# ALL CHANGE ON THE DATA FRONT

DEVELOPMENTS IN PRINTED ELECTRONICS AND RFID IN LOGISTICS LABELING

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## GROWING IN TOUGH TIMES

How value enhancement can help you grow in a harsh economy

## FLYING COLORS

MOR

A report from Geostick, beta user of HP Indigo's WS6000

## FOCUS ON MEXICO

Globalization is benefiting Mexican converters

## INSPECTION REVOLUTION

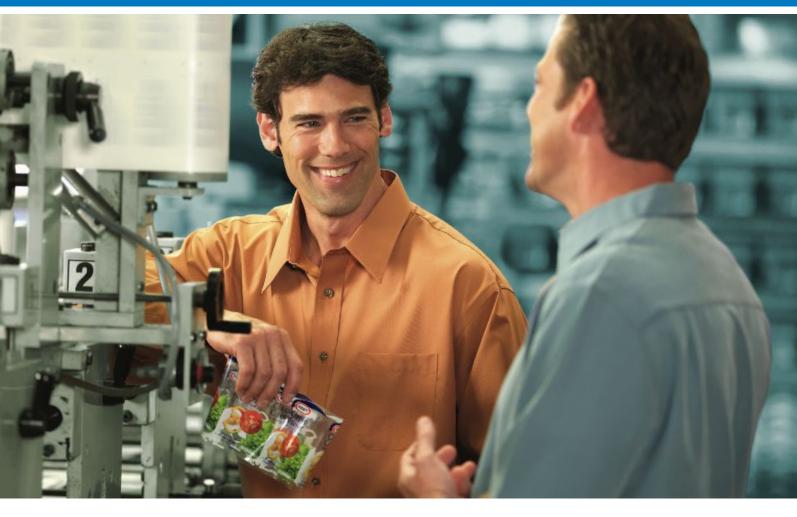
A networked 100% inspection system from Erhardt+Leimer at X-Label represents a major breakthrough

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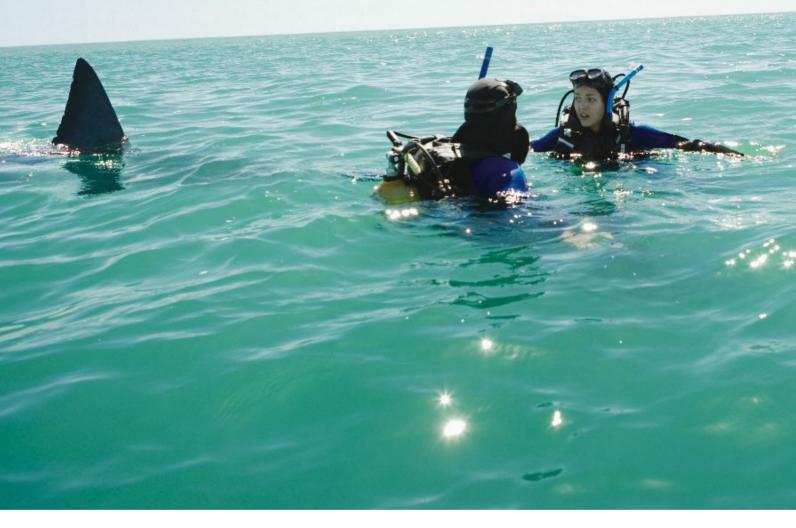
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## **DIGITAL SUMMIT**

It is not often one returns from a conference with completely changed expectations about the future of the label industry. But the Digital Label Summit held in Barcelona in March was just such an occasion.

Delegates heard success stories from converters from around the world with different levels of digital integration with their conventional businesses, including a whole new generation of fully digital label converters which not only have no conventional equipment, but do not even have a sales force, finding prospects, uploading customer jobs and proofing over specially developed websites.

At a time when converters are cutting back on their travel and marketing spends, it was heartening to see over 250 delegates, all of whom spent the networking breaks and evening events enthusiastically discussing a radically different future vision.

Even for converters who run digital operations alongside their conventional businesses, digital presses were generally running at more profitable levels and were increasing the companies' ability to expand or consolidate their conventional business.

The other key take-away was the growing sophistication not just of the digital presses now on the market – and the inkjet systems now approaching market – but of the workflow systems which allow digital presses to operate as a seamless part of existing conventional workflows. MIS plug-ins can even select automatically against given criteria which jobs should go to conventional platemaking and which to the digital press.

A thoughtful note was struck about whether end users might eventually take digital printing of labels and packaging in-house. Some of the inkjet vendors had already been asked to look at pilot projects.

A highlight was definitely the active contribution of Paul France, responsible globally for printing innovation at Proctor & Gamble, who finally dispelled any myths that the major brand owners are not interested in digital. France – set to become a regular contributor to L&L – encouraged label converters to become true experts in their field and to bring innovative digital solutions to P&G.

### ANDY THOMAS

GROUP MANAGING EDITOR athomas@labelsandlabeling.com

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# INBOX

## ON CORPORATE SOCIAL RESPONSIBILITY:

Because of what I do (selling retail antitheft labels), CSR is something I am not only able to promote professionally: I benefit from it personally as well. My products not only make the world safer for my family and friends; they make it a safer place for your family and friends too. BSI allows me to accept lower profits for the long term benefit that inherently comes from 'doing the right thing', i.e.: CSR. That's how I typically resell products (that I actually helped to develop) for less than their own manufacturers demand for them. In that example, which corporate model demonstrates the largest commitment to CSR? Hint: It's almost never the big guys!

Craig Patterson

## **ON TRAINING IN THE LABEL SECTOR**

As an instructor of flexography I would welcome the idea of having a formalized international education and training programs or systems. It is extremely important that the information that the students learn is relevant and applicable to the needs of the flexo industry.

The concept of accreditation is also welcome in the educational system; we need to have accreditation to validate our educational teaching materials and methods. One point that I would like to make is that it is extremely important that industry recognizes the accredited student, or worker who has gone through the training process and has become accredited. A student who pays there own way through a two or four year degree in printing and has become accredited in flexography should be in higher demand and should be compensated with a higher starting pay. As instructors in the educational system, we are there to meet the needs of students and industry, and what better way is there, than to define the educational expectations of industry?

#### Rene Church

From a rotary cutting tool supplier point of view, this type of standardization within the converting industry's training body can only advance product awareness and technologies both to new and existing operatives. I see many excellent people unable to go out of their 'specialized field comfort zone' only to be held back by lack of training or knowledge, or even unable to fund ongoing education within our industry. By bringing costs of seminar training down to an affordable level then individuals can then learn different aspects of converting not directly associated to their daily task, resulting in swifter understandings of problematic fields and applications. Dean Morris

## **ON ENVIRONMENTAL SUSTAINABILITY**

The key point is that clients want 'Green' because the public want 'Green'. So there is no option but to have a 'Green' offering. Mark

For extended versions of these threads, plus the chance to contribute, visit www.labelsandlabeling.com/blog.

## THE CHALLENGES PRESENTED BY GLOBALIZATION

Globalization has created some problems in the label sector, as it has in other areas. The suppliers and the customers of label producers buy smaller companies in their sectors and this negatively affects the selling/buying power of label producers. The buyers and sellers are now stronger. Multinational companies demand multinational standards for products and services, and internet tenders force label printers to 'run with the hare and hunt with the hounds'.

WINE LABEL FOCUS

INBOX 11

The biggest problem of globalization for Turkish label producers stems from Turkey being outside of the European Union. At the same time there is a considerable distance between us and EU countries.

I think there are two general solutions for Turkish label producers for these problems: firstly, joint ventures with big multinationals for survival; secondly, getting special and low quantity orders from niche markets, building on special relationships and providing the required quality in the shortest possible period. At the same time, reducing scale for survival.

The problems of the Turkish label sector cannot be solved individually. The solution requires being together under an association. Also, we must be ready for international competition by selecting one of the above choices. Turkish label manufacturers are lucky today, because although we are a country with a population of 72 million, demand in Turkey is still not high enough to attract foreign label producers.

On the other hand, 'A' quality labelstock is not often used for this low demand work. Turkish label users initially check the price, then the terms and last of all the quality. The agreements between the label producer and the customer usually do not exceed a month. Annual agreements, and longer, are very rare.

In the future, annual consumption in the Turkish label market will be similar in quantity to elsewhere in the European market and quality will be important. Turkish label producers must be ready for this. So, being a FINAT member helps them to learn the experiences of other label producers.

Aydin Okay, president, Turkish Label Association, and managing director, Canpas

# NEWS

### **HOT OFF THE PRESS**

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## ROTOMETRICS OPENS BANGKOK FACILITY

RotoMetrics has opened a sales and support facility in Bangkok, Thailand,

to better service the growing markets in Southeast Asia, China and India. Karen Moreland, RotoMetrics' vice president of international operations, commented: 'With direct access to RotoMetrics' worldwide manufacturing locations, our team is committed to providing the region's highest level of customer service, including fast response times and local support.' Shaun Pullen, pictured, has been appointed regional sales director for Asia, heading the Bangkok facility. Pullen is a resident of Thailand and has extensive experience in the label industry.

## SURON EXPANDS GLOBAL DISTRIBUTOR NETWORK

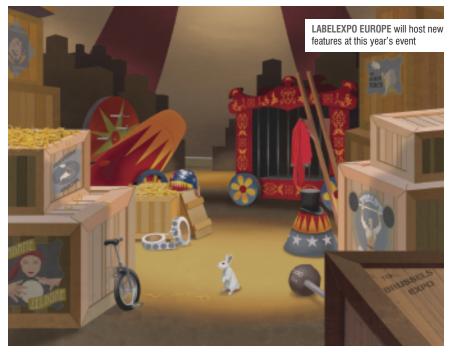
Suron, an Israel-based supplier of flexible dies, has appointed sales agents in Greece, Italy and the Benelux countries. 3Print – an HP Indigo distributor located in Athens – will act as Suron's sales agent in the Greek market. 3Print deals with all the

major label printers in Greece and will now be offering Suron's flexible dies and diecutting tools in its product range. Siad Group SRL, a supplier of machinery to the labeling industry located in Milan, will market Suron's product range in Italy. The company is run by Giampiero Cotza and Alberto Bettinelli.

'Both 3Print and Siad Group SRL come from the digital labeling field and will be using their extent networking and customer base to promote Suron's flexible dies and complementary rotary products,' said the company's flexible die division marketing manager Eliav Silberberg.

Meanwhile, Deltapak, a sister company of Van Zalinge Benelux, now acts as Suron's sales representative in Belgium, the Netherlands and Luxembourg.

Silberberg continued: 'The appointment of three new agents comes after we have established a solid relationship with sales agents in India and South Africa. Over all we are now enjoying a network of sales agents who promote our brand and product range and give the technical support to our customers around the globe.'





## LABELEXPO EUROPE ANNOUNCES NEW FEATURES

**LABELEXPO DEDICATED AREAS** to digital printing and environmental sustainability will make their European debuts

Labelexpo Europe, which will take place on 23-26 September, will host new feature areas dedicated to digital printing and environmentally friendly products. The Digital Printing Experience, which was debuted at Labelexpo Americas in Chicago last year, makes its first appearance at the European event. The area will contain a number of suppliers showcasing digital printing, pre-press and finishing equipment, and will host a series of seminars and panel discussions about the future of digital label printing and its role in the development of the label industry. Reflecting the trend towards digital technology in all areas of the label production process, the Digital Printing Experience is set to cover around 15 percent of the show's floor space.

Green Park, a section of the show dedicated to environmentally friendly products and 'green' initiatives, also makes its European debut. The area allows suppliers to display eco-friendly products and visitors will be able to see the latest developments in sustainable processes and technology.

This year's event also welcomes a number of first-time exhibitors, including

Screen Europe, a manufacturer of system components for pre-press and printing; Herma, a supplier of label applicators and materials; and Radior, an ink supplier. Among others, EMIS, MDC Daetwyler and Axode will also exhibit for the first time.

Commenting on the upcoming show, Roger Pellow, Labelexpo managing director, said: 'Labelexpo Europe continues to be the essential event in the industry for senior professionals to come and see the latest innovations and technologies in action and make important decisions in the bid to achieve maximum productivity and profitability for their business. The long-running show provides a unique forum for converters in this market to network and keep up with the fast-moving technological advances. We are looking forward to another successful show in Brussels this September.'

Tarsus Group, the organizer of the Labelexpo Global Series of events, reports that despite the current economic climate, the floor space for this year's show is set to exceed that of the record-breaking event which took place in 2007.



THE Xeikon 3300 was unveiled at drupa 2008

## XEIKON AND PRISM ENTER INTO BUSINESS PARTNERSHIP

DIGITAL PRESS MANUFACTURER now offers Prism's MIS software

Xeikon, a digital press manufacturer, and Prism, a developer of MIS/ERP software products for the graphic arts industry, have entered into a joint referral partnership program. Through the partnership, Xeikon will be able to offer Prism's management information solutions to key vertical markets, including labels and packaging.

Prism's offerings for the graphic arts industry scale from entry-level for small organizations to comprehensive offerings for multi-plant businesses. Prism WIN and QTMS are especially relevant for the unique requirements of label converters with installations around the world. Through bi-directional, real-time communication between Xeikon's X-800 Digital Front-End and Prism's MIS software, label converters will now be able to manage mission critical aspects of their business, such as job quoting and costing through production planning, inventory management, materials ordering, sales order processing and financial accounts. As Prism's offerings can also be integrated with traditional printing technologies, label converters can extend relevant planning measurements to their entire production floor across all of their output devices.

'We are thrilled to enter into this partnership with Prism,' said Michael V. Ring, vice president of sales and chief marketing officer of Xeikon's North American operations. 'Through this partnership, our aim is to help label converters maximize their efficiency by successfully integrating the full gamut of their business functions.'

## CCL LABEL ACQUIRES DURBAN, SOUTH AFRICA OPERATION

CCL Industries has signed a binding agreement to acquire the shares of Ferroprint Western Cape (Pty) Ltd, a wholly owned subsidiary of Ferroprint (Pty) Ltd, based in Durban, South Africa. Ferroprint Western Cape (Pty) Ltd will immediately change its trading name to CCL Label while its former parent company will continue to trade as Ferroprint.

The acquired business has a factory near Cape Town in the wine growing region of Stellenbosch. For the last 12 months estimated revenues were CAN\$3.3 million. The debt-cash free purchase price will be CAN\$2.7 million representing the approximate value of tangible assets of the acquired company. Final closing is expected to be completed before the end of March.

Geoffrey Martin, president and CEO of CCL Industries, commented: 'South Africa is a strategic market for our global beverage business which we currently service through a local CCL sales company importing from our European and Australian facilities. This bolt on acquisition will give us a manufacturing presence to build our position in this important beverage market at an attractive valuation for shareholders.'

### THE INSIDER

A ROUND-UP OF THE LATEST GLOBAL LABEL STORIES

## ROTOCONTROL ENTERS LABEL INSPECTION FIELD

A new company, RotoControl, headquartered in Ahrensburg (Hamburg), Germany, has been created to provide highspeed inspection, rewinding and finishing machines for the label industry. RotoControl, under MD Marco Aengenvoort, offers servo driven machines which are said to ensure 100 percent stable control of the endure web. Multiple options in the RSI line as well as smaller basic RSC models are all said to enable maximum web control for the most delicate film and foil materials.

'Our machines are a result of integrated development,' said Aengenvoort, 'meeting the needs of customers looking for intuitive operation, the highest degree of automation, full integration of all components and modular design. With our top model – RSI 430 – we are certainly at the forefront of the development of label control machines with integrated inspection systems.'

RotoControl integrates the latest inspection, slitting and die-cutting technology in its machines, including servo drive technology (S-Drive). The S-Drive technology offers an electronically synchronized drive system while providing complete control of the web at any speed (up to 320mpm) – especially key for film and foil material applications. In comparison to competing products, S-Drive Technology keeps the machine stable even while it is performing at higher speeds through ramp up to full stop. Further advantages are said to include soft wrapping, low maintenance, easy error analysis program and user-friendliness with the graphical user interface. The RotoControl RSI slitter/ rewinder/inspection machines come standard with S-Drive web control, onboard unwind, label/length counting, crush knife slitting and more.

## WATCH TECHNOLOGY VIDEOS IN ONLINE VERSION OF L&L

In a new development, the online version of L&L now allows you to watch a video of the piece of technology written about in a given article. Wherever you see the LabelTV icon, simply go to the article online and click play. A first example of this is in the slitter and rewinder article on pages 101-105, where you'll be able to view the Titan SR 8 machine in action.

# NEWS

## WS PACKAGING EXPANDS PLANT IN FRANKLIN, PENNSYLVANIA

WS Packaging Group is expanding operations at its Franklin, Pennsylvania, facility (formerly known as SenecaSalem). The expansion includes moving production from WS Packaging's Salem, Ohio, facility to a new 25,000 square foot expansion at the Franklin site.

The expanded operations will initially create 30 to 35 new jobs, which are projected to increase to over 50 within the next three to five years based on expected growth, reports the company. Construction of the new facility at Franklin is expected to be at full capacity by the end of August 2009.

The Franklin facility is an offset and flexographic printer of shrink sleeve, in-mold, roll-to-roll and cut and stack labels. It is also one of the largest printing and converting operations of plastic and film substrates, as well as metallized and holographic papers.

The new production plant in Franklin has a total capital investment estimated at USD \$2.4 million for facilities and equipment. The investment includes a \$1.2 million funding offer of state assistance from the Pennsylvania Department of Community & Economic Development.

Currently in Franklin there is 54,000 square feet of manufacturing space and 112 employees.

In addition to the new 25,000 square foot production facility to be built, the site has room for an additional 50,000 square feet of manufacturing space. Equipment from Salem will be moved in stages to ensure production deadlines remain intact.



L-R: David Carmany, Consolidated Label; Craig Moreland, Coast Label; Frank Gerace, TLMI Chairman; Doug Kopp, Kopco Graphics and Suzanne and Bob Zaccone, GSI Technologies

## TLMI MEMBERS PRESENTED WITH WORLD LABEL ASSOCIATION AWARDS

Eight of the TLMI's label converter members have won first place and/or honorable mention awards in the World Label Association Awards Competition.

In its nineteenth year, the winners of the World Label Association Awards Competition are chosen from a group comprised of first-place winners from association label competitions around the globe including TLMI, the Japanese Label Foundation (JFLP), FINAT, and the Australian Label Association (LATMA).

#### TLMI MEMBER AWARD WINNERS:

- Label Technology won for the company's 'Columbus Salami Specialty Series' label
- McDowell Label & Screen Printing won for the company's 'Flameout Dietary Supplement' label

- G-3 Enterprises won for the company's 'Groth Oakville Cabernet Reserve' label
- Collotype Labels won for the company's 'Wooden Valley' label
- York Label won for the company's 'Caress Exotic Oil Infusions' label
- National Label Company won for the company's 'Dove Therapy Frizz Control' label
- A&M Label won for the company's 'Huggies Bath & Body Wash' coupon
- Label World won for the company's 'Parkside Smoked Cheddar Sesame Crisps' label
- TLMI converter member honorable mention companies include:
- Taylor Made Labels for the company's 'Lumos Wine Co. 2007 Gewurztrammer' label
- Collotype Labels for the company's 'Blackstone Sonoma Reserve' label



L-R: Frank Gerace, Multi-Color; John McDowell, McDowell Label & Screen Printing; Michael Buystedt, TLMI chairman of World Label Awards; Don Kirkland, A&M Label and Vinton Thengvall, Label Technology

## TLMI ANNOUNCES EUGENE SINGER AWARD WINNERS

TLMI recently announced the winners of the Eugene Singer Award for Management Excellence. One of TLMI's highest honors, this award recognizes excellence in business management. The Singer Award is given annually to four label converting companies; each company within a certain sales range category. The 2008 TLMI Eugene Singer Awards were given to the following North American narrow web converting companies:

Fountain Valley, California-based Coast Label Company won in its category for the second time. The small company category is defined by annual sales of less than \$6 million.

Fairfield, Ohio-based Kopco Graphics won for the mid-range company category, defined by sales of \$6-\$14 million. This is Kopco's first TLMI Eugene Singer Award.

Burr Ridge, Illinois-based GSI won for the medium company category, defined by sales of \$15-\$35 million. This is GSI's fifth TLMI Eugene Singer Award.

Longwood, Florida-based Consolidated Label won for the large company category defined by sales greater than \$35 million. This is Consolidated Label's seventh Eugene Singer Award.

TLMI president Frank Sablone commented: 'As an industry association our central mission is to constantly deliver value back to our members; and the TLMI Management Ratio Study has proven to be a benchmarking vehicle that does just that.



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## LABEL INDUSTRY GAINS SPECIALIST INSURER



#### LJM PARTNERSHIP LLP launches bespoke insurance for UK converters

Commercial insurance specialist LJM Partnership LLP has launched a bespoke insurance offering specifically for label printers. 'Insurers in this sector need to offer a service which reflects the needs of label printers, whose needs are different to commercial label printers,' says Julie McGibbon, partner at LJM. 'In the UK, for example, the financial constraints facing label converters include the impact of the rising value of the Euro on the cost of raw materials, without, in most instances, the opportunity to pass those costs on to customers. This means converters' margins are continually being squeezed.'

'Insurance premiums are a direct cost, and it is critical that any company offering specialist insurance gets to understand a label converter's business, their attitude to risk, your buying strategy and objectives,' adds LJM partner Lisa Jefferies. 'This helps to tailor a package that reflects the real movements in the market.'

LJM says label converters need to look for an industryspecific package of benefits including: health and safety compliance and management systems; human resource consultancy; management systems and employment law support; employment tribunal advice and support; environment services compliance and control; risk assessment training and implementation; fixed electrical testing; portable compliance testing; asbestos surveys; and a 24/7 manned or on-line call center.

'You should beware of printing insurance schemes which provide extensions of cover irrespective of whether or not you need them – you should not pay for what you don't need,' cautions McGibbon. 'Insurers should also keep abreast of the labels industry and keep offerings updated with covers that are relevant and offer added value.'

LJM says the credit crunch has certainly changed the insurance landscape: 'It's no secret that most label converters have had to look at their direct costs and will probably have compromised on adding additional machinery to their assets,' notes Lisa Jefferies. 'We are well aware that the machinery supply industry is seeing a 40 percent reduction in activity as printers look to refurbish or retrofit to existing machinery. Either way, there is an increased expectation on the performance of machinery which may become more susceptible to breakdown. This cover is, in fact, available through our insurance offering but is probably rarely considered.'



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## VIPCOLOR AND IMPRIMA PARTNER IN ITALY



L-R: Jules Farkas of VIPColor with Leo Ingrosso of Imprima

USA-based VIPColor Technologies has partnered with Imprima for the sales, marketing and distribution of its VP485e digital printer in Italy.

Based in a 12,000 square meter facility in Ferrara, Imprima is a privately owned company that has almost 30 years experience of supplying self-adhesive

labels and products for the narrow web industry. The company distributes a range of barcode and thermal transfer systems and offers a digital print service as well as in-house slit rolls for a variety of label substrates.

Leo Ingrosso of Imprima said: 'The VP485e is a good fit with our existing product offering and has huge potential in other market sectors. We have already invested in five systems for stock and anticipate a great deal of interest from our customer.'

'The VP485e is designed for high mix, quick turn around printing and allows companies to produce custom labels in house saving both time and money,' said VIPColor European reseller director, Jules Farkas. 'Imprima's in depth knowledge of various market sectors will enable us to further develop our activities in the region and offer a complete service for our product that will include pre-sale, site inspection, installation, and technical support.'

## THE INSIDER

A ROUND-UP OF THE LATEST **GLOBAL LABEL STORIES** 

## **BULLISH MPS ANNOUNCES TWO NEW PRESSES FOR LABELEXPO**

Responding to the current despondency in the global label market, MPS is reporting sales in the first three months of 2009 25 percent over budget, with most sales coming out of Western Europe.

'Also for MPS the turn of the world economy in the year of 2008 was very fast and resulted in a drop of sales of 18 percent in relation to 2007,' says company MD Eric Hoendervangers. The year of 2008 has been used to restructure the MPS organization and resulted in a personnel lay-off of 15 people. With innovation and development as key drivers in the MPS philosophy, our development plans have not been changed during the re-structuring decisions.

Hoendervangers demonstrated the company's confidence by announcing a one third increase in MPS stand size at Labelexpo Europe. MPS has announced plans to launch two new presses, one for 'cost effective label production without giving in on quality and productivity' and a press targeted at 'high quality packaging printing' applications.

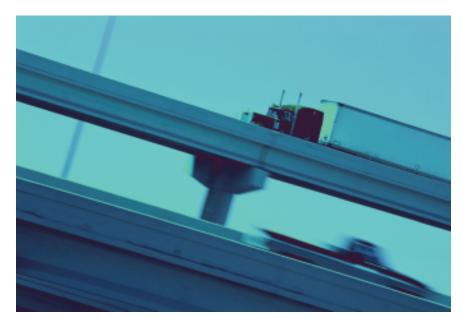
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## AVERY DENNISON OPENS DISTRIBUTION CENTER IN ROMANIA

Avery Dennison has opened a new distribution center for its Fasson-brand self-adhesive labelstock in Timisoara, Romania. Serving customers in Hungary, Bulgaria, Croatia, and Serbia as well as Romania, the facility will 'greatly enhance' speed of delivery to the growing base of label converters in the region, says the company. Most converters in this region will enjoy next-day delivery services, which means, depending on country, up to three days' reduction in order lead times. This will help label converters increase their flexibility in responding to customer requests, and smaller labelstock inventories become an option.

The 3,750 square meter Timisoara facility is equipped with the latest slitting, core cutting, rewinding, and automated packaging equipment. It also makes custom roll slitting via the Fasson Exact and Exact Plus 'no waste' service programs locally available for the first



time. These services enable printers to order exactly the slit widths of Fasson material they require, without any unusable additional offcut rolls.

Georges Gravanis, vice president, sales and customer service, Avery Dennison Roll Materials, commented: 'In a region where, even in today's economic environment, there is real and growing demand for labeled goods, it is a logical focus for us to intensify our ability to be closer to our customers, understand their local needs, and enhance the speed of service we are able to give them.'

## FLINT IS FIRST SUPPLIER FOR 'smartGPS' FROM F&K

Flint Group Flexographic Products is the first sleeve supplier to be qualified to manufacture sleeves for the 'smartGPS' system from Fischer & Krecke (F&K), of Bielefeld, Germany. Flint Group Flexographic Products can rely on many years of experience with RFID – for more than ten years rotec sleeves have been available with this technology.

As all rotec sleeves for the 'smartGPS' system are equipped with a RFID chip and a register sensor, relevant data like the actual print diameter, the actual job design as well as the used materials can be recorded and stored already during plate mounting. The data is then recalled in the printing unit, where the printing sleeves are moved fully automatically into the exact register and impression setting. As the traditional press proof is no longer required, material usage and set-up times are significantly reduced with extremely high register.

The challenge for the sleeve production is to insert the sensor very precisely within tight tolerances. Extensive tests at F&K with rotec Blue Light Sleeves reportedly demonstrate that they are below the specified tolerances. As the sensor and the chip are inserted during the sleeve production process, both are located with exact positioning and protected from being damaged. The modification of the sleeve has no effect on the print result and the complete surface can be utilized for plate mounting. rotec Sleeves with 'smartGPS' are obtainable in wall thicknesses up to 100 mm, in all lengths up to 4000 mm and with a guaranteed diameter tolerance of 0.02 mm (measured on carrier cylinder at TIR < 0.005 mm). They are optionally available in a conductive version with rotec Omega-Surface Technology and with a stainless steel register ring.

## FLINT GROUP REALIGNS GLOBAL ORGANIZATION

Flint Group has implemented a new organizational structure aimed at enabling customers to have full access to Flint Group's product portfolio through a single sales contact, supported by in-depth technical support.

Flint Group has formed a global Packaging and Narrow Web division, comprising the Packaging Inks business activities of Flint Group in Europe and North America and the global Flint Group Narrow Web business. The division is headed by Dr Dirk Aulbert, who formerly held the position president Inks Europe in Flint Group. The Packaging and Narrow Web division manufactures and markets a wide range of printing inks and coatings for the packaging and label markets worldwide.

'The global reach of the new business unit and its clear focus on the packaging and label market will enable us to provide tailored products and services to international packaging and label printers across all regions and providing global consultancy services to brand owners,' said Aulbert.

Charles Knott, CEO of Flint Group,

said: 'After the major acquisitions between 2004 and 2007 we focused our efforts on the physical integration of the various companies that formed Flint Group as it is today. However, to foster growth we proactively want to pick up our customers in their places by adapting our organization to fit to the markets our customers operate in. So while the decision to reorganize was taken as a proactive step long before the economic crisis became apparent, I would consider it the right move at the right time.'



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## MAJOR SPEAKERS ANNOUNCED FOR PISEC EVENT IN ATHENS

The organizers of PISEC 2009, the global forum for brand, product, image and document protection, being held in Athens on the 22-24 June, have announced a number of expert speakers from the anti-counterfeiting and brand protection industry.

Speakers at the event, now in its 10th year, include senior managers from brand-owning companies such as Unilever, Microsoft, Nike/ Umbro, Metro Group, Adobe Systems, Epson, Affliction Clothing, eBay, JD Sports Group among other leading companies. They will be joined by executives from National Bank of Belgium, Austrian State Printing Works, Europol, European Communities Trade Mark Association, and the German Federal Office For Information Security, as well as leading academics and experts. The full program can be seen at www.pisec-world.com.

In addition to the main conference program there are a number of additional features: the PISEC Brand Owners' Forum, where end users meet delegates and technology providers to discuss and compare their experiences and show first hand examples of their own genuine product and counterfeit counterparts; a new pre-conference half day Technology Masterclass giving delegates the opportunity to drill down into the latest technology and to learn, in a jargon-free way, the latest developments, how they work and what the potential benefits are for their own organizations; a major exhibition, PISEC Technology Transfer, where you can meet the experts and see for yourself the latest technology solutions; and the PISEC Awards which are presented at a special celebration dinner, held to recognize excellence in the field. For delegate registration information contact the organizers on +44 (0) 207 733 5102 or email elena@idexmedia.com.

## MIDDLE EAST 'WINNING BUSINESS' FROM EUROPE AND US

Dunes, the Middle East's specialized packaging design and branding agency, has predicted that increasing demand for the benefits of localized packaging design development will lead to the Middle East becoming a global hub for the industry.

Clive Howard, general manager of Dunes, said that manufacturers are looking for local solutions to meet the specific demands of the local market: 'The product here is as good as is available in Europe and the USA both creatively and technically, and the Middle East offers distinct advantages in terms of similarity of language and working week and of course, geographic proximity. As the Middle East packaging market continues to develop we will increasingly see companies who would have traditionally had their requirements met in Europe or the USA seeking to have localized packaging actually developed in the region.'

Dunes has been designing packaging for a range of clients including Nestle, Pepsi, and Almarai since its establishment in 1985. In 2009 it is participating in Gulf Pack for the first time in order to promote its services to manufacturers, suppliers and end users from the Middle East, North Africa, Levant and Sub-Continent regions.

'Regional FMCG companies are looking to upgrade the quality and sophistication of their packaging and this will lead to increased demand for specialized, world-class packaging design services,' Howard added.



## LAUFENBERG PURCHASES RELEASE PAPER BUSINESS FROM HUHTAMAKI

B. Laufenberg GmbH and Huhtamaki Deutschland GmbH & Co. KG have signed an agreement for the purchase of the release paper business of Huhtamaki by Laufenberg. The transaction will take place on the basis of an asset deal. The assets will be transferred in the course of a transition process of several months.

Huhtamaki Group is a global manufacturer of consumer and specialty packaging with net sales of EUR 2.3 billion in 2008. The release paper business was part of Huhtamaki Group's Film Global business segment and included the manufacture of siliconized papers for technical applications used in different industries (i.e. labels, tapes, packaging). Huhtamaki will continue the production of release films.

Laufenberg has produced siliconized papers and films for 50 years. Today the company employs a staff of more than 180 people and is one of the leading commercial silicon coaters for technical applications.

When Laufenberg learnt about Huhtamaki's intention to sell the business, negotiations quickly started. 'The close match as well as the useful supplement of product range and market segments of both companies have quickly awaken our interest in this acquisition,' said Jörg Soding, one of three managing directors of B. Laufenberg GmbH.

During recent years, the market for release liners has consolidated strongly. Production capacity was moved towards large corporations as many smaller businesses were closed or sold. 'This trend is regarded as a threat to the customers. Especially in stagnating markets large corporations take decisions about product range and business segments fast and often without considering customers' concerns. Privately owned companies offer a higher degree of continuation and security. This is appreciated by our customers a lot,' explained Gernot Becker, managing director for Sales and Logistics. With this acquisition, Laufenberg is increasing its sales volume by more than 40 percent. This growth will enable Laufenberg to expand and strengthen its international market position in the release liner market.

### THE INSIDER

A ROUND-UP OF THE LATEST GLOBAL LABEL STORIES

## GSE APPOINTS DISTRIBUTOR FOR ASIA PACIFIC

GSE Dispensing, the Dutch supplier of gravimetric ink dispensing systems for the graphics and textile industries, has appointed Bangkok, Thailand-based Techno Global Graphics as agent of its products and services in the South East Asia region. The company will provide a local point of contact for GSE's graphics customers in Korea, Singapore, Vietnam, the Philippines, Indonesia, Taiwan as well as Thailand.

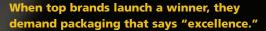
## PAMARCO APPOINTS FRENCH AGENT

Pamarco Global Graphics has appointed The Knife Manufacturer (TKM) as its representative for France. TKM France is based in the north of the country and belongs to the IKS Klingelnberg group. The company has been in the press converting and rotary market in France since 1998 and has been increasingly focused on the flexographic printing and packaging market.

## Success Begins with the Finish

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More designers are turning away from last year's sparkly gimmicks and opting for the elegant metallic sheen of brushed films and papers made by Brushfoil.

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## **NEW PRODUCTS**



#### BRAILLE DOT MEASUREMENT SYSTEM TROIKA SYSTEMS

Troika Systems, a UK supplier of print-based quality control products, has released of BrailleCam, a device designed to accurately measure Braille dots.

The BrailleCam project started following discussions with packaging equipment specialist Chesapeake Packaging Systems. Part of EU legislation already requires the incorporation of Braille information on all new drug packaging, and proposed directives will include detailed specifications for the height of the Braille dot.

BrailleCam is a hand-held portable camera specifically designed to measure and view Braille dots with precision and clarity. The camera utilizes a PC link in order to show 3D images of a dot using color representation, allowing the user to view dot form and inspect for surface cracking. The system also provides the tools necessary for highly detailed measurement and recording of dot values. BrailleCam can measure male and female embossing tools as well as final output.

When measuring finished product, the auto-focus feature of the camera automatically finds the top surface. It then takes a series of images, each with a different focus depth, down to the ground level of the substrate. Software removes all un-sharp parts of each image and combines the levels into a rendered 3D grid model. This can be analyzed via the PC and rotated in any direction.

#### 2 PDF STANDARDIZER ENFOCUS AND ALWAN COLOR EXPERTISE

Enfocus and Alwan Color Expertise have announced the commercial release of PDF Standardizer to bring reliable PDF standardization and quality control to the graphic arts market.

In addition to leveraging the automation and advanced preflighting capabilities of Enfocus PitStop Server and Enfocus Switch, PDF Standardizer also provides out-of-the-box compliance with ISO 12647 and 15930 color requirements. This brings quality assurance to global and print-on-demand digital workflows, simplifying production for both content creators and print service providers. It offers 'dynamic' color management, flattening of transparencies, and normalization of PDF files, resulting in 'perfect workflow reliability', claim the companies. In addition, PDF Standardizer has the 2008 InterTech award-winning Alwan Dynamic Device Link technology embedded, and easily integrates with any existing workflow.

### 4-COLOR INKJET PRESS

ADVANCED INKJET TECHNOLOGY

Australia-based Advanced Inkjet Technology (AIT) has launched its SquidJet digital press. Built around a modular platform, the machine contains a 4-color digital print unit based on 1001 print heads from Xaar.

The press is being built by New South Wales-based Rapid Machinery, while AIT, which represents lxpressia's inkjet software in the region, is marketing the product. The SquidJet is available in various web widths and a range of optional modules, including UV flexo stations, die cutting, hot foil stamping, laminating, RFID insertion, slitting, rewinding, sheeting and more. The Xaar print heads can print 960 dpi at 40 meters a minute. The machine is controlled by Print Engine software developed



## **3** ANTI-COUNTERFEITING LABEL NILORN UK

Branding and design specialist Nilorn UK is using a new DNA-based technology to put a stop to fakes and track down counterfeiters.

Nilorn UK has teamed up with authentication specialists Applied DNA Sciences to launch a new label incorporating its SigNature DNA taggant to be used in conjunction with its established Nil-Secure products.

It works by applying a unique SigNature DNA marker to the inks and yarns in a label or piece of fabric and, like DNA, each mark is individual to one brand. Forensic testing can determine whether a garment or label is authentic by the presence of the brand's SigNature DNA; and because it is recognized by law as positive-proof of authenticity, evidence is admissible in a court of law.

The design of Nil-Secure/SigNature means that its incorporation in inks, dyes and yarns is discreet, essential for the fashion and specialist fabric industry where appearance and functionality of products, as well as brand value, cannot be compromised.

## NANOCLEAN CONTACT CLEANING SYSTEM

Teknek has launched a contact cleaning system, Nanoclean, which has been five years in development. In recent years there has been an increasing trend towards the use of coatings which contain nanoparticles being applied to webs to enhance their functionality, especially their optical properties. However, these coatings are extremely thin and are therefore very susceptible to defects caused by microscopic particles of contamination on the surface of the web. The Nanocleen system claims to remove much smaller particles (down to 25nm) than traditional contact cleaners and can therefore ensure a higher quality product, less wastage and greater production yields.

At the core of the Nanocleen system is a specially formulated roller and adhesive roll. This roller can reportedly remove 25-50 percent more particles than other contact cleaners. It also dissipates static, reducing it by a factor of ten, says the company.

The Nanocleen system can be fitted to old and new versions of the Teknek Clean Machine as well as other makes of contact cleaning machine using an optional upgrade kit so investment in new hardware is unnecessary.

### WAX RIBBON

#### ARMOR

Δ

Armor has launched a wax ribbon for flat head printers, known as AWX FH. The new grade complements the French thermal transfer specialist's existing range, with products such as AWR470 wax, APR6 wax/resin and AXR7+ resin products. AWX FH is a versatile resin-enhanced wax ribbon that Armor claims gives 'outstanding print quality and durability' on a wide range of label materials. Compatible with all barcode flat head printers, it can print sharp barcodes, at a dense blackness, with a high level of smudge resistance.

AWX FH is also said to fulfill the needs of various applications in the logistics market and to be suited to printing garment tags for the retail market. Armor says it is also suitable for the pharmaceutical industry as it offers an economical printing solution with the critical need of long-term readability of the label.

## **NEW PRODUCTS**





**KEEP OUR READERS UPDATED** Keep our readers updated by sending press releases about new products, news and appointments to jquirk@labels&labeling.com. Submissions will appear on our website, and may then be included in our online newsletter Label News and in Labels & Labeling.

## **5** TAG INSERTER FOR WET AND DRY INLAYS SCHOBER USA

Schober USA has launched the RFID-TI Combi for the insertion and application of wet and dry RIFD inlays in registration at high speed onto a continuously driven release liner. A dual reader verifies the transponder or finished RFID labels to ensure total production monitoring with a zero scrap rate. Designed specifically for the production of smart labels, the RFID-TI Combi is suited to automatic product tracking, inventory management, logistic control, and other industrial and commercial applications. Each unit is equipped with a special mode for anti-theft tags and labels (EAS).

This new technology inserts UHF and HF inlays under die-cut blank or pre-printed labels and validates the finished product. Control and monitoring is accomplished through the new pendant station which houses an industrial PC. Additional features include a new tag dispenser with web tension relief, strategically placed start/stop buttons, greater information gathering capabilities, and optional static discharge protection. The technology works with transponders in accordance with ISO specifications, in widths from 10mm to 160mm (with lengths of 10mm to 180 mm). Pre-printed labels with widths from 20mm to 200mm can be applied at rates up to 50 meters/minute. An on board RFID reader ensures the readability of each RFID tag after integration. An automatic control system keeps transponders and printed labels in register.

## 6 ANILOX SLEEVES

6

Simec Group, active in the flexo industry for 40 years, has launched Sarlox Gold Sleeves – anilox sleeves, developed for high speed printing, with a new structure allowing for high stability and resistance. Sarlox Gold Extra Light – a version with 60 percent less weight – is also available. These rolls are already used in the label industry, are in a pre-launch phase for the flexible packaging industry, and are currently being tested for the corrugated sector.

Simec has also introduced Profil Multi Purpose, a new version of its vertical cleaning system for anilox sleeves.

#### LECTOR WORKFLOW MANAGEMENT BST PRO MARK

BST Pro Mark has launched Lector Work Flow Management – a software tool for managing print quality and throughput from printing to shipping across multiple machines. It is used in conjunction with the company's Shark 100% inspection systems or Premius print process management systems, installed on presses or re-winders up to 80" web widths.

capabilities, and optional static discharge protection. The technology works with transponders in accordance with ISO specifications, in widths from 10mm to 160mm (with lengths of 10mm to 180 mm). Pre-printed labels with widths from 20mm to 200mm can be applied at rates up to 50 meters/minute. An on board RFID reader ensures the readability of each RFID tag after integration. An automatic control system keeps

> Lector Work Flow Management provides access to all events and information collected by the inspection/quality assurance system, from basic job information to detailed defect information and images. This

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# HANDS ON

**VINCENT DITROLIO**, president of the DiTrolio Flexographic Institute (DFI), troubleshoots common practical problems encountered in flexo printing, in this regular series of articles.

## Bring ink to press on color part 2

While performing training at flexo printing companies another important area that is always addressed is ink management. When ink management is properly executed, press side efficiencies and waste will be positively affected. The topics that are usually addressed include but are not limited to the following: anilox volume standardization throughout press room, inking system standardization (doctor blades on all presses), ink mixing procedures, ink room inventory control, and hand proofer to press correlation.

In Part One of Bring Ink to Press on Color we discussed the importance of repeatability and efficiently matching color prior to going to press and the steps of hand proofer to press correlation. In this Hands-on article we will discuss ink mixing.

#### TOOLS NEEDED IN AN INK ROOM

With the minimum of the following tools an efficient ink room can be properly managed:

- 1. A quality hand proofer with a doctor blade to ensure consistent metering of ink volume
- A gram scale to measure and produce test samples and an appropriate sized scale to weigh and produce production size batches of ink
- 3. An updated Pantone Guide
- 4. A color viewing booth to visual check color samples
- 5. A pH meter and a Zahn Cup to ensure proper ink balance
- 6. A spectrophotometer

In this procedure, we will first mix 100 gram test batch to proof and then once the formula is correct, we will proceed to mix batch sized appropriately for the run. The 100 gram formula is achieved by converting percentage to grams: 1% equals 1 gram. Hence, if a formula that consists of 50% Trans white, 25% warm red and 25% yellow would convert to 50 grams Trans white, 25 grams warm red and 25 grams yellow. There are a few other items that would make the process easier.

- Fresh and uncontaminated ink. Mixing ink should not be used for press runs. The ink is easily contaminated from the pan or during wash ups
- Squeeze bottles for the mixing colors. Using squeeze efficiently add small amounts of ink to the 100 gram test batch
- 3. Small containers to mix test batch in

#### STEPS TO MIXING INK:

- 1. Obtain formula for color needed. Note: Due to the different pigments used by ink suppliers not all the ink formulas in a Pantone Matching Guide will work in a flexo. Therefore, it is best when possible to get the formulas from the ink vendor
- 2. Gather and verify mixing inks are at correct ph and or viscosity
- 3. Let's use the formula for PMS 169

4.7% warm red equals	4.7 grams
1.6% yellow equals	1.6 grams
93.7% trans white	93.7 grams

- Pour the appropriate amounts into a small container and mix well 4. Pull a drawn down of the sample. (Please refer to Bringing
- Ink to Press on Color Part One.)

- 5. Confirm the draw down matches; if not document changes to test batch of ink. See example chart.
- 6. Once the batch formula is correct, then convert it back to 100%; this is done by dividing individual part by total parts and then multiply by 100.

Original formula	1st change	2nd change	3rd change	Final formula
Warm red 4.7 grams				4.7 grams
Yellow 1.6 grams	+2 grams	+1 grams	+2 grams	6.6 grams
Trans white 93.7 grams				93.7 grams

#### FOR EXAMPLE:

- The above formula adds up to 105 grams or 105%.
- Take the individual part and divide by 105 and then multiply by 100 for new 100% formula.
- Warm Red: 4.7 divided by 105 and then multiply by 100 equals 4.48% warm red
- Yellow: 6.6 divided by 105 and then multiply by 100 equals 6.29% Yellow
- Trans White: 93.7 divided by 105 and then multiply by 100 equals 89.23% Trans white

#### THE NEW FORMULA WOULD BE:

- 4.48% Warm Red
- 6.29% Yellow
- 89.23% Trans White
- 7. To verify the new formula, mix a 100 gram sample, and then pull a new draw down with a hand proofer. If it matches, mix ink for the run, and if it doesn't match, recheck your data and adjust accordingly.

As always keep it simple and document!

Feel free to contact me with any questions through Labels & Labeling or at v\_ditrolio@flexotraining.com



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## ENVIRONMENTAL NEWS

### HOT OFF THE PRESS

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## UK RETAILERS LAUNCH RECYCLING LABEL

A new, universal on-pack recycling label is being launched by leading retailers in the UK. For the first time, it will provide customers with standardized information on whether packaging can be recycled. The single, industry-supported label replaces the potentially confusing range of symbols previously used.

Anyone who produces packaged products, such as retailers and suppliers, is being encouraged to participate. A string of major retailers and suppliers have already committed to taking part.

The initiative builds on retailers' existing green commitments. It is intended to boost UK household recycling rates by giving customers the information they need to ensure more of the material that can be recycled is recycled.

The scheme will be operated by the British Retail Consortium (BRC) under a company called OPRL (On-Pack Recycling Label) Limited. WRAP (Waste & Resources Action Program) will monitor changes in local authorities' recycling capabilities which will determine the labeling category each packaging materials fall into.

The new on-pack recycling label will have three categories depending on how likely it is that a customer's local authority will accept specific packaging materials for recycling: 'Widely recycled'; 'Check local recycling'; and 'Not currently recycled'.

Stephen Robertson, British Retail Consortium director general, said: 'Retailers have taken the lead in developing this new recycling label because they recognize their relationship with customers means they are uniquely placed to help people do the right thing. Customer confusion is the biggest barrier to improving recycling rates. Replacing a potentially confusing array of symbols and messages with a single, standardized logo will help customers recycle more of what can be recycled.

'A string of household-name retailers are already committed to using the label. I hope we see all businesses that use packaging join this valuable scheme.'

Environment minister Jane Kennedy said: 'By standardizing the information provided to shoppers, these new recycling labels make it easier for us to know what we can recycle and help us to recycle more. I applaud the retailing sector for taking this initiative.'



## **BPIF LAUNCHES CARBON CALCULATOR** UK association's project is endorsed by The CarbonNeutral Company

The British Printing Industries Federation (BPIF) has launched a carbon calculator focused exclusively on the printing and packaging industries.

The calculator has been endorsed by The CarbonNeutral Company and will be available initially to BPIF Platinum members before being rolled out across the industry. An online version will be introduced later in the year.

The calculator. 18 months in development, can evaluate carbon emissions of both factories and products based on PAS 2050 and GHG (Greenhouse Gas) standards. It takes into consideration the carbon produced by energy consumption, paper, inks, plates, staff commuting, sub-contracted operations and more, allowing companies to identify the most carbonintensive areas of production. They will receive advice on how to reduce their emissions, and for offset-based programs and CarbonNeutral certification, members will be referred to The CarbonNeutral Company.

BPIF chief executive Michael Johnson said: 'The new BPIF calculator will help print and packaging companies to "carbon cost" their jobs, and provide clients with a clear method to compare products and services across the industry.' He said that interest in the product had come from as far afield as Australia and New Zealand, and revealed that Kodak is interested in bringing it to the US.

The calculator can currently provide

emissions data for 28 different paper grades. Bill Sneyd, director of advisory services at The CarbonNeutral Company, says that this figure will increase as more information becomes available, but admitted that it was still an evolutionary process: there is currently little LCA data on proprietary chemicals used in the print sector, for example.

'Our experience has shown that printers who implement a carbon management policy realize a broad range of benefits – from maximizing operational efficiencies, differentiating their service, and building reputation,' said Sneyd. 'Printers will be able to measure in detail the impact of specific print jobs, enabling them to respond to requests for information about carbon emissions from their customers in a proactive manner. The use of the BPIF Carbon Calculator will enable the print industry to get on the front foot on this critical environmental issue.'





INX INTERNATIONAL'S Charlotte, North Carolina, plant superintendent and ISO team leader Mike Davis, divisional quality manager Rachel Glowacki and plant quality coordinator Randy Besaw

## INX INTERNATIONAL INTRODUCES SUSTAINABILITY INITIATIVES

INX International Ink is introducing six initiatives as part of the company's sustainability agenda The six key initiatives INX is implementing include: energy and utility conservation; waste reduction and landfill elimination; water conservation; product design for the environment; materials sourcing and supply chain management; and social responsibility.

With these initiatives, INX is reducing energy consumption by improving process energy efficiency. The plan calls for the reduction of carbon dioxide equivalent emissions per unit of production, and cutting additional emissions through more efficient product transportation. The company has set a goal to eliminate all land-filling of manufacturing waste and will use more environmentally friendly, end-of-life cycle options such as energy recovery, where feasible. By reducing total fresh water consumption, INX is using the newest technology to maintain treated wastewater and monitor irrigation systems.

With established Environment, Health, & Safety and Green teams at all of its plants, all of INX International's main manufacturing facilities are certified to ISO 9001. The Dunkirk, New York, plant was the first ink manufacturing plant to become ISO 14001 compliance certified. Recently, the Charlotte, North Carolina, facility now has become the second INX plant to earn ISO 14001 certification.

INX will continue to develop eco-friendly products across all product lines and will focus on selecting raw materials that offer bio- renewal content, such as linseed, soybean, and other vegetable oils. Environment friendly product solutions also include conventional offset and energy curable inks that qualify for the American Soy Seal with at least 20 percent and 7 percent soy oil, respectively; naturally green energy-curable UV inks that are formulated without VOC-producing solvents; flexographic inks that are water-based and have low VOC and no HAPS or SARA 313-reportable materials; and low temp heatset inks that allow printers to reduce energy usage while enhancing environmental performance to their print customers, and ultimately to consumers.

'Our goal to becoming a greener company is strong while at the same time, we will continue to provide our customers with outstanding ink and technology that exceeds world-class printing standards,' Clendenning said. 'The investment of time and effort by our people is the key to making this program and these initiatives work.'

#### **ENVIRONMENTAL NEWS**

A ROUND-UP OF THE LATEST GLOBAL ENVIRONMENTAL LABEL STORIES

### UNIFOIL RECEIVES SUSTAINABILITY AWARD

Unifoil Corporation has received a sustainability award for its proprietary UniLustre and patented and patents-pending UltraLustre transfer-metallizing processes used to manufacture recyclable packaging and printing materials that create product differentiation. The 2009 Sustainability Award, presented by the Association of Industrial Metallizers, Coaters and Laminators (AIMCAL), recognizes Unifoil's technological advancements, which reduce waste and offer a variety of other environment-friendly benefits. UniLustre papers and boards and UltraLustre plastics are nonlaminated, film-free and foil-free, and made without solvents. Both enable recycling, use less energy and fewer materials to manufacture compared with alternative products and thus facilitate source reduction, are less expensive to ship, can significantly reduce a company's carbon footprint, and support consumer-product-goods companies' sustainability initiatives.

UniLustre applications include folding cartons, labels, point-of-sale items, printed materials, and lottery tickets. UltraLustre applications include in-mold labels, in-molddecorated items, credit and gift cards, stadium cups, tubes for personal care products, and signage/displays. Both are available in silver, custom colors, and holographics.

#### SMITH & MCLAURIN LAUNCHES WEBSITE FOR ECO-FRIENDLY MATERIAL RANGE

Smith & McLaurin has launched its AdaptEco website at www.adapteco.co.uk <http://www.adapteco.co.uk/> . The site lists details of the Scotland-based company's AdaptEco range which includes materials that are recyclable, reusable and from sustainable sources.

The company offers customers FSC certified, cellulose free and recycled papers as well as a range of PLA & Cello films. All are available in combination with Smith & McLaurin's sustainable EP7000 permanent adhesive which has 70 percent renewable content. The website also includes details of its dual FSC/PEFC certification as well as information on specialized tests conducted to determine the renewable content of different products.

## TORRASPAPEL PLEDGES SUPPORT FOR 'TWO SIDES' INITIATIVE

Torraspapel, part of the Lecta Group, has joined the ranks of sponsors of the 'Two Sides' initiative, launched in October 2008 by the National Association of Paper Merchants (NAPM) of the United Kingdom with the aim of presenting factual information to dispel common myths about paper.

'Torraspapel values this initiative as a means of educating the paper-buying public about environmental facts and encouraging responsible paper use,' said the company in a statement. 'It is fundamentally important to have a serious, balanced dialogue on the role of paper in society as a natural, renewable and recyclable means of communication, that helps improve the quality of people's lives and contributes to a sustainable future.'

# 23.09.2009

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## HOW TO GET EXPOSED

Label Exposure is a new, regular section in *Labels & Labeling*. Submissions do not have to be a part of an awards competition – we are interested in any label which you feel deserves exposure. If you want to contribute, please send us information about who printed the label, for whom it was printed, and the specifications of the job. It is essential to include a good quality, high resolution image with your submission.

Contact:

quirk@labelsandlabeling.com

## LABELEXPOSURE

**1 CHADWICKS** UK-based packaging company Chadwicks has launched a recyclable shrink sleeve specially designed for pots. Assuming the role of both label and cardboard sleeve, the new product has the potential to reduce packaging weight by up to 70 percent, costs by 30 percent and CO2 emissions due to reduced transport weight, according to the company.

With the majority of food manufacturers that are using cups still employing conventional cardboard sleeves, labeling or direct printing, this alternative packaging application will bring the UK in line with the rest of Europe, where the technique is widespread.

Particularly practical for multipack or duo products, the pots are stacked lid-to-lid and the shrink sleeve is applied to the product using a hot melt adhesive. Individual pots can then be separated via a specially designed horizontal perforation where the pots meet, which then allows the sleeve to remain intact on the individual pots for both aesthetic and brand-endorsement purposes.

Once the consumer has finished with the product, the whole sleeve can then be removed via a vertical perforation along the length of the pots for ease of recycling.

**2. BAKER LABEL** London, UK-based Baker Self Adhesive Label has won the 'Adding Value' award in a competition run by Digital Printer magazine that recognize achievements in digital printing technology.

The company scooped the award with the Moo.com sticker for customized books. The stickers are produced on one of two 7-color HP Indigo ws4500 and ws4050 digital presses in 3500 runs on a white gloss PVC substrate and are then laminated with polypropylene for durability.

Managing director Steve Baker said: 'Moo.com uses innovative web to print technology and sends us the variable data from its on-line library, PrintFinity. The stickers are then printed and die cut and delivered to Moo. com for subsequent conversion into personalized books for its customers. We are delighted to have received this award in the face of the strong growing competition in digital technology.'

**3. DITONE LABELS** UK-based Ditone Labels has created innovative labels for the pumps used to inflate the Repose specialist hospital mattress overlay used for the prevention and treatment of pressure ulcers. Ditone created an innovative, technically designed label to work harmoniously with an applicator designed by Graham Machines, to replace an inefficient and prolonged production method. Ditone introduced the method of flexo application, which allows all the colors to be applied in one run at the point of assembly. The label has also helped increase consistency of brand and can easily be adapted to suit a range of markets.

The labels are printed on clear polypropylene with a permanent adhesive, using two different colors. Using the color of the tube as a background, the adhesive involved creates an 'invisible' label. The labels also incorporate a white panel created using special writable varnish on to which hospital staff can write patient details This is applied in addition to an overall anti-scuff varnish to provide protection during handling and packaging.





# Karlville makes its move

DANIELLE JERSCHEFSKE reveals details of Karlville's expansion into the narrow web slitter rewinder market

'We see a niche and plan to capitalize on it,' says Raul Matos, vice president for Karlville Development LLC. 'Many of our shrink finishing customers are also in need of narrow web slitters that can handle modern, tricky films. So, we decided to utilize our combined experiences in film and wide web slitting to bring reliable, and well serviced, film and label slitting machines to the narrow web market.' Working with Webcontrol (see boxout), Karlville has offered wide web slitting and rewinder machines (1-1.6m) for five years. Meanwhile in the last eight years, the company has installed over 400 shrink sleeve finishing systems.

## "We think there is a great opportunity to take a dominant position in Latin America. This is our first goal"

#### TECHNOLOGY

Karville's new 350mm wide KSI ProLabel slitter rewinder operates at speeds up to 300m/min, using two AC vector motors for both the nip and rewind. Its unwind comes with a magnetic brake to ensure accurate tension ranges for such complex applications using PET and PE liners. Matos explains, 'The strategy for this model is mass production, offering the best value and most standard options available in the market. Similar to our shrink sleeve models, the KSI Pro models will be manufactured and sold "fully loaded".'

The KSI ProCombi slitter rewinder has been specially engineered for flexible packaging applications and is available in wider 450mm and 650mm web widths. This model has four AC vector motors for the nip, unwind and dual bi-directional rewinds. Its tension controls are fully automatic and it comes with a dancer on the unwind for flagging errors without slowing production. Additionally, 'quick changeover' rewind shafts allow varied tension controls for difficult flexible packaging and film label materials.

Both KSI Pro models are outfitted with a programmable logic controller and a touch screen interface that corresponds with a 'smart' controller. This controller includes proprietary software written for accurate label counting, multi-lane missing label detection, flag detection and matrix waste calculations. An automatic fault positioning management system gives a label repeat length detection of .005inches. Both models also offer a motorized slitting cartridge with interchangeable shearing knives so customers with current market machines are able to use existing tooling. 'It's simple yet an important way for the industry to consider Karville rewinding machines,' Matos says.

### **WEBCONTROL HISTORY**

Raul Matos and John Price started Karlville twelve years ago, introducing a shrink sleeve product line. In 2006, the company moved into the application side of the business and currently has a tech and service center in Leon, France. Webcontrol in Taiwan, a recognized Karlville partner that helped the lead the company into the slitter/ rewinder market, manufactures all Karlville equipment. Webcontrol and Karlville recently completed construction of its new 200,000 square foot manufacturing site in Asia.



#### TO THE MARKET

Matos believes that the key to introducing Karlville's KSI slitters and rewinders to the label market is distribution. 'This is why we have chosen to work with Nilpeter to distribute both our ProLabel and ProCombi throughout Latin America,' he explains.

Jesper Jorgensen, global sales manager for Nilpeter, comments on the partnership: 'The ProLabel is a price competitive rewinder and is a good alternative to what's already available; it's well-supported, well-equipped and well-engineered. Our customers expect Nilpeter to provide full service solutions. We believe that we'll bring value to our customers by having these machines on our product portfolio.'

The initial step in the partnership will be to combine resources with Nilpeter. 'We believe that the introduction of this machine will make a big splash in the marketplace,' Matos says. 'With Nilpeter's established relationships incorporated with our sales forces and joint service staffs, we think there is a great opportunity to take a dominant position in Latin America. This is our first goal.'



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"Thinking for the future, it will be an important part of a full press solution. Customers will surely gain merit from a joint sales force that knows the market and can service the systems"

#### TREND SETTING

It is important to remember that the close of 2008 saw the acquisition of the popular Canadian-based slitter rewinder brand Rotoflex by American press manufacturer, Mark Andy.

Matos and Jorgensen both note the importance of this transaction, highlighting what they see as a momentum-building trend for larger volume label manufacturers to look for the complete in-line solution by attaching an automatic splicer to the press, joining a slitter/ rewinder, and linking it all with inspection equipment and automatic flagging software. The benefits of this I-o-n-g configuration?

It gives label and packaging converters the ability to reduce downtime, increase productivity and drive quality. Incorporating these ancillary pieces into the press makes operations lean. 'KSI machines will be packaged with presses as well as sold individually,' Matos says.

Both companies believe their customers will benefit from having a collective, experienced sales and service team. Jorgensen says, 'Thinking for the future, it will be an important part of a full press solution. Customers will surely gain merit from a joint sales force that knows the market and can service the systems.'

Labelexpo Brussels attendees can expect to see each machine at the trade show this Fall.

#### **IN THE MARKET**

Plafilm, one of Colombia's top shrink sleeve label converters, had the first ProCombi installed in early April. The company has several Karlville seamers, slitters and pieces of inspection equipment. It will be the first slitter & inspection machine to QC sleeve materials prior to seaming.



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## **NEWS ANALYSIS**



# All change for chemical labeling

**NEW UN REGULATIONS** will challenge converters to ensure that chemical labels are compliant and contain readable information. Simon Robinson, of chemical industry software specialist Safeware Quasar, reports

The chemicals industry is currently going through one of the most dramatic periods of change in its history, with a range of new regulatory regimes presenting unique challenges for business in this sector. All parts of the supply chain, including suppliers and users of chemicals, need to prepare for the transition from the current CHIP system to the CLP regulations, which will implement the United Nations Globally Harmonised System (GHS) for classifying and labeling chemicals.

This article will look at the background to the legislation, some of the similarities and differences with current regulations, transition timescales for the new regulations, and how the legislation may develop in the future.

The United Nations' Globally Harmonized System of Classification and Labeling of Chemicals, or GHS, is an internationally agreed-upon system set to replace the various different classification and labeling standards used in different countries. It is contained within the UN GHS 'Purple Book', which is not a formal treaty but a non-legally binding international agreement that provides countries with a regulatory framework to develop or modify existing programs.

Countries (or trading blocks) must create local or national legislation to implement the GHS. Within Europe, for example, Regulation EC 1272/2008 Classification, Labeling and Packaging of Hazardous Substances and Mixtures (CLP) has been developed. **The proposed new regulation will replace:** • the Dangerous Substances Directive (67/548/EEC) and

 the Dangerous Preparations Directive (07/346/EEC) at the Dangerous Preparations Directive (1999/45/EC).

These directives have been implemented in the UK, for example, as the Chemicals Hazard Information and Packaging for supply Regulations (CHIP). These CHIP regulations will be fully repealed in 2015 and replaced with a new set of regulations, which are likely to be called CHIP 4.

The GHS will use consistent criteria for classification and labeling on a global level. Development began at the United Nations Rio Conference in 1992, when the International Labour Organization (ILO), the Organization for Economic Co-operation and Development (OECD), and various governments and stakeholders came together at the United Nations.

The targets of GHS are to enhance protection to human health and the environment by:

- Providing an internationally comprehensible system for hazard communication
- Providing a recognized framework for those emerging nations without an existing system
- Facilitating international trade in chemicals whose hazards have been properly assessed and identified on an international basis
- Reducing the need for animal testing and evaluation of chemicals.

GHS, a new system based on the various regulatory frameworks already in existence, harmonizes the very successful UN system for Transportation of Dangerous Goods (Orange Book).

It is accepted that there will be teething problems and anomalies, which will be ironed out with refinements and the introduction of more comprehensive guidance documentation.

Preparing for the new CLP regulations will require significant retraining at all levels of the supply chain, from the industrial regulatory experts and chemical operators down to the consumers.

The visual impact of CLP will be very apparent. Orange/black 'hazard symbols' will be replaced by red/black diamonds called 'pictograms'.

Risk and Safety phrases (R and S phrases) are now replaced by Hazard and Precautionary statements. Hazard statements are separated into H200s Physical hazards; H300s, Health hazards; and H400s, Environmental hazards. There is a more comprehensive coverage of hazardous properties and many of the phrases, although having a similar meaning, are worded differently. **For example:** 

#### 'R28 Toxic if swallowed' is replaced by 'H300 Fatal if swallowed'. 'R42 May cause sensitization by inhalation.' Is replaced by 'H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.'

Precautionary statements are separated into P100s for General; P200s for Prevention; P300s for Response; P400s for Storage; and P500s for Disposal. The precautionary phrases are far more detailed and are allocated according to the relevant hazards. A global signal word of either 'Danger' or 'Warning' is assigned to the high hazard categories.

Apart from the obvious change in the actual symbols used, products with lower hazard will attract a pictogram. There are likely to be more hazard statements and a 'signal' word. Precautionary statements will increase dramatically, as there is still currently little guidance on the order of precedence.

Companies having to redesign labels will clearly have a serious challenge to ensure that the labels are compliant and contain all the information in a readable format.

#### IMPORTANT DATES FOR THE IMPLEMENTATION OF CLP

- The CLP regulation entered into force on 1 January 2009.
- The EC directives (67/548/EC and 1999/45/EC) will be repealed with effect from 1 June 2015.
- The target date for Classification, Labeling and Packaging of Substances is 1 December 2010.

Until 1 June 2015, the classification of substances according to both the EC directives and the CLP regulation needs to be shown in the safety data sheet (SDS), when the product is classified and labeled according to the CLP regulation. This



means that the classification of substances according to the EC directive will be available throughout the whole transition period until 1 December 2015. The target date for classification, labeling and packaging of mixtures is 1 June 2015.

For mixtures, there is a provision to use the current EU Directive 1999/45/EC until 30 May 2015. Using the CLP regulation before this date will require the current EU Classification to be used on the SDS.

Substances and mixtures already placed on the market, for example in a warehouse, on the shelf, need not be relabeled or repackaged according to the CLP regulation until two years later – i.e. for substances on 1 December 2012, for mixtures on 1 June 2017.

#### DEVELOPMENTS

United Nations Globally Harmonised System of Classification and Labeling of Chemicals (GHS) is contained within the 'Purple Book'. This was first published in 2003 and is revised every two years. The UN work programs continue to be developed and to refine the UN GHS in biennial work programs.

The UN GHS Subcommittee last met in December 2008 in Geneva, where the following items were amongst those topics for discussion:

- Aerosol flammability
- Combined hazard and precautionary statements
- Labeling of small packages
- Development of criteria for the classification and labeling of substances hazardous to the terrestrial environment
- Differential between strong and weak sensitizers.

The UN website at http://www.unece.org is regularly updated with the latest GHS developments.

#### THE VISUAL IMPACT OF CLP WILL BE VERY APPARENT. ORANGE/BLACK 'HAZARD SYMBOLS' WILL BE REPLACED BY RED/BLACK DIAMONDS CALLED 'PICTOGRAMS'

	GHS-01	Explosives Self-reactive substances and mixtures, types A, B Organic peroxides, types A, B	
	GHS-02	Flammable gases, aerosols, liquids or solids Self-reactive substances and mixtures Pyrophoric liquids and solids Self-heating substances and mixtures Substances and mixtures, which in contact with water emit flammable gases Organic peroxides	
	GHS-03	Oxidizing gases, liquids and solids	
$\Diamond$	GHS-04 NEW	Compressed gases Liquefied gases Refrigerated liquefied gases Dissolved gases	No current symbol
A A A A A A A A A A A A A A A A A A A	GHS-05	Corrosive to metals Skin corrosion Severe eye damage	
	GHS-06	Acute toxicity (Cat 1 – 3)	
	GHS-07 NEW	Acute toxicity (Cat 4) Skin and eye irritation Skin sensitisation Specific Target Organ Toxicity Respiratory tract irritation Narcotic effects	×
	GHS-09	Hazardous to the aquatic environment	The second secon

# Growing in to be the second se

AS news from the global economy worsens, regular L&L columnist Bob Cronin, The Open Approach, explains how value enhancement can help grow your company in a 'tough' economy

> With the state of the financial market as it is, a headline like this may have caught your attention. It may also have snagged your skepticism. Good. Rigorous examination and evaluation skills are key in enacting change. Your critical thinking here is thus warmly welcomed.

If you've turned on the TV, logged onto email, or opened your mail in the last 60-90 days, you know the news out there is dismal. But, thankfully, all is not lost. While there's not much we can do to enhance the value of our homes, 401Ks, and stock portfolios (I'm afraid to look), we can indeed drive the value of our businesses. Consulting with hundreds of commercial print and label providers, I can tell you: Not everyone's sales are down. Many are holding their own. And several have even found ways to capitalize on the changing landscape and ignite growth. While Value Enhancement is a tactic typically employed before putting your company up for sale, it can be a boon to growth any time – and significantly more important in times that are as turbulent as

#### the one at hand.

That said, here are some guidelines that are working for your counterparts. Keep in mind, however, there is no single formula for success. Depending on your label segment(s), customers, capabilities, customers and vertical markets, your particular action steps will vary. That's where your critical judgment will come in handy.

#### **'CASH IS KING'**

This old saying has never been as true as it is today. In the fast-changing label industry, innovation, expansion, and R&D are imperatives. Healthy cash flow is one of the most critical factors in your getting the equipment financing, acquisition loans, and other capital to fuel growth. Yet, in this tough economy, your trusted lenders of just six months back may have turned into some of your harshest critics. You need to demonstrate your business's ability to withstand the storms and keep steady cash flow on the books.

#### DO EVERYTHING YOU CAN TO:

• Get every possible discount and special payment term from your suppliers. (If you don't ask, you don't know.)

• Optimize inventory levels. (Don't order anything you're not

going to use right away—from raw materials to paper clips.)

• Work with key suppliers to extend cycle times of your

Accounts Payable to match Accounts Receivable.

• Check with your bank about expanding your Line of Credit.

Make sure your current line remains in place and consider

drawing down available cash for investment opportunities.

• Lock in as best you can the terms of any loan agreements.

#### COMMUNICATE, COMMUNICATE, COMMUNICATE

The elements leading up to the economic meltdown have yielded a huge crisis of confidence. As deceit and corruption abound, trust has become one of the most valued assets. Share – openly and honestly – your challenges with employees, suppliers, lenders, and other alliances. Tell them what you're up against, and assure them with your plans to remedy. Offer employees incentives for creative problem solving. Adjust compensation/wage plans to drive sales to higher profit work. Having your constituencies apprised and informed will reduce their worries and keep them on your side. They could offer some novel solutions that just may surprise you.

#### **MAINTAIN BANKING COVENANTS**

The continued squeeze on the financial community is making it imperative that you stay within levels outlined. If you have a seasonality issue, explain it to your lenders, so that it's not construed as a long-term hazard. Banks today have no forgiveness and are taking dramatic steps at the first sign of trouble. That said, if there is a real issue, start examining your options. A 'sell' decision will always be better with you in charge.

#### **BE POSITIVE**

Everyone wants to be with companies that are thriving. If you can't promote recent successes, be the supplier offering some sunshine. Perhaps a daily/weekly email of positive tips, news, or advice? Maybe a website-based contest that can promote your brand and provide goodwill at the same time? What about sending out an 'Economy Buster' promo pointing customers toward special paper promos, stock photo discount codes, or even great CD rates? Perhaps your own customer 'Bailout' plan? At times like this, an upbeat, positive attitude can draw far more business than the hard sell.

#### COLLABORATE

Many companies are halting marketing efforts as part of organizational cutbacks. Don't let this be you. Rather than abandoning marketing and promotion, consider opportunities to share costs with suppliers or customers. Can you and a customer develop a joint case study and distribute it to both publication forums? Are there ways you and your suppliers (paper merchants, finishing suppliers, web developers, shippers, etc.) can show your stuff and bear only a small percentage of the effort? As others stop campaigns, yours will be noticed that much more.

#### **PRE-PLAN CUTBACKS**

Smart companies are developing strategic plans now to address potential future issues. What will you need to do if business drops 10 percent, 20 percent, or even 30 percent? Develop plans now before it happens. Well-considered, pre-planned strategies will be far more effective than those made in the face of extreme difficulty.

#### RECONSIDER YOUR VERTICAL MARKETS

The once vibrant retail segment, for example, is at the worst it's been in 30

years, but what about your others? Find ways to expand or grow your share in healthcare, pharmaceuticals, specialty foods, and others that continue to thrive despite the downturn.

#### **CHECK OUT THE FIRE SALES**

If you have the cash/financing and your balance sheet allows, there has never been a better time to buy properties than today. Is there a struggling competitor you have your eye on? Is it time to move past your current geographic territories? The market is rich in opportunity. Choose carefully, however, and evaluate acquisitions rigorously. Every addition does not inherently bring value; only those with a true, complementary fit to your enterprise are worth the effort. Enlist the support of good advisors, and confirm properties you select can reap you the rewards you deserve.

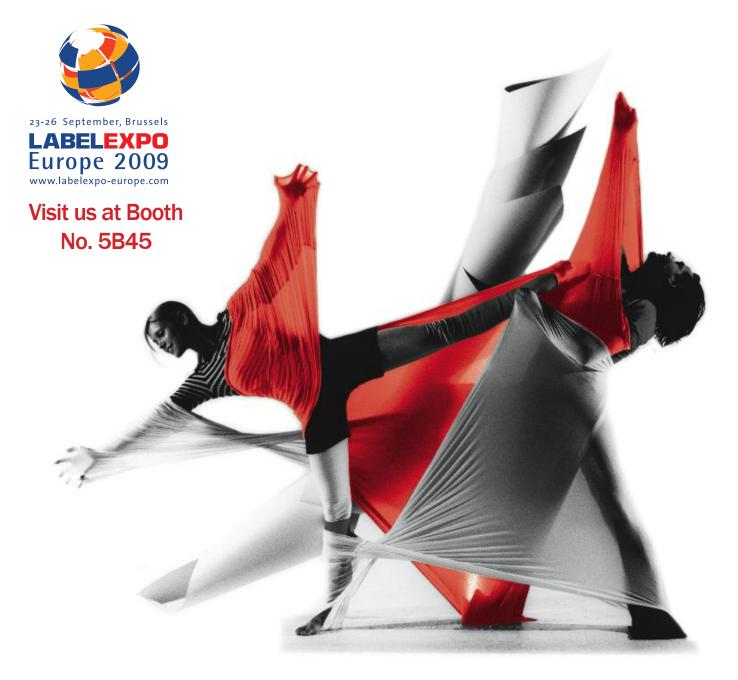
#### AND FINALLY...

The blindsiding onset of the 'tough economy' has left many label providers in a stay-put, 'wait and see' mode. But let's face it: we will always have challenges. Just like any other time, we need to rise up and tackle them head-on. Hopefully, some of these suggestions can help you build, regain, or drive value. For some more, drop me an email at bobrcronin@ aol.com. Label companies' creativity, ingenuity, and diligence are the hallmark of our industry's success. These assets too are key in this tough economy and will be the critical factor in your emerging even stronger than ever.



#### ABOUT THE AUTHOR

Bob Cronin is managing partner of The Open Approach, an investment banking/M&A firm focused exclusively on the world of print. The firm's proven results have made it the exclusive member-recommended firm of PIA/ GATF and IPW. For more information, visit www.theopenapproach.net, email Bob Cronin at bobrcronin@aol.com, or call +1 630 323 9700.



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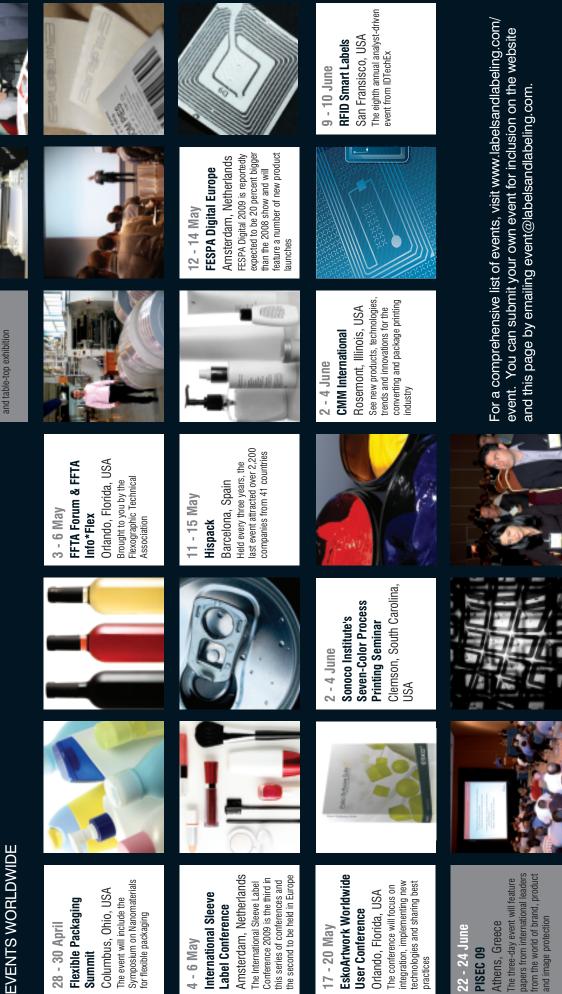
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Lars Eriksen (1994) President & CEO

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#### Do you remember?



- **Nilpeter** introduces the MO-3300 offset press at the company's 75 year anniversary.
- First Macintosh computers to use the new PowerPC Microprocessors.
- The Channel Tunnel opens between England and France.
- Nelson Mandela becomes South Africa's first black president.
- Brazil wins the FIFA World Cup.
- The first conference for the World Wide Web opens in San Francisco.
- The Oriental Pearl Tower in Shanghai, China is completed.



- Nilpeter introduces the 4th generation offset combination press for narrow web - in short the MO-4.
- **Nilpeter** installs MO-3300 # 250, making it the largest offset base in the world.
- **Apple iPhone** released in the US.
- **The Burj Dubai** became the world's tallest free standing structure.
- **High Speed 1** from London to the Channel Tunnel is opened to passengers.



- **Barack Obama** becomes USA's first African American president.
- Anders Fogh Rasmussen is the first Dane to be appointed Secretary General of NATO.
- **15 MO-4 presses** have been sold, **7 presses** are already installed.



## Migration danger?

**AS** more label converters move into flexible packaging, who is responsible for checking that migrationcompliant inks are being specified? Steve Fisher, managing director, Mirage Inks, argues that the food industry needs to get more closely involved With all the (justifiable) attention paid by retailers to 'green' packaging issues, why do we not see a similar degree of enthusiasm when selecting a migration-compliant ink system for food packaging?

Harmful chemicals or other raw materials used within ink formulations intended for food packaging may, under certain circumstances, pass through substrates – including PET bottles – directly into the food or beverage. The same can be said of print in a reel where the printed side remains in contact with the food side (back transfer).

How many companies are aware of this, or care whether they are compliant with EU migration regulations? This situation has not been helped by exaggerated claims from within my industry, which have added to a general confusion surrounding what you are and are not permitted to use. I recently read an article espousing the benefits of a particular ink system. Only six of the 2,500 words made reference to 'odor and migration being challenges'. For European users, it would have been of greater value had it confirmed that the ink system was – or was not – compliant with EU legislation.

In Italy in 2004 European Food Safety Authority (EFSA) officials discovered unacceptable levels of itx (isopropylthioxanthone) in powdered infant milk that had been contaminated by UV ink on the package. The product was withdrawn shortly afterwards at a huge financial cost.

But five years later the migration status of itx remains unclear, despite the availability of known toxicological data. The European Printing Ink Association (EUPIA) states that levels up to 50ppb are acceptable, while a Council of Europe policy statement lists itx as a non-evaluated substance with a migration limit of 10ppb when used on the non-food contact surface. Some food organizations have stated that they will not accept the presence of any itx in their products while allowing other components to be used where there is no toxicological data available. Confused?

The EU has very clear guidelines on migration, but it looks like Switzerland, a non-EU country, will be the first to enact the EU's guidelines into legislation. In the absence of harmonized European legislation, the Swiss regulations could well become a European, if not worldwide reference, and it can be anticipated that major brand-owners will request compliance with Swiss law.

It should no longer be sufficient to claim an ink system has 'low migration', which could be way above the 10ppb figure stated in EU legislation. Far better, in my view, to specify migration levels 'below 10ppb', or 'between 10ppb and 50ppb' where toxicological data is available and therefore compliant with EU legislation.

It could also be considered deliberately misleading to claim migration levels below 10ppb when aluminum foil is used as the reference substrate, since we all know it is an exceptional natural barrier in its own right.

Our own industry representatives must accept a lot of the blame for tolerating or actively promoting ink systems for use within the EU without reference to EU compliance. Why isn't the food industry, including retailers, more vociferous and demanding on the subject of migration? After all, it is reasonable to expect them to be concerned at the prospect of their product being tainted or contaminated. What steps and initiatives are they taking with suppliers to identify and eradicate the problem?

I am cynically inclined to think that use of non-compliant products is seen as a risk worth taking given the very long odds against our own Food Standards Agency paying a flying visit to test packaging on supermarket shelves and insisting on a product recall. Especially as the packaging, in most cases, is very price sensitive.

#### **TOWARDS A GLOBAL STANDARD?**

How many of us are aware of the differences between US and European legislation concerning inks deemed suitable for food packaging?

The FDA's system of Food Contact Notification (FCN) for a Food Contact Substance (FCS) is based on exposure and the cumulative estimated daily intake of a particular substance. In general, for a cumulative exposure of > 0.5ppb but < 50 ppb to be acceptable, two mutagenicity tests are required to establish its safety under the FCN program.

This differs significantly from the EU, where a migration level of up to 50ppb requires three mutagenicity tests. The REACH approach, by contrast, is more hazard-based, and in many ways not as rigorous as the procedures applied to food and pharmaceutical products.

For the future, I would like to see the food industry playing a more pivotal and responsible role in the establishment of common global migration standards. I do not profess to know how widespread migration issues are, but I would guess it is more significant than is commonly thought. For forty or so raw materials we have used during the last two years formulating our range of free radical UV inks, there is no toxicological data available. Many raw material suppliers have stated this is because the components are not intended for food packaging.

A 2004 study by the School of Health and Life Sciences, King's College London investigated the transfer of substances from secondary packaging into food, and highlighted the presence of several different types of free radical photo-initiator in the packaging with the potential to migrate at a rate exceeding Tolerable Daily Intake values into both the packaging and the food products themselves.

Clearly there is a need for regulation. It remains to be seen whether my industry has the commitment to support regulation for fear of offending organizations with an interest in suppressing migration issues to protect their markets.

## A guide to anilox

**LIGHTWEIGHT** anilox sleeves have many advantages over conventional rolls, but require a rigorous handling regime to avoid expensive damage. Tony Donato, Harper Corporation of America, explains

The advent of anilox sleeves, with their lightweight construction and easy handling, has revolutionized setup and changeover times in the pressroom. As the technology continues to evolve and its benefits become more established, sleeves are appearing in more and more narrow web applications.

Anilox sleeves are an investment, and proper care is critical to their performance and longevity.

#### ANILOX BASICS

An anilox roller is the key component in a precision ink delivery system. Its most important feature is its engraving, which determines the number of cells on its surface and its volume, or the amount of ink it can transfer to the printing plate. The engraving is supported - kept round and straight - by the roller's base. For an anilox to perform properly in the press, the circumference must be as round as possible, and the length must be as straight as possible under all operating conditions. The common term for the measurement of these characteristics is total indicator runout (TIR).

Since the dawn of flexography, the conventional anilox roller's base was a steel (rolling pin-looking) device. The conventional roller's TIR is controlled by the thickness of its shell, and its own journals and bearings. Once a roller is loaded and the bearings locked in the blocks, it is ready to rotate.

In contrast, the anilox sleeve is a hollow shell that has no bearings or journals of its own – it is completely dependent on the press mandrel for its rotation. Therefore, the condition of the mandrel, specifically its outer diameter (OD), has significant influence over a sleeve's TIR. Before elaborating on the press mandrel, let's review sleeves and their construction.

#### ANATOMY OF AN ANILOX SLEEVE

An anilox sleeve possesses two key properties: First, the inside diameter (ID) or bore, is smaller than the outer diameter of the fixed mandrel. The bore expands when compressed air is blown in the press mandrel during mounting, and contracts to tightly grip the mandrel when the air is removed. This is called 'interference fit'.

Second, the anilox sleeve must have the mechanical strength to accept the ceramic coating needed for engraving.

The interference fit between the OD of the mandrel and the ID of the sleeve locks the sleeve in place for production. Because the interference fit dimensions can be as low as .0012" (30.5 microns), the cleanliness of both the mandrel and

the inner liner of the sleeve are critical to the sleeve's performance.

Air-loaded anilox sleeves can range from 8mm to 15mm in total thickness and are comprised of the following layers: a fiberglass-reinforced inner liner that is made to match the mandrel, including interference fit. Next is the expansion foam layer, made of a material similar to foam mounting tape, mostly a closed-cell foam. The foam must be able to compress for mounting and expand back uniformly after the air is released. This rebounding of the foam is critical to the sleeve's longevity: Once the foam does not rebound, the interference fit is lost and the TIR will go out of tolerance.

The next layer is important because it supports the expansion foam. It varies in thickness, as it is adjusted to match the repeat needed. It is made of different materials depending on whether the sleeve is a composite sleeve or an aluminum-ribbed sleeve. In the composite sleeve, this layer is mostly fiberglass filler. In an aluminum-ribbed sleeve, this layer is comprised of the ribs themselves, which are approximately 5 mm wide and vary slightly in height from 5 to 7 mm.

This layer is followed by the top layer of aluminum cladding, which can range from 3mm to 6mm in thickness. In a

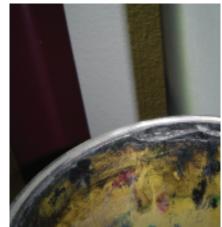
#### SLEEVE DAMAGE



2MM worn off end of sleeve



DECK leaking on mandrel below



**DIRTY** inner liner sticking issue

# sleeves

composite sleeve, this is a separate piece, but in a ribbed sleeve the cladding is integrated with the ribs. The ceramic is applied directly to the cladding.

The best way to understand the differences between a composite and a ribbed sleeve is to understand how each supports the expansion foam. The composite sleeve can be compared to a concrete floor that fully supports the foam. The ribbed sleeve is like a floor supported by joists - the ribs support the foam, which limits the amount of foam doing the work of compressing and expanding. The ribbed sleeve has advantages in lighter weight and integrated end rings, but it also has drawbacks: fluid can find a home in the space between the ribs, and when mishandled, the ribs can bend like an accordion. On the other hand, the composite sleeve supports the foam better, but it also requires separate end rings to protect the foam from the printing environment. When properly handled, both types of sleeves will perform to the needs of the printer.

#### SLEEVE HANDLING

The differences in a sleeve's construction introduce handling issues different from conventional anilox rollers. In most cases sleeves can be hand-carried, which is convenient but offers a greater chance that the ceramic surface can be bumped and sustain damage.

Think of this in terms of carrying a oneor two-meter plank of wood through your house: The section of plank behind you crashes into walls and furniture more often than the part that you can see in front of you. The same is true with an anilox sleeve. The ends can be chipped very easily simply while loading and unloading a sleeve from the storage rack or press mandrel. The best solution to these bumps and chips is to make the pressroom damage-proof. Walk out into the pressroom and watch the staff as they handle the sleeves. Note everything that may come in contact with the sleeves, including hand rails, storage post stops, floor set-down areas, press cross frames, staging areas, wash sink edges, etc., and put foam padding on these areas. This simple measure can cost less than going out to dinner, but it will save thousands in anilox reconditioning costs.

Sleeves are vulnerable to damage even after they are mounted on the mandrels. Check carefully for any item that may rub on the rotating sleeves. We receive sleeves that have 3 to 5 mm of the length removed from one end or from both ends as a result of chafing on sling guards, evaporative covers, ink drip pans, ink chambers, long doctor blades and other items. Sleeves are primarily made of aluminum and almost everything else around them is harder, so look for anything that can come in contact with your sleeves. And always use a ladder or lift when loading or unloading sleeves, so they move perpendicularly to the mandrel. Pushing or pulling them overhead causes damage.

#### **CLEANLINESS SAVES SLEEVES**

Because the anilox sleeve is completely dependent on the press mandrel for its rotation, the cleanliness of the mandrel is a significant factor in the sleeve's TIR. Ink sticks to ink, and when given the opportunity to accumulate on the mandrels and in the sleeve bores, ink will glue a sleeve to its mandrel. In addition to the serious TIR problems this can cause, dirty mandrels also increase the likelihood of damage to the foam layer and to the structural integrity of the sleeve itself, because when a sleeve is stuck, we all know that the pressman is inclined to jiggle and rattle the sleeve in a manner similar to shaking coconuts out of a tree. In addition to real damage, dirty mandrels and bores simply cause costly nuisances like delays in loading and unloading. In other words, keep press mandrels and sleeve bores clean!

It's easy to remove ink from the sleeve bore by making a bore cleaner that looks like a canon ramrod or chimney sweep device. Air duct brushes are available in different diameters, or round



RAN without end ring and end rubbing



END wear with delamination of layers

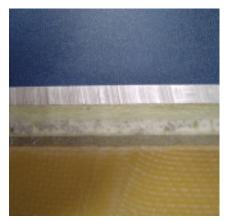
#### **ADVANTAGES OF ANILOX SLEEVES**

- Lower freight costs and lighter weight
- Easier and safer to handle and are reprocessable
- Reduce setup times for the printer: the process of changing out sleeves takes a fraction of the time it typically takes to change out conventional anilox rolls
- Tooling costs are reduced because you do not need a separate set of gears and bearings for each anilox
- Storage systems can be manufactured from lighter weight materials because they have to support less weight

#### CORRECT HANDLING



BORE cleaning w brush



**COMPOSITE** sleeve cross section

sponges can be mounted to a brush. When cleaning bores, it is essential to use a detergent than cannot attack the resin and does not leave any lubricating film behind. And ensure that the sleeve bore is dried thoroughly. Pushing a wad of towels through the bore works beautifully. Remember that preventing ink buildup is as important as removing it: simple measures like covering unused mandrels with a plastic tube can make a big difference. When the chamber above has an end seal blow out, where does the squirting ink land? On the mandrel.

#### **OFF-LINE CLEANING**

Some of the ink systems used on films make cleaning the sleeves in off-line devices a must. When using off-line systems, always consult the manufacturer or agent for proper training and operating parameters. When media blasters are used out of adjustment and/ or with the wrong size media, they can harm your sleeves. Both media blast systems and water-based units require properly fitted end caps to keep the bore clean and dry. In liquid cleaning, inspect the sleeve ends before you begin to



SPONGE ramming down PCMC sleeve



SLINGING guard in proper position

ensure there are no chips that expose the aluminum cladding or the aluminum end rings – many ink cleaners can be aggressive to bare aluminum. And when cleaning with water-based cleaners, make sure they are neutralized with water and the sleeves are dried to prevent water spots.

Aluminum cladding makes sleeves more vulnerable to damage than conventional steel rollers. Dropping can bend the ends or make them egg-shaped; rubbing ceramic off the ends can lead to blistering; hitting the press frame when trying to load on the mandrel produces impact damage. Even little things like the brass scrapers used for cleaning are harder than the ends of the sleeves, so be sure to use plastic scrapers to damage fewer sleeves. Consult your suppliers for more information and suggestions - they can be your best sources for training and information.

In summary, an air-loaded anilox sleeve is easier to handle than a roller, but it is also more easily damaged. Sleeves cannot be reconditioned as many times as a conventional roller, so it is up to



SPONGE on back side



FOAM on bottom of sleeve rack

pressroom crews to review their handling practices and work to protect their sleeve investments. I have seen sleeves last five years or more, and I have seen sleeves destroyed (some by me) before they ever even saw ink. Review your pressroom carefully, looking for areas where sleeves can sustain damage, and implement safeguards. When it comes to anilox sleeves, the old adage is true: an ounce of prevention is worth a pound of cure. And most importantly, it's a lot cheaper.

#### **ABOUT THE AUTHOR**

Tony Donato is process and product development engineer at Harper Corporation of America. For the past 18 years he has been working in the area of anilox rolls and doctor blades as they are used in flexography. He is a board member of the Phoenix Challenge Foundation.

This article is based upon the regular educational seminars held by Harper Corporation's technical service arm, Harper GraphicSolutions. More information from www.harperimage.com.



















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## Flying colors

**DIGITAL** press users have long called for higher speeds and greater productivity, and the WS6000 is HP Indigo's answer. Andy Thomas reports from one of the first beta users, Dutch converter Geostick

Located in a traditional Dutch landscape of dykes, rivers and low lying villages, 85-year old label converter Geostick has made a name for itself as a showcase for the HP Indigo's ws4000-series digital press technology.

Today, as a beta site for HP Indigo's new WS6000, Geostick is at the center of what may prove the next step in the digital revolution – an offset quality digital machine that can match the speed of a conventional press.

Geostick has been printing pressure-sensitive labels since the 1950s. Peter Berveling has been running the company for twenty years, following the retirement of his father. He has three sons, 14, 17 and 19, who all take a lively interest in the business.

Berveling has become a strong advocate of digital printing, building a dedicated press hall designed to house up to eight digital presses. Three ws4000/4050/4500 machines have already been installed, along with an AB Graphic digital converting line.

'The digital hall was finished in January, which this was a bad time in the industry,' says Peter Berveling. 'But it puts our business in the right direction.'

The beta WS6000 was installed in December 2008. A measure of its success is that the beta machine has been purchased and a second WS6000 ordered.

Geostick production director Cees Schouten, like the rest of the staff and operators interviewed by L&L, is a huge admirer of the new machine, which is far more than an upgraded ws4500. 'It is not simply that the WS6000 is faster. It is easier for the

operator, for instance to change reels and change the blanket."

Geostick believes the WS6000 press changes the whole relationship between conventional and digital. 'The WS6000 will definitely take jobs from our conventional presses,' confirms

Schouten. 'We still do not know where is the cut-off point after two months with the press. We ran a 6,000 linear meter job recently where there were multiple designs. It depends on factors like how many colors and how difficult is the print job.'

The WS6000 runs at speeds up to 60 meters/minute in the new two color mode and 30 meters/minute 4-colors. The speed increase is related directly to the 980mm circumference imaging cylinder.

As Schouten points out, there are significant 'under the hood' changes which help make the press more operator friendly compared to the ws4000/4050/4500-series machines.

First, digital file preparation has been moved away from the press, so the operator is not spending press time adjusting color. 'If the color is not correct, the operator is encouraged to adjust in the file and not to play with the machine,' says HP Indigo's Christian Menegon. The Digital file Preparation station (DFP) comes fitted with the HP Indigo Color Kit, which includes EskoArtwork's comprehensive Kaleidoscope color management system and Pantone reference tables. Mouse-driven operator input on the press is replaced by a touch screen.

The WS6000 has a smaller overall footprint than the ws4500, since the electronics cabinets are now fully integrated into the press.

While the core 7-color imaging system remains the same, a new writing head has been designed to handle the increased volume of data written to the imaging cylinder, and the ink canisters are larger to handle larger volumes of consumables, with a new quick changeover system for the 5th, 6th and 7th colors.

Reel changeover times have been significantly reduced by a redesign of the web handling system. In particular the removal



of the vacuum boxes from around the web reduces the time taken to change a roll. 'Changing the PIP blanket has also been made faster and more automated,' asserts Cees Schouten. 'We can change a blanket in just five minutes rather than twenty minutes, because the drum takes less time to cool down to handling temperature.'

#### **GAME CHANGING?**

For Peter Berveling, the WS6000 presses will eventually replace the ws4000/4050/4500 machines at Geostick because of their ability to profitably handle such a wide range of print runs. 'But our original ws4000s still print excellent quality work and they are good for very short run jobs.'

Berveling believes the WS6000 is a game-changing machine, and gives an example: 'We have one customer who currently receives from us the same label designs printed in ten different languages on ten different rolls. He holds around 1 million Euro of stock. Now he wants us to print all ten languages in the same roll so he can label the product in one production run. We can deliver the rolls when he needs them, and not, as now, once a week according to his forecasts. We see many more opportunities like this, including for clear labels in multi-variants or short runs.'

Peter Berveling believes that digital and conventional presses will continue to live together – it is just the break point that changes. Jobs come through the production chain depending on what is the best way to print them, rather than as 'digital' or 'conventional' jobs.

'We have identified jobs running on the Gallus EM280 which are more suitable for the WS6000. But at the same time on our new Nilpeter FA-4 presses we have been able to reduce setup times considerably, and we already put shorter run conventional jobs with more complex in-line finishing on the FA-4 and not on the EM 280. For these reasons we are selling an EM280 and not replacing it. That work will go mostly to the WS6000.'

Geostick is likely to have a lot of spare room in its new digital hall. 'Two WS6000s are more productive than three ws4500s. And where three machines required six operators, two WS6000s require five operators for the same productivity,' notes Berveling.

#### LEAN MACHINE

One of the reasons that Geostick makes such a fascinating case study for the WS6000 is its extremely 'Lean' conventional flexo press operation. The company was the first narrow web converter in Europe to trial thin 'in the round' imaged sleeves on a Nilpeter FA-4 flexo press. Geostick now has two of the 8-color, 420mm-wide machines.

'Using sleeves, we can change the design on four or five stations and be back in production in just 15 minutes. Before it was taking us 15 minutes per print unit,' enthuses Cees Schouten.

For the sleeve project Geostick built a team around Belgian design house Athena, sleeve imager GRS and AKL, which supplies the sleeve adapters for the FA-4.

'We have to experiment with the adapters to achieve the same degree of compression we get from using tapes on conventional plates,' says Schouten. 'It was a big learning curve.'

While 'in the round' sleeves are more expensive than conventional sleeves – 200 euro compared with 60-70 Euro – Schouten sees the new technology as a way to be truly Lean: 'I can reduce

#### WS6000 FACT FILE

#### **PRINTING SPEED**

30 m/min (98 ft/min) in 4-color mode at resolutions up to 1,219 dpi 60 m/min (296ft) in 2- color mode

#### RESOLUTION

812 and 1219 dpi at 8 bit. 2438 x 2438 addressability HDI (High Definition Imaging)

#### SUBSTRATE RANGE 12-450 microns

IMAGE FORMAT 317mm x 980mm (12.48in x 38.58in)

personnel costs, increase our profitability and reduce the gap between digital and conventional. The key advantages are that there is no plate mounting and the press is directly into register when we start printing. We do not need auto-register.'

Another key 'Lean' workflow principle at Geostick is to have turret rewinders on the presses. Responsibility for the complete job now lies with the press operator, who packs the job ready for shipping. 'This means the printer has to watch every small roll, where before he printed a huge roll and it went to the slitter rewinder for inspection and packing,' says Cees Schouten. 'Now the job goes from the press to the client. There are no more discussions about who is responsible for mistakes, the printer or the slitter-rewinder operator. Now it is the printer.'

#### **DYNAMIC LEADERSHIP**

Peter Berveling's dynamic and inspirational business leadership is reflected in his energetic leisure pursuits.

He worked for two years in Africa for a shipping line and returns there often for safaris – particularly to East and Southern Africa. He flies planes, and every year rents a Cessna with some friends and spends a week flying round Europe. He also scuba dives, and some of the spectacular photographs adorn the Geostick building.

Perhaps most extraordinary is Peter Berveling's faithful recreation of an Irish pub inside the factory, which acts as a staff canteen and training area – all in honor of his Irish-born wife. The pub is inspired by the Glenmalure pub in the Wicklow mountains, and includes a genuine Dublin telephone booth, a stand for the Irish Times newspaper and a road sign pointing to the Glenmalure valley.

#### HIGHLIGHTS

MAKE SURE YOU DON'T FLICK PAST ANY OF THIS LOT!

#### 74 A VISION FOR 2020

During a recent FINAT Board event, experts discussed their vision for the self-adhesive label industry over the next decade



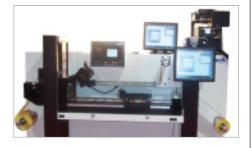
#### 79 CONVERTING CHALLENGES INTO OPPORTUNITIES

A report from one of the most critical meetings in the TLMI's history



#### 101 SLITTERS AND REWINDERS

L&L looks at developments and installations in the area of slitters and rewinders



**106 OFFSET OPPORTUNITIES** 

The latest developments in web offset technology is making the process more attractive for shorter runs



LABELS&LABELING



Additional efficiencies come from the Matho matrix waste recovery system installed by Geostick. 'Even with 4,000 meter rolls, it is not necessary to stop and change the matrix rewind rolls, which allows the turret rewinders to operate efficiently,' says Schouten. 'Lean manufacturing is all about making the whole chain more productive.'

#### WEATHER THE STORM

There is little doubt that the global recession is hitting companies like Geostick. 'Last November and December we saw growth, but January was very bad and February not looking good. We are in a very big crisis and we still do not know how big it is going to be,' says Peter Berveling.

But Geostick is in a better position than many converters to weather the storm. 'Even where we are doing less work for existing customers we compensate with new clients, and it helps we can offer digital as a service,' says Berveling. 'We also concentrate on our customers' total label costs, and we help with application of the label and logistics.'

Peter Berveling has managed the business so he does not require bank financing. 'We are a family-run business, so no shareholders to please. We have a healthy cash flow and we finance all our investments from our own resources.'

Asked what advice he would give to label converters considering digital printing, Berveling stresses the importance of communicating the capabilities of a digital press directly to the marketers or brand owners. 'They always see the opportunities and are not talking about price. This can be hard to do for sales people. Sales people naturally want to sell 100,000 label jobs, not 10 x 10,000 labels. But the last is more profitable because not everybody can do it.'

Branding is becoming ever more important, and this provides new opportunities. 'In companies like Heineken, purchasing follows marketing – not the other way around. Even Heineken beer barrels now have pressure-sensitive labels to identify them to maintain the brand.'

Peter Berveling also recommends purchasing more than one digital press. 'There is always more downtime than you may think for servicing, maintenance and trouble-shooting.'

For the future, Berveling is excited by what new markets the WS6000 can open up. 'Digital offers unique opportunities to new clients, which if we did not have digital we could not pursue. The WS6000 will increase the number of applications we can target and increase our profitability. Many clients will not even know we have moved their work from conventional to digital, which gives us a chance to improve our profitability. Because the user of the HP Indigo press is charged per revolution of the blanket cylinder, we can print more labels per 'click', helping offset the higher price of the machine.'

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## Spartanics brings Finecut to Europe

**AN OPEN HOUSE** hosted by Spartanics-Systec introduced the Finecut laser cutting system to Europe, and recent software developments will allow it to compete with rotary die cutting, as James Quirk reports

"We could go faster with two

laser sources, but it gets to

the point where the cost is

prohibitive. We believe we can

get to 150 m/min, using only

one laser, within the next year"

Laser technology is nothing new, but a variety of issues have prevented it cementing itself as a widespread alternative to rotary die cutting in the finishing sector. Speed, issues with achieving right angled cuts, varied performance on different substrates, not to mention cost, have all conspired to keep the technology on the periphery of mainstream label production.

But a recent open house organized by US-based Spartanics, held in Bielefeld, Germany at its partner Systec, a manufacturer of screen printing equipment and drying systems, showcased a laser cutting system which the company believes will not only set new standards for digital finishing, but also compete directly with rotary die cutting in the flexo market.

This was the European debut of Spartanic's Finecut laser cutting system, the first of three appearances in the region which will culminate at Labelexpo Europe, in Brussels, in September. The Finecut, which comes in roll- and sheet-fed versions, can achieve speeds of up to 100 m/min, a breakthrough which Mike Bacon, Spartanics' VP of sales and marketing, says is only the beginning. 'We could go faster with two laser sources, but it gets to the point where the cost is prohibitive. We believe we can get to 150 m/min, using only one laser, within the next year.'

This increase in speed is just one of the elements that Bacon believes will allow the Finecut to compete with rotary die cutting in the flexo market. 'A year ago, we couldn't compete; but now, with these speeds, we can. With the trends towards shorter runs and multiple jobs, rotary tools need to be changed more regularly, which gives laser cutting an advantage.'

Software advances, too, are crucial. 'While laser technology has been around for a while, the software capabilities had not been catching up with the lasers,' says Bacon. 'We've made a concerted effort to develop the software – it's all about what you tell the laser to do.' The Finecut is controlled

> by sophisticated software integrated to provide constant monitoring feedback and control of all system operations, including registration, web control, laser power, laminating and slitting. A pictorial operator interface, specifically designed for digital laser cutting, allows swift modifying of the pattern to be cut. Job parameters can easily be entered, making quick work of adjusting to the variety of

materials, material widths and thicknesses, and part sizes that are encountered. 'We're aware of how difficult it is nowadays to recruit good operators,' says Bacon, 'so we have focused on making the system as easy as possible to use.'

The Finecut also includes a quick, accurate job quote tool, which identifies the maximum web speed and cut per part. Print registration is flexible, and senses anything that has contrast and shape. The laser operates across a variety of cutting fields depending on the system configuration. However, the 200mm x 200mm system is ideal for narrow web label production. 'The configuration of the laser is triggered, and can be changed, by a barcode or registration mark or color, for example,' says Bacon. 'It takes 30 seconds from reading to configuring a new cutting pattern, so waste is minimal, just a handful of labels.'





THE SPARTANICS FINECUT LASER CUTTING SYSTEM will be on display at Labelexpo Europe in Brussels in September

#### PARTNERSHIP

The two-day open house at Systec's Bielefeld facility attracted dozens of visitors, both screen printers and narrow web converters, from seven European countries. The event also displayed a stand-alone slitter which can handle materials of up to two meters wide at 100 m/m, and the Fineprint cylinder screen printing line, featuring electronic controls which eliminate manual adjustments, which can handle materials as thin as 12 microns, automate adjustments for shrink or stretch, and position web material within 0.1mm.

The Fineprint reflects the cooperation between Spartanics and Systec. After the Rolling Meadows, Illinois-based company acquired Klemm Technology in 2005, a business with expertise in screen printing and laser technology, it saw Systec, then named TSI, as a company whose background in screen printing further complemented the group. The partnership began in 2007 and branding is divided between technology areas: Spartanics for cutting systems; Spartanics-Systec for screen printing and drying systems. 'The partnership has been very beneficial,' reveals Reinhard Zimmermann, owner and founder of Systec. 'Spartanics has great expertise and we've been able to integrate its technology into our systems.'

Mike Bacon agrees: 'It's the best of both worlds. We've traditionally been focused on the finishing aspect of production, but through Systec we are now involved in the whole printing line.'

Spartanics has been in the die cutting business for 40 years. Founded in Sparta, Wisconsin, cutting name plates, the company developed optical systems which allowed its systems to read a wide variety of different materials. It then moved into the credit card market, which now makes up fifty percent of its business.

"We've traditionally been focused on the finishing aspect of production, but through Systec we are now involved in the whole printing line"

#### **FUTURE INTEGRATION?**

Mike Bacon returned to Spartanics, for whom he had previously worked for eight years as western regional sales manager and international sales manager, in October 2008. Part of his new remit is to look into the possibility of integrating the Finecut system into a narrow web press line.

Indeed, the idea of laser cutting integrated inline with a narrow web press – and perhaps an inkjet unit too – is an exciting prospect which may just represent the best cooperation between digital and conventional technology in the near future. With around ten Finecut systems already installed, and it sure to be a major draw at Labelexpo Europe, laser cutting is coming of age. As Mike Bacon says: 'We have only scratched the surface.'

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## Inspection revolution

A NETWORKED 100% INSPECTION system installed by Erhardt+Leimer at converter X-label represents a major breakthrough in the organization of quality management. Andy Thomas reports

German converter X-label has carried out a groundbreaking installation of multiple, press-mounted print image inspection systems networked to its rewinders via a central quality department. The system was developed and installed by Erhardt+Leimer, based on the Nyscan 100-percent print inspection system.

Historically, final inspection of printed labels has been carried out on inspection-rewinders. The need to stop and position at all defects - even those that are potentially acceptable – wastes a lot of time and can prompt the operator to set the sensitivity of the system at a low level to meet productivity requirements.

Greater cost-effectiveness can be achieved if the print image inspection systems are installed, not on the rewinder, but on the press. There are still potential problems, however. Although waste is detected at an early stage, the press operator now takes on responsibility for quality, making decisions based on the feedback from the print image inspection system. Not an ideal scenario.

The solution developed between Erhardt+Leimer and X-label involved equipping each printing press with a print image inspection system with an interface to the IT department for production data acquisition (PDA). The quality control department – not the printer - decides whether production is acceptable or waste. Individual 'fail' defects are identified and

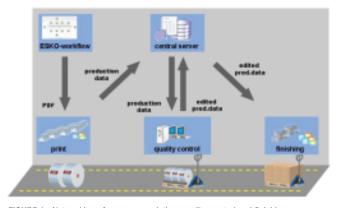


FIGURE 1 ... Networking of pre-press, printing, quality control and finishing differentiated from acceptable defects via a Reel Report - a



operation of the rewinder.

The practical implementation can be seen in Figure 1. A print image inspection system is installed on all printing presses on the site. The PDF artwork is accessed directly by prepress via the existing EskoArtwork workflow system. On completion of the printed reel a coded label with the job or reel name is applied (Figure 2). The press operator now scans the code, automatically allocating the name and reel-specific data for that job to the reel report. Data transfer to the central server is started automatically; from now on the Reel Report for any roll can be opened using a barcode scanner, allowing complete integration in the organization's ERP system. The result of the scan is shown in Figure 3. If a scan is not successful, the information can also be entered or corrected manually.

As soon as the data is saved on the central server, each subsequent action is initiated by the presence of a physical reel at the related station. So when the reel arrives in quality control, it is identified by scanning the bar code, and the reel report is loaded automatically for editing. On completion of the editing process, the reel moves on to finishing, where it is again identified via the barcode and finished based on the information contained in the reel report.

#### **PRESS INTEGRATION**

The print image inspection system at X-label was fully integrated into the company's Gallus RCS 330 press (Figure 5). During makeready, a reference image is taken from the moving web, allowing all important parameters and inspection zones to be defined before printing starts. During production, the press operator can obtain print quality information from any point in the job, from the start to the current point, using the reel report. For example, in the case of a repetitive defect on the monitor, the operator can decide to stop the press to correct a defect on a printing plate. Figure 6 shows an actual reel report for a job consisting of two labels across the web. The text defects currently detected are highlighted in the defect display area.

Once the related bar code label has been scanned, the edited reel report is automatically transferred from the central server to the computer on the rewinding machine. The operator simply presses the Start button and the system stops automatically, depending on the type of defect, at the splicing table or the waste rewinding position. 'Waste areas' - which occur predominantly during set-up, but can also be generated

FIGURE 3 - Acquisition of the job-reel information with the aid of the barcode scanner





FIGURE 6 Reel report during production

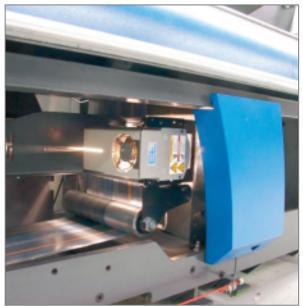
by problems with register adjustment or printing plate pressure - no longer need to be specifically marked with pieces of paper or flags.

#### A NEW PARADIGM?

'The example of X-label shows that central data acquisition should not only cover the production data from production, but also include the print image inspection as a quality assurance measure,' comments Dr Stephan Krebs, head of the inspection systems business unit at Erhardt+Leimer. 'This configuration generates a high degree of transparency and increases the productivity of each individual machine. The quality supplied is no longer at the discretion of the operator, but is clearly defined by quality control.'

Donald Lewis, international business development manager for inspection systems at Erhardt+Leimer, adds, 'As it is not necessary to allocate reels produced to a specific finishing machine, machine utilization is also significantly increased. The reduction in the workload on the operators on the finishing machine also increases the through-put on those machines and ensures less downtime.'

FIGURE 5 - Integration of a Nyscan print image inspection system in a Gallus RCS330  $\,$ 

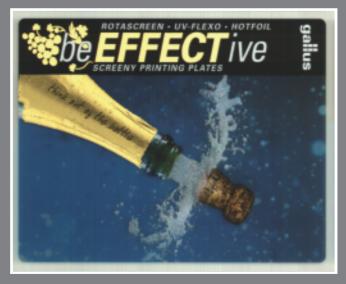


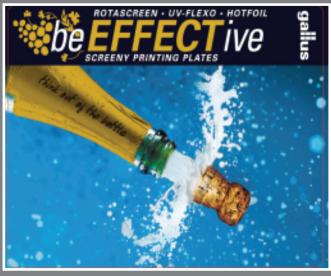
## USING PDF AS AN INSPECTION REFERENCE

An automatic print image inspection system is based on a comparison of the moving image as it is being printed with a reference image. The best method would be to use the original PDF artwork directly as a reference. The problem is that this artwork differs from the printed image in essential elements such as accuracy of color, different representation on films, trapping and punching, and even in the position of individual elements. To validate inspection with the aid of the PDF artwork, it is therefore necessary to adapt the artwork to the actual print.

Of course, the inspection camera must be able to detect all printed features – including highly reflective metal films – and E+L's recently launched TubeLight lighting technology allows these elements to be reproduced in their natural color. Figure 4 shows the camera image for a label with different effects such as tactile and pearl refractions compared to the PDF artwork.

The differences between the two images are compensated by the inspection system's Pre-Press module, which replaces the colors in the relevant layers to make the print consistent enough to be checked based on the PDF artwork. The PDF artwork has already been separated into layers by the EskoArtwork workflow.





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## Omet launches offset press

**L&L** editor Andy Thomas was the first journalist to see Omet's new UV offset press – an important development from a company so strongly associated with high quality flexography

At an open house during the recent Converflex show in Milan, Omet unveiled the offset version of its Varyflex F1 combination press. The UV offset units are also now available for integration into the Varyflex carton press (VF-C).

The demonstration press was 430mm wide, with both 340mm and 520mm variants under development. Print repeat is in the range 12- 25ins.

'This completes our technology range and follows trends in the market,' comments Marco Calcagni, international sales and marketing manager at Omet. 'The UV offset units enable roll converters to compete with sheetfed printers and also makes it an easier decision for sheetfed converters to move to roll products – including self-adhesive labels, shrink sleeve labels and flexible packaging. These printers can then use combinations of other processes, including flexo. This is the key to our proposition and allows our customers to offer something new to the market.'

The UV offset units can be freely combined with the gravure, flexo, screen and hot/ cold foiling heads already available for the Varyflex flexo press platform. The configuration of the open house press was UV flexo applying a metallic, followed by CMYK UV offset stations, UV flexo varnish and die cutting.

The press uses interchangeable 2-cylinder cassettes for repeat size changes. The cassettes are slid into the print unit on rails from a motorized cassette rack, which runs behind and parallel to the press. Repeat size cassettes can be selected for all print units simultaneously. This arrangement makes efficient use of space and takes away the need for carts or trolleys. The press services are located on the far side of the cassette rack.

The cassettes locate in the print units without the need for tools and without breaking the web. The 'bridge' between the storage rack and print units provides an area where plates can be cleaned and changed.

The screws for adjusting pressure on the inking rolls are located on the cassette and not on the fixed print unit. This means that pressure does not have to be re-adjusted each time a cassette is exchanged, so long as the rolls are not changed. 'The constant pressure of the inking rollers means it takes less time to adjust pressure when changing

#### **MORE TO SEE**

At its open house Omet also demonstrated a 7-minute changeover on an X-Flex 430 flexo combination press from 12 micron PET to a PS label material, with sleeve change and coupling of screen, cold foil and die cut. The screen and foil units were then disengaged and the machine accelerated to 200 m/min with no adjustment of register.

Also shown were the Varyflex 530 F1 Holofoil King registered hologram system operating off-line on a preprinted web, and a Varyflex 670 F1 solvent lamination unit.

Omet's Marco Calcagni also spoke to L&L about the Varyflex press now being installed at the Sonoco Packaging Center at Clemson University in California. 'We are very excited by this. The press will be used to trial new technologies such as RFID printing and even printing of solar panels. The press has a highly technical specification, and customers will be shown how to print completely new types of packaging.'

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Caption: Exchanging a 2-cylinder offset cassette unit. (1) There is space for the three exchange cassettes on a moving conveyor behind the presss, which allows selection of cassettes for all print units simultaneously. (2) The 'bridge' between the press and conveyor provides space for makeready. (3) The cassette locates without tools

repeat size,' says Calcagni, who led the offset project team at Omet.

Calcagni says a key advantage for Omet of the cassette configuration is the ability to use solid steel cylinders for a high level of stability.

The press has an idling speed of 10 m/minute to reduce wastage during makeready, along with integrated automatic pre-register. It is fitted with the same Vision 1 automated registration system as seen on the other machines in the Varyflex press range, with automated adjustment of lateral and longitudinal register to an accuracy of +/- 0.04mm.

Each print head has four independent servo motors, which drive the print cylinder, inking rolls, inker and dampening rolls. This allows automated setting of the inking and dampening curves, so the press can accelerate to its maximum print speed of 200 m/ min and ramp down without changing color consistency. The ceramic-coated dampening roll helps this process by delivering better and more uniform water transport.

Remote adjustment of inker speed and frequency and motorized temperaturecontrolled inking rolls deliver a stable ink flow during the print run. The inking system supports CIP3/4 automated ink zone set-up and job storage. There will be a closed loop densitometer system on the press at Labelexpo Europe, and Omet has a project team looking at closed loop spectrophotometric color adjustment. The UV curing system has a driven chill drum, allowing the press to handle a wide range of substrates from 12 micron unsupported film and up to 400+ micron board.

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## Pre-press success

FULL SERVICE PRE-PRESS SHOP Trinity Graphic USA had its best ever year in 2008. Danielle Jerschefske reports on how this specialist plate maker is expanding its business

Trinity Graphic traces its roots to England in 1967, where the current CEO's father, Keith Smithson, founded the pre-press company. As the label industry expanded in the 1980s, business with US-based companies took off to such an extent that at the end of the decade, Trinity Graphic opened a facility in Sarasota, Florida.

Although one critical US customer set business back by investing in its own pre-press equipment, Trinity rolled up its sleeves and got to work, following the advice of famous British politician Sir Winston Churchill, to 'never, never, never, give up'. Today the business has blossomed into a full service pre-press solutions provider, combining plate making with the Trinity Design Group and the Flexographic Technical Services.

#### TECHNOLOGY

'One reason Trinity is successful is because we are constantly investing in the best and newest technologies,' says Robert Smithson, CEO and director of technology. 'This regular investment in both machine technology and software upgrades is an ongoing cost.' All artwork is reviewed and pre-flighted prior to plate production, and EskoArtwork's Backstage and ArtPro software provide the software platform. From simple linework to complex, four-color process work up to 325 line screen, Trinity produces it all.

Trinity has a complete analog plate workflow as well as both digital FAST and digital solvent plate making equipment. The company has a long-standing relationship with Pitman to supply its DuPont Cyrel plate material.

'As a trade shop we have to be ready to meet our clients' requests at any time,' says Mark Barnard, Trinity president and FFPA board member. 'The fact is, there are a certain number of people that aren't ready to make the switch to digital plates. On any given month we are still producing 35 to 40 percent analog plates.'

The most recent addition to the shop floor is a Kodak digital proofing system that allows the manufacturer to output true-to-print samples.

Trinity Graphic's trademark is its photopolymer embossing plates, which give a textured look to packaging materials. Specially developed with Rotometrics, this textured look is ideal for prime label markets like wine and luxury products, but can be used on any packaging to give what Robert Smithson describes as 'jaw dropping' effects. This embossing method also works as a high quality decoration alternative to costly steel cylinders and expensive tooling.

Conversource, a specialist in customized slitting, has become Trinity's partner for the smaller quantities of product needed to support the trade shop's embossing plates. Cold foil supplier Amagic works closely with Trinity and its converter customers to make the best use of combined cold foil decoration effects.

#### THE CUSTOMER EXPERIENCE

Remarkably, Trinity's growth has come without a sales force. The company relies on customer and supplier recommendations, and works closely with press manufacturers to supply the plates used for sample runs.



M&M Label has worked closely with Trinity Graphic for around ten years, since the label converter, mostly a supermarket and deli label producer, decided to move into prime label production. 'Before we broke into process work, we had a unique customer base that would buy (desktop) printers from us with our labels,' explains M&M president Mike McCourt. 'Trinity Graphic helped us break into the prime label market by creating us a sales portfolio to show our process work samples.'

Most of M&M Label's plates for prime label orders are supplied by Trinity. Depending on the complexity of each job, plates are created either digitally or analog. McCourt continues, 'we now complete a substantial amount of high-end work and with the help of the Trinity team have been able to push what flexo is capable of doing. Without them, we wouldn't be able to produce many of the labels that we do. They are thorough and extremely good at what they do.'

LeeAnn Burish is the account representative for M&M Label. 'Because of her knowledge and diligence, and real spirit for wanting us to be successful, LeeAnn has kept us from making costly mistakes,' McCourt says.

Robert Smithson insists that the number one reason Trinity Graphic has been successful is its people. No employee has a voicemail box – when a customer calls, they always speak to a real person. Continuous training on all aspects of print production is also key: 'Our staff understands both pre-press and printing, and because of this we are able to advise customers on critical printing details like anilox roll selection. It's all part of our drive for consistent, high-quality production.'

Another important converter partner is Design Label Manufacturing, which gets all its digital plates from Trinity Graphic. President Jeff Dunphy, a TLMI board member, says this allows his company to concentrate on its core competency: 'I feel that if it's not our main business, then why do it. We began working with Trinity during the industry's transition into digital plate production and have not yet found the need to invest in the capital equipment if Trinity consistently has the newest technology and great service to offer us.'

Converters also benefit from Robert Smithson's partial ownership of the Flexographic Trade Services (FTS) operation in Fort Mills, South Carolina. It is constantly used as an R&D resource and a quality control testing facility. For example, if a



client has complications with its plates, they can easily be sent to the school for testing in a tightly controlled environment.

#### TRINITY DESIGN GROUP

In recent years, the company has developed the Trinity Design Group. Addressing the need for flexo-focused artwork, it serves as a boutique-style agency that is able to cater to all a customer's needs.

The company's grounding in print knowledge has given the design team a strong sense of quality control, as Gary Bibler, president of Trinity Design Group, explains: 'We design artwork that translates seamlessly from prepress, to the plate and onto the press. Our goal is to achieve a strong design that is workable in all forms of media. We want to ensure that artwork functions harmoniously with flexo.'

One successful example of this approach is Equa brand bottled water, a product sourced from the Amazon rainforest that will be launched shortly. The Equa management team's research had shown that consumers like the idea of water from the rainforest. 'They think natural and pure, pristine,' explains Jeff Moats, Equa water president.

To create a design which would 'pop' off the shelf, Equa partnered with a graphic design firm in the UK. But as can often happen, the brand had a difficult time translating the firm's creative graphic designs into visually appealing, printable labels.

Eventually Moats was referred to Trinity's Design Group. 'Bob and his team are extremely creative. They think outside of the box and have helped us through this packaging process, bending over backwards to push us in the direction to best solve our problems.' Both graphic teams are now working together to deliver packaging and labels which convey the Equa message.

'It's all about the presence,' Moats explains. 'Our new brand must be able to rise above the clutter on the shelf.' Equa will be going directly after brands such as Evian and Fiji waters. 'We have chosen a circular design that gives an affinity towards the contents and the source of origin, as well as looking graphically appealing. The packaging must invite a trial, hook to sample, then move the consumer to switch brands. We have confidence that Trinity will help us achieve this goal.'

#### TRINITY DIGITAL

Trinity's most recent step has been into the digital printing market. The new entity, Trinity Digital, is serving both label clients and local Florida businesses with just-in-time sheet fed color printing, shipping print work including short order brochures, cards and point of sale pieces.

Now many of the company's clients are asking it to consider setting up a full service digital label operation. Comments Elizabeth Buchanan, head of sales for Trinity Digital, 'There are very few of Trinity's flexo accounts that have access to this technology. It appears that they are reluctant to pursue this option themselves for various reasons and feel that we would be the perfect source to supply the work.' Smithson says that he is closely evaluating the various technologies.

#### THE INSIDER

A ROUND-UP OF THE LATEST GLOBAL LABEL STORIES



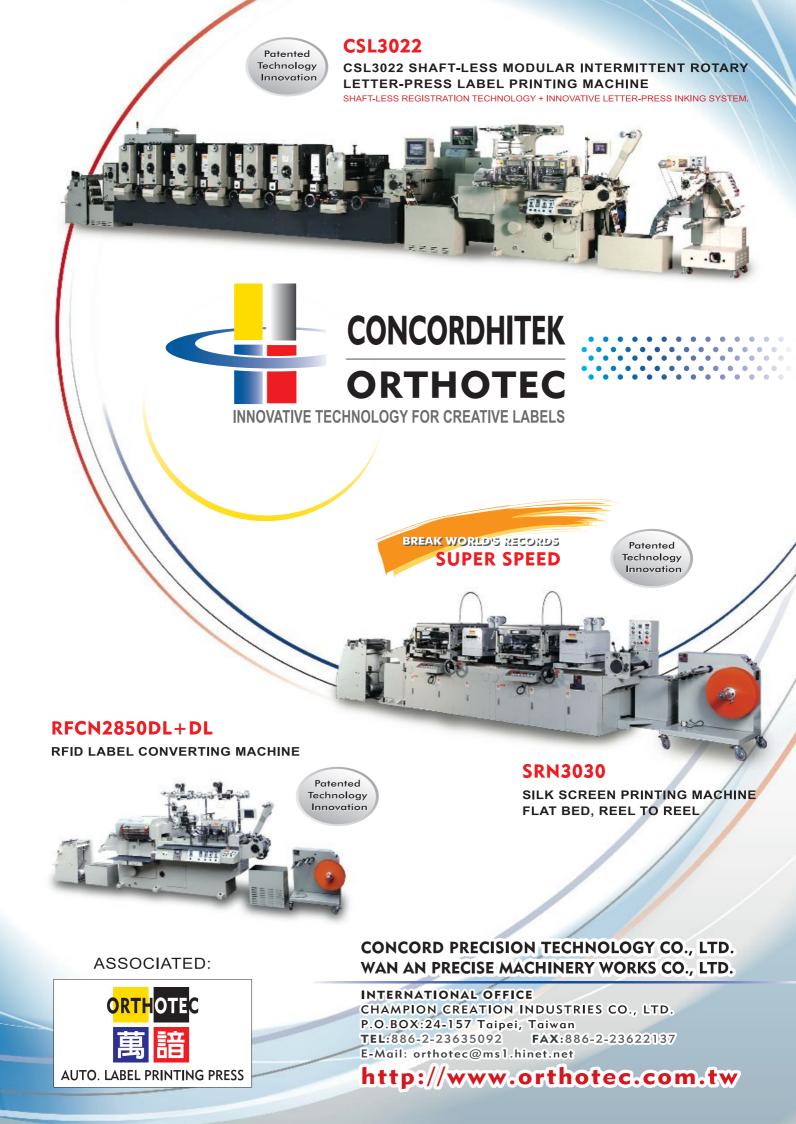
L-R: Ken Davis, director, Hine Labels; Bill Hine, managing director, Hine Labels; Greg Neesham, sales director, Punch Graphix UK

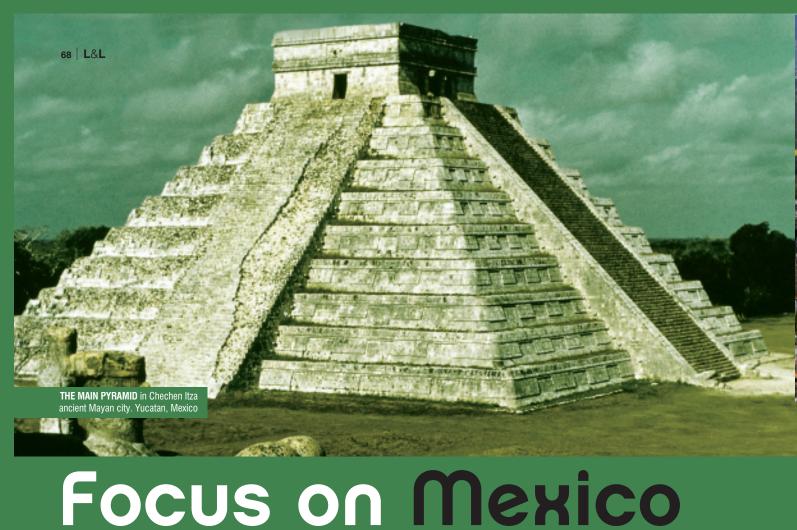
#### UK CONVERTER INSTALLS COUNTRY'S FIRST XEIKON 3000

Hine Labels, of Rotherham, Yorkshire, has announced details of a decision to upgrade its existing Xeikon label press to a new Xeikon 3000 machine. The installation will be the first Xeikon 3000 digital label press in the UK, following its launch last September. Bill Hine, managing director of Hine Labels, said: 'Our original Xeikon 330, installed at the end of 2007, allowed us a good insight into the digital labels market, providing us with the opportunity to talk digital with our existing customers, and to work our way through the whole of the digital production cycle – which is, of course, quite different to our traditional flexographic business. The further enhancements in both image quality and production speed for the Xeikon 3000 meant that it was the next logical step for us. Our business comes from trade customers. They generally don't have a preference with regard to the printing process that we use. What they want is high quality, color consistent labels in the shortest possible production time. We have to face the fact that run lengths are decreasing across many of our markets, and this is what tends to determine which print process we use for a given job.

The Xeikon 3000 produces images at 1200 dots per inch, with four bits per spot, and offers an increased imaging width of 322mm against the 307mm imaging width of the Xeikon 330 machine. All machines are based on a 330mm substrate width. The web-based press has a top speed of 31.5 feet of label production per minute, and a monthly duty cycle of 1,500,000 feet. The 5-color engine provides for the four standard process colors plus a choice of spot color, special security toner for anti-counterfeiting applications, or an opaque white for the 'no label' look on transparent material. The press is capable of handling a range of substrates including self-adhesive films, co-extruded films, unsupported films, paper, transparent and opaque foils, and paperboard. The dry toner electrophotography imaging process enables the use of conventional substrates without the need for coating or pre-treatment.

'Xeikon 3000 also offers an immediate upgrade path when digital volume requirements increase,' added Bill Hine, referring to the ability to enhance the machines capabilities up to those of the Xeikon 3300 label press. 'It has certainly enabled us to open new doors with existing customers. The ability to economically produce shorter runs has a strong appeal in many market sectors, and we have also become involved in a number of test marketing programs – an ideal task for digital production, as we can create any number of label variants within a short space of time.'





#### **GLOBALIZATION** has created the opportunity for Mexican converters to improve their businesses and drive towards increased product quality. Danielle Jerschefske reports

Competition is more intense than ever. Success calls for high productivity, regular investment, consistent quality control and more. All of the fastest growing and most profitable label companies have learned to balance these demands, including many of Mexico's label converters. Through diversification, standardization and alliances, Mexico has a competitive force of label printers, eager to improve, and planning for growth.

Jose Luis Bezaury, CEO of Litoplast, a division of Grupo Colibrí, has been in the industry for over 40 years. He believes globalization has 'forced the industry to deal with the expanding world by commanding businesses to invest in technology and employee training. This, in turn, has helped Mexican companies learn to compete with outside competitors that had greater advantages such as variety, pricing, quality and other manufacturing virtues that the Mexican industry had previously lacked.'

1994 marked a difficult period for the nation when it went into a deep recession for nearly two years. Yet, those pressures provided opportunity to those with a plan, and in 2009 Mexican converters are again rising to the challenge.

#### **DIVERSIFICATION AND INVESTMENT**

According to the 2008 Label Converting in North America market survey published by L&L, shrink sleeve production in the region has increased 5 percent in the last two years. 20 percent of respondents said that they are manufacturing shrink sleeve labels. Homing in on the Mexican market, the percentage of converters producing shrink sleeves appears to be much higher than in the US and Canada. 75 percent of the converters interviewed for this article offer shrink sleeve labels within their product portfolio.

Far ahead of the recent growth spurt in shrink sleeve labels,

Litoplast, traditionally a cut & stack offset printer, moved into shrink production in 2002. Jose Luis Bezaury says, 'I saw the market was moving from cut & stack offset labels towards film flexographic labels and realized that it was time to expand into another technology. So we invested in a fully loaded 20in, 8-color all UV sleeve machine.' Since then, Bezaury has purchased three more presses to build the flexo side of the business to equal sales to the offset.

A supplier to a large food chain in Mexico, Bezaury has seen the benefits of flexo and believes this is the way forward. 'We plan to expand flexo significantly over the next year or two,' he adds.

A young company at three years old, Promographics opened business as an in-house packaging supplier for a local hair cosmetics company. Producing appealing and complex 16 pt cardboard boxes at 2-300 ft/min on a water-based Nilpeter press, managing director, Ricardo Villar saw the value he could bring his customers by offering label production. 'In moving into the label market we now offer a turnkey solution to our customers,' Villar says.

To diversify into label production as a complementary offering, Promographics invested in an FB Nilpeter, all GEW UV flexo press to print film for shrink sleeve labels, and a Karlville seaming machine and cutter. 'Already having Nilpeter flexo technology, it was natural for us to expand with the same brand,' Villar explains. Since this investment, Promographics has grown its shrink sleeve business to be a quarter of total production, while the rest remains in boxes and PS labels and pouches.

Not only has this expansion provided a turnkey solution to its main customer, but has helped increase business outside of the health and personal care industry. 'In the next few years



80 percent of our sales will come from outside the hair cosmetic company,' Villar says.

To gain more market share, Villar's focus is on finding customers that want specialty labels and packaging. 'Each of our current customers has a different application, so we are completing distinct work each time we print a label. This type of work is where we will find our opportunities for growth,' he says. He notes that the pharmaceutical industry is a key growth segment in Mexico.

Alejandro Hernandez, general manager for 20 year old Todo en Etiquetas, competes mostly in the food and beverage market using a variety of Mark Andy and Nilpeter equipment. Traditionally a pressure sensitive house, Etiquetas moved into the shrink sleeve business four years ago.

'We have since grown our shrink label business to a third of our total sales,' Hernandez says. All of its shrink sleeves are produced on a Nilpeter FB 3300. 'We are already near capacity on this press, so in order to expand into new markets, like tequila, we must add another one. And with the addition, we will also invest in another seamer, cutter and rewinder to avoid bottlenecking in our manufacturing process.'

Nueva Latina, a long-standing, predominantly offset printer, has made a significant investment in flexo technology in recent years. Nueva Latina has experienced more and more customers asking for shrink sleeve labels. Juan Antonio Alduncin, chief director, says: 'We have expanded into the shrink market with flexo. The quality of UV flexo has improved substantially in recent years and we can produce shrink at a reasonable cost with this technology. There are lucrative benefits in UV versus offset for this market.'

#### SECURITY AND AUTHENTICITY

Another avenue of diversification that Mexican printers are taking advantage of is in security and authenticity. The battle against counterfeit goods has only intensified in recent years, creating new opportunities for converters around the world to help brand owners distinguish their products from bogus ones in the marketplace.

The flow of counterfeit goods into Mexico is valued at some USD 43 billion, putting it in the black market top ten. Research also shows that around 30 percent of name brand spirits sold in Mexico are diluted with counterfeit liquor.

Guillermo Ramirez Boyer is the managing director at Formflex, a mostly ticket, tag and pouch producer for the pharma, liquor and food industries. Formflex specializes in premium labels, more specifically offering value added security and authentication solutions to its customers. 'Our clients have asked for help with verification of their products,' he says. 'Using a combination of printing processes, like reverse printing for example, with advanced inks and substrates, we provide our customers with a genuine solution.

'In this region of Mexico, counterfeit tequila has become a real problem,' continues Guillermo Ramirez Boyer. 'So for one of our tequila customers we used a UV ink only visible with dark light to print a security logo and corresponding code on their 100 percent Agave tequila labels. This



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serves as an authentication tool to both the brand owner and the store owner. With the added security details, our customer can confirm that the product is what it says. We have also used this advanced technology coupled with foiling to produce game tickets for the local football team.'

#### DIGITAL

The personalization and corresponding coding that digital printing offers works great for anti-counterfeiting purposes, and has proven to be of significant value to label printers around the world. Getting its start in pharmaceutical labels in 1994, Flexoprint has used digital technology to supply value added packaging to its clients for the last four years.

One of Mexico's largest label converters, Flexoprint offers an array of printing technologies including flexo, offset, screen and digital printing. Pharmaceutical labels make up around 30 percent of the converter's business with a portion of these produced on an HP Indigo ws4500 digital machine or else in combination with it. 'We saw what digital technology could do for us as a supplier to pharmaceutical companies and felt that it was necessary to add it to our portfolio,' Fernando Aranguren, Flexoprint's founder, explains. 'The ability to print related sequential data and codes had been priceless.'

All of Flexoprint's pharmaceutical labels are inspected 100 percent throughout the printing process, both during and after production, using Eye-C or AVT video proofing equipment and software. 'Not only must we be able to assure authenticity, our customers expect a perfect label,' Aranguren continues. 'Digital technology has given us the ability to offer clients a full combination of technologies to execute these demands.'

Another large converter, Impresos Uyeda began producing milk labels for its parent company Lechera Sello Rojo twelve years ago. Uyeda has since moved into prime label production with twenty percent of its sales from L'Oreal. Now, it is looking to expand in new markets. Digital technology will catalyze this expansion: 'You can expect to see that we have invested in digital printing equipment by the end of the year,' general director Ruben Masayi Gonzalez says. Masayi believes digital technology is the key to penetrating the pharmaceutical market and wants to explore the opportunities personalization holds.

Besides digital printing, a number of Mexican printers have invested in digital software and workflow solutions to improve their manufacturing speeds and streamline workflow. Etiquetas Electronicas recently completed the switch from its old MIS system to a topnotch SAP system. Owner José Casillas Sanchez comments, 'We invested in SAP software last year because it is the best. We wanted to modernize our workflow, improve communication with customers, and improve data organization so we have figures at our fingertips. We must be modern in order to succeed in a globalized world.'

While Mexican converters have invested a lot of money into press machinery, most have not taken the step into digital plate manufacturing. One of the key decisions both Uyeda and Electronicas have made, for the time being, was not to invest in CTP plate production equipment. While both currently have analog production capabilities, it out-sources any work that requires CTP.

'We would rather invest more money into printing equipment,' Luis Javier Briseño Gonzalez of Uyeda says. 'And the service and support by the major suppliers is not sufficient yet in Mexico. Service is difficult here.' Depending on the complication of the label, or if it will be a long-term, high-volume order, Uyeda chooses CTP. About 60 percent of its plates are digital.

One converter that has made the investment in digital plate technology is Flexoprint. It produces all of its offset plates digitally and most flexo plates with a brand new DuPont Cyrel Fast.

### **CERTIFICATION AND STANDARDIZATION**

#### GLOBAL

The call for global manufacturing standards has given a big boost to the quality of labels that Mexican converters produce. Certifications were necessary in order for Uyeda to earn its contract with L'Oreal. It is both SA 8000, an important benchmark specifically requested by the brand, and ISO 9000 certified.

Briseno explains that certifications have made the converter more competitive. 'Earning these certifications has pushed us to chase more of the multinational companies,' he says. 'It has forced us to automate processes and invest in new technologies. These investments are important and costly which is why we search out customers that value our certifications.'

External graphic arts consultant, Mario Flores of Flexuministros, has provided his services to Promographics from its beginning. Helping the business to focus on its quality systems, Flores says: 'By the end of the year, Promographics will be ISO 9000 certified. Its customers value this benchmark and use it as a tool of measurement between suppliers. It will be critical to the company's expansion plans for the coming years.'

Promographics' Villar adds, 'We keep our printing shop as clean as customers keep their laboratories. 'The plant is considered our 'printing laboratory'. It's what our customers want to see.'







ABOVE TOP: Ricardo Villar of Promographics and Mario Flores from Flexouministros ABOVE MIDDLE: Fernando Aranguren at Flexoprint ABOVE BOTTOM: Alejandro Hernandez at Todo en Etiguetas

### FEDERAL

Etiquetas Electronicas is ISO 9000 certified and is continually working to achieve more certifications or find other ways to improve quality. In 2008 the converter earned the PROFEPA certification – Procuraduria Federal de Protection al Ambiente – a federally backed certificate given to Mexican manufacturing companies that meet a benchmark for clean processes.

### SA 8000 CERTIFICATION

Enforced by Social Accountability International, the SA 8000 standard sets a global benchmark for working conditions that awards certificates of compliance through a third-party auditing service. The countries with the most certifications to SA8000 include Brazil, India, China and Italy.

For two years prior to this accomplishment, Etiquetas Electronicas gathered and documented detailed information on its manufacturing methods, focusing on air, water and toxic waste issues. Etiquetas Electronicas is required to compile and submit updated reports each quarter while the PROFEPA is valid. After three years, the company will need to re-apply.

'This certification process has pushed us to have even more order and to be more efficient in our manufacturing,' explains the owner Casillas Sanchez. 'We invested in this process improvement, firstly because our customers began to request information, and secondly, we saw there would be financial benefits to our bottom line. We have reduced our waste and commit fewer mistakes.'

Sanchez says that employees have been eager to participate because they like to be a part of it. 'It gives them ownership,' he says. 'And a sense of working together.'

#### **ALLIANCES**

The switch from local buyers to a single appointed international buyer has driven the increase of acquisitions and strategic partnerships within the label and packaging industry. To bolster its competitiveness in the midst of this evolution, Flexoprint established an alliance with Brazil-based Baumgarten Group and the Swiss converter Banfix, part of the tesa group, in 2002. Together the converters share production for the Nivea brand across three continents. 'We formed this alliance in an attempt to follow the structure of these multinational companies,' Flexoprint's Fernando Aranguren says.

'One approval is easier for our customers.' In their attempt to standardize their labels worldwide, CPGs will look for other alternatives if they cannot find consistency.

With the Nivea brand, the three alliance partners exchange color targets and other technical information to ensure that packaging is identical no matter where it is sourced from.

'We have become a better supplier through learning how to service these big global CPGs,' Aranguren explains. 'It has helped us to focus on efficiency and to shorten response times with less lead-time. In the brand owner's transition from local to global we have learned to be more flexible and provide better service than our local competition.'

Aranguren comments on the choice of an alliance strategy: 'An acquisition can be a headache and no one wanted to spend the money on a greenfield site, so the only choice left was to put our services together. We have a similar technical base and share business values on important issues like technology investment and employee training. For Flexoprint, the alliance was a turning point because the experience and infrastructure that the experience has brought to our company is invaluable.'

In a less formal partnership, Impresos Uyeda has a joint venture agreement with Labelhouse, which is capable of producing shrink sleeve labels. Because Uyedas plans to explore the possibilities of digital printing first, it will not be investing in shrink sleeve equipment. Masayi at Uyeda says, 'To service our customers in this area of product decoration, we've chosen to work with Labelhouse; they have the technology. And once we invest in digital printing, we will be able to share that technology with them.'

#### **OBSTACLES**

Mexican converters highlighted support from suppliers as the most difficult obstacle to success; most view globalization as an opportunity to overcome this challenge. Villar from young Promographics says, 'Globalization is an opportunity to have access to new materials suppliers that offer a fresh selection. And in this way we are able to move past the big suppliers that don't provide enough support.'

Raw material costs were noted as the next most frequent barrier to growth.



JOSE CASILLAS SANCHEZ of Etiquetas Electronics with Federal Green certificate

Hernandez from Todo en Etiquetas believes that, 'globalization is good because not only does competition make our company better, as we grow and continue to consume more supplies, we are able to get a better price. And this allows us to compete even better.'

Price pressures were listed as the next biggest problem in the market. Yet Nueva Latina says the dynamics have changed some recently. Comments Juan Antonio Alducin, 'Brand owners are no longer buying less expensive labels from Asia and Latin America. We have seen them begin to look within the country because of the recession.'

In the last year, TLMI's past president John Hickey of Smyth Companies, and current president Frank Grace of Multi-Color Corporation, have both said that the number one way for North American converters to diversify is to look outside the region. And, while this may be true, one closer step could be a partnership with an eager and competitive converter to the South across the Rio Grande. A relationship, at the very least, would be helpful.

In fact, to foster this notion, the TLMI has introduced a new Global Committee that will guide the association across borders to strengthen the bridge between the smaller markets within the North and South American regions. Committee Chair, John Wurzburger, says, 'The association's converter and supplier members will benefit from forming relationships with their progressive Latin American counterparts. Borders are shrinking and globalization continues to be a central issue.' 'In the struggle for survival, the fittest win out at the expense of their rivals because they succeed in adapting themselves best to their environment."

Charles Darwin

## World Label Printing Awards Excellence in Printing - 2009

### Coming Soon... a prestigious new annual awards publication

Every year each national association in the label industry runs its own awards ceremony. The winners of these awards are then entered into the World Label Awards. There are 27 categories and the winners are selected once a year by the World Label Awards committee.

In June 2009, for the first time, the 27 World Label Award winners will be announced in a dedicated official publication produced by Labels and Labeling in partnership with the World Label Association. This magazine will show the very best labels in the world, which will be a valuable resource for brand owners and leading label printers.

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## A vision for 2020

**DURING A RECENT BOARD EVENT** in London, a series of FINAT experts were brought together to discuss their vision for the self-adhesive label industry over the next decade. Andy Thomas reports

FINAT recently invited twenty key members, along with some special guests, to give their personal opinions on the future of the self-adhesive label industry. The Visions 2020 panel interviews covered market and management challenges, then technological and materials innovations and standards as well as issues related to corporate social responsibility.

The first panel brought together Roger Pellow (Tarsus), Bibiana Rodriguez (Rotatek, FINAT YMC), Jan Frederik Vink (Kolibri Labels, FINAT president) and Frank Neumann (Logo Etiketten, marketing committee). Later during the sessions, the conclusions of this panel were validated by another board member, Frédéric Leyval of JPL Etiquette. The panel recognized that the self-adhesive industry almost doubled its market in Europe over the past decade – an achievement that will be hard to repeat in today's mature markets.

### **GLOBALIZATION OR RELOCALIZATION?**

For future growth it will be crucial, however, to expand activities towards new, emerging markets, both geographically and by segment. That does not necessarily mean that the companies themselves should move their production or expand by acquisition; entering into partnerships or sourcing part of the production via other countries are also interesting options. FINAT should contribute to this development by offering a platform to members to find international partners.

There are still opportunities to be explored in Europe, but customers are globalizing and may relocate and take their business and supplier base elsewhere. This threat can be turned into an opportunity by embracing markets like India and China, which in turn are looking to the mature markets for knowledge, standards, education and capital.

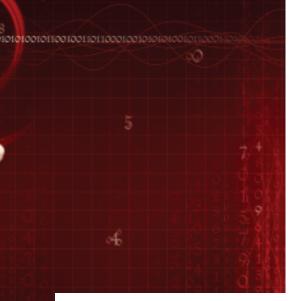
Alongside this globalization of brands, there is a counter-trend called 'small & local'. To stand out in the enormous offer of big brands, smaller local producers more often tend to invest in exclusive, high-quality labels. This is a great opportunity for the smaller companies in the self-adhesive label industry: building up a solid position in local or market niches can be an effective alternative to globalization.

#### UPGRADING MANAGERIAL AND OPERATIONAL SKILLS

The main bottleneck for this industry in the future will be finding qualified people to operate increasingly complex machinery. In the managerial field we need better skilled people as well. In the past, the manager used to be production focused and needed good planning skills. Still today, the profile of many label companies is determined by their manufacturing capabilities. Our industry is however gradually evolving from a label manufacturing into a labeling solutions industry, and this requires managers with a clear understanding of their own value proposition and the service offered to customers. For the smaller, family owned businesses this transformation could be a serious challenge.

#### DREAM AND NIGHTMARE SCENARIOS

The second panel had Paul Jarvis (4impression), Riki Tzirin (HP Indigo, marketing committee), Kurt Walker (tesa Bandfix, board) and Jakob Landberg (Nilpeter, board and chairman marketing committee) around the table. Asked about their worst nightmare for the coming decade, the panel was united in its concerns about the disappearance of true entrepreneurship as a result of on-going price pressures. On the one hand, the market is asking



the label printer to turn into a consultant and service provider, whilst on the other hand profitability in certain segments is being squeezed to barely sustainable levels. This calls for real innovation and entrepreneurship in our industry.

### PERSONALITY WILL REMAIN A KEY ASSET

Entrepreneurship has always been associated with strong personality and pioneers, and contrary to other segments in the packaging and printing industry, the self-adhesive labels industry has managed to maintain its personal character and proximity to the customer. This and the complexity of the product have been a key factor in escaping the 'commoditization' effect of reverse internet auctions. To maintain this strength, the panel argued that converters must remain proactive and feed the client with information on new solutions which help them to gain competitive edge.

### WILL THERE BE ROOM FOR LABELS IN A VIRTUAL WORLD?

Although people live and work more and more in a virtual world, tangible products like food, medicine, paint or chemicals, will always need labels - for information about the content, for safety or for marketing purposes. Without the label, the package and therefore the product becomes unmarketable. So the demand for labels will still be there in 2020. Half of the market does not use self-adhesive labels yet, an enormous opportunity for the industry. 'We just need to reach out for the higher hanging fruit that is definitely there, even here in Europe. To get there, we may need to enter into partnerships or joint ventures,' remarked the panel.

#### WHERE THEN CAN WE ADD VALUE?

The third and final panel of the first day featured Noel Mitchell (UPM Raflatac, marketing committee), Niklas Olsson (Flint Ink, marketing committee) and David Harrisson (Skanem, board). This panel was faced with the question how to Andrea Vimercati, Arjan Vette and Andrew Jack were among key FINAT panelists



enlarge the self-adhesive industry's share of the labeling solutions pie.

### RFID LABELS – WILL CLIENTS PAY MORE?

There are many applications of RFID labels enabling manufacturers and retailers to track products around the globe and the reliability of RFID labels is already at an extremely high level. What neither retailers nor the brand-owners are prepared to pay for as yet is the use of RFID labels as item level tags on individual products on supermarket shelves, and invest in the corresponding systems. Once reliability is further up and costs come further down, we will see further expansion of RFID applications at item level. For the time being, however, we can still come a long way with matrixbarcodes.

## NEW TECHNOLOGIES AND NEW MARKETS

The second day addressed the technical challenges facing the self-adhesive label industry. The first panel of the day, bringing together Andrew Jack (Dow Corning, technical committee), Federico d'Annunzio (Gidue, board), Andrea Vimercati (Pilot Italia, board) and Arjan Vette (Avery Dennison, technical committee), was challenged with the question which technologies the technical committee will be talking about in 2020.

### MEETING THE LATENT DEMANDS OF CUSTOMERS

Flexo is still the dominating printing method for self-adhesive labels, but offset and digital printing will grow sharply in the future due to global standardization of pre-press and reduced operating costs. Look at the beverage industry, an area where self adhesive labels used to be considered as too expensive, but have been penetrating successfully as high-end alternative at competitive conditions.

The industry's ambition should remain to meet marketing and environmental demands even before the customer has expressed these demands. For the next ten years, the panel expected a lot from new technologies like cold foil, UV acrylic and engineered film. Linerless labels are an interesting development, although their market possibilities as yet seem limited.

### SUSTAINABILITY TO BECOME A DRIVER FOR R&D

Discussing the 'hot' topic of sustainability, the panel shared the conviction that we will continue to move towards cleaner production methods, and produce labels using the least polluting materials. Producing 'cradle to cradle' will be difficult for us to achieve in the short run, but saving energy, using solvent-free materials and doing research on recyclable liners are goals within our reach. And if the market, forced by legislation and public opinion, starts selecting its suppliers on grounds of sustainability, it will become a pure business opportunity to invest in research for sustainable products.

### FINAT: SOURCE OF COLLECTIVE INTELLIGENCE

Repeating the previous panel, this panel stressed the role of FINAT as the platform where all links of the value chain can be connected to share knowledge and information, thus creating collective intelligence, encouraging collaboration and passing on knowledge and skills.

### WHAT SELF-ADHESIVE CAN BE CAPABLE OF

The second technology panel consisted of Hakan Saxén (UPM Raflatac, technical committee), Thomas Hagmaier (Hagmaier Etiketten, board), Jaume Puigbò (Sinel Systems, board) and Sean

### SEE THE VIDEOS

The interviews were recorded on video and an extensive summary as well as extracts of the video recordings are available for on-line viewing from the FINAT website under the heading 'Visions 2020' (see www.FINAT.com). Duffy (Bluestar Silicones). It was faced with the question where we will see self-adhesive labels where we do not see them now, and what needs to be done to convert ideas to reality. Once again, the beverage industry was given as an example of how self-adhesive labels successfully occupied new territory. But even in that area, the majority proportion of the market is not yet using self adhesive labels. No doubt, further innovations in terms of thinner materials and application technologies will help self-adhesive labels in making further advances in this area towards 2020.

### LABELS GETTING SMARTER

In spite of growing competition from sleeves, wraparounds and in mould, there is still a large potential for self-adhesive labels, provided the industry remains innovative and cost efficient. Labels will only get smarter, like in the case of RFID labels. Although these still have some time to go before they can replace the bar code label in the supermarket, there is no doubt that their evolution will follow the example of bar code labels when they were first brought to market in the 1980s. The corresponding systems, standards and readers were improved step by step to what they are today.

### JOINT R&D ON RECYCLING

But smart is not just RFID, and the possibilities are virtually endless - it is just a matter of bringing together the right resources and expertise in a consistent manner. This especially concerns joint R&D on recycling. In a world where sustainability is becoming more and more important, a substantial proportion of the liner materials used by final customers disappears from as waste. Although already existing alternatives for recycling could be used more effectively, the possibilities for liner recycling should be widened substantially over the next decade. According to sustainable best practices, research on recycling possibilities should start at the product design stage, not after the product has fulfilled its purpose. This, according to the panel, should be the number 1 topic on the industry's R&D agenda. These kinds of developments can never be carried out individually, and collaborative innovation can speed things up and improve the outcome. FINAT should play an important role in bringing parties together and making sure every party 'speaks the same language'.

### FINAT CREATES ONLINE PORTAL

A new development to keep self-adhesive label printers and their supply chains up-to-date with the latest information on technological developments, training and education, R&D, standards and regulatory affairs has been launched on the internet by industry association FINAT. The FINAT Knowledge Hub is a unique portal that will also provide access to a comprehensive range of courses and seminars relevant to the sector. It will serve as the distribution point for accurate and reliable information and opinions to be shared between member companies of FINAT.

Jules Lejeune, managing director of FINAT, said: 'This is a very important development for our members and is intended to help keep them ahead of a very competitive business in these recession-hit times. It is yet another new benefit for members we have added to our long list.

'As the self-adhesive label market continues to develop, new technologies, materials and external influences are bringing about a diversity of exciting new innovations and formats. It is very difficult for individual printers to keep track of these, as they happen, but the Knowledge Hub will be their one-stop shop to all this information.' The Knowledge Hub will be accessible via a secure members' login at www.finateducation.com or through a link on the FINAT's main site home page at www.finat.com.

It will also contain educational modules prepared for FINAT by 4impression Training to help in staff and customer familiarization. Other features of the Knowledge Hub will be a searchable document archive and a glossary of terms along with a bookshop of FINAT publications. The Knowledge Hub will be administered by Robert Shimmin, of 4impression, and members are invited to post their contributions to Robert Shimmin at 4impression@tiscali.co.uk.

### 'STILL SOME BRIGHT SPOTS IN LABELING TRENDS' SAYS REPORT

There are small signs that growth is remaining in some parts of Europe's self-adhesive label industry – principally Central, South and Eastern Europe – but it is much reduced from the heady years of 2006 and 2007, according to a new report.

Corey Reardon, president and chief executive officer of Amsterdam-based AWA Alexander Watson Associates, who is conducting an in-depth study into buying patterns among end-users in the industry for FINAT, said: 'There is a lot of doom and gloom but within that there are some bright sports which tend to offset the overall trend of the market for softening.'

His company is compiling the results of FINAT's fourth End-User Survey, to be published in late Spring, which contains feedback from around 200 brand owners across a range of industries. All agree that there was a markedly dramatic softening of the label market in the fourth quarter of 2008 as many users drew on stocks in hand – a trend that has continued in the first quarter of 2009. In 2008 European growth was between two to three percent – around 5.6 billion square meters – which compares to a 4.3 percent increase in 2007 to 5.5 billion square meters. The slowdown in the fourth quarter put the brake on early 2008 expansion.

The greatest regression has been in Western Europe, with the UK and Scandinavia seeing particular contractions in volumes, which prompts Reardon to forecast a static market in this region in 2009. Eastern Europe is seen as the main driver in 2009, having seen growth of eight to ten percent seen in 2008 – but in some areas of that market only up by five percent. Reardon tips Central and Southern Europe to see a zero to two percent growth over the coming year. Reardon said: 'In terms of market segments, beer in the beverage area is the driver for growth and for film labels overall with their use in premium beers. It is rumored that a major European brewery is changing to non-returnable glass bottles which would facilitate the use of self-adhesive labels by reducing the need for label removal. Anther plus is the investment by breweries in new modular labelers that overcome the previous barriers to entry for self-adhesive labels.'

More opportunities are seen for self-adhesive labels on mineral water bottles while in wine bottling self-adhesives continue to take over from wet glue labels. In food, commented Reardon, there are 'a number of possibilities' with self-adhesives used on shrink wrap products and flexible packaging driving some demand. 'The idea of reducing costs on chilled meals by replacing the card sleeve with a self-adhesive label in the lidding is an opportunity. Household chemicals remain 'a battleground' and health and beauty care will be a key sector as brand owners are taking no risks in changing from high quality labeling which enables self-adhesive to dominate. The specialist pharmaceutical market will see 'steady' growth of three per cent - 'one of the highest growth areas today', Reardon said. The auto industry presents an interesting situation where the numbers of vehicles built is declining but the use of labels on each vehicle is increasing. FINAT's End User Survey will be published ahead of its annual conference, being held at the Gloria Golf Resort, Antalya, Turkey between June 10 and 12.



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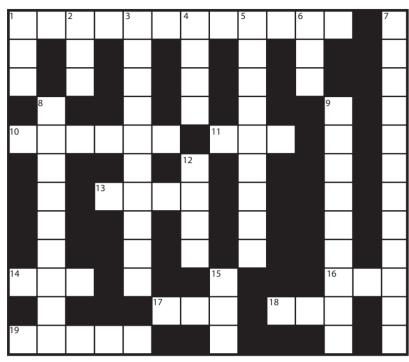
# If you can't complete this crossword...

### DOWN

- 1 The individual element in the halftone printing process (3).
- 2 The contact point between two driven rollers (3).
- **3** The image transferred from the printing plate or cylinder to the label substrate (10).
- 4 Occurs when the adhesive squeezes out from under the backing in a pressure-sensitive laminate (4).
- 5 The process of raising a design or image above the label surface using a set of matched male and female dies (9).
- 6 Estimated time of arrival (3).
- 7 A set of characters or bars in a bar code which represents both alphabetic and numeric characters as well as symbols (12).
- 8 The areas of a printed image which are nearest to white (9).
- 9 Metal roller or drum that is cooled internally with water (5 and 4).
- 12 Abbreviation commonly used for capital letters (4).
- **15** Label placed inside the mold before a plastic bottle is blown (3).

### ACROSS

- 1 A photoelectric instrument that measures reflected or transmitted light on colors or printed products (12).
- **10** A term used to describe various printing defects, such as spots or imperfections in the printing (6).
- 11 International Organisation for Standards (3).



- **13** The administration in the US Department of Labor that ensures a safe and healthy workplace (4).
- 14 The acronym or abbreviation used for primary colors of light (3).
- 16 A method of reading (scanning) printed text copy with software capable of

recognizing and converting the scanned images into an electronic equivalent (3).

- 17 Original equipment manufacturer (3).
- 18 Thickness measurement of thin materials used in some countries (3).
- 19 Material to be printed or converted. Also referred to as the substrate (5)

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## Converting challenges into opportunities

**DANIELLE JERSCHEFSKE** reports on one of the most critical meetings in the TLMI's history, as its members battle to find growth strategies during a global downturn

This year's annual TLMI Converter Meeting was possibly one of the most critical in its 75 year history. In the wake of global economic turmoil, the association's label converters were eager to listen to keynote speakers, interact with a digital panel session and analyze the latest TLMI Ratio Study, in hope of finding ways to ride out this wave.

As identified by numerous domestic leaders, for North American label converters a main opportunity for growth and expansion is overseas business. Therefore the first day began with a lively presentation by Tom Faranda about conducting business overseas, offering a specific focus on China and India. The first question every converter should be asking themselves is, 'Should I be there?' While both India and China are achieving 8-10 percent GDP growth, even now during this global downturn, there are lessons to be learned before setting sail.

Faranda encouraged TLMI converter members to take a hard look at each country's culture before making a decision. 'In India, most of the people can speak English,' Faranda says, 'They have thousands of math, science and engineering graduates and half of the population is under 30 and technically savvy. But, what is not often seen is the lack of skilled trade workers, plumbers, electricians and so forth.'

As for China, Faranda explained the importance of the middle class (also critical in India). However, different from India, he anticipates seeing a revolution by the Chinese middle class, followed by a meltdown and subsequent build up, all beginning between 2012–2015. His predictions, based on personal experiences, he stressed, were not meant to discourage, but simply to inform.

In the rest of his presentation, Faranda talked about other ways that he sees the dynamics of the world changing. For instance, he calls countries such as Turkey, Egypt, Thailand and Vietnam 'New China'. For 'New India' he refers to Brazil and Hungary. Other predictions and anticipations included a merger between Canada and the US, and Texas ceding from the Union.

So, while all of Faranda's predictions may not come true, he encouraged the



SUZANNE and Bob Zaccone



STEVE Smith, Phil Angevine and Craig Timony



DAVE & Elaine McDowell, Kim and Ken Kidd



audience to take heed to his experiences to better analyze how their company fits in this changing world. The meeting's second keynote speaker Clint Swindall focused on leadership. Swindall encouraged each person in the room to celebrate the small successes: 'build a culture of celebration.' he savs.

And while most have heard such a suggestion before, at a time like this, the leaders, especially, need to be reminded. 'A leader has responsibility. In the first fifteen minutes of the day, you set the pace for what lies ahead. Remember, when you set the pace for the day that your people are watching you.

'There is a difference between a manager and a leader,' Swindall said. 'When it comes to change, there are definite things employees do - ignore, fight, react, anticipate. A leader creates. To lead you need to take advantage of information and create opportunity.'

The final keynote speaker, Barbara Sanfilippo, addressed sales and service culture, offering a detailed plan for getting a sales team motivated and ready to achieve its goals, both as a team and as individual contributors.

A digital technology panel, put together by TLMI's technical committee, brought three current customers of HP 4500 series digital printers. Joel Carmany of Consolidated Labels said that, at first, he used the DeGrava 'tabletop' digital printer as a platform to break into digital. He sees quick response time and flexibility as the benefits of digital, and currently does not have a sales force specifically for it; all digital labels are sold strictly over the internet.

Steve Smith, of all-digital label house Lightning Labels, among many other tips stressed the importance for converters to get the customer to provide artwork correctly, first time. Alex Elezaj from Whitlam Label says that the press has allowed his company to keep a lot of its customers. Meaning, those customers that would have gone elsewhere for short run orders, can now have all their needs addressed, both short- and long-run, at the same place.



VENTON & Frances Thengvall, Kathleen & Peter Alaimo



**DAVID** Kight and Ken Hubel

### TLMI FORMS GLOBAL COMMITTEE

TLMI is in the process of creating a new committee that will focus on globalization, with a special emphasis on expanding the association's presence in Mexico, Central and South America. The new TLMI Global Committee will be chaired by Avery Dennison Fasson Roll NA's vice president and general manager, John Wurzburger, and committee members will all have in-depth experience throughout the Latin American marketplace.

TLMI's goal in the formation of the Global Committee is to bring together a key group of converter and supplier members to report back to TLMI on those globalization issues impacting TLMI members in the current marketplace, and to recruit new TLMI members across Latin America.





CRAIG Moreland, Colleen and Gary Cooper, Alex Elizaj



TOM Spina, Donell and Mike Buystedt

As global economies like the United States and the European Union continue to struggle with GDP growth amongst uncertainty; emerging markets still push forward as their economies develop and middle class-consuming populations expand. The TLMI Global Committee will provide a bridge between the North American label converting industry and emerging markets south of the border.

Committee chair John Wurzburger commented: 'There's a real opportunity for TLMI in moving into these key markets. The association's converter and supplier members will benefit from forming relationships with their progressive Latin American counterparts and by joining TLMI, Latin American companies will be able to deliver real value to their own companies.





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## All change on the data front

**BARRY HUNT** examines item-level RFID tags and developments in printed electronics for logistics labeling

Logistics labeling is a fancy way to describe the many types of labels, swing tickets and tags that include some type of variable information printing. This can include scannable barcodes, variable text, sequential numbering and batch codes, usually printed by digital laser, inkjet or thermal transfer as part of in-line or off-line production processes. Many end-users, but some trade printers too, print standard-sized logistics labels on stand-alone thermal or laser printer/encoders to suit on-demand needs. But beyond these well-proven production methods lies an alternative world of complimentary technologies.

Barcoding, in particular, is undergoing several important changes. Notable among them is the GS1 DataBar code. (GS1 is a global standards-setting organization based in Brussels.) Formerly called the Reduced Space Symbology (RSS) code, it is expected to become widely adopted internationally by brand owners and packaging designers. Compared with traditional EAN and UPC barcodes, DataBar codes contain more data and can be printed in much smaller sizes for items ranging from fruit o pharmaceutical products.

Two-dimensional codes are also still going strong. Each 2-D code can store far more characters than linear barcodes in a smaller space, but require optically-based scanners for reading and decoding. Commonly used 2-D codes for logistical labeling include PDF417, a stacked linear symbol; and the Data Matrix code comprising cells arranged in a square or rectangular pattern. GS1 is currently developing Data Matrix encoding standards specifically for the pharmaceutical and healthcare industries. Other 2-D developments include the use of portable technologies to extend barcode capabilities, including data storage/retrieval, track and trace applications, or point-of-sale applications. These emerging technologies owe much to the Quick Response (QR) encrypted matrix barcode developed in Japan by Denso Wave in 1994. Today, many Japanese people use the camera in their mobile (cell) phones to scan QR codes for hyperlinks with websites. With suitable marketing support, extensions of this practice could eventually take off outside Japan, although not necessarily with QR codes alone.

For many, RFID technology (see boxout) is a logical progression to take logistics labeling to an even higher level. RFID tags are commonly used to automatically identify larger items, such as pallets and cartons, beyond the line of sight of the reader. Besides providing a valuable real-time record of inventories, pallet scans allow retailers to quickly check goods received at distribution centers or stores. Applied to cases or cartons, a basic single-use tag allows users to visibly trace product movements. For example, in retail clothing chain applications, they can validate tagged garments or boxes at high speeds and label them for shipping to the destination store with a minimum need for warehousing. RFID tags also ensure that returnable transit items (RTIs), such as plastic crates for fresh foods, remain visible within the supply chain as aid towards better asset management.

Item-level tagging will supply further impetus for RFID technology. Its potential includes closed-loop applications involving promotional tracking, in-store inventory management, and brand authentication. Retail-specific software packages from companies like Microsoft, Intel, IBM and Oracle are already available. Current developments have evolved by combining the latest UHF tags with the Gen 2 protocol. Designs based on single-loop antenna, or integrated circuits, have allowed inlay manufacturers to produce powerful, but relatively small tags. Some allow near-field operation based on a magnetic coupling, as well as far-field read/write sensitivities over a range of 12 feet or so (3.5m) using magnetic/electric couplings. The latest near-field Gen 2 UHF tags are claimed to give highly accurate data transference, while overcoming previous problems with radio frequency interference when tagging either liquid-based or metallic products. These benefits are already widening pharmaceutical and healthcare item-level applications.

Despite the hype, HF tags will still remain in wide use for a variety of applications. In fact, this area is undergoing its own metamorphosis in respect of unit costs and technical developments, including the possibility of inlays based on printed electronics. As far as label converters are concerned, both UHF and HF tags come in two forms. The adhesive-free 'dry inlays' are supplied in a continuous web, while adhesive-backed 'wet inlays' have conventional release liners to facilitate die cutting. The latter are inserted into pre-printed pressure-sensitive labelstock and delaminated in-line on the same machine. Because reading and verifying finished tagged labels takes longer than the printing operation, it is usual to print the label first and insert the inlays separately as a roll-fed, off-line operation. With swing ticket production, wet tags allow the tag to adhere to one of the two webs of paper/ board which pass through the press. During the past five years many types of narrow web inlay inserters have appeared, equipped with sophisticated devices to read, verify and reject faulty tags before delivery.

#### **PRICING TRENDS**

While price is not the only issue for implementing RFID systems, many potential users have an acute interest in lower-priced tags to facilitate item-level tagging. Earlier this year the Chinese manufacturer Invengo Technology stirred things up by reducing the price of its Gen 2 passive UHF inlays from 7.7 cents to 5.8 cents, although buyers must order a minimum of five million units. Invengo is also opening a manufacturing operation in Virginia to serve the North American market.

Interestingly, Avery Dennison RFID introduced Gen 2 inlays for 7.9 cents in late 2005 and prompted a pricing war at the time. One of its latest products is the AD-805 tag inlay. Maggie Bidlingmaier, global director of sales and marketing, says the postage stamp-sized product is ideal for tagging small items within the retail and healthcare environments. This includes plastic or cardboard blister packs, which are not always oriented uniformly. The new tag provides an incredible read range in difficult-use cases with an edge-on orientation. A wide variety of industries are showing an interest in it.' Toronto-based GAO RFID offers a similar edge-on UHF tags for retail applications, this time based on Avery Dennison's 96-bit inlay. End-users can use it with their desktop printers to add linear barcodes and sequential numbering.

### "The unknown issue is whether the latest techniques for printed electronics pose a challenge to conventional inlay manufacturing methods"

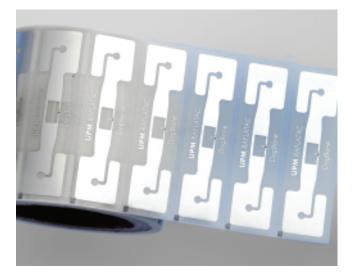
Unit costs may be important, but the key driver for RFID adoption is return on investment, says Samuli Str mberg, vice-president marketing RFID at UPM Raflatac: 'Through climbing the learning curve the industry has learnt one key thing: identifying and communicating the possibilities of ROI. Talking solely of costs rarely helps with that. The recent success we have experienced in all retail-related projects, including the huge pull for item-level tagging, relates to identifying the ROI and forgetting the stories that costs should be lower than they currently are.' He also feels that it is highly unlikely that the markets for the various types of passive UHF, HF and NFC tags will mix: 'The applications are mostly separate at the moment. Also, if the technology is used in



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payment applications [as with road or bridge tolls] there are good reasons to limit the read range and maximize the tag's security.'

A lack of adequate ROI data was the third-highest ranked reason for non-deployment according to a survey of 185 retail organizations conducted by New York-based ABI Research in mid-2008. 'In times of economic slowdown, a quick positive return on investment is especially important to potential RFID users,' said practice director Michael Liard. 'We asked respondents about their hopes and expectations for ROI on

"Unit prices have certainly dropped dramatically from dollars to a few cents each, but rock-bottom prices are not everything, neither are long-term agreements. People remain cautious"

their RFID investments. While a substantial majority saw 12-24 months as a reasonable expectation, more than one third anticipated a return within the first year.'

Victor Vega, marketing director of California-based Alien Technology, remembers when RFID chips cost \$12 each in the mid-1990s when the company was founded: 'Unit prices have certainly dropped dramatically from dollars to a few cents each, but rock-bottom prices are not everything, neither are long-term agreements. People remain cautious. Some

### SOME RFID BASICS

Radio frequency ID tags use inlays comprising an integrated circuit, or silicon chip, and an antenna. They allow encoded data to be remotely received and transmitted to a hand-held or fixed-mount reader (or scanner), importantly beyond the line of sight of the recording method and for more than one item at a time. The reader decodes the data for processing by a host computer. Inlays have many different designs and sizes to suit specific applications. The more sophisticated types allow users to both read and write data. Chipless, chip-based and electromagnetic ID tags, commonly called 'smart labeling', are linked with RFID technology.

High-frequency (HF) tags have a near-field sensitivity of around 5 feet (1.5 m), which suits many everyday applications, and a global operating frequency of 13.56 MHz. Lately, more powerful ultra-high frequency (UHF) tags with longer reading ranges have become more prominent. They operate with data communication rates from 860 to 960 MHz. The usual passive types are powered by the reader, as opposed to active tags which require an internal battery. UHF tags are increasingly associated with the Gen 2 protocol, a user-driven standard from EPCglobal (formally called Electronic Product Code Class 1 Generation 2 and ISO approved in 2006). remember having burnt their fingers by committing themselves to Gen 1-based systems for too long. RFID is essentially a highly competitive and complex world. Traditionally, converters and suppliers have struggled to become established and must therefore continue to rely on access to reliable resources. It's like a hand holding exercise where access to sound expertise is essential.'

Not everybody is pro-RFID. In fact, various campaigning groups argue that if you can track and trace a pallet, you can apply this to people. That is, surreptitiously read a secreted tag at a distance with the intent of gathering sensitive data without an individual's consent. They also say that fraudsters can read the globally unique ID of a purchased item from a RFID tag and indirectly identify a purchaser's credit, debit or loyalty card details. The debate was controversially joined by a self-styled 'ethical hacker' from California. On a YouTube clip he showed how easy it was to skim RFID tags embedded in the new electronic US passports at long-range using a portable reader. Industry experts are highly skeptical. They point to the high level of secure encryption offered by today's UHF Gen 2 tags and inlays, including optional 32-bit password to access or lock tag data, or permanently disable it. This compares with the 8-bit password used in Gen 1.

### ALTERNATIVE TECHNOLOGIES

As far as label converters are concerned, the various on-line

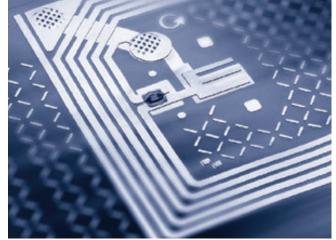


A 'SQUIGGLE' ANTENNA for a UHF tag from Alien Technology LABELS&LABELING and off-line variable information printing methods

will see further progress with linear and

two-dimensional barcoding symbologies. The RFID situation is harder to predict. It would seem chip makers, software developers and printer/encoder manufacturers have hitched their fortunes to UHF Gen 2 technology. They are sure it provides a practical platform for future growth in more areas. Nevertheless, older protocols will continue in use, subject to revisions or replacement by newer versions. Each requires separate reading and encoding equipment, supported by dedicated management infrastructures. This explains why several manufacturers have developed printer-encoders with a multi-protocol capability. In a white paper, Zebra Technologies says they are the answer to a diverse RFID environment, pointing out that even Gen 2 supports a large number of chip-compliant variables in terms of memory size, re-writeability and data security. A multi-protocol approach accommodates these options and perhaps future upgrades too.

The unknown issue is whether the latest techniques for printed electronics pose a challenge to conventional inlay manufacturing methods. In pursuit of producing inexpensive antennas, several converters have applied rotary screen, gravure, inkjet and even flexo with varying results. In a fast-changing scenario, some companies have begun to exploit the technology. Significantly, in March last year Stork Prints announced the installation of a customized rotary screen



A 'WET' INLAY in the DogBone series from UPM Raflatac

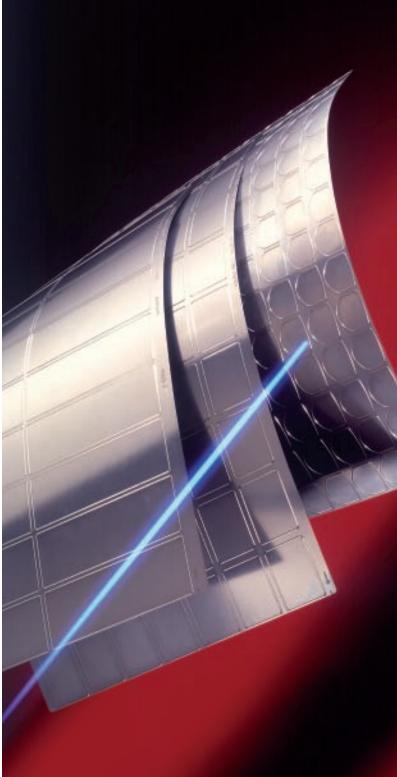


line with three print heads at Exax, a South Korean chemical manufacturer. It produces low cost RFID inlays in volumes of up to 800,000 antennas per day using conductive inks developed by the company. Each head prints part of the UHF antenna for single-pass operation. The line is equipped with two hot air dryers and a UV lamp and also produces near-field HF antennas and other electronic products. Similarly, OrganicID, part of the Weyerhauser forestry products group, plans to produce high-volume, EPC-compatible HF tags, with a secondary focus on future low-cost printed circuitry. It will use inkjet print heads.

Predictably, having bet the farm on Gen 2 UHF tags the manufacturers of silicon chips remain bullish, as Victor Vega of Alien confirms: 'Printed electronics have been around for years, but we do not see them as causing a problem. Besides issues of resolution quality, a comparable printed antenna cannot read/write in the manner expected with many RFID tags. The industry is already producing economical inlays that offer far more memory in a smaller space than anything achieved with a comparable printed electronics inlay.'

It could be quite a battle. IDTechEx, a UK and US-based consultancy and events organizer for the electronic printing industry, says several manufacturers intend to offer competitive alternatives to silicon chips in order to widen the item-level market. It recently published news confirming that Unilever, the 40-billion-plus euro consumer goods giant, had joined its multi-client study of e-labels. Participants aim to develop concept samples and field test them on consumers to establish what is wanted and what is affordable. A central aim is to establish what consumer, industrial, healthcare and other sectors have in common in their needs for e-labels, so the really high volumes can be achieved through economy of scale. Is this the future flashing before our eyes?





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## Paper choice

**AN IN-DEPTH SURVEY** of consumer attitudes towards bottle labels claims to have revealed a clear preference for well-designed paper materials. Andy Thomas reports

The importance of bottle labels to customers has apparently been underestimated, according to a recent, in-depth marketing survey carried out for Brigl & Bergmeister, a leading manufacturer of label and packaging paper. On the basis of 100 in-depth interviews, the Bremen-based market research company nextpractice claims to have demonstrated that bottle labels are exceptionally important to the buying decisions of customers. The study concludes that label design and material are not a minor issue but a central tool in strategic brand management.

The report's background is the rise of global integration, which has dramatically increased complexity and speed of change for all protagonists in the market. Fierce competitive pressure has forced producers to optimise their processes continually and to utilise all conceivable economies of scale. In the fight for the cheapest prices, the distributive trade has expanded its position decisively, with the share of brands steadily increasing.

'From the customer's perspective, this trend has resulted in a proliferating range of goods which is increasingly diminishing the scope for differentiation. Given an overload of information which is increasingly difficult to process, people are longing for differences which make a real difference. In their overtaxing everyday lives customers seek guidance at the point of sale and the point of use.'

The contribution from conventional advertising 'seems exhausted in a world whose media whizz has long since left behind people's processing capacity. Buying decisions are becoming increasingly spontaneous and emotional. As brain research strikingly shows, the processing of unconscious impressions has a much greater bearing on actions than our own experiences would suggest.'

The more unclear the world becomes, the greater the importance of intuitive decision-making criteria. 'From the perspective of branding, the moment at which the customer grabs the product moves to the center of attention.'

When the Bremen-based market research company nextpractice completed its research into the psychological effect of bottle labels, the results were clear cut:

'The results surprised us in terms of their clarity,' noted Professor Peter Kruse, brain researcher and scientific director of the study. Summing up its findings, Professor Kruse noted: 'In the study we used an interview technique which makes it possible also to identify a person's unconscious attitudes. This showed that the emotional impact of bottle labels is exceptionally high. Compared with other consumer areas, customers react to the design and material of bottle labels extremely sensitively and with a broad range of feelings. We had not expected that to be the case.'

In the study a large number of bottles currently on the market were made available to the consumers surveyed. The materials and the beverage brands were balanced out in such a way that the reactions measured could be clearly related to the differences in label design and material.

The study concluded that consumers preferred paper labels to plastic labels irrespective of the bottle material. In a direct comparison, the paper labels were virtually always preferred. 'Paper is perceived as being of higher quality and more reputable,' says the report. 'The customers associated quality, festiveness and reward with the paper label. Beer, water and fruit juices are very strongly associated with paper labels.' The report claims a 'relatively better ecological balance of paper compared with plastic plays a not insignificant and evidently increasingly important role in this regard. The use of natural materials is of high importance to people, especially as far as packaging for foods, beverages and tobacco is concerned.'

Notwithstanding the preference for paper, the report says consumers do not forgive a label design which is below standard. 'Regardless of paper or plastic, a supplier which fails to use the bottle label as a calling card for their brand runs

the risk of collecting significant penalty points. If the paper label is reduced to the conventional square form or the plastic label simply covers the bottle like a second skin, a great opportunity to raise the brand's profile has been squandered. An especially important enthusiasm factor with the design of a label, alongside harmonious coloring and clear lines, is evidently the shape. All the consumers who took part in the study intuitively stressed the multi-section and unusual design of labels as an especially positive distinguishing criterion.'



PROFESSOR Peter Kruse is Honorary Professor of General and Organizational Psychology at the University of Bremen and is a sought-after expert in corporate culture and emotional branding

### **ON THE STUDY**

In the summer of 2008, nextpractice surveyed 100 final consumers in in-depth interviews lasting several hours on their perception and assessment of bottle labels in the context of buying behaviour and consumer habits. The study focused on the emotional effect of paper labels compared with plastic labels. An ITassisted psychological interview technique known as 'nextexpertizer' was used, claimed to make it possible to detect and compare people's unconscious preferences. The Bremen-based consultancy and methodology company nextpractice was founded in 2001 by the

The Bremen-based consultancy and methodology company nextpractice was founded in 2001 by the brain researcher Professor Peter Kruse. Alongside market research and trend analysis, nextpractice is engaged in management consulting. Peter Kruse is Honorary Professor of General and Organisational Psychology at the University of Bremen and a soughtafter expert in corporate culture and emotional branding both nationally and internationally. Together with the nextpractice company, he has received several awards for the development of innovative analysis methods and management tools.

The study was commissioned by Brigl & Bergmeister GmbH, which claims that one hundred billion labels a year are printed on its special papers.

## Coating strategies

**HP INDIGO'S DIGITAL LABEL PRESS** series requires specially coated substrates to key inks. Andy Thomas looks at those requirements and the choice between in-house coating and pre-coated substrates

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Achieving the best results on the HP Indigo ws4000 and WS6000 press series is a factor of the ability of the special HP Indigo Electrolnk technology to key to the printing stock – and this requires a special topcoating.

The special formulation and delivery of ElectroInk will not give acceptable results on untreated stocks, or on materials treated with conventional print surface primers. Based on nano-particles of color suspended in oil, ElectroInk technology delivers a thin ink layer to the print substrate, which depends on a surface pre-treatment to achieve good ink key.

In a recent presentation at the Digital Label Summit in Barcelona, speakers from Avery Dennison and ExxonMobil presented data demonstrating how critical is a properly engineered coating for ElectroInk to key properly to film and paper substrates.

For coatings to be officially certified by HP Indigo for use with its ElectroInk, they must meet strict parameters established by the company. Certification of high-value self-adhesive laminates has proven to be a helpful driver of self-confidence for label printers new to the technology.

Comments Gerard Geurts, industrial media manager worldwide for HP Indigo: 'Our imaging process is different, so we want to assure our customers that the materials we certify will consistently perform on our machines. HP Indigo certified materials meet all our lengthy test parameters, not just for ink adhesion, but also for machine wear-and-tear. Our 'stress test' enables us to evaluate the way in which a printing substrate affects the press itself and all the related print consumables – ink, plates and blanket.'

Given the increased availability of specialty coated laminates, when should label converters coat their own materials in-house?

An interesting case study is provided by Eccoprint in Hirtshals, Denmark, a third-generation family-owned narrow web converting business, which orders standard stocks for its UV letterpress Nilpeter press alongside specially coated materials for the company's ws4050.

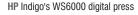
Comments Eccoprint managing director Jan Viberg Elleriis, 'With our Indigo press, we can really respond fast to our customers' urgent needs for short-run self-adhesive labels. Sometimes we get the files in during the morning, and deliver the printed labels in the afternoon.'

Elleriis is a regular customer for the Fasson Digital Indigo range: 'The quality of the topcoating is excellent, and we get first-class print results'. The rolls are supplied press-ready – there is no need for any additional in-house processing or priming – so material waste and press downtime are minimized. But there are times when a particular facestock is not available in the Digital Indigo range, or when his customer needs order turnaround in a matter of a few hours.

In situations like this, Elleriis topcoats material himself on the finishing station of the Indigo press, using the broad inventory of standard Fasson labelstocks he keeps for his non-digital work. While this gives Eccoprint the capability of turning round an order quickly, it can be costly. Adding an extra offline process to the production of the finished labels ties up equipment, labor, time, and energy – costs which all contribute to the final price of a label – and creates more set-up and rewind material waste. 'It is obviously more cost-effective to use ready-coated labelstocks for short-run work -- but sometimes I have to take the other route!' says Elleriis.

An alternative to using the finishing station of the Indigo press to topcoat is to purchase a small off-line coater – again, additional investment, and often additional material waste.

'Coating quality may not be as consistent as a precisely-calibrated industrial coater, which may adversely affect print quality,' says Fasson.





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In January 1979, FINAT President Leonardo Bucchi sent a telegram congratulating the publishers of a new magazine, Labels & Labeling with the publication of their first issue.

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Today, 30 years after the launch of the magazine and having just celebrated FINAT's own 50th anniversary, telegrams have disappeared, and electronic communication has become the norm. What remains however is necessity of effective communication platforms as the lubricants of our sector.

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etor gan to surface a conference being London by PIRA, the K-based Paper, Packaging

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Chapter 8 Lab

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## Label films offer growth opportunity

**IN** what it claims is the most in-depth study to date of the market for plastics labels in Europe, consultancy AMI paints a rosy picture of the current market position and future prospects. Andy Thomas reports

Consultancy AMI has completed an in-depth study of the market for plastic-based labels in Europe, identifying both the size of the market and its future trends, as well as providing a detailed analysis of the structure of the value chain for each label technology.

According to AMI's research in 2008 plastic films accounted for 27 percent of the 13 billion meters squared of label facestock used in Europe. However, while the demand for paper-based labels is expected to show little or no growth over the next five years, demand for plastic labels is expected to grow by over 6 percent/year, says the report, so that by 2013 plastic labels will account for a third of the European label market.

While weak food volumes and destocking towards the end of 2008 meant demand weakened throughout the year, the overall prospects for plastic labels remain strong. The importance of the label within the consumer product marketing mix is fuelling demand for plastic labels, and brands remain committed to investing in added-value product presentation.

The market is being driven by growing demand for clear-on-clear labels in food and beverage applications, says AMI, along with innovations in plastic containers, plastic's ability to deliver aesthetics and functionality superior to traditional materials and growth in the packaged consumer goods industry in Eastern Europe.

The largest market for plastic label film is in self adhesive labels. In square meterage terms, plastic self adhesive labels accounted for 35 percent of demand for plastic labels in Europe in 2008. 'With only one-quarter of the total self-adhesive label market based on plastic film, there is considerable opportunity for replacement of paper and this trend will help drive demand growth of 7 percent/year to 2013,' says AMI. In glue-applied labels, plastic labels accounted for 15 percent of the total market in 2008 or 25 percent of the total demand for plastic labels. Plastic film is mainly used in wrap-around labels and for roll-on-shrink-on-labels. The market is being driven by paper replacement and the development of plastic spot patch labels - currently this market is almost entirely in paper. AMI forecasts this segment to grow by 5 percent/year to 2013. There also exist specific label applications, which have developed through the use of plastic film, namely in-mould labels and sleeve labels. Both of these applications are expected to enjoy growth of between 5 and 6 percent/year driven by new application opportunities in food and beverage containers.

A further 10 percent of the plastic label market is accounted for by release liner used with self-adhesive labels. AMI's comprehensive survey details both the production of plastic film and the demand from printers/converters. Plastic film production for label applications in Europe amounted to nearly 200,000 tonnes in 2008. Europe is a net exporter of these films and demand from printers and converters of labels amounted to 186,000 tonnes.

The types of plastic film used vary significantly within each segment of the label market. The primary material used is PP which is the main material used in the production of glue-applied and in-mould labels. PE films are mainly used in self-adhesive labels, while PET and PVC films find use primarily in sleeve labels. In addition, the rapid development of plastic release liner within the self-adhesive labels industry is expected to contribute to annual demand growth of over ten percent for PET film within label applications in Europe.

Supply of film in Europe is highly concentrated, with 74 percent of output accounted for by ten companies in 2008. Most of the leading players are focused on a particular segment of the plastic label market, a consequence primarily of the film technology employed. Nordenia is the leading supplier of PE film; Treofan, ExxonMobil and Innovia the leading PP film suppliers to this market; Klöckner Pentaplast is the leading supplier of PET and PVC films.

The printing and converting of plastic labels is more fragmented, with the top 10 printers accounting for only 39 percent of production in 2008. The largest printer of plastic labels is CCL Label, which operates several sites across Europe and has a leading position in most plastic label segments, apart from glue-applied. That sector is led by Constantia and Mondi Packaging. Fuji Seal is another leading supplier and is an integrated film extruder/printer for the shrink sleeve sector.

'The European market for plastic labels' is a detailed market research report published in January 2009. For further information please contact John Nash at AMI: jsn@amiplastics.com or +44 117 924 9442.



AN EXCELLENT EXAMPLE of leading edge plastics labeling technology: CCL Decorative Sleeves and CCL Label East Kilbride combined to deliver a sleeve solution for the 5 liter container for the Dulux PaintPod

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## Three survival options for UK converters

**DAVID PATTISON**, senior business analyst at industry consultants Plimsoll, advises label converters how to avoid the common mistakes made by failing companies

Restructuring specialists believe the number of UK insolvencies will soar by 55 percent towards the end of 2009, more than double the number before the credit crunch. However, a new analysis by business intelligence analysts Plimsoll Publishing suggests that it's not too late to save many of the 63 UK label companies rated as being at high risk of failure. However the new report comes with a warning: if these 63 companies rated as danger are to survive, they must start to fix their problems now.

The first issue is to understand the extent of the problems the company is facing. In our 22 years of analyzing the label market, the symptoms of a failing business are, sadly, all too familiar. Phase 1: the company comes under pressure to increase sales, so uses all its resources, often resorting to selling at a loss, or adding extra costs to service their clients' demands. Phase 2: as a result, the company is encouraged to take on extra short term debts to finance the sales drive, putting extra pressure on their profit margins through extra interest payments - therefore failing to cut costs which is what is actually needed. Phase 3: after a while, the banks grow nervous and ask that this unsecured finance be swapped to long term finance. Phase 4: armed with the extra financed capital, the company continues with the failing strategy and allows the overdraft to start to build up again and thus eroding the profits more. Despite the increased financial pressure the company is now under, profits are eaten up in interest payments whilst the company tries to maintain sales. Phase 5: the company debt grows to an uncontrolled level and the banks once again grow nervous on the company's ability to pay it back. It is often now that the banks will demand immediate repayment of the debt, and when the company is unable to do this, administrators are called in.

A critical factor in this cycle is to understand the key measures to monitor in your business in order to pinpoint any decline. Our analysis will tell you instantly where the company is strong and what it weaknesses are, so that a clear set of turnaround targets can be put in place. Companies are made aware of their problems sooner, and the management then has more time to put a survival plan in place and stave off the administrators. Administration should be viewed as a clear last resort. The damage done to the long-term health of the company in terms of the brand and negative publicity are all too difficult to recover from. In essence, the key to avoiding administration is to put in place the measures yourself that they would instigate. As I see it, these 63 label companies currently under severe financial pressure have three options if they want to survive and be well-placed to capitalize when the market picks up:

### **1. CUT COSTS NOW**

This is not easy: it means the company must accept it will be a smaller enterprise; internally this will not be well received in the organization, as job losses will generally be part of the plan. It then needs to look at a survival plan and adopt the mindset of a receiver, cutting out non-profitable contracts, reducing overheads and also renegotiating with key suppliers. The objective must be to reduce the level of debt and get the business back on an even keel.

### 2. SELL THE COMPANY OR LOOK FOR AN INVESTOR

Despite the doom and gloom in the market, this option should not be ruled out. One hundred and sixty-four firms identified in the sector have cash to spend and could easily afford to finance a purchase out of cash. These 63 'danger' companies are very vulnerable to an aggressive takeover, yet my view is there could be a great benefit in selling up. A new owner would give the company time and resource to turn their performance around. Sadly, again, this will inevitable involve job loses and reducing the size of the company to rejuvenate the business.

#### 3. TRADE THEIR WAY OUT

In the current economic climate this is the least likely strategy, most of these 63 companies have fairly long term problems, so its clear their current business is not competitive in the market and simply doing the same will not change anything. Combine this with the inability to raise extra finance and time is not on the side of this approach. Only a few of the 'danger' companies have this as a viable option.



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### AVERY DENNISON GENERIC GLOSS WHILE PP FILM

Avery Dennison has launched a versatile new gloss white PP labeling film for applications in a variety of film label markets from food and health and beauty care to motor oils and household chemicals. Claimed to be the first generic gloss white PP to come to the labeling market, Fasson PP Light Top White is a biaxially-oriented, blown, gloss white polypropylene film with a print-receptive topcoating that is said to offer the competitive cost/performance ratio associated with thinner film labelstocks.

At only 51 micron, Fasson PP Light Top White offers a number of benefits for both converter and end user. The stability of the Fasson PP Light Top White labelstock delivers quality results with all conventional print processes and other on-press advantages, including accurate register and consistent die-cutting, according to the company. Opacity at > 80 percent is equal to that of a 60 micron film.

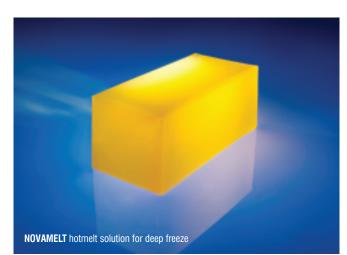
Reels are 50 percent longer than comparable reels of 60 micron polypropylenes, and deliver 3,000 linear meters compared to 2,000 linear meters, with only a 17 percent increase in reel diameter. This results in fewer reel changes and reduced press downtime. Thinner film can additionally save costs in terms of more labels per reel, and reduced weight – both on the container (contributing to reduced overall packaging waste), and in transportation.

The biaxially-oriented Fasson PP Light Top White facefilm also delivers accurate dispensing in combination with a Fasson BG40 White glassine release liner, says the company. The film is offered with the general-purpose Fasson S692N acrylic adhesive, which complies with European food directives and legislation, US FDA 175.105, and the recommendations of the German BfR for adhesives suitable for direct contact with dry and moist non-fatty foodstuffs.

#### NORDENIA

### **'PURE PP' ADDITION TO PO FILM SERIES**

Nordenia is extending its PO-family of films with a pure PP-film, which is currently under development and will be available later this year. The main disadvantage of PP is the pre-treatment



required to enhance printability and adhesive anchorage, and Nordenia says these issues are tackled with a new treatment procedure. First trials at laboratory scale have shown good surface tension levels maintained for over six months.

Nordenia's PO-label films are claimed to combine excellent optical properties with good dispensability, die-cuttability, squeezability, conformability, dimensional stability and water resistance. The film range is available in a thickness range currently from 40–95  $\mu$ m. Benefits for gauge-reduced films like the PO series include significant cost reduction, less raw material usage and lower transport weights, as well as delivering more linear meters with the same roll diameter.

### HANITA COATINGS

### CHEMICALLY RESISTANT FILM AND UNIVERSAL FACE FOR LASER PRINTERS

Hanita Coatings has developed a  $50\mu$  topcoated film for labels targeted for use in harsh industrial and automotive environments. The glossy white PET film complements the Ricoh B110CU Ultra-high solvent resistant thermal transfer (TT) ribbon, working in tandem to ensure the print, topcoat and substrate form a robust, long-lasting unit, without the need for a protective overlaminate.

Typical applications would be for labels exposed to solvents such as toluene, MEK, acetone, brake fluid or diesel, common in under-bonnet and industrial labeling applications.

The second line of labelface films launched by Hanita is optimized for printing by both monochrome and color laser printers and copiers. These glossy white and clear  $50\mu$  polyester films are also printable by a variety of conventional and digital processes, making them ideal for standard print runs combined with printing of variable information. The proprietary topcoat combines high print adhesion with chemical and scuff resistance.

### NOVAMELT NEW HOTMELT ADHESIVE FOR DEEP FREEZE APPLICATIONS

The newly developed PSA-hotmelt adhesive Novamelt PS 3030 is claimed an excellent solution for labels which are applied



FRANKLIN Covinax 462 - invisible adhesive

at temperatures far below freezing point. 'PS 3030 features an outstanding tack performance in cool conditions down to -16°C and an excellent adhesion to a wide range of packaging films as well as cardboard,' says the manufacturer.

#### FRANKLIN ADHESIVES 'INVISIBLE' PERMANENT ADHESIVE

Label manufacturers looking for an 'invisible' pressure sensitive adhesive can now source Covinax 462, a permanent PSA launched by Franklin Adhesives & Polymers, a division of Franklin International.

Covinax 462 is a clear, styrene-acrylic copolymer for permanent pressure sensitive applications that require high water- and blush-resistance. Its high transparency makes it ideal for use in clear film labels used on glass and plastic surfaces, including auto glass and bath and shower product containers.

While Covinax 462 performs well on labels for indoor use, it can also be specified for labels that will be exposed to the outdoor elements. It withstands UV, weather and outside exposure without unsightly yellowing or water damage even over time. Lab testing performed with a Colorimeter showed only a negligible increase in yellowing on Mylar and paper, says Franklin.

Covinax 462 offers peel adhesion strength of 2.50 pounds (180° peel adhesion testing), shear strength of 1,251 minutes (178° shear adhesion test) and a loop tack of 2.10 pounds. The high shear properties equate to good high temperature performance in the range of 100 degrees to 150 degrees C. Like most pressure sensitive adhesives from Franklin Adhesives & Polymers, Covinax 462 is water-based.

#### UPM RAFLATAC RP 30 WINE LABELING ADHESIVE

UPM Raflatac has introduced its adhesive RP 30 for demanding wine labeling applications.

RP 30 is an acrylic water-based adhesive, specifically designed for all permanent wine labeling applications where wash-off properties are not required. It provides good adhesion to polar surfaces, tolerating fluctuations in temperature and humidity on the bottling line and during bottle storage, says the manufacturer, with 'excellent performance in terms of initial tack and water-resistance in the ice bucket.'

It is recommended for labeling red, white, sparkling wines, champagne and rosé. RP 30 also shows good resistance to

edge lifting and is consequently suitable for neck labeling. In order to avoid breaks in high speed dispensing lines, RP 30 can be combined with a PET backing.

The new RP 30 complements UPM Raflatac's range of adhesives for wine labeling together with RP 40 for wash-off applications and the ultra clear RP 74 for clear filmic face materials. RP 30 is currently available ex stock with six constructions, and later on in 2009 with all UPM Raflatac's face materials for wine labeling, both with paper and filmic backings.

### GREEN BAY 'ENVIRONMENT FRIENDLY' PS STRUCTURES

New recycling-compatible adhesives are now available from Green Bay Packaging.

Recycling-compatible adhesives have particles that remain large enough after pulping to be substantially removed, keeping the final product free from debris. Two recycling-compatible adhesives have been launched which meet the Tag and Label Manufacturers Institute testing protocol RCA LRP 2v5. 760S, a general purpose permanent adhesive, and 548S, a hard repositionable adhesive, are available on a variety of face stocks for flexographic, rotary letterpress, laser, inkjet, direct thermal and thermal transfer printing.

These adhesives can be mixed and matched with Green Bay's new range of paper face stocks manufactured with post-consumer fibers, claimed to provide smooth print surfaces and industry standard die cutting and stripping performance. Recycled content face stocks include R60SG creamy-white 60# semi-gloss with 20 percent post-consumer waste, and the R54SG, a blue-white 54# semi-gloss with 30 percent post-consumer waste. For those wanting a matte-finish, the product line contains a 60# matte litho, R60ML, with 30 percent post-consumer waste. Two face stocks are available for variable imprinting applications. For thermal transfer printing, there is the R10TT, a 40# facer with 10 percent post-consumer waste. R60LJ is a sheet designed both for laser and inkjet applications. It is made from 100 percent post-consumer fibers.

• Green Bay has also announced 111 adhesive, claimed to overcome the challenges of difficult adhesion and blushing in moist atmosphere environments. 111 adhesive is intended for labels on in-the-shower products, beverages, and refrigerated foods. It adheres to a variety of substrates, including glass and plastics. The 111 adhesive can also handle squeezable





### VPF

### **NEW HOTMELT PORTFOLIO**

Germany-based VPF GmbH has reported on the results from its first year working with hotmelt adhesives.

'Since the commissioning of the new hotmelt aggregate and after having finished several PSA tests and qualifications, the number of realized orders has increased steadily,' says the company. 'The orders with adhesive-free zones are as high in the company's hotmelt business as in its standard products business.'

VPF's range includes four rubber-based synthetics and four UV-curable, acrylic based hotmelt adhesives. 'Additionally, customers are more frequently providing their own, highly specialized adhesives,' the company reports. 'The general percentage of customer provided substrates and print carriers is also increasing, thus VPF is more often serving as a contract coater for other companies and consumers.'

Key hotmelt markets for VPF include the tire and automotive industry – in combination with both papers and films – as well as drum labeling or converters working with reclosable film labels.

'But also for customers from the cosmetics, pharmaceutical and chemical industry the hotmelt technology is very interesting, because it provides, among other advantages, higher adhesive coating weights, up to 90 g/m<sup>2</sup>.'

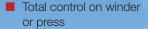
### **ENVIRONMENTAL CERTIFICATION**

The paper label supply chain continues to invest in environmentally aware production standards. Ahlstrom has announced that its release paper plant in La Gere, France, has received certification to the chain-of-custody standards of the Forest Stewardship Council (FSC) and the program for the endorsement of forest certification schemes (PEFC)) The La Gere plant is the third certified plant of Ahlstrom's release & label papers business area, after the Jacarei, Brazil, and Turin, Italy plants achieved chain-of-custody certifications in 2008. All units already hold 14001 and 9001 certificates. Ahstrom's policy is to source from pulp suppliers which are either certified or are in the process of being certified.

Austrian manufacturer of special papers Brigl & Bergmeister and its subsidiary Papirnica Vevce in Slovenia are also now able to offer their products certified according to PEFC standards. Last year the company obtained ISO 14001 certification and the DIN 15593 HACCP hygiene standard.

Spanish specialty materials manufacturer Manter, meanwhile, part of the Fedrigoni Group, has achieved ISO 14001 certification. A spokesman for the company said that certification had been achieved thanks to 'commitment to constant improvement, a high level of involvement by management and workforce and the necessary cooperation of customers and suppliers. With this recognition, Manter has further consolidated its commitment to environmental responsibility and care, once again underlining its role as a player in the sustainable development of the industry.'





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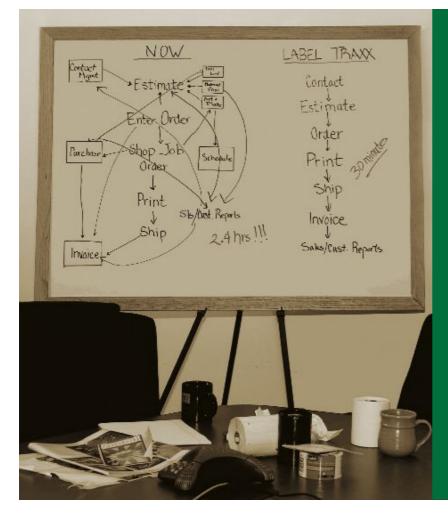
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## Slitters and rewinders

JAMES QUIRK ROUNDS UP recent developments and installations in the area of slitters and rewinders

Recent months have seen a number of launches in the area of slitters and rewinders, with new machines often offering increasing modularity, as well as a variety of inspection and printing options.

East Yorkshire, UK-based AB Graphic International has added the VSR vertical slitter inspection rewinder to its Omega range, which offers production speeds of up to 400mt/min. The system is designed to meet the demands of inspecting, slitting and rewinding a wide range of label substrates and is available in standard and servo driven versions.

'The vertical design of the VSR provides an ergonomic alternative for operator location,' explains Tony Bell of AB Graphic International. 'We believe its speed is unrivalled at 400mt/min. The missing label, flag or splice detection system is capable of stopping the error incident in a precise location at speeds up to 300mt/min.'

The VSR inspection rewinder is available in 330mm, 430mm and 530mm widths to comply with modern press width trends. The standard machine comes complete and ready to slit, rewind and count self-adhesive labels and many other substrates. A full range of options is available and include motorized roll lift, razor and crush slitting, missing label, splice or flag detection and 100% print face inspection through PC based camera system.

'With the increased use of servo driven printing presses many of our customer are now required to convert a wider range of delicate substrates,' adds Bell. 'The VSR servo driven version provides precise material handling throughout the machine and includes closed loop tension control and servo driven unwind.'

Kampf Schneid- und Wickeltechnik GmbH & Co. KG has launched its Unislit II CS, a slitter rewinder with individual rewind stations.

The company, based in Wiehl near Cologne in Germany and part of the Jagenberg Group, has been producing slitting and rewinding machines for processing paper, film, labels and aluminum foil for over 80 years.

The machine can handle material widths of 2050 mm and runs at 1,200 m/min with shaftless unwind. The slitting section contains individual top knife holders and bottom knife bushings, and slits at widths of 100-1200mm.

The newly designed individual winding stations are equipped with an AC-servo motor as center drive, supported by the contact roll surface drive. Diameter differences caused by various material thicknesses are compensated separately by the superimposed motion winding stations.

The digital servo drive of the contact roll stabilizes web tensions between slitting section and contact roll – an essential pre-condition for excellent slitting results.

The new Unislit II CS is characterized by extremely short re-tooling times to cover the special demands of the labelstock market. When a new slit pattern is required, the slitting section and the individual winding stations are automatically positioned. Top and bottom knives are exactly positioned with repeat accuracy by pneumatic grippers. No replacement of individual contact rolls – the full-length contact roll meets all possible slit patterns.

Kampf's modular design allows the integration of all various features into the Unislit II CS that are required for the labelstock market: splicing table upon customer's specifications, idler rolls with anti-adhesive coating, knife cleaning systems, various dust collecting options and a customized roll handling and transportation system.

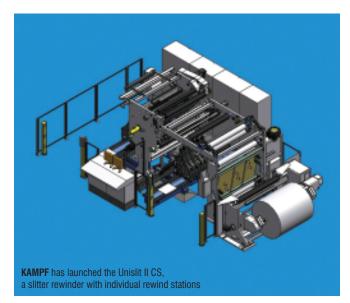
Martin Automatic has introduced the LRH automatic transfer rewind. The LRH is a nonstop roll changer suited to mid-web printing, laminating and converting processes. The LRH provides continuous, roll to roll productivity for a wide range of applications and materials, from film to paper and paperboard. The first LRH has been sold to a business that will be running paper and paperboard stock.

'The LRH builds on the enormous success of our other winding machines. It handles larger rolls like the RMAP while retaining the benefit of cantilevered spindles found in the LRD,' reported David Wright, vice president sales/marketing. 'The operator doesn't have to move heavy shafts since the LRH unloads and de-shafts itself.'

The LRH winds, automatically changes and automatically unloads full rolls. The only operator task is to load cores. The cantilevered spindle design of the LRH eliminates the need to



**AB** Graphic International has added the VSR vertical slitter inspection rewinder to its Omega range







handle heavy coreshafts, and a rigid outboard support system negates spindle deflection. Unlike conventional turret winders, the rewind spindles of the LRH traverse horizontally. This linear design minimizes roll travel as well as the tension upsets and web shifting associated with turret rotation.

It is offered in standard widths to 32 inches (813 mm) and standard diameters to 72 inches (1830 mm). Wider widths and specially-engineered features are available.

At Labelexpo Americas in Chicago last year, Scantech launched the PharmaTrack – a machine for pharmaceutical label validation and verification.

PharmaTrack features include bi-directional web processing at full speed, and vision inspection and re-inspection capability. The machine allows barcode printing and verification adaption, including E-Pedigree conformation. The automatic open loop unwind/rewind system is servo-driven, while a job recall capability includes unwind and rewind tension settings.

Also launched at the same event was the company's VisionTrack for 100% inspection and converting of labels. Like the PharmaTrack, the servo-driven machine has vision inspection and re-inspection capability, as well as the barcode printing and verification. It includes a fault retrieval system and three levels of password protection.

Another company to offer slitter rewinders with inspection capabilities is France-based Smag, whose range is composed of four different product types: the DCR 2000 table-top inspection range; the C4R+ inspection line; the Venus semi-automatic turret rewinder ; and the Neptune, which allows the operator to be seated when working the machine.

All these machines are modular and can be connected to a 100% quality control inspection system, thanks to Smag's cooperation agreement with Israeli inspection specialist AVT.

Italy-based Prati's range of machines provides versatile solutions in the finishing of PSL, filmic substrates and special materials. Saturn, Jupiter and Vegaplus are servo-driven machines equipped with automatic tension control and a self-sharpening shear slitting system which is able to slit paper and plastic material from 12 micron up to 1.5 mm in thickness. The machines are retro-fittable at any time with several accessories for standard and special applications.

Jupiter is the most versatile machine in terms of materials that can be processed, from flexible packaging to cardboard and from paper labels to booklets.

When processing film substrates, the machine is equipped with three different rewinding tension settings managed by VaryControl software. As a result, the material keeps a constant web tension and avoids any stretching. An air-driven separator allows rewinding of all rows in a single shaft without crossing the substrates or damaging the web edges.

Vegaplus, with its modular design, has an unwinder with



KMEC'S Label CS machine can handle a variety of materials, such as paper, metalized paper, polyethylene and BOPP, among others

motorized reel loading and an automatic turret rewinder. The machine can be fitted with one or more die-cutting units, flexo or inkjet printing units, a leaflet feeding unit and video inspection systems. It may be used to work webs from 330mm up to 530mm in width.

Girona, Spain-based Kmec, meanwhile, manufactures equipment for the paper converting, flexible packaging, label, coating and laminating sectors. The company's Label CS machine, which can handle a variety of materials, such as paper, metalized paper, polyethylene and BOPP, sheets and cuts many types of labels, including wet-glue, wrap-around and in-mold. Its modular design allows the inclusion of equipment for embossing, perforating and die-cutting, among others.

Francesc Terricabras, Kmec's labeling marketing manager, says the machine requires less processes than traditional methods of producing small format products, which can include a folio-size sheeter, de-stacking, reaming and guillotining. The Label CS performs these tasks in a single process,' he says. 'While improving productivity and reducing waste.

The machine comes in widths of up to 1,000mm, and has the potential for in-line slitting and a cut length range of 50mm to 330mm.

To demonstrate the machine's benefits for the label sector. Kmec joined forces with Blumer, as shown in drupa last year, to demonstrate an automated line for the production of die-cut labels directly from a printed roll. The solution combined a Label CS small format sheeter integrated with either an Atlas 1110 or an Atlas 40 from Blumer, allowing for the production of die-cut and banded labels in one process, instead of the multiple steps employed by traditional, larger sheeters, guillotines and die-cut systems.

After being sheeted on the Label CS, pre-counted label strip stacks were presented to the Atlas equipment on a delivery system that included cardboard placement stations, a pressure and turning unit as well as a rotating conveyor section that can be programmed to deliver the stacks to the Atlas, for alternative processing or as a quality control facility.

Joan Carbó, Kmec's business manager, explains: 'The line requires just two people (one for each machine) to control the operation, which compares very favorably with the traditional methods that can need four operators to undertake the unwinding, reaming, guillotining and punching processes.'

Production included metalized paper beer labels (76mm x 76mm) at up to one million labels, and BOPP soft drink labels (300mm x 52mm) at 752,000.

Terricabras reports that a key concept behind Kmec's machinery is individual sheeting that is fed through a central drum - a process that avoids potential inaccuracies and benefits a variety of markets, from beer labels, wrap around, and IML to format paper sheeting, for example.

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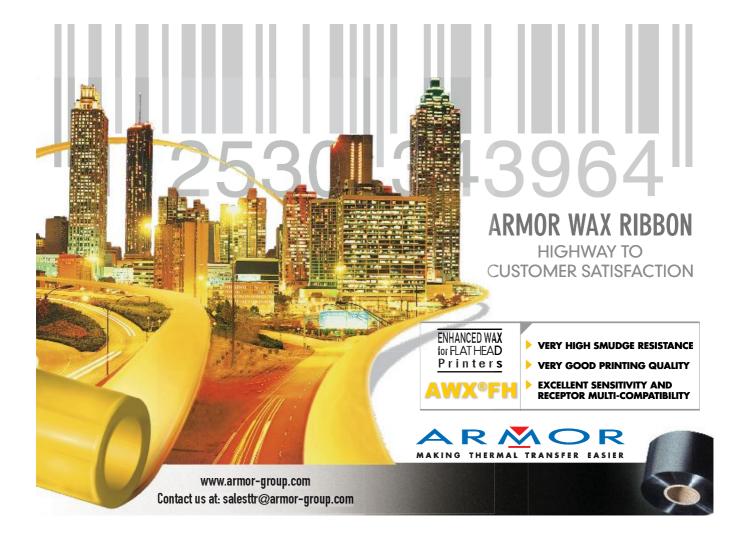
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## SLITTER REWINDER INSTALLATIONS



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### FLEXCON INSTALLS SIX MORE TITAN SLITTER REWINDERS

Titan, part of Bobst Group, has installed a further six SR Series twin-shaft cantilever slitter rewinders at Flexcon, the North American-based supplier of pressure-films and adhesive materials. This brings the total number of Titan SR Series slitter rewinders now in full production in the USA and Europe for this customer to 18 machines.

The Titan SR6, SR7 and the latest generation six SR8 machines were all designed to meet Flexcon's specific requirements for product quality and highly efficient production.

Founded in 1956, in Spencer, Massachusetts, Flexcon is an ISO 9001:2000 manufacturer of custom pressure-sensitive film and adhesive solutions for a variety of applications ranging from product identification labels to point-of-purchase (POP) and promotional graphic films, durable markings, novelty stickers and decals, packaging, bonding and mounting.

Flexcon produces thousands of different off-the-shelf, custom and specialty products, including a line of DigiPRO products compatible with narrow web HP Indigo presses, DPM Aply1000, a bubble-free labeling solution for durable product markings and high-performance adhesives like Flexmount performance adhesives for bonding to low-surface energy plastics and other challenging substrates.

'Continuing trends in the pressure sensitive film and adhesive industry to run "just-in-time" (JIT) deliveries of multiple production runs meant that this requirement was one of our primary concerns during the selection and specification of the Titan machines,' explained Ed Allie, director of engineering at Flexcon.

The 1800mm (71ins) wide Titan SR machines have a maximum rewind diameter of 800mm (32ins) on 76mm and 152mm (3ins and 6ins) cores, running at production speeds of up to 600 m/min (2000 ft/min). The capability of handling a wide variation of PSA materials at high production speeds was an essential part of the Titan SR slitter specification at Flexcon.

The Titan SR8 slitter rewinder has a wide range of automation options which enabled Flexcon to choose a specification to meet its particular requirements. An automatic knife positioning system enables the positioning of male and female knives to an accuracy of +/-0.15mm (0.006 ins) within 90 seconds.



PETER Glückman, managing director of Ettiketto Labeling Systems

This feature reduces the 'make-ready' down-time for changing slit widths enabling big increases in productivity. Laser core positioning provides a quick, accurate guide for the operator in positioning the new rewind cores for re-starting the slitting process.

The handling and unloading of the finished reels is also an important consideration. The SR machines are fitted with an automatic reel stripping system. This allows the operator to safely strip the finished reel packages off the rewind shafts and on to unloading trolleys.

The SR8 cantilever slitter rewinder is the most successful in the Titan range and more than 180 machines have been sold to many different converters worldwide since its launch, covering a wide range of flexible materials applications.

### FOURTH GRAFOTRONIC INSTALLED AT SWEDISH CONVERTER

Ettiketto Labeling Systems, a Sweden-based self-adhesive label printer, has installed its fourth Grafotronic machine. The latest installation is the new Grafotronic 530, a combination machine equipped with servo drives for slitting of mono-film materials and a 20" die cutting unit for label production. The new model is equipped with the latest Grafotronic unwind lifting system: a new invention from the Swedish manufacturer.

Peter Glückman, managing director of Ettiketto Labeling Systems, explained the decision to install another machine from Grafotronic. 'Our co-operation with Grafotronic during the last years has been successful and we are very satisfied with the overall quality, support and performance supplied by our partner.

'This spectrum of machine widths, together with the new servo rewinders, gives us the possibility to run all the different types of applications from mono-film to cardboard. And this possibility in combination with the price/performance ratio of the machines creates a quick return of investment through a more efficient production'

The product range from Grafotronic now includes slitter rewinder inspection and die-cutting machines in the range from 10" to 20".

Ettiketto Labeling Systems was founded in 1977 and is one of the companies in GSS – Glückman, Silwer & Skog AB.

## Offset opportunities

THE LATEST DEVELOPMENTS IN WEB OFFSET TECHNOLOGY is making the process more attractive for shorter runs and increasing in-line options available to converters. Andy Thomas reports

The new generation of web offset presses are designed to open up new, shorter run markets previously closed to offset by high levels of makeready waste and inflexible repeats.

The new Nilpeter MO-4 offset press, successor to the MO-3300, typifies these trends. The key development on the MO-4 is the use of sleeves for plate and blanket cylinders. 'The cost of the aluminum-based sleeve system is around a fifth of the price of an offset cassette,' notes Jakob Landberg, global sales and marketing director at Nilpeter. The sleeves are mounted on hydraulic expansion shafts, allowing fast changes between jobs.

Nilpeter's Easy Load sleeve system is already in place for plate and anilox cylinders and screen units on the FA-4 press, and this standardized system allows print and converting technologies to be switched quickly on the offset platform.

To facilitate the change from offset to hot foil printing, Nilpeter has designed the impression roller as an interchangeable sleeve, with a rubber or steel surface depending on the printing method. This means there is no need to break the web when switching between processes or impression rolls, greatly reducing set-up times and waste.

The MO-4 has a more comprehensive servo drive implementation than its predecessor. Each print unit has independent drives for the plate sleeves, blanket sleeves and impression rolls. Similarly with the length and lateral registers. When any corrections to lateral register are made, the complete unit –inking unit, plate and blanket cylinder – is moved, avoiding color profile modifications. The MO-4's inking train has been redesigned for additional stability. Two inking rollers have been added to each inking unit along with stronger sidewalls, while a total of three rollers can now be temperature controlled. Individually programmable dampening curves maintain constant ratios of moistening and ink delivery across all machine speeds.

Rotatek is another narrow web manufacturer moving down the offset sleeve route, with its new Universal press, a 500mm-wide machine operating at speeds up to 350 m/min and featuring the company's recently patented lightweight offset sleeves with steel bearers. The press runs both UV and EB inks. Its modular design supports various in-line options including hot stamping or cold foil, rotary screen and rotogravure units, and it will convert a wide range of materials, including unsupported film, from 30-400 microns.

A flexo unit was introduced at Labelexpo mounting lightweight sleeves on servo-driven plate and anilox cylinders. A chambered doctor blade is optional for high speed reel-to-reel applications.

### FROM SHEETS TO ROLLS

Web offset has proven particularly popular with converters making the transition from sheetfed into roll-fed labels. One such company is Hammer Packaging in the US, which installed its first Drent Goebel Variable Sleeve Offset Printing (VSOP) press in 2006, a 33.5in wide VSOP 850 machine. Early this year the company finished installation of a second, similarly specified press.

'Both machines offer short make ready times, quick repeat size



SDF will be a new name to many in the labels industry, but this young company has just filed a patent on a sleeve offset print station design. The core of SDF is former engineers, service technicians and mechanics from Giebeler – one of the 'big three' business forms press manufacturers, along with Goebel and Grapha in the 1970s and '80s.

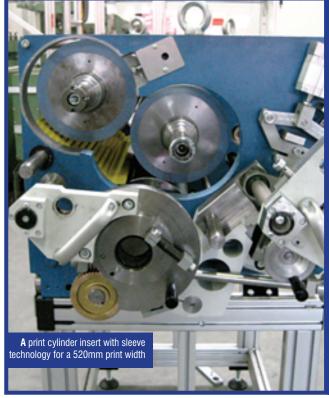
According to Karl Hallwas, SDF technical manager, the Giebeler successor company filed a patent for sleeve printing cylinder inserts back in November 1999, before its competitors – including Drent and Grapha (now part of Muller Martini). Development of the sleeve system came to a standstill after the company's insolvency in the same year.

SDF's wet-offset printing unit mounts the printing cylinder insert with plate, rubber blanket and counter impression cylinder. Standard circumference is from 20-28", but larger formats of 28-36" and 36-44" are available. Printing widths can range from 520-920 mm.

The plate and counter impression cylinder are in a fixed position, with the rubber blanket cylinder brought into printing position according to the printing format.

The sleeve is changed through the frame wall and the support cylinder remains in the insert frame. The mounting of the sleeve body on the support cylinder is hydraulic, and the plate cylinder is equipped with diagonal adjustment to allow limited register correction. Only the plate and rubber blanket cylinder are separately driven, reducing electronic and mechanical complexity.

As well as offset print cylinders, rotogravure, flexo and screen print inserts can be installed into the same frame opening.



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changes and low operational costs,' comments Jim Hammer, president of Hammer Packaging. 'The Variable Sleeve Offset Printing technology helps us to both lower costs and increase the quality of our products. Our customers, companies like Coca Cola and Pepsi, are able to decrease their costs when they run rolls of labels and shrink sleeves on their own equipment. And the more we do in-line, the more freedom the designers get to create an attractive product.' John Swain, principal of design company Packaging Arts, agrees: 'Hammer was able to assist us in migrating our labels seamlessly from cut & stack to roll-fed by using their Drent Goebel press. We also benefited by changing our printing process to hex or expanded gamut. It is nice to have a partner who stays ahead of the technology curve.'

A high speed UV/WB flexo printing group was introduced for the VSOP at drupa. The web can be directed into a hot-air dryer and over the chill roller or directly over the chill roller with optional integrated UV lamps for curing.

Another example of a wet-glue printer shifting to offset roll production is German converter Offsetdruckteam Witten GmbH (ODT). Two years ago, when the company was taken over by the Ellerhold Group, half its annual 20m euros sales came from wet-glue labels, mainly for the beverage industry. Responding to the beverage sector's move to filmic roll labels and shrink sleeves, group managing director Frank Ellerhold invested in a Muller Martini Alprinta 74V variable-size web offset press. The 740mm-wide press has eight offset press units, a flexo unit and UV curing. It was originally specified with a Muller Martini offline sheeter, but this was later integrated into the press, along with in-line lamination and a hot air dryer.

Frank Ellerhold maintains that variable-size web offset offers a cost-effective alternative to conventional flexo and rotogravure printing on small-to mid-size labels runs. 'Here, the quality and the pre-press costs tipped the scale in favor of offset printing and the Muller Martini machine.'

ODT also uses the Alprinta 74V to produce wet-glue labels, as Ellerhold explains: 'it can print 365 linear meters per minute, which equates to 20,000 sheets with a 3B machine.' The size can be changed in just a few minutes. It is also possible to print and coat wet-on-wet using conventional printing inks.

#### **OFFSET MIX AND MATCH**

An option for converters with platform flexo presses is to use interchangeable offset cassettes in the flexo press line. One converter which has adopted this approach is Skanem Introl in Poland, which last year installed a 10-color Gallus RCS 430 press specified with six flexo stations but equipped to accept offset as well as flexo units (along with two moveable cold foil stations). The offset printing unit can be deployed anywhere in the press and can be combined freely not only with flexo, but with screen printing, hot foil embossing and UV rotogravure.

The RCS offset printing units incorporate individually driven inking and damping units. During the startup sequence the unit rotates at a makeready speed of just 1m/min to minimize waste. Ink and water profiles can be recalled for repeat jobs.

Interchangeable offset units are also now available for the RCS330, along with UV rotogravure.

#### **STICKING TO CASSETTES**

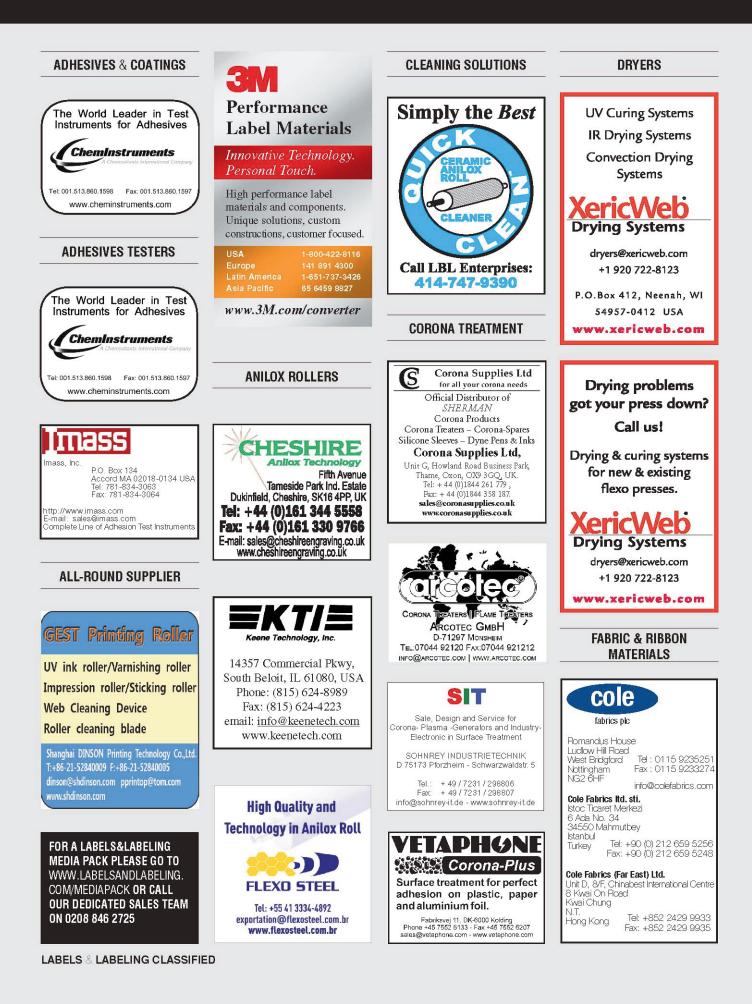
Not all offset press manufacturers have adopted sleeves for format changes. 'To achieve a perfect match and drive of blanket and plate roller we believe that a cassette solution is still the best solution,' says Eric Hoendervangers, MD of MPS, which – interestingly – developed its offset unit jointly with Drent-Goebel.

'Cassettes allow us to "open up" all print towers to insert no-nonsense solid drop-in technologies for flexo, gravure, hotfoil and screen. These drop-in technologies last forever and perform also at high speed.'

MPS has retained its 'solid lock' technology for the offset change cassettes as well as its other drop-in technologies. 'This prevents play in gear positioning and gear marking,' says Hoendervangers. 'No mechanical or software re-adjustment is required to get the modules up and running.'

Other technologies MPS has carried across to its offset units include the 'Crisp Dot' free running impression cylinder, claimed to eliminate changes in web tension between print units caused when the web is pulled through a driven impression cylinder. Omet is another manufacturer which has gone down the insert route, choosing interchangeable













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#### **OPEN HOUSE**

At a recent Edelmann Graphics open house, sales and administration director Julius Friedrich showcased an EvoPrint press with eight print stations – six offset and two flexo – which was later shipped to an undisclosed customer for the production of medium and long run labels.

EvoPrint machines are delivered with 2-cylinder print inserts, and format change is achieved without breaking the web. The EvoPrint has two servo-motors per offset print station, the first one driving the print insert and the second the inking train. There is also a separate duct drive. 'This allows us to prepare the print stations not used with the current job for the next one during production,' noted Friedrich. In-line, closed loop ink density measurement is optional.

cassettes for its first UV offset press, the Varyflex-F1 Offset. The press has a top speed of 200 m/min and is available in 340 and 430 mm web widths, with 520 mm under development. The range of print repeats is from 12" to 25", achieved by a 2-cylinder interchangeable cassette.

The print units have a setting speed of 10 m/min to minimize start-up waste while water-ink balance is achieved, and the print unit is equipped with Omet's 'Vision 1' automatic register system. A comprehensive report on the new press appears on page 61 of this issue.

#### INTERMITTENT SOLUTIONS

Intermittent, or semi-rotary offset presses, already provide an established solution to shorter run work with variable formats.

Gallus pioneered this market with its TCS250 machine – now available with a rotary die-cutting option – and other manufacturers have helped evolve the concept.

Rotatek's Brava press, for example, is able to run in both semi- and full rotary modes (see L&L 1, 2009 p.63). Speeds in semi-rotary mode are around 50 m/min and 150

m/min in full rotary. The modes are changed by a simple change of printing cassettes. Codimag's keyless Aniflo inking system first seen on the Viva 420 (see L&L June/ July 2008 p.26) uses a 'flexo' inking system of chambered doctor blade and anilox sleeve specially engraved to break down the paste ink to a film. The ink film is delivered to a transferred to the plate by a rubber form roller.

Smooth Machinery is the latest manufacturer to enter the intermittent offset arena. Developed with Smooth's Japanese partner Fuji, the SPM-4500R semi-rotary water-offset press is 450mm (17in) wide, giving a total print area of 430mm x 410 mm. Print speed is 12,000 impressions an hour and the 'cool' UV system will even handle shrink sleeve labels, according to Smooth. The press comes equipped with a UV flexo varnishing station and rotary magnetic die cutting as an option. It is driven by multiple servo drives with fully automatic web tension control and servo-driven segmented ink fountain rollers. The press has a Fife inspection system integrated into its Touch Screen control panel. A full range of converting options is available, include hot stamping, embossing, laminating, silkscreen and sheeting.



#### THE INSIDER

A ROUND-UP OF THE LATEST GLOBAL LABEL STORIES

#### **BOOKLET PRODUCTION DRIVES REFURBISHED R200 MARKET**

Graficon Maschinenbau AG has delivered another two fully refurbished Gallus R 200 presses to customers in Germany. The two machines are equipped with some all-new units, including UV, electrical controls and register control.

The machines are also equipped with the module developed by Graficon for the inline production of booklet labels. The base label is printed in the machine and in some cases first die-cut and the matrix taken off. The pre-fabricated leaflets are placed in register onto the web by a dispenser and are fixed by means of lamination or gluing and then die-cut to the final shape. 'The requirement for labels with a high content of information is constantly increasing, Booklet-labels meet these demands and therefore the market for these products is growing,' explained Graficon's Martin Erni. The customers for these machines asked to remain anonymous.

#### SCHOBER SELLS ROBOTIZED STACKER

After successfully demonstrating its RSM 520 + 'S' Stack (Star Wheel) system at drupa, Schober has announced the sale of a similar model, but with in-line robotization ('V' Stack), for product stacking and counting.

The high capacity stacking system has a third variant, the 'M' Stack, for very short runs. The 'S' Stack is optimized for long runs and the 'V' Stack for very large products and complex product layouts. The new machine will be ready for shipment by the end of March 2009.

#### UV RAY OFFERS LOW-HEAT AND POWER SYSTEM

Maxwell WA is UV Ray's latest water-cooled, long-arc reflector with the same features and sizes of models with forced air cooling. It is fully extractable, has a low working temperature with reduced refrigerating power.

The Maxwell WA system uses lowpressure water recirculation that enables the use of standard pipes (Ø 10 to 12 mm) and a compact refrigerating group. The manufacturer claims 30 percent energy savings for three every three reflectors installed compared to comparable systems.

Another feature is 'Smart Start', a lowpower starter system claimed to reduce initial power requirements by 50 percent. Maxwell WA is optimized for both in-line and larger format central drum machines converting unsupported film.

# CORPORATE CULTURE



# Making your suggestion scheme make sense

BY RON KAUFMAN, author, educator and motivator

Markets today demand greater innovation. You need new ideas, better processes, more innovative products and services, and more effective ways to build strong futures with those customers. In the current economic climate, it is time to revisit the 'Staff Suggestion Scheme' – a low-cost yet effective technique when done right.

The 'Staff Suggestion Scheme' is a time honored process of wooden boxes and pre-printed forms for staff to write out their ideas and submit them for management consideration. Here are six ideas you can implement right away to make your suggestion scheme more effective:

#### Respond to all written staff suggestions immediately and in writing

Be candid. If the answer is no, say so. If the answer is yes, state when staff will see implementation. If the answer is maybe, explain the issues involved and give a date for further reply. Nothing builds trust and credibility faster than making new promises and keeping them. One exception: do not reply to obscene or abusive suggestions.

### **2** Respond to suggestions publicly, for all to see

Usually, when one staff member writes, she speaks what is on the mind of many. Reply openly on a designated bulletin board, in a weekly printed update, or by electronic mail. Thank the writer(s) for their query or contribution. Include staff names on suggestions to be implemented.

#### **3** Give an award, prize or monetary incentive for best suggestions

Try this approach: dedicate \$1200 (or your local equivalent) to the project. Give the money away in \$100 increments every month for one year. Each month, give \$50 to the best idea, \$20 for the second best idea,

and \$10 each to the 3rd, 4th and 5th best suggestions. In the first months, few may believe that you will give out the money in a timely manner, and possibly only a handful of staff will participate. But no matter how small or meager the suggestions, give out the money anyway! As soon as staff realize you are serious, the boxes will be filled with suggestions.

### **4** Establish different categories for your awards

Clear categories can help staff focus and generate new ideas. Here are examples of categories you can use: ideas that can be implemented immediately, ideas for getting closer to customers, suggestions for cost savings, recommendations for the future direction of our business.

### **5** Make a big event out of awarding your suggestion scheme prizes

At the end of the year, give recognition to the volume of suggestions received, the winners who have been rewarded, and the changes enacted as a result. Then, pose a challenge to everyone to double the volume of suggestions in the coming year. And, if the quality of ideas warrant, double your cash prizes, too. If the ideas are good, it's certainly worth your investment.

### 6. Most of all, implement

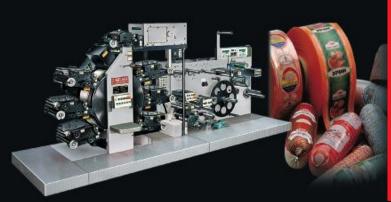
Act upon what your staff suggests. Nothing demonstrates your commitment to this approach better than a staff suggestion recognized, rewarded and immediately put to work.

Ron Kaufman is the founder of UP Your Service! College. For more information, please visit www.UpYourService.com.

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**PW-260-R6C P TYPE 6-color Full Rotary Letterpress** APPLICATION: Special design for Soft Packaging Materials Printing as well as Films such as Artificia

Special design for Soft Packaging Materials Printing as well as Films such as Artificial Polyamide Casing, Wrap Around Label (BOPP), and Shrinkable Sleeve (PVC).



### *PW-460-R6C I TYPE 6-Color Full Rotary Letterpress* APPLICATION:

Special design for In-Mode Label (IML) and Special Shampoo Label printing as well as Self-Adhesive Label and Single Layer Non-Supported Film, such as BOPP, PET, PVC, etc.



### **PW-260-R6C MN TYPE** 6-Color Non-Stop Full Rotary Letterpress

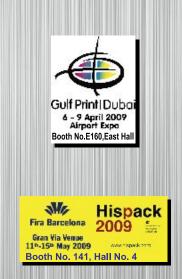
APPLICATION: Self-Adhesive Label, and Single Layer Non-Supported Film, such as BOPP, PET, PVC, etc.



## **PW-260-RT6C T TYPE** 6-Color Full Rotary Letterpress APPLICATION:

Special design for Tube Laminate Surface Printing as well as Films such as Wrap Around Label (BOPP) and Shrinkable Sleeve (PVC).





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