Ideas for the future

Markets across the Middle East are providing the global package printing industry with new materials, technologies and opportunities

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MAPPING OUT THE FUTURE OF CARTON

A CONVERTER'S VIEW ON THE FUTURE OF PACKAGE PRINTING

PACKAGING TO INSPIRE & DELIGHT

How are the latest tools and designs shaping the future for printed packaging?

ISSUE # 4

SOLUTIONS FOR HIGH-QUALITY SHORT TO MEDIUM RUN PRINTED PACKAGING

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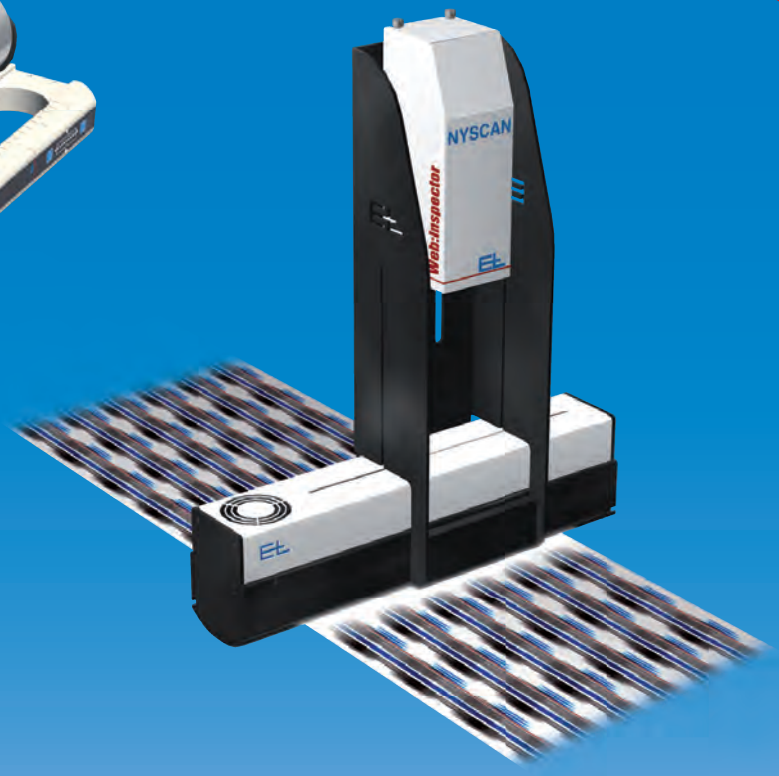
Web Guiding Systems with command station RT 4008

NYSCAN
Print Inspection



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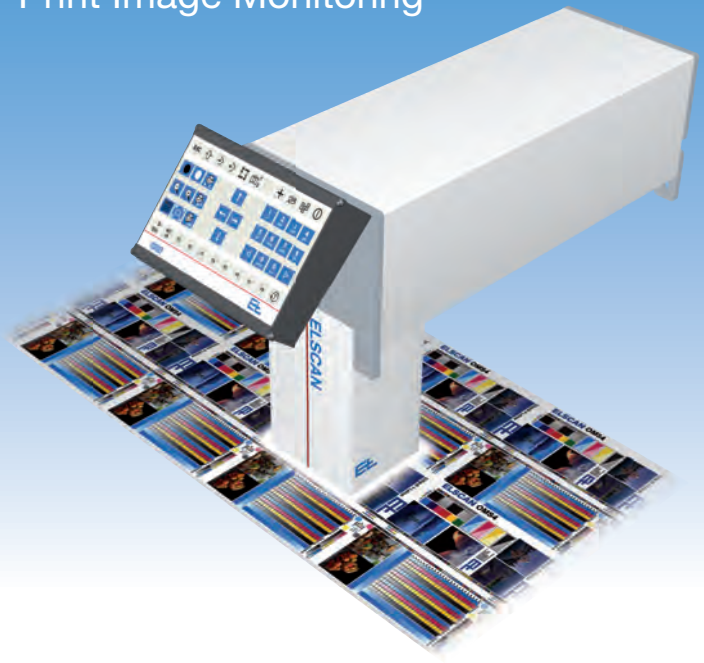

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PPW features

PPW intro

It's time to be different!

There are only three things that matter in printed packaging – quality, quality, and yes, you've guessed it, quality! While many, if not most of you, will already be shouting a response along the lines of: what about price, and delivery, and customer service? – I'd reply that all are part of the big 'Q', and all are now taken for granted in a market that is super sensitive, and highly competitive.

So, where does that leave converters? Answer: squashed between customers applying price pressure from above, and suppliers, squeezing the last cent out of the raw materials that are essential to fulfill each and every order. A hopeless situation, you might think, and one which, in the light of continued economic gloom of the developed markets of Western Europe and North America, would seem unlikely to improve any time soon.

But, help is at hand. At least, it is for those who differentiate their businesses from their closest competitors' by diversifying and applying some lateral thinking. Every supermarket shelf highlights how much packaging has changed, and this at a time when retailing is under severe pressure. As often happens, it takes a crisis to drive creativity.

My point is this: there is little that any company can do to influence the state of the market – but, what it can do is make use of the latest technology and know-how that is on offer. Ongoing developments in pre-press, inks, coatings, substrates, anilox rolls, digital workflow, plates, printing presses (conventional or digital), drying and converting techniques, combined with the advice available from industry bodies all add up to a greater degree of help than ever before.

Those who make best use of what is available, and are prepared to be innovative, will grow their business and increase their market share – and that is a result!

Nick Coombes
Editor
editor@packprintworld.com

NEWS

ARTIOSCAD UPDATE BRINGS NEW DIMENSION TO PACKAGING DESIGN

Esko has launched an update to its ArtiosCAD design software, offering a "paradigm shift in packaging design from 2D to 3D".

ArtiosCAD is the flagship structural packaging design editor in Esko's software suite with over 13.000 licenses sold worldwide.

The pre-press specialist said ArtiosCAD 12 provides tools for 3D design, editing, rendering and visualization, and ensures that the viability of a package is discovered further upstream in the supply chain.

It also provides new tools for packaging design and process integration to help users gain productivity and increase efficiency.

Richard Deroo, Esko product manager, structural design, said: 'It all starts with structure. The structural design determines the placement of the graphics. The package converting is determined by the structure.

'Structure and graphics, as well as structure and logistics, are brought together with the use of ArtiosCAD. Only ArtiosCAD offers end-to-end communication for the entire packaging supply chain.

'Our commitment is to continuously improve our solutions for our customers to help them fulfill increased demand to push more products to market faster, at the lowest cost, in a global market.'

ArtiosCAD 12 has integrated the latest native 3D file import libraries from Esko's technology partner, Spatial. This offers a speed improvement of over 50 percent, which means designers will spend less time waiting to import 3D models.

Users will also benefit from the 3D import preview feature, allowing them to select individual parts from a model assembly. This lets the structural designer quickly and automatically build a carton around the imported 3D parts to be packaged.

In addition, ArtiosCAD helps to assemble multi-part designs and displays with a number of new time-savings features. For example, with a single mouse click users can fill a carton, case or tray with the product to be packaged.

Read more about the Esko portfolio of packaging pre-press and design tools on P34

LEO RELAUNCHES LUXURY PACKAGING BRAND

Leo has launched a new brand identity to showcase its luxury packaging concepts and separate this offering from its existing publishing services.

Leo Luxe is a division of Hong Kong's Leo Paper Group, a global printing communications company.

The packaging division was officially launched earlier this year under the Leo Paper brand to expand the packaging side of the business.

It produces an extensive range of packaging formats, including flat, rigid and foldable boxes, and gift bags for luxury retail brands.

It has six offices in the US and Europe, as well as design teams in the US and Hong Kong. A number of other sites and manufacturing facilities are also present in China, with a manufacturing team of more than 18,000.

Through this footprint, Leo Luxe has access to more than 90 presses, with two- to eight-color capacities, as well as working with a number of lamination and UV coating machines.

Leo Luxe sales director Tim Chandler said 'While our expertise in print and finishing can be transferred from one market sector to the other, the packaging industry has some very obvious and different needs to our customers in the publishing sector, and we wanted to create a new brand identity that would reflect how we too have different capabilities and specialist services, developed specifically for the distinct requirements of the packaging market.

'The new Leo Luxe brand embodies our innovative, high-quality packaging offering for the luxury product industry.

'It's a new identity for this new offering from Leo and will hopefully soon become synonymous with the high-end, premium packaging we design and manufacture as well as the high-quality customer service that we pride ourselves in delivering.

'One of the areas that we specialize in is the application of secondary processes. We have developed over 50 processes that create spectacular effects on different media, such as glittering, flocking and foil-blocking.

'Some of these processes can transform paper into looking like other materials such as leather, metal and wood. In addition, we have also developed RFID devices for security and tracking and often incorporate special sound and lighting features into our luxury packaging designs.'

He added: 'Many of our customers are in the cosmetics, perfume, gift and luxury beverage industries. Our objective for all our packaging concepts is to fully encapsulate the message and requirements of the brand as well as help add value to their products.

'The packaging market certainly has a bright future,' said Chandler. 'Packaging is an integral part of the brand's image and, while the needs of the brand and marketing message may change, the fact that packaging is a means to communicate these messages remains constant.

'Packaging works very hard in modern retail outlets. Surrounded by competitor brands, our customers' products need to stand out on the shelf and offer the consumer something more exciting, unique and luxurious than any other. Most of the time, the packaging provides the consumer with their first impression of the product and this is why it is so critical that we design, print and finish our products to the highest standard.'

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NEWS

MULTI-BRAND RETAIL FDI DECISION BRINGS BACKLASH

Opposition to retail FDI is based around the impact it will have on the country's "unorganized" retail chain

INDIA MOVES AHEAD WITH RETAIL REVOLUTION

The Indian government is moving ahead with plans to overhaul the country's retail landscape with confirmation in early autumn that it is to allow retail FDI in multi-brand stores, despite ongoing opposition to the plans.

Retail FDI, foreign direct investment, in multi-brand stores was previously prevented in India owing to the perceived impact it would have on India's small and sole-traders, who make up the majority of the country's existing retail environment.

Full retail FDI in single-brand stores has previously been granted, but the decision to allow 51 percent investment by foreign firms in multi-brand stores grants the like of Carrefour and Walmart the opportunity to bring store formats more commonly seen in Western markets to India.

The decision does come with certain caveats though, such as the decision to permit retail FDI being placed in the hands of individual states. In addition, stores can only be opened in cities with populations in excess of one million, otherwise the location is defined by the local state, although preferably in the largest city.

Foreign retailers will have to source almost a third of their manufactured and processed goods from industries with a total plant and machinery investment of less than US$1 million, and will have to invest a minimum of US$100 million, with at least half of their total investment into back-end infrastructure, such as warehousing and cold storage facilities.

The decision to allow retail FDI in multi-brand stores has, and continues to, face stiff opposition, with protests in cities and towns across India when the announcement was made, and tough political stances, such as the declaration by the Bharatiya Janata Party that it would scrap the proposals if voted into power.

However, in an address to the nation, Indian Prime Minister Manmohan Singh said: 'Organized, modern retailing is already present in our country and is growing. All our major cities have large retail chains. Our national capital, Delhi, has many new shopping centers. But it has also seen a three-fold increase in small shops in recent years.

'In a growing economy, there is enough space for big and small to grow. The fear that small retailers will be wiped out is completely baseless.

'We should also remember that the opening of organized retail to foreign investment will benefit our farmers. According to the regulations we have introduced, those who bring FDI have to invest 50 percent of their money in building new warehouses, cold storage and modern transport systems.

'This will help to ensure that a third of our fruit and vegetables, which at present are wasted because of storage and transit losses, actually reach the consumer. Wastage will go down; prices paid to farmers will go up; and prices paid by consumers will go down.

'The growth of organized retail will also create millions of good quality new jobs.

'We recognize that some political parties are opposed to this step. That is why state governments have been allowed to decide whether foreign investment in retail can come into

Global retailers will be closely looking at how India prepares to permit 51 percent retail FDI in multi-brand stores

their state. But one state should not stop another state from seeking a better life for its farmers, for its youth and for its consumers.

'In 1991, when we opened India to foreign investment in manufacturing, many were worried. But today, Indian companies are competing effectively both at home and abroad, and they are investing around the world. More importantly, foreign companies are creating jobs for our youth – in information technology, in steel and in the auto industry. I am sure this will happen in retail trade as well.'

Global retail giant Walmart, one of the foreign firms heavily linked with any change in retail legislation in emerging markets, said: 'We believe that allowing 51 percent foreign direct investment in multi-brand retail is an important first step for the Government of India to further open this sector.

'We are grateful that the Government has realized and appreciated the value that we will bring to strengthen the Indian economy. This policy change will allow us to connect directly with the consumer and save them money. By being "stores of the community," we will also help them live better. We are willing and able to invest in back-end infrastructure that will help reduce wastage of farm produce, improve the livelihood of farmers, lower prices of products and ease supply-side inflation.

'Through these, and several other initiatives, we hope to make a positive impact on the lives of the people of India.'

It is anticipated that it will take up to two years for international firms to open up operations in India, with Walmart telling the *Wall Street Journal* it was hoping to have a store open within 12-18 months.

Industry commentator, and *Package Print Worldwide* managing editor, Andy Thomas, said: 'It's generally agreed that allowing FDI by global retailers in India will give a significant boost to domestic growth, encourage the development of modern nationwide logistics chains and greatly boost the demand for value added labels and packaging.

'Up to now, foreign retailers have only been able to enter India with majority owned businesses if they are selling their own-brand products – multiple brand vendors always needed to be in a minority partnership with an Indian partner.

'Now that has changed, with the passing by the Indian government of a retail industry FDI act allowing foreign retailers to own 51 percent of their Indian enterprises, which will most likely come from acquisition in the early stages.

'The government tried to introduce FDI earlier this year, but was forced to retreat in the face of raucous opposition protests and co-ordinated street demonstrations. Now the cabinet has summoned the courage to try again, and this time it looks like it will stick.

'But to get it through parliament a number of loopholes have been inserted which could fatally weaken the new law.

'Most importantly, the government has given each state an effective veto over FDI in its own jurisdiction. So far just a handful of states have announced they will sign up, including Metropolitan Delhi.

'Throughout India, however, opposition is growing, most ominously in key states such as West Bengal and Punjab, which have announced implacable opposition to retail FDI.

'Making this situation worse, another clause in the bill means foreign-owned multi-brand retailers can only set up in cities with one million or more inhabitants. There are 53 such cities in India, but only 16 in states which have signed up to FDI.

'So we may yet see the first Walmart, Carrefours or Tesco in India, bringing with them the complex supply chains of the major global brands.

'But how keen will they be to come to India in the face of mass popular hostility, whipped up by India's famously fractious opposition? On the other hand, can they afford not to be selling to one of the world's youngest, biggest and fastest growing populations of middle class shoppers?'

NEWS

ROTOMETRICS HOSTS SUCCESSFUL EUROPEAN OPEN HOUSE

Precision rotary tooling specialist RotoMetrics hosted a European Open House event at its UK headquarters in late September, with 20 international suppliers and label industry customers from across Europe gathering to hear about opportunities beyond labels.

Attendees at the three-day event heard from a number of RotoMetrics' own staff, as well as presentations from suppliers, and were given a guided tour of the manufacturing facilities at the Walsall plant.

Peter Emerson, the recently appointed European managing director for RotoMetrics, spoke of how the company is planning to offer a revised flexible die portfolio as the synergies and technologies from the acquisition of Gerhardt come to the fore.

UK and Ireland sales director David Casey reiterated this on a factory tour, stating: 'Such is the nature of sales that both companies had been telling customers that their products and processes were better than the other.

'The fact is that both are good for different applications. Consolidating the two companies allows us to cherry pick and offer the best from both.'

Emerson said: 'Henceforth, we will be trading solely as RotoMetrics as it has a bigger presence around the world and the name is better known in key markets.'

Chris Green, RotoMetrics' European business development director, gave the main presentation addressing the opportunities for label converters to go beyond labels, the theme of the event, and spoke of various industries that require die-cut products that could be produced using existing converting equipment.

This included the potential to extend into packaging converting, but also medical, industrial and other markets that do not require the application of ink to a surface.

The astronomical growth in mobile phones was one of the main markets he highlighted as needing die-cut components, with a global total of six billion devices and each requiring 34 components, equating to an opportunity for some 204 billion die-cut parts.

'We are looking at markets where we can supply die cutting tools, and if they need those then it is a potential avenue of business for label printers.

'The market needs to innovate and diversify, and find ways of adding value to products.'

The factory tour included following the production of both flexible and solid dies from smooth steel barrels to the finished product, with explanations of both the CNC and EDM processes used.

The labor-intensive hand finishing of EDM dies and the thorough testing of each and every die produced at the site were also covered.

A table-top exhibition inside the specially-erected marquee that played host to the event featured companies ranging from press specialists Gallus and Mark Andy, platemaker Dantex, business software developer Label Traxx, finishing company AB Graphic and material supplier Ritrama, through to the rebranded European Flexographic Industry Association (EFIA).

In closing the event, Neil Lilly, RotoMetrics' former sales director, now in the role of customer service director, said it had been a great success. He added that the company is planning to make it a biennial event.

'We had a good attendance over the three days, and are thankful for the support of the 20 global suppliers that exhibited.'

HIGHCON CONTINUES ADVANCE OF EUCLID

Israel's Highcon has continued to advance its Euclid digital cutting and creasing system for streamlining folding carton production, with technological and operational advancements set to increase its presence in the market.

Nigel Tracey, Highcon's international sales director, outlined a number of advances that have been made to the system since it was debuted at the Drupa tradeshow in May.

These include improvements in the cutting and creasing quality, and efforts to show the equipment's compatibility with filling lines to streamline the manufacturing time even further. Other areas being investigated include: waste stripping; further finishing, such as simple embossing; controlling the atmosphere around the lasers; and speed.

Highcon has also announced the appointment of Baumann as its agent in Germany, growing its distribution base in Europe, which already extends to around a dozen countries.

Of the Baumann deal, Tracey said: 'We are looking forward to cooperating with Baumann and are excited about introducing the Highcon Euclid into the German market which is known for its appreciation of advanced technologies.

'We believe the Highcon direct-to-pack digital finishing solution will be very well received by folding carton converters here.'

Final beta testing of the system has taken place, and it is commercially available with early adopters. A dozen or more units will be installed in 2013.

During the recent ECMA Congress 2012 *(see p38)*, Tracey added: 'Many different brands and product versions are drivers for shorter run lengths, but the division of products means order volumes are falling.

'Packaging's lifespan is shorter as well, with revisions every 12 weeks by some brands.'

He said analog converting causes bottlenecks in the production process, but the Euclid can eliminate this issue.

'You have to think differently to attract new business in the current climate.'

Read more on Highcon's digital cutting and creasing system for folding carton production on p24

PET FOOD BEING ELEVATED TO PREMIUM STATUS THANKS TO PACKAGING ADVANCES

Pet food is being elevated to the position of a premium product thanks to advances in the segment's packaging.

Interquell's Happy Dog pouches won a silver award for innovation in the DuPont Packaging Awards 2012 earlier this year, with Mondi Lindlar accentuating the packaging by using stamped silver 3D lettering, matte OPP film and a high-definition flexo printed packaging motif.

Stefan Gutheil, managing director of Mondi Consumer Packaging, said on receipt of the award: 'The use of embossing, one of the most interesting finishing processes for printed products, is an excellent way to make consumer packaging stand out.

'It can be used not just for lettering and logos but also for picture elements and entire images, with impressive results.'

Gutheil added: 'In addition, the high-definition flexo print technology results in images with sharp definition of contours and strong colors giving the pet food pack an even more appealing look.'

As well as high-quality finishing, flexible packaging is also offering animal feed environmental benefits to previous packaging types.

North America's Eagle Flexible Packaging has started supplying Equatic Solutions with a printed flexible pouch product for its Horse Quencher product, an all-natural mix of grains and flavorings that entices horses to drink water.

It was previously retailed in a 3.5lbs bucket but is now available in a similarly sized pouch. Eagle said the empty pouches ship flat and weigh less than an ounce, versus the former buckets that took up a lot of space and weighed over 3oz each.

Horse Quencher is described by Eagle Flexible as an "exciting project as it accomplishes the US Environmental Protection Agency's most preferred method of solid waste management, which is source reduction".

Fellow North American converter Flair Flexible Packaging said a customer recently overhauled one of its pet food lines, with the packaging redesign changing the perception of the product with consumers into that of its premium line.

Initially, the product line was its mid-tier range, but with the incorporation of a partial matte section the designers were able to produce packaging featuring both matte and gloss finishes. Flair said that this process, coupled with the use of rotogravure printing, provide "outstanding results".

Plans to make changes to the actual premium line were delayed as a consequence, and the customer continues to benefit from upgrading its pet food packaging.

Functional features, such as degassing valves and laser scoring, are also being used to raise the standard of pet food packaging even further, while Flair has also developed special tear-resistant technology that allows pet food manufactures to down-gauge the thickness of their packaging while at the same time provides them with a stronger product.

Additional benefits from down-gauging the package thickness are lower amounts of source materials used and lower freights costs resulting from lighter packaging, as with the flexible pouch now being used by Equatic Solutions.

With the finishing and use of high-end materials, Flair said the production of pet food packaging does not differ greatly from that of human consumption packaging.

A spokesman for the company said: 'All the concerns are the same for both; package integrity, the ability to machine, shelf life, graphics capabilities and price.

'Our manufacturing process for pet food packaging is identical to that for human food consumption. We follow the same protocol and ultimately it is up to the filler/packager/manufacturer to follow the requirements for safety.'

IGGESUND MILL BECOMES SELF-SUFFICIENT WITH NEW RECOVERY BOILER

Iggesund Paperboard has inaugurated a new recovery boiler at its mill in Sweden, enabling the facility to operate on 100 percent biofuel.

Construction of the recovery boiler at the Iggesund Mill took two years and cost SEK2.3 billion (€240 million).

The company is also building a biofuel boiler at its mill in Workington, England. That investment, for the production of the paperboard Incada, will cost SEK1.1 billion (€123 million) and involves a radical change of energy source from today's fossil natural gas to bioenergy.

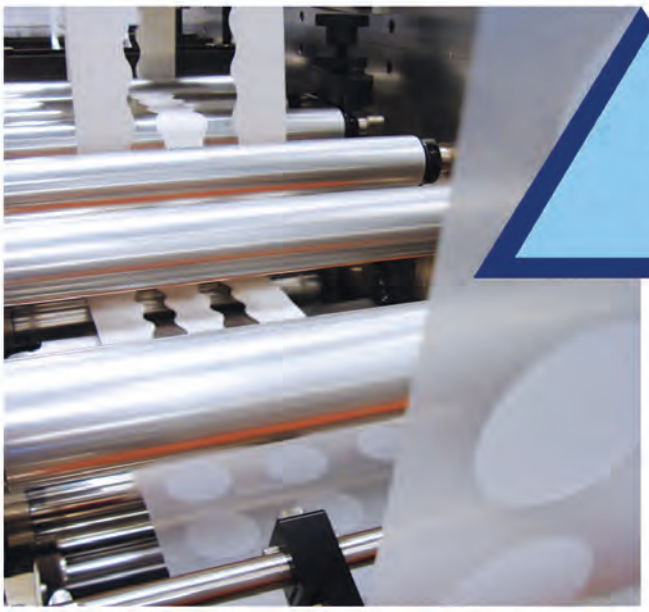
The new biofuel boiler at Workington is scheduled for completion in the spring of 2013.

The ceremony in Sweden was conducted by Lars G Sundblad, who was managing director of the company at the end of the 1950s, when the decision was made to begin manufacturing paperboard.

The new recovery boiler makes it possible for Iggesund to increase production of its paperboard Invercote, and also enables the mill to operate on 100 percent biofuel and be self-sufficient in energy, both in terms of its thermal and electric requirements.

The Invercote family consists of a range of products customised for different end-user applications. Invercote is a multilayered solid bleached board (SBB), made from chemical pulp produced by the sulphate pulping method.

The use of virgin fiber and the sulphate pulping method ensures a hygienic and odor and taint neutral product. All materials used in the making of Invercote are approved for food contact according to current regulations.



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Delta will be demonstrating a specialty medical converting system with in-line packager. This system will showcase a variety of processes such as island placement, tight tolerance die cutting, vision inspection and heat seal pouching.

Delta is dedicated to providing precise, flexible and innovative solutions worldwide. Delta offers solutions for a variety of complex medical, pharmaceutical, label, security, RFID, packaging and cosmetic products.

Delta will demonstrate equipment at the following shows:

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PACKAGING. PROCESSING. ONE POWERFUL SHOW.
Booth S-2612

COMPAMED
Messe Düsseldorf, Düsseldorf, Germany
November 14 - 16, 2012
Hall 8a
Stand M34

Fit and Lean

WS Packaging Group is driving profitability and capturing new business under the leadership of experienced out-of-industry Lean experts. Danielle Jerschefske reports

WS Packaging has steadily grown into one of North America's largest label and packaging suppliers with its business model of single source to completion.

The company offers a wide array of printing and flexible packaging options across 21 manufacturing facilities in the US and Mexico. It uses an extensive range of printing techniques, complex constructions, innovative materials, and wide variety of finishing and packaging systems to propel brands to the next level.

Now, in addition to a well-balanced platform as a one-stop-shop, the company is using the new WS Packaging Impact Business System (IBS), which places lean manufacturing at the core of the business to drive speed of execution from the top down to the shop floor.

The outcome for WS Packaging has been a reduction in inventory, significant improvement in working capital gains and, therefore, the flexibility and financial confidence to grow acquisitively.

IBS was launched internally in August 2010 when the company appointed Rex Lane as its new chief executive officer, following the retirement of its long-standing leader and son of the founder, Terry Fulwiler. Once improved revenues, profit margins and cash flow were achieved, the company began talking about its evolution with customers.

'IBS is in place to ensure systemic long-term growth,' says Lane. 'We will drive innovation and change through Lean tools in every aspect of the business. Already we have found it to be a successful point of differentiation. Now it's about convincing the customer base that the Impact model is unique and sustainable.'

At nearly a half billion dollars in annual revenue, WS Packaging will continue to find growth organically and through acquisitions using IBS as a core business proposition.

Pull & Replenish

Lane brings the label and packaging business 15 years' experience in Lean implementation at numerous big business suppliers to Fortune 500 companies. Beyond label and packaging solutions, he says that 'with IBS, we are able to offer business solutions.'

Kaizen projects and outcome analysis found working capital to be a great opportunity where efficiencies could be made to generate significant positive cash flow. Inventory management is one of the most prominent "sins" in the converting industry and has become a particularly volatile point within converter business models in the wake of the "Great Recession". As brand owners moved to reduce cost, inventory management often became a necessary "service" to retain business.

However, Lane highlights the propensity for a weakened cash flow found in a poorly executed inventory model. Therefore WS Packaging has aligned itself more closely with its suppliers and customers. It has partnered with key clients to share usage data and inventory models, and implemented a data-driven Pull & Replenishment system to deliver x amount of labels in x amount of time while improving lead times.

It took some consulting and proven results to persuade clients at first. Now the adjustment has given adaptive clients such benefits as on-time delivery and cost savings. Internally the change has reduced work-in-progress (WIP) and freed up funds by reducing cash tied up in materials inventory.

WS Packaging went through rigorous transactional process improvement (TPI) projects to acutely find more turnaround inefficiencies in the exchange of information between each step of the process. 'There's lots of opportunity right here in the US. IBS is a way to set expectations for what we want to accomplish. We are looking for a breakthrough, for a significant improvement.'

Once a breakthrough in working capital was achieved, the gap was supported with the further implementation of WebFlex, a customer-facing online label management system that allows clients to place, track and trace orders, and organize graphic files in one place.

Gilchrist & Soames, a personal care product supplier to luxury hotels, has a myriad of SKUs to manage and must conform to regulation requirements. Label errors can have a drastically negative effect to the bottom line and the brand's reputation. WebFlex allows for secure loading of files and has a grouping feature to allow an entire project team remote access for approval,

development and production phases. The system also includes a Roll Calculator Tool that automatically calculates the number of labels on a roll by simply entering the label size, type of material and roll diameter.

WebFlex greatly improved the label management process for Gilchrist & Soames, reduced on-hand inventory resulting in less obsolescence, and ensured label accuracy while simultaneously improving their bottom line.

Another customer that regularly orders industrial drum labels also found savings by reducing obsolescence with the Pull & Replenish system. In this case, WS Packaging evaluated each SKU to find opportunity to split production sites if one fit best for delivery objectives.

'Customers have been amazed at what Impact can do for them and the response has converted into new business,' says Lane.

Currently two out of three sales quotes are for new business. As of June 2012, WS Packaging achieved its best new business conversion year ever.

By August 2011 the gains made in working capital had increased 10 fold. Clearly, IBS is a sustainable strategy to drive real impact in process and agility.

Top-down breakthrough

Earl Jewett is chief Impact Business System officer at WS Packaging. He is responsible for driving and maintaining this rigid change in business as usual that has become the norm. Organizational changes placed skilled Lean talents in positions to drive IBS at every level.

'Innovation is both product and process, related' Jewett says. 'We focus a lot of attention in both areas because our goal is to help customers capitalize on the opportunities they're pursuing. We want to help them succeed, and in turn, develop a long-term partnership for mutually sustainable growth.'

IBS launched with strategic planning supported by a first year stretch plan. The focus is on three to five initiatives in a one-year stretch. IBS has the tools – Sandler sales methodology, SMED set up reduction, root cause countermeasure, total productive maintenance, policy deployment, 3P, 6S visual management, TPI, standard work – to employ the stretch objective plan that is constantly evolving. Processes must be sustained over time and reinforced by monthly stretch objective reviews.

Three regional IBS leaders help manage the differential in moving parts regionally. CEO Kaizen events take place on a quarterly basis at a specific facility and focus on four to seven specific objectives. Teams at the corporate and middle management levels embrace such events where every employee is engaged in finding waste in processes. Boot camps bring leaders together at the GM level, teaching ways to optimize IBS tools. In addition to the quarterly CEO events, each plant completes two to three large-scale Kaizen projects each month. Sales-focused events for the converter's 50-plus reps review growth targets and marketing changes, which help make the team more comfortable with IBS.

Lane explains that the 'organization has adapted well and is full of knowledgeable people that carry the confidence to change any nonbeliever's mind.

'Our people understand the growth opportunity, job security and profit sharing rewards found in the model.'

Breaking through everywhere

WS Packaging had embarked on Lean for four years before Lane entered as its leader. The top-down drive for improvement continues the holistic IBS plan where it counts most – costs and creeping lead times. 'Today, 50 to 70 percent of our Kaizen activity is focused on achieving our stretch objectives because it's all linked together and gives more purpose to what we're doing,' Lane notes. 'It's how we find breakthroughs.'

Standardized manufacturing processes improve production consistency. Each operator, plate maker, pre-press specialist and office employee is trained to perform tasks in the same, most efficient ways respective to their responsibilities. IBS eliminates variances and has turned quality into a high percentage consistency.

Rushed or last minute orders interrupt business as usual and must be addressed so that other customers are not affected and that margins are not depleted. Service and lead time management are critical to supporting such regular instances.

Upgrades to existing equipment have enhanced productivity and given shop floor employees more time to focus on finding

true waste. Investments too have been made in new equipment, pushing out older technology in exchange for quicker changeover designs.

WS Packaging has been a pioneer for sustainability within the label industry, and was recognized by the TLMI with its Environmental Award for Process Improvement in 2004. 'With environmental consciousness comes cost savings, revenue and differentiation from the competition,' says Lane. 'We need to be as green as we can be and TLMI's Project LIFE is a tool that can do that.'

The company was also one of the first converters to obtain LIFE certification, an environmental management system (EMS) based on ISO 14001 and designed around inherent label manufacturing issues. As Lane notes: 'In adopting such standards, WS Packaging gains more credibility and focus.'

M&A

The industry has seen WS Packaging expand its capabilities a number of times under Lane's leadership. He says IBS makes the company more marketable in the acquisition process. It also gives it an edge in the bidding process since it knows it will be able to make up the return.

The IBS acquisition diligence process entails a 100-day post-close action plan including a "Diligence Day" – 60 days before the transaction is finalized – when the new division begins to quote business. In this way the new business contributes to the bottom line from day one.

Jay Tomcheck, president and chief financial officer, says: 'There is a lot of opportunity for acquisitive growth in label and packaging operations with US$10-50 million in annual revenue. The funnel is full. Given the nature of the market, coupled with our propensity to reinvest the cash we continue to generate, we're confident more opportunities are likely to be announced in the near future.'

Following in-line set by previous management, acquisitions are sought after to increase geographic breadth, achieve market diversification or adopt enhancing technology. In mid-2012, WS Packaging purchased Boelter Industries in Minnesota for its in-line folding carton capabilities and Consolidated Products in Tennessee for its compliance labeling capabilities.

The flexographic equipment at Boelter Industries complements the sheet-fed offset facility in Wisconsin giving the business flexibility in pricing appropriately by process and project. Already the division sells the entire WS Packaging portfolio, and business is growing. There will be no shifting of work from offset to flexography.

With both process capabilities WS Packaging produces cartons with catchy effects using a combination of transparent and opaque inks and special-effect varnishes printed on a wide variety of patterned prismatic and metallic papers for the most intriguing brand presentations.

The most recent acquisition of Business Graphics Printing brings the company offset production expertise in product literature booklets, a critical component in end-use applications with strict regulatory requirements for product information.

There's currently a good volume of flexible packaging and pouch companies for sale in North America. Only recently has the converter announced its broadened offering of flexible packaging materials and capabilities. It can produce custom paper-pouching materials for dry foods and more, as well as complex film constructions with performance barriers for food, pet food and liquids.

The company has been active in the shrink-sleeve market since its acquisition of SenecaSalem in 2007 and sees great opportunity to expand further into flexible packaging based on this skill-base as long as the business can effectively maintain costs, achieve market growth, become experts and expand internal capabilities.

The converter sees opportunity outside of the region. 'We haven't made a move yet,' Lane says. 'But we will with a client.'

Mexico, where there is already an operation in Monterrey, is an obvious opportunity for logistics, business model and supply chain similarities in meeting local and national needs. Other regions include Asia and Latin America.

'We have big customers that want to consolidate their supplier base. Now that we have our stride with our growth initiatives, we are in the position to give them preferred global support.'

In the meantime, the company has enlisted translation services from KJ International to support accurate multi-language label production.

WS Packaging's IBS is designed to take the packaging and label industry where it's never been. The program – far more than a strategy – empowers associates to communicate more easily and it drives improvement and ownership down to the cell level. At the same time it effectively manages supply chain complexity, bringing value to its business and its customers' business beyond label production.

'Impact is a business solution that makes WS Packaging more powerful and attractive,' concludes Lane. He predicts the company will one day be a billion-dollar supplier that will have the systems in place to maintain its groundings and expand accordingly.

Recent Expansions

- Business Graphics Printing – September 2012
- Flexible packaging expansion – July 2012
- Boelter Industries (cartons) – July 2012
- Consolidated Products (compliance labels) – June 2012

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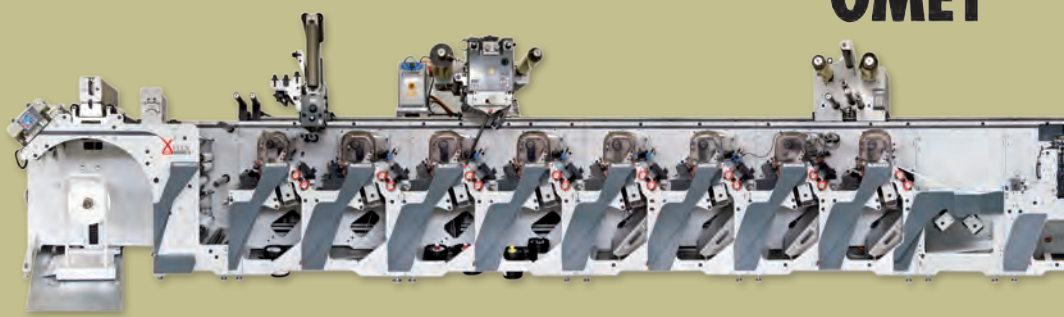

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Landa Nanographic Printing presses are being built and readied for testing

A new digital revolution for the package printer

A new printing process that promises much in terms of quality, performance and cost-effectiveness was introduced at Drupa to much acclaim. Mike Fairley visits Landa in Israel to find out more about this exciting new technology.

It's approaching 20 years since the first print-on-demand digital color presses began to create interest in the package printing and label marketplace; around 15 years since the first early installations, and some 10 years since digital color press sales began to escalate following new, higher performance generations of digital toner presses were introduced by HP Indigo and Xeikon. More recently, interest and installation of inkjet technology has also begun to grow.

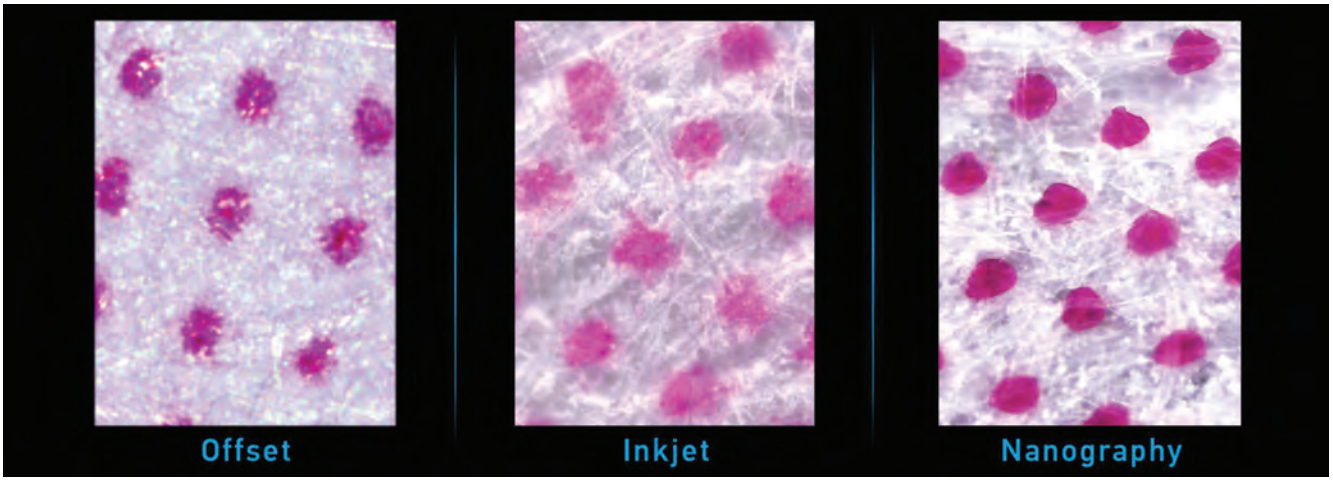
Today, there are an estimated 2,000 plus print-on-demand color presses installed worldwide, predominately in the narrow web label sector, but with perhaps five percent or so of installations already being used for some form of package printing – small folding cartons, sachets, sleeves, flexible packaging, tubes, etc.

Few printers in the higher print industry growth sectors of folding cartons, flexible packaging and labels today would doubt that digital color printing – and all that it offers in terms of mass customization, versioning, personalization, enhanced brand protection, consumer interaction – will continue to grow and have a considerable impact on the way brand owners, major retail groups, private label companies and even end-user customers regard their packaging in the future.

Package printers have been slower to adapt to what digital technology can offer in comparison to their label counterparts, not necessarily because they don't believe in the future of digital printing but because, until now, they have not regarded digital press widths as being wide enough, presses not fast enough, or they have had issues with food contact inks/toners.

Quality of print too, has not necessarily been regarded as acceptable for, say, folding carton production where printers are rather more traditional in what they can achieve.

Tarsus labels and packaging group managing director Roger Pellow (left) and international publishing director Mike Fairley (right) meet Benny Landa



"Nano Ink" droplets are round and consistent so providing sharp text and images

However, it looks as if the impact and reaction to new digital package printing presses on show for the first time at Drupa 2012 may now at last irreversibly change the way that folding carton and flexible packaging printers around the world begin to view their future press and technology investments. Indeed, some have already placed letters of intent for the purchase of these new generations of presses when they finally hit the market over the next one or two years.

Perhaps at the forefront of stimulating the package printer visiting Drupa into thinking and moving into a digital future was Landa. Founded by Benny Landa – following the acquisition of his Indigo company by Hewlett-Packard in 2002 – six new generation (three sheet-fed and three web-fed) Landa Nanographic Printing presses were announced at the show to much media and industry acclaim.

Offering output speeds close to offset presses and employing NanoInk colorants that create unprecedented image qualities "Nanography" undoubtedly has the potential to fundamentally change package printing as it is known today – especially when the process is said to offer printers the capability of producing short-to-medium runs at an unmatched cost per page.

Benny Landa, chairman and chief executive officer of Landa, states: 'Nanography is a new technology for applying ink to paper. In developing our Nanographic Printing process we had to re-think and re-invent the printing press.

'The result is digital printing with remarkable performance – from a family of presses that share stunning ergonomic design, a small footprint and some of the most advanced user functionality available in the market.'

Certainly anyone looking at the Landa S10 B1 sheet-fed folding carton press at Drupa cannot fail to have been impressed by its quite stunning design and oversize touchscreen user interface (UI) that claims to allow even untrained operators to quickly master the press.

Able to print single- or double-sided in up to eight colors, plus spot and speciality colors, at up to 13,000 sheets per hour on any off-the-shelf-stock, or straight forward printing (simplex) for folding carton production at up to 6,500 sheets per hour on virgin and recycled carton board, metallized stock and plastic foils, the press is targeted at delivering short-to-medium run lengths at an unmatched cost per page.

Undoubtedly the press will have its place in the carton plant of tomorrow. 'Landa Nanographic Printing presses are not intended to replace offset printing, but to complement it,' Landa says.

'For the foreseeable future, offset printing will continue to be the preferred method for producing run lengths of tens of thousands or hundreds of thousands. But the market is demanding shorter and shorter folding carton run lengths – and that's where Nanography comes in – to enable print service providers to produce those short to medium run lengths economically – at offset

The Landa S10 Nanographic Printing press for folding carton production

The inside of the Landa S10 press, showing the workings of the B1 sheet-fed folding carton press

speeds. That's why we say that Nanography brings digital to the mainstream.'

Like the sheet-fed presses, the Landa web-fed presses also print in up to eight colors. The Landa W10 Nanographic Printing press should be of particular interest to mainstream flexible packaging converters as it uses Landa NanoInk, which is expected to be FDA-compliant for food packaging.

This press, which has a 1,020mm (40in) web width, can print single-sided on film stock (12-250 microns) and on paper (50-300 microns) at up to 200m/min (650ft/min), so offers flexibility and performance for shorter run flexible packaging.

A narrower web press of 560mm (22in) width, the Landa W5, is designed for printing at up to 200m/min (650ft/min) on plastic films and shrink sleeves and on label stocks, tube stocks, aluminium foil and paper (50-300 microns). Certainly, label converters have been some of the first to place letters of intent for Landa presses.

At the heart of the process are Landa NanoInk colorants: water-based inks incorporating nano-pigment particles that offer ultra-sharp dots of extremely high uniformity, high gloss fidelity and the broadest color gamut of any four-color printing process.

During the printing process, billions of microscopic droplets of the ink are ejected onto a heated blanket conveyor belt. Each individual droplet lands at a precise location on the belt, so creating the color image. As the water evaporates, the ink becomes an ultra-thin dry polymeric film, less than half the thickness of an offset print image.

This dry film image is then transferred to any kind of ordinary paper or board, coated or uncoated, or onto plastic packaging film, without requiring any pre-coating. The filmic image layer instantly bonds to the substrate surface, forming a tough, abrasion-resistant laminated layer without leaving any residual ink behind on the blanket. Since the ink layer is already dry, there is no need for any form of post-print drying.

The press itself features the Landa Touchscreen, an oversize UI with press controls appearing on both the left and right sides of the screen. The right side is dedicated to job management, enabling the operator to organize job sequences for maximum press utilization. The left side of the screen is dedicated to press functions and shows in real-time the status of all press functions. Because the press is so highly automated it is claimed that a single operator can manage two, three or even four presses at a time.

Having created the interest and letters of purchasing intent, Landa is now working towards the customer fulfillment stage. Machines are being built and installed in its facility in Israel. These will go through an intensive period of testing, qualifying, learning, materials and quality performance trials, re-evaluation and regulation accreditation over the coming nine months or so, followed by trials with customers and the first beta installations by the end of 2013/early 2014.

Many package printing companies will undoubtedly be watching with interest to see how the trials, testing and beta installations progress before making their own commitments to this revolutionary printing process and market solution.

Assuming everything progresses as anticipated, then 2014 should be a busy and exciting year for Landa – and the beginning of a new era for the world of package printing.

Making the most of the Middle East

Analysts, converters and suppliers tell David Pittman how the Middle East market is a complex mix of geopolitical and business concerns, and how the region's package printing industry fits into this environment.

'The Middle East market has been growing at a good rate over the last two years,' says Abdul Samad Budhani, sales and operations executive at ABC International, a converter operating out of the UAE.

'There is lots of investment taking place, especially in the UAE, with companies looking to spend.

'They are investing in innovation, as packaging is increasingly being seen as a marketing tool. They are looking at new designs and effects, and new ways of prolonging the product's shelf life. In the UAE, packaging is growing in importance.'

According to market intelligence firm PCI Films Consulting, the market for converted flexible packaging in the Middle East and Africa in 2010 was approaching US$3.5 billion, representing around five percent of world sales.

This included a seven percent growth in demand in the region during 2010, improving on the more modest growth recorded in 2008 and 2009.

Amongst the largest national markets as reported in PCI Films' "Middle East & African Flexible Packaging Market 2011" report were Iran, Egypt and Saudi Arabia, which, together with South Africa and Nigeria, account for in excess of 50 percent of the regional total.

Increasing food production in the region has resulted in more sophisticated distribution, logistics and packaging needs, and flexible packaging demand grew on average by five percent per annum between 2007 and 2010.

There is, however, substantial national variation in growth trends. As an example, Egypt grew substantially above the average trend while Morocco and Syria have performed significantly below the regional average.

Paul Gaster, divisional director for flexible packaging at PCI Films, says the different growth rates are understandable given the geographical area the Middle East covers, and the political environments that exist within it.

'Egypt is growing by six to seven percent per year, while Saudi Arabia and the Gulf States are also seeing healthy growth.

'Israel can be viewed as a developed nation in comparison to other markets in the Middle East, as it has a sophisticated and modern business environment. As a result, it does a lot of

export into Europe; probably more than any other country.

'On the other hand, Syria is growing slowly in terms of revenue after the recent unrest, and is probably heading backwards owing to the civil war.

'Iran has been growing but the market is now suffering owing to trade embargoes.'

Even Egypt, which he noted earlier as a fast-growing market, has had issues, although demand does not appear to have slowed significantly since the revolution.

Press manufacturer Edale notes that Iran is the only country in the region where it has encountered difficulties, owing to trade and financial sanctions.

Edale is one of the packaging industry hardware suppliers seeing the Middle East as an important trading market. Fellow press manufacturer Gallus has recorded recent sales of its ICS 670 in-line folding carton system *(see p27).*

Edale's managing director, James Boughton, says: 'At this stage the Middle East is still a relatively small market.

'Saying this, we do not measure in terms of market share but in customer satisfaction, and we have many existing customers in Middle Eastern countries have been working alongside Edale for a long time and continue to grow together.

'With 80 percent of all Edale sales being exported worldwide, the Middle East is just one of the many key export markets that Edale trades in.

'However, we have keenly followed a number of studies and research into emerging worldwide markets and the Middle East is a market of much interest to us – in particular Saudi Arabia and UAE – more so for flexible packaging applications.'

Consultants from packaging supply chain analyst Smithers Pira note that packaging is one of the most buoyant printing segments in the region.

'Strong growth up to 2007 slowed into 2008 and then stagnated in 2009, before picking up in 2010/11,' they state.

'Package printing is the main contributor to growth at present. Books were down during the worst of the global recession but are recovering, advertising continues to grow but newspaper printing is flat.

'The impact of the financial downturn was not insignificant but it hasn't been as great as in some other regions. In most cases printing output is picking up again but obviously in Syria, while it's difficult to be precise, you can be sure that demand is falling.

'Syria is not a big market though. The biggest are Turkey, Israel, Iran and Saudi Arabia.'

'Package printing will continue to grow,' the Smithers Pira consultants suggest. 'We see big growth in all areas, especially corrugated, cartons, flexibles and rigid plastics. Glass and metal will also grow but not at the same rates.

'In places like Turkey the main driver for growth will be changes in retail distribution, boosting demand for packaged foodstuffs, and then more generally income growth translating into rising demand for consumer goods.

'Demographic trends will have an impact, but this will be gradual and long-term.'

Gaster says: 'All industries in these markets are underpinned by factors such as the growth in food processing and changing demographics. And they are all growing from a small base, so growth is there to be made.'

There is substantial intra-regional trade, with converters in Saudi Arabia and UAE making use of the films produced as part of downstream petrochemical diversification within those countries.

Indian entrepreneurs have also flocked to the Middle East in an effort to establish converting operations, particularly in the UAE. This is being done explicitly for the purposes of exporting converted packaging back to regions such as Europe, according to Gaster.

'The UAE has a small population, so a large amount of the investment being made is with the explicit raison d'être of exporting. The Middle East is strategically placed to supply Europe, which it already is, as well as the growing markets in Africa and the East.'

ABC's Budhani says: '80 percent of packaging we produce is destined for regional export.

'Saudi Arabia is looking to changes its rules and regulations to establish more of a local market, and we are now looking to do more business in Europe. That's the target as Europe is the benchmark. It's where quality starts. We want to stand next to others that supply to Europe.'

These export aims are driving the level of investment in processes and technologies as certain criteria have to be met to be able to export into Europe.

Gaster adds: 'Saudi Arabia is also investing downstream into the manufacturing industries being fed by its petrochemical industry, such as food processing.'

The PCI Films report says food and food security are increasing in importance as populations rise across the region. Egypt's large population and the Saudi population growing by two percent a year, one of the fastest compound growth rates in the world, highlight this fact,

Gaster says: 'Food security is a big issue and will spur the market on. Population growth also underpins the demand for packaging.

'Multi-national companies have been investing in plants in the Middle East and Africa, which is helping to raise the quality of both food processing and packaging.

'This will all help improve the quality of food and packaging.'

Printing processes

Gravure remains the dominant printing process in the Middle East and Africa, says Gaster, with flexo currently having a relatively modest role in the overall mix.

Lebanon-based Dynagraph focuses on the use of flexo and offset printing processes, and says inkjet will be a key technology in the future.

Dynagraph has a network of subsidiaries and branch offices across the Middle East, from Saudi Arabia and Kuwait to Jordan.

ABC also operates flexo and gravure presses, which it reports the greatest success with, and has primarily invested in Western equipment.

UK-based Edale said its range of flexo presses has been welcomed in the Middle East, with export sales director Bernhard Grob visiting existing and potential customers in the region on a number of occasions in 2012.

Boughton says: 'As in other countries; the presses are mainly gravure, flexo and offset.

'With regards to the folding carton market, sheet-fed with off-line finishing is "the norm", but, compared to European folding carton printers, Middle Eastern companies have a much more open mind to the new production method Edale is offering, in rotary UV flexo with in-line flatbed die cutting for short to medium runs because they understand the advantages they are getting from it and much better ROI and profit margins.'

Budhani agrees that gravure is one of the dominant package printing process in the Middle East, although both he and the Smithers Pira consultants note that digital will start to make inroads in the region,

Budhani says: 'Digital will take some time to mature in the market as the technology expertise does not exist, and is not prevalent enough.

'Quality is also an issue, and digital does not currently stand-up against flexo and gravure.'

Packaging types

Smithers Pira said folding cartons are one of the most popular types of packaging being converted in the Middle East, with scope for flexible packaging output to be developed, although board-based packaging will remain important in the region.

A spokesperson for Dynagraph detailed the in-mold market as developing part of the Middle East packaging mix, although flexible packaging and folding cartons the largest sectors in the region.

The company has felt the impact of the global economic crisis, with downturns in regional economies. It has also been impacted by the change in the regional political landscape through local power struggles during the "Arab Spring" period of 2011.

It says the future of the market will be shaped by how soon some form of stability returns to the region. How soon Libya stabilizes, as will Egypt, Syria and Iraq, still represents a big concern in the region.

'Major factors are political stability, weak economies and a lack of laws to regulate the local economic sector, especially the lack of bankruptcy laws that regulate businesses.'

It also talks highly of the Saudi market, and how it will be central to future development in the Middle East.

'Regional business is extremely important for us and our customers alike as the size of the countries in which we operate can not alone help us to grow our operation.

'Business depends mainly on regional customers private and governmental alike although Saudi Arabia never seems to follow regional trends because of a strong industrial sector.'

Dynagraph is in the process establishing itself in new territories, and the spokesperson said: 'Saudi Arabia is certainly the most important country for our future development, along with Iraq, and North and Central Africa, although this does not exclude the key role of existing markets.'

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Investing for the future

Saudi food manufacturer Halwani Brothers has invested in a servo-driven Edale Gamma flexo press as it looks for a sophisticated solution to produce increasingly demanding work. David Pittman reports

Halwani Brothers is a 60-year-old company operating out of Jeddah in western Saudi Arabia.

It manufactures a range of foodstuffs, including dairy and meat produce, sweets, juices and jams as well as Halawa, a dense, sweet confection made using Tahini, itself made from sesame seeds that are cleaned, roasted, peeled and milled into a fine paste.

The company is one of the best-known food manufacturers in the Middle East, achieving large growth year-on-year, thanks not only to food production but also the quality of the packaging.

Halwani Brothers places a large focus on the packaging of its products alongside their actual manufacture, and decided it needed a more sophisticated solution than its existing printing system, which featured an older Edale E430.

The Edale E430 was purchased many years ago and, while still operating around the clock, was not ideally suited to the needs of the company's production aspirations.

So when Halwani moved into a new facility in 2011, it made the decision to invest in new package printing equipment and, as an existing and satisfied user of Edale equipment, turned to the UK press manufacturer to provide it with a sophisticated solution for its sophisticated production needs.

This came in the shape of a four-color, 510mm fully servo-driven Gamma flexo printing press.

The Gamma is Edale's fully servo-driven printing and converting system combining fine print quality with features to ensure high-speed changeovers, minimum downtime and minimum wastage.

The system features servo drives on each print head providing pre-register, auto-register and print length control features which, when combined with the print head design, ensures job change times and set-up wastage are kept to a minimum, with the ability to perform a full station color change in under 70 seconds.

The job storage feature of the Gamma press allows for an infinite amount of production settings to be stored and recalled in the future.

In addition, the Gamma's "Plug & Play" converting section allows users to swap in and out of different converting, laminating, winding or printing options to facilitate the production of added-value products.

During installation, the Edale engineer dismantled the E430 machine and then reassembled it again in the new factory where it now stands side by side with the Gamma, representing the Edale of old and the new 21st Century.

Mr Bhardawil, production director at Halwani Brothers, said: 'We found our existing Edale E430 machine to be a very reliable runner but as our production needs became more demanding we decided to invest in a more sophisticated press to meet demands and with that came our decision to purchase the Edale Gamma.

'There was never any doubt that we would pick anything else when we visited the UK and saw a Gamma running in its production environment and were very impressed by the capabilities.'

Halwani is not the only Middle East-based printer to have re-invested in Edale press technology in recent times.

Kalabarchasb, a successful label printer based in Tehran, has recently installed its sixth and seventh Edale flexo printing presses with the introduction of two new Edale Alphas.

The relationship between Kalabarchasb and Edale started when it purchased three Edale machines from the older product range; an E180 and two E250s.

As business grew, so did the number of machines and 2008 and 2009 saw it purchase a Beta and an Alpha before purchasing a further two Alphas to bring the total up to seven

The Alpha line is Edale's compact flexographic printing press, capable of converting a wide variety of packaging, label and ticketing substrates. The press has a short web path of just 12m, a compact footprint of 2.5 sq m and quick job change through ease of access.

Kalabarchasb is a family business, run by owner Mr Mahboobi and his two sons. Kalabarchasb has visited Edale in the UK on numerous occasions to receive in-depth technical training, ensuring that they are completely up to speed with the Edale presses that they operate.

Mr Mahboobi said: 'I first got to know of Edale at a show it was exhibiting at in Tehran. We had never really considered looking at compact flexo presses then, but were impressed with the machines and the solutions that Edale could offer.

'That is when we purchased our first E180, and E250. Even now, these machines are still in production. However as technology has moved forward, so have we and this is where the introduction of the newer Edale presses came in – we find the Alpha and Beta models so powerful, fast and with 100 percent quality and accuracy capabilities.'

Game-changing carton finishing technology ramps up sales

Digital creasing and cutting of folding cartons looks set to revolutionize the industry. Mike Fairley visits Highcon in Israel to assess the new technology and its market progress since its launch at Drupa.

With the on-going trend for folding cartons to be required in shorter run lengths, in more versions or variations, in a reduced time to market, or even for test marketing and trial product launches, the demands on press and finishing equipment manufacturers have been to reduce set-up times, enable quicker changeovers and increase production efficiency.

Conventional analogue press manufacturers, such as KBA and Heidelberg, have certainly been playing their part in targeting the short-run package printing market with new, more efficient press models, while the recent Drupa saw the launch of a number of new, innovative, sheet- and web-fed folding carton presses from the leading global digital press manufacturers, including HP Indigo, Xeikon, Presstek, Xerox, Screen and Landa *(see pp.15-17)*.

Certainly there can be little doubt that Drupa was very much about a new world of package printing; a new future that can take the folding carton sector a long way towards meeting the demands of brand owners for a more efficient, cost-effective, shorter time to market with decreased stock-holding – and a more flexible supply chain with an increasing emphasis on sustainability..

Although the evolution of both analog and digital printing technology has been making these brand owner demands ever more realistic, it was still leaving a key element in the folding carton supply chain missing – how to speed-up the cutting and creasing of folding cartons by reducing the turnaround between jobs.

Ideally, the solution would also lead to enhanced production flexibility, more innovative and creative design possibilities and, hopefully, production cost efficiencies.

It was to provide an answer to these challenges that Highcon has developed over the past three years, and now introduced, its Euclid direct-to-pack digital folding carton cutting and creasing system, so extending digital technology into the realms of the carton finishing process.

Powered by its own patent-pending Digital Adhesive Rule Technology (DART), the Highcon Euclid uses precision laser optics and polymer technologies to transform the carton cutting and creasing process from an analog to a digital workflow, so eliminating the need for conventional dies and, in the process, dramatically streamlines finishing operations. Crease lines are created in minutes, while an array of lasers with precision optics cuts with both speed and quality.

How does it all work?

The direct-to-pack system uses an entirely new technology as a means to eliminate conventional dies, delivering high-quality cut and creased cartonboard entirely from digital data. To do this, CAD cutting and creasing information is received in

The Highcon DART uses precision laser optics and polymer technologies to transform the carton cutting and creasing process from an analog to a digital workflow

two layers (one for creasing and one for laser cutting) from DXF files from standard pre-press software into, say, Esko ArtiosCAD, with whom Highcon has a commercial and technological co-operation agreement.

The creasing layer information is used to rapidly create the Highcon DART, laying down polymer rules onto a foil mounted on the creasing cylinder, instantly forming high-quality creasing rules within a matter of minutes without any need for traditional dies. Once it has been created the Euclid is ready to start production. In total, the whole set-up takes around 15 minutes.

The second data layer is used to control three carbon dioxide lasers and an innovative scanning optical system that enables the cutting and perforating of the carton in high quality at production speeds of up to 1,500 sheets per hour – the length of the cut line, type of substrate and job complexity (number of ups) – prior to stacking.

Capable of handling materials up to B1 size (76 x 106cm; 30 x 42in) and from 0.3-0.6mm thick, accurate registration throughout the process is maintained by the machine's feeding and transport system, with the sheets passing between the DART foil and the DART counter to create the sheet lines with ease, with the precision lasers then cutting, perforating and marking (if required) in one continuous smooth operation. The sheets are finally delivered to a stacker.

There seems little doubt that this revolutionary new technology now looks to offer brand owners and converters a faster and more responsive delivery, increased versioning opportunities, shorter run lengths and more creative designs. Cut-outs and decorative cuts can also be achieved both simply and fast.

Certainly turnaround times are dramatically cut, with run lengths up to 10,000 sheets becoming more attractive and possible. Plant efficiency is increased through simplified logistics. Machine operation too, is simplified through the use of an entirely digital process and, with no dies in the supply chain, it is possible to also improve sustainability. Reduced warehousing and a lower carbon footprint also improves scorecards.

Where does the Highcon Euclid stand in the market place today?

The first machine was installed at a beta site at the converting company, Graphics Bezalel, in Yavne, Israel in February 2012.

This company, a 66-year-old family business which provides packaging solutions for many well-known international brands, sees its key strength in their versatility and ability to print and convert a wide range of substrates. The Euclid installation forms a smooth integration with Graphica's existing pre-media software and workflow, and is compatible with their existing high-quality offset printing machines.

In April, Highcon then announced that it was co-operating with Duran Machinery to perform digital cutting and creasing on folding carton packages that then pass to their leading Omega folding gluing machines, enabling a seamless integration with machines that have been installed in over 50 countries around the world.

Indeed, testing was carried out in collaboration with a whole string of companies in the folding carton supply chain, from board manufacturers to pre-press company Esko, digital press manufacturers HP, Presstek, Screen and Xerox, as well as folder gluing company Duran. Such collaboration has all been aimed at achieving a successful product launch.

This took place at Drupa in May. Here, Highcon launched the world's first high-speed digital folding carton converting machine, attracting considerable interest and orders. Production machines for the early customers are now being built at the company's production facility in Yavne, Israel, with installations scheduled to commence before the end of 2012.

A controlled ramp-up of sales is being implemented by Highcon – starting in Europe and building through 2013 also to North America. The sales strategy is planned as indirect sales through channelled partners, with seven partners already secured in Europe for 11 countries.

For a company only founded in November 2009 by Aviv Ratzman and Michael Zimmer – both highly-experienced professionals in the digital print market with backgrounds at Indigo and, latterly, HP – they have undoubtedly already come a long way.

'Over the past two decades we have witnessed key areas of the supply chain becoming digital, but packaging finishing has remained analog,' says Ratzman, Highcon's chief executive officer.

'Converters and their customers have been unable to benefit from the speed and flexibility that digital solutions could provide to finishing. This is now changing.'

As a private company, HIghcon's key investors include Landa Ventures, the investment company owned by the Indigo founder, Benny Landa, and Israbieg, the largest die supplier in Israel, as well as other print industry players.

For Benny Landa, Highcon technology is a game-changing concept.

'I believe that Highcon will do for the folding carton market what Indigo did for print – and the industry will be changed forever.'.

Middle East converters getting in-line

Gallus has reported healthy interest in its ICS 670 in-line folding carton production system from converters in the Middle East. David Pittman reports

Shown in full flow at the Drupa exhibition back in May, the Gallus ICS 670 in-line folding carton production system drew large crowds on a daily basis to see the system in operation and understand how its design could allow them to achieve efficiencies during the production of folding cartons.

Based on the EVA (easy value add) platform concept, the press can be configured according to job requirements at any time.

Amongst those to see the ICS 670 in action at Drupa was Al Mawrid, a package printing company operating out of Sharjah, one of the United Arab Emirates.

Al Mawrid Printing & Advertising is a commercial and packaging printer, and is part of the Thomsun Group. It manufactures deluxe packaging and high-end folding cartons for cosmetic, tobacco and food products.

Streamlined and more flexible

Gallus said the investment in the ICS 670 system will enable Al Mawrid to add streamlined, and more flexible, end-to-end in-line production of folding carton blanks from rolls to its traditional sheet-based folding carton production.

As such it specified a roll unwinder, and two gravure units, a module for cold foiling and lamination, seven HiDef flexo printing modules and a Gallus FCL 670 in-line flatbed die cutter.

TK Babukutty, general manager at Al Mawrid, said: 'First of all, it was the enormous flexibility as a result of the platform principle that persuaded us to invest in the Gallus ICS 670.

'Second, it offers several exciting refinements for quick make-readies and changeovers, so that our entire system is now more productive.

'Third, the machine system's modular concept was another vital aspect. It gives us a whole host of uplift options for finishing the printed cartons.

'Very soon we will introduce screen printing and if we have to add extra screen printing units or hot foiling in the future that is also possible – we can add or replace at any time.'

Thomsun group managing director KV Thomas added: 'The press buy is good for us, good for Gallus and good for our customers.

'We work with global brands and the quality has to be equal to that in the US or EU. Consistency is crucial for brand owners because if there's any compromise on the standard of the packaging then the buyer may think the product is a copy even though it's the real thing.'

Fellow UAE-based converter Emirates Printing Press (EPP) has also opted to invest in a Gallus ICS 670 in-line folding carton production system, which it will use to expand its packaging activities.

The Gallus ICS 670 will be used to produce folding carton products in a seamless process – from the roll to finished, die-cut blanks.

Specification

The Gallus ICS 670 heading to EPP comprises four gravure units, nine EVA platforms, a rotary embossing unit and the Gallus FCL 670 flatbed die cutter.

EPP will use HiDef flexo printing and screen printing modules on the EVA platforms. Other finishing methods such as cold foiling, lamination and hot foil embossing, can also be integrated in the platforms as options.

A total of sixteen heat-set web offset, sheet-fed offset and sheet-fed gravure presses have so far been in use at the printing company. In addition to books, magazines and assorted presswork, EPP also makes high-end packaging for cosmetics, perfumes, confectionery and tobacco products on behalf of world famous brands.

Gallus said the ICS 670 will enable EPP to realize not only alternative printing processes, but also a "revolutionary production and material flow concept".

New facility

To house the new system, EPP recently built a new facility that is optimally aligned to the requirements of continuous, streamlined in-line production from the roll. It is also sufficiently large to accommodate a second production line.

EPP's executive directors Mohamad Al Shirawi and Samuel Natarajan jointly said: 'It was the one-of-a-kind production and process flexibility offered by the Gallus ICS 670 that was the main reason for our investment decision.

'We chose this configuration because it allows us to cover most of our current portfolio. Thanks to its modular architecture, the machine can be expanded at any time in the future, so that we can respond to changing market needs without any problems.'

Training

EPP operators and managers undertook In-depth training in flexo and screen printing, as well as the necessary pre-press processes, at the Gallus Converting Center in Weiden, Germany, and Gallus Screeny in St Gallen, Switzerland. Specialized theoretical knowledge was backed up by practical training on an identical machine system.

'We'd like to say a big thank you to Gallus for the excellent training that was put on for us in Weiden and St Gallen. We learned an awful lot,' said Thomas Jayaraj, senior production and plant manager at EPP.

Sistrade plans take-off of business in MENA

Firás Masri, research and business development manager for the Middle East and North Africa markets at Portuguese software company Sistrade, details the company's growth plans for the region.

The Middle East and North Africa (MENA) region is considered one of the key growth markets in the printing and packaging industries; it's estimated that in 2015 the sector will be valued at around US$11 billion dollars.

The huge culinary culture that characterizes this zone and the continued population growth, as well as the need to automate processes and drive costs down, promises to increase demand on the printing and packaging industries, even during times of economic turmoil. This situation makes MENA markets one of the most privileged in the world.

As a result, MENA is a booming region for printing and packaging. It's continuously developing and evolving, which will lead companies to look more and more, in both the short- and middle-term, to standardize their production process and workflows in order to guarantee efficiency and excellent results.

This makes the MENA region a very important and natural market for Sistrade's MIS/ERP tools. Sistrade provides a fully web-based system that helps companies to fulfill their needs, especially in automation, supervision, efficiency and cost reduction.

Although MENA is considered one of the most international-orientated commercial regions, it's very important to be aware of some peculiarities that characterize the zone; apart from local standards and legislations, flexibility and coverage of products are two essential elements that must be taken into consideration in order to guarantee success.

Sistrade's flexible, multi-language and web-oriented MIS/ERP system covers the entire necessities of the printing and packaging sector.

Owing to the cultural and territorial proximity between Portugal and the MENA region, the Sistrade solution is one of the few ERP systems that takes into consideration the specific necessities and workflows of the area.

Important features include flexibility, coverage and multi-language functionality. As such, the Sistrade system is now

Exposure at regional events such as Gulf Print & Pack and Saudi Food Pack 2012 play an important part in Sistrade's plans to grow in the MENA region

available in all MENA market languages, like, Arabic, Turkish and Persian.

In addition, the 100 percent web-based system means all functionalities are accessible via a web browser, which permits Sistrade to offer customers a full cloud computing service.

MENA offering

Sistrade offers complete MIS/ERP technology for all MENA printing and packaging markets; from flexible and rigid package printing to label printing, as well as for commercial and security printing.

Modular units offered include sales, stock, procurement, scheduling, production, human resources, quality control, accounting, equipment maintenance, CRM, JDF and shop floor control. These modules cover all administrative and production processes.

Recently, Sistrade took the decision to strengthen its presence in the MENA region; the Turkish market was the first it expanded into, and today the company is working with three of the biggest printing houses in the offset and packaging industries in Istanbul.

This has grown to include pre-agreements and negotiations with several prestigious printing houses in different countries, like Saudi Arabia, Algeria, Iran, Lebanon, Tunisia and Morocco.

Today, Sistrade has a direct presence and offices in the UAE in Abu Dhabi, and in Istanbul, Turkey. It also has partners in Dubai, Beirut, Tehran, Tunis and Casablanca.

To target further growth, market exploration missions have been directed at the printing and packaging markets in the UAE, Lebanon, Tunisia and Morocco.

Overall strategy

Markets in the MENA region, as well as all growing markets where there is a need to standardize and optimize production processes, have an important place in Sistrade's internationalization strategy.

The MENA, Asian and South American markets are seen as essential to the company's strategy, and direct missions, representative offices, partnerships agreements and exhibitions were realized during 2012.

Sistrade is convinced that MENA will be one of the leading and most valuable markets in the future. The necessary economic and technical evidence can be seen.

As such, Sistrade has taken the decision to continue focusing our efforts in this region, and to continue developing and reinforcing our presence across MENA markets.

The company will participate in several international summits and exhibitions during the final months of 2012, and throughout 2013.

We will look to participate in events such as Gulf Print & Pack (*taking place in Dubai on April 8-11, 2013*), as well as visiting Saudi Food Pack 2012.

Sistrade will also continue to directly visit other MENA markets, as well as all potential partners and possible clients. As an example, the company recently visited Riyadh in Saudi Arabia, Algiers in Algeria and Beirut, Lebanon.

Sistrade targets MENA region

Sistrade has extended its reach into Morocco as it looks for growth opportunities in the Arab world.

Sistrade has recently signed a commercial agreement with Amigraph, a graphic arts machinery specialist operating out of Casablanca, Morocco. Amigraph repairs and carries out maintenance on printing presses, taking care of all aspects of the process from handling and disassembly, to reassembly and testing.

Sistrade said the deal is designed to increase its presence in North Africa, as this is a region that has been receptive to its systems.

The Amigraph deal was struck after Sistrade launched a drive to contact and explore the printing and packaging markets of North Africa as part of its internationalization and expansion project to reinforce its presence in the region.

Sistrade said it aims to strengthen its commercial and technical capacities in the Arab world, as well as increase sales in such markets.

The exploration of North Africa highlighted various print houses from different sectors in Morocco as being interested in the Sistrade Print system.

Films for the future

TIPA is moving forward with its work to develop sustainable flexible packaging. David Pittman speaks to co-founder and CEO Daphna Nissenbaum about the potential of its products.

Sustainable flexible packaging solutions are hard to come by, according to Daphna Nissenbaum, one of the founders of TIPA, an Israeli company devoted to developing biodegradable and recyclable flexible packaging products.

'Only five percent of flexible packaging can be recycled, which is not to say that it is,' she says. 'There's a large appetite from the big consumer product companies and other brands looking for innovation that helps differentiate their products.

'Other packaging materials can be recycled through waste management systems that stop materials reaching landfill, but this is not possible for most flexible packaging.

'The amount of plastics we are using and disposing of is a very big problem without a real solution.'

To offer a solution, TIPA has launched a range of transparent flexible packaging films that are 100 percent biodegradable. Nissenbaum says TIPA has focused on this goal to provide brands and consumers with a way to make their packaging more ecological.

TIPA was formed in April 2010 by Nissenbaum and Tal Neuman, and currently has a staff of around 10 employees and consultants working on developing these films. TIPA's workforce consists of experts in bio-plastics, industrial machines, industrial processes, packaging and industrial design, all of which have allowed the company to research and develop the solution it is now marketing to the packaging segment.

The films are formed using a combination of biodegradable polymers, which TIPA blends into a unique formulation. TIPA's films are then built into a multilayer construction to provide flexibility and durability, resistance to oxygen permeability, light transmission and tensile stress.

The films have been tested according to the following relevant standards: Young's Modulus and the strain at break using ASTM D882-10 Standard Test Method for Tensile Properties of Thin Plastic Sheeting; light transmittance and haze using ASTM D1003 – 07e1 Standard Test Method for Haze and Luminous Transmittance of Transparent Plastics; oxygen permeability using ASTM D3985 – 05(2010)e1 Standard Test Method for Oxygen Gas Transmission Rate Through Plastic Film and Sheeting Using a Coulometric Sensor; water vapor permeability using ASTM E398 – 03(2009)e1 Standard Test Method for Water Vapor Transmission Rate of Sheet Materials Using Dynamic Relative Humidity Measurement; and bio-degradability and compostability, which were evaluated according to EN 13432:2007 Packaging – Requirements for packaging recoverable through composting and bio-degradation – Test scheme and evaluation criteria for the final acceptance of packaging.

The result is a fit-for-purpose packaging material that is biodegradable in 180 days after going through an industrial composting process.

A range of printing processes can be used with the films, with printability tested without issue as part of the pilot program.

In addition, existing machinery can be used when working with the TIPA films, which Nissenbaum says means there is no need to undertake capital expenditure when considering the opportunities presented by using biodegradable flexible packaging materials.

TIPA's first generation of films have been developed for the beverage and dry food markets. They are currently being pushed into markets around the world.

'We carried out pilot projects with potential customers in some regions such as North America, Europe and Israel.

'We are getting lots of traffic to our website from potential customers located all around the world.'

The second and third phase of TIPA's research and development will see films formulated for other applications using different layer structures, which will become available in the coming year. These will offer an extended shelf life for products with different characteristics to dry food and beverages.

'Each product that needs to be packaged has different characteristics and needs,' Nissenbaum says. 'The first generation of films have been developed for products with a relatively short shelf life.

'Phases two and three will see the introduction of films for products with longer and longer shelf lives.'

Visitors to the Open House in Grimsby were given a working demonstration of the new digital press

The wind of change

When a leading UK-based flexible packaging converter installed a narrow web digital press, Nick Coombes went to find out what was going on.

Ultimate Packaging, the family owned and run flexible packaging converter is not, at first sight, the most obvious choice of company to be investing in digital printing. More accustomed to production on its 1.3m wide Fischer & Krecke and Windmöller & Hölscher CI flexo presses, which operate at speeds of several hundred meters per minute, the purchase of an HP Indigo WS6600 line, with ABG Digicon converting, seemingly marks a step into a brave new world.

To mark the occasion, Ultimate recently threw open the doors of its modern and newly extended production facility in Grimsby, Lincolnshire, to customers and converters, all eager to see and understand this apparent change in direction by a packaging printer renowned for its quality of product and service. With a business that currently supplies around 28 million linear meters of flexible packaging each month, Ultimate is in the big league. Around 70 percent of output is used for fresh and chilled food products, and the plant operates 24 hours a day, seven days a week.

Plan for growth

The recent acquisition of the HP Indigo press was actually part of a larger investment program that also saw an F&K 20SIX press installed. Launched by Bobst at Drupa 2012, this £2.5 million flexo line is the first of its type to be installed, and is Ultimate's sixth F&K. Company directors, Chris and Nigel Tonge, commented on their new flexo capacity, which will add a further five million linear meters a month capacity, and around £10 million in sales in its first year of operation.

They said: 'The press is state of the art technology, with change over times of 20 minutes and automatic registration capabilities. This means job set-up times will be slashed.

We intend to use the new press with a reduced color gamut, a step that will cut job set-up times further still, and will decrease the environmental impact of print, by reducing the need for solvents and printing plates.'

Renowned for its quality products and quality portfolio of customers, Ultimate was keen to stress the importance of choosing the right manufacturer when moving into new technology. 'We see HP as the leading player in digital package printing, with toner technology offering the quality we require to match the best in flexo,' commented managing director, Nigel Tonge. Admitting that moving from wide web, high speed to something totally different was a "culture shock", he added: 'But digital is of key importance to our customers, the brand owners, and we pride ourselves on being pioneers of new technology here.'

This £2.5 million F&K CI flexo press is the first of its type to be installed following a Drupa 2012 launch

Dedicated business unit

To create the best environment for digital success, Ultimate set up a new company, Shere Print, and invested over £1 million on the WS6600 production line. Installed in May 2012, it was the first in the UK, and initially was used for testing to ensure the print quality matches that of flexo. Commercial production of short-run flexible packaging was due to begin shortly after the open house, with the first packs being on-shelf by the end of September.

There is no doubt that to maximize the benefits of digital production a new mindset is required. Unsurprisingly, there was no re-training of existing flexo press operators for the new HP line, which Ultimate claims will reduce the hours spent from brief to delivery on each job from a spectrum of 61-288 hours on the flexo lines to 37-168 hours on the digital press. If pre-lamination is included, the latter figures drop further to an impressive 25-96 hours.

According to HP, flexible packaging offers dynamic growth potential for its products, with label and package printing now representing almost 20 percent of sales. In a market dominated by flexo (76 percent) and gravure (17 percent), only digital, from admittedly a small base, is seen to be growing. With product life cycles shortening, and run lengths falling, the company claims only digital can offer the variety that is now required.

Chris Tonge, sales and marketing director, explained: 'We are looking to work closely with 20 to 30 companies to develop the digital side of our business. There is no point involving our major volume customers, as 95 percent of their business is not suitable for digital production as its stands today. That's why we created Shere Print – to look at the market from a different perspective. Digital is ideal for fresh and chilled goods, but the quality has to be right.'

HP Indigo technology

The WS6600 has maximum web width capability of 340mm, a substrate range of 12-450 microns, and top printing speed of 60m/min on single or two-color work, drooping to 30m/min in four-color mode – all a far cry from the new F&K seen running above 400m/min. But it's neither speed nor size that the HP champions, its flexibility, individuality, and creativity, and those are all major sales points for the new company.

So successful has been the initial period with the WS6600 that Ultimate has negotiated with HP to become one of a limited number of 'beta sites' for its new 20000 series, due to arrive in 2014. Both wider (750mm) and faster (up to 45m/min), the next generation of HP digital presses will break new ground in flexible packaging production. As Chris Tonge commented: 'With our average run length of 20,000 linear meters, even the new F&K, with its 20 minute changeover time, is not cost effective on some of the smaller runs we need to do to secure the major contracts. HP digital is the perfect solution.'

As Nigel Tonge concluded: 'You need to commit to the concept of the digital world. The market has become instant, and we must respond. Virtually all of the 60 customers that attended were excited by what they saw, and wanted to "go digital". While this is impractical at present, we predict the new 20000 would be capable of producing the vast majority or work we currently do here.'

3D packaging design tools can help streamline pre-press operations

Design to inspire

From concept and structural drawings to 3D visualizations, Esko's suite of applications, tools and plug-ins for packaging design are designed to maximize the potential of designers, and facilitate collaboration throughout the origination and pre-press stages of creating appealing packaging. David Pittman reports

I was first introduced to the Esko Store Visualizer application at Labelexpo Europe 2011, where the company's director of solutions management, Jan De Roeck, was presenting in the Package Printing Zone.

Part of Esko's Studio toolkit, Store Visualizer allows designers to view and interact with packaging in a virtual retail environment, see new designs on the shelf next to the competition, present a complete product launch in 3D and test the visual impact of designs in their intended environment: the store.

Using the tool, De Roeck was able to manipulate packaging designed in other Esko tools in a virtual retail environment, including visualizing what a customer would see if they picked a product up and brought it towards their face, or if multiple items were stacked together then knocked over on the shelf.

Beyond the label

His presentation was part of a series looking at how the narrow and mid web conventional and digital presses label printers already work with can be used for short- and niche-run packaging applications, including flexible packaging, folding cartons, pouches, sachets, tubes, wrappers and blister packs.

Fast-forward a year, and Esko presented the application once more to label printers and converters looking to diversify their business at Labelexpo Americas 2012.

This time, it was covered In-depth by Bart Meersschaert, Esko's strategic solutions manager, with a live demonstration of the power and capability of Store Visualizer, as well as other applications, tools and plug-ins that are used before packaging designs reach the store shelf.

Showing individual demos for folding carton production, plastic bucket decoration and high-quality tube decoration, Meersschaert moved from the WebCenter collaboration and sharing tool through the DeskPack plug-ins for Adobe Illustrator and Photoshop, to the Studio package, which includes Studio Visualizer and Store Visualizer.

Tools on show

WebCenter is a cloud-based platform for project management and pre-production approval that includes basic modules, advanced approval functionality and a lifecycle management option.

Store Visualizer allows all stakeholders to see what their packaging will look like on the shelf

DeskPack turns Adobe Illustrator and Adobe Photoshop into fully-fledged packaging applications. Packaging plug-ins for Adobe Illustrator range from Dynamic Barcodes and PDF-import, to Seamless Repeat and Dynamic Panels. Adobe Photoshop packaging plug-ins include Flexo Tools to resolve specific flexographic printing issues, and allow Adobe Photoshop CS users to visualize changes. Novice flexo operators will have the power to develop images ready for the flexo printing process, while experienced retouchers will appreciate how Flexo Tools improve the quality and productivity of work.

Users can also manage spot colors, visualize flexo plates on-screen, and switch inks from CMYK to as many as four spot colors. The import and export of multi-channel DCS, TIFF-IT or CT files is possible too.

Studio Toolkit is a unique set of tools for 3D packaging design made specifically for packaging artwork professionals.

Studio is designed to allow the production of better artwork in the initial stages. Whether a designer is trying out different ideas, or a pre-press operator is checking a back-match, the Studio Toolkit makes this functionality simple.

Store Visualizer adds the finishing touch to Studio as a patented dynamic print visualization tool that can show a wide range of substrates, printing and finishing effects in real-time. With Visualizer you can share the results as images or movies. Visualizer requires a structural design file from one of the Studio Toolkits.

Esko's Store Visualizer then takes this a step further, using artwork produced in Studio or ArtiosCAD to produce virtual samples that can be viewed and interacted with in a virtual retail environment. New designs can be seen on the shelf next to the competition, and a complete product launch can be presented in 3D, including retail-ready packaging, displays and other branded items. Another application of Store Vizualiser is to test the visual impact of latest designs in the environment where it all happens: the store.

Joining the dots

To show how designers and brands can work from the initial collaboration stage when using WebCenter through to vizualising packaging on a virtual store shelf, Meersschaert touched on other elements of the Esko portfolio that can be used to hasten the time between a concept becoming a fully fledged shelf-ready package.

ArtiosCAD was used to create the initial graphics and structural designs that were published to WebCenter for all three Package Printing Workshop presentations, as was the power of Studio Toolkit to create 3D PDFs that can be read by all stakeholders using freely available PDF document readers to speed up the approval process.

Cost-savings and time to market are the main gains to be found by taking advantage of these tools when designing packaging, said Meersschaert.

Meersschaert also demonstrated the Esko Shapes Store, an iTunes equivalent for packaging designers, offering around 100 objects, ranging from plastic bottles, PET bottles, cups, tubs, tubes, pouches, cans, wrappers, shopping bags, egg cartons, palettes and even toilet paper, with more models constantly being added.

These models are opened in Illustrator or Studio Visualizer, further speeding up the process of creating 3D visualizations featuring job-specific artwork. During the high-quality tube workshop session, he showed how the Studio plug-in for Adobe Illustrator can make integrating the packaging structure with the artwork a simple and productive process during the design stages.

During the bucket/pail presentation, the Esko Equinox tool for extending color gamut was put through its paces as well. Equinox standardizes printing presses on any set of five, six or seven inks of your choice. With this, press changeover workload between jobs is reduced to merely changing printing plates, and allowing brighter, more vibrant packaging to be produced.

There are many other tools and plug-ins from Esko that are designed to speed up the design process, from Image Extractor for DeskPack, the Imaging Engine RIP software for the CDI and pre-press workflow automation tool Automation Engine.

Opportunities in packaging

De Roeck outlined the importance of packaging design in the retail environment, and as such the importance of streamlining the approval and pre-press process, by noting that consumers spend just five seconds making a purchasing decision, and that color and shape, and the text and logo, are key factors in the buying process.

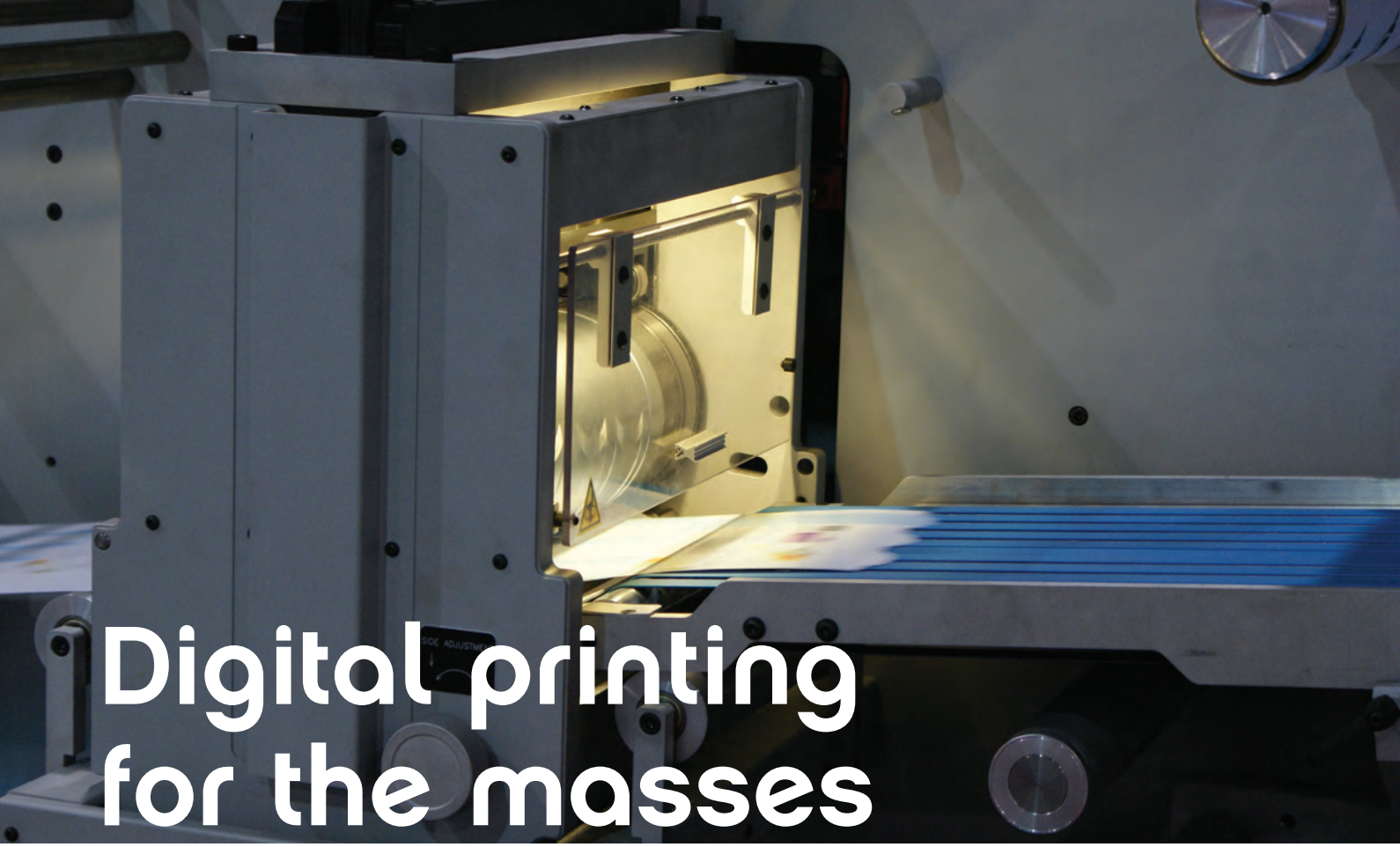
'The opportunities to go beyond the label are large, but it's important to get it right,' said De Roeck.

'Packaging must stand out on the shelf. A quarter of products that consumers buy are impulse purchases, so packaging plays a very important role in that decision.

'In addition, brands have multiple demands; they want better packaging and they want it faster, cheaper and greener.

'The Esko tools are designed to inspire.'

Watch an interview with Bart Meersschaert about the Esko tools at packprintworld.com/PPW-TV



Digital printing for the masses

Xeikon's 3000 Series digital printing presses offer printers and converters an adaptable solution for various package printing applications. David Pittman reports

Digital printing specialist Xeikon has developed its 3000 Series to fit into a printer's business, and provide it with a tool to capitalize on the opportunities presented by digital packaging and label printing.

There are five presses available in the Xeikon 3000 Series, with most models upgradable in the field to increase the printing width and speed, so making the presses a valuable proposition for those looking to make the move into digital printing or looking to grow their existing digital print capabilities into new markets.

The entry-level Xeikon 3030 model can print five colors at 31ft/min up to a 13in width, while the Xeikon 3050 runs at the same speed but up to 20.3in. The Xeikon 3030Plus has the addition of being able to print five colors at 45ft/min.

The Xeikon 3300 model can run at five colors at 63ft/min at the same operational width as the 3030, while the Xeikon 3500 can run 63ft/min at 20.3in.

Any Xeikon 3000 Series press chosen by a converter is tailored to meet the specific needs of that company, with Xeikon analyzing each business's opportunities to develop an implementation plan , which can also include pre- and post-printing finishing equipment as well as specific software and hardware products.

A Xeikon 3050 digital press was on show in the Package Printing Workshop feature area at the recent Labelexpo Americas 2012 show where, in collaboration with Esko *(see pp. 36-37)*, it presented the opportunities digital pre-press and printing can bring to folding carton production, plastic bucket decoration and creating high-quality tubes.

As part of a presentation looking at digital production, Xeikon also showcased the pre- and post-printing finishing equipment it offers, unique to each application.

Presented by Filip Weymans, director of segment marketing and business development for labels and packaging at Xeikon, the 3050 was used as a central component to producing packaging and labels whether working with folding cartons or heat transfer decoration and in-mold labelling.

Carton market

For the folding carton market, Weymans presented the Xeikon 3050 as part of the most compact digital carton production system available on the market.

With the ability to be run by a single press operator, the machine features a true 1,200dpi printing head and can print on stock as heavy as 350gsm, and on standard substrates not requiring pre-treating.

At Labelexpo Americas 2012, 10pt C1S Carolina supplied by Avery Dennison was used to show how the artwork created using Esko software tools can be taken by the X-800 workflow tool to create a die-cut/creasing file, separate out the spot varnish and translate all the colors into CMYK.

The press itself is equipped with five printing stations in this configuration, including the four CMYK colors and Durable Clear, Xeikon's newest dry toner that enables a spot varnish effect to be achieved direct in the press.

Durable Clear is a transparent dry toner product that offers scuff and scratch resistance, removing the need to carry out the post-press application of a traditional spot varnish, which is used to maintain package printing quality and increase the shelf life of cartons once they enter the retail environment.

The QA-I dry toner used by Xeikon is odorless, offers good light fastness properties and is compliant with indirect food contact regulations, as well as being suitable for direct contact situations with dry foods that contain no surface oil or fat.

So confident is Weymans of the safety of the QA-I dry toner for use in food applications that he even sampled some himself during his presentation, replicating a trick from previous presentations at tradeshows around the world.

The application of Durable Clear in the fifth press station also means it is applied in perfect register with the other colors.

The Xeikon solution from in-feed through workflow and printing to finishing

Once printed, the carton is then fed into a Xeikon DCoat converter, featuring a curing unit and die cutting station, where RotoMetrics PS Multi-Score flexible dies use a patented design featuring three adjacent blades to create the crease lines while further blades cut the blank to the required size, all on the reverse of the substrate.

The use of the Multi-Score design results in a single flexible die running on a magnetic cylinder cutting against an anvil roll, so producing a cost-saving against using a male/female set. In addition, the use of one plate offers minimal tooling costs compared to a two-plated cylinder set-up

Heat transfer decoration

Heat transfer decoration is particularly useful for producing tubes and buckets or pails, with the image transferred from a carrier to the object by means of heat and/or pressure, or facilitated by an adhesive.

This process offers a viable alternative to direct printing and other print processes, Weymans said, by offering a lower cost when compared to the use of self-adhesive labels, greater flexibility than direct printing or in-mold labelling and higher quality than direct printing.

The carrier can either be a transfer foil or paper, such as the waxpaper from Bomarko that was used in the live demonstration in the Package Printing Workshop.

When creating heat transfer labels, Weymans detailed how the X-800 Xeikon's workflow tool, is used again to extract the die cutting line from a PDF, and step and rotate the labels to be printed so reducing waste from the substrate.

The software takes the PDF artwork file and organizes the different labels using Varilane, which allows label printers to combine labels of different sizes and different SKUs within the same print job, thereby increasing productivity.

It then builds the white color plane and translates all the colors to CMYK, before mirroring the image so that when it is applied to the object it is in the correct orientation.

In place of Durable Clear, QA-White is used to produce a one-pass opaque white layer that is food compliant and has no odor.

Using the ColorMagic option, the X-800 workflow automatically creates a fifth layer behind the existing image that can be adjusted to different densities.

In addition, the QA-White dry toner is applied in the first print station, so when the image is converted the graphic appears correct to the consumer.

A lacquer can then be applied to enhance the appearance of the product, with primer and UV glue supplied by Actega Wit for this demonstration.

The printed heat transfer labels were fed back into a roll at Labelexpo Americas 2012, but in an industrial setting the next stage would see a label applicator from Moss, Tronics or other suppliers take the heat transfer label and apply it to the object, producing the finished tube, bucket or other type of packaging.

In-mold labeling

The final demonstration of digital printing's potential to label converters looking to grow their business into the packaging market came in the form of in-mold labeling, again using the 3050 press, X-800 workflow and additional converting equipment.

Similar to previous instances, the X-800 platform takes the PDF and creates cut lines and makes the image ready for printing. It also imposes the labels onto the substrate, using step and rotate to minimize waste.

All colors are then translated into CYMK.

A water-based coating is then applied to the in-mold label, which is cured with a hot air dryer. The finished in-mold labels are then sheeted in preparation for further converting and use as the basis for container packaging.

Addressing the audience in the Package Printing Workshop, Weymans said the systems demonstrated by Xeikon showed how digital printing could help printers and converters move forward.

He asked: 'Why digital print?

'It offers faster turnaround times and is ideally suited to short- to medium- run jobs, which are an increasingly important part of the market and printers' business models.'

ECMA maps out the future of carton

ECMA is planning to further its role in supporting the European carton market, starting with mapping out the future of the industry at its recent 2012 Congress. David Pittman was in attendance to hear from association president Andreas Blaschke (pictured, left) and others.

2012 has been a year of firsts for the European Carton Makers Association (ECMA).

A new structure was adopted at the ECMA Congress 2011 in Barcelona, with the new executive committee named at the association's first annual general assembly, which took place earlier this summer.

This saw, amongst others: Andreas Blaschke, of Mayr-Melnhof Packaging, appointed president; Arend-Jan Luten from Contego Packaging, leading the technical committee; and Christian Schiffers, of FFI, who'll handle association development.

The technical committee and association development committee have been established to help execute the new strategy of ECMA, alongside the business networking committee and marketing and communications committee.

Under the business networking committee are a number of business-oriented forums, which now includes a suppliers forum, led by Esko's Jan de Roeck.

Hans van Schaik has also taken on the role of managing director, replacing Jules Lejeune, who has spent many years leading ECMA as secretary-general.

The inaugural annual general assembly took place following the first-ever ECMA Folding Carton Leadership Summit, which was monitored by *Package Print Worldwide* editor Nick Coombes.

After the annual general assembly, Blaschke said: 'The past 12 months have been crucial in the transformation of ECMA into a dynamic European network of business networks.

'We are getting there step-by-step, and I am pleased with the level of support that the new organization structure is receiving from carton business, suppliers and associations with a strong European interest.'

2012 Congress

The ECMA Congress 2012, staged in Copenhagen in September, allowed the new structure the opportunity to present an update on its work so far, including Arend-Jan Luten from the technical committee, Jean-Francois Roche from the marketing and communications committee and Jerzy Czubak, chairman of the tobacco forum.

Czubak made clear changes in the law governing tobacco packaging in Australia will have a knock-on effect in the rest of the world.

The European Union is already proposing to introduce

legislation that would limit tobacco packaging, in much the same way Australia has introduced plain packaging with no visible branding on the carton.

His understanding is that proposals would require packs to have 75 percent of their surface area covered with graphic health warnings, surrounded by a black frame. Coupled with tax stamps, this would account for 90 percent of the packaging, leaving just one-tenth available for branding.

Standardized designs and shapes could also be introduced, with a review of this new packaging five years down the line before transitioning to full plain packaging.

This, he said, posed a major risk as it would open the door for counterfeiting, as well as costing jobs and hitting the EU budget through a loss of trade. Discussions with European politicians have revealed that there is a belief that the use of graphic images is protection against counterfeiting, however Czubak said they are surprised to find out that such images are in fact one of the easiest to replicate.

'The main argument against plain packaging is risk,' said Czubak. 'It will open the door to counterfeiting.

'ECMA is working to educate decision makers on such issues. We want a healthly society, but good intentions can have unforeseen circumstances.

'Printers and converters need to reach out and speak to politicians and help educate them on these possible unforeseen circumstances.'

Jules Lejuene also made his final presentation at an ECMA event in an official capacity, providing an outlook for the industry alongside Ben Markens, president of the North American Paperboard Packaging Council.

In the most recent period of study, the carton market has been performing below the levels forecasted, and to 2016 the carton market will see marginal growth in demand, with output and sales also expected to grow slowly per year.

Food issues

The presentations from ECMA's own executive team came on day two of the Copenhagen event, and were supported by discussions on the work food giant McDonald's is doing to make its packaging more sustainable and eliminate waste to landfill by 2020, and from filmmaker Werner Boote, who discussed the making of his feature "Plastic Planet", a documentary looking at the impact of plastic on the world.

Food safety was a key topic as well, with Beatte Kettlitz, the director of food policy science and R&D at FoodDrinkEurope, stressing the need for the entire supply chain to take an active role in minimizing the risks of contamination and other food safety issues. Kettlitz has previously welcomed the ECMA GMP guide, but spoke of the need for converters to have a full understanding of GMP to allow them to take an active role in the supply chain.

She was followed on stage by Robert Davison, managing director of Alexir Packaging in the UK, and Heinz Traussnig, director of product safety and compliance at the Mayr-Melnhof Group in Austria, who discussed the work their companies have undertaken to implement GMP, and the barriers they faced in persuading customers of the need to make it an important element of their business.

Also speaking was author and historian Tristram Stuart, who discussed the issues of global food wastage and the role packaging can play in reducing it, and Nicholas Mockett, of Moorgate Capital, who outlined the drivers for merger and acquisition activity in the packaging market.

Mockett said the fractured nature of the converting market, compared to the more concentrated market of suppliers and buyers, makes it suited to M&A activity, with the addition that packaging is a derived demand so linked very closely to GDP.

Healthy output volume prospects will help maintain M&A activity, while a move towards a service model will create interest as companies get closer to their customers, so becoming a more attractive proposition to potential investors.

A similar trend has already occurred in the commercial printing market, he said, where print management allowed companies to handle the design, procurement, logistics, storage and delivery for customers.

Mockett said: 'The future of the packaging market will be defined by three things: the evolution of a services culture, industry concentration and global economics.'

'European companies have the potential to break into emerging markets,' he added. 'The fundamentals in emerging markets are good and Brazil is arguably the best opportunity for a range of packaging segments. European companies have the technology and know-how to capitalize on this, and invest in emerging markets.'

Inward looking

The first day of presentations featured speakers from outside the carton market, who took a more holistic look at the industry, covering the wider economic situation and business management tools, to what will drive consumer purchasing decisions in the future.

Johan Peter Paludan, futurist and director of the Copenhagen Institute of Future Studies, said we are now entering the state of a "dream society" where consumption habits are based on what the heart wants rather than what the brain tells us, so brands need to tell stories to attract consumers.

This follows the "hunter-gatherer", "agricultural", "industrial" and "information" societies that have come and passed, and requires stories that are directly relevant to consumers, whether related to adventure, love and belonging, peace of mind or to reinforce their convictions.

On the right path

'We've set our sails in the right direction,' Blaschke said in his opening address to the conference.

'There are new challenges and opportunities facing the carton industry: consumers have less money, customers are under increasing cost pressures and growth in establish markets is minimal.

'In addition, volatility is high, while predictability is low, meaning it is important for companies to be agile to respond to the market.

'ECMA's new structure allows it to be fast and efficient, and transforms it into an association of member companies and national associations, rather than just representing the national bodies.'

Blaschke outlined the drive to attract direct members and the bigger role suppliers will now have as an example of the way ECMA is looking to the future. Participating companies at the 2012 Congress included direct converter and supplier members, indirect converter and supplier members, and prospective converter and supplier members.

'ECMA is not in competition with national associations, as we are all working together to further the industry here today and beyond.'

The "Tic Tac Fan-Rassel" entry, produced by STI Group for Ferrero Deutschland using Stora Enso material

Cartons a cut above the rest

The winners of the 16th Pro Carton/ECMA Carton Award were announced during the recent ECMA Congress 2012, with a number of entries impressing the judges with their quality and innovation. David Pittman reports.

The entries for the Pro Carton/ECMA Carton Award 2012 featured a host of unique designs and solutions for making the most of cartonboard as a packaging material.

2012 was the first year that entries were accepted from across the supply chain, including designers, manufacturers, the trade and brand owners. As a result, the finalists include entries from Bandke Consulting, REWE Group and Bamberg Kommunikation, as well as producers such as Clondalkin, Van Genechten and Chesapeake.

A design using a 3D effect to make bubbles appear to be floating off the packaging picked up Carton of the Year.

The Taittinger Rose Lens carton was produced by VG Angoulême for Taittinger. Cartonboard from Iggesund Paperboard and Mayr-Melnhof Karton was used in its construction.

The quality and impact at the point of sale were the main reasons that the judges awarded this product the accolade of Carton of the Year.

A matte lacquer applied at selected points supported the effect of the "pearls" and gives the packaging sophistication and a silky tactile feeling, the judges added. The "bubbles" were printed in such a way that they looked as though they were actually spheres.

VG Angoulême is part of the Van Genechten group of companies, and Aurélie Lorenzo, Van Genechten sales director for premium packaging said: 'We conducted a number of trials, also with matt and glossy effects, to find the perfect combination for Taittinger.'

Carton of the Year was presented during an evening reception at the end of the first day of the ECMA Congress 2012, as were awards for Sustainability and Most Innovative carton.

The entry "Termo Astuccio Frusta Sorrentina" was the winner in the Most Innovative category. Brand owner Forno d'Asolo wanted a special folded carton for catering on aircraft; a product which could be heated in an oven together with its frozen content without burning. Produced by Boxmarche. Prior to heating, the two specially designed areas on the sides are pressed inwards using the thumbs to avoid overpressure in the oven. After heating, only the centre strip needs to be torn open which divides the box into two halves. This allows a hot sandwich without burning or soiling.

The carton, using material from Stora Enso, is also subjected Jazz heat treatment, which creates the barrier for heating in the oven.

The Sustainability prize was awarded to the entry "Green Packaging bei Ja! Natürlich", produced by Druckerei Ratt Dornbirn for REWE Group also using Stora Enso cartonboard.

This carton was designed to replace the plastic packaging that is used for many fruit and vegetable products in the retail environment.

It was designed to be delivered flat but could also be easily erected for use. And being made solely from cartonboard it would be easy to recycle.

In the Beauty and Cosmetics category, "Beiersdorf mini essentials", produced by Clondalkin Pharma & Healthcare UK for Beiersdorf UK using material from Iggesund was the winner, while the Beverage category award went to "Coeur de cognac", produced by VG Angoulême for Remy Cointreau, using material from Stora Enso and Korsnäs.

The "Tic Tac Fan-Rassel" entry, produced by STI Group for Ferrero Deutschland using Stora Enso material once again, was the winning entry in the Confectionery category.

The Pharmaceutical prize went to "Ampullenverpackung", produced by Carl Edelmann for Weleda using material from International paper; Shelf Ready & Display category was awarded to "Ben & Jerry's 'Wich", produced by Contego Packaging using material from Korsnäs for Unilever; the All Other Food category was won by the "Cupholder Müsli & Yoghurt" entry, produced by WS Quack & Fischer for McDonalds Poland using cartonboard produced by Mayr-Melnhof Baiersbronn; and the All Other Non-Food prize was handed to "Folding box with measuring device", produced by Karl Knauer for Stähler Deutschland using material from International Paper.

The final category, Volume Markets Cartons, went to "Bacofoil Classic 30cm" (pictured, top), produced by Lucaprint for Wrap Film System, using cartonboard produced by Reno de Medici.

New Delhi delight

As Labelexpo India 2012 returns to Pragati Maidan, New Delhi for its sixth edition, David Pittman speaks with Labelexpo's managing director Roger Pellow to learn more about what South Asia's largest event for the label and package printing industry has to offer.

DP: What exactly is Labelexpo India and who is the show targeted at?
RP: Labelexpo India 2012 is the largest exhibition for the narrow web, product decoration, web printing and converting industry in South Asia. Held every two years, the four-day show is aimed at label and package printers/converters, brand owners and designers. As with its sister shows in Asia, America and Europe, it has fast become the best place to see the latest advances in technology and materials with many live press demonstrations.

DP: Which companies will be exhibiting and what can visitors expect to see at the show?
RP: This year's event is set to be the largest in its 10-year history as there will be over 200 press and material manufacturers exhibiting. As well as the established market leaders such as Esko, Gallus, Mark Andy and Nilpeter, there are many exciting first time exhibitors including: Color-Dec, Fujifilm Sericol, Mimaki, Rheintacho and Webtech. There has also been a huge increase in international exhibitors with more manufacturers than ever before from the Far and Middle East including Anoop Plastic and Taghleef Industries.

The event is all about the show floor and allowing visitors to get close up to the newest machinery. With over 20 live working presses being demonstrated at the show by companies including Gallus and Mimaki, attendees will be well placed to make informed choices. Being able to see firsthand the many features these presses offer such as quick changeover time, rapid tension control and resulting print quality will be invaluable when it comes to making purchasing decisions. In addition, visitors will also be able to see the latest ink and substrate innovations for everything from food through to pharmaceutical packaging with the latest in shrink sleeves, foil products and anti-counterfeiting solutions being shown.

DP: What are the key trends in package printing and packaging applications?
RP: The market is strong in India and has continued to grow at around 15 percent. India is experiencing significant changes at the moment with business becoming more commercialized as the Indian Government sets about finalizing its Foreign Direct Investment plans. International brands such as Tesco, Walmart and Carrefour entering the Indian wholesale market are in turn driving opportunities for printers/converters and as the landscape of India's retail industry changes, there will be considerable gains for package printing suppliers across own-brand products and other goods.

Another major trend driving the print packaging market is the steep rise in the number of variations converters are having to produce. Brand owners are pushing demand ever more with additional SKUs and personalization in response to a growing population that is becoming more middle class as personal wealth increases. Printers will need to adjust their business models and look at how shorter runs can be more profitable when the margins on volume are changing. Adding value through higher end finishes, QR codes and brand protection solutions, such as holographics, is growing in importance and also expectation. By offering added value services, converters will be more effective in selling and benefit from good margins.

As the industry has grown, printers are more willing to invest more in their plants, capital equipment and education. Competition is getting fiercer for market share so many converters are scrutinizing their business to see where quick and sustainable gains can be made over their competitors. As a result we are seeing better training for technicians being adopted as converters more proactively protect their talent pool of workers. In addition as Western presses continue to sell well in India, Indian converters are learning more from their international counterparts about doing business on the global stage. More converters are investing in better machinery and newer technologies such as digital printing. Extra attention is also being paid to improving quality control with increased scuff testing and investment in upgrading machines with added extras such as inspection equipment.

As one of the world's most vibrant and exciting market places, we look forward to returning with Labelexpo India 2014.

Labelexpo India takes place between 29 October and 1 November 2012 at Pragati Maidan, New Delhi.
www.labelexpo-india.com

Award-winning luxury packaging boosts demand for gourmet chocolates

When Hammer-Lübeck won a Pro Carton/ECMA Carton Award for the second time in four years, Nick Coombes looked into the secret of their sweet success.

Chocolate is both a consumable product and a luxury gift – but how do you differentiate between the two? The answer is with packaging.

In the case of Wagner Pralinen, a chocolate manufacturer renowned for its gourmet treats, the task of adding greater shelf impact for the pralinen fell to German carton converter Hammer-Lübeck Faltschachtelwerk, and the Michael Derpmann agency (Derpmann Design). The result was dramatic and award-winning.

When a consumer lifts a box of Wagner Pralinen chocolates from the shelf, he or she can immediately tell that the chocolates are special. The manufacturer's name appears in embossed lettering, lending the overall packaging a delicate design, and window cut-outs offer a mouth-watering view of the chocolates themselves, while adding depth to the packaging.

Clever use of a spot-coated circle and embossed frame enlarge the image to appear as though the chocolates are being viewed through a magnifying glass. To achieve this striking effect, sophisticated finishing was used, and one of the key elements was the choice of Sappi's Algro Design, a high-quality bright white virgin fiber SBB cartonboard.

Emotions made tangible

According to Derpmann Design, the aim was not to develop a wrapper but a product that made emotions tangible, linking

Quality chocolates require quality packaging

product appeal with packaging that would stand out on shop shelves and denote luxury products from a highly individual brand.

'We are extremely proud of this project and the recognition it earned,' said Wolfgang Grotmann, managing director of Hammer-Lübeck.

'We were able to bring our extensive knowledge of finishing and production expertise to the partnership. The design is simple, but the impression of looking at the chocolates through a magnifying glass was what grabbed the judges' eye.

'High-quality printing and finishing on a simple white background was the icing on the chocolates, so to speak, and reinforces the overall effect of the luxury packaging.'

The challenge facing Hammer-Lübeck was to design a package that would allow relatively thin and fragile chocolate bars to be delivered without damage. Using a design with a double-worked reverse side solved the problem.

Hammer-Lübeck also had to take into account that Wagner Pralinen offers its products under private labels in relatively small, customized runs, which meant that tool changes had to be kept to a minimum when changing brands.

Robust packaging for fragile products

'The Wagner Pralinen chocolates are very thin,' explained Christoph Grund, sales manager at Hammer-Lübeck. 'But one layer of 300gsm board, with double rear-wall reinforcement, offered the necessary protection. The design allowed us to process these special folding cartons mechanically rather than finishing them by hand, which would have increased the cost exponentially.

'We were also looking for a bright white board that would highlight the embossing. And, of course, the combination of the board, made from virgin fibers, and the inks and varnishes, all needed to conform to current food packaging manufacturing regulations.'

The process in production

First of all, Hammer-Lübeck covered the bright white virgin fiberboard with a special primer and a matte varnish. The gold "Wagner" lettering was applied with hot foil stamping, and covered with spot UV textured varnish. The various pigments produced a glittery effect, emphasized by the use of matte and gloss textures.

The "Wagner" lettering, which is repeated across all white portions of the packaging, was embossed in a separate operation, as were the frame and the circle logo. Hammer-Lübeck then created the punch-outs in line with the specifications – window cut-outs that were shaped according to the target product.

The final operation was the adhesion of the second layer of board on the reverse side of the carton to provide extra package strength and protect the delicate chocolates from breaking.

The choice of Algro Design

The Sappi product was selected for its bright white surface, and the fact that its virgin fibers added the strength to withstand a wide range of special finishing processes. Among the most popular SBB cartonboards in the market, it is especially good for luxury packaging, and draws approval from both consumers and brand owners.

According to Sappi, Algro Design, double-coated on one side, and Algro Design Duo, double-coated symmetrically on both sides, showcase the company's expertise in SBB board manufacturing. Its bright white finish, consistent quality, and high level of light resistance, provide virtually endless processing options, while its silky soft surface add to its appeal.

With its ability to support clearer print images and increased contrast, the manufacturer claims the board visually supports the quality of the brand and increases brand recognition and the value of the product itself.

Consumers vote with their wallets

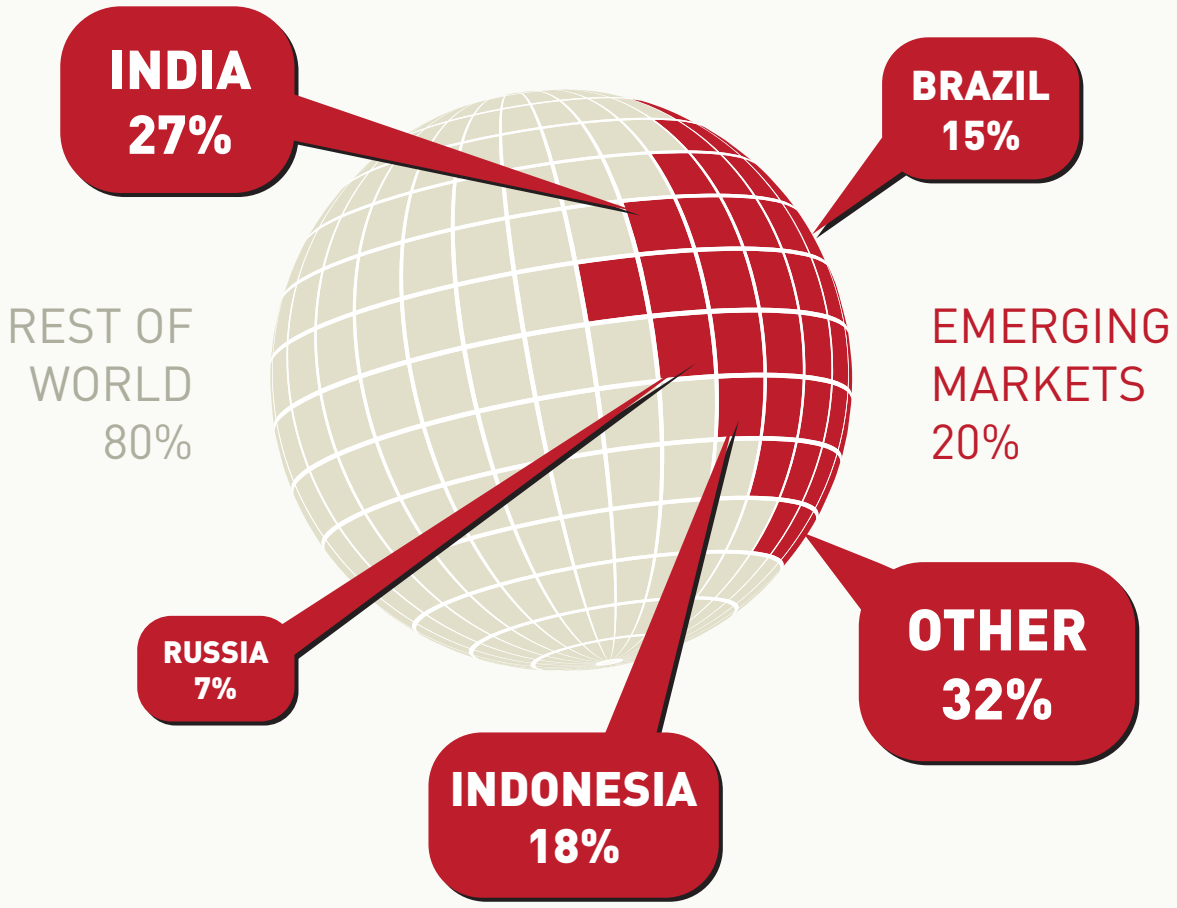
For the three companies involved, Derpmann Design, Wagner Pralinen and Hammer-Lübeck, the development of this packaging was a challenge of creativity and technical implementation.

Their collaboration delivered a product that conveys the image of quality and luxury and helps the Wagner products stand out against competing products on crowded shop shelves. In fact, the newly packaged Wagner Pralinen products are proving so popular that another print run will soon be needed.

Hammer-Lübeck was recognized for its quality work in 2007, prior to the latest award, and this family owned business, which was originally founded in 1919 in Lübeck, Germany, has specialized in folding cartons since the 1970s. Today, it employs 330 staff at two sites (Lübeck, and Posen in Poland), and continues its tradition of manufacturing high-quality food packaging for customers in Germany and around the world.

EMERGING MARKET* DEMAND FOR FLEXIBLE PACKAGING 2011

* As indentified by PCI: Poland, Russia, Turkey, Mexico, Brazil, India, Indonesia, Thailand, Vietnam, Saudi Arabia, UAE, Nigeria and South Africa



Mexico and Brazil show packaging potential

A new study has identified Mexico and Brazil among the thirteen fastest growing flexible packaging markets. James Quirk reports and rounds up the latest news from Latin America.

Mexico and Brazil, two emerging economies with a combined population of over 300 million people, have been identified by a new study by PCI Films Consulting as two of the thirteen fastest growing flexible packaging markets, alongside Poland, Russia, Turkey, India, Indonesia, Thailand, Vietnam, Saudi Arabia, UAE, Nigeria and South Africa.

Collectively these markets, valued at USD$14 billion, have grown by almost 70 percent since 2006 and now account for 20 percent of total world demand.

PCI's report, "Emerging Flexible Packaging Markets to 2016", finds that although a number of these emerging markets have been affected by the global economic downturn, they have weathered the crisis well, with demand growth averaging almost 11 percent per annum since 2006, led by countries including India, Indonesia, Brazil and Russia. In general, all emerging markets have illustrated strong growth over the past five years, with only three of the thirteen posting overall growth of less than 30 percent between 2006 and 2011.

The report identifies the major driving forces in flexible packaging demand within these emerging markets, including strong GDP growth, high population growth, liberalization

FFEI appoints IBF as Brazil distributor: Pictured (left to right): Luiz Nei Arias, IBF commercial vice president; Milton Fetter, IBF commercial director; Charlie Seccombe, FFEI commercial manager; Andy Cook, FFEI managing director

in a number of markets, continued urbanization and the development of mass retailing. In addition, changing consumer lifestyles and increasing disposable incomes have encouraged the development of new convenient packaged food and non-food products.

Study author Steve Hillam says: 'Strong and sustained growth over the next few years will see these 13 markets offering many investment opportunities for all those involved across the flexible packaging supply chain.

'This is particularly the case in terms of building converter expertise in the faster growing added-value sectors, such as high barrier films and retort pouches.'

Investing for the future

Converters and printers across South and Central America are investing in technology to capitalize on the growing demand.

Bogotá, Colombia-based label converter Comarbel purchased an HP Indigo WS4600 digital press at Drupa this year, and told Package Print Worldwide that the machine will allow it to diversify into short-run flexible packaging.

With a maximum web width of 13in, the WS4600 press can run pressure sensitive label and filmstock of 12 to 350 microns. It runs up to 30m/min in one or two color mode, and up to 15m/min with four colors.

'We purchased the digital press to serve markets with ever shorter runs and ever increasing SKUs.' says Juan Carlos Arbelaez, assistant manager at Comarbel. 'The technology provides a balance that gives us an acceptable printing speed and a web width that allows us to handle different types of work, for example in short-run flexible packaging and shrink sleeves.'

'The HP Indigo press will help to produce the smaller runs that our first flexo presses had been handling, but with less waste, of course, as well as the other benefits of digital technology,' adds Rodrigo Arbelaez, Comarbel's manager.

In Mexico, Comexi has confirmed the sale of a second Proslit Compack 2 slitter to Polytwist, a converter of flexible packaging based just south of Mexico City. The company manufactures flexible packaging and labels, including monolayer printed films, two-layer laminated films and other films, such as anti-fog and matte finished films.

Comexi said the order from Polytwist is the 100th Proslit Compack 2 sold since the product was launched in 2006. The Compack 2 has been purchased by customers all over the world, Comexi said, from more than 30 different countries.

Supplier growth

It is not only printers and converters that are investing in markets such as Mexico and Brazil.

Trelleborg, a supplier of blankets and sleeves to the flexo market, has strengthened its global printing solutions position by acquiring Printec, a printing blankets business in Brazil.

The move further strengthens Trelleborg's position in the Latin American graphic arts sector, as well as the global printing solutions market.

Printec is the printing blankets business of Day Brazil SA. This investment comes at a time when the organization's long-term strategy to invest in markets with encouraging growth potential will also see it open a new facility in the region this October. It already has a strong presence in Latin America and the US, as well as a production facility in Brazil.

'The acquisition of the established industry leader, Printec, supports Trelleborg's long-standing strategy to strengthen our leading positions within attractive and profitable market segments,' says Dario Porta, president of Trelleborg Coated Systems, which is part of the Trelleborg Engineered Systems business area.

'The graphics industry is an attractive industry and it is developing in new directions, not least in Latin America, and as such, an increased presence in this region was central to our growth strategy.'

Thomas Linkenheil, president of printing solutions at Trelleborg, says: 'We believe the addition of the Printec business, which already has a great collection of advanced products, to the Trelleborg brand, will ensure that we are best placed to support our customers, now and in the future.

'And we are confident that the increased local production of high-performance printing blankets for the graphic industry through this acquisition will strengthen our position as global leader and business partner in Latin America and in the US.'

Further, FFEI, a developer of digital imaging technology, has partnered with Brazilian-based plate manufacturer IBF for the distribution of its full range of commercial CtP products. IBF will distribute FFEI's Alinte violet CtP system and RealPro complementary software suite to its Brazilian customer base, further extending FFEI's sales channels into Latin America.

IBF, described as the world's fourth largest plate manufacturer and market leader in Brazil, exports to more than 70 countries and employs over 1,000 dealers worldwide. According to Andy Cook, FFEI managing director, IBF's extensive sales network and proven track record were key factors in finalizing the partnership.

'We are delighted to have reached this agreement with IBF, a leading supplier of graphic arts products in Latin America and a global player, continuing our policy of partnering with market leaders. We believe that IBF's unrivaled local knowledge and large reseller network will help us penetrate the Brazilian market with our complete commercial CtP portfolio, and enable us to achieve further success in other emerging economies.'

IBF will also distribute FFEI's latest RealPro Workflow system, designed specifically to complement FFEI's Alinte CtP range and providing commercial printers a complete end-to-end workflow.

Milton Fetter, IBF commercial director, says: 'In a Brazilian marketplace that is expanding rapidly, print shops expect high-quality products and are always looking to keep up-to-date with the latest technology.

'We are truly excited to reach this agreement with FFEI because its CtP solutions complement our portfolio, aimed at customers who demand robust build quality and low total cost of ownership. This new addition to our CtP offering will help us address the needs of several market segments.'

Leading from the front

Label converters are increasingly looking to opportunities in package printing as new presses open up possibilities to convert new materials. Andy Thomas reports

The new generation of narrow to mid web presses using servo drives, and fitted with chill drum and cool running UV, are opening label converters' eyes to the possibilities offered by short-run package printing.

A good example is UK converter Douglas Storrie Labels, which recently purchased the industry's first Edale FL-350 flexo press following a two-year joint development program.

The FL-350 at Douglas Storrie is a top of the range variant, with eight fully servo-driven UV flexo print heads with computerized pre-register, auto register and print length control. The press incorporates chill rolls, cold foil, turnbars and a sheeter. A comprehensive ancillary package includes 100 percent inspection supplied by Lake Vision Systems, double sided web cleaning and corona treater.

The press gives Douglas Storrie the option to extend its business into package printing. 'Labels and tickets is our core, but sometimes you can make more money from different parts of the business,' says Neal Livermore, sales manager at Douglas Storrie.

He compares the print quality of the FL-350 press with offset litho and gravure, 'with the added advantage that UV flexo can print on any substrate without requiring special coating.'

The addition of chill rolls and servos on the press has already opened up new markets beyond PS labels. A particularly striking example is a job for conference and exhibition name badges printed on a very expensive 200-micron thermal PP film specially imported from the US.

'The stretch is huge, but because we have no gears and no pulling, we can run it. We tried and failed to run it on our older technology, and this is a job that could not be run digital,' remarks Livermore.

Another piece of new work came from a chance conversation with a label buyer who asked if Douglas Storrie could print a 280-micron board insert. 'This was easy to achieve using our sheeter and conveyor and we could do it faster than their current supplier using flatbed cutting – and in one pass.'

Open Day demos

The versatility of the FL-350 was shown during a recent Open Day at Douglas Storrie Labels, with press demos moving rapidly between a PS label, folding board and unsupported wraparound OPP.

The first job was a four-color process cut sheet on gloss laser paper with gold cold foil. 'The feedback from the trade is they have never seen a better laydown of foil – and we have had a lot of interest in manufacturing machine trials for other companies,' says Livermore.

The second job, "Wuffitmix", was a four-color process plus special color label on PP film, while the third job was an unsupported OPP wraparound film for a water bottle application.

'With the colors preset in the machine, we have a record for changing a job in 70 seconds and in the industry this is as fast as it gets,' says Douglas Storrie production manager Stuart Robinson. 'Auto register means each job runs perfectly without the operator having to do any manual adjustment.

'We print registration marks off each plate and this brings the eight colors automatically into line and keeps them there through any variation in web tension. We are seeing just 15m of waste in an eight-color job, which is around one machine length. Once the plate hits, the press is in register.'

Continues Robinson: 'If we run the job again, the press control recalls all press tension settings, as well as the position of the cylinders and moves them into position relative to each color and the press is virtually in register before any material is run.'

In addition, Edale's inking and impression "strike" feature allows print station set-up with minimal waste.

'The older the machine, the more printing is an art and the more you need a good machine minder. This machine almost runs itself,' says Livermore.

Pushing quality

The gravure-like print quality on Douglas Storrie's Edale FL-350 press was achieved in great part by an extensive fingerprinting program undertaken by their repro suppliers, as well as the use of leading edge flexo plate technologies.

Creation Reprographics used Esko's Equinox deltaE color management software to develop four-color process profiles for the FL-350 which are used to optimize digital platemaking. These sheets can also be made available to designers to show the color gamut which can be achieved without special colors.

As well as using Kodak NEXcel digital plates, supplied by Pulse Media, Creation Reprographics has tested Asahi's new AWP water-wash digital plate imaged with an Esko HD CDI, and these were also used during the Open Day demos.

'Water-wash technology has really moved on and we can now run flexo to the same quality as litho,' enthuses Alan Coker, business development manager at Creation Reprographics.

'The Asahi plate does not start to deteriorate like previous water-wash plates we've used, and we are conducting trials with plate resolutions up to 350lpi. We are seeing better ink transfer owing to the reduced surface energy characteristics of the plate and no dot bridging, which also giving us a wider color gamut. They are also more environmentally friendly.'

The 1,600lpi aniloxes were supplied by Cheshire Anilox Technology and use the company's new ProFlo cell profile developed specifically for high-definition flexo. This high-release cell delivers as much as 15 percent additional ink compared to Cheshire's conventional engravings, allowing printers to achieve high color densities at extremely fine line counts.

'Sometimes you can make more money from different parts of the business,' says Neal Livermore, sales manager at Douglas Storrie (pictured, second left at the Open Day)

'This unique cell profile allows printers to work with the expanded tone range of offset and rotogravure to produce vibrant colors and high-contrast images,' says Cheshire Anilox managing director Paul Smith.

'Because we can hold such tight register, process printing now really works on this press and this makes life a lot easier,' adds Neal Livermore.

'This project with Edale has taken a long time but I'm certain the calculated risk will be repaid. It is a cracking machine and the possibilities it offers are endless. Our biggest quandary is where we go from here. My ambition for next year is to create new jobs through an extra shift and be in a position where we have to get second machine.'

FL-350 close up

Edale's managing director James Boughton points out that the company sells three quarters of its machines into the package printing rather than label sector. Indeed, the FL-350 print units are based on Edale's Gamma package printing press.

'The beauty of this print head is it gives you all the functionality of more advanced three axis machines,' says Boughton. 'You can take the inking elements out of the machine without changing print pressure or anilox, which gives you good control over color management. Also because there are no gears between plate and impression rolls you can run a wide range of materials from 30 to 450 microns.'

The FL-350 prints up to 200m/min with a print width of 350mm and will be offered by default with a single axis of servo on each print station.

'Edale now offers a product that pushes back the perceived advantages of digital to only the ultra-short runs whilst providing the printer with the comfort and simplicity of printing technology that he fully understands,' says Boughton.

Digital dilemma

According to managing director Nigel Storrie, the decision to co-develop a press with Edale was a 'calculated risk' as the company wrestled with the dilemma of whether to take the digital route.

'I was initially the most enthusiastic in the company about digital,' concedes Storrie.

'But prices keep going up and you still have to buy secondary finishing equipment. Also too many people have already gone digital and you need to have the right mix of work. So we decided on the quick change conventional route. We thought we could fight digital and we are now better than digital.'

Neal Livermore agrees: 'We all felt we were fighting against digital. But ultimately the quality of the printing with this press, with so little waste and the ability to run fast and finish in-line means it's so much more versatile.'

Plastic pallets offer a number of other advantages over conventional wooden pallets, including strength

Pallets not just for shipping

Craig Carson, president and chief executive officer of Jeco Plastic Products, which designs and manufactures rugged pallets and containers for the printing, automotive, warehousing and other industries, talks about the role of plastic pallets in print and converting environments.

For many package printers, pallets are the platforms, usually made of wood, used to ship material.

But pallets today have moved into a new area, particularly in package printing and related manufacturing. These new products – generally known as work-in-process pallets – are used to move material within the printing plant, but never leave the facility. Work-in-process pallets are usually made of plastic, and package printers need to approach their use with entirely different criteria to those used for conventional, wooden pallets.

Rethinking the pallet

Every manufacturer needs to handle products at intermediate steps in the production workflow. Factories use bins, boxes, trays, and even conventional wooden pallets, to move partially finished products and bring parts and sub-assemblies to the production floor.

Package printers must move and temporarily store high-value products that can be easily damaged. Using conventional wooden pallets to handle work-in-process means products may be damaged by pallets failing under load, and that workers may be injured by loose nails and splinters.

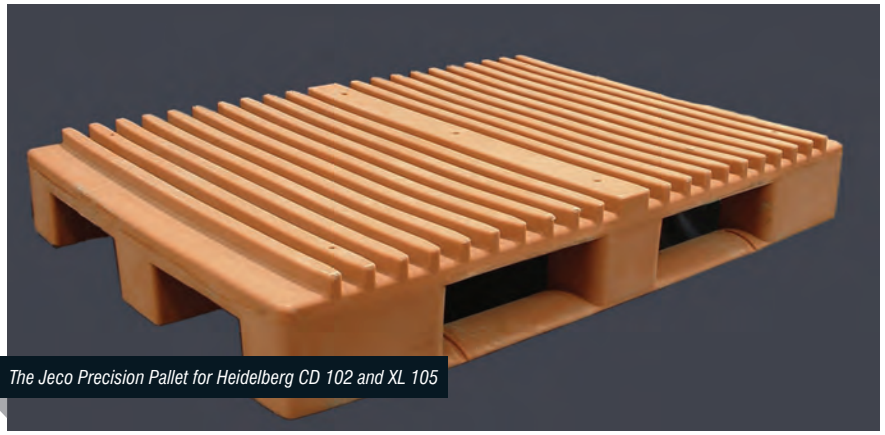
In many instances, a better alternative is plastic pallets. Not only can conventional wooden pallets be replaced with more sturdy plastic pallets, but the plastic pallets can be designed and formed to fit precisely into press delivery areas or high-speed logistics systems.

Standardized plastic pallets

Several manufacturers provide work-in-process plastic pallets appropriate for package printers. Most of their offerings are designed to fit the delivery of specific presses or die cutters, including popular models offered by Heidelberg, manroland, KBA, Bobst and other suppliers. Curved pallets to accommodate roll stock of various diameters are also available from stock.

Off-the-shelf pallets are reasonably priced because the costs of plastic molds are amortized over long periods of time and many customers. But even when stock pallets are not available

Packaging materials can be stored and transported without fear of damage using plastic pallets



The Jeco Precision Pallet for Heidelberg CD 102 and XL 105

for a specific application, the rotational molding process used to manufacture most work-in-process plastic pallets makes custom pallets a reasonable alternative.

The advantages of plastic pallets

In addition to employee safety and product protection, plastic pallets offer a number of other advantages over conventional wooden pallets or other product handling concepts. Employees welcome plastic pallets because they are lighter in weight and can be handled without the caution necessary with wooden pallets.

Plastic pallets are also fully recyclable and facilitate compliance with ISO 14001, which specifies the actual requirements for environmental management systems. Perhaps most important, unlike their wooden counterparts, plastic pallets never need repair and can be expected to last for decades.

Unique qualities

For the typical package printer, plastic pallets offer operational advantages far beyond simply replacing wooden pallets, and plastic pallets have a distinctly positive effect on product quality.

Packaging materials and labels can be stored and transported without fear of damage. Stacks of product do not distort due to pallet deflection. Plastic pallets in package printing environments provide a common, standard platform serving equally well in the pressroom, die cutting area and finishing. Storing printed packaging on plastic pallets provides a safe and reliable buffer between presses and die cutters.

Many package printing operations use machines with different formats. The same factory may see presses, die cutters, folders, laminators and other machines of different dimensions. As a result, personnel in different areas often devise work-in-process pallets of different sizes. This can make moving unfinished product difficult, necessitating adjusting forklift prongs and storage bays, or using expensive pile turners.

For such applications, a custom continuous feed pallet with ribs in both directions permits using one pallet both in the delivery of a large format sheet-fed press and the input to a die cutter, simply by turning the pallet at a 90-degree angle.

As package printing operations become more automated, the need for uniform work-in-process procedures grows. Newer presses often rely on high-speed, continuous-feed equipment, which cannot tolerate the dimensional variations often seen in wooden pallets.

Using plastic pallets in these situations often eliminates the expensive downtime that can result from a failed wooden pallet in an automated environment. Another consideration lies in logistics systems such as the Heidelberg XL series and the manroland Aupasys. These highly automated production processes, which transport empty pallets on wide roller systems, require pallets made to precise tolerances.

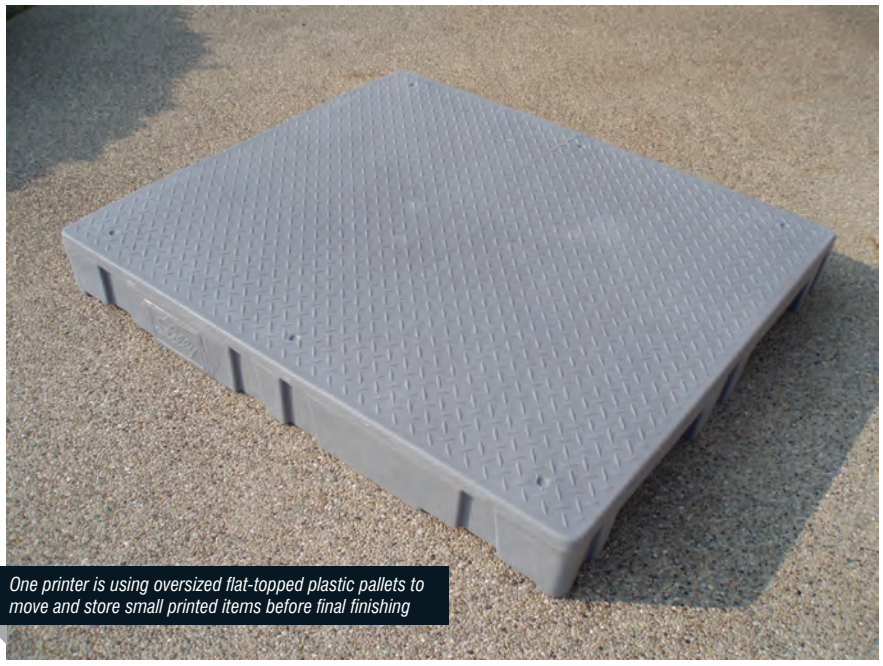
The durability and stability of plastic pallets generally reduce labor as well. In many factories, one or more employees is required merely to maintain and repair wooden pallets. With plastic pallets, employees can be diverted to more productive tasks.

Looking at the pallet investment

From an accounting standpoint, wooden pallets are usually treated as an expense. But plastic pallets – which can be expected to last 25 to 30 years or more – are more logically viewed as a capital expense and should be depreciated.

Reduced labor, increased machine and process efficiency, a cleaner workplace

Standardized offerings are designed to fit the delivery of specific presses or die cutters, including popular models from manroland



One printer is using oversized flat-topped plastic pallets to move and store small printed items before final finishing

and workflow uniformity make it easy to rationalize plastic pallets over wooden ones. Manufacturers of plastic pallets can provide details, but generally the return on investment for plastic pallets is less than two years, despite higher initial costs.

Real-world applications

Package printers around the world use plastic pallets to improve efficiency and reduce costs.

A Belgian package printer with a Heidelberg XL105 press uses plastic pallets in a continuous-feed package printing operation because of the precise dimensional requirements of the conveyor system. The pallets, which first see service in the delivery to the press, are used not only to convey printed product throughout the plant, but even to transfer unprinted paper to the feeder end of the press. Plastic pallets can be manufactured to extremely tight tolerances, thus ensuring that the latest equipment can be operated at design speeds. Wooden pallets are not sufficiently uniform to be used in this application.

A large German package printer with very short print runs also uses plastic pallets to ensure a uniform workflow when jobs must be moved from press to finishing. In this factory, an entire print run may fit on a single pallet, and a long print run might be ten pallets. Plastic pallets employed in the continuous-feed workflow provide uniformity in product movement and storage, regardless of job size, and produce savings in time, personnel and cost on jobs as small as three pallets.

In the US, a large web printer uses oversized flat-topped plastic pallets to move and store small printed items before final finishing and mailing. The custom plastic pallets used in this application were designed to hold printed stacks weighing as much as 16,000lbs (7,255kg). These large pallet loads are used not only to move product to the finishing area, but to provide short- and long-term storage.

Because of the weight involved, these pallets were designed to be pushed with forklifts, and are reinforced to eliminate puncture by forklift forks. The printer eliminates buffer storage issues by pushing multiple pallets to the warehouse or bindery, even across expansion joints in the concrete floor. Moving several pallets at one time reduces traffic problems and dramatically reduces the number of forklifts required.

And a British printer specializing in packaging for the food industry uses plastic pallets because of their hygienic qualities. Unlike their wooden counterparts, plastic pallets are easy to clean and do not absorb odors or liquids. They can be used in food preparation areas and clean rooms.

As can be seen from these examples, plastic pallets offer distinct advantages over the common wooden pallets often seen in package printing plants.

The long life and sturdiness of plastic pallets make them the ideal choice for virtually any operation.

Flexo sleeves – not what they used to be

Nick Coombes talks to Damien Leterrier (pictured left), sales and development manager at leading Swedish manufacturing group, Trelleborg AB, to find out how technology is adapting to changes in market demand.

It may surprise many in the market, but the value of flexo sleeves globally is around a €100m annually, according to Trelleborg, one of the leading manufacturers of printing solutions, and a company that has been making giant strides in this sector since it acquired specialist French manufacturer, Axcyl, in 2008.

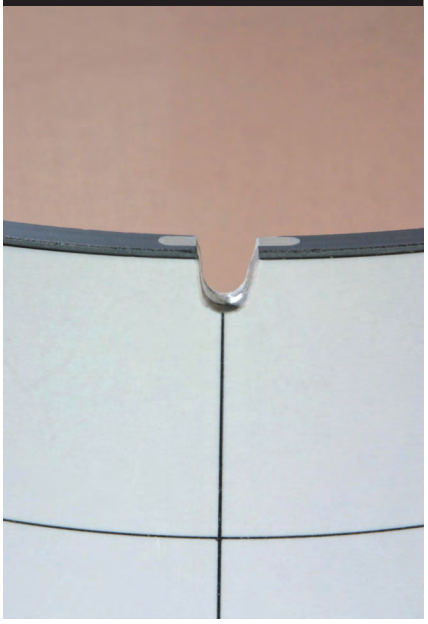
'Our history of producing sleeves for mounting flexo plates goes back to the early 1990s when Jean Francille, the founder of Axcyl, developed a method of creating a honeycomb tube system with variable diameters, on which plates could be mounted off-line before sliding the assembly on the shaft of the press,' explains Damien Leterrier, who is Trelleborg's sales and development manager for its Axcyl flexo sleeve product. 'His research was in response to a growing demand for shorter print runs, quicker changeovers between jobs, and variable print sizes. In fact, this was one of many major innovations in the flexo industry around this time,' he adds.

According to Leterrier, developments in pre-press, anilox rollers, digital plate technology and sleeve-dedicated printing presses mean that the quality achieved on a modern flexo press equals that of any other commonly used method of printing. This has taken flexo into areas that once would have been unthinkable: newspapers, folding cartons, labels, flexible packaging - the list goes on.

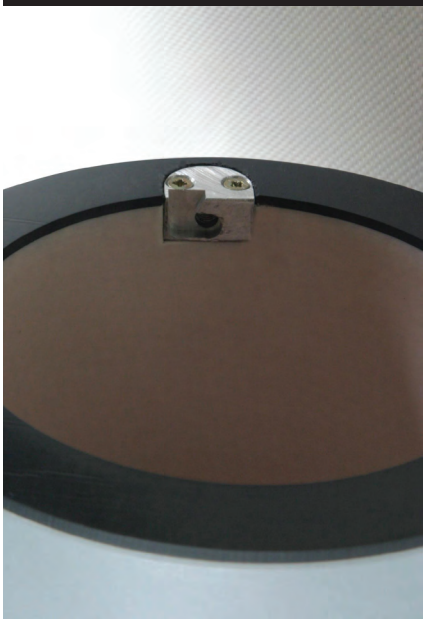
Amongst the significant technological breakthroughs in this field, it would be easy to overlook the huge advances made in sleeve construction. The development of sleeves, which enable subsequent jobs to be pre-mounted while the press is still running, has been crucial to enabling flexo printers to achieve quick changeovers and therefore cost effectively handle short runs and design alterations. They also provide a straightforward way of storing plates for repeat orders.

Sleeves of various thicknesses allow for a variety of repeat lengths when combined with an adaptor or bridge sleeve. This fits onto the press shaft, and a plate-mounting sleeve is subsequently added. The use of these bridge sleeves enables the printer to reduce capital expenditure by using thinner sleeves for plate mounting, because they fit the array of bridge sleeves designed for the specific press. The recent introduction of carbon fiber adaptors, which have excellent rigidity and vibration filtration properties, allow high-speed production of the most demanding print designs.

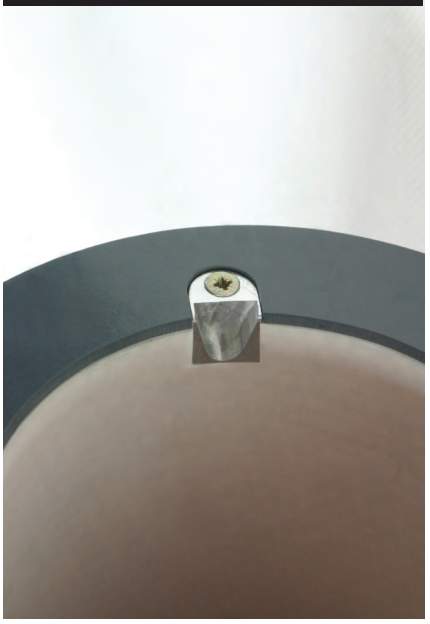
'Today's flexo sleeves are highly engineered, but there are a wide range of options from a growing number of suppliers. Printers need to keep a close eye on developments and maintain a good understanding of the differences



Aluminum notches are for sleeves between 7 and 15mm thick



These are used for Bridge sleeves



Edge protection for sleeves thicker than 5mm and aluminum notches for sleeves thicker than 15mm

between products and types so they don't miss out on opportunities to improve productivity or save money.' explains Leterrier.

With the exception of corrugated post-print applications, sleeves are used on all forms of flexo presses. They are generally built with a "sandwich structure" concept that incorporates two key elements - the mounting layer and the repeat build-up layer. The former expands under a pressure of six bar, enabling the sleeve to be mounted and removed from the press shaft, whilst the build-up layer enables several repeat lengths to be obtained from one single inner diameter.

Sleeves are manufactured from a variety of materials, so their properties differ greatly. The majority fall into the cheaper end of the cost spectrum. This includes glass fiber and polyurethane foam based products. These are light, but are generally unstable over long periods of time, particularly with their tendency to absorb moisture or solvents from the air during storage. In addition, polyurethane foams can be very elastic, with limited vibration filtration properties.

To obtain sleeves with good stability the printer needs to select products at the higher end of the price scale and this includes those from Trelleborg, which has chosen to base its concepts on an expanded, non-woven fabric embedded into a resin system. The company's Axcyl range features a mounting layer that is composed of a specially formulated polymer designed to filter vibration from the impression nip, while the build-up layer is made of epoxy resin with a honeycomb structure. This provides stability and rigidity, resulting in low dot gain and the ability to print jobs at speeds where the level of press vibration would otherwise adversely affect the print quality.

'The difference in price between the cheapest and most expensive versions of the same sleeve geometry is probably about 20 percent, so printers can make considerable savings if they buy wisely, particularly when the average flexo press requires between 150 to 200 sleeves,' said Leterrier. 'But beware, purchasing wisely doesn't mean simply choosing the cheapest. This could easily be false economy that costs more in the long term, because the product is not stable enough, and requires early replacement,' he adds.

Most sleeve damage occurs during handling, and any protection features provided by the manufacturer are worth looking at closely. For instance, a shock-absorbing face will make the sleeve last longer, while the inclusion of a cutting guide prevents excessive knife cuts on the outer surface. 'With good housekeeping and careful handling, sleeves should be reusable for at least five years' he said.

'One issue that crops up on a regular base is the use of automatic cleaners. Too many printers fail to check that the automatic sleeve cleaning system they have installed is compatible with the sleeve materials they are using. The cleaning solvents used on these machines often penetrate the sleeve ends, if these are not sealed during manufacture, and this results in permanent sleeve deformation and consequent poor register'.

Fast registration of the sleeve to the shaft is normally achieved via pre-cut slots, but if these are not properly reinforced, the press operator may well find that pre-register via the sleeve slot, does not remain accurate because of premature wear. Surprisingly, it is not unknown for printers to specify incorrect sleeve dimensions that match either the shaft or the plates. This information is worth double-checking prior to purchasing the sleeves, and the varying thickness of plates means that not all of them can be used with all sleeves.

The ideal sleeve and adaptor for the printer should combine lightness with strength. 'Handling is very important, especially when you consider the frequency of changeovers, so lightweight materials that incorporate higher stiffness and dynamic response to minimize vibration during printing, are preferable. This accounts for the rise in popularity of carbon fiber adaptors,' he adds.

Overall, the annual growth in the worldwide sleeve market stands at around six to eight percent, with an increasing amount of this coming from the recent adoption of this technology in the narrow web sector. 'The flexo industry is expanding in many parts of the world, including Asia, and as a result we are enjoying new levels of interest in our products from these growth areas. From our standpoint, the future for flexo looks extremely positive, and that's good for sleeves,' says Leterrier.

Innovation and doing business in China

Leading Chinese converter Beijing Deji is focused on selling service, innovation and value – and expects the same from its suppliers. Kevin Liu reports

In the Daxing district of south Beijing, you will find the China Printing Museum, an official museum dedicated to the history of printing, while in the Changping district of north Beijing, you will find a package printing museum owned by a private company that is fully engaged in package print production.

Yu Dayang, the general manager of Beijing Deji Adhesive Labels & Prints (Beijing Deji), said his company is very much like a museum.

'Almost any kind of package printing machines, including letterpress, offset printing, flexo, digital printing or machines with an in-line post-press system, you can find in our museum. Any information you want to know about current converting machines, just come here.'

Dayang compares himself to a museum curator – but a curator who needs to pay attention to the development of his business.

No giants here

Beijing, of course, is the national political and cultural center, and its enterprises are focused on hi-tech and cultural production, especially in the Changping Hi-Tech Industrial Park. Almost half of China's Growth Enterprise Market (GEM)-listed enterprises are located in this district.

Salaries here are highly competitive, which is not an issue for most GEM companies, where salary is a small proportion of the total enterprise cost. But the package printing industry remains a traditional one, where salary takes up a large part of the cost.

'There is no way for us to compete with them,' says Dayang. 'As a package printer looking for further development, we will establish factories in the urban area between Beijing and Tianjin where all costs are comparatively lower than in Beijing.

'I myself love Changping and our employees also have families here. So we recognized we needed to find a way to handle our company's development in the competitive economic conditions found in Beijing.'

The way forward for Dayang is for Beijing Deji to become a "creative quality" enterprise.

'We expect to make full use of our design capability and our experience in different package print technologies to provide a unique service for our customers. Our salesmen are also consultants who will introduce customers to the whole process and range of options available to them.'

Dayang does not want to go after small profits through a quick turnover of clients and will never join in a price war.

'The business we are pursuing is to provide a valuable service to thoughtful customers. When a customer doesn't need mass-market printed packaging, when he pursues some

Yu Dayang, the general manager of Beijing Deji Adhesive Labels & Prints (Beijing Deji)

special effects, when he expects original thinking to be applied to his packaging, that is the time we use our expertise.'

Creative enterprise

Beijing Deji expects a win-win co-operation with its customers: customers get their unique packaging and Beijing Deji gets reasonable profits. This is the only way a converter can sustain a prosperous business.

Providing unique products requires extensive technical support. Beijing Deji houses an excellent design team which is generously supported by Dayang in terms of software and hardware investment.

The company owns two Labelmen satellite-type letterpress machines, one Weigang offset machine and one Nipson digital printing press; more recently, it purchased one Hontec nine-color satellite type letterpress from Dongguan and one Beiren Fuji flexo machine. In addition, Beijing Deji has an extensive ability to post-print packaging.

'Except for those obsolete intermittent label printing machines, our current equipment covers all the current main print technologies,' said Dayang. 'We use different processes to produce different types of packaging products and we try to realize some special process effects with using combinations of print processes.'

'Take the satellite type nine-color letterpress for example. Our workers operate it quite expertly and the speed of exchanging printing plates is also very fast. Therefore we can use the satellite type letterpress for short-run printing. When we introduced the Hontec letterpress from Dongguan we modified this new equipment by adding online die-cutting, hot foiling and screen. We do not simply install equipment – we also try to extend its functionality and enhance automation.'

Package converting covers such an extensive field that nobody can know everything. Therefore, experience, creativity and a choice of process methods are always necessary. 'Our solutions are not simply copies but products with intelligence inside,' says Dayang.

Standard equipment is far from meeting Dayang's requirements and he expects his facilities to offer unique technology solutions. In 2011, Beijing Deji concluded a cooperation agreement with Beiren Fuji, which gave Dayang the space to implement his ideas.

'We bought the Beiren flexo machine as a kind of cooperative R&D project rather than a simple purchase. It is the first such machine being launched by Beiren on the Chinese market for this industry.

'Beiren is an excellent joint venture partner that has won many prizes, which indicates that it is a strong technology enterprise. Yet in our opinion, they also have a lot to improve in the field of flexo printing and should focus more on their customers' special requirements. Our chief engineer worked for United Printing (the agent of Mark Andy in China) beforehand and he is quite familiar with the detailed technology of flexo printing manufacturers. Following his suggestion, we decided to work with Beiren.

'In this cooperation, we provided many exact opinions for Beiren Fuji including the process combination, color match tests for the machines and some detailed improvement points. They in turn feel pleased with this cooperation because they can develop products closely matched to market requirements and they start to understand what the market really needs.

'If we had cooperated with some internationally famous corporations, the customized machine would be quite expensive, which is difficult for our private enterprise in the short term. But for now, it makes us happy to realize our creativity in this machine based on our experience.'

As a benchmarking exercise, the cooperation between Beijing Deji and Beiren Fuji attracted widespread attention among printing enterprises in the Beijing area. Not long after this flexo press was commissioned by Beijing Deji, other converters looked to Beiren Fuji for a machine with the same configuration.

Dayang gave these companies pertinent advice based on his experience: 'Do make a detailed study of your business and process control before you purchase, otherwise, there may be process conflicts which will lower the production efficiency and you will be unable to show the real efficacy of this machine.'

Dayang believes that packaging converters in China need to address questions of efficiency if they are to remain profitable. 'The profitability of the package printing industry is indeed reducing – although compared with the general printing and newspaper industry, to some extent package printing is returning to a reasonable level. Only if an enterprise has its own specialty can package printing still be quite profitable.'

The motto summarizing the corporate culture of Beijing Deji is: 'Specialized in technique, Honesty in my heart'. 'We seek to combine intelligence and ability, honesty and thoughtfulness. As long as our product is close to this target, we believe customers will be prepared for pay for the product's quality and design, and for the special value therein. In a word, this industry is still prosperous,' says Dayang. Looking towards the future, what is Dayang's take on digital printing? 'We believe printing will be digitalized finally though we are not sure about the time frame. Like a craftsman, I will follow the progress of digital but based on traditional experience, which is my favorite role.'

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SunUno number one choice for Bemis

Bemis Elsham signed up to be the test partner for Sun Chemical's new SunUno Solimax multi-purpose ink system, as it looked for a way to cut the cost of using multiple ink systems.

Established in 1858 in St. Louis, Missouri, as a manufacturer of machine sewn cotton bags for milled food and grain products, Bemis has played an influential role in the packaging industry since the day it was founded.

Now a global supplier of flexible packaging and pressure sensitive label materials, with 2011 net sales of US$5.3 billion, Bemis operates 80 facilities in 12 countries.

Bemis Elsham was the first European acquisition for the company, giving it a foothold in the UK flexible packaging market. Headquartered in Brigg, North Lincolnshire, Bemis Elsham is best known for its expertise in polyethylene films and bags.

Ink partner

Sun Chemical has been Bemis Elsham's ink partner for over 17 years, helping to drive and develop innovative ink solutions for their packaging business.

From manufacturing high-performance films for the medical and food packaging industry to converting ultra-convenient packaging for personal care, Bemis Elsham supplies the UK's top brand manufacturers, as well as serving as an exporter to Europe.

The business strategy Bemis Elsham and Sun Chemical both agreed from the outset was to adopt the most advanced technology that was available in the industry. This would enable Bemis Elsham to continue to offer their customers superior quality printed packaging solutions, as well as new services enabling them to exploit the market-specific needs and opportunities they identified.

Multi-ink system

It has been the aim of the company's print manager, Jim O'Donnell, to run Bemis Elsham on a one-ink only system for several years now.

He says: 'We had been using up to five ink systems in the past, and are at present running with a two-ink system. The Holy Grail is to run on just one ink system, as the benefits for our business will be considerable.

'Not only will we significantly improve our environmental positioning, we will also increase our efficiency and productivity which will ultimately improve our bottom line.'

Ink is money

'Running various jobs across more than one ink system can be costly and time consuming owing to the various ink properties that each substrate requires,' he adds. 'Ink stock is money and we don't always use every part of it, so we were finding that we had excessive returns.

'Also, with a multi-ink system there is a higher chance of the wrong ink being used on materials, as well as the risk of cross contamination during changeovers.'

Single-ink solution

To O'Donnell: 'It is very important that we find the right single ink system to work across our diverse product range, so we entered a lengthy consultation process. We approached several manufacturers, looking at new systems and ideas over a period of approximately four months.

'We finally made the unanimous decision to go with SunUno Solimax from Sun Chemical, which appeared to be the best solution for our business.'

SunUno Solimax is suitable for both surface and reverse print applications on a number of commonly used flexible packaging substrates, and covers multiple end-use applications. It is suitable for both flexographic and rotogravure print processes.

Sun said SunUno Solimax is designed to maximize pressroom efficiency while simplifying the overall print production process, and provides the shelf stand out and high-quality packaging for today's competitive industry.

Intended for surface printing and adhesive lamination for various end-use applications such as lidding materials, medical laminates and food packaging for confectionery and snack food, Solimax is compatible with both solvent-free and solvent-based lamination technologies.

Introduction and integration

O'Donnell says: 'We slowly introduced Solimax to our lamination process backed up by a rigorous testing period. When we were satisfied with the performance, we transferred all our lamination work to this system. The transition was very smooth and created little or no issue, the quality of some of our more challenging process designs was impressive."

'The next objective was to use it on HD work. Bemis has been involved in most forms of HD plate technology from the earliest stage with some very encouraging results. In March this year we used it on a range of HD designs for a very demanding customer, and the results were extremely positive.

'Solimax performed excellently and impressed us with how well it printed the minimum dot, as well as having good color clarity and strong density. This is exactly what we are looking for in an ink system, our customers have extremely high standards and so have we.'

The communication power of the pack

In a pioneering research study conducted in Germany, leading marketing consultants, Pointlogic, explored the role of packaging as a means of communication. Nick Coombes reports on the findings presented by Tim Foley (pictured left) at the Pro Carton Conference in Düsseldorf earlier this year.

Entitled "Packaging in the digital age" the report began with the premise that we are all familiar with the role of product packaging on both familiar and new items, but asked the question: is there more to the package than we think? The survey set out to examine the role that packaging plays in the store, in the home, and looked at it from both the traditional and the new digital media points of view.

Setting up the survey

Using a sample base of over 2,000 German consumers, all of whom were over the age of 18, Pointlogic carried out the fieldwork in February 2012 utilizing a questionnaire that was based on unique and proven measurement of communication channels, which it then analyzed.

The main themes researched were fourfold: packaging "on the couch" – both feelings and attitudes; the strengths of packaging as a medium – both in-store and at-home; the "reach and frequency" of packaging; and packaging in the digital world.

So, what did the consumers think? Well, only 15 percent believed they were influenced by trends, while 25 percent believed that the brands they bought said something about them. Interesting, but not strong responses. But, when asked about packaging, the results were far more definite.

Positive results

More than 60 percent said they looked at the packaging before deciding to buy in-store, and the figure for shopping online is remarkably similar. Showing the importance of graphics and color, more than 55 percent said they recognized their favorite brands from a distance just by their packaging, and over 53 percent said they liked to touch or feel products before they buy them. Significantly, and a warning shot for designers, almost 40 percent said they often didn't recognize a brand after a change in the packaging.

From these findings, Pointlogic was able to conclude that across a range of questions, consumers recognized that packaging played a role in their lives. It allowed them to evaluate the new, recognize the old, and fulfill their needs to adopt a sustainable lifestyle. And to emphasize their environmental awareness, almost 62 percent of Germans questioned claim to keep the packaging for recycling.

Tim Foley, managing director of Pointlogic's UK Office, explained how his company measures the power of the media. 'We are experts in working with data to measure the power and suitability of different media to work towards different objectives. In this case, the consumers had no idea that we were researching packaging, but by using a proprietary technique that enables consumers to match up channels with the tasks they feel able to perform, we produce evidence that media planners and marketing executives have confidence in, and which is valuable to their packaging strategy.'

Packaging as a competitive communication tool

The list of communication channels was comprehensive and included advertising on websites, television, e-mails, cinemas, in-store, online, newspapers, magazines, direct mail, radio, and personal recommendations. Similarly, the marketing tasks evaluated included awareness, repeat purchase, high quality, eco friendly, healthy ingredients, and prompt usage.

In-store packaging showed strong performance in the key areas of consideration and trial, while at-home, the packaging played a different role, one of supporting product knowledge and the likelihood of a repeat purchase. When it came to detailed information about the product, digital media and hands-on experience of the pack dominated the rankings.

In helping the consumer to decide what to buy, in-store had a clear lead over at-home. When it came to product trials, other channels, like in-store offers, samples and recommendations were more potent forces than packaging, but for repeat purchases the opposite is true, with packaging at-home being a powerful prompt to restock.

All channels showed a weakness in prompt usage at-home, though packaging at-home was the best reminder for driving usage. High quality is mostly judged on visual impression and recommendation, while not surprisingly, packaging scores relatively poorly on the awareness front.

To summarize so far, Pointlogic concluded that packaging is a powerful means of communication both in-store and at-home, and has the capability of working along multiple points in the purchase and consumption funnel. It works equally well on men and women, and is especially strong among the younger consumers in the 18 to 34 year age bracket.

Packaging impact

Looking more closely inside the store, more than 50 percent of the sample base said they often picked up and looked at things that grabbed their attention, and over 42 percent claimed to enjoy looking out for new things on the shelf. When asked how they behaved when they made their last purchase in-store, a high proportion said the actual decision was made in-store.

Among these, the high scorers were chocolate and snacks with 70 percent, and food and cleaning products, both with over 63 percent. Only coffee/tea and tobacco fell below the 50 percent mark. Significantly, of those who made their decision in-store, packaging played a stronger role.

To be effective, however, packaging also needs to have "reach" – it needs to have the bandwidth to be part of a communication strategy if it is to maximize its potential. Pointlogic measured how many people picked up and looked at a package alongside other media, and found it to have a high reach. Only online, internet, television, and radio, proved better than the effect of packaging in-store, and those four plus newspapers and outdoor advertising were the only ones ahead of packaging at-home.

In the modern era of online shopping and digital influences, the importance of seeing the packaging when shopping online for something for the first time is very high. Only chocolate and snacks fell below 50 percent, while coffee/tea lead the stats with almost 80 percent. In the age of barcodes and more recently QR codes, there is a marked diversion of awareness. Almost twice as many people knew what a barcode was compared with a QR code, though the proportion of those who have scanned either to date was low, at less than 40 percent – more encouragingly, over 60 percent said they would scan both in future.

Conclusions

Where then does this leave us with packaging as an effective tool as a means for communication?

Tim Foley summed up the results of his company's work as follows: 'We explored all aspects of the role of packaging in a communication context.

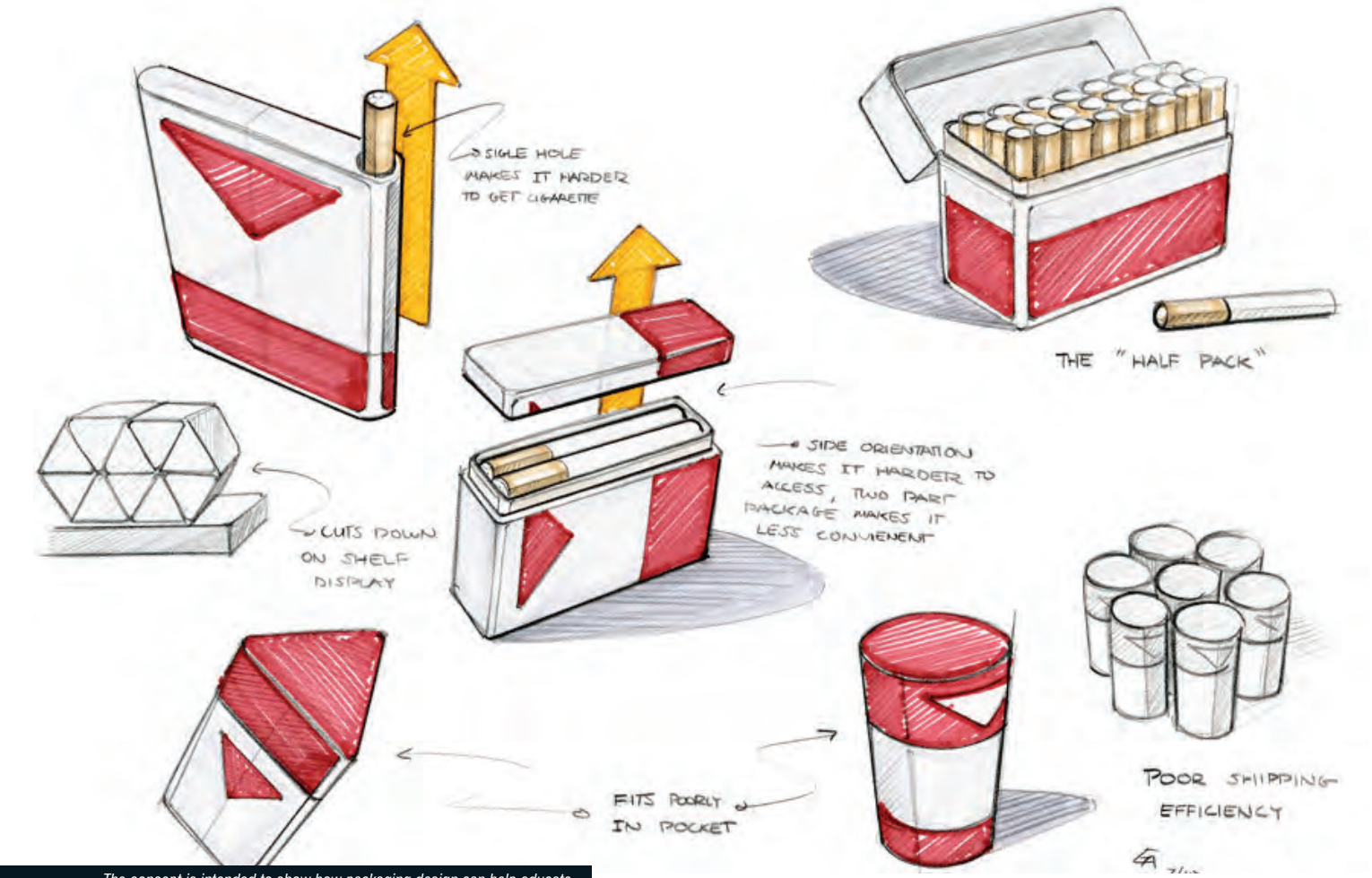
'From consumers' attitudes, we know they use and understand its strengths as both a means to introduce new things and as a navigational aid in-store.

'We have quantified the strengths of packaging in-store and in-home.

'We have found it to make a valuable contribution at all stages of the purchase funnel.

'We have been able to measure packaging with the metrics of traditional media and found that as well as having power it has the reach to deliver.

'Looking specifically at the digital world, packaging can be part of that world through on-pack codes and can also sit comfortably alongside digital channels.'



The concept is intended to show how packaging design can help educate consumers about the products they are actually buying

DESIGN TO ANNOY

Erik Askin, an industrial designer at NewDealDesign in San Francisco, has taken a theoretical look at designing inefficient packaging as a way to explore how issues can be tackled in unconventional ways. He spoke to David Pittman about his thoughts on packaging to discourage smoking.

This summer, designer Erik Askin's concept for inefficient cigarette packaging was a hot topic on Twitter.

His concept was that cigarette cartons designed to be less convenient and simple to access could be a way of discouraging smoking, a problem that has puzzled governments around the world for many years.

Legislation

Legislation has taken on many forms in markets from the UK to Australia. The UK has brought about changes to the legal age that you can purchase cigarettes, introduced a ban on smoking in public places, increased the requirements for health warnings printed on packaging and enforced the removal of cigarette packets from display in shops in a move to discourage young people from starting to smoke in the first place.

The Gulf Cooperation Council (GCC), whose member countries include Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates, has also made moves to increase the use of graphic images on cigarette packaging to discourage young people from becoming lifelong smokers.

In addition, tobacco firms are trying to battle with Australian legislators over a new law that makes plain packaging mandatory, and removes brand colors and logos from packs.

Many other developed nations are considering adopting plain cigarette packaging, with emerging markets, like India, also said to be supportive of this change.

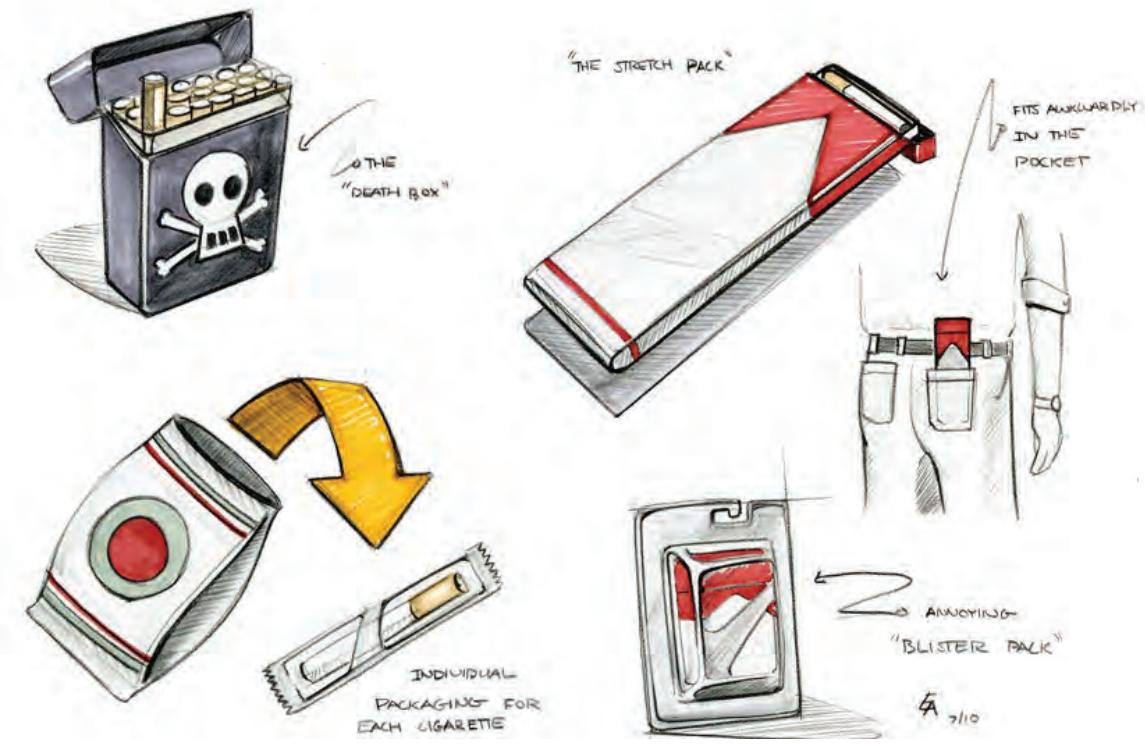
A different view

Askin has gained experience working with several leading design firms on projects in both the consumer and medical fields, and states that he strives to work to find simple solutions to complex problems.

Askin's "Design to Annoy" concept does not look to eliminate branding and colors from cigarette packaging, nor scare smokers off using dire warnings and graphic imagery to illustrate the consequences of smoking.

Instead, he has given thought to the idea that the convenience, portability and way branding is used on cigarette cartons could be a contributing factor to people smoking.

So, what if cigarette cartons were less convenient, and designed to annoy?



Askin thought of various ideas that challenge traditional designs for cigarette packaging

To realize this, he came up with several sketched ideas, including an all-black packet described as the “Death Box”, blister packs to display cigarette cartons at the point-of-sale, an elongated packet that would not fit easily into a pocket, cylindrical cartons and packs for half-size cigarettes.

Askin finally settled on a diamond shaped carton as the least efficient and ergonomic design, and created chipboard mock-ups to validate the concept.

‘One of my main goals with the diamond pack was to inhibit accessibility as much as possible,’ he says. ‘By re-orienting the cigarettes so only one could be accessed at a time, the act of grabbing a smoke or sharing one with others inherently becomes more difficult.

‘Along with making the act of accessing a cigarette difficult, the diamond pack also explores several other theoretical annoyances. For instance, the shape fits poorly in one's pocket and with its multiple facets sits awkwardly on most surfaces.’

Askin says his concept also looks at the way inefficient design could affect tobacco brands themselves, and the printers and converters manufacturing cigarette cartons.

‘The cap location and overall geometry also inhibit branding by limiting usable logo space and conceivably create an annoyance when it comes to point-of-sale displays.

‘I did explore how, by taking these annoyances to the manufactures themselves, the diamond design could "annoy" in all aspects of its product cycle.

‘Imagine if the government could regulate the design of a cigarette carton so they were harder and more expensive for tobacco companies to make? Far-fetched maybe, but interesting none the less. By increasing the cost to make cigarette cartons, it would in turn raise the price of cigarettes, which would in turn make purchasing cigarettes harder.’

He adds: ‘The real debate, however, lies in how much say the government has in what you can and can't have. Tobacco and junk food companies have no interest in making their product harder to use, so such a design would have to be forced upon them.’

Eskin is keen to note that his “Design to Annoy” project is only conceptual and that the main message is not against smoking, rather how design can be used to solve problems in unconventional ways.

‘I chose cigarettes as a subject to explore this premise because I think we can all agree that they are bad for you. That being said, I think it really does start to explore how through package design consumers can be educated about the products they are actually buying.’

And Askin says that, while an overall concept such as "Design to Annoy" would be quite far-fetched for actual market implementation, aspects of it could be adopted.

‘When approaching this project I was very much influenced by everyday designs that serve to annoy for the better good.

‘Devices such as safety caps on medication bottles and the beeping noise your car makes when you don't buckle up are all great examples of instances when annoyance is useful. The main objective of this project was too challenge the way we commonly approach design problems by making things easier, better and simpler.

‘Rather, "Design to Annoy" looks at how we can solve a problem by making something harder, difficult and confusing.’

A piece of the puzzle

Packaging, he says, is just one part of the puzzle when it comes to tackling issues that involve consumer purchasing behavior.

‘There will always be battles between law makers and tobacco companies on how cigarettes will be sold. While package design is an important aspect of the "smoking experience", I believe tobacco branding and marketing materials have a greater impact on influencing new generations of smokers.

‘Packaging is only one piece of the picture, but one that can have great impact on how we, as consumers, make decisions. A product's package is its own personal salesman and plays a huge factor in influencing whether we buy the product or not.

‘As a designer, I believe product packaging must be honest to its contents. If products are harmful or unhealthy, it must be clearly acknowledged on the package and brought to the attention of the buyer. Companies must be held to high standards on the messages they display and must not be allowed to fall back on the fine print.

‘Everything from portion control and nutritional information to convenience could all be implemented to discourage the use of unhealthy products.’

The future of printing

– a retail packaging manufacturer's perspective

Brian Pankratz, sales representative at Display Pack, US-based designer and manufacturer of cartons, sleeves and other packaging for a global client base, shares his thoughts on the future for package printing.

If you are a printer in the packaging industry, you have been witness to a constantly changing landscape fueled by new equipment and elevated customer demands.

Many economists are predicting steady growth for the future of printing, but what do companies need to do to stay competitive?

Can we continue to do what we are doing today, or will our organizations need to adapt to be more competitive with the ever-changing market?

Some printers are already experiencing the need for additional equipment to match increased customer demands; demands that will only amplify as time goes on.

But the big question for all printers around the world is what does the future of printing look like?

The beginning of the trend

If we take a look at recent trends in the printing industry, we see that equipment has helped us become more efficient but also created an expectation by the customer that they will get their printed product soon after placing their order.

Who is responsible for this increased expectation? Contrary to where you might think the responsibility may fall, the printers are the driving force behind this change in expectation.

Equipment is faster and more adaptable, so printers want to become more competitive and offer shorter lead times to customers and give them the expectation that they will get their printed product quicker than previously quoted. This becomes the new standard.

We are training our customers to want more from us in a shorter period of time. In addition, the introduction of digital printing has led sales teams across the globe to start using language during conversations with customers that would suggest they can have their product printed instantaneously.

We're all in this together

Now that we have ourselves to thank for this, printers need to answer the question on how they prepare for the future in order to accommodate the new expectations of customers.

Economists have indicated that the package printing industry will see growth at a rate on average of two percent per year over

Display Pack provides additional services to printing, such as collating, assembling and packaging multi-part products

the next five years.

The question of how do we prepare for the future needs to be answered in relation to controlling growth with equipment purchases and upgrades, increasing through-put efficiencies of existing processes, establishing online systems for submission and approval of artwork with real-time data to the customer, and getting the right team in place that is focused on quality and meeting the demands of the customer and changing industry.

From the customer

The trends in the industry also suggest that customers have been targeted to carry less on-hand inventory. This is forcing most printers to have shorter and more frequent print runs.

Thankfully, equipment manufacturers have picked up this trend and are creating equipment that is specifically designed for this new demand. Digital printing has helped printers to react quickly, but does have its limitations.

When digital printing can't get the job done, we can now turn to new equipment that is designed for quick changeovers and also smaller printing platforms.

The need to possess this equipment will be crucial if today's printers want to continue in the future.

Flexibility will be the key ingredient for success to maintain the high demands and expectations from our printing customers. This does not mean you need to liquidate your current equipment, as there will always be a need for large format offset printers. The point is one of diversification, and to have options for different size products and size print runs.

A matter of sustainability

Like every industry, the print industry is shifting away from methods that are environmentally harmful.

Equipment manufacturers are forcing the industry to be more sustainable. New equipment is being manufactured that rejects the use of solvent-based coatings. New board types are being created that focus on sustainability while maintaining quality appearance.

We can only expect this trend to continue as sustainability efforts receive more and more attention. Some customers have gone so far as to require either Forest Stewardship Council (FSC) or Sustainable Forestry Initiative (SFI) certified boards for their products.

Although most consumers don't understand the FSC or SFI labels on the printed package, there is still a desire for companies to move in this direction to show their care for the environment as an organization.

Paper or plastic?

The paper printing industry today has a slight advantage over plastic packaging for its sustainability. This should continue for the following 3-5 years. But, as additional plant-based plastics get introduced into the market, the printing industry should take note that a shift could take place in the coming years.

Plant-based plastics will drive down the costs of the plastics as well as score great marks for sustainability. These two improvements will gain attention and could cause a shift away from some products being in printed cartons. It is hard to determine the next big trend five years from now, but this could certainly be one possibility that needs to be noted.

The extinction of the combination run

Many companies offer combo runs, which are basically sheets filled with many different SKU's from different customers.

New technology will soon challenge the need for this type of print run.

Digital and offset press manufacturers are in a race for the top to create new technology that will eliminate the need to print several different SKU's from different customers together on a sheet to later sort through after being die cut.

The trend of the future is to accommodate printers with equipment that assists them to react better to the growing demands of their customers. Expect to see equipment with quick changeovers and smaller sheet sizes to accommodate this trend.

It is tough to predict the future of anything, especially in an unstable economy that has its uncertainties.

For printers to stay competitive we cannot look for a thermometer to tell us what need to do; instead, we need to be a thermostat setting the direction for the future of printing.

We have to match our customer's needs and expectations with our capabilities. We have to provide excellent customer service and excellent quality so that we continue to be recognized for great things printing can do.

The future of printing has a positive outlook, for those who are prepared and diversified at least.

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