, plug-ins and hybrid constructions. Users can therefore tailor LED UV installations to suit investment budgets and changing production needs. Typically, these include curing heavy solids, opaque whites, dense blacks, non-fade fluorescent inks, and multi-layer and decorative coatings on various substrates, including "Typically, LED-UV applications include curing heavy solids, opaque whites, dense blacks, non-fade fluorescent inks, and multi-layer and decorative coatings on various substrates, including heat-sensitive thin films and foils"

heat-sensitive thin films and foils.

LED UV operates within a narrow wavelength range which eliminates harmful ozone or high temperature infrared radiation. Lamps are either 'off' or 'on' to give instant start-ups without wasteful warm-ups. LED lamps also have an extremely long-life resulting in lower maintenance costs and simpler operation. Crucially, the supply of LED UV inks and coatings is no longer an issue. Around ten major ink makers support the technology, backed by most narrow web press manufacturers, for printing rotary screen, flexo and offset. LED UV is proving singularly popular for use with single-pass, CMYK digital inkjet presses for handling small-to-medium print runs.



IST Metz product portfolio

"Despite its declining market share, conventional UV curing will remain the dominant means of 'accelerated drying' for labels and packaging for many years to come. LED UV curing is therefore a complementary process, but with real environmental and economic benefits"

The new IST range

Based on its existing air-cooled MBS-6 quick-change cassettes, IST has chosen the name MBS LAMPcure for its conventional curing system. It has a similar output of 120 W/cm, with a 145 W/cm version available for curing low migration inks and coatings for packaging. The standard distance to the web is 39mm, compared with 45mm on the MBS-6, while the lamp diameter is 19mm not 22mm.

The original URS and URS-A duo rotary cold-mirror reflectors now have pneumatically-operated shutters, rather than electric motors. Metal oxide coatings ensure that infrared radiation is conducted via the coatings directly to the air-cooled aluminum profile. An absence of a direct air flow over the lamp and reflectors reduces dirt and dust to keep cleaning to a minimum. The warranted service life of URS reflectors is 10,000 operating hours and 2,500 hours for the mercury lamps. Plug-ins offer the flexible option to upgrade MBS LAMPcure cassettes with LED lamps. The cordless FLC (Fast Lamp Change) for changing lamps in seconds, and the portable UMS-2 UV measurement device, are standard ancillaries.

The MBS LEDcure system uses replaceable modules with a 55W/cm output and is offered with a UV lamp plug-in. It operates in a standard spectrum of 385nm. Tests have shown this wavelength offers the best response characteristics for printing inks, although optional wavelengths of 365-404 nm are offered. LED arrays use solid-state components which gives instant on-off switching in stand-by mode with no unproductive warm-ups. An absence of moving parts also prolongs their life.

The MBS HYcure is a development of IST's hybrid concept introduced in 2013. It offers easy switching between LAMPcure 120 W/cm lamps and 55 W/cm LEDcure modules. Interchangeable cassettes with removable internal housings allow a smooth exchange between the technologies, with automatic engagement of supply connections.

The company's existing ELC-X compact electronic power supply device is used with both conventional UV and LED UV systems. It features remote diagnostics and continuous regulation of the dimming range.

Flint low migration technology

As noted earlier, LED cured inks and coatings are readily available. The latest development is the release of products that comply with low migration requirements for packaging food products and certain cosmetics. It is a complex issue backed by various international and national compliance codes. The aim is to prevent the possible risk of contamination by the toxic chemicals used in UV-cured inks and coatings, relative to the barrier properties of packaging and label materials.

IST invited Niklas Olsson, Flint Group global brand manager, to describe the company's low migration EkoCure flexo inks and coatings for curing by LED lamps (16W/cm). They are based on Flint's existing UV-cured Flexocure Ancora series. Following beta testing at packaging plants in the USA and Europe, the company plans to debut the new products at Labelexpo Americas 2016 in Chicago.

'EkoCure products meet the stringent demands of the Swiss Ordinance, Nestlé Guidance Note and FDA requirements. They also offer good adhesion to a wide range of flexible films, including shrink films,' said Olsson. He added that Flint works with around a half-dozen LED lamp suppliers and a dozen press manufacturers. It forecasts LED inks sales for 2016 will triple those of 2015.

However, he recognizes that behind this dramatic growth – albeit from a relatively small base – ink manufacturers have several technical and economic challenges to overcome. 'Currently, LED inks and coatings cost a lot more than equivalent UV-cured products. Over time costs should reduce to nearer those of conventional free-radical levels. However, when you consider the total applied costs, including waste savings, lower energy costs and other benefits, then the cost of LED-cured products are not as expensive as first assumed.'



Go to page 80 for a report from the beta test site for IST's HYcure unit

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Mahl's new eight-unit Omet X6-Flex pr



Old bottle, new wine

The beta test site for IST's HYcure unit is no ordinary label printer, says Barry Hunt

"A hybrid system using interchangeable lamp

housings offered a flexible and practical curing

solution that suited the firm's varied requirements"

ruckerei Oscar Mahl was founded in 1828. In the German manner, it remains a venerable family-owned business: the current management represents the fourth-generation of Mahls. The firm now occupies a recently expanded plant outside the picture-postcard medieval town of Schwäbisch Hall in Baden-Württemberg where it began. Its singular approach to roll-label production made it an ideal choice for beta testing the hybrid MBS-HYcure system from IST Metz (described in previous article).

Trials were conducted on an Omet X6-Flex installed last year for single and multi-layer labels. It is configured with eight UV flexo units, a lamination module, turner bars,

cold-foiling unit and facilities for producing

earlier, the air-cooled MBS-HYcure system

allows fast switching between an MBS

single interchangeable housing.

LAMPcure and an MBS LEDcure unit in a

Erwin Oscar Mahl, managing director,

recognized LED curing's higher investments

costs, but said a hybrid system using inter-

changeable lamp housings offered a flexible

and practical curing solution that suited the

firm's varied requirements, while working at

full production speeds. 'We tend to specialize

in niche self-adhesive markets using

'Void' product-protection labels. As explained

innovative equipment. Our customer base comprises middle-sized firms whose work gives us reasonable margins. We ensure that sales to any one company do not exceed 5 percent of our turnover.'

Move to labels

Druckerei Oscar Mahl began producing roll labels in 1994 when it installed a flexo label press. Its first UV flexo press followed in 2000. Earlier the firm mainly produced continuous business forms. This continued for 30 years until the market declined around the mid-1990s and it turned to label production. By 2015 single and multi-ply self-adhesive labels, including extended text leaflet-labels, accounted for 77 percent,

Viva 340, and a Viva 420 Aniflo press for premium-guality, short-to-mid-run labels. IST MBS series curing units are fitted across the press ranges. Other equipment includes two die-cutting lines for blank labels, two Goebel Optiforma narrow-web forms presses and two Heidelberg sheet-fed offset presses. Pre-press production centers on a Prinect workflow system. Inevitably, Druckerei Oscar Mahl has assessed digital printing. Nothing has been decided yet, but inkjet digital printing is the likely choice.



For more analysis of the LED vs arc lamp debate, see 'Working Without Waste' feature in L&L issue 2

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IST's interchangeable HYcure hybrid cassett

or 9.90 million euros, of a total turnover of 12.81 million euros. Around 35 percent of its roll labels are for food products and 18 per cent for chemical-based products. Continuous folded labels, laser-sheet labels, thermal-transfer printed labels and variable-data products account for the remainder of production.

The modern factory has 80 employees and includes five flexo presses with 30 print units, and two semi-rotary offset presses with 11 print units. Besides the new Omet X6-Flex they include a six-unit Gallus EM 280 flexo press, a waterless offset Codimag



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Maxcor's industrial manager Marcio Alves and director Alexandre Lodi with Miguel Troccoli, general manager of PTC Graphic Systems

Customer service key to Maxcor success

Brazilian converter Maxcor – which runs more Mark Andy presses than any company in Latin America – has increased sales by 50 percent in the last four years, thanks in part to extraordinary customer service. James Quirk reports

espite Brazil's well-publicized economic woes, Maxcor, a label converter based in Belo Horizonte in the state of Minas Gerais, expects sales growth of 15 percent in 2016 and has seen 50 percent cumulative growth over the last four years.

These impressive figures are the result of a flurry of investment in new machinery four years ago, a philosophy of excellent customer service, and the charismatic leadership of Maxcor's director Alexandre Lodi – who took sole charge of the company in 2011.

Maxcor was founded in 1990 by Alexandre Lodi, his uncle Estevam Amaral and cousin Marcos Amaral, as a printer of simple supermarket pricing labels – a booming market thanks to inflation in the local economy causing prices to change regularly.

The company moved into prime label production in 1995 with the installation of an 8-color Mark Andy 2200 flexo press. A second followed in 1999; today, Maxcor runs ten such machines, as well as a Mark Andy XP5000 – more presses from the US manufacturer than any other converter in Latin America.

With the new focus on prime labels, the original part of the business was divested

and taken on by an employee. Further changes to the business's structure came in 2006, with the departure of Estevam Amaral, and in 2011, when Marcos Amaral's exit left Alexandre Lodi in sole charge.

In a deliberate shift from the company's previous strategy, whereby it installed new presses only after securing additional clients, Lodi splashed out in 2012 on three Mark Andy 2200s – a 13in 8-color machine, and two 10-color presses of 13in and 17in web widths respectively. Three Rotoflex finishing machines also arrived, taking their total to nine – all with Alis inspection systems from Nikka – and Maxcor's factory floor was reorganized to improve workflow.

Customer service

Since this burst of investment in 2012, Maxcor has increased its sales by 50 percent, with 15 percent growth expected this year. As well as the difficult economic climate in which the company has been operating, Maxcor has also overcome the relative disadvantage of its location. Based in Belo Horizonte, some 600km from the country's industrial heartland of Sao Paulo where many of its major clients are located, the company relies on its extraordinary customer service to make the difference. Maxcor operates its own fleet of trucks and guarantees next-day delivery of labels to customers in cities such as Sao Paulo and Rio de Janeiro. In its warehouse, it holds extra stock for its clients, at no extra cost to them, so an order can be increased at the last minute without problem.



equipped with Nikka inspection syste

'Our contracts with clients are often for at least five years, and sometimes for 10 or 15,' explains Alexandre Lodi. 'We want to have a strong relationship with them. Extra warehouse stock and quick, reliable delivery are important parts of that.'

A few years ago, canvassing the opinions of his clients, Lodi found that the majority of their problems had to do with label application. 'The end user is often not an expert in this area,' says Lodi, 'so we installed applicators at our clients' facilities and took the problem off their hands.' More than 20 Maxcor employees are based full-time at clients' facilities, handling the application process and monitoring stock levels. Some 70 percent of Maxcor's clients take advantage of this system.

Furthermore, the company has an employee dedicated to legislation issues. 'Instead of the client telling us: "We need you to add this new information to the label, because of a recent change in legislation", often it is the other way around. Our employee will say to the client: "We need to do this for you"."

'All these things help solidify our relationship with the client, hence the long-term contracts,' continues Lodi. 'We don't just print labels; we offer a full service. The client's problem is our problem.'

Lodi's philosophy of building good relationships extends to his own staff. 'We understand that a company is its people,' he says. Maxcor has a training and reward program which allows staff to be promoted through the ranks every six months. To become a press operator, an employee must pass through different stages – working in the finishing area, for example. The experienced operator trains the next person in the chain. 'It motivates employees and provides transparency,' says Lodi.

Staff are encouraged to contribute. An awards ceremony is held every three months, with two prizes given for the best ideas, and one awarded to the employee who has contributed the most ideas. Prizes include dinner for the employee and their family.

'We are proud of the atmosphere in the company,' affirms Lodi. 'Our staff are motivated. It is an important part of Maxcor's culture.'

It's a point also highlighted by Miguel Troccoli, general manager of PTC Graphic Systems, which represents Mark Andy in Brazil. 'What I see that is different at Maxcor is the social aspect of Alexandre's management,' he says. 'It is a transparent company. And the combination of the location and Alexandre's personality has created a great philosophy of customer service.'

Production

Maxcor produces 8-9 million square meters of labels a year at its 6,500 sqm factory,



Maxcor operates a fleet of trucks to ensure quick delivery to customers



which houses 170 employees. Self-adhesive labels represent 85 percent of production, with 15 percent taken by shrink sleeves and unsupported film labels. Lubricants are its biggest end-use sector, with 65 percent of production; the rest is divided between labels for laboratories, cosmetics, personal care and food.

The Mark Andy presses are each housed in their own dedicated area in the factory, with Rotoflex finishing machines alongside. The finished rolls of labels contain an internal and external tracking system, with the name of the staff member who signed it off, to ensure maximum accountability.

Aside from the fleet of Mark Andy flexo machines, Maxcor installed an HP Indigo ws4500 in 2008 for production of digitally printed self-adhesive and film labels. 'We wanted to complement our existing presses and offer our clients the option for shorter run work,' explains Lodi. 'It's part of our philosophy of offering a complete service.' Digital work is run through the Mark Andy presses for varnishing and other added-value features, and slit on a machine from Orthotec

With its ten 2200s and one XP5000. installed in 2007 for unsupported film production, Maxcor has been a Mark Andy press user for 21 years and runs more of the US manufacturer's machines than any other converter in Latin America. 'Mark Andy's presses are stable and durable, with proven technology,' says Lodi. 'The company has

great expertise and a long history in the market. They are reliable and offer excellent support.'

In-house pre-press is handled by equipment and software from Esko and Adobe, while an internally developed workflow system ensures efficient production. Shrink sleeves are produced on machinery from Karlville; materials are supplied by Avery Dennison, UPM Raflatac and Arconvert.

Lodi describes environmental sustainability as 'a subject of increasing importance'. At Maxcor, material waste is collected for recycling by a government-approved company, while liner waste is also taken from its clients' facilities and used in the making of roof tiles.

This year's expected sales growth of 15 percent is partly due to recent forays into new products. Maxcor has begun to produce BOPP film labels for detergents and other household products. Usually handled by wider web printers, using solvents, Maxcor is printing them with UV narrow web inks.

'The idea is to focus on products that are still commonly bought even during a recession,' says Lodi. 'We can produce these film labels with better quality, and they boost sales of the final product.' Security stamp production is another new venture, while boosting shrink sleeve production is an area of focus for future growth.



Read about another Mark Andy press user, Belarus converter LeanGroup, on page 103

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Meikei makes big plans

China's Meikei Printing Corporation plans to set up a nationwide network of label printers, suppliers and end users to increase efficiency and value throughout the supply chain. Kevin Liu reports

stablished in 1998 and headquartered in Guangzhou, China, Meikei Printing Corporation, founded by Zhang Yuzhong, has grown into one of the largest and fastest-growing label printers in south China. In terms of equipment, Meikei owns ten flexo presses from international brands including Nilpeter, Omet, Gallus and Nuova Gidue (now Bobst); seven satellite letterpress printing lines; and two rotary offset presses. The company has also invested heavily in digital printing with two Epson SurePress L-4033A presses and an HP Indigo WS6800 digital label press.

The company's customers include major brands in the cosmetics, household chemicals, food, beverage and wine industries.

Since 2010, Meikei has been establishing subsidiaries in different regions of China by means of investment or joint venture. It now owns Guangzhou Hongwu Packing & Printing, Shenzhen Meihong Information Technology, and Tianjin Meihong Label Printing as well as the newly established Hubei Meikei branch office, opened in 2015.

Among these, Hubei Meikei and Guangzhou Hongwu are solely-invested companies, and Tianjin Meihong is a joint venture. Through these investments, Meikei has expanded both its service offering and business reach.

The developments do not stop there, however. Mekei has ambitious plans to establish a nationwide platform which integrates label printing plants, upstream suppliers/distributors and downstream end users. Everyone taking part in this platform will share financial, logistics, supply, sourcing and other information.

Zhang Yuzhong says that building this platform will be Meikei's key strategy over the coming years, building on the challenges and opportunities presented by the current trends in China's industrial development.

Competitive advantage

Says Zhang: 'The Chinese label industry grows very fast. The quantity of equipment installed in recent years exceeds the total equipment capacity from past decades. But although the industry is still growing at about 10 percent per annum, profits are actually decreasing due to a number of factors: more and more converters; a flood of investment in new equipment; and increasing operation costs. In addition, most Chinese label converters are small with a

Traceability and anti-counterfeiting

In recent years, Meikei has increased investment in anti-counterfeiting. For example, the company recently promoted a textured anti-fake technique which transfers colored fiber yarns to bottle labels using a dedicated printing technology. Pictures of the patterns are uploaded to a secure database on the internet, and consumers scan the QR-code via smartphone to call out the corresponding pictures automatically from the database. They can then distinguish genuine from false products by checking the distribution characteristics of the fiber yarn and comparing it with the pictures.

The Texture anti-counterfeit technique is the patent of the Paipaikan (PPK) Company, in which Meikei is also invested. 'It could help the end user trace products in order to prevent cross regional sales while playing the role of anti-fake device,' says Zhang. 'At the same time, consumers can participate in interactive marketing activities including lottery, gift exchange points and Weibo sharing by watching the product videos on a smartphone app.'



Zhang Yuzhong talked about his plans at Labelexpo Asia 2015

"Everyone taking part in this platform will share financial, logistics, supply, sourcing and other information"

diversified business, and there are few leading companies with distinct competitive advantages.'

Zhang is also the vice president of PEIAC, the Chinese label association, which gives him access to detailed industry trends. According to information provided by Zhang Yuzhong, there are more than 5,000 label printing plants in China, more than 97 percent of which are medium and small enterprises with an annual turnover of less than 50 million Yuan (7.7m USD; 6.82m EUR).

'The small enterprises with only one or two low-end printing press are focused on the low-end market, and with low staff numbers and management costs are flexible enough not to have suffered too much from market impacts.

'The large label printing enterprises, which include branches of large multinational groups, despite their higher staff and management costs have a brand advantage and maintained a sound co-operative relationship with largescale enterprises – so again market changes have little impact on them.

'However, those who have really suffered are the medium-size label printing companies – those which own more than two but less than six rotary or satellite printing presses. These companies are in a phase of transformation and upgrading as they endeavor to expand in scale and improve their management practices. Without a well-known brand and innovation, they will be the first group to be eliminated under the new, more challenging market conditions.'

Supply chain

The new Meikei supply chain platform is aimed mainly at the medium and large-scale label printing enterprises which face the biggest challenges.



PEIAC, the Chinese label association, held its 2015 annual meeting at Meikei's factory



Combining technologies

Zhang Yuzhong believes there is no single printing technology which can meet all the market demands of the label and packing sector, where printing processes are becoming more complex and personalized requirements are increasing. At present, Meikei owns more than 40 pieces of conventional printing equipment – ten flexo, 12 letterpress, two offset and 20 lines of post-processing equipment. Its latest installation is an Omet Xflex X4, which Zhang ordered at Labelexpo Asia 2015.

The company has itself rebuilt and refurbished most of its satellite letterpress printing equipment, integrating gravure, cold foil, rotary screen, flexo, front and back printing, digital printing of variable information, partial surface coating and in-line <u>die-cutting</u>.

'Our various printing technologies have their own advantages and can flexibly complement each other,' says Zhang Yuzhong.

Since 2014, Meikei has installed two Epson SurePress L-4033A and one Indigo WS6800 digital label printing presses for the manufacture of small orders, variable data printing and anti-counterfeit labels.

To further these goals, Zhang recently set up Meiyin Supply Chain, in which he holds the post of president, with partners including professionals from various disciplines such as financial, marketing and ERP management. 'We aim at integrating approximately 100 enterprises in this industry as the key partners and organizing a label industrial union to cope with market challenges together.

'For example, after joining our platform, printers could sub-contract partially or fully their non-core business to Meikei, covering the whole supply chain from raw material purchasing to sales and marketing. Members will be assisted to improve supply chain efficiency and implement an overall cost leadership strategy. Meikei will coordinate and integrate both the upstream and downstream supply chain on their behalf, assisting members to realize added value through service and innovation throughout the supply chain.'

Last year, Meiyin Supply Chain built a B2B online business platform called Tuanlabel.com to explore the online printing business.

'This supply chain integration service is a major strategic business for Meikei,' says Zhang Yuzhong. 'Its fast growth will play an important role in our future development. New business will drive the platform's construction, and the platform will on the other hand promote business development.'



For more information on Meikei visit www.meikei.com.ch

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Sheetlabels.com president Adam Gray

A Domino N610i digital UV inkjet press that Gray had installed in 2014

E-commerce label converter goes digital

Sheetlabels.com is a growing label converter based in upstate New York. E-commerce and 'micro run' orders have been cornerstones of success for this young company. Chelsea McDougall reports

pstate New York-based SheetLabels. com is not your typical label converter, its president Adam Gray says. In fact, it's not a label converter at all. First and foremost, SheetLabels.com is a software company masquerading as a company that makes labels. 'At our core we're a software company,' says Adam Gray. 'Our software powers our entire business."

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The company is completely reliant on e-commerce sales and has built a reputation on rapid delivery. Customers can find Sheetlabels.com with a simple internet search, and because of savvy SEO marketing on their end. This translates to about 60,000 unique visitors to their website each month. 'They're all looking for a label,' Gray says.

SheetLabels.com caters to small businesses and start ups, particularly in food and beverage, spirits, craft wine, chemical, automotive, nutraceutical, cosmetic and manufacturing.'These are the guys who are ordering labels at 3am on a Saturday night because that's when they have the time."

No order is too small. Jobs can be as few as 10 or 25 printed labels. An average run is around 10,000 labels, and Sheetlabels.com ships 200 to 300 orders each day.

'To a lot of flexo shops, that's small,' says Gray. 'Compared to a lot of commercial print shops, it's impressive. I'm somewhere there

in the middle.' SheetLabels.com guarantees orders are shipped to the customer in four business days, and in some cases same day if a rush order is placed. After a customer places an order online, within three minutes the job is on the press floor with the use of the company-developed software.

Teenage entrepreneur

If Gray's business model is unique to the industry, so was his start. He was just a teenager and still in high school when he started the company as a label broker. He worked after school and in study halls and was the only student in his high school allowed to leave class to answer his cell phone. 'I didn't have many friends because of that,' he says, laughing. 'I had clients who had no idea I was 15 years old.'

Gray, now 30, may not have been prom king, but his tenacity paid off. He graduated high school in 2004 and four years later he was north of 1 million USD in sales and had half a dozen employees.

In the fall of 2014, SheetLabels.com expanded its manufacturing footprint to a 34,000-square-foot space in Glens Falls, New York, of which it currently occupies 19,000 sq ft. At the same time, Gray invested in a Domino N610i digital UV inkjet press and, for finishing, a Rotoworx 330 by Gonderflex.

And there's room for growth. Today, Gray employs 30 people and is approaching 10 million USD in annual sales, he says. 'I still believe there are a lot of market dollars to grab onto in our niche market.'

Gray credits his Domino press with attracting customers in nutraceutical and craft beer, wine and spirits. He expects the increased capacity will add 3m to 5m USD to his revenue over the next few years. Since installing the Domino in 2014, he's seen his revenue grow 17 percent in 2015, and anticipates a 30 percent growth in 2016.

In addition to the Domino, his fleet includes his first offset press, which he modified with a mounted die-cut unit, two Xerox digital sheet-fed presses, and three additional sheet-fed presses dedicated to blank labels.

What makes SheetLabels.com attractive, Gray believes, is customers who are looking for different ways to buy labels.

'A lot of what we do today is instant response and instant gratification,' he says. 'All over the business world, people are offering one-day shipping, we have to adapt to that expectation.'



Go to www.sheetlabels.com for more information

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Action Packaging Systems bought the first Xeikon CX3 digiral press in 2015, and liked it so much they got a second in earlier this year



in 2015, and liked it so much they got a second in earlier this year

Action stations

A pair of Xeikon CX3 digital presses are helping Action Packaging Systems meet its five-day delivery guarantee, as Chelsea McDougall reports

ction Packaging Systems prides itself on going the extra mile for its customers; sometimes an extra 1,100 miles. The Connecticut-based label converter has a business-wide mantra: 'Do what others say you can't.' What this means is the company guarantees that the labels they print are delivered in at least five business days - whatever it takes.

The year was May 2011 and salesman Mike Gerrity got an order from a customer who needed a job turned around over a holiday weekend, but Action didn't have the labelstock the job required.

Gerrity had an idea. He boarded an airplane bound for Wisconsin. He rented a truck, drove to Green Bay Packaging, loaded the truck with the materials, then drove 17 hours across five states to get back to the Ellington, Connecticut-based Action Packaging Systems where he met press operators who got the job out on time. 'We encourage that kind of craziness,' says president and CEO Doug Rice. 'We do whatever we can to meet tight deliveries.'

Breaking all the rules

Action Packaging was offering rapid turnaround labels before it was fashionable. Often this commitment means committing the cardinal sins of label printing. 'We're breaking all the rules,' Rice says. 'We have no rules. Just get the customer the labels; we'll sort it out later.'

Rice is unafraid to keep presses idle to make room for jobs when they come in. He's known to interrupt print jobs if there's an order placed that's more time-sensitive. 'We've been doing it forever,' he says, and then with a smile adds, 'because we didn't know any better. We've been doing it for so long this way it is part of our culture.'

Rice concedes that that culture is difficult to maintain, especially as the business grows, but he believes the philosophy opens Action Packaging Systems to new opportunities.

Rice started Action Packaging Systems in 1979 as a label broker. The first time he lost a big client because a label converter couldn't deliver on time, was also the last. Rice in 1983 decided to print his own, and by 1984, he opened his first manufacturing plant in Connecticut.

Today, Action Packaging Systems also has a production facility in High Point, North Carolina, and also provides a line a Gold Seal label applicators and CTM Label Systems. The company employs 60 people.

Its business comes primarily from food and industrial labels, but a pair of new digital presses has opened up the health and beauty market.

"We're breaking all the rules. Just get the customer the labels; we'll sort it out later"

Going digital

Action Packaging Systems has traditionally been a flexographic print shop with 11 Mark Andy and Propheteer International flexo presses between its two locations.

In 2011, Action Packaging Systems took the leap to digital with the installation of a Xeikon 3500, 20-inch press. Soon enough, it was looking for more speed. In October 2015, it was the first US customer to purchase Xeikon's CX3, or Cheetah, a 13-inch five color digital press. The company liked it so much that four months later it traded in the 3500 press for a second CX3. It has two AB Graphic International finishing systems for digital jobs, the Digicon Series 2 and Digicon.

But Action Packaging Systems' move to digital presses almost didn't happen. Operations manager Rick Ferreira tried to talk Rice out of it. 'I pushed for them not to go digital,' Ferreira says matter-of-factly. 'Doug wanted to go digital, but he could never tell me why, just that he wanted to. And that's not enough or me.'

Ferreira, ever the pragmatist, wanted a defined revenue stream before considering the investment. Rice, however, didn't want to fall behind other label converters who offered digital, and he envisioned greater flexibility with increased capacity. 'I saw a lot more customers ordering a lot more SKUs a lot more often,' Rice says. So they compromised, and for about a year Action Packaging Systems outsourced digital jobs until it developed a revenue stream to justify the investment.

So far it's paid off. The Xeikon opened up new clients in the health and beauty industry, and having two digital presses gives the company the speed and capacity it needs. 'Greater flexibility allows us to keep our five-day delivery promise,' Rice said. 'It's a culture that's very hard to manage as you scale up, but we're consistently doing it.'



Action Packaging is based in Ellington, Connecticut, with a manufacturing space in High Point, North Carolina. More information can be found at www.actionpkg.com

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MD Nicolas Brunaud (second left) with te

French wine label converter opts for Presstek Zahara plates

An early adopter of Presstek's recently introduced waterless offset plate technology is Print Dorure in France. Andy Thomas reports

rint Dorure, a medium-sized label converter well known in the Bordeaux area for its high quality wine labels, has become one of the first users of Presstek's new Zahara waterless offset plate.

The company started using Zahara plates in mid-2015 shortly after the product's commercial launch, and recently installed Presstek's Eko Kleen water-wash system, allowing the converter to dispense entirely with solvents in the platemaking process.

'We have had excellent results and are very happy about the Zahara plate quality and stability, and Presstek's support,' says managing director Nicolas Brunaud.

The company runs two Codimag Viva waterless offset presses: one 2-color (black and red) and a 4-color press, both with hot foiling and flexo varnish station. In addition there is a Graficon-rebuilt Gallus R200 letterpress and a Gallus intermittent (wet) offset TCS 250, 5-colors with hot foiling, flexo varnish and screen.

Before adopting Zahara plates, Print Dorure used Toray waterless plates, which require a solvent wash. 'This gave us problems, as it was dangerous for health,' says Mathieu Perez, pre-press manager, who had to wear protective gloves when working with the solvent wash.

The Presstek Eko Kleen processor takes

two minutes to make a plate using only water. 'We change the water every three months, and it's easy to dispose of the old water,' says Perez. 'It is both economic and environment-friendly. The plates are ready to print as soon as they come off the processor and last longer on the press. When printing, the plate carries high ink densities, displays very good contrast and sharp, clean images and text.'

Comments Brunaud, 'The Zahara plate offers many benefits. It is chemistry-free and environmentally friendly. It's simple to handle and this eliminates variables caused by the condition of the developer. We find the plate runs longer than competitor products and it images up to 200 line screen.'

The Zahara plate can be used in both of Print Dorure's thermal offset CTP systems.

'An additional benefit is the plates are scratch resistant, allowing us to image the plates some days before,' says Brunaud.

Print Dorure's pre-press department is housed in a separate building, which is also home to the company's sheet-fed business. This consists of two Heidelberg Speedster presses, used mostly for commercial work but also for wet-glue wine labels.

Technical specifications

Zahara is a thermal, non-ablative aluminum plate compatible with UV printing. It images up to 200 line screen and is specified for run lengths up to 100,000. The plate is full daylight handling. It took two years to bring the Zahara plate to market and it is the subject of multiple patents.

Unlike competitive plate technologies which require pre-treatment with silicone oils and post-processing with chemicals, the Zahara plate is entirely chemistry-free and just requires water processing. The results are no degradation of the plate between runs, elimination of variables caused by developer condition, and much simplified processor maintenance. The plate itself is easy to use and handle since there is no cover film to remove. It is solvent and scratch resistant.

Against early predictions of 'death by digital', waterless offset is retaining its market share, with active companies including Codimag, Iwasaki and Sanjo. KBA is now beta testing its new Varius waterless offset press.

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Label Academy starting to prove its worth

Eight months on from the Label Academy's launch at Labelexpo Europe, which created much interest from the thousands of global visitors, its creator Mike Fairley provides an update

 ollowing the Label Academy's launch at Labelexpo Europe in
September 2015, considerable work has been undertaken to write and commission new book titles, and to further develop the website and build the online examination process.

Today, the website contains a synopsis of each published book along with related links to articles, video clips, white papers, supplier information and much more. Nearly 2,500 people have already registered on the www.label-academy.com website.

With a new title – Label Embellishments and Special Applications – out shortly, and two further titles in the design and production stages, it is planned to have some nine of the Label Academy handbooks on sale at Labelexpo Americas in Chicago later this year. The titles currently being finalized for production are:

- Brand Protection, Security Labeling and Packaging: Technologies and strategies for optimum product protection
- Die-cutting and Tooling: A guide to the manufacture and use of cutting, embossing and foiling dies, anvils and cylinders
- These handbooks are complemented by the Encyclopedia of Label Technology, and the History of Labels books, between them making up an impressive series of label industry learning and knowledge modules

New titles

Apart from the nine titles already published or in production, there are a further four handbooks in the early stages of writing or commissioning. These will cover topics as diverse as label substrates, label end usage, types of labels, and management information systems and workflow automation. It is hoped that the initial proposed series of 20 titles will be completed by the end of 2017.

Increasing numbers of label company employees have been taking the Label Academy Online examinations, with some individuals now able to claim successful passes and certification in up to five subjects. Built into annual appraisal and employee development programs, the "Built into annual appraisal and employee development programs, the Label Academy certification process is already beginning to prove its worth in developing the industry and its employees for the future"

Academy certification process is already beginning to prove its worth in developing the industry and its employees for the future. That's both at new entrant and up to senior management levels.

Allied to the Label Academy publications has been the introduction of Academy master classes, two of which were run alongside Labelexpo Europe. Others have been provided for specific companies on request, and more are scheduled for Labelexpo Americas this year. The master classes provide intensive instruction for specified Academy subjects, such as 'Conventional Printing Processes' and are able to speed up the taking of examinations.

With a new group of Label Academy sponsors confirmed, promotional activities for the Academy have been stepped-up, including a recent Finat webinar, a presentation at the Finat Young Managers seminar in Budapest, a Labels Masters Challenge at the forthcoming Finat European Label Forum, and a new round of e-mail blasts and advertising.



Go to www.label-academy.com for more information

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Impackt attains excellence in luxury and short-run markets

With a 7-color DSI digital UV inkjet press from SPGPrints, French converter Impackt Etiquettes is meeting the increasing demand for short-run and 'no-label look' solutions in the food, beverage and pharmaceutical sectors. Andy Thomas reports

Self-adhesive label converter Impackt Etiquettes has been enjoying rapid growth in recent years, supplying a growing customer base of brand-owners in the food, beverage, alcoholic beverages, logistics and pharmaceutical sectors. In 2013, it relocated to new purpose-built 1,800sqm premises at a technology park in Hannelles-lez-Habourdin, on the western outskirts of Lille. The company succeeded in providing innovative label products, most notably including 'peel and read' labels, with two 6-color flexo presses – one from MPS, the other from Rotatek – with in-line finishing equipment from AB Graphic, Rotoflex and Serame.

Impackt Etiquettes recognized that digital printing, with its simplified workflow, was essential for responding to 'just-in-time' delivery requests at short notice, and for supplying 'artisan' businesses targeting niche markets cost-effectively. Furthermore, the company preferred a UV inkjet system, with its superior opacity on plastic substrates, which would enable them to offer transparent labels to luxury goods manufacturers.

Michel Potelle, Impackt Etiquettes' managing director, comments: 'After seeing the trials and samples, it was clear that the DSI press, with its 4,000 meter roll capacity, could deliver both the high quality and productivity, especially on transparent substrates. We were impressed with the high specification and robust, industrial build that gave the stability at fast speeds, and excellent results on transparent films.'

Impackt's DSI press features the standard CMYK process colors, plus the optional orange and violet, to achieve 90 percent of the Pantone color gamut, and opaque white. The press's other standard features include intermittent LED-pinning between printing stations, to assure a stable laydown of inks at speeds of up to 35m/min "After seeing the trials and samples, it was clear that the DSI press, with its 4,000 meter roll capacity, could deliver both the high quality and productivity, especially on transparent substrates"

(115ft/m), and a chiller to prevent plastic materials from deforming. It also includes a flexo coating unit, cold foiling and semi-rotary die-cutter in-line.

Luxury markets

'To compete in luxury markets such as cosmetics, we need to perform several processes in-line to meet the high quality expectations,' Potelle explains. 'The DSI gives us a controlled, single-pass solution for meeting quality requirements without the risk of error. We believe we have one of the most advanced digital UV inkjet presses in northern Europe, in terms of productivity and application possibilities.'

Since the installation of the DSI press in 2015, Impackt has won significant business for 'no-label look'-related work. The opaque white's 93 percent optical density has helped Impackt assure high quality for these applications. The 'no-label look' accounts for at least 80 percent of spirits labels on the press, while opaque white jobs 101



Michel Potelle, MD of Impackt Etiquettes, with 7-color SPGPrints DSI press

"To compete in luxury markets such as cosmetics, we need to perform several processes in-line to meet the high quality expectations"

feature on 35 percent of all digital labels.

Potelle attributes the success in this niche, for both luxury brands and industrial markets, to the performance of the inks. He comments: 'SPGPrints' UV-inks give us a level of color depth and opacity that is equivalent to screen process, providing an effective block that stops the color of the container contents from modifying the label graphics, especially on clear-on-clear applications.'

Thanks to the opacity achieved on the DSI, Impackt has convinced some brand owners to switch from directly printing graphics on to the container via screen process, to using digitally printed labels instead. These customers are benefiting from shorter lead times and significant savings, as the need to store glass bottles in advance is eliminated.

Also, durability is critical for chemical applications, where the label must resist harsh conditions, ranging from sunlight to corrosive materials. While flexo inks last only two months in the sun, with SPGPrints' UV inks, Impackt can assure up to two years' outdoor performance.

The ability to deliver micro runs has enabled Impackt to offer a rapid prototyping service that delivers significant brand owners in food and beverage sectors significant product development cost savings.

'The shortest runs are for prototypes,' continues Potelle. 'Digitally printing samples enables brand owners and design agencies to see exactly what the label will look like and present the finished product to their customers, without the need for mock-ups, and make changes at short notice. This accelerates decision-making in the development phase and reduces both costs and time to market significantly.' Impackt has also created a variable printing department, thanks to a Titane thermal transfer machine, responsible for 25 million labels per year.

Running one ten-hour shift per day, the DSI produces about 600,000 euros of business per year, roughly equivalent to 15 percent of overall turnover. Potelle expects the digital share of Impackt's business to grow. In anticipation of growing demand from regional food and beverage producers for short runs of labels, Impackt has established a dedicated division that



Stork DSI press in action at Impackt Etiquettes

specializes in labels for artisan business, such as retailers and micro-breweries. Businesses can order labels by internet, and expect delivery within one week.

'Today, consumers seek products and services that appeal directly to individual tastes or circumstances. Brand-owners react to this with greater diversification and temporary promotions. And with our DSI digital workflow, we are well-placed to meet brand-owners' needs with greater flexibility.'

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Go to www.labelsandlabeling. com/search/site/SPGPrints for more news and features about SPGPrints on L&L.com



Labels printed by Impackt Etiquettes for Wilde Leeuw, a beer from Brasserie du pays Flamand, of Blaringhem, near St Omar in northern France



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The Mark Andy P7 has a 430mm web width and is fitted with nine flexo heads, plus screen cassette, and 'film package' for handling heat sensitive su

Leading laminate tube supplier switches to in-line flexo

Belarus converter LeanGroup has expanded its production capability and sales of laminate tubes into lucrative western export markets following investment in new Mark Andy press equipment. Nick Coombes reports -----

ounded in 1999, and for many years the leading supplier of laminate tube packaging to the CIS market, LeanGroup has developed specialist skills and technology that today sees it produce and supply more than 30 million tubes per month to the toothpaste, cosmetic and food industries. The early years of the company saw tube production on a variety of KMK and SAESA lines, and it was not until 2005 that the first printing press was installed in the plant at Minsk. To meet the quality standards required, rotary letterpress technology was preferred, and a second printing press was added in 2009, by which point the company had already installed its sixth SAESA tube production line.

'We focus on quality here, both in terms of product and customer service, because we are supplying packaging that has to meet the hygiene and sanitary requirements stipulated by government, and the consistently high quality standards demanded by our international brand owning customers,' explains managing director Yigal Koifman. The quality management standards referred to are ISO 9001-2009, and in the case of laminate tube packaging for food and cosmetic products, the regulations of the Customs Union of Technical Data (Safety Packaging) TR TC005/2011. The company has a three-stage QC system so that each batch of finished goods is checked for compliance with technical characteristics, packaging and labeling.

There are two types of laminate tubing - one has an aluminum foil barrier layer of 12-40 micron, and is known as ABL, while the other has a plastic EVOH barrier layer of 5-25 micron, and is known as PBL. In both cases, the barrier layer prevents inward and outward migration of aroma, oxygen, water, bacteria and light. This prevents processes such as fermentation and retains the physical and chemical

"One of the principal advantages of laminate tube for packaging is its competitive cost level. As a material, it's economical and versatile, and can be decorated to give the product a high shelf appeal"

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integrity of the content. ABL provides the best protection, and the aluminum layer is sandwiched between an outer PE film for decoration, and an inner PE film that prevents contact with the foil barrier. Thickness of the laminated substrate can be up to 275-micron for ABL and 400-micron for PBL, with the bulk of LeanGroup's supply of material coming from leading manufacturers in Germany and Asia.

Marketing director Elena Ivashchuk comments: 'One of the principal advantages of laminate tube for packaging is its competitive cost level. As a material, it's economical and versatile, and can be decorated to give the product a high shelf appeal. It is the most popular method of packaging toothpaste, because its unique barrier properties offer a longer product life, but it's also used extensively for skin and personal care, food, medicines and household products.' The company offers a range of sizes and styles of tubes, from 16mm to 50mm in diameter, and works with a carefully selected group of



Martin Automatic MBS unwind-splicer and LRD rewind unit allow non-stop production

LeanGroup also included Rotoflex automatic inspection rewind technology in the investment program

Belarusian and overseas suppliers of caps and shoulders, all of which are required to meet the stringent quality standards.

After extensive press trials, the company selected a Mark Andy press for its 'consistent print quality and speed across all materials,' explains Koifman. Following detailed negotiations, because the first press is part of a planned growth plan that extends over the next five years, LeanGroup eventually specified a 430mm wide Mark Andy P7 Performance Series with up to nine-color flexo capacity including a screen cassette, as well as hot and cold foil and varnishing facilities. The new press, which has Mark Andy's 'film package' that included special idler rolls, anti-static equipment and chilled impression rolls, was delivered in 2013, and has since significantly increased the company's capacity for printed laminate tubes.

Running reel to reel, the Mark Andy is fitted with a Martin Automatic MBS unwind/splicer and LRD rewinder. The MBS, which can handle rolls up to 1016mm diameter, is fitted with the tube laminate package to facilitate the handling of special substrates, while the LRD has a lay-on roller for films and a back-up bar. Both Martin units have a maximum splicing/transfer speed of 150m/min. An important feature for tube laminate printing is the capability of synchronizing transfers from roll to roll – so the MBS splicer sends a signal to the rewinder when the web is spliced, and the LRD counts down the meters of web in the press before it transfers to the empty core, placing the splice either on the core or on the outside wrap of the full roll, according to operator preference.

'We needed the extra production volume that the Mark Andy offers because our free capacity had slipped as low as 15 percent in 2013, and this was proving to be a limit to our growth ambitions. It immediately took this figure up to 47 percent and has given us the scope to increase our business going forward,' says Koifman. With a portfolio of customers that already includes many of the major Eastern European brands, LeanGroup is keen to add to names like Henkel, Beiersdorf (Nivea), Unilever and Procter & Gamble in the EU region. 'We operate "Clean Room" production and have an A+ rating from the BRC, so believe that these conditions and the added capacity offered by the Mark Andy put us in a prime position to serve the pharmaceutical market, in particular,' he adds.

Innovation is one of the key areas in which the Minsk plant excels, according to Elena Ivashchuk: 'In addition to offering new diameters for the tubes we supply, we can now offer different styles of screw caps, no cap (butterfly) shoulder, and shrink-band over flip-top techniques. In addition, the Mark Andy offers more color options and finishing combinations, and a wide variety of substrate capability that we intend to diversify our product line into non-tube work, which will be a first.'

"We operate 'Clean Room' production and have an A+ rating from the BRC, so believe that these conditions and the added capacity offered by the Mark Andy put us in a prime position to serve the pharmaceutical market"

Following the success of their first Mark Andy, the company placed an order for a second P7 machine. Similar in specification to the first, the new press, which is due for installation in July 2016, is an eight-color UV flexo line with a 430mm web width and film and cold foil capability. Fitted with the overhead rail system, the print stations are adaptable with cassettes for hot foil and screen printing, and to allow non-stop operation, the Mark Andy will be installed with identical Martin Automatic MBS and LRD units for unwind/ splicing and rewinding. As with the first Mark Andy, this new tranche of investment includes a 430mm Rotoflex VLI inspection rewinder, equipped with the URC 2.0 proprietary control system.

At the end of 2015, LeanGroup completed the merger with its extrusion partner Mirupack, which began production in 2008, and now has an annual capacity of 500 million tubes. In all, the joint venture occupies almost 14,000 square meters of production and administrative space, and employs around 375 people.

With further investment planned for both plastic and laminate tube divisions of the company, one of the principal advantages of laminate tube for packaging is its competitive cost level. As a material, it's economical and versatile, and can be decorated to give the product a high shelf appeal.

LeanGroup would appear well set to hit its declared target of an additional 20 percent in sales by 2018, with extrusion and converting services offered as a 'one-stop-shop'. Priding itself on the specialist skills it offers, which include volume production, stock keeping, and bulk delivery of high quality tubes, a flexible pricing policy, and the option of contract filling, its business plan is both well planned and firmly established.



For more information on the Minsk-headquartered LeanGroup, visit www.LeanGroup.by

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Avery partners with UL in certification program

Underwriters Laboratory (UL) has issued its first marine use marking and labeling certifications for hazardous chemicals to Avery Dennison, after a year of testing at the company's UK-based lab. Chelsea McDougall reports

or more than a year, scientists at Avery Dennison dunked unprinted labelstock adhered to sheets of aluminum in the North Sea and left them there for three months at a time.

The scientists were testing the durability of label materials on chemical containers destined for travel over international waters. The result was that Avery Dennison became the first – and so far only – label material supplier to receive certification of its materials under UL's new certification program for marine use.

The Avery Dennison team tested their materials on aluminum drums in order to comply with recently expanded guidelines for ocean transport of dangerous materials under Globally Harmonized System of classification (GHS) and the International Maritime Dangerous Goods (IMDG) code. GHS and IMDG are internationally agreed codes that address the safe transportation or shipment of dangerous goods or hazardous materials overseas on a vessel.

The industry uses British Standard 5609, or BS5609, to determine compliance to these requirements for labels on goods crossing the ocean. BS5609 requires testing of the label materials and inks on pressure-sensitive, adhesive-coated labels.

Under these guidelines, certifications must come in two sections: the base label and printed materials are both tested for the 'durability of markings.' The labels must withstand immersion in harsh ocean environments for 90 days. The printed graphic texts should maintain their integrity and remain legible when exposed to the elements. 'If the printed text loses the legibility characteristics it's not going to do anyone any good,' says Ryan Houle, business development manager for UL's performance materials division. 'If the cargo fell overboard, and the drum is retrieved from the bottom of the ocean or it washed up on shore, you must still be able to read the label and know the contents of what is inside. The label must be legible.'

The GHS standard specifies the information that must appear on a label. They now must include red pictograms in addition to black and white print and background.

'Red is a little more difficult to print than black. Red can be difficult especially with fading,' explains Avery Dennison senior durable products manager Michael Welch. Welch provided guidance on the testing at Avery Dennison's water immersion testing site located along the North Sea in Cramlington, UK.

This change affects all printed chemical labels, not just those that comply with BS5609. For example, Welch explains, should a chemical drum be shipped overland from Texas to New Jersey, it will need a GHS label but will not need to pass BS5609 specifications. If that same drum is shipped across the ocean, it would need to meet both GHS and BS5609.

The testing process

The requirements of BS5609 are stringent, and such testing was uncharted territory for Avery Dennison. It took a year before the company got word they were allowed to conduct the test. Then followed another year of experimenting with different ribbons, facestock, inks and printers at its water immersion testing site in Cramlington. The results were submitted to UL, who certified the labels under its recently created certification program for marine use.

Before Avery Dennison, there was only one provider testing to the BS5609 standards. Avery Dennison saw a quicker, cheaper way to get certified: conduct the certification themselves.'Certification with other entities may require a sizeable investment and take up to six months. Certification time through our process can be reduced by approximately a third,' Welch says.

Avery Dennison also can test products for its customers. Those who don't have a testing lab can send their labels to UL who will test the label's performance. 'It really adds a lot of value to supply chain and confidence to end users that their labels are meeting these safety requirements,' Houle says.

Avery Dennison modeled its tests after the services already offered at UK-based Smithers Pira. 'It was a long time of trial and error,' Welch says. 'We failed several times. If our material didn't pass, it didn't pass. We were not afraid to fail ourselves.'

The scientists tested the effects of tide action and light exposure. In addition to abrasion tests, scientists employed a variety of salt water combinations to emulate ocean water exactly, and even imported sand to ensure they had the most reliable tests possible. 'It's an odd thing when you're importing 200 kilograms of sand from Europe,' Welch says.

A final portion of the experiments included taking the aluminum sheets for a swim in the North Sea. Attached to a rig, the aluminum panels were soaked in the North Sea because the body of water offered everything scientists were testing for: durability against salt water, tide action and exposure to sunlight and harsh elements.

And if those labels can withstand the North Sea, Welch jokes, they can withstand anything. 'It's very surprising when you look at how foul it is, and it still has to pass.'

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More information on Avery Dennison's UL certification can be found at www.ul.com/database


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Paper properties for beverages

John Tucker, sales director at Zanders, highlights the key properties of label paper for the special requirements in the beer and mineral water bottling industry

abel papers have to fulfil many requirements, especially when considering their diversity in usage. For example, a bottle label should fit exactly and be flawless while using the product, but then needs to be easily detachable for recycling. At the same time, the label has to withstand the constantly wet environment of beer and water bottling lines.

In the industrial bottling process, the labels are first placed in a magazine, from which they are removed by grippers at high speed, coated with glue and transferred to the bottle.

The wet bottles constantly bump against each other on the sorting lines, which can damage the labels. This pressure and friction places high demands on the wet-strength properties of the labels.

The label paper should ideally offer the following properties: good flatness, minimal curl, a relatively rough reverse side, optimized stretch and shrinkage behavior and, in the beer and mineral water bottling industry in particular, an extremely high wet-strength.

"A bottle label should fit exactly and be flawless while using the product, but then needs to be easily detachable for recycling"

Extremely high resistance and low wet expansion are required, which means that the label is not damaged even after it has been applied and sits accurately on the bottle.

Uncoated label papers have a slightly rougher reverse side compared with machine-coated papers. A rough reverse side requires less glue because only the 'peaks' of the rough surface are coated with glue. This not only has a positive effect on production, but also financially. The absorption capacity of the paper is also important for ensuring flawless label application, which also largely depends on the reverse side. A high absorption capacity prevents labels from

Zanders grades

Developments from Zanders targeted at this market include Zanlabel gloss LWS with light wet-strength properties for PET bottles and non-returnable bottles; wet-strength and alkali-resistant Zanlabel gloss WS and Zanlabel touch WS label papers for all types of drinks bottles, including recyclable bottles.

The company has recently made its double one-side coated paper Zanlabel gloss available in an embossed version, targeted at beer labels thanks to its tactile feel. To emphasize a 'natural, individual, hand-crafted or authentic character', for craft beer breweries, for example, uncoated label papers like the Zanlabel touch are offered. The company says they have' a natural quality and character with a pleasant roughness to the touch'.

Mohr sheet label finishing

Polar Mohr has developed systems for different wet-glue label finishing configurations.

The LabelSystem SC-21 is optimized for square-cut label production. Printed label sheets are cut into strips which are manually positioned on the loading table from where they are pushed onto the Autocut 115 rear table. Cut labels are pushed into the BM-105 multi-station bander then manually removed for packaging. Performance is up to 3,185 bundles per 60 minutes.

The LabelSystem DC-11plus is for the production of die-cut labels up to 1,440 bundles an hour. Precut strips are manually loaded into the Autocut 25plus with two strips cut at once. Both bundles are separated in the feeding area and pushed into the DCplus die-cutter separately. After die-cutting the label stacks are automatically pushed to the single-station bander BDplus. The integrated ultra-sonic welding unit needs no preheating.

'swimming' when being glued on, which means that they can be applied on the bottle faster and more efficiently and can be positioned precisely.

In the reusable sector, it is just as important that a label can be removed from the bottle at the right time as it is for the label to stick to the bottle reliably. This also places special demands on the label paper. The labels are removed from the surface of the bottles in a caustic bath. The paper must not fall apart in this process – it must be alkali-proof. The label paper must also remain as intact as possible so it can be passed on to the recycling process and the printing ink must remain on the label so that the alkali does not soil too quickly and has to be replaced.



Is the wet-glue market about to be shaken up by digital printing? See drupa review in L&L issue 4

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Munksjö launches specialist wet-glue grades

A wet-glue beer bottle label for metallizing and a barrier label for the premium vegetable oil market are now on the market. Andy Thomas reports

unksjö has launched a range of wet-glue beer bottle labels for metallizing applications on returnable bottles. Metalkote Expert is a one-side coated paper which is an upgraded version of Metalkote Evolution. For metallizers, Metalkote Expert has an improved paper surface, which provides optimized varnish consumption and high levels of gloss after metallizing. For printers, performance in die-cutting is improved.

'Metalkote Expert enhances brand image while delivering optimized performances, including high runnability in the metallizing process, high printing speed, trouble-free labeling, and quick, cost-efficient wash-off,' says Adeline Saillard, vice president Process & Labels at Munksjö.

The last point is an important one. When designing a paper for beer bottle labeling, the paper needs both to adhere firmly during use and to be easily removable during the recycling process. During the bottle cleaning phase, brewers seek for a fast wash-off time while maintaining high ink retention properties.

Munksjö has fine-tuned a dedicated coating that enables fast soda penetration while keeping the ink on the label to avoid soda bath pollution. 'At the same time the paper should provide maximum efficiency during printing, embossing, die-cutting and labeling,' says Saillard.



Acti-V XB release paper launched

Munksjö, which produces supercalendered glassine papers in France and Italy in its La Gère and Turin plants, has commercialized Acti-V XB, the latest member of the Acti-V family of release papers. The new product incorporates an extra barrier layer, which, the company says, gives brighter coverage test results (stain test) using the same amount of silicone. The new features do not affect the proven anchorage characteristics of patented Acti-V system. The release system allows the use of fast curing formulations and uses less platinum catalyst and energy, says the company. Scaled up production is now set to replace the standard Silca release paper range. In 2015, the product was selected for an innovation award by CEPI, the Confederation of European Paper Industries.

Market differentiation

Also newly commercialized by Munksjö is Go-Print GP, a one-side coated paper designed for the specific requirements of the premium vegetable oil sector.

The key requirement here is to protect the label from oil drops to keep the brand image intact after purchase.

Premium vegetable oil is a high-end market in which manufacturers pay particular attention to their packaging. An appealing shelf presence is crucial to create market differentiation and superior brand positioning, and the label must maintain this brand image until the product has been fully used.

Go-Print GP is a stain-free specialty paper with a high level of whiteness and a grease barrier that protects the wet-glue labels from oil spots.

'Thanks to high whiteness, well-balanced opacity and outstanding gloss, Go Print enables remarkable visual impact to be maintained, says Saillard. 'Its low curl and excellent surface quality also allow easy converting and high level printing results. Sheets' easy pick-up allows maximized printing speed.'

Go-Print GP is compatible with a wide range of printing processes, but is particularly optimized for offset printing.

Metalkote Expert and Go-Print GP are recyclable and compostable. Both specialty papers are manufactured at the Stenay Mill in France, a site that belongs to Munksjö's Graphics and Packaging Business Area. This mill is Chain-of-custody, FSC and PEFC certified. It has ISO 14001 and 18001 OHSAS certifications and complies with EU Timber regulations.

Munksjö also produces label papers for wine, spirits, soft drinks and mineral water applications, whether for wet-glue or facestock labels.

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Digital finishing systems line up

A wide range of systems have been developed to finish short runs of labels produced on digital presses. Andy Thomas looks at what options are available

The rapid adoption of digital printing in the label industry created the requirement for finishing systems efficient enough to economically handle short runs of pressure-sensitive labels. In the early days of digital print, the slow speed of the presses made it more efficient to finish labels off-line, with one converting machine often handling the output from multiple digital presses.

With today's digital presses reaching

speeds of 50-75m/min (80m/min in the case of HP Indigo's new 8000 press), there has been growing interest in in-line configurations which more closely resemble the traditional narrow web model of single-pass printing and converting. In response, more finishing manufacturers are offering systems capable of both in-line and off-line configuration with the addition of a buffer and timing systems.

The requirement for finishing short

runs means semi-rotary die-cutting – where different formats can be handled without changing cylinders – has become a standard, with full rotary sometimes offered for handling longer runs, perhaps from a conventional press. And we have seen the development of laser die-cutting for instantaneous change of cutting format, albeit with some substrate limitations.

The drive to automate as many processes as possible has also seen the development



of automated slit and back scoring knife positioning, all tied into a unified pre-press workflow based on JMF and JDF file formats. Similarly, more manufacturers now offer semi- and full turret rewinding stations for non-stop operation.

Another key trend has been the development of the finishing system from basic varnishing and die-cutting format into a self-contained value-added converting system, with modules available to add a wide range of decoration techniques including hot foil/embossing, cold foil, semi-rotary and flatbed screen and inkjet numbering/marking.

The decision on which of these options to take or leave is an increasingly complex one, and will require consideration of the degree of automation and added value decoration required, and also the benefits of an off-line verses in-line configuration.

AB Graphic

The Digicon series of digital label finishing systems, all of which can operate in- or off-line, include:

The Series 3, with a 350mm web width and operating in semi-rotary mode at speeds up to 150m/min using the Fast Track die, 65m/min using standard semi-rotary tooling and 150m/min full rotary. Standard configuration includes coating, with options including hot foil with saver and hologram insertion, cold foil, semi-rotary screen, inkjet, flexo print unit, embossing, sheeting, laminating, lased die-cutting, FleyeVision inspection, turret rewind and coupon/neel & reveal module

foil, semi-rotary screen, inkjet, flexo print unit, embossing, sheeting, laminating, laser die-cutting, FleyeVision inspection, turret rewind and coupon/peel & reveal module. The Digicon Lite shares the same width and speed/die-cutting specifications but not the Fast Track die configuration. Options include cold foil, inkjet, flexo print unit and laminating.

The Digicon 3000 is 762mm wide and operates at 65m/min in semi-rotary mode. The standard configuration includes coating, and options include cold foil, inkjet, flexo print unit, sheeting and laminating.

Afinia

The Afinia Label DLF-1000 is an off-line die-cut/laminator built around a plotter die-cutter. It has a 216mm (8.5in) web width; the Afinia Label SR100 slitter rewinder longitudinally slits full-width (8.86in/225mm), pre-cut label stock, operating at 36m/min (120ft/min). "A key trend has been the development of the finishing system from basic varnishing and die-cutting format into a self-contained value-added converting system, with modules available to add a wide range of decoration techniques"

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UK Patent Application No. GB1509471.7











Brotech

The SDF finishing system includes new semi-rotary flexo print and die-cutting technology. Options include cold foil, inkjet, flatbed screen, rotary embossing and sheeting.

Cartes

The GT360 and Gemini 360 are modular finishing machines operating at speeds up to 150m/min on a web width of 360mm (14in). In-line or off-line configurations are supported. Standard configuration includes varnishing, inspection, laser die-cutting and lamination. Options include semi-rotary die-cutting, cold foil, flatbed screen, flexo print station, embossing and sheeting.

CEI

The CEI Boss Finisher is a modular machine which operates at speeds up to 500ft/min on a web width of 13in and 17in. It will operate in both in-line and off-line modes. The machine can be configured with rotary and semi-rotary die-cutting, coating, lamination, inspection and laser die-cutting, with options including rotary hot foil, cold foil, inkjet, rotary and flatbed screen, sheeting and both flatbed and rotary embossing.

Daco Solutions

The Daco DF350SR is a digital finishing line with semi-rotary die-cutting for short runs and full rotary for high speed longer runs. The compact machine has 600mm (23.6in) unwind and rewinds. The machine runs up to 40m/min (131ft/min) in semi-rotary mode and 175m (574ft) in full rotary. Standard machine configuration includes semi- and

full rotary die-cutting and coating, with options including inkjet, flexo print unit and sheeting.

Delta ModTech

The modular Spectrum Finishing System can be run either standalone or in-line. In full rotary mode it runs at speeds up to 152m/min (500ft/min) depending on process configuration, and up to 200ft/min (60m/min) in semi-rotary mode. Maximum web width is 13in (330.2mm). Standard machine configuration includes rotary and semi-rotary die-cutting, slitting coating and laminating. Options include inspection, laser die-cutting, hot foil, cold foil, inkjet, semi-rotary and full rotary screen, flexo print station, rotary and flatbed embossing and sheeting. The Edge combines the Crusader rotary converting platform with an Edge laser module, which is servo-controlled and can be moved to any location on the line - or away from the line for conventional processing.

DPR

The off-line DPR Digital Label Finishing Systems are all-in-one machines that laminate, digitally die-cut, remove the waste matrix, slit and rewind labels. The Scorpio Series uses a cutting plotter and the Taurus laser technology. The Scorpio systems operate on web widths of 215mm (8.5ins) and 355mm (14in), and the Taurus 215mm.

Emis

The standalone Flexor 380D integrates a buffer and semi-automatic turret rewinder. It has a print width of 380mm Cartes GT365Daco DF350SR

- Gallus ECS-C digital
- label converter Delta ModTech Edge laser converter
- DPR TRS22PL
- Brotech SDF

(15in) and speeds of up to 35m/min (114ft/ min). Standard features include both rotary and semi-rotary die-cutting, varnishing, laminating and inspection. Further options include cold foil, inkjet, flexo print unit and sheeter.

Esko

The Kongsberg line of cutting, creasing and milling tables includes the Kongsberg X and Kongsberg C with a range of table sizes and configurations that can be used for finishing digital label sheets.

Gallus

The ECS-C converter features a format-free die-cutter, flexo sleeve system with



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"The decision on which of these options to take or leave is an increasingly complex one, and will require consideration of the degree of automation and added value decoration required, and also the benefits of an off-line verses in-line configuration"



chambered doctor blade, presetting and short web path. Web width is 340mm (13.4in) and speed up to 60m/ min (197ft/min). A full range of converting options are available based on the ECS340 'Granite' press modules.

Grafisk Maskinfabrik

The range of digital label finishing equipment – configured for in- and off-line operation – includes: DC330 Nano with lamination, die-cut, slit/rewind as standard and optional inline buffer module, back scorer and 600mm rewind. Operating speed is 32m/min (105ft/min) in semi-rotary and 50m/min (210ft/min) full rotary modes on web widths of 200/330mm (8in/13in). The DC330HYBRID incorporates a laser module with optional barcode reader and optionally incorporates GM's automatic knife system.

The DC500 operates on web widths up to 500mm (20in) with speeds up to 72m/min (237ft/min) with a range of options including hot/cold foil, inkjet, flatbed screen, flexo print unit, flatbed embossing and sheeting, die-cutting and auto knife box.

The compact DC500MINI operates at up to 45m/min (148ft/min).

Grafotronic

The DCL2, configurable for inor off-line operation, converts on a 350mm/13in web width at speeds up to 80m/min (262ft/min) in semi-rotary mode and 180m/min (590ft/ min) full rotary. Standard configuration includes die-cutting, slitting, coating, inspection and lamination, with options including hot and cold foil, inkjet, flexo print station and sheeter.

Graphtec

The DLC1000 is an off-line digital label finisher which includes as standard laminating, plotter die-cutting, matrix removal, cross cutting and slitting. The unit works on a 216mm (8.5in) web width at 36m/min (118ft/ min)

Impression Technology Europe

Offers multiple digital finishing systems: The compact Eclipse LF3, designed for off-line operation, has a web width of 220mm (0.72ft) and speeds up to 5m/ min (16ft) with a plotter die-cutter and optional lamination waste mandrel. The Eclipse LF350 has a 350mm (1.14ft) web width and speeds up to 10m/min (32.8ft) with double plotter head option. The Eclipse DC220 has a 220mm (0.72ft) web width and speeds up to 18m/min (59ft/min) and





is designed for in- or off-line operation, with semi-rotary die-cutting.

Labeltech

The Labeltech Ortles slitter rewinder (formerly the IT350) and Eiger die-cutter are offered. Both systems are available in 330, 430 and 530mm web widths operating at speeds up to 350m/min and can be configured for in- or off-line operation with inspection. Options include inkjet and sheeting modules.

Lemorau

The EBR operates at up to 120m/min in rotary mode with die-cutting, slitting and lamination as standard features. Web widths are 250, 330 and 400mm. Options include clear-on-clear sensor, air trim removal and back scorer.

The EBRI is a dual propose machine to die-cut blank land pre-printed labels with web inspection. Options include lamination, air trim removal and back scorer. Both systems can be configured for in-line operation and sheeting is additionally available.

Newfoil

The 3534 and 5534 models are free-standing off-line flatbed machines for finishing pre-printed webs, which are hot stamped, embossed, spot varnished or coated in register with inspection. Low cost flatbed tooling is employed. Web width is 340mm (13.38in) and speeds 75m/min (250ft/min). Options include foil saver, inkjet, flatbed screen and sheeter.

Orthotec

The DGCON350 has a web width of 350mm (1.15ft) and runs at speeds in rotary mode up

Wide Web Digital Label



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CENTRA



1 Orthotec DGCON 1 Orthotec SRFD machine B Newfoil 3534

to 80m/min (262ft/min), and can be configured for in- and off-line operation. Standard features include rotary and semi-rotary die-cutting, coating, inspection and laminating. Options include cold foil, inkjet, semi-rotary screen, flexo print unit and both rotary, flatbed embossing and sheeting.

The SRFD3030 has a web width of 350mm (1.15ft) and runs up

to 50m/min (164ft/min), and can be configured for in- and off-line operation. Standard features include rotary and semi-rotary die-cutting, coating, inspection and laminating. Options include hot foil with foil saver, cold foil, inkjet, semi-rotary/ flatbed screen, flexo print unit and both rotary and flatbed embossing and sheeting.

"More finishing manufacturers are offering systems capable of both in-line and off-line configuration with the addition of a buffer and timing systems"

Primera

The off-line FX1200 Digital Finishing System includes plotter die-cutter, rewind and lamination. Web width is 8.5ins (22cm) and running speed up to 20ft/min (6m/min).

Rotatek

The Digitalis is a combined semi-rotary and rotary digital finishing unit available in web widths



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Werosys Concept

from 150-350 mm and printing length between 200-400mm in semi-rotary mode. Standard configuration includes offset print unit(s), die-cutting, slitting, coating, inspection and laminating, with options including hot foil with saver, cold foil, screen, flexo print unit, embossing and sheeting.

Rotoflex

The Vericut3 has a web width of 33.1m/ min (1.1ft/min) and operates at 50m/ min (165ft/min) semi-rotary and 92m/ min (300ft/min) in full rotary mode. It is designed for both in- and off-line operation. Standard configuration is die-cutting/ slitting, coating and laminating, with options including hot foil with saver, cold foil, inkjet, rotary embossing and sheeting.

SEI Laser

The Labelmaster offers a 4-headed laser die-cutting system with a web width of 360mm, operating at speeds up to 110m/min in either in-line or off-line configurations. Standard features include slitting, coating, laminating and inspection. The system is also available with conventional die-cutting, hot foil with saver, flatbed screen, flexo print unit and sheeter.

Smag

The 350mm-wide Digital Galaxie operates at speeds up to 40m/min depending on configuration. It is built around flatbed screen units on a web width of 350mm. The flatbed SP screen unit prints at up to 30m/min, with flatbed hot stamping with foil saver operating up to 40m/min and die-cutting station at up to 40m/min. Options include UV flexo unit, laminating, embossing (at 35m/min), cold foil and semi-rotary as well as flatbed die-cutting.A laser die-cutting option is offered through the Spartanics X350 laser, operating at up to 90m/min.

The E-Cut S330 is an off-line machine based on the Digital Galaxie to varnish, laminate, cut, slit and rewind, but without silkscreen printing or hot stamping modules. Options include flexo station, lamination, semi-rotary die-cutting, laser die-cutting and sheeter. Speed in semi-rotary mode is up to 45m/min.

Werosys

The Compact can be configured for both inand off-line operation and is available in web widths from 350-520mm, running at speeds up to 65m/min in semi-rotary and 200m/ min in full rotary mode. Standard features include die-cutting, coating, inspection and lamination, with options including laser die-cutting, hot foil with saver, cold foil, inkjet, screen, flexo print unit, embossing and sheeting.

18

The Concept line runs up to 65m/min rotary and 200m/min semi-rotary on web widths between 350-1,000mm. I can be operated in in- or off-line mode. Standard configuration includes die-cutting, slitting, coating, inspection and laminating with laser die-cutting available. Options include hot foil with saver, cold foil, inkjet, screen, embossing and sheeting.

See page 126 for a special feature on digitally printed packaging

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SPEED IS NOTHING WITHOUT CONTROL





Pilot Italia | 125



says Pilot's technology is all geared towards maximizing performanc

and materials on longer runs, and more on time with shorter

Automation maximizes Pilot performance

Pilot Italia has automated its offset production with unwind and rewind technology. Nick Coombes reports

hen Pilot Italia was created in 1968 as a branch of the French parent company, few could have predicted how successful it would become in the years that followed. And fewer still could have foreseen that this success would be achieved against the trend of flexo printing, by using primarily narrow web offset presses.

Angelo Manfredini, purchasing manager at the Italian plant, explains the company's investment strategy: 'Back in the 1990s the quality obtainable from narrow web flexo was no match for the rotary letterpress technique that was losing favor. HD-flexo and all the improvements it brought lay many years ahead, so the decision was made to use offset. It's a standardized process with inexpensive pre-press and an established reputation for high quality - it also fitted perfectly with our top-end customer base.'

As the business grew, a larger site was acquired early in the new Millennium before the company settled into its modern 20,000 sqm facility in 2012 at Cornate d'Adda, just east of Milan and overlooked by the Alps. Today, the plant houses 11 multi-color offset lines along with flexo and screen capability in combination as well as hot and cold foil and embossing. The company also retains rotary letterpress technology for specific jobs.

From early in the company's life, Pilot Italia looked to improve production efficiency on its rotary web presses by incorporating roll handling on some of its older models. In 2007, as it was installing new presses it

opted to investigate what improvements in automated performance could be achieved and concluded that the best choice was Martin Automatic.

Efficiency

The result is that eight years on, Pilot Italia has invested around 800,000 USD with the US manufacturer and has three Martin MBSF (F for Film) unwind/splicers and four LRD rewinders fitted to several of its Nilpeter MO and Drent VSOP presses. 'We estimate that the Martin equipment shows a time and material saving of at least 10 percent on our longer run work, and more on time with the shorter runs. The equipment also improves the efficiency of our inspection/rewind department as we can eliminate the meters of waste that are often removed from the rolls at the inspection machine, which slows down the process – and, we can more easily isolate bad labels,' adds Manfredini.

Quality is a byword at Pilot Italia, and it was the main criterion for choosing Martin Automatic as a long term supplying partner, according to Manfredini. 'We looked at all the competition and it was clear that the best balance of price, performance and reliability was offered by Martin. We prefer continuity to constantly switching suppliers, and in Martin saw a synergy with which we felt reassured and comfortable. To date it's been a rewarding partnership for both, and while the equipment has proved extremely reliable, we enjoy the level of ongoing support they give us."

Pilot Italia's work is all aimed at the high quality markets of cosmetics, personal, health and home care, food and beverage, and pharmaceuticals, with the company offering a range of products from its 11 narrow web presses including self-adhesive labels, blister films, pharma labels, tracking and security labels, and promotional tags. With a web width range that spans 120mm to 520mm the company is well-placed to handle most types of work, of which currently 40 percent is produced on paper-based substrates and the remainder on filmic materials. The company uses stochastic screening for enhanced high quality, and operates a double-day shift pattern to produce over 1.5 billion labels each year.

Now rated amongst the elite of Italy's self-adhesive label printers, Pilot Italia has long been a supporter of Finat, with company owner and CEO Andrea Vimercati a Past President of the organization. Despite the advances made in the flexo process, the company still believes that offset provides it with an edge in today's competitive label market. 'Our technology and expertise is all geared towards maximizing performance and it has been a very successful formula here,' concludes Angelo Manfredini.



Go to www.pilotitalia.com for more information

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Handling DOT and GHS regulations

Brian Beetz, regulatory specialist at Labelmaster, looks at the key requirements for compliance with a complex web of legislation

he Globally Harmonized System of Classification and Labeling of Chemicals (GHS) deadlines that went into effect on June 1 and December 1, 2015, respectively, have had a significant impact on chemical manufacturers and distributors.

By now, all chemicals being shipped by manufacturers and distributors should meet the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (HCS) GHS requirements, as well as the packaging, marking and labeling requirements for hazardous materials transported in commerce (eg 49 CFR Parts 171-180, IATA, IMO, etc).

The transport regulations help protect against accidents while hazardous materials are in transit – short-term, high-level hazards – and generally come from US 49 CFR Parts 100-185, based on the United Nations' Model Regulations. These are not affected by the new GHS-based HCS regulations.

The HCS is defined by OSHA in US 29 CFR 1910.1200 and adapted from the United Nation's GHS. It applies primarily to containers used in the workplace by employees, although packages shipped in commerce may require treatment depending on their consignee. These regulations set more stringent criteria and allow fewer exceptions, since they help protect people who work with hazardous materials (often stored in large quantities) day in and day out.

Mastering both GHS and transportation requirements for hazardous materials, and ensuring that one doesn't incorrectly impact the other, has proven a major task for the industry in general. Thus, in addition to complying with completely different sets of regulations for workplace HCS and dangerous goods (DG) transport, shippers also have to understand where one ends and the other begins.

Retractions complicate the challenge

As if mastering the regulations isn't complicated enough, there have been examples of agency retractions that have not yet made their way into final amended rules that can currently only be found in official letters of interpretation (LOI).

For example, in 29 CFR 1910.1200, Appendix C.2.3.3, OSHA states: 'Where a pictogram required by the Department of Transportation under Title 49 of the Code of Federal Regulations appears on a shipped container, the pictogram specified in C.4 for the same hazard shall not appear.'

OSHA later became aware that the US Department of Transportation (DOT) does not view the GHS pictograms as a conflict with DOT's requirements, and that in some international trade situations both transportation and GHS labeling may be required on the exterior of shipped containers. A December 20, 2012 LOI issued by OSHA clarifies this discrepancy and acknowledges that they intend to revise C.2.3.3; however, more than three years later no revision to the regulation has been completed.

Other GHS, DOT differences

To further complicate things, there are instances where a shipped container is the primary chemical container and is required to display GHS hazard pictograms and associated hazard statement(s), precautionary statement(s), etc. However, such shipments may not



GHS DOT label

"Mastering both GHS and transportation requirements for hazardous materials, and ensuring that one doesn't incorrectly impact the other, has proven to be no small task for the industry in general"

require hazardous material transportation labeling in accordance with DOT 49 CFR regulations.

These types of shipments have the potential to incur delays while in transit if someone identifies GHS labeling and questions whether or not the shipment may be missing any required transportation labeling/marking.

Since OSHA GHS implementation, real world applications continue to produce scenarios not explicitly covered in the regulations. Manufacturers and distributors will continue to be burdened with regulatory changes as the regulators struggle to get caught up and finalize amendments to address needed clarifications. The bigger picture, though, is continued progress toward global public safety.

To continue shipping products legally, use the same set of rules that you've always followed. However, the containers within those shipments may require labeling under the new GHS standards.

If packages serve as both the shipping package and the final-use container, they'll probably require both proper transport labels and the new HCS hazard communication labels.

Keeping on top of two sets of regulations is not easy, but will go a long way in ensuring shipments are compliant, efficient and safe.



For further information contact Brian Beetz at bbeetz@ labelmaster.com or visit www.labelmaster.com



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Digital package printing comes of age

Digital print for packaging continues to make inroads with new applications, and this journey is happening at an ever-increasing pace. David Pittman reports

he digital printing industry continues to make strides in all areas as it looks to expand the technology's market share in packaging, from technical aspects with faster machines and enhanced finishing capabilities, to new and innovative applications by brands and their printers with digital at their heart.

Oreo, Nutella, Coca-Cola, Pepsi, Yooji and many more are now finding clever ways to implement new packaging which is more easily enabled by, if not only achievable using, digital printing. Speed to market, infinitely variable designs and one-to-one communications are being used to refresh legacy brands, place new brands on the shelf and engage a new generation of consumers in new ways.

Last year, Labels & Labeling spoke to key players in both the digital flexible packaging and digital folding carton markets, with the

application of digital print for packaging. The following 12-18 months would see a snowball, it was predicted, and more rapid adoption of the various technologies available as the supply chain right up to the consumer saw the true potential and value of digital print for packaging.

Market developments

Fast-forward to spring 2016, and things have definitely moved on. 'We have seen great and amazing growth over the last two years,' says Amir Raziel, labels and packaging segments and solutions manager at HP Indigo. 'Brands are making big waves and the equipment has been in the market for a couple of years, so there are now many successful examples using it.'

Press manufacturers have continued

to make advances with the capabilities of their technology. Press speed, formats, color matching and repetition, and set-up optimization have all been amongst the focuses for equipment vendors looking to advance their position in the market for digital package printing. The HP Indigo 20000 digital press, as an example, now features a fully upgraded package that enables compatibility with new substrates, new color capabilities and support for the new HP Indigo ElectroInk Premium White in high-concentration, 20kg ink pails for industrial-scale productivity. Another example is Fujifilm's Jet Press 720S which can now be configured for folding carton applications thanks to increased vacuum pressure around the drum, together with a redesigned vacuum jacket, which allows the



press to accommodate a more diverse range of heavier cartonboard commonly used in packaging applications.

Advances around the press have further helped make digitally printed packaging an increasingly viable proposition. HP Indigo's Pack Ready is part of the company's work with third parties to deliver complete ecosystems around its digital packaging presses, including materials handling and finishing. The first launch under the Pack Ready banner is a lamination system built to the same format as the 20000 flexible packaging press, for the production of high-performance applications such as retort pouches. This system offers zero curing time lamination, with HP Indigo having developed a resin which allows a laminating film to form an instant and strong bond with the Indigo-printed substrate using nip pressure and heat. 'We are removing the production bottlenecks and barriers that stop digital print moving forward, that is the point with Pack Ready,' states Raziel.

In the folding carton finishing space, Xeikon's new FDU has been developed to aid efficient end-to-end printing and converting, and is described as being ideal for near-line finishing of digital work as well as offset litho runs. Highcon's new Pulse and Beam open up new potential for the technology's use in mainstream production environments with achievable operating speeds of 2,000sph and 5,000sph, respectively. Tresu's iCoat 30000 Twin applies two coats of varnish to digitally printed folding cartons, in-line in a single pass, and includes two flexo units capable of applying spot, partial or full surface coating immediately after the printing stage. This opens up numerous creative opportunities, with examples of possible effects including a double full-surface coat for extra protection, juxtaposing matte with high gloss, or combining full, spot or line effects and creating contrast or adding vividness to an underlying color.

From the printer converter side, notable installations have included many of the HP Indigo 20000 digital press with the likes of UNI Packaging and Südpack Verpackungen in Europe and Digital Packaging Innovations in Kenya, HP Indigo's first customer in Africa for this press. HP Indigo 30000 installations have taken place at Kartongbolaget in Sweden and Digilinck in Belgium, while Australia's Pemara has established its HP Indigo 30000, the first in the Asia-Pacific region, within its production environment. Digital printing is now a permanent component of Pemara's business, with further investments anticipated in the future. UNI Packaging is similarly investigating further investment through a third HP Indigo 20000. Kelly Rose, marketing coordinator and graphic designer at Pemara, says the company recognized the advantages of digital printing



Alexir has installed a digital workflow for folding carton. featuring a Xerox iGen 4 and Tresu Pinta coater



HP Indigo demonstrated the power of digital with pilot Perrier labels produced using HP SmartStream Mosaic and street art designs

early on. 'We made the decision to add digital technology to our equipment portfolio almost 15 years ago.'

'We have packaging presses installed all over the world,' says Raziel. 'We are selling into China now, which is a big breakthrough for flexible packaging.

'Everyone is after digital packaging and print. It was talked a lot about at drupa 2012, and since then we have seen continued advances. The technology is now attractive, and the real question is what will the market look like a year out from drupa 2016?

'Quality is no longer an issue, as we are now at a point of matching flexo and gravure. We are always looking at further developments and how we can take it a step further to stay ahead of the market, but quality is never a concern and not part of our discussions. An aside is color, and work is ongoing on how we hit color fast, precisely and consistently. Speed is something we are also working on, as is automation.

'We have achieved much of this in labels so have now set our sights on productivity, and with the HP Indigo 8000, we are at a point where digital print is suitable for mainstream production. It is different in

Integrating inkjet with gravure

Italian flexible packing machinery company Cerutti has worked to introduce digital to its portfolio through the integration of inkjet into its gravure printing and laminating equipment. This has been done in an effort to combine production steps that are normally carried out during finishing, such as the application of variable data components (expiry dates, ingredient lists, QR codes). 'Cerutti believes that this additional variable data application can represent an added value for the market,' says Costanza Cerutti, who leads the company's marketing department. 'The versatility provided by the integration of one or more units for digital printing gives the customer the opportunity to remove off-line operations, saving costs and time.'

See L&L.com for an exclusive online feature looking at this development.

packaging, where format was the main limitation. With our selection of press widths we can print most jobs, so now it is a case of improving the speed/quality ratio, and speed/productivity.'

Two UK printers have been making big headway with Xeikon's technology for packaging, with Glossop Cartons having installed a Xeikon 3500 alongside its Highcon Euclid and the world's first Highcon Beam, and CS Labels having made a number of hardware investments that strengthen its position as Europe's largest digital printer employing Xeikon technology. This includes its ongoing development of digitally printed flexible packaging using dry toner.

New markets

CS Labels has undertaken extensive testing to realize its digitally printed pouch offer, and is working with Xeikon directly to further

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Tresu and Vetaphone have shown a corona treater working on a sheet-fed press line, with a VE1A-J integrated with the Tresu iCoat 30000

the use of dry toner technology to produce flexible packaging, with plans to cement this as a fully-fledged option for using its equipment, according to Filip Weymans, labels and packaging segment marketing director at Xeikon. 'We have a cooperative relationship with CS Labels as we seek to develop a pouch suite that is compliant with regulations, and suitable for the various different flexible packaging applications. This is a long-term project and in the near-term our focus remains on pressure-sensitive labels and extending our presence in the folding carton market.'

This last point is to be supported by Xeikon's takeover by Flint Group at the end of last year, which resulted in the creation of Flint Group Digital Printing Solutions, with Xeikon CEO Wim Maes now having a dual role as president of the new division.

'Flint is a recognized name in folding carton, and gives us more gravitas and traction as a supplier to that market.'

Another recent development has seen Alexir Partnership report success after the implementation of a digital folding carton workflow featuring a Xerox iGen 4 press and Tresu Pinta coater, which has allowed it to break into small run, niche folding carton applications, namely in the artisan food market where small batches are prevalent.

Claire Summersby, marketing manager at Alexir Partnership, comments that, prior to its investment in digital, the company would receive enquires for small runs but its conventional litho operation was too costly. 'With the digital production line and its minimized set-up times, we can give these producers the fast supplies of appealing, high impact packaging that result in retail listings and sales beyond the farmer's market.'

Digital finishing

The digitization of packaging production extends beyond printing to the various downstream operations needed to get packaging on the shelf. No matter how quickly new product variations can be printed digitally, conventional finishing has been a bottleneck.

Tresu's iCoat 30000 and Pinta systems provide coating options for cartons digitally printed using HP Indigo and Xerox presses, whilst Tresu has worked with Vetaphone to show the first example of a corona treater working on a sheet-fed press line. This has seen the

"Flexible packaging is a long-term project and in the near-term our focus remains on pressure-sensitive labels and folding cartons" -Filip Weymans, Xeikon

Vetaphone VE1A-J integrated with the Tresu iCoat 30000.

Kim Krintel, vice president of Tresu's Digital Solution's division, says the development of high performance digital presses has been a catalyst for the company. 'It has provided an incentive to develop coating systems that contribute to a productive single-pass workflow for short and "micro" production runs. Coating is an essential part of the digital printing workflow for folding cartons. The competitiveness of folding carton workflows depends on being able to integrate the coating process in-line to enable single-pass production. This in turn reduces costs of logistics, human resources, material waste and set-up times, and is the basis for the short lead times.'

This is affirmed by Alexir digital production manager Scott Beadell, who sees the integration of a Tresu Pinta with the company's Xerox iGen 4 as integral to its success. 'We achieve the look and feel of the final printed result without extra logistics, material waste and set-up times. You can see immediately what the final product will look like.'

As well as Pack Ready, HP Indigo continues to work with Comexi on its Nexus L20000 water-based laminator. This is designed to work in tandem with HP Indigo 20000 digital presses, with a unit installed at HP Spain's Graphic Arts Experience Center (see Installations, p27-30) to showcase the capabilities of the two technologies. HP Indigo has similarly worked closely with Sei Laser on the development of PaperOne, the latest generation of a new modular platform for laser-based digital finishing and package converting. PaperOne can process up to 2,500 sheets per hour and has an automatic pallet loading and unloading system. The



UNI Packaging worked with Olives Et Al to deliver 400 pouches with eight designs in just one week

feeder can handle sizes of up to 53 x 75cm, and thicknesses from 150-600 micron. It can die-cut, micro-perforate, pierce, engrave and mark paper, corrugated board and adhesive-coated stocks as well as polypropylene, BOPP and PET. For carton converting, PaperOne can be configured with three different wattage lasers, increasing productivity and providing added redundancy and greater line speed.

Many of these finishing technologies also have applications in non-digitally printed jobs. Highcon's new portfolio of products, for example, are just as capable converting sheets printed conventionally as on a digital press, as is Scodix's new E106 digital enhancement press. Kama's new FF52i folder gluer and DC 76 ASB automatic die-cutting unit are too. However, the operational efficiency of these new machines, in fast changeovers and toolless functionality, means they are inherently well suited to the demands of converting in a digital supply chain. Kama's new technology has been optimized to be combined for very fast job and format changes and electronic job tickets, and fits into the digital workflow carrying out all the applications from the printed sheet to the ready-to-deliver folding box. The Scodix E106 is a B1 format machine with a speed up to 4,000sph, and delivers multiple print enhancements in one technology platform, including the Scodix Sense, Scodix Spot, Scodix Braille, Scodix Digital Embossing, Scodix Variable Data and Scodix Foil finishes. This is claimed to make medium to short run lengths viable that were previously unachievable. Also a B2 machine, the Highcon Pulse is a 'perfect fit' for all digital jobs printed on all HP Indigo sheet-fed presses.

Xeikon's new FDU has been brought to market to fill the gap

UNI Packaging

European flexible packaging specialist UNI Packaging has once again shown how digital can be used to the benefit of brands both big and small. In L&L issue 1, 2016 ('Diversified operation focuses on print', p52), UNI Packaging's work with Yooji to help successfully launch the baby food manufacturer with a range of unconventional flavors and ingredients is detailed. It has now worked with food producer Olives Et Al to deliver 400 pouches made up of eight designs in just one week. These were required for samples to be shown at the Farm Shop & Deli Show 2016. Using its Digiflex digital print offering, UNI Packaging was able to print, manufacture and supply the pouches, with the converter's Matt Baldock saying: 'We often talk of creating added-value for our customers, but to turn around a preformed pouch in seven days is nothing short of a miracle.' "Quality is no longer an issue, as we are now at a point of matching flexo and gravure" – Amir Raziel, HP Indigo

between the products on offer from Bobst, to Kama and Highcon. This 2,000sph flat-bed system handles sheet sizes from 400 x 400mm (15.7 x 15.7in) up to 530 x 1,000mm (20.9 x 39.4in) and has a maximum die-cutting size of 490 x 700mm (19.2 x 27.6in). Substrate thickness can range from 160 to 890 micron for paper and cartonboard.

Weyman's colleague Jeroen Van Bauwel, product management director at Xeikon, identifies 'a real gap' in the market for an easy, affordable and fast set-up option to handle the growing volume of short run, fast turnaround jobs.

'A key benefit of the technology is its ability to support smaller dies and counter plates for more cost-effective production. The fact that no nicks are needed between cartons is a valuable proposition for pharmaceutical and cosmetic boxes. It is capable of embossing, which allows printers to offer value added services, including Braille.'

These developments are integral to future growth of digital package printing, according to both Weymans and CS Labels technical sales director Andrew Mansfield, who describes converting as 'the big challenge'.

'Digital has a short lead-in so we need converting equipment that starts up quickly and is optimized for digital runs. It has come on but there is still some work to be done as it is not as digitized as the printing is.'

Partnerships

Supply chain partnerships are clearly a major component of taking digital print deeper into the packaging market. This sees companies up and down the supply chain working together, as well as suppliers working with brands to increase their understanding of the potential. Mondelez and Nestlé spoke together on a brand panel at the Dscoop EMEA 5 conference in Israel earlier this year (see p51 for more), where Christian Menegon, who is responsible for worldwide brand business development at HP Indigo, detailed how the company works with brands to educate them on the capabilities of digital printing.

Jacky Sidebottom-Every, sales director at Glossop Cartons, sees the need for education in the market to continue, largely around the value of digital in creating emotional engagement with consumers, and the costs. 'They need educating on the benefits to brand loyalty,



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UV Printing Ink and Lacquer





Multinational brands like Mondelez and Nestlé are finding ways to leverage digital package printing to engage with consum

the impact of the novelty factor and the emotional attachment of personalized packaging. And that there are different costs attached to digital.'

"The market's need for digitally printed packaging will increase dramatically over the coming years" – Kelly Rose, Pemara

The same is true for Mansfield, although he has seen digital become an easier sell due to buyers becoming more familiar with digital. 'Customers now understand we are not just talking about the unit cost. We are talking about reducing stock and the money that ties up. It's about the cash flow tied up in storing pre-printed products and about origination costs. It's a different mindset and way of thinking.

'Education needs to continue. As an example, we still receive artwork laid out for a conventional press. Designers don't fully understand digital and how to lay the artwork out.' As well as cooperating with innovative printers such as Glossop Cartons and CS Labels, Xeikon runs the Aura Partner Network which brings together information about supply chain partners and their integrated products and acts as a centralized location and a professional networking source.

HP Indigo has a similarly strong network of partners surrounding its digital presses, including Tresu. 'Coating technology providers contribute to the competitiveness of the folding carton workflow by developing systems that integrate seamlessly with printing and converting systems,' says Krintel. 'These offer fast changeovers of sleeves and varnishes, and precise registration at high speeds. The Tresu Pinta for Xerox iGen presses and the Tresu iCoat 30000 for HP Indigo presses are two examples.'

Raziel sees relationships as an important tool in leveraging the full potential of digital. 'Pack Ready is a proprietary development, but one we don't want to roll out on our own. HP Indigo doesn't sell laminators, so we are working with Karlville to develop, manufacture and sell a Pack Ready laminator. It is the same with films, materials, resins, etc. We want to create a community.'

The next steps

Both flexible packaging and folding carton have their own barriers to entry for digital technology, although more movement has so far been seen in the flexible packaging arena.



Xeikon and CS Labels have a cooperative agreement to work on developing pouches printed digitally using dry toner



For Chris Tonge, director of HP Indigo digital press user Ultimate Digital, the ability to add value is important. 'We are doing lots of interesting work with variable data and HP SmartStream Mosaic, and that is the bit that really interests me. Short runs are great if you're getting paid for them, but at the current speed adding value is what you should be doing. That was the whole reason for us getting into digital, and to take it beyond a simple package on the shelf. We're also exploring new avenues in non-food applications.

'We continue to make investments in flexo technology, with digital leading the business into new areas. We haven't moved a single job from our flexo operation to digital, and it has all been new business, some with existing customers, but a lot with new customers. Digital comes into its own when you're doing what you couldn't do in another way.'

Tonge has previously spoken on the issue of format, which was addressed with the 30in HP Indigo 20000. Format was a concern also for Glossop Cartons, with Sidebottom-Every indicating that this was one reason for its decision to invest in a Xeikon 3500. This press has a variable web width ranging from 250mm (9.8in) up to 516mm (20.3in). 'The Xeikon is versatile and has a big footprint. That makes us attractive to brands as we can cope with bigger carton sizes.'

For Weymans, the adoption of digital print in the folding carton market is still at an early stage. 'The industry is seeing run lengths come down and understanding the need for just-in-time manufacturing,' he says. 'Some converters have already moved into digital but it is still a long road ahead to become mainstream. In the carton market conventional print is still very healthy, so the pressures to switch over to digital are not as pronounced. Entrepreneurs are more eager to do things differently and are more openly looking to move into digital, so that is where we are placing our focus.'

Weymans sees big projects as being a stimulus for taking digital packaging into the mainstream. Coca-Cola started this ball rolling with its campaigns using digital, and has made conversations about digital easier for all in the supply chain.

'Will we see something of this magnitude again in labels and packaging? It's going to be a challenge as they broke many rules

"It is the future, end of story" — Jacky Sidebottom-Every, Glossop Cartons

and people had to put their head on the block to make it work. It required the input and drive of a number of key people, so might be a risk for a big multinational to do it again. It will require someone courageous.'

Here to stay

The mood of the market and rate of technology development make it clear that digital package printing is now firmly established. 'The market's need for digitally printed packaging will increase dramatically over the coming years,' says Rose, 'though there will still be some need for conventionally produced packaging for certain markets and applications.' Tonge agrees, especially with digital press speeds where they are. 'HP Indigo has got to make their presses go faster eventually, but we're happy at the current speed as it allows us to add loads of value.'

'Speed upgrades will see flexo take a battering over the next few years as more converters look at the potential of digital,' claims Mansfield.

'Brands are starting to get it,' continues Tonge. 'We've got some massive projects we're waiting to deliver, and the more that happens, the more other people want a share of the action.'

Sidebottom-Every predicts that in 20 years' time, digital will be the norm, adding: 'It is the future, end of story.'

'We are on a journey,' concludes Raziel. 'The journey started from a vision many years ago but for our customers, digital print for packaging is now here.'



See p51 for a discussion by brands on the use of digital print for packaging





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How to stop UV spitting

Sonia Arcos, technical sales director at Cheshire Anilox Technology, argues that good housekeeping and correct anilox choice can prevent ink spitting

The numerous advantages offered by UV inks, such as sharper graphics and richer colors, have made it the preferred ink by most narrow web printers. Unfortunately, a phenomenon commonly known as 'spitting' that only occurs when printing with UV inks remains a major problem in many pressrooms.

Spitting is when the ink is sprayed onto the web in an uncontrolled manner. This is caused when the doctor blade lifts because of excessive doctoring pressure, allowing the UV ink to pass under the blade and spit on the web. Spitting is a characteristic specific to UV inks as water or solvent-based inks never encounter this problem. But what does cause UV spitting?

Many studies have been carried out through the years without any conclusive answer. One contributing factor would be the higher viscosity of UV inks that can be five to seven times higher than wateror solvent-based inks. Higher viscosity puts more pressure on the doctor blade making it to lift.

Another contributor is the thixotropic nature of UV inks. The viscosity of UV inks decreases when subjected to stress. Stress is applied to the ink when it comes into contact with the doctor blade. With the sudden drop in viscosity at the doctor blade, the ink may be allowed to flow underneath the blade, resulting in spitting.

Understanding the possible contributing factors of spitting will help find the solution to this costly problem.

The main contributing factors to UV spitting are:

- High ink viscosity (1000-1900cp)
- Print speed above 100m/min
- Blade material, tip type and thickness
- Anilox volume and type of engraving

Changing Ink viscosity and print speed might not be a commercially viable option, but changing doctor blade and anilox type is, and it's a far more effective way to prevent and eradicate spitting.

Doctor blade

The main things to consider are:

• Angle and pressure

Recommended Blade contact angles for flexographic printing are between 25 degrees to 40 degrees with the optimum angle being near 30 degrees. Contact angles lower than 30 degrees are not very efficient and may leave some surface ink on the anilox that could contribute to spitting. For UV inks the contact angle should be at least 30 degrees or higher to minimize UV spitting as a higher angle will resist deflection better.

Applying too much pressure to the blade will create a very flat angle that will cause the tip of the blade to lift off the anilox surface. This will allow the ink to pass under this portion of the blade and transfer to the plate and to the substrate, causing spitting.

Thickness

A general rule of thumb in flexographic printing is always to use the thinnest blade possible while still being able to achieve a consistent wipe.

With high viscous solutions, however, thicker blades have always been used as they resist deflection better, minimizing spitting. Using them in print applications could compromise quality, however, as the thicker blade will provide a thicker ink film, which will affect the definition and sharpness of the printed images.

New blades have been developed which are thicker at the base to reduce deflection but still offer the same quality of wipe, as the tip of the blade remains the same.

By stiffening the base of the blade, the blade holds its position, allowing for a correct metering of



Flexoconcepts TruOrange low surface energy polymer blade



60 degrees hex engraving



the ink and withstanding better the pressure of the UV ink. The blade flexes against the ink pressure, significantly reducing spitting.

Material

New polymer blades have been developed to combat UV spitting from a different field – that of the material surface energy.

The new polymer blades have a lower surface tension than steel. This decreases the attraction between the doctor blade and ink and reduces the amount of ink accumulated behind the doctor blade, which can cause the blade to lift allowing the ink to pass through and causing spitting.

Anilox

The majority of anilox rolls used today are engraved with a hexagonal 60 degrees angle (Fig. 3). While its performance advantages over previous cell patterns are well known, so are its limitations in terms of ink release and spitting.

Because of the ink release limitations of the hexagonal 60 degree pattern, a new range of elongated hexagonal cell engravings has flooded the market.

This new elongated hexagonal engraving is vastly better at ink release and transfer and therefore has become the preferred choice of



MaXflo UV channel engraving



UniFlo Continuous channel engraving

many printers. However, on the spitting front, these engravings increase the amount of ink transferred at the blade/ anilox interface, thus increasing the chance of spitting.

In both types of engraving, the pattern created is a hexagonal closed cell. As the cells are not linked, the ink cannot flow across the engraved anilox surface as it rotates, and the only way out from the cell is upwards. Due to its high viscosity, UV ink tends to accumulate behind the doctor blade causing the blade to lift and allowing the UV ink to pass underneath, causing spitting.

The use of channel engravings has proven to be an effective way to eliminate and prevent spitting. A channel engraving , either a continuous channel or linked-in cells, allows the ink to flow within the engraved channel across the anilox surface, decreasing the build-up of ink accumulated behind the blade, thus reducing the hydraulic pressure inflicted on the blade.

Changing the anilox specification from closed cell to channel engraving has proven to eliminate UV spitting in 99 percent of cases.

A study carried out in the last quarter of 2014 by Cheshire Anilox Technology revealed that the use of MaxFlo UV channel engravings effectively eliminated UV spitting.



About the author

Sonia Arcos is technical sales director at Cheshire Anilox Technology. Joining Cheshire Anilox in 2005, Arcos has over 12 years' experience in the printing industry with strong technical knowledge of the flexo printing process.

Fifteen different UV label printers took part in the trial, where four types of engraving were tested. All fifteen printers that participated in the trial were experiencing spitting in their operations.

The different anilox engravings tested had the same cell volume, leaving the rest of the print variables unchanged: the same doctor blade, substrate, backing tape, plate and print impression were maintained in each test.

The trial was double-blind, meaning that neither the printers nor the researchers knew which anilox engraving was being used at the time of the print trial. The different engravings were referred as type A, B, C and D in order to differentiate and record data.

Different print speeds and viscosity of ink were tested to see results using different anilox engravings. See diagram (left) for the results.

UV ink spitting is a common problem amongst UV label converters that can be successfully managed not just by following good operating and housekeeping practices, but by selecting the right anilox.

Work with your anilox, ink and blade suppliers to determine the best system that works for you in order to minimize the potential of UV spitting.

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co.uk

For more information on preventing UV spitting go to www.cheshireanilox.

ANILOX ENGRAVINGS USED

PRINT CONDITIONS TESTED	60º HEX	75º HEX	30º CHANNEL	MAX FLO UV
SPEED <50M/MIN	×	~	×	×
SPEED >100M/MIN	~	~	×	×
INK VISCOSITY (1000-1200CP)	~	~	×	×
INK VISCOSITY (1201-1900CP)	~	~	~	×

✓ Spitting X No spitting was encountered



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Landa challenges hot foil

 $High \ quality \ metallic \ decoration - at \ half \ the \ cost \ of \ traditional \ hot \ foil \ stamping \ and \ at \ full \ press \ speed - is \ claimed \ by \ Landa \ for \ its \ new \ Nano-Metallographic \ process. \ Andy \ Thomas \ reports$

long with its new range of Nanographic presses, Landa demonstrated at drupa a new metallization process called Nano-Metallography. An L50 Nano-Metallography module was shown in action on an Omet XFlex X6 press on the Landa stand, demonstrating its compatibility with the full spectrum of conventional label printing processes, including narrow web flexo and screen.

'Current metallization processes are prohibitively expensive due to the high cost of foil and tremendous waste,' said Benny Landa, chairman of the Landa Group. 'Our Nano-Metallography technology will enable metallization at less than half the cost of foil, with zero-waste – and it is microwave compatible.'

Nano-Metallization involves the application of a monolayer of Landa 'NanoFlake' metal onto a substrate.

The process is similar in concept to cold foil. Firstly, a conventional flexo sleeve is used to print a 'trigger' image where metallization is required. When the substrate makes contact with the NanoFlake donor roller, the printed area attracts the metal and peels it off, with the metal adhering to where the flexo image was applied.

The donor roll is replenished with NanoFlake metal only in the areas of previous transfer, so there is no waste.

Nano-Metallization takes place at the maximum running speed of the press, and exactly replicates the topography of the printed trigger image. This means, for example, that an embossed metallized effect can be achieved using a Screen unit to lay down a thick layer of trigger image.

Interviewed by L&L, Matthew Lightstone, VP Nano-Metallization at Landa, explained the economic justification behind Nano-Metallization: 'In the conventional foil process there is lots of waste – essentially everything left after the foil has been transferred to the substrate, meaning only 5-10 percent of the metal is used and the rest is waste.

'The PE carrier is another problem area. It represents some 90 percent of the weight of the foil, to which the resin, lacquer and adhesive have to be added. The actual metal in a new roll is around 1 percent, of which only 10 percent is used. So 99 percent of the roll is waste and sent to landfill. That cost is ultimately picked up by the brand owners, and there is a significant carbon footprint.'

Other areas of inefficiency identified by Lightstone include the lead time for rotary foiling dies; short shelf life which makes stocking a challenge; time consuming set-ups; and reduction in press speed during the run. 'So hot foiling cuts in half the productivity

Availability

Commercial availability is still some way down the line, and not before 2017. 'drupa was a technology demonstration and we were not taking orders,' says Lightstone. 'We were looking for feedback not only for labels but also folding cartons, flexible and digital.'

and capacity of the press. And generally, operators find the process complex, wasteful and time consuming, and do not like it.'

Because Nano-Metallography reduces waste and increases productivity, Lightstone says it opens up opportunities for short runs of high quality metallization.

In terms of pricing, Lightstone reveals, 'We are pricing the metal at half the cost of metal foil, so there will be an immediate cost reduction. In addition we are replacing a thousand dollar die with a standard flexo sleeve. As soon as you radically change the economics like this, you open up to new print and product categories.'

Lightstone sees Nano-Metallization as challenging metallized substrates, since it is as fast at full coverage as on details and does not require printing of an opaque white where a non-metallic effect is desired.

Metallized inks and cold foiling are also in Landa's sights. 'Metallic inks are potentially cheaper, but people use foil because you don't get that shiny metallic effect with inks. Cold foil has a high degree of waste because you can't make use of saving.'

One of the most interesting potential applications is in microwave packaging, as the NanoFlake metallic particles are non-conductive. This could open up exciting new opportunities in flexible packing and wraparound sleeves.

The process has not yet been trialed on shrink sleeves, but this could be another interesting avenue to pursue.

In principle the Nano-Metallization module can be integrated into any type of press, including wide web flexo and sheet-fed offset. It has been successfully tested in Israel on Landa Nanographic digital press.



For full review of new Landa presses at drupa see exhibition report in L&L issue 4



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Reclosable labels meet new needs

Reclosure labels extend product life while satisfying brand owners and consumers. Anh Marella and Luuk Zonneveld at Avery Dennison Label and Packaging Materials report on recent developments

he opportunity for reclosure label applications is growing globally. The technology has been used for several decades in flexible packaging consumer goods applications such as baby wipes and household/industrial cleaning wipes, and continues to develop and grow as new applications arise. But today it is becoming a more common packaging closure format for flexible packaging of deli meats, produce, cookies and snack foods.

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Consumer demand for convenience and packaging functionality, plus the desire for gaining full value from their purchase and reducing food waste – of which the Food and Agriculture Organization of the United Nations estimates is approximately about 1.3 billion tons annually – has led brand owners to seek new options.

The packaging for this application uses a pressure-sensitive adhesive label that has an easy-open lift tab, which is used to open the package. The label itself holds the reclosure adhesive and can be used repeatedly.

With the selection of the right facestock, the reclosure label options offer benefits that include keeping moisture 'in' for wet applications and providing an enhanced oxygen barrier that keeps food products fresher longer.

For the brand owner, the label can carry the ever-important brand messaging on both store shelves and post purchase. And because the label is part of the package's reclosure function, that messaging is repeated every time the consumer uses the product. "Consumer demand for convenience and packaging functionality, plus the desire for reducing food waste – of which the United Nations estimates is approximately about 1.3 billion tons annually – has led brand owners to seek new options"

Reclosure segment

While wet reclosure – defined as the wipes segment – is the more mature as compared to the food reclosure segment, it continues to evolve and grow. The European share of this sector alone, according to Euromonitor, was four billion packs in 2014.

The complexity of the application is shown as new cleaning products and applications are commercialized. Different chemical combinations used as the cleaning/treatment solution for wipes can be quite aggressive in terms of the reclosure label's adhesive.



Continuous research on new adhesive formulations enables label manufacturers, converters, co-packers and brand owners to utilize this technology. Keeping ahead of the curve can take some time – it's adhesive development but on top of that there is extensive testing by the brand owner or co-packer for things such as chemical compatibility and UV stability. It's an investment of both time and money on the part of the brand owner, but in the long run, the deciding factor is improved packaging performance that translates into a better consumer experience over traditional flexible packaging reclosure options.

Food packaging offers a different set of challenges. Pressure-sensitive reclosure label innovations must provide payback to the brand owner as well as to the consumer. Through its barrier properties, the pressure-sensitive reclosure label can add to a product's shelf stability by resisting oxygen and moisture transmission. And while this technology can be used on packages of all sizes, its value to both the manufacturer and consumer increases with package size. Packaged cookies, snacks or slices of bread and other food products that are sensitive to oxygen or moisture exposure will remain fresh for a longer period of time compared to conventional reclosure packaging. This means that brand owners can have their product in the supply chain longer while the consumer would benefit from the easy open and reclose feature.

As more food packaging applications are considered, co-packers are experimenting with new, thinner films, as well as new lidding and flexible films. New adhesives are being introduced that expand the range of pressure-sensitive reclosure label options for these new applications and substrates. This positive development for the industry is in direct correlation to brand owner/consumer demands.

Technical considerations

As pressure-sensitive reclosure label applications expand, so too does the overall technology. Flexible film manufacturers and co-packers have an opportunity to work with label manufacturers and converters to develop product together to improve performance, improve costs throughout the value chain and expand the application to other areas. For example, the reclosure label option may actually save a co-packer time in terms of package filling; there's no need to add the primary label to the front of the packaging. The label can include primary graphics and be affixed to the flexible film during the label converting process. The packer receives pre-labeled film into its facility, making the reclosure film a drop-in process.

Facestocks and adhesives have been specifically designed to meet wet and dry applications. There is no need for overwrap or secondary packaging. Proper application depends on several factors, including the product being packaged, the packaging materials and



"Proper application depends on several factors, including the product being packaged, the packaging materials and substrates and its type of finish"

substrates and its type of finish.

There also is the 'peel feel' factor to consider; this is the level of resistance that the label delivers. The desired peel force can be different per end user, country or product. Some like a strong, almost zippy bond while others may opt for a smoother, easier peel.

It's also important to note that, in food packaging applications, adhesives must comply with governmental standards and directives. For example, in the United States the label and packaging combination meets FDA 175.

A fresh approach to fresh products

Beyond current applications in food and wet wipes, potential new pressure-sensitive reclosure applications include laundry detergent pods, pet foods and treats, personal products such as cotton swabs/ buds and even frozen foods.

This technology is also an opportunity for package designers to incorporate 'ease of use' throughout the consumer experience. Brand owners are afforded an opportunity to promote a packaging feature that adds value to consumer. It allows them to show they are committed to sustainability because pressure-sensitive reclosure label packaged goods are less likely to be re-packaged by consumers than those packaged in traditional goods. A package that lasts from shelf-stocking to end-of-use in a consumer's home precludes the need – and the addition to the waste stream – of a secondary plastic bag or container. In addition, the consumer keeps being exposed to the brand as well to product information like ingredients and best before date.

Pressure-sensitive reclosure labels offer true innovation and value from the brand owner to the consumer, with high-quality graphics, better functionality and excellent reclosure functionality over the multiple open-and-close cycle of flexible packaging.



Anh Marella is senior product manager, Select Solutions Collection, and Luuk Zonneveld is product manager Sustainability, Reclosures & Removables, at Avery Dennison Label and Packaging Materials

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Label Trends Flexo in China

How many flexo machines are installed in China? Kevin Liu analyzes the latest data from CAPT, which includes both narrow and wide web figures



69%

of flexo presses were installed in the three main printing industry areas:

South: Guangdong 17.6% East: Shanghai, Zhejiang, Jiangsu 33.5% North: Beijing, Tianjin, Shandong, Beijing 17.9% Narrow web flexo is growing rapidly, and most installations are from international suppliers. There are around 40 new machines installed every year for narrow web.

Narrow web machines installed:

2015: 37 / **2014:** 27 / **2013:** 41 / **2012:** 52

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