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Labels & Labeling

The wider world of narrow web

Jun/Jul 2005

Volume 27 Issue 3

Analysis

Labels specialist OPM builds flexible packaging business using in-line skills

Case Study

Mark Andy reveals complete in-line RFID label production solution

Inks special

Ink suppliers target combination printing on challenging film substrates

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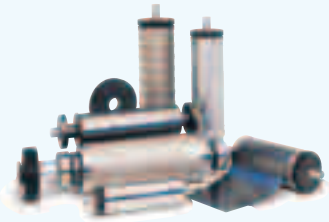

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New products

Stork Prints

RSI Compact 'entry level' screen module

Stork has introduced an 'entry level' version of its rotary screen integration unit. The RSI Compact module is small, light and very easy to set up, according to the company. It is designed to allow start-up companies and occasional screen-process users to break into high-end label markets, and is ideal for printers wanting to undertake shorter runs or repeat jobs.

The RSI Compact Rotary Screen Unit can be fitted into almost all narrow-web presses on the market. It runs at up to 328 fpm (100 mpm) alongside other printing processes.

Weighing 40kg, it is available in 10"or 13" widths, and has a repeat size range of 12" to 18", with increments of _ ".

A number of features aid easy set-up. First is a screen suspension that automatically picks up the screen, brings it to the printing position and sets it to the correct tension without operator handling or interference. A single-knob squeegee suspension control system keeps the squeegee-tip fixed in the optimum position throughout the printing run, without the need for adjustment. This stops the screen from being forced against the impression roller, giving the screen a longer lifespan. This in turn means more printed meters per screen and virtually no downtime for damaged screen exchange.

Stork's smart automatic Slow Rotation mode works during stoppages, ensuring the screen is turned very slowly, to stop ink leakage through its open area. This lowers the surplus of ink laydowns and thus simplifies restarts.

Optional features, further improving ease of operation, include an ink level control unit ensuring constant print quality and preventing overflow. The unit automatically keeps the ink at the level that was originally determined by the operator. It does this by adjusting the flow in the ink pump according to the printing speed, stopping flow when printing stops.

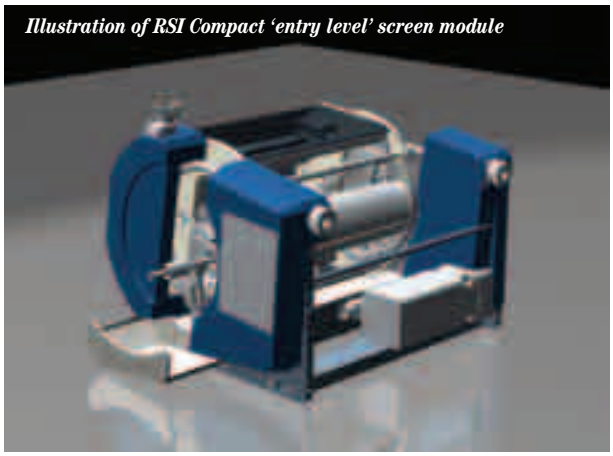
Also optional is Stork's patented FPS (flexible positioning system) rail, so the rotary screen process can be moved manually to any position in the printing sequence within minutes. It means an operator can easily switch from printing a solid white in the first position on one job, to for example varnishing at the last position on another.

An optional automatic register control keeps the servo-controlled unit in track.

For ease of maintenance there are fewer moving parts, and worn parts are easily replaced without needing to call on a service engineer in most cases. The Compact unit is compatible with Stork's RotaMesh screens.

'Rotary screen lets you offer numerous highly creative, eye-catching designs that help your customer's brand stand out on a crowded retail shelf,' says Jaap Poelman, technology group and program manager at Stork Prints Tactile finishes. 'Braille, high-lustre varnish effects, metallic finishes, opaques – including the no label look, security features and even colour changing labels are some examples. The fast investment return offered by our new RSI Compact means label printers can easily devise exciting, unique solutions.'

Illustration of RSI Compact 'entry level' screen module



Esko-Graphics

Cyrel Digital Imager (CDI) Spark II flexo imager

Esko-Graphics has introduced the Cyrel Digital Imager (CDI) Spark II, the next generation of the company's popular flexo imager. The CDI Spark II boasts a new plate loading table similar to the one delivered on the Spark XT, and the new EasyClamp II drum for easier and faster plate loading.

The CDI Spark II is delivered at three productivity/speed options: Optics 7.5 offers a productivity of up to 0.75m (29.5in.) per hour, Optics 15 offers up to 1.5m (59 in.) per hour, and Optics 25 allows up 2.5m (98.4 in.) per hour of imaging productivity.

The Spark II is able to image flexo plates 635mm x 762mm (25" x 30") or smaller, and foil-based letterpress plates or ablative film as large as 635mm x 815mm (25" x 32"). The Letterpress Option with a magnet-vacuum drum can image steel-backed letterpress plates as large as 635mm x 815mm (25" x 32").

The new EasyClamp II drum is similar to Esko-Graphics' original EasyClamp drum, in that there is no need for any tape to mount full format plates onto it. The new clamp design now provides separate front and tail plate loading with a simple one-turn operation, making plate mounting faster than ever.

The CDI Spark II is prepared for Inline UV-Main Exposure, which enables plate imaging and UV main exposure to occur simultaneously in one device. Combining these two process steps delivers both economic and quality benefits, eliminating about fifteen minutes of processing per plate – as well as lower labor costs thanks to less operator handling.

'The new generation of Spark II CDI flexo imagers have been built to make it easier for prepress departments to handle and process plates,' comments Jan Buchweitz, product manager Digital Flexo. 'The new EasyClamp II will allow operators to mount plates faster and more securely on the drum as well as to reduce plate wastage.'

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Leader

Nowhere is the globalization of the labels business more apparent than at the Labelexpo global summits which *Labels & Labeling* is sponsoring. The most recent took place in Sao Paolo, Brazil.

A presentation by Gonzalo Fernandez, director of global R&D at Unilever, forcibly made the point that globalization is at the top of the international brand owners' agenda. Faced with intense competition both from competitive brands and from global retailers' own (private) label brands, Unilever is looking to drive out costs while pushing for constant product innovation and getting these products faster to market.

Although brand owners like Unilever are theoretically global operations – the company sells 250 million products a day in over 150 countries – its packaging/decoration operations remain local. This introduces many inefficiencies, with the same products being originated multiple times and innovations introduced at different times throughout the world. This increases stock holding, extends lead times to market, ties up considerable resources in design/approval cycles and makes global advertising and marketing campaigns hard to co-ordinate.

"So the drive is on for global brands to evolve into genuine global operations, introducing the same innovations quickly and at the same time, around the world"

So the drive is on for global brands to evolve into genuine global operations, introducing the same innovations quickly and at the same time, around the world. Suppliers to the label industry are also consolidating on a global basis, and Fernandez reckons that in 3-5 years they will be genuinely global operations, rather than just having a global presence. The missing element is the fragmentation of the label converting sector.

'As label converters you need to become global,' said Fernandez. 'You need to participate globally either through acquisitions or alliances.'

Overall, Fernandez had a positive message for label converters in Brazil and around the globe: by becoming part of global alliances which drive out local inefficiencies – and therefore costs – converters can become more profitable businesses by delivering value-added innovations and becoming full partners in global decoration and supply chain strategies.

Andy Thomas
Group Managing Editor

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Chris Ellison, managing director OPM Group

Narrow web Flexibles

Narrow web converter OPM has successfully established a division dedicated to flexible packaging, building on in-line expertise gained from its core labels business. **Andy Thomas** reports

Regular L&L readers and visitors to recent Labelexpos will be well aware of the widening potential of the narrow web press to handle a wide range of unsupported materials. And not just label products like shrink, stretch, wraparound and in-mold labels, but flexible packaging applications, such as pouches, sachets and flow-wraps.

One of the pioneers of narrow web flexible packaging production, the OPM Group in Bradford, England, recently stepped center stage with a Gold in the flexible packaging category of the prestigious FTA awards for a job which involved surface printing on PET laminates.

Chris Ellison, managing director of OPM, has been involved at the cutting edge of the labels business for twenty years. Driven by the falling margins in the PS labels business, Ellison looked at entering the flexible packaging market using OPM's existing skills in narrow web label converting.

'Five years ago I was aware that flexible packaging buyers had difficulty getting hold of shorter runs, and at the same time, Nilpeter approached us with the GLS 'cold cure' UV system. Heat and stretch are the main problems in converting flexible packaging, but the GLS cool UV got around that.'

Up to that point, OPM printed water-based flexo at its Keighley, Yorkshire operation, and planned to move its label printing to UV at the same time as entering the flexible packaging area. 'Our original idea was to set up a high quality UV label operation and hedge our bets with flexible packaging,' says

Ellison. 'So we needed a high end label press that could also do flexible packaging.'

That press was a Nilpeter FA3300, but using it for unsupported film proved a steep learning curve, and the decision was taken to set up a separate division in Bradford to specialize in flexible packaging. 'We brought in Nilpeter, our anilox supplier, repro/plate supplier and ink supplier, said "bring your products in here, and in three full days we want you to make this work – to find a solution." We ran fingerprint tests, recorded data and wrote new specifications. Our part of the deal was that the successful companies would have our business for two years.'

One of the first jobs was a shrink sleeve label for a Superdrug toothpaste tube, previously silkscreen printed, which saved the end user 30 per cent and won OPM an EFTA (European Flexographic Technical Association) award.

Two years later the Bradford operation has developed a high level of expertise in materials, printing and application machinery for flexible packaging, and has won the confidence of some initially skeptical customers and suppliers.

'We were probably a couple of years ahead of the market, and it was tough for people to commit to what we wanted to do,' says Chris Ellison. 'Now it's easier when the rest of the industry is getting on board and buyers are more receptive and prepared to listen. It helped that we won EFTA Golds and Silvers for our flexible packaging work in 2002 and in 2003 went back and won more awards, culminating in this FTA award for a very difficult flexible packaging job.'

Today OPM Bradford converts a wide range of flexible packaging products, including pouches, sachets and flow wraps. But shrink sleeves are not on OPM's road map. 'People are jumping on the shrink sleeve bandwagon, but on our original FA3300 it's not easy to adjust the repeat to achieve the exact shrink percentage. The new servo press, however, does give us that flexibility on repeats. This takes out the guesswork, so we will revisit the sleeve issue.'

OPM also has the capability to produce cartons. 'We're not looking to produce tonnes of folding boxboard,' says Chris Ellison. 'We are looking for added value niches which include in-line lamination and cold foiling.'

Technical requirements

To prosper in the flexible packaging market, narrow web converters must be able to match the quality of gravure. OPM prints at a minimum of 150 line screen, and often up to 175 line screen. 'We print a true 1 per cent dot with a 0.1mm grip using digital plates, and we were doing this five years ago,' says Chris Ellison. 'At our first EFTA awards, people thought we had produced the job on a CI press!'

"If you encapsulate the print then you take away risks involved in food contact. The new Nilpeter press is set up with IR lamps as well as UV so we can use water-based inks which are food contact approved"

OPM converts pre-laminated materials, and can laminate in-line, with both surface and under surface printing.

'For our first sachet job, we used a unique seal system to bond two 'incompatible' materials, and this showed us that we could laminate in-line without using a dedicated lamination station,' says Chris Ellison.

Ensuring food contact compliance is another 'must' in the flexible packaging market. 'We approach things in a careful and methodical way, trialing components,' explains Ellison. 'If you encapsulate the print then you take away risks involved in food contact. The new Nilpeter press is set up with IR lamps as well as UV so we can use water-based inks which are food contact approved.'

As for run lengths, Ellison says the 330mm print width is good for runs of 20-30,000 linear metres, while at longer runs the cost of UV ink is a major consideration. This forms a 'break point' where wider web flexible packaging starts to make more sense.

'Wide web printers who know what we are doing know we are not a threat to them. We can actually take away a problem they have with short run work, which they don't want. Obviously our repro is cheaper than originating cylinders. We can do repro, print and be on the shelf to a gravure standard in two weeks. This enables clients to gauge interest before moving to higher volumes. With gravure this process can take 6-8 weeks.'

Ellison did look at digital for short runs: 'We're still not convinced that the quality is there in the cleanness of fine type and hard edges on key lines, and it looks pixelated. Run speeds are getting better, but we are yet to see people making money from digital.'

FA-3300s converting flexible packaging at OPM

Partnerships

The pressure is on narrow web converters to participate in their customers' supply chains to take out cost and drive through market-winning innovations – and this is as true in flexible packaging as in labels work. 'We aim to strip out costs and work closely with brand managers down to specifying pigments,' says Chris Ellison.

As ever, the challenge is to become involved in the product cycle at the earliest possible moment. As an example, OPM's particular expertise is in controlling brand colors across multiple substrates. 'We have proved that we can produce swing tags, labels and sachets on the same press using the same inks and the same repro to a very small delta E range,' says Chris Ellison. 'One customer asked us to match a green. Not a problem, since we can measure color accurately. But we were the last in the chain and had to decide which green to match! The label, or the flexo wrap - which green do you want? We said, if we can produce the whole thing, we can ensure brand consistency. So we now produce the full range of packaging across multiple substrates.'

Along with active participation in the supply chain, Ellison values innovation above all else. 'We will always need a certain amount of volume, but we want to be looking at new innovation solutions all the time. It is this that builds partnerships more quickly and securely with our customers. If you have developed a product that gives the customer a competitive edge, the discussion is less likely to be about price next time. For us the costs are up front, but it does pay off.'

Servo vs lineshaft

Why are servo motors driving the plate cylinders better suited to converting unsupported film than a lineshaft drive?

1.With a shaft driven press you get backlash from the AC/DC motor as you start up. This causes unsupported materials to stretch before the press settles. The same stretching and settling happens when you ramp the speed up and down, making register hard to control.

2. Servo drives are 'stepper' motors which turn the plate cylinder in precise increments determined by a plc. Precise loading of the motor means a smoother gradient when the press speed is ramped up and down, so the material does not stretch.

3. On a shaft driven press the print length register is altered to compensate for the material moving around. With servos, the auto register system measures a printed mark and compensates for material stretch by adjusting the speed of each print cylinder. Each print head thus has its own data curve.

Backlash/stretch is less of a problem with label laminates because the face material is supported by the carrier. 'You have to be buying servo for the right reasons – not because everybody else is buying it,' says Chris Ellison. 'For PS labels you can get just as good a job on the conventional press. You have to know how and where to utilize these new machines to get the full benefits of servos.'

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A selection of flexible packaging products converted at OPM: flowraps, pouches and film labels

"Everybody understands this from the printers to the rewinders and pre-press and ink mixing departments. They are all trained to break the press down and rebuild it"

This attitude has encouraged suppliers to use OPM as a test-bed for their new products, most recently testing highly pigmented ink systems and silver inks. OPM was also heavily involved in the development of the MetalFX 4-color process metallics system.

Vision in Print

For Chris Ellison, the involvement of staff in the development of OPM has been critical to its success. 'Colleagues here have a good attitude because they understand what we are trying to achieve and what benefits working smarter will bring. This is essential to implement Lean manufacturing.'

Ellison is a board member of Vision in Print, responsible for introducing the 'Kick Start' program to the labels and narrow web sector (for full report see p78). Kick Start involves site visits by ViP engineers whose Lean Manufacturing expertise is outside the print industry, giving them an invaluable objectivity when assessing best working practice.

'We have been through Kick Start at our Keighley labels operation, and I'm convinced this is the way companies have to move,' enthuses Ellison. 'The engineers go through your whole production process. They tell us where we can improve things and they involve the workforce, who buy in as soon as they don't feel threatened.'

The central plank of Lean Manufacturing at OPM is a clear understanding by all employees that 'the press is king and the rest is cost.'

Ellison elaborates: 'Everybody understands this from the printers to the rewinders and pre-press and ink mixing departments. They are all trained to break the press down and rebuild it. The next job is already prepared when the last job is finished, and as soon as the press stops, everybody stops what they are doing and works on press makeready. Then everyone works on breaking the tooling down. They know that all the time that press is standing still we are not making money.'

The press operators in particular deserve a high level of respect, says Ellison, and they need to be empowered. 'I know they impress our customers with their understanding of their technical requirements.'

The Bradford operation is indeed a 'Lean' manufacturing unit, employing just seven permanent staff to produce a £2M turnover. The company works a 12.5 hour days and 6 day weeks. Four press

Nilpeter FA-3300

operators work in a cell manufacturing structure and the rest of the company is organized around them. Administrative support is provided from Keighley.

A Tharsten management information system (MIS) is networked throughout the group, allowing production to be scheduled electronically. It is a full logistics and estimating package with keystroke entry of press up and downtime. 'The Tharsten MIS was a sheetfed system and we spent 6 months working with the company developing it for the narrow web business,' recalls Ellison. 'The MIS is simply essential to understanding how the business is performing, and has allowed us to be far more accurate in our estimating. For example, we know that it takes seven minutes to change a print unit on the Nilpeter averaged over 12 months. All this helps us to plan production more efficiently. Now we can run a very fragmented business with very few staff.'

New press

OPM Bradford's first Nilpeter FA-3300 was configured as a 'UV label press that could also produce flexible packaging.' The new FA-3300 'S' – incorporating servos on the plate cylinders - was specified as a dedicated flexible packaging press.

The installation of the Nilpeter FA-3300 'S' at OPM alongside a shaft driven version of the same press, gave the company's press crews a chance to make a direct comparison: 'The guys are in love with the new press,' enthuses Chris Ellison. 'It is totally dependable on registration and there is a perfect match, dot to dot, including reverses out of 6-colors. When we trialed the press in Denmark, we sent our Intercolor ink technicians and our own operators with our own unsupported film material, and the 8-color plus lamination job was straight in register at 40-50 meters a minute. Ramping the speed up and down there was a little shudder before it was back in register. We tried everything to get the register to move out. This is the true benefit of servo'.

OPM is currently field testing GEW's latest IR drying system on the new press, which is also configured with a GEW VCI UV curing system. This will also replace the GLS UV on the original FA-3300. Temperature and humidity are now controlled centrally in the press hall, which has helped in getting the inks to dry more consistently.

Ellison is pleased with the two drop-in Screen heads on the new press. 'It makes it easy to change over processes, and you have the same facilities for screen and flexo in terms of drying, and most importantly register control. With the RSI units you had to deal with a separate drive and it was hard to get it in register.' Ellison has also been trialing Intercolor's new UV flexo whites. 'They have high opacity and can sometimes replace screen whites.'

The press has a new cationic cold foil system claimed by Ellison better than the previous free radical system, and the line is completed with a Doyle web cleaner and Sherman corona treater.

Cyfos fingerprinting tests are run to assess dot gain curves for the two FA-3300s, so jobs can be run on either press - which naturally have compatible tooling. 'We run to one repro standard, which makes it much easier to schedule work,' says Ellison. The new press is linked by modem to Denmark.

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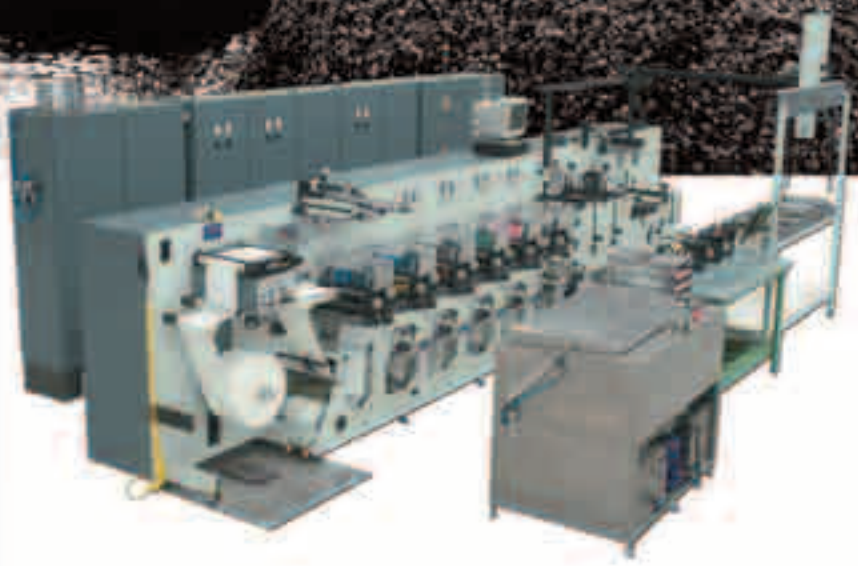

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Germark invests in MPS

Germark has invested in a 410mm wide MPS press – the 100th machine MPS has sold – to increase its production flexibility. **Andy Thomas** interviews MD Iban Cid on the new press and the current state of the labels industry

Iban Cid, managing director of leading Spanish label converter Germark, has carved an important position in the European pressure-sensitive labels sector, holding the presidency of FINAT from 2001-3 and holding the same position in ANFEC, the Spanish Association of Label Manufacturers.

Given this background, and his experience in running a successful PS-focussed labels converting business, Cid has strong opinions on what this fragmented industry needs to do to survive.

Germark was founded in 1958 by Iban's father Germán Cid, who pioneered the introduction of self-adhesive labeling systems into Spain. Germán went into business in the aftermath of the Spanish Civil War, selling nylons and other apparel products. On holiday in Andorra with his family, he saw PS labels for the first time being used to price mark apparel products.

'He asked how he could buy them for his own products, then bought three hand-operated printing machines, and became a reseller in Spain of Guhl & Scheibler printing machines,' recalls Iban Cid. 'Two years later he bought his first mechanical printing press dedicated to labels.'

Iban was, as he puts it, 'forced kindly' into his father's business, serving an eight year apprenticeship working the morning factory shift in all departments from estimating to quality assurance, then finally as commercial manager. In the evenings he attended college to study for an economics degree.

Today Germark is headquarted in Barcelona, with commercial and technical centres in Madrid, Malaga, Valencia and Bilbao. Iban Cid has kept the business firmly focused on PS label converting, not only printing labels but also manufacturing labeling coding and applicator systems, which account for one third of the company's revenue (see box 1).

Germark is a successful player in a tough market. The company showed a healthy increase in turnover of 6.4 per cent last year. 2005 sales are forecast to rise to 16M Euro from 13.25M in 2001.

Germán Cid founded Germark in 1958

Digital printing

Germark was the first label converter in Spain to move into digital printing, installing a Xeikon digital press with a Nilpeter finishing unit back in 2001. In that year Germark entered the Guinness Book of Records for the World's Largest Label, with a 100 metre-long piece printed on the Xeikon.

Iban Cid says digital printing has never made money, not because the technology does not work, but because 'digital' customers are hard to find. 'The printing costs are so high, that we cannot enter the logistics markets where variable print is demanded,' Cid points out.

Another frustration concerns hitting pantones 'We found in the early days that we could not repeat colors consistently when we ran the job a second time,' says Cid. Like so many other 'digital' label converters, Germark now prints its own digital pantone color books.

But a digital capability has opened doors to customers which Germark could not reach before, 'so it has worked in the wider business through the ability to offer short runs,' explains Cid. A job on the press when L&L visited was for a run of 25,000 labels, but in multiple variants which would never work commercially on a conventional press.

Another benefit of installing the digital press has been mastering the digital workflow: 'One day all presses will be digital,' says Cid. 'Fast service is the key, and our workflow had to be changed to manage it. We already understand it for the future.'

The Xeikon press is currently printing over one 8-hour shift.

Just over 15 per cent of last year's production was exported – 2.4M Euro by value – and that is predicted to rise slightly this year. Spain remains the key market, and much export activity in North Africa is accounted for by sales to Spanish companies – particularly in apparel - which have outsourced production to Morocco.

Keeping ahead of the game involves constant investment in new equipment. Germark follows a two year investment cycle coinciding with Labelexpo Europe, with spikes of 1.6M in 2001, 2.6M in 2003 – when the first MPS press was purchased – and 2.8M forecast for this year, of which 1.2K has been invested in the new MPS press, and 500K in expanded facilities for the coding division.

The pressure-sensitive labels division has achieved success by the consistent introduction of innovative solutions in the areas of security and information handling.

Booklet labels are a speciality, and in 2002 Germark became the first Spanish label converter to win ExxonMobil's prestigious OPPack Gold award for its 'Double Label' booklet system, which uses transparent film on the outer face. 'This is a higher price substrate, but the customer saves the price of a leaflet and carton,' Cid points out.

Other prizes for PS label innovation have been won from FINAT and TLMI competitions and from Xeikon's annual Diamond awards, which celebrate innovative applications for its digital presses across the world.

Another example of innovation involved security marking of pharmaceutical labels with invisible ink. The end users - or their agents - swab the label to reveal the code. Sequential codes are applied with an off-line inkjet system housed in a secure area of the factory after conventional printing of the labels on the Nilpeter FA3300 flexo press.

'This end user was having problems with product diversion, particularly into the Thai market,' says Iban Cid. 'This was the first time this solution has been available to end users on a label, and not just on the outer carton.' The project took three months to develop.

Although strongly focussed on PS work – shrink sleeves or other unsupported film products are not on the company's roadmap – Germark

Coders and applicators

Label applicators account for 15 per cent of Germark's overall sales, and coding machines another 20 per cent. The machines are assembled at the Barcelona plant around Avery Dennison thermal transfer engines. The division is responding to demands in the industrial sector for data capture and information handling, and offers workflow and IT resources to help end users implement the technology.

Germark sells these systems through a network of agents in Europe and Latin America, and is now looking for technically competent distributors in the tough US market and in Eastern Europe.

End users are starting to ask for RFID capability, and Germark's applicators can now inlet RFID antennas behind the PS label. The company's UEP print-and-apply pallet labeler is already adapted to read and write RFID labels at speeds up to 100 pallets an hour.

Iban Cid points out, however, that Germark has not yet implemented any 'live' RFID projects. 'We have not found a real customer for RFID, although all are asking.'

(Left) Eric Hoendervangers, managing director of MPS. (Right) Ivan Cid, managing director of Germark.

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has expanded into rotary board production with an application for tags for a Japanese lollipop manufacturer. It was this customer's demands for 100 per cent inspection and long job runs which allowed Germark to invest in its Nikka inspection system. Japanese company Nikka is a major player in the circuit board inspection industry, and Germark has partnered with the company to develop products specific to the labels market in return for being the first user. The Nikka system is attached to a custom-built Rotoflex rewinder.

Like so many European label converters, Germark has made the journey from letterpress to UV flexography. Germark's first rotary press was a Gallus R-160 letterpress machine – which is still running – and the company runs a battery of these Gallus presses, although these will be removed to make way for the new MPS press.

Germark's UV flexo presses currently include an Omet Multiflex 410 fitted with a Martin Automatic non-stop unwind, which is dedicated to long runs in excess of 6,000 linear metres, or three material rolls. Germark has abandoned the in-line inspection system on the press, which is 'simply too complex to set up', according to Iban Cid, and moved inspection to its off-line rewinders.

The first MPS EP (Effective Printer) 410 press was installed three years ago, a 9-station machine with eight flexo/silk screen units and the last unit dedicated to varnishing. On the MPS press each flexo print unit can be quickly converted to screen by the simple exchange of inking and squeegee kits.

'Most of our customers buy the press with three squeegee kits,' comments Eric Hoendervangers, managing director of MPS, 'Unusually, Germark chose eight exchange units.' Germark claims to be have produced the first 8-color rotary screen label on the market for a kids sun care label.

Iban Cid explains why the second MPS machine was ordered: 'We are getting more price pressures from customers, so we needed more productive presses at the 400mm width. The press has been specified with both hot and cold foil and has the flexibility that we can put screen or flexo anywhere on the press, while it is a fixed position on the Nilpeter. We might also need to change from PS to board, and the MPS press allows this very easily.'

Cid says press manufacturers are using the wrong arguments to sell 'multi-substrate' presses. 'Nobody prints pressure-sensitive, shrink and board on the same machine on the same day. Presses need to be dedicated to one type of job.'

The sale of this EP410 press also represents a milestone for MPS. It is the 100th machine the company has sold.

Real-time monitoring of shop floor production data at Germark

The state of the industry

Iban Cid has strong opinions on what label converters must do to survive in today's tough commercial environment. The industry's first problem is its high level of fragmentation:

'Concentration amongst label converters is taking place in Northern Europe, but has not yet hit Spain. But our customers and suppliers are concentrating and we are caught in the middle. We have to increase our size.'

The industry must also move away from commodity label production. 'In the future non-premium labels could be printed in China or even Morocco, where labor is so much cheaper. We simply do not have the volume to compete.'

Cid believes that Lean Manufacturing and Added Value are the keys to success. 'We must learn lean manufacturing quickly, implementing Single Change of Die (SMED) thinking to reduce our costs.

Press manufacturers must work to design very quick change presses, and we must be able to do this in a production environment, and not just in a show environment. We all need to change our mentality. We must make sure all our presses add value with flexography and combination printing.'

Planning is another critical issue, and this requires real-time information from a good Management Information System (MIS). 'Our problem is dealing with the variables. We need to capture data, then decide the work order. We have to balance that information in real time and give our customers reliable information. Service is the key.

'We must work on more efficient job preparation for rolls, plates and inks - one day, one hour and one minute to the press. You should know how long to the end of a job. And if we have real time information telling us why a job took so long, for example because of dust on the plates, we can measure which incident creates the wasted time and take measures to avoid the problem. This can all be achieved with our MIS software.'

The 'Lean' and 'Added Value' mentality must also take in customers. 'We now teach the designers of our customers how to design labels for different print processes, so the whole process is cheaper and the label designs are better. It's best if we can speak to the marketing people first, then you can influence the designers. As an example, one designer sent us designs for care labels for clothes which were the cheapest on the shelf, and he sent us a 14 pantone label design!'


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Getting in-line for RFID

Mark Andy revealed a complete inline RFID label production solution at its latest Educator Seminar, highlighting that a profitable solution for converters isn't far off. **Katy Wight** reports

Label converters have been bombarded with messages about the potential RFID market since retailers began issuing mandates, but few have been able to identify an affordable inroad into the technology. Mark Andy's seminar, 'Inline Solutions for Today's Converters,' a joint project with Tamarack Products, took place at Comco's Advanced Training and Technology Center in Milford, Ohio, and reinforced that the opportunity from RFID isn't just hype. Mark Andy unveiled a complete inline RFID label production solution – from antenna printing, to inlay insertion and verification – to demonstrate how RFID labels can be made, and focus on the profitable aspects of delivering the finished goods.

UHF is the key

'The RFID market size is currently $1.7 billion,' said Michael Liard, RFID program director at consultancy Venture Development. 'This is expected to grow to $5.9 billion by 2005. This near-term movement is being pushed along because of the retailer markets, although closed-loop systems such as toll collection and security cards are potentially a big market. Consumer goods are expected to account for 22.5 percent by 2006.'

High frequency (HF) systems are already well established in many sectors, but UHF was favored for case and pallet labeling in retail environments.

'At higher frequencies, the read-write time is much faster, although you have to increase the amount of power that you need,' said Kevin Manes of Mark Andy. 'We are also not capable of printing an HF antenna right now and if we are aiming at complete RFID-enabled label production, then I believe that converters will be drawn into UHF before anything else,'

Inlay insertion Vs antenna printing

The first demonstration of the seminar showed inlay insertion featuring the Tamarack P500 on a Mark Andy 2200. An RFID inlay, which may also be referred to as a transponder or an RFID tag, is comprised of an RFID chip that houses the data and an antenna. These components are then placed on to a pressure sensitive or film carrier material. In this demonstration, a dry film inlay from

"If we are aiming at complete RFID-enabled label production, then I believe that converters will be drawn into UHF before anything else"

Kevin Manes of Mark Andy introduces the Tamarack P500 for RFID inlay insertion

Texas instruments was used. The labelstock was delaminated and fed through the P500, which uses vacuum transfer technology to accurately place the RFID inlay into each label. The system accepts film or pressure sensitive inlays. A hot melt adhesive is then applied to the back of the inlay and it is re-laminated to the web. The labels were verified inline using a SAMsys 9310 reader, converted with a cavity die and sheeted. The finished labels were then attached to boxes and far-field tested with a 9320 reader.

The second demonstration of the day featured antenna printing on a Comco ProGlide MSP with two different conductive inks. Being able to print antennae not only offers significant production time and cost savings to the finished RFID label, but it also gives converters the opportunity to profit from a greater portion of the label's production. In the first instance, Parmod ink from Paralec was screen printed using a Stork 3R8 screen at 13 percent mesh, with a 24" repeat and four around. The Parmod ink has an IR pre-heat, then a back-up drum heats the backside of the web to 300°F and high velocity airflow around the drum exposes the web to 400°F. Richard Morris of Parelec made a presentation on the main benefits of printed antennas – namely their low cost and high production speeds.

'With an etched dipole you pay for the whole area of the material used for the antenna,' he said. 'Using a conductive ink, you only pay for what you print. An etched aluminum or copper antenna will cost you sub four cents, while a Parmod antenna will cost you less than a cent. It is three to five times less conductive than metal, but that is less important as you go to higher frequencies.'

In tests, Parelec compared read rates with etched metal at four and eight microns and found that it didn't make a difference to performance. In fact, tests showed that performance only dropped at 2 micron. Morris suggests that antenna design might need to be reconfigured to for certain applications to match performance. Comparatively, the Parmod ink is slow to cure, although Paralec has reduced that time in the past year, from around one minute in air to under 20 seconds in a combination dryer.

Antenna printing on the Comco Proglide MSP

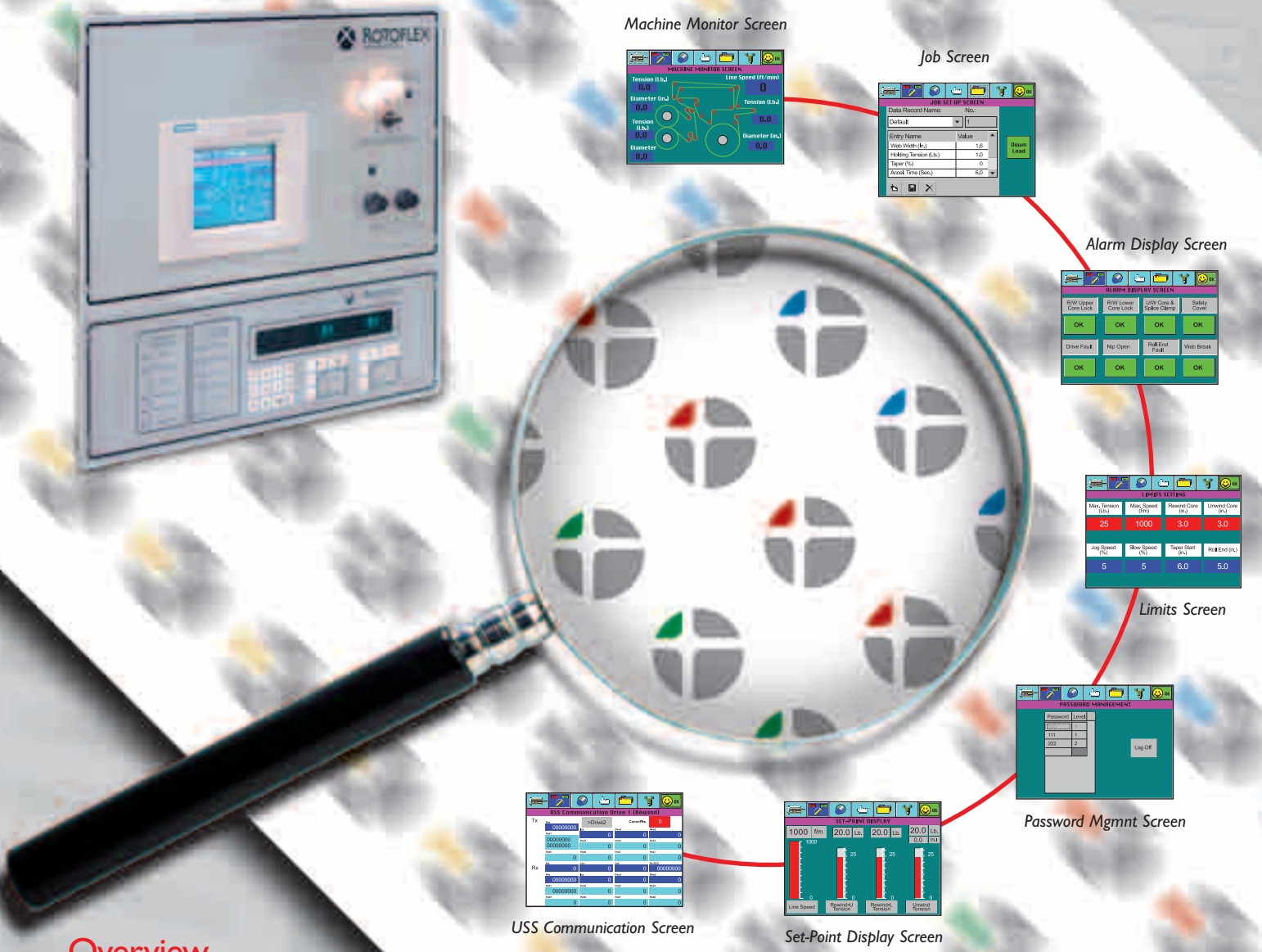
"Being able to print antennae not only offers significant production time and cost savings to the finished RFID label, but it also gives converters the opportunity to profit from a greater portion of the label's production"

The second conductive ink being demonstrated was a UV-cured flexo ink made by Acheson Colloids and distributed by ANI. It was successfully printed on a Dupont EXL polymer plate with 42 durometer, which adds a little cushioning, with a 12" repeat and two around.

Significance of the strap

The main demonstration at the seminar featured the Mark Andy 2200 press, again equipped with the Tamarack P500 RFID inserting module, to illustrate a complete inline solution – from the printing of the facestock, printing of the antenna with conductive inks and attachment of the chip, to finishing and testing.

The process began with a C2S semi-gloss stock, because reverse-printing would be required and as yet, there isn't a good solution for direct printing on top of adhesive. The facestock was four-color process printed and then on station six, it



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The Parmod ink from Parelec is screen printed and than has an IR pre-heat

"The traditional flip chip method of attaching a chip to an antenna is a painstaking 'pick and place' process, which is time consuming and requires a clean-room environment."

was reverse-side printed with the antenna. The antenna was flexo-printed using water-based XINK by IMC. The XINK was applied using the ART Praxair anilox which is designed for high solids and 200cfm ambient air was blown on to the web. The ink is ambient-cured and will post-cure for up to 24 hours, but has 80 per cent conductivity when applied on-press, so it is still possible to encode and verify chips. Ink exposure is kept to a minimum with a special doctor blade. An Asymtek jet dispenser then puts a thermal-cure conductive adhesive on to two pads on the antenna for 'strap' attachment.

Instead of inlays, this time the Tamarack P500 was configured to attach RFID straps (also known as 'interposers') in-line to the antenna. The traditional flip chip method of attaching a chip to an antenna is a painstaking 'pick and place' process, which is time consuming and requires a clean-room environment. The tiny size of the die (chip) and the equipment involved mean that it's not a natural technology for the press room. However, a strap is a chip that has been mounted on a substrate, so it is easier to handle. A wet inlay or strap has adhesive applied to it, whereas dry inlays are just wound on to a roll without adhesive.

At the demonstration, a Texas Instruments (TI) UHF Gen2 prototype dry strap was used.

The chip is mounted onto a PET carrier and is 3mm by 9mm in size. As the inlay is being dispensed into the vacuum cylinder of the P500, it is laminated to a 2"-wide boding tape that supports and offers physical protection for the straps. The strap is cut from the roll and the Tamarack system uses vacuum transfer technology to place it, in register, to the conductive adhesive and antenna at the back of the label facestock. Dave Steidinger of Tamarack says that the straps and inlays are affixed within an accuracy of one-sixty-fourth of an inch, or better. The P500 is servo-driven so that application matches the speed of the carrier web and the press ran at 50 feet/min in the demonstration.

After the P500, a hot melt adhesive is applied to the back of the inlay using a Dynatech hot melt system and the construction is laminated to a release liner which seals the transponder.

Static electricity has been highlighted as damaging to chips and six bars of an Ion Virtual AC static elimination system used throughout the configuration.

Again the labels are die cut and sheeted and the inlays are all verified inline using the SAMsys 9310 reader. The finished labels were then applied to sample boxes and far-field tested with a SAMsys 9320 reader.

'Inlay quality varies by manufacturer,' says Steidinger, 'and the roll length also varies, which is a problem as there is no way to splice inlay rolls at the moment. There are three methods of dealing with defective inlays. You can either apply them all – which will allow you to go the maximum speed of the press – and verify them offline, or you can remove them on-press, but that can only work at speeds of about 200 ft/min. The P500 allows you to vacuum off the bad labels, as it's much easier to find a label with no inlay, than a label with a bad inlay. You also don't disturb adjacent good inlays. The third option is to remove the defective inlay and replace it with one that is functioning. This means that a substantial percentage of defects can be replaced, but this will only run at speeds up to 200 feet/min.'

The system has been designed so that you can add components for scalability and move from one-wide to multiple labels across the web width. Mark Andy has stated that the complete RFID label converting module will cost between $250-500K. ■

Maintaining read rates

Bill Arnold of Omron outlines factors that can affect component survival:

- Unwinding speed creates ESD
- Length of time at a given temperature affects inlay lifespan (shouldn't go above 85ºC)
- Should not be submitted to more than 10N tension
- Find out the bend radius minimum. Omron's recommendation is 20mm for its products
- Uneven pressure is a risk – stay below 10 milipascals
- Use an ionizer to dissipate ES
- Certain adhesives reduce read range of inlay – you also need to make sure that it doesn't need too much heating
- Laminate contraction creates wrinkles that can be damaging
- Different materials need special antenna designs – there are problems with liquids, metals, concrete, metallic paints, films, foils. Reflections lead to multi-pass interferences
- Refraction and diffraction can change wave direction or slow a portion of the wave, but antenna design can compensate for this.

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Shifting that digital gear

Barry Hunt examines some of the issues relating to digital printing, followed by an overview of some technical developments

'Who's making money out of it?' It's a predictable question whenever digital printing is discussed among label converters. Issues relating to reproduction quality, color fidelity, substrate choice and overall productivity have largely been addressed. Yet, after more than a dozen years of continual development, digital color printing still resembles a high performance car stuck in third gear. Currently, digital printing accounts for only 10 per cent of European label production. The market is, however, expected to have grown 70 per cent year-on-year in 2005.

Further inroads into the label market are obviously effected by growth patterns for short-to-medium run jobs. The technology's strength lies in turning work round in hours rather than days or weeks. Today's 'I need it now' syndrome means well over 50 per cent of all label orders in developed markets fall into this category. Approximately 35 per cent of all labels jobs involve runs of under 2,000 linear metres. This trend will continue as businesses are forced to further reduce stock levels in supply chains and adopt 'just-in-time' business practices. One interesting consequence of this scenario is that some converters are known to be considering buying basic semi-rotary letterpress machines, fitted with flat-bed die cutters. It's an economical option, but one that is unlikely to dent digital press sales too much.

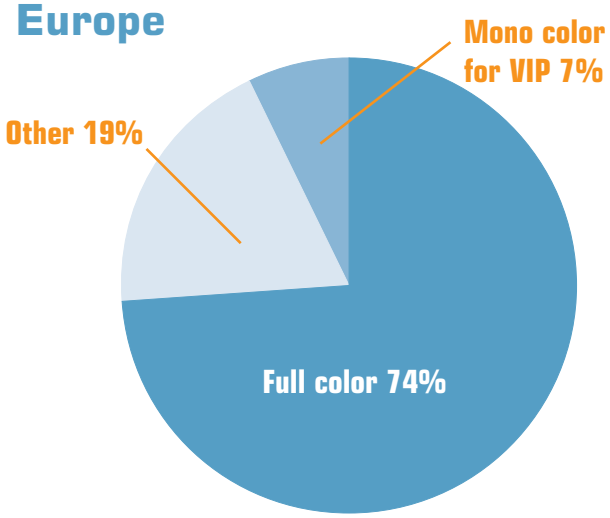
As to market shares, HP Indigo has installed well over 260 digital offset presses worldwide. Surprisingly, it claims to be selling more presses to the label market than each of the leading manufacturers of conventional presses. Cost and time comparisons between a ws4050 and a basic 250 mm wide flexo press give the following figures: an order for 1,000 labels (each 90mm x 50mm), for example, costs around $128 (£67) and $522 (£273) for conventional printing, with a time saving of 143 minutes. Printing 25,000 labels digitally would save $125 (£65) and be completed 107 minutes earlier. For 40,000 labels both methods would cost $770 (£403), but digital would save 84 minutes. The prices naturally include consumable costs, which have always been a contentious issue users of all types

HP Indigo press WS4050

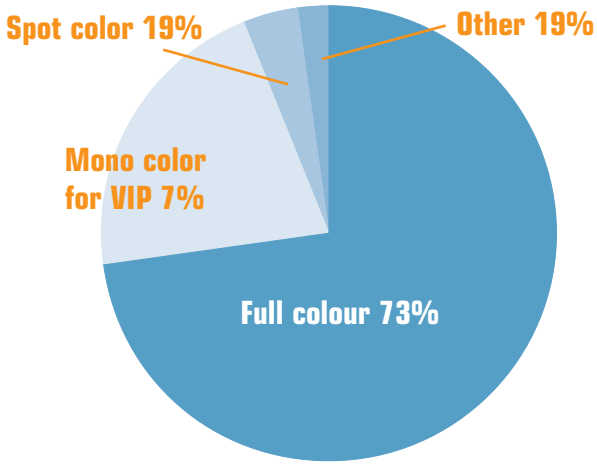
"HP Indigo has installed well over 260 digital offset presses worldwide. Surprisingly, it claims to be selling more presses to the label market than each of the leading manufacturers of conventional presses"

Printers' estimates of the breakdown of market for Digital label printing

Europe



USA

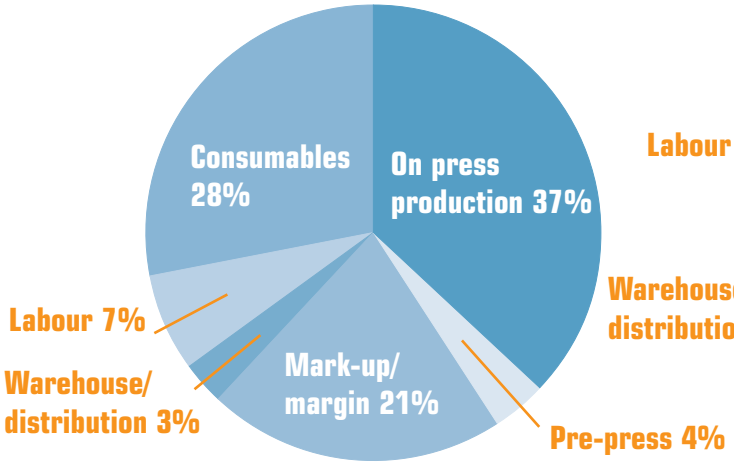


of digital presses. They generally tend to be higher than conventional variable costs, but all vendors say printers should look at the broader picture, taking into account that they save on repro, film and plate costs, while producing saleable products far more quickly with minimal wastage.

Some label sectors have irregular, but urgent, order patterns which are met by installing a digital press to complement existing narrow-web presses. Michael Paul, FLEXcon's product manager, Thermal Technologies, concurs: 'There's been an ongoing trend with conventional press owners to incorporate digital in order to meet the demands for short run applications cost effectively. We are also seeing an increasing use

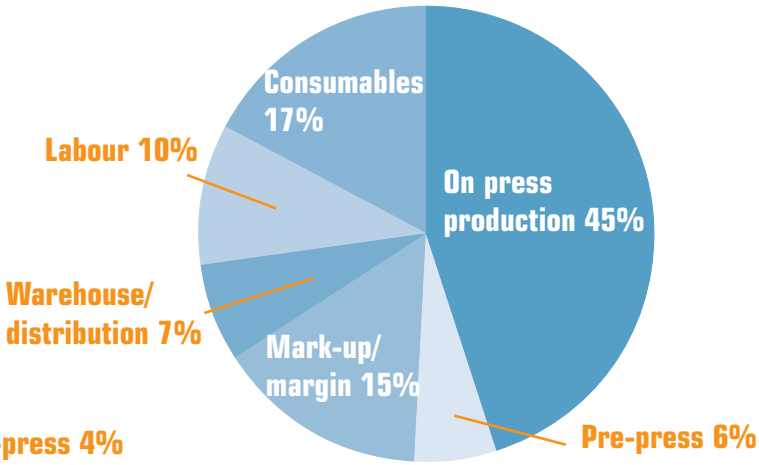
Cost comparisons between digital and conventional label printing – average across European label printers with both technology options

European printers – Digital label printing cost model



% by cost element

European printers Conventional label printing cost model



% by cost element

of digital in applications that, in the past, would only be run flexo or offset. Much work is also being done by suppliers to enhance digital presses and digital inks to handle longer runs and greater durability.'

Danny Dams, HP Indigo's products and solutions manager, says there are goods reasons for the complementary route: 'The workflow solutions that exist nowadays allow the printer to decide on which press to send the job to at the very end of the pre-press cycle (after the RIP). In this way the printer can optimize his production capacity and use each technology for the jobs where it is most efficient. As most printers are under pressure to improve their profitability, a digital press can bring them a high throughput of jobs per shift that cannot be achieved on a conventional press.'

He also sheds light on an interesting issue that typifies the new directions for digital printing. Until recently the technology was unacceptable to most pharmaceutical printers. Some customers would not accept a lack of a control plate (the image carrier changes with each image). With the new ws4050, HP Indigo claims to have overcome this limitation with software features that complies with GMP/GAMP and FDA/EMEA regulations, allowing owners to validate their presses. 'We have only just started to address this market, which explains why many pharmaceutical printers are still ignorant about what we offer', said Danny Dams. 'To-date, we have five installations in Europe: Bopack, Pharmalabel, Baehren, Kohl Pharma and Diamed. In the US we have John Henry and Nosco. These companies are printing labels in line with FDA regulations and with this experience we will launch this application on a wider scale. We also can support the latest FDA guidelines that require all labels to have three security features.'

As for Xeikon, Frank Jacobs, marketing manager, says the company has installed about 80 presses in the label sector. He claims the volumes produced with these installations could be higher than those of competitive products, while conceding there are more of them in operation. 'Label production is a key market for us and it is one in which we have plenty of experience.' He sees the two key digital issues within the label sector as being 'just-in-time' production and the ability to create variable data for labels.

Xeikon UK recently installed its first 330 model at Borble Ltd in North Wales. Interestingly, it links the technology with digital photography, creative skills and the internet to deliver wallpaper borders and banners with non-repeatable patterns. 'Borbles' are

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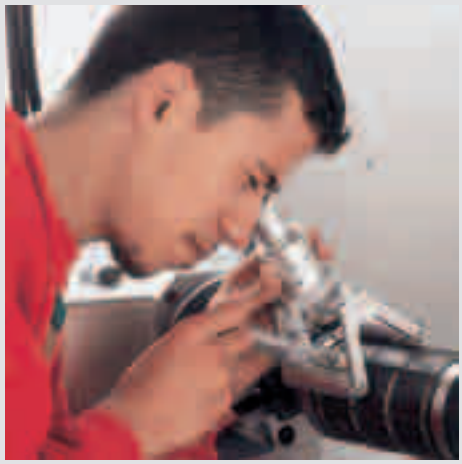

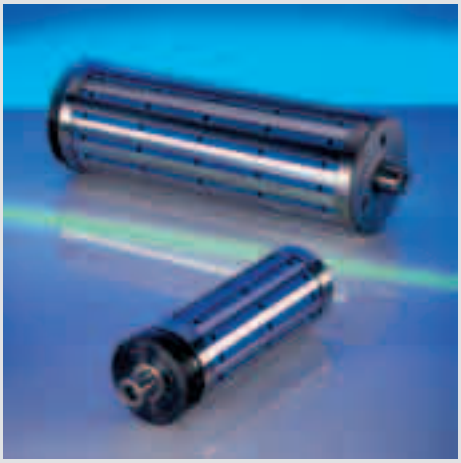

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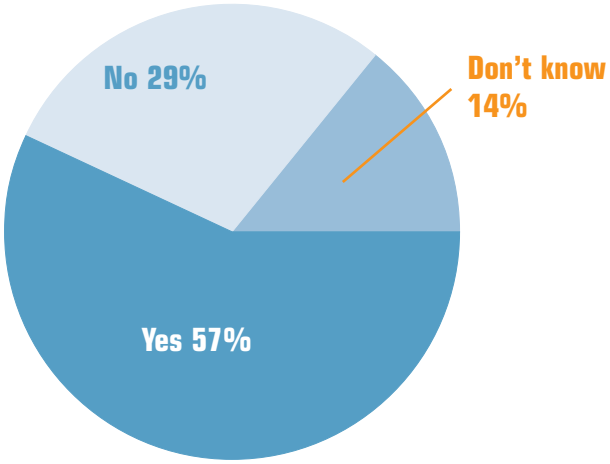

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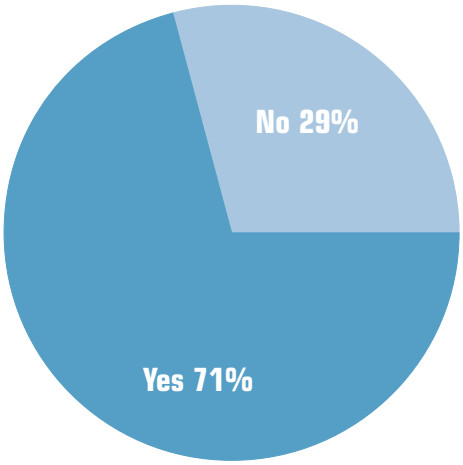

printed to order in bespoke colors and with an option to personalize designs with the buyer's own images and text. Post-press equipment includes varnishing, laminating, cutting, slitting and re-reeling the prints. To maximize the Xeikon investment, Borble also offers a confidential short-run label printing service for the trade.

Applications like these show that potential users should not confine themselves to producing prime self-adhesive labels. Point-of-sale items, retail shelf strips, event ticketing, DIY products and similar added-value items - with or without variable data printing or personalization - are increasing customer options. Some systems can produce film-based items like wrap-arounds and shrink sleeves for test-marketed products. By using existing pre-press techniques, some digital printers have set-up web sites to allow authorized customers to input data for quotes, place orders and receive billing data, while allowing any last-minute changes to jobs and delivery instructions. They typify the immediacy of digital printing and its ability to generate customer loyalty. Perhaps it is time to move that gearshift up a notch or two? ■

Digital technology roundup

The second part of this report on digital printing by **Barry Hunt** describes some of the latest printing and finishing developments.

Digital color printing is still dominated by Indigo's digital offset process and Xeikon's dry toner version, introduced in 1993 but now with new owners. In recent years several alternative technologies have arrived, principally drop-on-demand ink jet printing. A common thread is that quality of reproduction is fairly high, helped by improved front-end systems to create artwork, manipulate files, manage job queues and control the raster image processor. Data handling is of course an integral part of digital printing, which explains why computer-literate trade repro houses are among the more successful adopters of digital technology. Post-press finishing is now more firmly structured to include all the usual processes, from laminating to foiling and cutting/trimming equipment. Digital printing technology is also well served with numerous types of paper, film and foil materials available from 3M, Avery Dennison, ExxonMobil, Fedrigoni, FLEXcon, Lintec, MVD, Raflatac, Tekra Corp, Walki wisa, Wausau Coated, Neenah Paper Technical Paper and others.

HP Indigo's label industry presses are the six-color, web-fed ws-2000 and the more advanced w4050 version (which superseded the upgradable ws4000). All models have a 330-mm web width. The ws4050 offers up to seven colors, including white and spot colors, using IndiChrome Ink Mixing System. Its top speed is 16 m/min for four colors or double this rate for single or two-color printing. New features include improved film handling properties, including materials down to 12 microns for shrink sleeves and wraps. A reinsertion facility permits reverse-side printing and facilitates coupon work. Esko-Graphics and Artwork Systems offer comprehensive workflow automation systems for all

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Xeikon's latest offering for label production is the 330, with a redesigned print engine to boost overall productivity and

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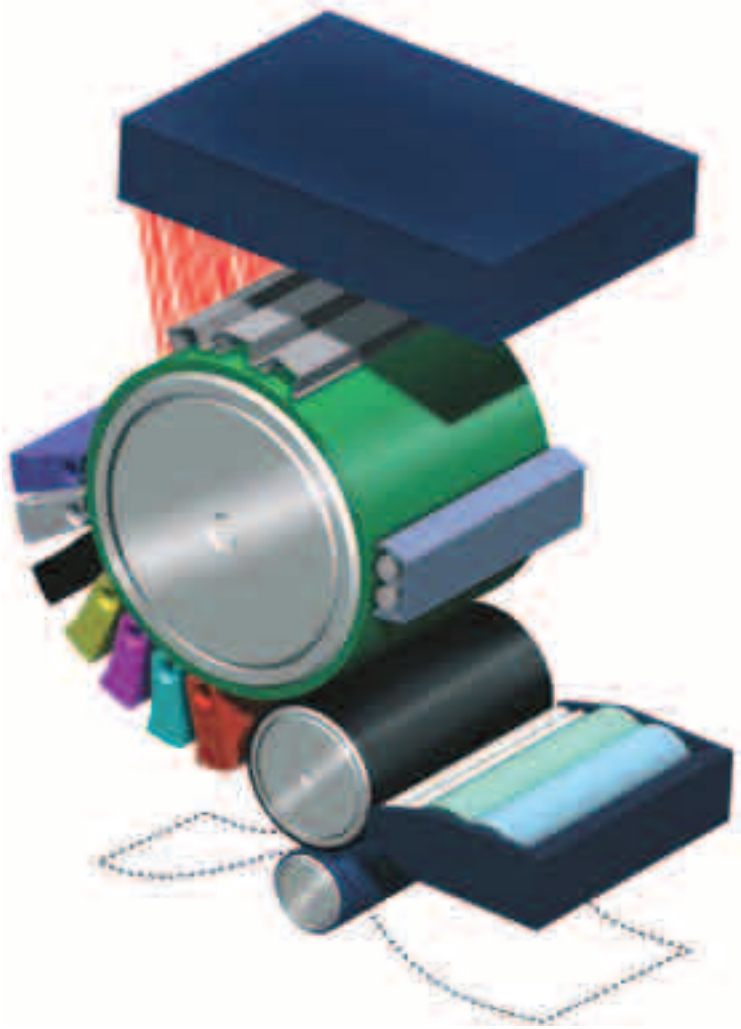

Left: Schematic diagram of the Indigo digital offset press. Illustration courtesy of HP Indigo

improve image quality. Imaging is through light-emitting diode arrays at a maximum speed of 14.7 m/minute, independent of the number of colors used or the size and positioning of the labels. Contact fusing technology allows printing on various coated and non-coated paper and filmic label stocks. A fifth print station augments CMYK with either opaque white, a spot color, a security toner or a MICR toner. An optical sensor aids overprinting of pre-printed stocks. The 330 includes the OmniVac air treatment system to automatically remove toner dust from the cleaning unit and print station. It reduces maintenance time and extends the life of image-critical parts. Xeikon offers the X-800 Digital Front-End, which also generates bar codes and sequential numbers. It also includes a die marker function and a facility for accurate step-and-repeating.

A new product is the Xeikon Print Protector for sheet and web-fedmodels. The unit applies a water/wax/silicone oil emulsion on both sides of the printed matter to form an invisible protective layer without affecting the brightness or accuracy of colors. The protective coating significantly reduces the build-up of static charges.

"Contact fusing technology allows printing on various coated and non-coated paper and filmic label stocks"

Ink jet challenge

Agfa's new Dotrix division centers on the Dot Factory ('the.factory') full color press. The 'double web width' of 630mm equals a top speed of 907 square meters/hour, which widens the applications for both labels and packaging items. It also extends run lengths beyond what is normally considered for digital presses. Off-line or near-line finishing equipment can read an identifying mark printed on 'the.factory', which means it does not have to wait for changes to the die cutter. One off-line die cutter can be used for several units, being digital or traditional. Mark Andy's press range includes the DT2000, 13-inch full-color flexo press configured with a Dotrix unit for processing and printing variable data content in up to six colors.

Matan Digital Printers has developed a stand-alone 'industrial-grade' thermal transfer printer, the Spring 12, for producing labels, tags, decals and tickets. It prints in up to six colors in widths up to 304mm from 300-metre long rolls of CMYK, spot or metallic ribbons to a resolution of 1,600 x

"Sheet-fed plotter/cutters may lack the sophistication of conventional die cutting, but they can offer an economical alternative at this end of the digital color market"

400 dpi. The Matan SpringPro version offers as standard a variable data capability and re-registering device for printing pre-printed rolls. Both models offer an alternative to roll-fed hot-foil machines for short-run, on-demand labels, or to compliment conventional label presses. The Spark1612 is a desktop version, but with a similar robust printheads and roll widths of 406mm and 304mm.

The entry-level VP8020 from VIPColor uses dry toner imaging technology. Minimal set-up times and low labour costs are claimed for short andmedium runs of high-quality color labels, tags, tickets and other documents. Variable data contents include bar codes. A flat web path allows the press to process fanfold or reel-fed stocks in varying thicknesses in widths from 100 to 280mm. As an example of its versatility, Newfoil Machines Ltd has demonstrated a VP 8020 unit running in-line with an unwinder and a Model 3500 hot-foil machine with embosser, laminator, die cutter and rewinder. A PC-based RIP handled variable data and an MS Windows driver processed PS3 and PDF files.

In-line ink jet modules available for variable data are outside the scope of this article, however Jetrion, a subsidiary of Flint Ink Corp, provides an interesting development. It's label industry offering is the Model 3025, a drop-on-demand ink jet system using either UV-curable inks or solvent based inks. The 61-mm Spectra printheads can be stitched for widths up to 244mm, with a top linear speed of 125m/minute. From this Jetrion has developed a prototype device to print full color ink jet on metal packaging, such as short-run cans and similar packaging for Crown Holdings of Philadelphia. According to president, Dr Kenneth Stack, this prototype could open up new channels for the company's ink jet color printing technology.

Cutting and finishing

An interesting import from the graphics display market combines wide format piezo-electronic ink jet printing with a separate plotter/cutter to produce any size or shape of paper or filmic labels, tags and decals. For example, Mimaki and Roland offer compact versions of around 730mm wide with multiple printheads for CMYK printing at around 1,440 dpi.

'Short run labels can be produced profitably by any small and large print shops that chooses to utilize this new technology. However, material selection becomes more critical due to the additional requirements of converting pressure-sensitive materials compared with printing large format graphics', says Roland Castonguay, a FLEXcon market development manager.

Sheet-fed plotter/cutters may lack the sophistication of conventional die cutting, but they can offer an economical alternative at this end of the digital color market. Another option is the Digital Finishing System (DFS) from Allen Datagraph Systems. According to Ken Pawlowski, director, most OEM's promote matching a cutter to a printer, but the DFS accepts output from various web-fed digital and analog color printers (including the Matan Spring 12 mentioned earlier). The self-contained module cuts, slits and rewinds finished labels withoptional laminating. The company's Smart Mark technology controls the actual roll-to-roll contour cutting using an optical registration system with a red LED sensor to scan printed registration marks in the X and Y axis. The DFS comes in three widths.

Laser cutting offers another die-less alternative to flat-bed or rotary die cutting of digitally-printed output. It offers a major advantage in closing the loop within the total workflow, provided the high costs can be justified. Cartes Equipment, Klemm and A B Graphic International have lately demonstrated more-affordable laser cutters at trade shows. ABG in fact is licensed to manufacture the Sabre Expose Mk II, an option for its Omega Digicon 330 line suitable for running with HP Indigo's ws4050. Dual laser beams have a cut-to-print accuracy of +/- 0.05mm and cleanly kiss cut at up to 7 m/second, subject to material and shape.

According to ABG's Tony Bell interest is reasonably good: 'Laser cutting takes data from the front-end and creates a totally digital workflow from pre-press to end-to end finishing. To this end we are also looking at automating the settings for the separate slitting knives.' ■

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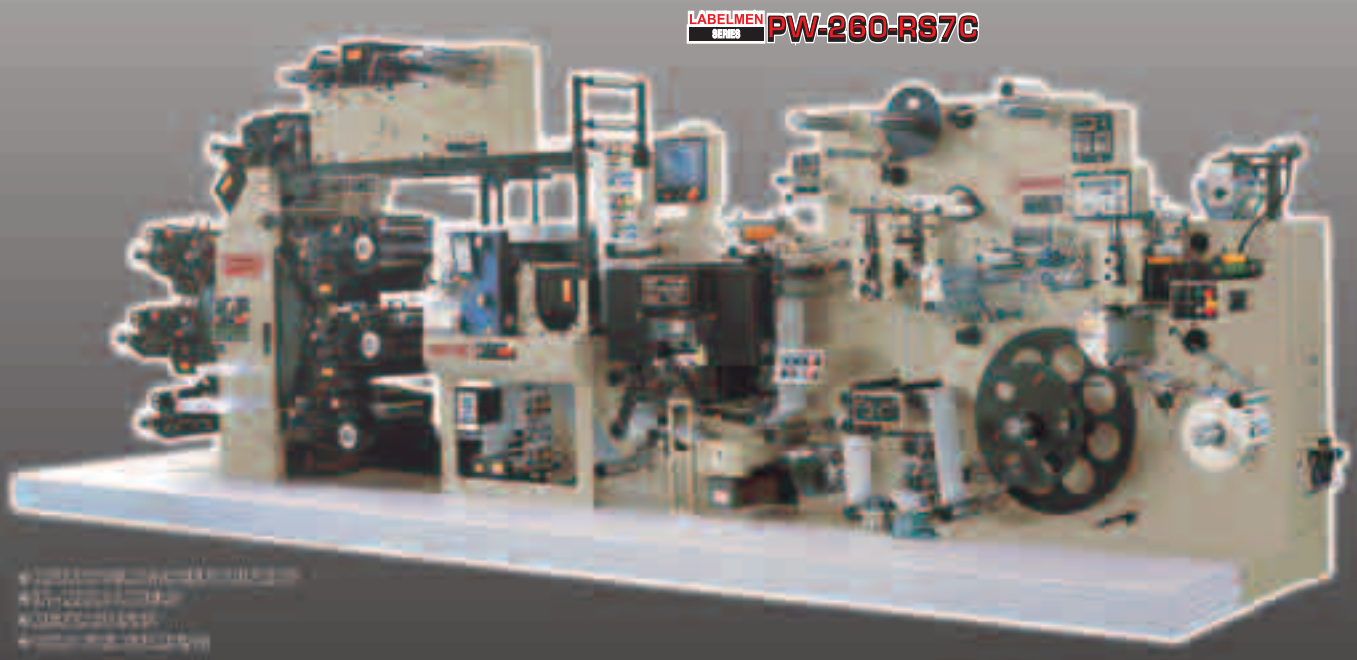

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RFID logic and logistics

Early RFID adopters are beginning to see tangible results along the supply chain despite fears of poor read rates. **Katy Wight** reports

No discussion about logistics and the supply chain can fail to mention the potential impact of RFID. The technology is set to stand the existing infrastructure on its head. RFID holds the promise of visibility across the entire supply chain, resulting in time and money savings for everyone – from the manufacturers, to transportation companies, retailers and everyone in between. But the debate is plagued with fears of poor tag read rates, inappropriate antenna designs, a shortage of ICs, expensive label constructions and a lack of real-world testing. What will it take to see this potential as a reality?

It's some six months after Wal-Mart's mandate deadline kicked in for its top 100 suppliers. At the RFID Journal Live! show in Chicago, Simon Langford, manager, Global RFID Strategy, Informations Systems Division, Wal-Mart, joined Milan Turk, director, Global Customer eBusiness, Procter & Gamble, to discuss whether RFID can reduce out-of-stocks in the retail environment. It's estimated that up to eight percent of the time, consumers find empty shelves when they intend to buy a particular product. RFID guarantees more accurate fulfillment, whilst simultaneously reducing inventory for retailers. The mere fact that P&G and Wal-Mart were able to come together and discuss whether RFID has affected the issue of out-of-stocks suggests that progress is being made.

'We keep track of all our brands that reach $1 billion,' says Turk of P&G, 'and one of them is constantly out of stock. Every day, out of stock items are worth an incremental $1 billion to the company and we want to prevent forcing any customer to change brands.'

'Only one in twelve out-of-stocks gets dealt with in a timely fashion and we are disappointing customers,' adds Langford of Wal-Mart. 'To generate a pick-list, the associate has to visit the shelf and look for the products. With EPC data, we can tell exactly where that merchandise is and add it to the list. RFID gives us an automated pick-list and in the average store, the system is adding an extra 40 items each day that wouldn't have been restocked on the shelf.'

RFID also allows retailers to drill down and determine the root causes of delays. A product may have arrived in the back room of the store on Monday, but won't make it onto the shop floor until Thursday. EPC data

All images supplied by RFID journal

Alan Estervez discusses the integration of RFID in the US dept of defence

Jon Clarke, outlines the frustrations of implementing RFID outside the US

allows you to work out where delays are happening and will also help to determine whether you have a forecasting problem.

'The CPG companies are surprised to learn that their products take longer than they think to get to the shop floor. RFID means that it is easier to monitor and improve levels of stock in the supply chain,' says Longford.

'The root causes of delays are different in every category and can be very situated,' adds Turk. 'Promoted items frequently become out of stock, for example, but the shelf is the most important part of our supply chain. We need visibility in the flow of our goods. At the moment, the emphasis of RFID is on the retailer, but as we get into the more mature technology, CPG companies will be able to see the whole supply chain. We want to be able to prevent out-of-stock items.'

Wal-Mart began trials in January 2005, but also had merchandise in the pipeline that had to be worked through before the RFID results started to appear. Longford explains that getting to grips with RFID technology in a real-world environment has been a sharp learning curve, but he is convinced that things can only get better.

'You do need to take time to find the appropriate tag for the product to ensure that you get good read rates. But, to put the issue of read rates into perspective, today we have zero visibility of what we have in the back room of each of our stores. Even if we only get an 80 percent read rate from our RFID tags, that is a huge improvement for us. Focusing on real-world issues like this will impact the bottom line,' he says.

Marching towards adoption

RFID is often seen as synonymous with Wal-Mart, but another early adopter, the US Department of Defense, has begun an ambitious RFID rollout and Alan Estevez, assistant deputy undersecretary for Supply Chain Integration, US Department of Defense, sees a lot of similarities between the two entities.

'We have a very similar situation to Wal-Mart,' he says. 'We have a large number of tactical units that move around a lot. There has to be supplies where they are needed and all of the systems are run by 19 year-old kids for the most part. Our out-of-stocks are a bad situation – it could mean that people die. Excluding the war, it is a $34

"Today we have zero visibility of what we have in the back room of each of our stores. Even if we only get an 80 percent read rate from our RFID tags, that is a huge improvement for us"

billion operation, with 30 million requisitions each year and five million SKUs. We are a big business and it is tough to manage.'

The DoD needed to synchronize the movement of pallets across the global supply chain. The existing system meant that all of the materials for a single unit would be put on to one pallet and the flow of goods was not optimized. Implementing RFID reduced lead times from order to delivery and meant that ten planes could be used to do what 12 planes had been doing previously. Getting that spare part to a unit more quickly means that a tank or a plane can be up and running sooner.

'Visibility is critical to an effective supply chain,' says Estevez. 'If we are using RFID tags, we know what is arriving. Before the tags, we had no idea. We found in the past that we didn't always do a supply receipt and a whole bunch of material wasn't being scanned 60 per cent of the time. With RFID it is all done automatically and we have better readiness and better combat capability. The timeliness and accuracy of the supply chain has also improved by three percent. RFID not only improves the visibility of information and assets,

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Turk from P&G left, Longford from Wal Mart 2nd from left, Jonathan Collins on podium from RFID journal

"In the US, the technology is readily available, but in Europe it is a very challenging environment"

but it also increases confidence in the reliability of the DoD supply chain.'

The marines have actually taken tagging to the next level of the combat unit so that they can embark on missions with confidence. The DoD are using a mixture of passive tags on cases and pallets, and some UID items, as well as active tags on freight containers and air pallets. However, suppliers to the DoD are not yet obliged to provide tags.

'Today, 98 percent of the freight going into Iraq has active tags. The technology works and is getting better and better. We are achieving read rates at 96 per cent and the equipment is operational 100 per cent of the time. We made a saving between $1.2 million and $1.5 million in one year and this figure does not even include a reduction in inventory,' he says.

The DoD has adopted EPCGlobal guidelines for passive tags to help leverage the technology in the marketplace. Many of the DoD's suppliers are also suppliers to major retailers and pushing the government and commercial sectors to work to the same standard will encourage interoperability. Companies like Honeywell for example, make aircraft components for the commercial sector, but they also supply radar to the US government. To prevent the need for several different tags on each product – one for Boeing, Airbus and the DoD for example – Estevez is pushing for consistent standards across the board.

The battle for standards

However, consistent standards across the board in the US do not necessarily entail consistent standards across the Globe. While retailers and end users in the US are beginning to see the results of implementation, counterparts in Europe are struggling with a minefield of legislation. John Clarke, group technical director for Tesco also spoke at the RFID Journal Live! conference about the challenges of implementing an RFID infrastructure outside of the US. Tesco is the UK's largest retailer, but also operates in Ireland, Central Europe and Asia. It has 2,300 stores in 13 countries and is part of the EPCGlobal early adoption implementation group.

Tesco began its rollout with tags on an internal secure supply chain for high-value products such as batteries and razor blades. Boxes and totes were tagged and all store back doors and most distribution center (DC) doors were given readers. In December 2004 the store bought more than 3,000 readers from Tyco. Clarke's plan involved tagging at case level by lead suppliers in Q2 of 2005, but the rollout is currently running six months behind schedule, which comes as

Title
UK retailer Marks and Spencer has reported significant success with its item-level RFID implementation and has confirmed that it will expand its trial to 53 stores starting in the spring of 2006. The company has worked with Paxar, Dewhirst and BT to deploy the system. Marks and Spencer is in a unique position as it sells only own-brand items and has installed a closed loop system which means that its tags and readers do not need to be interoperable with other retailers' tags and readers, although they must comply with UK legislation.

Encryption developments

Enterprise software company SupplyScape is spending lots of time in the pharmaceutical supply chain pushing item-level tagging. Its electronic pedigree solution can construct 'parent-child' relations that indicate which product goes with which case and location. The data is separated from the object and the information on the tag is nothing other than a pointer back to the data.

'Every single item is differentiated, which is something that you can't do with traditional methods like holograms,' says Robin Koh, chief strategy officer, SupplyScape. 'People sign into the database electronically and need permission to actually write to it. The system gives you traceability right through the supply chain.'

"Lots of the standards are being developed in labs where you get one portal isolated and tested by someone in a white lab coat and that is just not reality"

no surprise.

'In the US, the technology is readily available, but in Europe it is a very challenging environment. I am spending an awful lot of my time with government bodies. The availability of kit is bad and compliance is very difficult,' says Clarke.

The new European standard ETSI EN 302-208 (equivalent to US FCC part 15 section 15:42) means that the European system must operate on two bandwidths, as opposed to 26 in the US. Europe must also operate on a maximum of 10 channels as opposed to 60, using 3.2 Watts of power rather than four, with a two meter read distance, which is 20 percent less than in the US. Europe also has a system called 'listen before transmit' (LBT) where readers must ensure that they're not cross-reading tags with other readers, which Clarke says causes problems in dense reader environments.

'The listening threshold is also set so low,' he adds, 'that you may be able to hear a reader over a mile away stopping you transmit. We could shield the readers, but that costs money. ETSI 302-208 compliant readers are also currently not available in large numbers and the 865-868Mhz readers can interfere with internal digital phone systems. Read rates also vary drastically from site to site and directionality is a major challenge – it's all a bit hit and miss.'

Clarke says that the Class 1 V1 96 bit 868Mhz tags are in short supply. Most of them are imported from the US and he is unsure whether poor yield rates could have something to do with the condition of finished components after transportation. The performance of good tags is still unproven within the European regulatory environment. Deploying the technology across the Tesco distribution chain also had its challenges.

'Lots of the standards are being developed in labs where you get one portal isolated and tested by someone in a white lab coat and that is just not reality,' says Clarke. 'A typical Tesco DC has 80 dock doors and it is in operation 100 per cent of the time. Doors are 1.5 meters or less apart, which gives you cross reading, but the existing processes absolutely cannot be slowed down to accommodate RFID. Goods coming in are always palletized, but the doorways are not designed to allow the space to mount readers. We have five basic formats of stores and some of those formats are not identical, so there cannot be a 'standard' portal installation. Our estate has been built over a 30 year period and lots of different building designs and materials have been used. Doors are also not currently identified individually – it's a small thing, but it has meant that our employees are having to learn to work in completely new ways.'

Clarke also said that there is currently no desktop RFID printer available with an encoder that complies with a European 'free to use' standard, so Tesco must acquire a site license for each additional printer. Deployment is certainly no easy task, but Clarke is optimistic about the potential of RFID.

'Global EPC standards are key, but they should be more than just extensions of the US standards,' he says. 'No one has all of the answers and it is fantastic that RFID is bringing all of the sciences together. The technology cannot do everything we want it to yet, but perhaps Class 1 Gen 2 will answer all of our quality and performance issues? The value of this technology to the customer makes the challenge worthwhile.' ■

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Growth opportunities and challenges for Icon Prints

Global customers and export success are leading one Indian label converter to invest for future growth. **Mike Fairley** visits the company in Mumbai to talk to the owner, Vivek Kapoor

The self-adhesive label industry in India has grown quite rapidly in recent years and, despite challenges from lower-cost wet-glue and sleeve labels, still sees many opportunities for the future – particularly for those label printers looking to serve global customers and export markets with good quality label solutions.

This is certainly the philosophy of Icon Prints Pvt. Ltd. Founded some 8 years ago in Navi, Mumbai, by Vivek Kapoor, this company of 30 employees can boast an impressive customer base in the cosmetics, pharmaceuticals, lubricants and liquor sectors that includes labels for Unilever, Sara Lee, Pears as well as the successful exporting of labels to the Middle East, Sri Lanka and Asia – exports which today make up some 20 per cent of the company's production.

Currently converting with quality labelstock – primarily sourced from Avery Dennison – Icon Prints have a satisfied customer base of around 30 key accounts – over 60 per cent of which are global players – which use the company for high-end labels or for product launches where the higher price of the quality labelstock used is a marginal part of the final packaging solution. Such is the company's reputation that virtually all jobs are repeat business.

Undoubtedly, a large part of the company's success has been due to their willingness to experiment with polypropylene and polyethylene film materials and so help their customers to substitute expensive imported film labels with good quality Icon manufactured solutions. This approach has been so successful that, today, some 70 per cent of the company's business is printed on films.

Development of new paper and film products has been aided by the company's investment in laboratory testing facilities which include tensile strength, rub resistance and other FINAT recommended tests, which gives them the ability to both pre- and post-test customers' labels as well as control quality performance.

"To meet the quality demands of global customers, Icon Prints imports materials and inks from around the world, while accurate die-cutting (predominately flat-die) slitting and winding, together with strict quality control, ensure the precision"

Certainly, testimony to the company's success can be found in the many letters of appreciation from satisfied customers that Vivek Kapoor has received, as well as the numerous evaluation certificates received from pharmaceutical and FMCG companies.

Production technology at the 6,000 square feet Navi factory consists of modern UV-curing label printing machinery from Japan and Denmark which can print in up to six colors and also offer hot-foil stamping, flexo varnishing, laminating, die-cutting and slitting capabilities. Originally based on a 4-color UV-cure Iwasaki press, production was supplemented in 2001 with the

"As a region, the LMAI has concerns about the tariffs imposed in India on imported label presses and also about drugs companies using lower-cost wet-glue labels in India rather than the globally accepted self-adhesive solutions, as well as the competition from hand-applied shrink sleeves in the drinks sector"

purchase of the only 6-color plus varnish UV-cure Etipol machine in India. Indeed, Icon Prints was one of the first self-adhesive label printers in India to use UV-curing presses and inks. A further new major press investment is already planned as press production is now at full capacity.

To meet the quality demands of global customers, Icon Prints imports materials and inks from around the world, while accurate die-cutting (predominately flat-die) slitting and winding, together with strict quality control, ensure the precision

Perhaps what makes the growth and success of Icon Prints all the more impressive is that the founder, Vivek Kapoor, came into the label business without any background in printing or label production. From an accounting background in a family-owned paper supply business, Vivek had some understanding of the opportunities to be found in labels. Even so, his first forays into label production were to cater – rather unsuccessfully as it turned out, due to bad debts and poor customer response – to the needs of the textile industry. From here he eventually moved to the challenges of the cosmetics, pharmaceutical and FMCG sectors.

'Key to the company's success,' says Vivek 'has been our marketing approach. I go to see all new customers personally, I create market awareness, and I concentrate on product development and production department employees.

'We also look to cater for the more established brands that have at least a six month production plan and can therefore schedule their label requirements with us accordingly. Delivery is also important. For export orders we would normally ship, but if there is an emergency then we will despatch by air and share the additional cost with the customer.'

To continue building his export business Vivek Kapoor is now in the process of investing in the formation of a new export company and is looking to take his label exports up to 50 per cent or more of total sales. Besides his existing export business to Asia, and the Middle East, he sees Europe and the USA as key opportunities. 'I'm looking for shorter runs and label orders of up to around 50,000 labels. These tend to be quite expensive to produce in these markets – even with lower cost labels coming from Eastern Europe and Latin America – and this gives us the opportunity to be very competitive.'

With Wal-Mart now sourcing in India and big retail groups expected to be established in India over the next few years, Icon Prints is also looking for internal Indian growth in the years ahead. And if the challenges of a new export business and indigenous growth are not enough of a challenge, Vivek Kapoor is the current vice president of the Western Region of the increasingly active Label Manufacturers Association of India (LMAI) – a region with around 30 roll-label company members.

'As a region, the LMAI has concerns about the tariffs imposed in India on imported label presses,' says Vivek, 'and also about drugs companies using lower-cost wet-glue labels in India rather than the globally accepted self-adhesive solutions, as well as the competition from hand-applied shrink sleeves in the drinks sector. As an Association we are actively looking to address all these issues through lobbying and marketing activities.

'The Association is also supporting a Label Summit in Mumbai next February and is working closely with the Labels Group at Tarsus to bring label buyers to the event to hear about the opportunities and solutions that self-adhesive labels can bring them. This is already creating a lot of interest.'

Certainly in just eight years Vivek Kapoor and Icon Labels have come a long way, from start-up to established exporter, textile labels to quality labels for branded goods, a key role in an active trade association. This has all been a major learning – and still ongoing - experience for everyone in the company, and especially for Vivek. Yet the exciting challenges for the future of the business – and the self-adhesive label industry in India – are now being mapped out and lie ahead.

Undoubtedly Icon Labels, under the direction of Vivek Kapoor, will achieve its growth aims and targets and more will be heard about the company in the global market place over the coming years. Vivek has learnt his lessons well. ■

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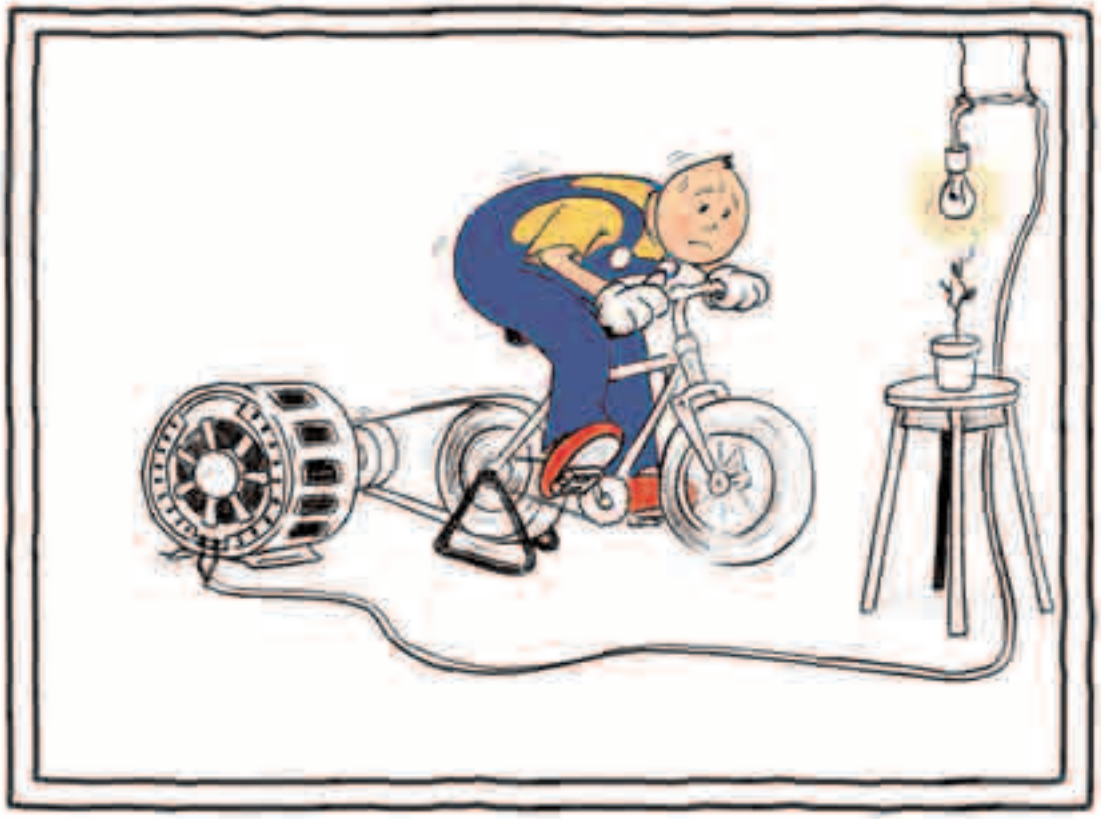

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Australian engineers offer global label technology solutions

A worldwide installed base of hot-foil, screen process, flexo presses and converting systems has cemented the success of an innovative machinery manufacturer. **Mike Fairley** talks to the founder of Rapid Packaging Services, the manufactures of the Rapid Machinery brand

With something like 700 hot-foil machines installed worldwide since the early 1980s it should be expected that Rapid Packaging Services Pty. Ltd has gained an enviable reputation in the label industry for high performance, high-speed, reliable, stamping presses that can operate continuously at speeds up to 30,000 prints per hour.

But the story of this success goes back much further, with company founder Bruce Mansell having his early industry experience as a hot stamping press operator printing on the inside of shoe socks back in the early 1960s. Trained in manufacturing technology by Dunlop, Bruce left Dunlop to join a friend in a business which Hot Foil stamped insoles for the shoe industry. This business gave him the background that proved so useful in later years. The partnership foundered and Bruce joined the Ausrtrlian agent for the Milford Astor / Markem hot foil label presses in the engineering division and was there for 11 years.

On leaving the Markem agents he installed a press into his basement to provide a foil stamping trade service. From this beginning, Rapid Packaging Services came into being in 1977 – eventually growing the company to four foil stamping presses. From there it was a short step to building his own-design foil stamping press to improve performance and output. Certainly, if anybody should know what is really required from a foil stamping press it is someone who has operated, maintained and built machines for most of their working life.

Today, it is perhaps not surprising to find that the company has a successful installed customer base that covers the globe, with a range of hot-foil presses that go from one-colour stamping right up to four-colour process foiling. Currently, the most dynamic market for them is into the old Soviet states in Eastern Europe, but there are machines throughout Europe, the Americas and Asia.

> "We see ourselves today as primarily a solutions company in which we aim to solve particular problems for customers looking to make labels or converted products"

'Our philosophy, built up over many years,' explains Bruce Mansell, 'is to over engineer the machines so that they do not break down and have a low level of maintenance. We have a very low level of machine stoppages on installed machines – even after many years – due to any component failure, and this leads to happy customers who will come back time and time again for repeat orders.'

But it is not just in the successful design and manufacture of hot stamping machines where Rapid has been successful. 'We see ourselves today as primarily a solutions company,' explained Bruce, 'in which we aim to solve particular problems for customers looking to make labels or converted products. In particular, we like to customize machines for unique applications.'

Customized machines for example for making Nokia phone labels, or for making small cardboard boxes, or for producing special label products for many special Government projects around the world, as well as more standard 'specials' such as lamination and die-cutting machines, counter/slitter/rewinders, high-speed blank label makers, roll-fed screen presses, tinter die

cutters and flexo machines. In all, more than 1,050 machine installations of all kinds over the past 28 years.

Apart from the large installed base of hot stamping presses, Rapid Packaging Services has built and installed many screen printing machines for the production of high quality decals, touch panels, electronic circuits, labels, ceramic transfers and industrial products. The machines use the flat screen system with an adjustable snap angle device for high quality printing, and can be run in line with all other Rapid machines such as hot foil overprinters, die cutters, thermal transfer printers, etc. Materials that can be printed range from very light papers and plastics right up to semi-rigid materials – and the machines can handle virtually anything that comes on a 3 inch core.

'We believe our screen presses are the most versatile of their type available and are so simple to operate that complete familiarity can be achieved in a matter of days. Set up is simple and job turn-around can be in little more than a couple of minutes. Multiple passes are obtained using a scanner system, so enabling multi-color work to be performed on a single-colour press in register.'

Even with some 32 different printing and product solutions available to order, it is the next challenge that seems to keep the company driving forward in new innovation and development. 'Indeed,' comments Bruce Mansell, 'we spent almost A$400,000 on R&D last year – not bad for a relatively small company. While many of the major label press manufacturers talk about their recent development of servo-drive presses, we have been designing servo-drive presses – screen and flexo - since 1988 and built our first totally gearless presses as far back as 1995 – long before most of the others had machines coming to the market.

'Today for example, we are very proud of our latest Rapid ServoFLEX flexographic printing machine. Seven years of research and development have gone into this unique press. There are no line shafts, no gearboxes, no chains, no tooth belt drives and no mechanical connections, while massive print cylinder control allows large areas of solid to be printed alongside very fine line work. Quick change print cylinders and large diameter quick change anilox rollers help to achieve cost-effective production with minimal waste.'

Outside of hot-stamping, screen process and flexo printing presses, Rapid Packaging Services have long had success with machines that do not print, but are designed and built to meet particular requirements. For example, there are two models of a high-speed blank label maker designed for the manufacture of blank labels, tickets, tags and other products produced from roll-fed material. These include end of roll sensors, air operated web guides and a magnetic die cylinder with a repeat length up to 26 inches. The range can also use conventional dies.

"While many of the major label press manufacturers talk about their recent development of servo-drive presses, we have been designing servo-drive presses – screen and flexo - since 1988 and built our first totally gearless presses as far back as 1995"

Another successful solution is a high-speed counter slitter, which enables continuous batches of a specified number of counts to be easily checked for labels, slit into required widths and re-wound an infinite number of times. For those looking for a stand-alone unit which can be used in-line or off-line in conjunction with any reciprocating action press – such as Shiki, Onda, Labelman, Nilpeter, Gallus, etc – to sheet, sprocket punch or slit, then Rapid has units available.

Such has been the success of Rapid's technology and solutions that the company currently builds around 25 – 30 machines of all types a year in its purpose-designed facility in Chatswood, New South Wales, and employs around 20 people in the design, manufacture, marketing and sales of equipment.

While Bruce Mansell is still actively involved in the day-to-day operation of the business and in design decisions, it his son Nick (a highly skilled graduate engineer) who has now become the driving force behind the creative and innovative developments for the future. Advanced servo solutions, RFID integration, flying knife technology, re-register advances, high-speed lamination – are all being advanced by Nick – while Bruce is looking to spend a little more time with his hobby of racing car restoration and Historic car racing.

Visitors to Labelexpo shows in the USA, Europe and Singapore over the years will also know Bruce's wife, Marion, extremely well from her role in managing the booth and in the management of the company, while daughter Lisa, looks after the company's marketing. Truly a family-orientated business that can offer that personal touch and individual solution to the label converter.

Undoubtedly Rapid Packaging Services Pty Ltd and Rapid Machinery Company will continue to have a successful future under the Mansell family banner, with their global installed base of innovative technology meeting the demands of a still ongoing and fast-evolving label industry. ■

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Q&A – UV

UV curing remains a concern for label printers according to a recent industry association survey. Here leading UV systems developer GEW presents a guide to successful UV work

The European Flexographic Technical Association (EFTA) recently conducted a survey of its members to determine which area of the printing and converting process is of most concern. To a significant degree and surprisingly, a major area of uncertainty was the process of UV curing. As a result GEW was invited to make a presentation at the UV Special Interest Group meeting being held by EFTA.

The concerns and questions raised at the meeting prompted GEW to produce this paper as a guide on UV curing problems, commonly asked questions and possible resolution.

Through working closely with press manufacturers, ink formulators and converters since the development of UV printing inks GEW has acquired hands on knowledge of the UV curing process. States Malcolm Rae, managing director, 'We have tried to address some of the most commonly encountered questions and concerns we have seen with regard to UV curing technology. More technically in-depth concerns must be addressed to the ink and UV equipment suppliers themselves.'

Odour or more commonly "My prints smell!"

The cause can be a number of factors. There is a possibility that the ink or coating is undercured. Non cross-linked components will naturally have a distinctive odour. Try turning the lamp power up to a minimum of 160 W/cm. Weekly cleaning of the UV lamp and reflectors is mandatory; in some cases even more frequent maintenance is needed. Where odour is a consideration note that the least costly photoinitiators in ink will usually impart a strong odour. Match the chemistry to the end use of the printed product. Here the ink formulators have a wide range of materials available and will work with their customers. Do not rule out the substrate itself. Bleached carton board, for example, can have a high odour level.

"My UV flexo ink is reticulating on top of the first colour (sometimes screen white)"

There is a possibility that the first colour printed was over cured. Turn the lamp power down to a point where there is no surface tack but still good adhesion and good secondary ink reception. Ensure the ink supplier(s) understand your processing to avoid incompatible chemistries.

"My cured ink has poor adhesion to the substrate"

Excessively cured ink can cause shrinkage of the ink film. Turn the lamp power down to a lower level and check adhesion and surface tack. During the same test check the dyne level (surface energy) of the substrate. During storage, and in particular high humidity, the dyne level of pre-treated filmic material will drop significantly.

"When should I replace the UV bulbs?"

At a very minimum, a replacement schedule at a set number of operating hours should be in place; say, every 1,000 hours for example. This can be more if the lamps are not used at full power. The UV curing system should include an hours run counter for each lamp. UV bulbs are relatively inexpensive in comparison to the cost of rejected product. Use UV bulbs

designed to be operated in the UV equipment you have. Low cost open market UV bulbs can lead to more problems.

For higher added-value print jobs produced at higher speeds, it may be cost-effective to equip the UV press with equipment to actually measure UV intensity. This could range from a simple radiometer to a sophisticated system that continuously monitors the UV output of the entire length of the bulb. Options are available that allow the UV system to compensate for any fall-off of UV lamp output. Many converters have Management Information Systems (MIS) that prove to be an effective cost reduction and production management tool. Make the replacement schedule part of the MIS.

"When should I replace/up-grade my UV curing equipment?"

If obtaining the results and production required keep the equipment you have and maintain it well. Consider up-grading older UV systems that use multiple low power lamps. The table below demonstrates how when curing heavy ink or varnish coatings, often seen with flexo or screen printing, inadequate cure depth is a possibility with multiple, low power lamps. The efficiency of UV lamp heads has improved so much recently that often a large increase in curing can be attained by replacing old lamp heads with new styles from the same manufacturer, using the existing power supply. This can often give a large increase in curing capacity at a much lower cost than buying a completely new UV system.

"How can I know when I am properly curing my inks and coatings?"

Process control and record keeping is essential.

1. Little or no exposure – ink remains liquid.
2. Partial curing (usually surface only) with possible "skinning" and generally poor adhesion to the substrate.
3. Tack surface, common to under curing.
4. "Correctly cured" with no surface tack, low odour, flexible and with good adhesion.
5. Increased surface hardness that can become brittle with poor over-printability.
6. Primary ink surface not receptive to secondary ink resulting in poor adhesion and low flexibility with flexo and letterpress processes.

What is needed here is accurate process recording and reproducibility. To establish base line parameters, use the following tools to determine optimum operating parameters: tape adhesion test, cross hatch test, scuff resistance, MEK rub test, pasteurisation testing, UV intensity measurement, accurate press speed monitoring, etc. and ensure exact process parameters are used in future jobs.

"UV inks are much more expensive than water-based inks"

On simply a price per kilo this is correct but this does not provide an accurate picture. Thermoplastic inks have a total solids volume of typically 33% while UV inks contain a total solids level of up to 99%. The only real comparison should be

based on coverage or "mileage". To achieve a two micron dry ink thickness, the following coverage was obtained during tests by a well respected ink manufacturer:

Water-based ink:	1,349,670 cm2/kg
UV ink:	3,551,762 cm2/kg

Average cost of inks of similar quality:

Water-based ink:	£ 6.94/kg
UV ink:	£22.33/kg

Ink costs per thousand square cm

Water-based ink:	£0.005
UV ink:	£0.006

Although slightly higher, the differential of £0.001 will easily be more than made up when reduced ink, substrate waste and increased productivity are factored in.

"UV curing generates excessive heat to the point I cannot process heat sensitive materials".

This was indeed the case just a few years ago. Then, the emphasis was on building UV curing lamps of higher and higher power output resulting in a corresponding increase in IR (heat) output. Now UV system manufacturers provide a wide range of heat management options allowing the processing of thermo-sensitive substrates, IML, shrink sleeves and unsupported films. The ultimate in heat management is available from systems that incorporate an integral water-cooled chill role allowing the processing of films as thin as 15 microns.

"UV equipment require excessive power consumption"

One of the most significant cost factors when comparing thermal drying to UV curing is the energy cost. A large gas drying oven consumes 163kW and requires large blowers while the same production capacity can be achieved with a UV curing system requiring only 82 kW. This equates to £30,595 per year for thermal drying versus £15,430 per year for UV curing.

Sources Referenced:

1. "Printer's Profile of UV Flexography", Mark Andy, Inc., A White Paper, February, 1995
2. Bill Weernink, Steve Appel, Werneke, Inc.
3. "The UV Market: Bright Future or Overly Hyped" Ink World. Andy Teng, Editor. November/December, 1995
4. "Se justifica economicamente la implementacion del curado UV". Conversion. Fred E. Zinnbauer. May/June, 1998
5. Peter Grady, Sicpa, 2001

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).

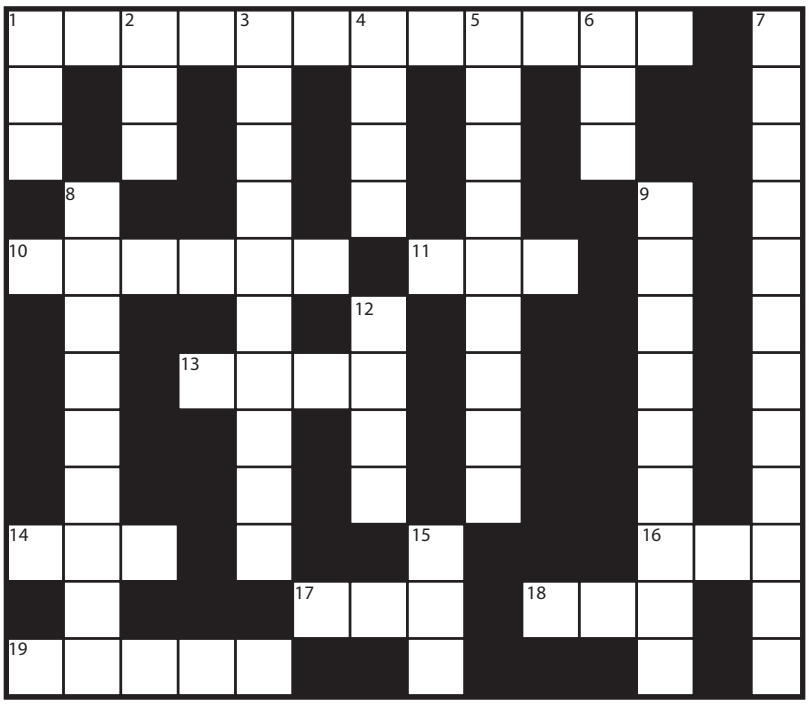
7 A set of characters or bars in a bar code which represents both alphabetic and numeric characters as well as symbols (12).

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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Australian converters look into the future

Mike Fairley reports on the recent LATMA Conference in the Barossa Valley, Australia and highlights speaker views on change and the future

'Change and the Future' was the theme of the Label and Tag Manufacturers Association (LATMA) National Conference held at the Novotel Resort in the Barossa Valley, Australia's richest and best known winemaking region, with delegates and speakers from not just Australia but from around the world.

In opening the conference, the Association's National President, Brenton Barret, said that approximately A$640 million of pressure-sensitive labels are produced annually in Australia and New Zealand, with Melbourne and Sydney being the largest producers at some A$380 million. Label production was predominately divided into six sectors, as can be seen in the pie chart. Projections were for a growth rate of around 4.5 per cent, with wines, drinks and beverages exceeding that at some 8 per cent growth.

Challenges for the industry, explained Brenton, were consolidation across the local industry and its consequences, balancing capacity with asset upgrades, threats of imported substitutions, and the challenges of hiring, training and maintaining a skilled labor force and the development of management personnel.

International speaker Mike Fairley, talked about the 'Future of Label Converting', looking at how the label industry has changed over the years from a craft-based industry, through a technological revolution to now move to a service and added-value based industry in which the buyer defines the rules of supply. The label converter, he said, that can go a long way to meeting the buyer's demands for labels that aid brand equity, differentiation, versioning, regulatory compliance, 'smart solutions', accelerated time to market and better management of data and information, is generally busier – and more profitable.

Today, he explained, investment in the management of information, procedures and systems is almost as important as investment in press and pre-press solutions, with issues such as waste management reporting, hygiene and environmental accreditation, and supply chain integration solutions coming increasingly into focus. The future of labels will also be about smart, smart active and intelligent label solutions that will be able to enhance pack functionality, product branding, benefit the supply chain and aid the consumer.

Bill Seppelt, Packaging Development Manager for Southcorp Wines, outlined his company's use of labels – 220 million sets of labels a year (of which some 85 per cent are self-adhesive), 800 product variations, and 3,000 pieces of artwork – and then highlighted the label design parameters, technical requirements, quality and service requirements. Buyer expectations today include efficiency in the execution of all activities, reaction time, R&D, pre-press, print techniques, pro-activity with efficiency audits, understanding of legal requirements, and working to customer's expectations.

Participants at the 2005 LATMA golfing day, awards and conference



(Left) The LATMA conference included an extensive social program (Centre) Don Woolman receives LATMA Hall of Fame Award (Right) LATMA keynote presentation given by Christian Simsic, group VP, Avery Dennison Roll Materials Worldwide

Issues of 'Lean Manufacturing, from Craftsmanship to Automation,' were reviewed by Klaus Bachstein of Gallus, who explained that low barriers to entry have enabled a fragmented label industry of entrepreneurs to be created. Also that the low cost of labels relative to total packaging costs have kept labels below the radar of consumer packaging services. Issues for the converter related to margins and profits squeeze and shorter order sizes, while end-users were focusing on supply chain management issues and packaging differentiation. Retailers in turn were increasing their usage of private labels. These issues lead the printer and press manufacturer to focus on reduction of press set-up and materials costs (including set-up wastage).

The Conference keynote presentation was given by Christian Simsic, Group Vice President, Avery Dennison Roll Materials Worldwide, who set out trends in materials consumption worldwide and in per capita usage of pressure-sensitive materials on a global basis. The challenge, he explained, was to refocus on customers' needs – thinking 'inside out', having filter free customer contact, defining operating mechanisms, devoting resources to driving growth, and to focussing more time and attention onto growth prospects.

Key important trends, said Christian, are the shift of emphasis from label supplier to packaging consultant and partner, to expand the pond beyond self-adhesives, expanding decorating capabilities to meet brand challenges at the lowest possible cost, and working with suppliers so that they can help you to grow.

In looking at the label market of the future, Stan Drobac, Vice President, RFID Applications, Avery Dennison, said that RFID will dramatically expand the label market – yet there are still issues to be resolved: standards to be finalized, industry capacity below demand, the intellectual property situation, and the fact that real implementation experience/expertise was not yet widely available. His advice was to get out and talk to people, watch supply chain media, attend seminars given by RFID suppliers and consultants, and consider joining EPC global.

Also looking at the future, Sjaak Elmendorp, Vice President Product Technology and Innovation, Avery Dennison Roll Materials Worldwide, interested the delegates with a peak at the developments that will shape the label world of tomorrow – labels that monitor and preserve food freshness, odor sensing labels, visual sensing labels, labels that can smell, repulpable adhesive and biodegradable films.

"Key challenges for the Australian label industry included industry training and expertise, with a major need for industry training groups, better on-site training facilities and improved company training schemes"

More generic business sessions were given on improving company bottom lines and in getting value from training, while a series of Workshops covering succession planning, high definition flexo, official validation of barcodes and web site development completed the Conference Program. The Conference dinner – a black tie special – took place at the Chateau Tanunda, where the LATMA Label Awards, the LATMA Hall of Fame Award and the first LATMA/Kurz Technical Development Award were also presented.

The Australian Label Industry's highest recognition for service was awarded to Don Woolman. Don commenced work as an apprentice in the Government Printing and Stationery Department in1950, progressing through roles as a sales representative for R Collie and Co Pty to market development manager for Griffin Press and then Head of the School of Printing and Graphic Arts in 1975. In 1977 he became Director and Government Printer in the Government Printing Division, eventually moving to Precision Labels Pty as Managing Director and Executive Chairman of Precision Labels Pty in 1989. He now works as a consultant to the graphic arts industry.

In terms of the Australian label industry, Michael Aisenberg, LATMA National Vice President, told Labels & labeling that LATMA now had some 180 members, of which 120 were converters. Key challenges for the Australian label industry included industry training and expertise, with a major need for industry training groups, better on-site training facilities and improved company training schemes. Other challenges related to the need to develop a more global label industry focus through the formation of strategic alliances or partnerships, and issues of consolidation, with large label companies either buying others, or being bought out themselves.

Generally regarded as one of the best LATMA Conferences, the various speakers presented a fairly consistent view – from differing perspectives – of Label Industry Change and the Future. ■

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Snapshots of Best Practice

Barry Hunt reports on a UK initiative to improve printers' competitiveness and productivity

Vision in Print, in conjunction with Premier Paper, has introduced 'Premier Snapshot'. The not-for-profit initiative is intended to help individual UK printing and packaging companies improve their performance. Detailed examinations of a participating company are carried out to identify areas for improving productivity, competitiveness and profitability. The scheme covers UK printers of all sizes and in all sectors.

The organization was formed following an industry-wide forum supported by the Department of Trade and Industry. It published the Print 21 industry competitiveness study report in 2001, which highlighted several strategic actions that British printers should take. The two key areas were optimizing productivity and adding more added-value services. One outcome was the creation of ViP in 2002 with a five-year funding agreement of £2.3 million run by an independent board. It has since carried out 60 profiles of companies, ranging in size from 16 to 450 employees. They include several label converters, including OPM Group based in Keighley, West Yorkshire, Ormerods in Manchester and Label Appeal in Leicester.

'Across the industry print margins are being squeezed hard. Customers are demanding more in terms of quality, service and delivery at even lower prices. Yet despite heavy investment in new technology, few printers can be totally satisfied with their current performance or future prospects', says Richard Gray, Vision in Print chief executive. He adds that a major task is to overcome suspicions and then build enthusiasm. 'We can prove the payback, but firms are naturally reluctant to become involved, especially if there is a cost factor.' As to the actual supply chain, Gray said packaging and label printers are comfortable in being part of this chain, but this was not generally true of commercial printers, although they were beginning to realize the benefits of understanding their role.

Premier Paper Group covers 50 per cent of the fees for every diagnostic delivered. It has committed funding to ViP for a two-year period to finance two specific services: 'Kickstart' and 'Snapshot', with the latter rebranded as 'Premier Snapshot'. Where required, Premier also provides help with general trade supplier issues, working closely with the British Printing Industries Federation. 'Vision in Print is not just another talking shop. It puts companies in touch with someone who can give them practical advice. Printers can no longer rely on organic growth so it's a welcome initiative', said Martyn Eustace, Premier's CEO, at the official launch.

Individual programmes are undertaken in-house by ViP engineers, who identify priority improvement areas. Premier's sponsorship means it now costs £250, plus VAT and expenses for a company of 50 employees or less, and double this rate for larger businesses requiring a two-day assessment (see www.visioninprint.co.uk). The diagnosis includes examination of the life cycle of an order from administration to despatch, which helps build a transparent profile of the company. Issues include business culture and behaviour, organization and control. Advice is given on whether issues can be tackled by the company or by importing competencies. ■

Inks

With narrow web converters now looking to print on a wide variety of substrates using a wide range of print processes, **Andy Thomas** looks at how ink manufacturers are responding

UV developments

The two thrusts in UV ink development are to reduce viscosity – for easier release of the ink from anilox cells – and to strengthen pigmentation. At the same time, inks should not foam or cavitate in the ink pan and there should be little-to-no plate swelling.

'We asked our customers what they wanted from their UV Flexo inks that they weren't getting today,' comments Mark Ritchie, marketing manager for FujiFilm Sericol. 'The message came back loud and clear that stronger pigmentation and low viscosity levels for each and every color were at the top of the list. Our entire R&D program focused on building these properties into the new UVivid 800 Series UV Flexo using patented technology originally developed for our ultra-low viscosity UV digital inks.' Similar claims for a new generation of high intensity, low viscosity UV flexo inks are made by other UV flexo suppliers on both sides of the Atlantic.

Unsupported film

With label shrink film useage growing at rates anything up to 17 per cent, more ink suppliers are offering UV inks optimized for these demanding applications.

UV cationic inks have traditionally been chosen for shrink sleeves due to their low shrinkage rates and low odor characteristics. Because cationic inks cure slowly, the ink film has more time to 'relax' on the substrate, while cross-linking further reduces substrate stress. Shrinkage of cationic inks is typically around 5 per cent or less.

A scare in Germany in which trace elements of benzene were found in cationic UV coatings on foil lids, has propelled ink suppliers to look at alternative cationic systems, with initiators that are non-benzene emitting and heavy-metal free.

But cationic UV systems do have drawbacks: a requirement for higher lamp wattage, generating more IR heat, and the need for a climate-controlled environment to take out variations in cure characteristics.

Free radical UV inks are now making inroads into shrink territory. They use lower odor components than cationics, and because they cure extremely quickly, less lamp wattage is required, so less heat is generated. This greater choice of components has also meant the development of highly pigmented systems with excellent press rheology, reaching Pantone Process Color densities around 1.2-1.8BCM.

The central challenge for ink developers is the high speed of the Free Radical reaction, which puts a high degree of stress on shrink films, and can crumple the film when coupled with low amounts of IR heat from UV lamps. High ink shrinkage rates - up to 15 per cent in some cases - also tend to leave inks less flexible, so they won't shrink as well with the substrate.

It was the drive to develop Free Radical UV systems for shrink films which led ANI – now XSYS – to acquire Macro Australia Pty earlier this year. The company has pioneered work in developing free radical UV curing inks for high shrink sleeves (up to 70 per cent shrink). The inks have been tested for adhesion and scratch resistance on corona treated PVC, PET, OPP, and include a bright, opaque white.

Inks optimized for shrink inks also form a part of Sun Chemical's Solaris narrow web offering, since these inks are already being used extensively by wide web flexible packaging converters. Flint Ink recently released its Arrowbond Ultra ink system for demanding lamination and shrink sleeve applications, available in line and process colors for both flexographic and gravure printing.

Paragon Inks has meanwhile completed an extensive development project with shrink sleeve converter Contour Flexibles. The free radical system is claimed to deliver high color

strength with low film weight, allowing up to 70 per cent shrink on full color prints. 'It is a revolutionary low odour system that exhibits excellent cure speeds at speeds of greater than 150m per minute in combination with excellent ink key and transfer,' says the company's Mike Ferrie. 'Recent testing and evaluation has also highlighted that the ink system is suitable for microwaveable product applications.'

With more narrow web converters looking at short run flexible packaging, ink suppliers are starting to offer dedicated ink systems for these applications. Such inks might need to meet strict food contact regulations, but more demanding are the heat-intensive secondary packaging processes such packs have to go through, such as re-retorting stand up pouches.

What about in-line cartons? Our recent survey of label converters at Labelexpo Americas showed that only 4 per cent were looking at in-line flexographic carton converting. But specialist inks are still available. GSB Wahl, for example, still lists its Cartonlabel water-based flexo ink as a live product.

Combination printing

With combination presses – machines with more than one print/converting process in-line – now accounting for 12 per cent of all new press sales, moves continue to make combination printing inks easier to predict and handle.

This was the driving force behind the alliance between Marabu and Paragon Inks. Marabu is a screen ink specialist and Paragon a specialist in UV inks, and the latest offering - Marabu's UltraRotaScreen UVRS and Paragon's Uvdry flexo series 7000 – have been extensively tested together. Paragon's inks are suitable for reverse angle as well as chambered doctor blade systems.

Many converters prefer to buy inks for combination printing from suppliers who have fully tested each element in the ink system, and this was the original motivation behind Sericol, for example, moving from Screen inks into UV flexo inks with its UVivid series. Suppliers who do not offer the full range of UV letterpress, UV flexo, UV offset and UV screen ink systems should be able to recommend inks that work with their own systems.

An important issue in today's combination printing environment is the growing use of silicone-free Screen whites.

Problems can arise when label converters print silicone-free inks on top of screen inks that contain silicone. Color strength is adversely affected because silicone-free overprinting inks do not readily 'wet' the surface of inks that contain silicone. Printers will often add silicone to overprinting UV flexo inks to increase color strength when screen inks are used as a firstdown white.

Although the problem affects all overprinting inks, Flexo inks tend to suffer most from poor wetting over a screen ink because of their low viscosity - and poor wetting can result in poor inter-coat adhesion.

> "With more narrow web converters looking at short run flexible packaging, ink suppliers are starting to offer dedicated ink systems for these applications"

Using silicone-free screen whites not only enhances the color strength of overprinted inks and benefits adhesion, but it also eliminates the need for printers to modify inks press-side. A further benefit is better key of UV laminating adhesives and hot foil stamping.

On the downside, silicones do increase the surface tension of substrates, so pinholing can result when using silicone-free whites with low surface tension substrates. This can be compensated by corona treating to raise surface tension.

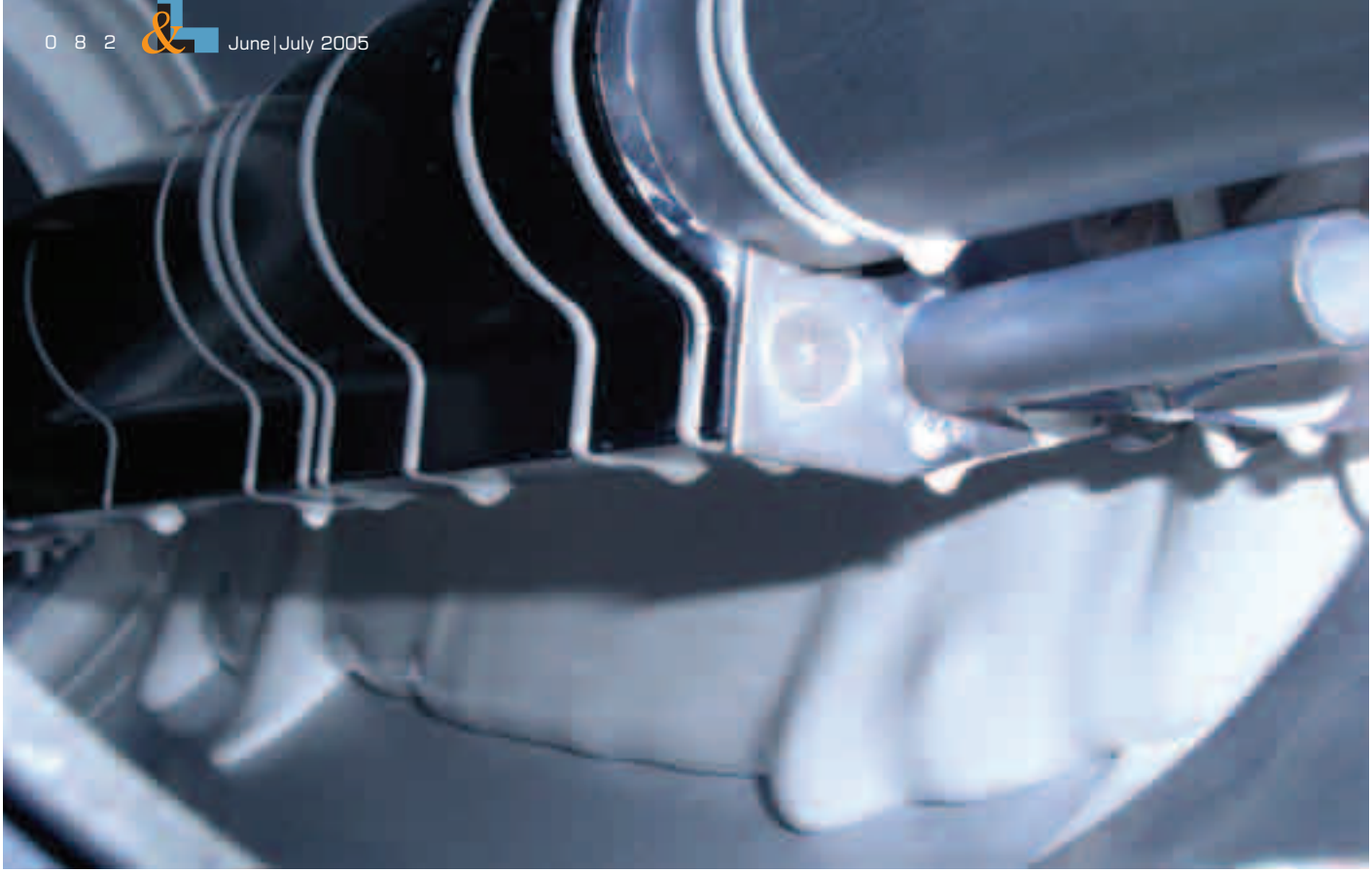
XSYS will launch a silicone-free UV Screen white, Combiwhite, at Labelexpo Brussels. The company's Niklas Olsson comments: 'Combiwhite will have improved UV flexo ink transfer, with a higher density on top of the UV screen ink than on the substrate and an even and better ink film on the over-printed UV ink.'

Interestingly, ANI had to modify the screen white for Nilpeter's drop-in cassette system because the different size cylinder/screen mesh places a higher stress on the ink.

Other ink companies launching silicone-free whites include INX International, which showed the INXScreen UV RS Silicone-Free White at Labelexpo Americas, formulated for both letterpress and flexo overprinting. Sicpa also launched a silicone-free screen white along with compatibility-tested UV flexo inks.

As well as UV flexo and UV letterpress/screen combinations, we also see an increase in orders for UV offset combination machines.

XSYS launches a new UV Offset range at Labelexpo Brussels, claimed a 'Universal' ink with applications from wine (paper) to



Can UV flexo white replace screen?

There are obvious benefits to being able to replace a Screen white with a UV flexo white. Presses could run faster, while the ink systems are fully compatible with overprinted inks in combination printing.

Now XSYS Print Solutions' narrow web division – formerly ANI Printing Inks – has put its neck on the line with the claim that its latest UV flexo white approaches UV-screen opacity.

Says Niklas Olsson, global brand Manager of XSYS narrow web division: 'With our knowledge of how to achieve the best opacity, flow-out, and over-printability, we have created a UV-flexo ink which comes close to the results achievable with UV-screen. Providing printers use the correct anilox engravings and a tested combination of plates and tapes, it's possible to print many labels which previously required a screen white base with one hit of Flexocure Ivory.'

As well as a properly specified anilox, factors which will influence the success of the method include doctor blade stiffness, pressure and angle; the thickness and compressibility of the tape; the type and shore hardness of the plate, and, of course, the press and the skill of the printer

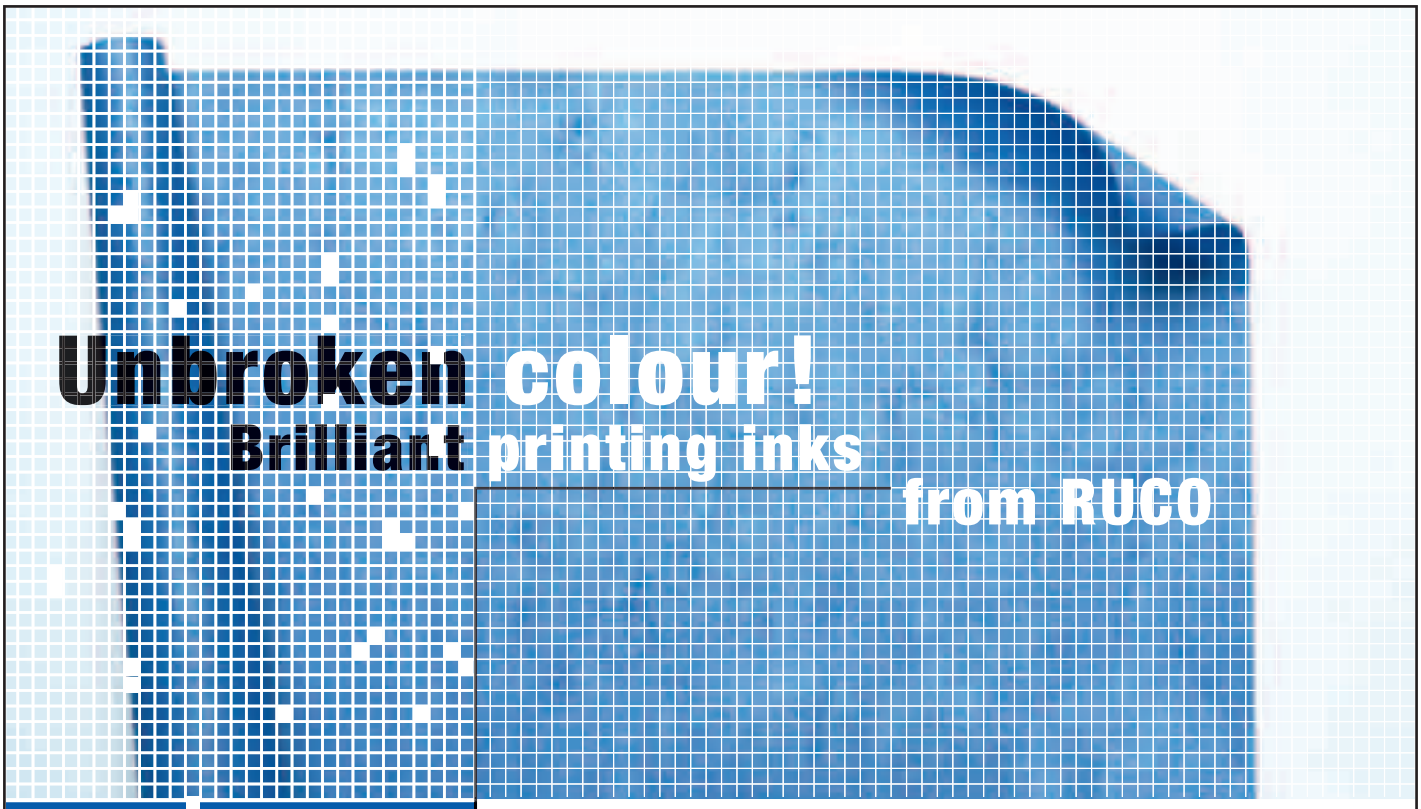
Olsson claims Flexocure Ivory has very good adhesion to a wide range of synthetic substrates, with the leveling required to print solids without fish-eyes or pinholes.

The results of tests conducted by XSYS on Flexocure Ivory show a contrast ratio – the amount of black which shows through a white print – of 83-84, which is pretty close to the 85 for a standard Screen white printed on a 13 per cent screen at 60 metres/minute. This compares with 74-76 for a 'standard' flexo white, says XSYS. 'This is not screen white, but it approaches it,' says Niklas Olsson.

XSYS tests show Flexocure Ivory will run at 80 meters/minute, as opposed to typical speeds of 40-60 meters/minute for a press running with a separate screen unit. Flexocure Ivory has been tested for compatibility with XSYS' UV-flexo, UV-offset, and UV-letterpress ink ranges.

cosmetic (synthetic) labels. Interestingly, it is tailor-made with dedicated fountain solutions for different press types - Gallus TCS, Nilpeter 'M' series and Drent/Goebel VSOP for example - as well as taking into account regional variations in water-type.

Waterless UV offset technology is proving a good technology for non-absorbent substrates, and semi-rotary offset machines are proving popular for shorter run, high quality applications. Sicpa has a new silicone-free UV waterless ink with a broader temperature range of 18-24°C and claimed excellent adhesion on pre-printed Screen whites.



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"Adding security features in-line at the converting stage is the most promising way to help brands protect themselves against counterfeiting and diversion"

Despite the fact that almost half of press sales are now UV flexo, water-based flexo for labels remains a strong force, particularly in North America. Indeed, we see a trend for presses to incorporate hybrid UV and IR drying/curing systems, particularly where flexible packaging production is undertaken.

Among the ink suppliers with new products for this market are GSB Wahl, which offers solvent-free water-based flexo ink for printing synthetic materials such as PP, PE, PVC, PET and aluminium foils, and Kingfisher. We expect to see more new product launches in this sector at Labelexpo in September.

Security and RFID inks

Adding security features in-line at the converting stage is the most promising way to help brands protect themselves against counterfeiting and diversion. More ink manufacturers are offering products in this area, in many cases bringing across technologies developed for high end banknote and document security.

Sun Chemical, for example, has set up Sun Chemical Security as a global business unit to provide a wide range of security solutions, and has aligned with several strategic suppliers in the security technology sector, including the Veritec Group, Inc; Inksure; and QinetiQ. The first project is for Sun Chemical and Inksure to offer machine-readable ink-based brand and document authentication solutions under the SunSure brand name based around 'encoded ink' embedded with unique signature codes. Low cost readers then 'sense' the ink.

Similarly, XSYS Print Solutions announced a partnership with Microtrace LLC to deliver a traceable, anti-counterfeit ink technology to the narrow web tag and label industry. Microtrace Microtaggant technology uses a unique numeric code sequence embedded in a multiple-colored layer to deliver multiple layers of security through a single microscopic particle.

The Microtaggant Security Inks can be applied using flexo or screen printing processes, and XSYS has tailored them to be fully compatible with its other combination UV products. The taggants are read and decoded with an inexpensive hand-held reader or scanner.

On the RFID side, printing of antennae with conductive inks is generating a lot of interest. Creo and XINK Laboratories' have just introduced an interesting new class of 'secure flexographic RFID antenna printing inks' which address the ability of counterfeiters to copy RFID tags by duplicating RFID numbering schemes.

The XINK antenna inks integrate Creo's Traceless technology, a forensically-invisible, machine-readable taggant detected using readers supplied by Creo. To create a counterfeit-proof system, the unique spacing relationship of the taggant

Corporate moves

Consolidation in the inks sector continues apace, with the merger between BASF Printing Systems and ANI Inks – now called XSYS – being the big story. We will cover this development in greater depth in the next issue of L&L. The other significant development was the acquisition of Sericol by Fuji Photo Film Co, based in Tokyo, Japan. Sericol has expanded from a manufacturer of screen inks into UV flexo inks optimised for combination printing. The new company, which will operate as a wholly owned subsidiary with headquarters in Broadstairs, Kent, will be called Fujifilm Sericol Ltd.

For Fuji Photo Film the Sericol acquisition expands its wider offering to the graphics arts market, which includes scanning, proofing, color management and workflow. Other corporate alliances and acquisitions have been focused more on complementary technologies: for example the alliance between UV Screen specialist Marabu and UV Paragon Inks, which specializes in UV flexo. Similarly ANI/XYS' acquisition of Macro Australia Pty brought in the Australian company's expertise in free radical inks for high shrink applications.

As we see elsewhere in this feature, there is a whole new class of alliances being developed between traditional ink manufacturers and specialists in either printed electronic products or high-end document and banknote security sectors. This often involves spinning off new companies or divisions with the ability to move quickly to take advantage of market openings in fields as diverse as RFID antennae, printed batteries and particle-level track/trace systems.

Sun Chemical meanwhile continues its efforts to create a global brand and range of products specifically targeted at narrow web converters under the Solaris banner.

'Sun Chemical recognizes the special requirements of narrow-web printers and the growth opportunities for this market,' Wes Lucas, chairman, president and CEO of Sun Chemical tells L&L. 'That is why we are organizing a specific product line and teams of dedicated experts who will service such areas as flexible packaging, folding carton and shrink sleeves.'

At Labelexpo Americas in Chicago last September, the company named Chuck Shuty as director of narrow web products for Sun Chemical North American Inks. Shuty will lead the US introduction of Solaris.

'In this newly created role, Chuck will help establish Sun Chemical as a major player in the narrow web label market,' said Michael Murphy, president, Sun Chemical North American Inks. 'Currently, our narrow web products are offered by several Sun Chemical business units. Chuck will coordinate these resources into a focused, dedicated effort to serve this growing market.'

Investment in R&D is clearly critical in the narrow web sector, and Zeller+Gmelin recently moved into a new, purpose-built plant which combines ink sales, product management, service centre and R&D. The building has a floor area of more than 1,600 sq m, spread over two floors. The goal is to improve communication between sales and service centers and to feed directly into the R&D lab. The building houses training and seminar rooms along with a video conferencing facility to communicate with Z+G's subsidiary companies in the USA and England - and possibly in the future directly with customers.

particles is used to create an 'image signature', which is assigned as an encrypted ID to each RFID antenna. Michael Petersen, COO, XINK Labs, says the RFID tag reading properties and the ink printing characteristics are not unaffected by the addition of the taggant.

XINK has also claimed the world's first successful on-press manufacture of fully functional UHF RFID transponder labels at the Mark Andy RFID Focus Seminar (see p.31), with the four-color PS RFID labels reading from over 14 feet after converting on a 2200 press. The antenna ink cures at room temperature using blown air.

Flint Ink Corporation division Precisia LLC is another leading developer of advanced printed electronics technologies, and recently announced a partnership with Impinj, Inc. to launch a line of RFID products utilizing Impinj's family of chips. Precisia will design, prototype, test and print its own antennas for the inlays it produces with the chips, or will print existing antenna designs developed by Impinj.

Another player in this market is Parelec Inc, manufacturer of Parmod VLT (very low temperature) conductive inks and pastes, which two years ago signed a sales and distribution agreement with Sun Chemicals company Coates Screen. Parmod VLT inks are a mixture of one or more metal powder systems with a reactive organic medium (ROM). When printed on polyimide, polyester and paper substrates, the organics react to leave a highly conductive, essentially pure metal trace. Parmod VLT is claimed to deliver conductivity up to ten times greater than that of polymer based metal inks.

XSYS is also in on the printed antenna act as exclusive distributor to the narrow web market for Acheson Colloids' polymer-based conductive RFID inks. The agreement currently covers North and Central America, but XSYS' Niklas Olsson says testing is currently underway for a product which could be ready for Labelexpo Brussels.

Toyo Inks brings to the party its Rexalpha SP silver paste for printing RFID antennae. It enables formation of

low-resistance circuits based on technology for bonding IC tags and silver pastes for membrane switches.

Special effects

To help converters add value to labels, ink suppliers are developing a wide range of special effect inks.

An interesting development first seen at Labelexpo Americas was ANI/XSYS' Holographink process, which creates holographic images in a wide range of colors - a lower cost alternative to hot foil holographic imaging or holographic substrates.

As in cold foiling, the image is created via a printing plate which prints a UV curable ink or adhesive. The holographic image is laminated over the wet un-cured ink or adhesive. When passed through a UV lamp, the ink or adhesive cures through the foil and bonds the holographic material to the base substrate, creating a holographic image. The final design is built on the three elements of foil pattern, ink / adhesive shade and image design, and the same foil can create almost limitless colors and patterns. The foils, sourced from Taiwanese company K-Laser, are available in personalised and security patterns.

Another interesting differentiator is MetalFX, which allows thousands of metallic colors to be created by overprinting CMYK values onto an MFX Base silver ink. The process inks used for MetalFX have clearly defined values so manufacturers have the ability to produce inks compatible with the metallic colour specification system.

Sun Chemical is the most recent ink maker to sign up to MetalFX, and has been working closely with another manufacturer of the MetalFX base silver inks, Wolstenholme International, to spread awareness of the process. Eckart GmbH also manufactures the MetalFX Base silver ink.

Sicpa has meanwhile committed itself to market a new range of inks produced from Sherwood's DataLase color-change chemistry. DataLase combines chemistry, substrate conversion and laser energy for high speed image printing, and is a non-contact alternative to traditional printing methods for date-coding, bar-coding and

"Another interesting differentiator is MetalFX, which allows thousands of metallic colors to be created by overprinting CMYK values onto an MFX Base silver ink"

"DataLase is a non-contact alternative to traditional printing methods for date-coding, bar-coding and graphics"

graphics.

Rad-Cure has long been a developer of specialty inks, and its recent launches have included scratch-off inks in UV flexo, UV screen and water-base flavors, as well as UV flexo glow-in-the-dark inks, thermochromic and photochromic screen inks.

A wide range of suppliers like Kingfisher also offer a range of fluorescents, metallics, and special products. ■

UV gravure

The availability of modular gravure units for narrow and mid-web in-line presses is opening up new opportunities for special effect inks traditionally the domain of solvent Screen inks. But solvent gravure inks are a big obstacle for label converters who have long removed solvents from their press halls, and would need to set up explosion-proof areas, special cleaning areas and solvent extraction. UV gravure inks would make the whole system much more acceptable.

Sicpa is one of the ink suppliers which has been working hard on these systems. It has now developed UV rotogravure inks which replaced UV screen for reverse printing of transparent label materials on variable format rotary offset presses. The background Opaque White is applied in the last printing unit, allowing machine speeds of up to 200 metres/min to be achieved.

Rotogravure printing demands a low viscosity ink, particularly at high speeds, which is difficult to achieve along with high ink pigmentation levels. Sicpa's new UV rotogravure printing white contains a special binder resin and pigment formation, which is maintained at a constant temperature in a heated inking unit, and despite its low viscosity, is claimed very opaque. The ink must be applied using a reverse angle doctor-blade.

Sicpa says its UV rotogravure white has optimized migration properties and adheres exceptionally well to the underlying offset inks. It is especially suited for printing on PE, PP, PVC and sleeve materials.

New Products

3M Converter Markets
Sheet label products

3M Converter Markets is now offering its label materials in sheeted form, giving screen printers even greater flexibility in meeting the needs of their customers for top-quality products at a competitive price.

CTC International
Glueless turret rewinder

CTC has introduced a glueless start version of its Small Wonder Automatic Turret Rewinder. This new Turret uses a tucking system to automatically start the winding of small rolls of labels without the need for core glue. The machine is also available in a coreless version that can start the winding directly on an airshaft.

The Turrets ultra compact design allows it to be quickly moved between presses or converting applications. It can be used directly in-line and also off-line. A tail label roll closure system is also available for total glueless operation.

Avery Dennison Printer Systems
'Jump-the-bump' RFID labeler

A new high-speed RFID print/apply labeling system that allays user fears over mis-shipments due to faulty RFID labels is now available from Avery Dennison Printer Systems.

The ALX RFID Print/Apply, encodes and prints unique RFID labels and automatically applies the encoded labels to cartons, cases and pallets. During the encoding process, the system detects and then rejects miscoded or unreadable RFID labels. Faulty labels are rewound with spent media carrier onto the system's rewind apparatus. The system then encodes and prints the next label, and applies it to the targeted item. The ALX RFID also features "jump-the-bump" capability that guards against costly label damage during printing.

This automatically guides the print head over the bump created by the embedded RFID microchip, ensuring the integrity and readability of RFID labels.

Meech
Automated static control feedback system

Meech has launched a new system that automatically controls static in industrial processes. The system consists of a sensor bar and feedback controller which is used in conjunction with the Meech 977v3 Pulsed DC controller and 976 ionizing bar. The feedback controller automatically adjusts the ion output balance by communicating with the sensor and ionizing bar.

Taking the guesswork out of estimates

MIS systems are a valuable tool in calculating true production costs. Ken Meinhardt, president of Tailored Solutions, outlines the importance of using this data for consistent and real estimates. **Katy Wight** reports

The label converting industry has many different approaches to estimating. Unfortunately, many methods don't take into account the variable costs associated with individual jobs. The press you use, the number of shifts you run, tooling, labor, material selection and post-press operations are all factors that can eat into potential profits. The right MIS system can account for these variances and give you a repeatable tool to work out the true cost for every job. It will also allow you to build up an accurate log of the actual costs associated with completed jobs. If you don't know your true costs, you won't know the real contrast between your top and bottom line, which is the difference between making a profit and not.

Tailored Solutions created and markets Label Traxx job management software in the US and is releasing it in Europe later this year. The system is comprised of nine modules to streamline communication and manage your business for maximum productivity. One of the modules concentrates specifically on optimizing the estimating process. President Ken Meinhardt believes that many converters could benefit from higher margins if they took the time to fully identify their costs.

'Some converters bury their mark-up in the operating and material costs, which makes it very difficult to determine the real margin on a job,' he says. 'Additionally, with a legacy of charging for material in square inches, it's not unusual to see converters taking the total area or total cost of materials and multiplying it by a mystery factor to reach a quotable figure. But there are so many other variables that should be factored into an estimate – equipment depreciation, taxes, heat and rent – and knowing the real cost can make or break a job.'

Determining budgeted hourly rates

Correctly determining your hourly rates is far more complex than just calculating the cost of your operator, explains Meinhardt. The National Association of Print Leadership (NAPL) has completed studies of most press types and can provide a comprehensive breakdown of annual running costs. The cost of labor is broken down by hours worked and vacation allowances, but also takes into account how many shifts the plant runs. Adding an extra shift can drop your hourly rate – for example, a 24-hour operation would waste less time shutting-down and setting-up presses.

"Some converters bury their mark-up in the operating and material costs, which makes it very difficult to determine the real margin on a job"

'Some other costs are fixed whether you are using the press or not,' he adds, 'and the NAPL figures take into account equipment depreciation, insurance, rent and heat, variable charges might include aspects such as repairs to equipment, power and taxes. Manufacturing costs are also affected by productivity and increase the more that a press is left idle.'

Profiling your press

In order to generate an accurate estimate, Label Traxx also requires that you make a profile of your press and answer the following questions as accurately as possible.

- How long does set-up take?
- How much footage do you use in set-up?
- How fast do you run the press?
- How long does wash-up take?
- How much running waste do you produce?

Who should do the estimating?
Meinhardt believes that estimating can be a distraction for the sales team and a small, dedicated team can work more effectively.
'If you train two people, then they can specialize in the intricacies of the converting industry,' he says. 'They will learn about your company's capabilities and equipment, and also what your acceptable margins and profit levels are. Some of the best estimators can be former press operators – they already know all of the tricks of the trade and what it takes to run the business.'

These are all factors that need to be taken into account for a new job. It's also important to take note of any other special operations that may be undertaken inline.

'Label Traxx allows you to input 'user defined' fields that are specific to that press set-up – such as screen printing, delaminating or tip-ons – which could potentially slow down production,' says Meinhardt.

Since the price of different ink types, colors and coverage can vary dramatically, Label Traxx also allows you to input ink values. However, when you receive your estimate from the client, it's unlikely that you will know what colors you are working with and what kinds of coverage the job requires, so the system allows you to go with averages. The system incorporates the cost of the first color and then additional colors, in the same way that it adds in the cost of the first tool and any additional tools.

Many converters also charge a flat rate for plate and color changes. Label Traxx allows you to keep track of these adjustments and customize your charges to the job. Once you have an accurate profile of your press, the system will also warn you if, for example, you don't have the correct number of print cylinders in stock, or the job is too wide for the web that you intend to print on.

Post-press standards

The costs associated with a roll of labels once it has left the press are often neglected.

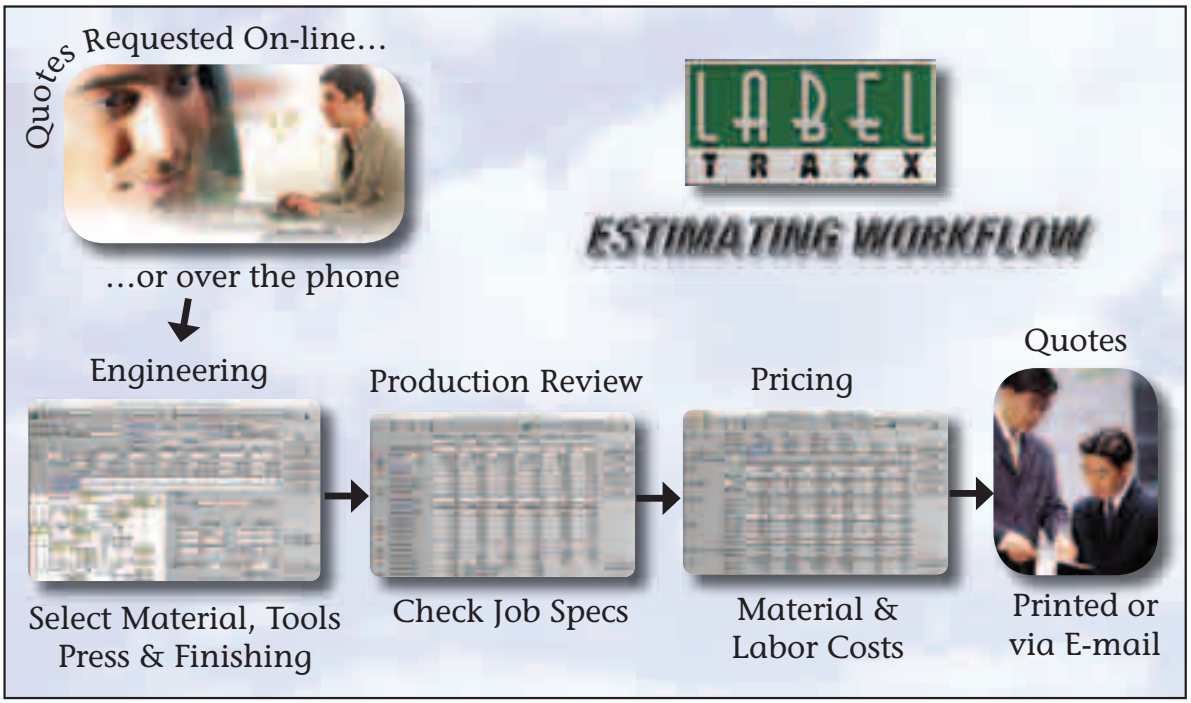
'For example, some converters don't charge for rewinding,' says Meinhardt, 'but what if your customer wanted 200 labels to a core? That order might have been printed in days, but it could be in rewinding for weeks – which may also throw all of your scheduling out of line.''

Other costs to keep track of:

- Inspection
- Shrink wrap
- Packaging
- Special labeling of cores, cartons or bags
- Tag stringing

Estimating cost

'Knowing your cost is very important,' says Meinhardt. 'If your competitors suddenly start drastically cutting their prices below yours, they probably have no idea what their costs are.'

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Once Label Traxx has calculated your actual production hours and your material cost, you can add your mark-ups and get an accurate figure on how much profit you are going to make. Separate mark-ups for labor and material enables you to vary them by cost. Once you know your cost, you can also use Label Traxx to enter a target price for a specific job and find out how much of a profit you will make on it. So, if you need to lower a price, you can check whether it will give you enough margin. Label Traxx users can try out different 'what if?' scenarios to determine pricing guidelines for the company and can even work out theoretical ROIs for presses that haven't been purchased.

'When you're pricing a job, you need to know your market, customers and your competitors,' says Meinhardt. 'Create a profile of a press that your competitor has, compare estimates and figure out where both of your strengths lie.'

Other hidden costs

Material selection, imposition, press selection production flow and equipment limitations, such as speed constraints for corona treatment, are obvious issues to take into account when estimating a job, but other costs are a little more subtle. Label Traxx can monitor the amount of administration time spent on a particular client.

'Imagine you have two identical production jobs,' says Meinhardt. ' One goes through without any problems and the other one has multiple order corrections – which one has cost you more money? How long have you spent re-quoting? Label Traxx monitors all of the work done in the office and after a period of time you can see how long you spent on each customer and can track their activity cost.'

Delivering your estimate

- Keep your estimate letter simple, the buyer may not know the converting industry
- Consider keeping your estimates on a secure web site for your customers, so it's easy for both parties to track
- Save as a PDF and attach to an e-mail

"Create a profile of a press that your competitor has, compare estimates and figure out where both of your strengths lie'"

As time passes, you can also track your estimating history in the system's database and re-evaluate your rates for the current business climate, Review each customer's profit history. It may be time to fire your high maintenance low profit customers ' Meinhardt adds.

With a system like Label Traxx, all of the stages in the estimating process can be done at the click of a button. Once you have set up your actual costs – and the whole system hinges on the reliability of your data – you will have real, repeatable costs for the future. ■

The FINAT Technical Seminar (Budapest)

Just a stone's throw from the Blue Danube, in the heart of the Hungarian capital, 140 researchers and technical managers met for a two-day seminar examining the inventions and technologies which are going to shape tomorrow's world of labels

Welcoming delegates to the seminar, FINAT's Technical Committee chairman Andrew Jack (Dow Corning) drew attention to the fact that FINAT now extends its scope to all narrow-web technologies. He also emphasised the importance of Central and Eastern Europe, a region in which the label business is growing far faster than in the more mature markets of Western Europe and North America.

Jules Lejeune, FINAT's managing director, took the opportunity to thank the FINAT technical committee, organisers of the present seminar, who had given freely of their time and talent to help in setting up the event. He stressed that FINAT members should not see themselves as just 'customers' of the association, but as active participants in some or all of FINAT's activities. Jules Lejeune also outlined the association's strategy, in particular with regard to new European legislation affecting the label and packaging industries, and also announced that three more national label associations (representing Poland, Turkey and Russia) had all become affiliated to FINAT.

FINAT was continuing its work on recycling projects and lobbying activities, said Lejeune, and the lobbying function in particular would be presented later in the seminar's programme.

What's new in Central and Eastern Europe?

Angelo Depietri, Avery Dennison's VP and General Manager for Central and Eastern Europe, gave the delegates an overview of this fast-changing region of the world, which includes eight of the ten 'new' European Union member countries who joined in May 2004. He pointed out that there is an inverse relationship between p/s label consumption and label market growth in nearly all countries of the world. While Western Europe consumes 9-10 m^2 of self-adhesive labelstock per head per year, its market is growing by a mere 3 per cent. In Central and Eastern Europe, by contrast, annual consumption is only between 2 and 3 m^2 per head, but label market growth is 17 per cent. This leads him to conclude that the Central and Eastern parts of the European continent have many years of growing self-adhesive label market demand ahead of them. Even if respective growth rates in the two halves of Europe were to continue unchanged (a big if) it would take until the year 2022 for Eastern & Central Europe to catch up with Western Europe in per capita label consumption.

> "Watching and influencing the European Commission and other transnational organisations has become a major concern of companies and their associations"

Keeping the Eurocrats in their place

Watching and influencing the European Commission and other transnational organisations has become a major concern of companies and their associations, said Arianne Vijge, FINAT's recently appointed 'Issues Manager'. Ms Vijge, who has degrees

in both Business Management and Environmental Management, is responsible for monitoring all legislative developments being planned by the European Commission in Brussels, and acts as FINAT's liaison officer with EU authorities. At the moment, she told delegates, she is involved in the drafting and application of the International Pollution Prevention and Control (IPPC) with a view to placing small print shops outside the scope of stringent solvent and emission controls. She is also representing the interests of the European self-adhesive label industry in discussions on safe use of chemicals, and on the European Directives relating to substances coming into contact with food. 'Industry needs to influence and understand future legislation as far upstream as possible,' she said 'Both politicians and civil servants welcome expert help from industry, because nobody gains from bad or unworkable regulations'.

Added-value label converting – a press manufacturer's viewpoint

Bernhard Grob of UK-based press manufacturer Edale is not the first to notice that, taking the printing and converting industries as a whole, continuous processes are expanding and sheet-fed applications are declining. For the roll label business this opens up an opportunity, not just to sell more labels, but also to branch out into other product areas where in-line processing can reduce costs and gain new business at the expense of traditional sheet-fed offset. Letterpress, offset and gravure technologies are set to decline, reckons Bernhard Grob, and the big winner will be flexo and more especially UV flexo. The UV flexo press, with for example add on screen and hot or cold foiling units, opens up the market for all kinds of tickets and vouchers, as well as folding cartons and flexible packaging. Low-cost security printing is another promising field for the label converter in search of new markets. But more than that, says Grob, the mindset of the self-adhesive label converter is attuned to the concept of rationalising and automating a wide variety of operations into one integrated production line.

In answer to the question 'Is shrink sleeve label a threat or an opportunity?' he unhesitatingly calls it an opportunity. 'As narrow web presses become wider and more versatile, sleeve label and all kinds of monofilm printing become practicable. In future we may see more and more wet glue labels run on roll presses' he concludes. What does this mean for the press manufacturer? According to Bernhard Grob, narrow web presses need to become simpler and more versatile, but at the same time to accommodate add-on units for specific tasks such as printing RFID antennas, or making multi-layer labels and booklet labels. The presses of the future will need to handle a wider range of substrates than they do today. Converters will expect to be able to run everything from 400

Bernhard Grob of Edale

L to R Avery Fasson's Regional manager Angelo Depietri, Bela Csuthi, Gen Manager of Miszepack (Hungary) and Introl's owner-manager Romuald, Szperlinski (Poland)

L to R Arianne Vijge, Jules Lejeune (both Finat) and Haken Saxen of Raflatac

"Whatever the application, Montag concluded, converters need to understand something of the chemistry of inks, and to work closely with their ink supplier"

g/m² board to 12 micron plastic film, with minimal changeover times. 100 per cent servo drives will become the norm for most narrow web presses, he predicts.

Bernhard Grob concluded by praising partnerships. No one, he said, has got all the answers, and press manufacturers, ink specialists and end-users need to get around a table and trade ideas.

Added value label converting – a converter's viewpoint

Added value and innovation, said Alan Hazlewood of Skanem, are two sides of the same coin. He took a rather different approach to innovation from other speakers at the seminar, but as a Technical Manager with one of Europe's biggest label makers (12 production sites in five countries) he was given an attentive hearing. Brand owners, Hazlewood reminded delegates, are not really interested in label technology. They want a label which does the job, and they want it brighter and above all cheaper. His advice to his fellow label converters is: 'standardize and simplify'. This may for example mean using just one type of label press and restricting the range of laminates used. Hazlewood is on the lookout for innovative self-adhesive materials, but they must be suited to as wide a range of uses as possible. The laminate already accounts for over half the cost of a self-adhesive label, said Hazlewood; what's more, this proportion 'has increased, is increasing and ought to be diminished' he believes. Is he then in favour of a 'dumbing down' of labels? Quite the contrary, he quotes his company's successful research into labels with holographic effect, into 'touchy, smelly and feely' labels, and into multi-layer 'peel and read' labels. But innovation must not finish up costing the customer more. Improving substrates and inks, cutting inventory and production costs and maximising the potential of modern combination presses are what self-adhesive label converters need to be doing. If they don't, he warns, other technologies, be they IML, sleeves or direct print, will continue to cut into self-adhesive label market share.

What's new in the world of label inks

Before launching into the arcane world of ink technology, Rolf Montag of Sicpa Aarberg took a broad look at the state of play in the label industry as a whole. Non-self-adhesive technologies like in-mould, sleeving and wraparound labels, are all growing at between 10 per cent and 20 per cent per year, compared with just 5-7 per cent for self-adhesives. However, with the advent of modern UV flexo presses, many other products including tickets and many kinds of packaging can be run on the same machine. Converters, he said, must understand and choose the right ink for the job, and the right drying and cooling system. If the wrong choice is made, there can be problems like cracking or curling. Among the new ideas which Sicpa and other suppliers are developing are inks which shine in the dark or under UV light, inks which change color with temperature, scratch-off inks, high-gloss metallic inks, sparkling inks, and UV screen varnishes which give a '3D' effect. Inks have a key role to play in traceability, thanks to various security features like laser-codeable varnishes. But whatever the application, Montag concluded, converters need to understand something of the chemistry of inks, and to work closely with their ink supplier.

Printing on filmic labelstocks

'Improving the printability of oriented polypropylene films' is perhaps not a title likely to hit the best-seller lists, but it did not stop Tarquin Crouch and William Grisard of ExxonMobil Chemical from giving a well-structured and coherent account of the difficulties which facestock manufacturers encounter when designing new and (hopefully better) products for tomorrow's label converters. Any filmic facestock for self-adhesive labels, they explained, must meet four sets of conditions:

- Mechanical: It must have tensile strength, dimensional stability must be sufficiently stiff and must lie flat during printing/converting
- Adhesive: a face material should ideally be suitable for all kinds of adhesive used in pressure-sensitive laminates (hot melt, solvent, UV, water-based…)
- Printability: a film should be printable with water, solvent-based or UV inks, be they flexo, screen, letterpress or offset. Ink adhesion is also a crucial factor.
- Other criteria: e.g. whiteness, transparency or translucence, gloss or matt surface, and resistance to ageing.

As a facestock for self-adhesive laminates, oriented polypropylene (OPP) encounters a number of printability problems:

- silicone can transfer from the release liner to the printable surface, destroying the printability
- the ink can (often does) fail to adhere or not be completely cured in the time available
- the surface can be insufficiently scratch-resistant
- the printed surface can become mottled.

Many of these problems can be solved, but until recently mottling - defined as 'uneven ink coverage causing variations in color density when printing in UV flexo' - has continued to cause

headaches for both printers and substrate manufacturers.

Mottling occurs mostly in solid blocks of colour; corona treatment is known to reduce the problem in certain cases. Using a screen angle of 60° on the anilox roller likewise reduces but does not eliminate the problem. Using a hard flexo plate in combination with a non-compressible mounting tape can also help reduce mottling in solid color blocks. All these 'tips' can help, but not solve the problem. To make matters worse, mottling affects different colours in different ways. So if you have solved the problem for red you may have made it worse for blue.

What then is the solution?

ExxonMobil believes it has an answer, in the form of 'Rhiza', a new 'overcoat' for their coated OPPs. Tests carried out in several countries have shown that this new coating reduces mottling to a level such that the finished print job is consistently rated 'Good' or 'Very Good'. The first of the new ExxonMobil facestocks using the new coating has just become available to laminators, so label converters should be able to try out these new Rhiza-coated OPP laminates from June or July 2005.

The Digital Debate

Geert Van den hole (Agfa) and Christian Menegon (HP Indigo) jointly chaired a forum on the Future of Digital label Printing.

The arguments in favour of 'going digital' in the roll label business (ever shorter run lengths, customisation, just-in-time deliveries…) are too familiar to need repeating. Geert Van den hole's argument in favour of inkjet digital technology was based on the rapid expansion of inkjet printing world-wide which, in his opinion, will mean more general acceptance of inkjet and a fall in prices for consumables (inks and cartridges). He sees the best future for narrow web digital not as a stand-alone 100 per cent digital press, but as a modular digital print station set into a conventional roll-to-roll press.

In contrast to this, Christian Menegon explained that HP Indigo's conception of a digital narrow web press is essentially a stand-alone unit, with or without in-line die-cutting,

Helmut Schreiner of Schreiner Group, flanked by the other prize winners of Schreiner Groupflanked by the other prize winners

"A survey of label converters, carried out at Labelexpo Americas 2004, showed a strong interest in unsupported substrates and in RFID label technology"

and able to handle a wide range of substrates. Quoting a recent survey by the consultancy Labels & Labeling International he reminded his listeners that two-thirds of all label orders are for less than 2,000 linear meters, and for many of these, digital is the most economical solution. 'Digital presses will open the way to short-run production of high added-value features, like digital microtext, security inks, variable data barcodes and similar security features', he concluded.

Technology overview – trends to watch out for at Labelexpo Europe

A survey of label converters, carried out at Labelexpo Americas 2004, showed a strong interest in unsupported substrates and in RFID label technology, Andy Thomas of Tarsus reported to delegates. This finding was much has expected. More surprisingly, only 4 per cent of respondents were looking at in-line printing of cartons.

Trends that are likely to be seen at Labelexpo Europe In Brussels in September 2005 include new methods for laser engraving of photopolymer plates, says Thomas. Also, sophisticated inspection systems, hitherto reserved for wide-web machines, are increasingly being adapted for narrow web. Seamless sleeves may soon give way to in-the-round imaging of plates pre-mounted in sleeves, he believes. Other expected innovations and product launches at Labelexpo Europe 2005, he says, will include new machinery for printing and converting shrink sleeves and BOPP wraparound

"By introducing some more market-orientated papers the organisers performed the valuable service of trying to match technology to what the customer wants"

labels. In Brussels, as last year in Chicago, there will be a detailed survey of label converters' thoughts and attitudes.

Other papers presented at the FINAT seminar included: Laser Die-cutting (Stephen Jenkins and David Kirkham, ABG International), a Comparative Study of Die Blade Performance (Dr Renke Wilken, Technical Paper Foundation), Unifying Nomenclatures for p/s Laminates and Standardising Test Procedures (Haken Saxen, Raflatac), Technology Trends in Screen Printing (Harold Apps, Stork Prints Graphics), Web Inspection Systems (Amir Dekel, AVT), and Innovative Material Solutions (Dominic Meina, 3M). There were also presentations by two managers of Central European label converters (one Hungarian, the other Polish) who gave concise and informative surveys of their respective countries' label markets.

'Cupwinners' Cup' Awards

The winning labels from competitions held by TLMI, FINAT and also the Indian and Australian Label associations were judged for the World Label Association Competition. At an Award Ceremony held at the close of Day One of the Technical Seminar, top prizes went to labels produced by Schreiner (Germany), Desmedt (Belgium), and Flexiket (Denmark).

Was it worthwhile?

Delegates and speakers at the FINAT technical seminar gave up best part of two days of their valuable time to attend. Was the time well spent? In nearly all cases the answer seems to be yes. The only criticism this correspondent heard was that, for some delegates, the seminar was not sufficiently technical. Against this it must be said that by introducing some more market-orientated papers the organisers performed the valuable service of trying to match technology to what the customer wants. ■

News

Teknek banned from doing business in US

On 18 April 2005 a Federal Court Order was entered in California, banning "Teknek Electronics and all those working in concert from engaging in any business whatever in the United States." Teknek America, LLC continued to conduct business.

On June 2, the Federal Court of Illinois issued an order finding Sheila Hamilton, Jonathan Kennett, and Teknek merica to be guilt of multiple violations of this order and were subsequently found in contempt of Court.

They were ordered to provide an accounting of all business activity, sales, and payments made since April 18th and pay it to SDI. "Teknek America LLC is ordered to close its doors immediately" and "to advise all customers and distributors in writing" that they may not do further business in the United States until further notice." If any ndividual is found in noncompliance, they are subject to possibly "substantial civil contempt remedies," including the issuing of a "warrant for the arrest of any individual found to be in contempt of this order."

Dow Corning increases global release coating prices

Effective July 1, 2005, or as contracts allow, Dow Corning will implement a 5-7 per cent price increase on its global release coating product line. ŒDow Corning has aggressively implemented continuous productivit improvement programs over the last three years.

However, thes productivity gains do not offset the considerable raw material cost increases,, says the company. ŒEscalating prices of platinum metal have driven this action, along with global trends in methanol, energy, silicon metal and solvents. This price increase will enable Dow Corning tcontinue to meet expectations for technical solutions and reliable product supply.,

Dow Corning says it has pioneered coatings that contain significantly less platinum and will offer full support for their implementation, there by minimizing the impact of platinum on customers, prices and profitability.

Flexographic Short Stories

By Alexander James

"If you can't measure it, you can't predict it.' As the Prepress Technician for Harper GraphicSolutions, a Division of Harper Corporation, flexographic customers contract my services to help institute quantifiable standard operating procedures. Typically, I am on site with a given customer to train its staff on ways of quantifying Flexo from Design to Prepress to Press. The goal is to raise production efficiencies through establishment of quantifiable standard operating procedures throughout the Flexographic process.

When on-site, establishing quantifiable operating procedures includes the design, pre-press, plating, ink room, aniloxes and the pressroom areas. Parameters are established based on data quantified from a press characterization. This information then becomes the basis for trap tolerances, solid ink density targets, production press speed, and much more. A big part of what I do is to teach the customer's staff how to do press characterization, show them the reasons for establishing press running targets, and help to get their proofing device to match the press as close as possible by establishing color management process workflow. Ultimately, each customer will establish site-specific standard operating procedures. These quantifiable procedures can be used to establish checklists that can help identify reasons for any inconsistencies without the cost of unnecessary downtime and/or waste.

"These quantifiable procedures can be used to establish checklists that can help identify reasons for any inconsistencies"

On one of many contracted visits, I requested that the customer gather up samples of challenging jobs to review. We all gathered around their conference table and proceeded to review their samples. One in particular was a label that had a beautiful vignette background that went from a dark color to a light color with text and a circular image in the center. The issue with the label, according to the customer's pre-press, sales and press department was that the label in a 3-up layout seemed to be different. Looking at the 3-up layout comparing the contract proof and the press samples to each other, in a balanced viewing setting, visually there was a perceived difference. See figure 1.1. The account's manager in particular felt so strongly about the difference that the 3-up job when printed was spliced into three rows and wound onto three separate cores. One of the three printed labels was then delivered to the customer because the staff was sure that all three labels did not match each other. The production run length had to be tripled and two-thirds of the printed job was considered waste.

In their prepress department we reviewed the source raster file (Adobe Photoshop), the vector layout (Adobe Illustrator), the film (7ml, matte), the proof (Waterproof), and the printed labels. In Illustrator, we checked the 'link' menu to verify that the graphics were indeed linked to a single source. Knowing that the source file was a high resolution Adobe Photoshop file, we knew it was impossible for a single source data placed into any layout multiple times to change on its own. Next, we examined the film and confirmed that each area was within an acceptable tolerance. Film measurements were taken with a transmissive densitometer at the dark tones, mid-tones and the highlight areas. The readings taken in each area were within a plus or minus .02% variance, which is well within tolerance. After

Figure 1.1

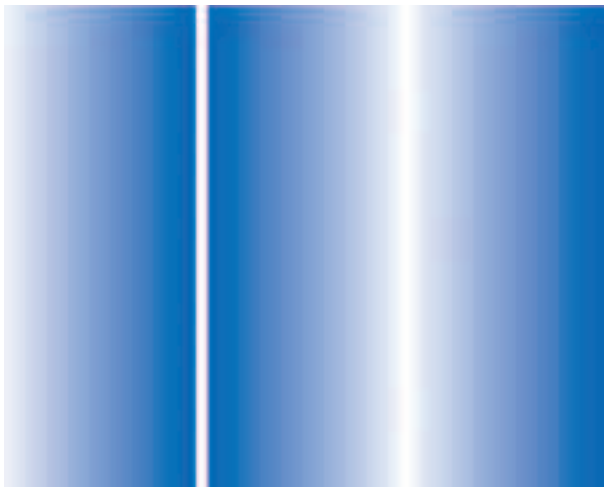

Figure 1.2

checking the film we looked at the polymer and based on exposure test, verified that they were also within an acceptable tolerance. The polymer relief and floor of the three labels was checked with a micrometer and the dots were analyzed with a photographic micro-measuring device. Sure enough, the plates were within tolerance in comparison to each other for all three labels. Finally, we looked at the printed product by placing a sample of the three side by side and yes, visually they did not appear to match. We were able to determine that what we were seeing was a metamaric shift. This phenomenon occurs when adjacent colors influence the perception of each other and results in a visual mismatch. A change in the layout of the three up labels would minimize the perceived visual variance and solve the perception problem. See figure 1.2.

So, we took readings, densitometrically and colorimetrically from the same areas of each contract proof and printed labels. The areas we read (solids, mid-tones and highlights) were also within acceptable tolerances to each other. The proof samples read densitometrically within '+/-' .03; the printed sample read densitometrically within '+/-' .04. Colorimetrically, the proof samples read within '+/-' a Delta E of 1%; Colorimetrically, the print samples read within '+/-' a Delta E of 2 per cent. Measuring the film, plates and print samples indicated, in an objective manner, that at each stage, tolerances and consistency in the process were maintained.

By measuring all variables it became apparent that the labels were indeed all the same, even though visually they looked different. Quantifying the process removes the subjective elements and brings an objective numerical approach that is critical for establishing standards. By establishing tolerances for each stage of the process, one will be confident of color

"What we were seeing was a metamaric shift. This phenomenon occurs when adjacent colors influence the perception of each other"

matches but more importantly, one will be able to pinpoint areas that are contributing to color mismatches.

A month after having been contracted for consulting services by a customer, I follow up to see how things are going. The majority of the time everything is going well and the customers are sticking to whatever programs were implemented while I was on-site. On one occasion, after making a check-up call, the customer expressed concerns that they were getting results that 'did not look sharp' and that some printed samples 'looked out of focus'. They also expressed they weren't happy with the shadows, which 'lacked contrast'.

When any customer expresses concerns with the results they are getting, I will request that they send me samples to review. The standard operating procedures established in earlier visits enable a review of quantifiable data to help resolve problems. It is critical that the samples sent me also include the waste matrixes with registration and running targets. In most situations the running targets are not included on the finished products, but are removed in the waste matrix. This particular

Out register;

In register;

customer's concerns were that their printed images 'did not look sharp', some looked 'out of focus' and the shadows 'lacked contrast.' Once samples were received, it was immediately evident that the samples did indeed 'look out of focus', and 'did not look sharp'. Having procedures in place does not guarantee one hundred percent consistency and it is sometimes easy to miss a fundamental requirement, such as registration. In this case, the samples were simply out of register and the result was a product that lacked clarity. A simple fix of registration resolved the out of focus issues. Even with defined procedures it is always easy to ignore basic requirements due to the pressure of meeting production demands. Insisting on tight registration should be part of the daily procedural requirements for every press operator that is printing four-color process. See the example images, one out of register and one in register.

The customer also expressed their opinion that the shadows were 'lacking contrast.' Using a densitometer a reading was taken of their solid ink density targets. Knowing the black ink was set up to achieve a density reading of 1.5, the reading taken read 1.38, which is well below the tolerance of plus or minus .05. Inquiring why there was such a difference, we found that the correct anilox assigned to the black was not used, resulting in a lower solid ink density. They had used the correct line screen but not the correct volume. We had to verify the other colors had the proper anilox and volume assigned to them, which they did. Once the correct anilox line screen with the proper volume was used for the black ink the density target was achieved, the contrast level went up and the customer was happy. The value of establishing standards and targets to measure is that subjectivity is removed from the process and an objective method of process control becomes part of standard operating procedures. Therefore, whenever there is an issue you can objectively quantify and pinpoint the root cause of the problem.

'The value of establishing standards and targets to measure is that subjectivity is removed from the process and an objective method of process control becomes part of standard"

A final example of the value of quantifiable standard operating procedures involved a press characterization trial. We were comparing conventional 067 polymer to digital 067 polymer printed on a narrow web press. For the first press run using the conventional polymer, everything went fine. We achieved the targeted solid ink densities, had good impression and were quite pleased with the result. During the second press run of the digital polymer, however, we had some issues with the black plate. Looking at the tone scale target, the black plugged in the

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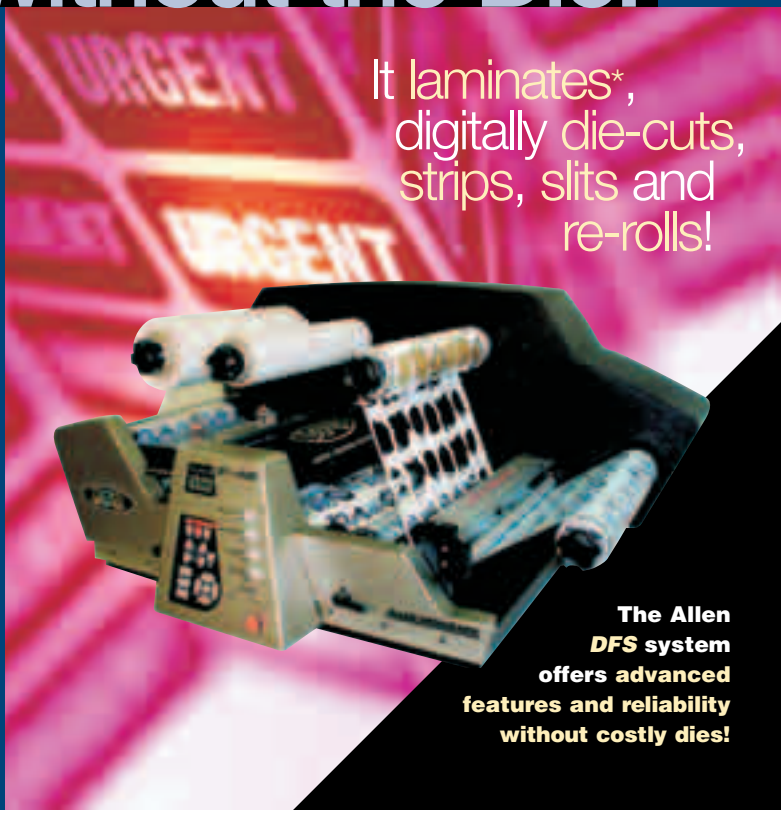

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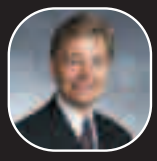

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center of the fifty percent dot and developed a plugged cone shape up to the 100 per cent solid. We adjusted press speed, web tension, impression and ink formulation. Finally, after much frustration and quite a bit of time, I suggested we stop the press and take a look at the plates, which had come from a reputable prepress house. I called the prepress house to verify the specifications for the floor and relief of the plates. Using a micrometer, I measured the cyan, magenta, yellow and the black polymer. Three of the four plates had a relief reading of .024',

"If this had been an actual job with a tight deadline, we would have missed our delivery date. It was apparent that standard operating procedures were not followed"

which is the specification. The black plate read at a .037', which was out of specification and was the source of our problem. We had spent a good part of the day fighting the problem with the black plate. If this had been an actual job with a tight deadline, we would have missed our delivery date.

It was apparent that standard operating procedures were not followed and the plates were not checked at either the prepress vendors' location or at our location. It was taken for granted that since we got the plates from a well-known source, they were correct. As a result, we wasted half a day trying to resolve a problem that would have been caught if we had followed quantifiable operating procedures. Once quantified, the source of the problem with the black plate was found, a relief that was out of specification.

In all three of these examples, issues were debated and reasons for inconsistencies were speculated upon. In some instances, an inferior product was delivered to the customer or the company incurred the unnecessary cost of waste and press downtime based on subjective decisions. And in each case, it was possible to track and quantify the process at various stages in order to objectively resolve the issues. In prepress, checklists can be established for design, film, proofing and plating areas. Standards and targets should be part of the ink, anilox and pressroom areas. Quantification and standard operating procedures are all critical in order to achieve a consistent workflow and produce a product at an efficient, consistent, profitable level. After all, if you can't measure it, you can't predict it. ■

News

Clondalkin acquires Harlands of Hull

The specialist packaging division of the Clondalkin Group has acquired Harlands of Hull in the UK. Clondalkin's packaging division specialises in cartons, labels, leaflet inserts and plastic cards, and has operations in the United Kingdom (Boxes Prestige, Boxes GH and Ditone Labels), in Ireland (Guy & Company and Guysal), in the Netherlands (Boxes LPFC and Linde), in Poland (Boxes Prestige) and in the United States (BBF Labels, Plastic Cards and Inserts).

Ian Wright, md of Harlands, comments: 'We are very excited about becoming part of the Clondalkin Group. We were initially attracted by Clondalkin's well established reputation for investing and developing the businesses it acquires by backing company management. When we explored the opportunity, the many tangible benefits were compelling.

The acquisition gives Harlands immediate access to deeper investment and people resources than we could ever hope to access on our own. It also introduces us to the extensive product market geography and technology reach supplied by Clondalkin Group's specialist packaging division.'

Wright also cited Clondalkin's strong development and experience in Eastern Europe. 'This is a fast growing market for us, and we will be able to access Clondalkin's existing manufacturing base and experience in these markets to improve Harlands products service, supply and delivery.'

John Fitzgerald, CEO of Clondalkin's specialist packaging division, commented, 'The acquisition is a great fit as we complement Harlands main markets and technologies very well. Our priority is to continue to develop Harlands well established supply position into the UK health and beauty, toiletries, alcoholic beverages and premium food markets. We will also fast track Harlands development in Eastern European markets by adding local manufacturing capacity to complement our already well established manufacturing operation in Poland.'

RFID – the state of play

With the Smart Labels conference scheduled for June 28-29th in Baltimore, **Dr Peter Harrop** of IDTechEx analyzes global trends in RFID

IDTechEx has recently celebrated reaching 1,400 case studies of RFID in action. These list technical detail as well as giving extensive commentary and analysis where possible. It spans 68 countries and the activities of 1,529 organisations at the time of writing. However, our team are adding case studies at a rapid rate while continuously updating the existing studies. By the time of Smart Labels USA in Baltimore in June there will be 1,500 case studies. So what are the lessons?

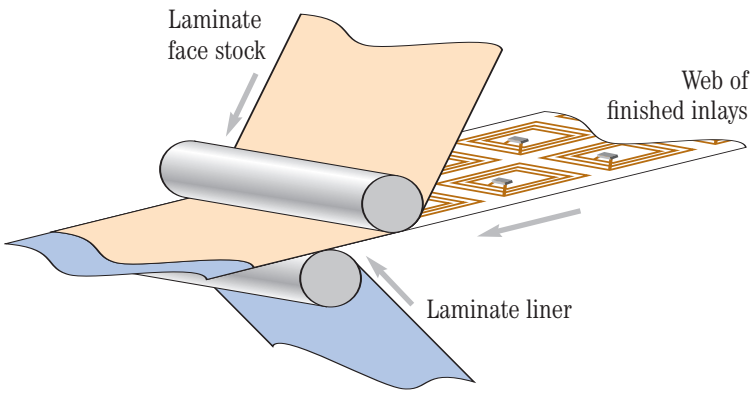
Paybacks – no surprises

Some aspects are not changing. For example, paybacks are still most commonly found in the one to two year range, though many of the case studies cover trials and rollouts where paybacks are uncertain. It is still true that retailing and consumer goods involves the largest number of RFID projects, but, although deliveries of tags to this sector have now risen to the region of 10 million per month that is far from being the most important sector in term of values or number of tags or value of infrastructure. The RFID business remains a smart card/ payment key fob business in value of tags and infrastructure. The largest projects have not involved EPC (Electronic Product Code) tags and they include the $6 billion China national ID card scheme and the delivery last year of 50 million RFID tickets for Osaka World Fair by Toppan Printing using Hitachi Mu Solutions RFID inlays.

EPC is not yet the big market: higher values in other projects

The ICAO RFID passport scheme involves around 30 countries and 300 passports working at High Frequency HF. It has got off to a slow start but it will rise in importance in the next three years perhaps reaching 20 million yearly. That may not seem much but, like most RFID smart cards, these labels and inserts cost 15 times as much as a retailer's EPC tag – the chip alone costs two dollars in a passport because of the large memory, sophisticated security and use of a microprocessor. RFID smart cards also have sophisticated security and microprocessors. The China ID card is an exception as it has hard wired logic and no microprocessor but it still costs $1.25, 6.25 times the cost of today's retailer's EPC tag and the gap will widen as EPC tags sell in larger numbers and their costs tumble further.

"It is still true that retailing and consumer goods involves the largest number of RFID projects. Deliveries of tags to this sector have now risen to the region of 10 million per month"



Converting a web of finished inlays into a label laminate structure based on illustration by Avery Dennison.

Changes in the listing of most important countries

The countries that are most important for RFID in numbers of projects are changing. China and Japan are now more important than when we last reported, jumping up the league table to number three and number five. We expect to report unusually large activity in Korea as well and China will rise to the top in number of case studies, number of tags and by many other criteria. Japan will probably overtake the UK in number of case studies soon. However, the bigger surprise is how slowly RFID is moving in continental Europe, leaving the UK well ahead of the rest of Europe in number of case studies. Where is the continental equivalent of the $1.6 billion London bus/ train RFID order, the Tesco purchase of 4,000 interrogators for $8 million or so or Marks and Spencer's rollout of apparel tagging? Which continental military organisation is matching UK spend on military RFID?

Surprises

We are very surprised by this. The German economy and population is much larger than that of the UK. French companies in RFID tell us they sell most of their product outside France. In continental Europe, only the Netherlands has high RFID spend per head but Finland will start to qualify with RFID in a large proportion of Nokia's new cellphones. In manufacture of RFID tags and systems there is a very different picture again with UPM Rafsec of Finland in the first division globally for library and pallet/ case tags and many French and German companies with world class output.

source: IDTechEx www.rfidbase.com

Applications

Analysing applications is fraught with difficulty because everyone has different definitions and one has to decide, for example, whether to report every marathon where a tag is behind the runners' number (eg from UPM Rafsec) or in the runner's shoe (eg Texas Instruments) or do one case study for all of them. Some applications fall into two categories. We take a middle road and some truths emerge.

Leisure applications are largely one-offs like marathons and venue events. There are a large number of case studies in this category but more money is being spent, for now, in retail/consumers goods, in land and sea logistics/postal, and, above all, financial/security/ safety, with this latter sector being boosted by Visa and MasterCard starting a serious move to RFID credit and debit cards this year. Passenger Transport/automotive at number two has even more cases and the car clicker and intermodal transport card still represent some of the largest and most lucrative projects in RFID for both tags and systems.

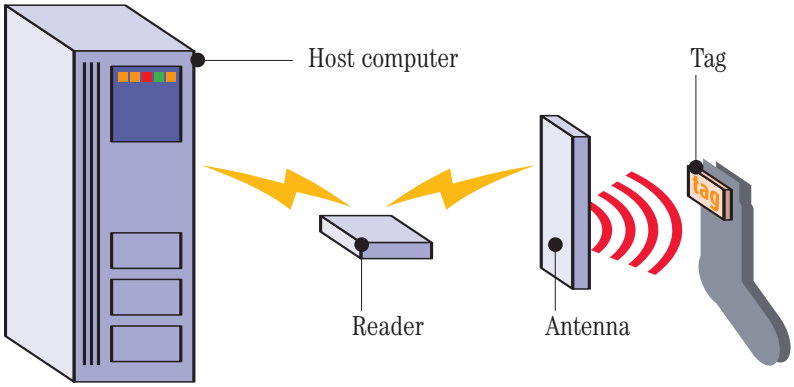
> "the uses of UHF are nearly all trials and rollouts with, as yet, modest numbers of tags and spend on infrastructure"

Surprisingly, of the smaller RFID sectors, books/libraries/ archiving seems to be moving forward faster than the application of RFID in manufacturing as measured by number of case studies and anecdotal evidence of the size of the projects, possibly because there are more paybacks. The small number of laundries using RFID is increasing slowly but they still absorb double the number of tags used in libraries.

source: IDTechEx www.rfidbase.com

HF still the dominant frequency

Obviously numbers of case studies is only one criterion for what is going on. Indeed, when we look at frequency, we see HF still in the lead, as it is on any criterion, but UHF coming up fast. However, the uses of UHF are nearly all trials and rollouts with, as yet, modest numbers of tags and spend on infrastructure. We all know that will change and UHF may even be the most popular frequency next year and for a few years later but with a high



Reading and analysing data from an RFID tag

probability of reversion to HF being dominant as the largest applications of all – item level – grow with HF as the preferred, though not the only frequency. That is the lesson of somewhat problematic trials of UHF on drugs for example, and drug companies seeming to prefer HF on current experience. A major supplier of both UHF and HF tags has recently confirmed this view when we visited them.

source: IDTechEx www.rfidbase.com

The most popular shapes are changing

The most popular tag shapes include "buttons" and "bullets" for animals, manufacturing parts and so on but it is now cards by gross value, labels by numbers and rapidly trending to labels by any criterion. This largely reflects the largest or most prevalent applications over the years but there has been some move to labels caused by cost reduction of tags that were previously moulded in plastic for certain applications such as road tolling and logistics. For active tags – 15 per cent of our case studies and 23 per cent of all tags ever sold, we now see button batteries as by far the most common power source, not the AA and customised batteries of times past. That means active tags are smaller, with matchbox and disc shapes replacing boxes of electronics and large plastic mouldings. Smart active labels – basically active RFID in the form of labels with printed batteries no more than 0.5 mm thick – are not selling in more than millions yearly nor are there many SAL projects to report. This is despite the excellent efforts of the Smart Active Labels Consortium but their time will come.

source: IDTechEx www.rfidbase.com

Payback surprises

RFID paybacks are still mainly in the acceptable range of one to two years. The shortest paybacks claimed involve changes to working practices as a result of the new visibility. Paybacks are commonly believed to revolve around cost reduction and our 1400 studies bear this out. However, customer service improvement is not far behind, from smart cards you can use when wet to reducing empty shelves in shops and queues in libraries. In the military that translates into the ability to mount operations that would be impossible previously. Most can be quantified.

Project size

The size of the projects varies from a few thousand dollars to six billion dollars. That means that the largest reported RFID project in the world is more than three times the size of the largest five years ago and ten times the size of the largest ten years ago. The larger figures involve system integration and sometimes facilities management. Projects costing millions and tens of millions of dollars are increasingly commonplace.

The number of tags involved in a given project varies from under ten units to one billion units and we expect larger projects to be reported soon. Procter and Gamble has 2.5 billion pallets and cases at any one time for example and they must be tagged as soon as the physics is conquered. Marks and Spencer in the UK is moving rapidly towards tagging 350 million items of apparel yearly and Metro Germany may tag even more produce if it starts to move as fast. Metro's systematic commissioning of different applications one at a time is proving sound.

Of course, the value of the IDTechEx Knowledgebase of over 1,400 case studies of RFID in action goes beyond statistical analysis of trends. Manufacturers use it to find new markets and to track competition. Users check out suppliers and their clients' opinions of them. All can benchmark best practice and lessons of failures such as the US school that tagged all pupils without consultation and withdrew the scheme in the face of energetic protest from both students and their parents. However, other schools have spotted the potential for saving lives and increasing efficiency and intend to do it properly. Benetton of Italy pulled out of apparel tagging seeing no payback and facing privacy protests: companies in Japan and elsewhere are going ahead with it as fast as they reasonably can. The evolving case studies will track who was right.

To investigate further see www.rfidbase.com

Smart Labels USA 2005, 27-30 June, Baltimore, USA, www.smartlabelsusa.com.

Labeling news

Etipol returns in new ownership triangle

Danish semi-rotary press specialist Etipol A/S, has been rescued from liquidation by a consortium of major industry players including Nilpeter's Lars Eriksen.

Dan-Mekano A/S in Roedovre, Denmark, has taken over the ownership and the name of Etipol A/S, based in Taastrup, Denmark. Simultaneously Jes Hilfling, Ib Gronbjerg – founder of Dan-Mekano A/S – and Lars Eriksen, president and owner of Nilpeter A/S, have taken over one third each of the shares of Dan-Mekano, and thereby also of Etipol A/S, which now forms a new legal entity. The management team will now consist of Jes Hilfling as managing director and Ib Gronbjerg as technical director. Both will be members of the Board, of which Lars Eriksen will be chairman.

Comments Lars Eriksen, 'Etipol's product program consisting of intermittent letter and offset presses, the Combi models, fits very well into the trend of ever smaller runs in the label industry, and forms a perfect complement to the full rotary presses from Nilpeter.'

Says Dan-Mekano's Ib Gronbjerg, 'Coming from our background of specialized, tailored solutions, and combining this with a line of standardized presses, we stand much stronger in the more and more competitive, globalised market. Supply of spare parts and service, together with the manufacturing of new machines has been started, and we are looking forward to continuing our co-operation with all former and present partners within our new partnership of Etipol A/S.'

Inline UV Main Exposure for digital flexo plate imagers

Esko-Graphics has introduced Inline UV Main Exposure, allowing digital flexo plates to be exposed at the same time they are imaged, rather than requiring separate exposure on a light frame. The technology will be available in Cyrel Digital Imagers (CDI) in the third quarter of 2005.

Jürgen Andresen, Esko-Graphics marketing director for packaging hardware, comments: 'An important benefit of Inline UV Main Exposure is that it offers a controlled environment, which delivers a higher level of repeatability, consistency, and control of dot formation to digital imaging – leading to significant higher quality and consistency on press.'

Inline UV Main Exposure technology enables plate imaging and UV main exposure to occur simultaneously in one device, with no increase in the time needed to image a digital flexo plate or sleeve. Combining these two process steps is claimed to provide both economic and quality benefits, eliminating about fifteen minutes of processing per plate – as well as lower labor costs thanks to minimized operator handling. This reduction in handling avoids damage to the photopolymer surface and thus reduces photopolymer plate waste. Esko Graphics says testing has shown that Inline UV Main Exposure technology results in a markable reduction of plate waste.

All CDI units now shipping are upgradeable with the Inline UV Main Exposure option.

Acquisition pushes Skanem into Eastern Europe

Skanem AS, one of Europe's largest producers of self-adhesive labels, is moving into Central and Eastern Europe with the acquisition of Poznan-based Introl SA and its subsidiary factory Introl Print in Moscow.

Introl SA is one of the leading label producers in Poland, and has built up a successful and profitable business over the last 23 years. It serves both domestic and multinational customers.

Group president and owner of Skanem, Ole Rugland, says: 'We're looking forward to incorporating Introl SA, Introl Print and their staff, into our group. The Central and Eastern European market in self-adhesive labels is growing fast and this acquisition is an ideal match for our planned business development. Introl is a quality labels producer and is also a bridge for Skanem into the Eastern European markets.'

New name for ANI/BASF

The new name for the merged ANI Printing Inks and BASF Printing Systems is XSYS Print Solutions (pronounced as Ex-syss). The company says that it was seeking a name that would be memorable and individual, whilst also able to express its numerous possibilities and specialist knowledge.

The 'X' stands for the company's extensive product range, new developments, possibilities for customers and opportunities for employees. The 'SYS' means systems.

Schreiner Group added to Label Award nominees

The Schreiner Group has been added to the list of nominees for the European Converter Award for Continuous Innovation, which will be presented at this year's Labelexpo exhibition in Brussels, Belgium.

The Schreiner Group has achieved many awards in recent years at national and international level, including FINAT, TLMI and World Association Awards, a PISEC Award for Outstanding Achievement in Brand Security, and two Outstanding Innovation Achievement Awards in the Top 100 most innovative companies amongst Germany's medium-sized business community.

The company joins Pago AG, Arca Etichette, Denny Bros, Herma, Illochroma, Drorys Etichette and Skanem in this category of the Label Industry Global Awards.

Other categories in the Awards include the R. Stanton Avery Lifetime Achievement Award, the Award for Continuous Innovation by a supplier and the Award for New Innovation by an industry supplier

Narrow web college planned for South China

The Board of Hong Kong based Wutung Holding has announced plans to establish a Technical Center for printing in South China and has appointed Dr. Jules Farkas to the post of Chairman of the Advisory Board.

Paul S.P. Yeung, chairman comments. 'There is a need to improve operational quality and productivity in the Chinese narrow and mid-web converting industry, in flexography in particular, and in combination with gravure, screen and offset printing. The Technical Center will provide theoretical and hands on training in all relevant label and package printing processes and applications. Dr Farkas brings with him a wealth of knowledge and experience and as Chairman will be responsible for bringing together key European and USA companies to participate in the build-up and daily operation of the Technical Center.'

States Dr Farkas. 'It is an honour and a challenge to be nominated for this important position and a rare opportunity to be involved in the start-up of a new venture. It is my goal to develop the UV flexo market in China and the new Technical Center will serve to achieve this well. We will also address combination printing applications and selected companies with leading technology will be invited to contribute to the success of the center.'

The new Technical Center will also establish working relations with the DFTA-TZ at the University of Stuttgart to exchange knowledge and experience of flexography and sponsor members will be sought to start a Chinese Narrow Web Technical Association.

Dr Farkas has over 30 years experience in the printing industry and has aquired an international reputation for his expertise in bringing new technologies to the fore. He introduced and pioneered the use of UV flexo technology in the late eighties and more recently has been involved in the development of digital printing, laser die cutting and RFID/EAS technology.

Chesapeake sells French Wine and Spirits label business

Chesapeake Corporation has completed the sale of the assets of its French wine and spirits label business, Bourgeot Etiqso Lesbats, to the Autajon Group. The sale price was approximately 1.16 million euro.

Bourgeot Etiqso Lesbats, based in Bordeaux, France, was acquired by Field Group plc, now a Chesapeake subsidiary, in 1995, as an entry for Field Group into the market for labels for the French wine industry.

In a statement, Chesapeake said, 'In recent years, challenging business trends in the French wine industry have had a negative impact on the profitability of the business.

The sale of the business to the Autajon Group provides an opportunity for the business and its employees as part of Autajon's established and growing French wine label network and will allow Chesapeake to focus its management attention and capital on its core businesses and markets.'

Chesapeake Corporation is one of Europe's premier suppliers of folding cartons, leaflets and labels, as well as plastic packaging for niche markets. It has more than 50 locations in Europe, North America, Africa and Asia and employs approximately 6,000 people worldwide.

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Labeling news

ETI receives patent for in-line process

Montreal, Canada-based ETI Converting Equipment has received the patent for its system for manufacturing pressure sensitive adhesive label stocks 'with printing under adhesive and product produced thereby'.

ETI has sold 40 machines worldwide which take raw materials – face stock, adhesive, silicon and release liner – and produce finished, printed labels.

The system allows the converter to produce specialist products using techniques such as multi-colored printing under the adhesive; reverse printing on a clear film to avoid the need for an over-lamination; and multi-colored printing on both sides of the label in one pass and with one ply. Any substrates available in roll form can be adhesive and silicone coated - before or after printing – to produce a roll of pressure sensitive labels.

ETI says it has sold equipment to the main beer label manufacturer in the United States and in Germany, as well as to main players in the wine and spirits label markets in France and in Italy. In other fields, such as personal care, food and beverage, machines have been installed in New Zealand, Russia, China, Canada and Mexico.

Stork Cellramic to sell Alphasonics ultrasonic

Anilox roll manufacturer Stork Cellramic, a division of Stork Materials Technology, has reached an agreement to market and sell Alphasonics' Alphasound cleaning equipment in North America.

Commented Mat Jones, sales and marketing manager at Stork Cellramic: 'We, as an anilox roll supplier, are frequently asked what the best cleaning method is. Until recently the answer was not so clear, as there were many trade-offs between differing methods. I believe that Alphasonics has developed the best method for cleaning and maintaining anilox rolls, with the ability to develop along with us and that is why we are now representing their products.'

Ultrasonic cleaners in general have had a reputation for being very effective, but potentially dangerous to the anilox cells. Alphasonics claims to have eliminated the destructive nature of the older technology by incorporating amongst other things a 'Supersweeping' generator which eliminates the hot spots. It is the hot spots generated by 'fixed frequency' machines that ultimately end up damaging anilox cells, says Alphasonics' David Jones md. 'Alphasonics has also developed 'Alphasound' dual frequency capability which allows for daily cleaning with the softer, yet thorough high frequency, as well as a more aggressive, yet still very gentle cleaning with the lower frequency if required.'The Alphasonics machines have been tested on line screens up to 1500 lines per inch (LPI).

Commented David Jones: 'We are delighted to be associated with and working with Stork Cellramic. This agreement represents a major shift in thinking and we thank the people at Stork Cellramic for the opportunity to further develop the use of Alphasound in the US. Furthermore we welcome the chance to test our technology to the limits that Stork Cellramic can produce. The results of these tests will ensure that Alphasound will keep pace with roll technology in the future.'

Nashua approved as Alien Technology qualified

Nashua Corporation, a manufacturer and marketer of labels, thermal and specialty papers, and imaging products, has announced that the company's Label Division has been approved by Alien Technology as a 'Qualified Label Converter Partner', and is qualified for insertion of current Alien Technology inlays in the manufacture of Radio Frequency Identification (RFID) labels.

Tom Pagel, president of Nashua's Label Division said, 'We are excited about the ongoing development of the RFID marketplace and the opportunity it represents. Nashua is positioning itself as a high volume provider of 100 per cent qualified and tested RFID media. The Alien Technology qualification represents a significant step in this direction.'

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Labeling news

Omet offers prototype machine for RFID trials

Omet is dedicating a machine to RFID trials at its new technology center in Lecco, Italy. It will be used to test the different products, printing systems, inks and materials, and perform customer demonstrations. The company is developing a unit to apply RFID inlays in-line.

In a statement, the company said: 'Omet is following the development of RFID labels – HF and UHF frequency – with great interest, carrying out research in this strongly developing technology, research on applications and production modality of such labels. Omet confirms its availability to cooperate with ink manufacturers, designers and installers of these plants, and its will to make and test different RFID products.'

Sun Chemical to distribute MetalFX inks

Sun Chemical has signed up as an official ink maker for the MetalFX ink process metallic color system.

John Adkin, Sun's European product director for sheetfed and UV inks, commented: 'Sun Chemical has been interested in the development of MetalFX for some time now, and interest has now become sufficient in the marketplace for us to become an official MetalFX ink supplier.'

The company has signed up its first UK distribution point as an outlet for MetalFX inks. Sun Chemical at South Normanton, Derbyshire, can now offer official process and metallic inks that are compatible with the MetalFX system.

MetalFX allows thousands of metallic colors to be created by overprinting CMYK values onto the MFX Base silver ink. The color specification is controlled through the MFX software and swatch books. The process inks used for MetalFX have clearly defined values so manufacturers have the ability to produce inks compatible with the metallic color specification system. Sun Chemical has been working closely with the manufacturer of the MetalFX base silver inks, Wolstenholme International, in the drive for spreading awareness of the MetalFX process. Interest generated between the two companies has led to the sale of a number of MetalFX licenses to printers.

Andrew Rink, managing director of Wolstenholme International, is keen to point out the collaborative nature of companies involved with the development of MetalFX: MetalFX is creating revitalised interest in the metallics market. All companies involved, although sometimes competitors, are eager to work together to launch the technology into the global market. To have Sun Chemical join the family of MetalFX distributors is great news, and we look forward to continuing working with them and our other metallic ink customers on future MetalFX projects. Eckart GmbH also manufactures the MetalFX Base silver ink.

Rafsec to build RFID tag facility in USA

UPM Rafsec is to build a new state-of-the-art RFID tag production facility in Fletcher, North Carolina. The investment strengthens UPM Rafsec's role as a supplier of RFID tags on a global scale and bolsters the company's position in the North American market where demand for EPC (electronic product code) compliant RFID tags is growing dramatically.

The new factory, located in the vicinity of Raflatac's US pressure-sensitive labelstock production facility, will specialize in the production of UHF (ultra high frequency) tags. The investment is part of a USD 24 (EUR 19) million investment program which, when fully implemented, will enable an annual capacity of one billion RFID tags. The new factory will begin operations in the final quarter of 2005.

As part of UPM's Labelstock Business, UPM Rafsec will develop its business with Raflatac and its label converter partners.

"This investment will reinforce UPM Rafsec's leadership in the global RFID market. We estimate the demand for RFID tags to grow strongly especially in the US market," comments Heikki Pikkarainen, President of UPM Labelstock Business. "At UPM Rafsec, we aim to be at the forefront of RFID market development by providing the market with high-quality RFID tag products in large quantities."

Labeling news

Dantex Graphics Ltd appointed distributor for Lüscher Flexo

Lüscher Flexo, UK, who manufacture direct laser engraving systems for flexo, letterpress and dry offset plate and sleeve-making has negotiated an agreement with Dantex Graphics Ltd to act as non-exclusive Distributor for Lüscher's FlexPose!direct systems in seven countries in Western Europe for dry offset and labels.

Since 1977, Dantex has been the European Master Distributor for Toray's world leading photopolymer plates. Dantex also represents the RIPit OpenRIP and the Odessa Power Converter, offering a digital proofing solution that can be integrated into FlexPose!direct's workflow.

Dantex will represent the FlexPose!direct in the United Kingdom, France, Germany, Austria, Belgium, the Netherlands and Luxembourg. Ten of Dantex's sales staff from the UK, Benelux and French offices were trained at Lüscher Flexo's Thame facility at the end of 2004.

Dantex previously represented Lüscher Flexo (formally ZED Instruments) for a number of years as commission agents, and aided the company to establish eight installations of the ZEDMini (the predecessor of the FlexPose!direct) in the United Kingdom, Germany and Austria. In April 2005, Dantex ordered its first FlexPose!direct unit since acting as Distributor – a 301 model for dry offset plate-making.

Andy Gotch, Lüscher Flexo's International Sales Manager commented: 'We have had a very successful business relationship with Dantex over the years and are pleased that we can now formalise this by offering full Distributor status. Dantex will offer service support as well as sales. Lüscher Flexo recognises Dantex's expertise in the field of plate making for dry offset and labels.'

Students achieve highest ever scores at national Phoenix Challenge

Utilizing two Mark Andy and two Comco flexographic presses at the Harper National Flexographic Center at Central Piedmont Community College in Charlotte, NC, a record number of students entered the flexo Phoenix Challenge competition in April 2005. The 38 competitors earned the competition's highest ever overall test scores in math exams, pre-press, press operation, plate-making and written tests.

Commenting on the improvement in scores and the success of the 2005 competition, Bettylyn Krafft, Phoenix Challenge chairman, commented, 'This is indicative of the high quality level of students now participating in the Annual International Phoenix Challenge Flexo Skills Competition.'

In addition, 22 of these high school student contestants achieved a Level I Press Operator Certification on tests administered by the Flexographic Technical Association during the event, reported Shelley Rubin, FTA Education Coordinator.

Enercon and Ciba announce technology agreement

Enercon Industries Corporation and Ciba Specialty Chemicals have announced a joint development agreement which looks to develop synergies between the surface modification Plasma3 technology of Enercon with Ciba Specialty Chemicals nano-grafting PrimeIT technology.

The agreement promises development of an advanced surface treatment technology to optimize surface effects on all films, foils, papers, metals, nonwovens and textiles through the combined use of these technologies.

New products

Creo and Acucote

'Traceless' security label printing stocks

Creo and Acucote have signed an exclusive agreement to produce pressure-sensitive label stocks which combine Creo Traceless taggants into Acucote label materials.

The security label stocks will be sold to label converters for the manufacture of product labels for the pharmaceutical, cosmetic, apparel, food and beverage and other industries.

The Creo Traceless marking and sensing system incorporates a patent – pending technology that allows the creation of unique, forensically-invisible identification codes. These codes can be used for anti-counterfeiting, inventory management, product tracking and tracing, or brand authentication. Only Creo readers can detect the presence of the security taggants.

The agreement between Creo and Acucote, a North Carolina-based pressure-sensitive label stock manufacturer, will allow the production of official product brand authentication label stocks that target the global problem of product counterfeiting, document authentication and brand security.

Creo recently announced its Traceless technology will also be incorporated into security inks for RFID antenna printing

Dow Corning

'Ultra-high temperature' platinum-catalyzed silicone PSA

Dow Corning has introduced a new silicone pressure sensitive adhesive (PSA). Dow Corning 7659 Adhesive combines the advantages of ultra-high-temperature performance with the benefits of platinum-catalyzed cure. According to Norman Kanar, pressure sensitive market manager for the Americas, 7659 Adhesive has an operating temperature range comparable to peroxide-cured silicone PSAs, but without the drawbacks inherent to peroxide cure systems.

'Platinum PSAs can be cured at lower oven temperatures and their cure is less sensitive to changes in the coating environment, such as humidity. Platinum-cured PSAs also offer improved tack and adhesion.'The features that set Dow Corning 7659 Adhesive apart, says Kanar, are its Ultra-high-temperature performance, ability to pull away cleanly with very little adhesive residue, low-temperature cure capability and suitability for transfer tape applications. Silicone PSAs are known for their ability to maintain adhesion at extreme temperatures: from -100 to >315°C (-150 to >600°F). But they have many other valuable attributes as well, such as their ability to adhere to low-energy surfaces and their resistance to chemicals, moisture and ultraviolet rays.

New products

Troika Systems
FlexoCAM

Troika Systems' FlexoCAM is a flexo quality control instrument capable of measuring and analysing plate quality, 3D view of dot structures, and half-tone dot readings. As an additional feature, the product is able to take readings from anilox rollers, providing feedback on cell depth, quality and wear.

The FlexoCAM unit is designed to automatically focus on the surface of the plate, whether the plate is flat, on a sleeve, or even on a large cylinder. The auto focus system has the ability to look at the top of the plate and analyse through to the base of the material. This method results in the ability to provide a 3D view of the area being analysed.

Detailed color images captured by the FlexoCAM can be viewed on a PC screen, with the device linking directly via a USB interface.

FlexoCAM will read all screen rulings, including stochastic dots, and is capable of reading transparent and opaque flexo plate materials. Production versions of the product are expected to be available within the next few months, with a target price for the basic version of FlexoCAM of US$9,000.

Martin Automatic
Automation of Ko-Pack Euroflex

Martin Automatic has fitted automatic roll changing unwinds and rewinds to a Ko-Pack Euroflex press. The new equipment offers non stop production, and increases daily throughput while reducing material waste. 'We have worked successfully with Ko-Pack for many years, fitting our roll changing systems to a variety of their folding carton, film and laminated tube lines,' explained Craig Thomson, marketing manager at Martin Automatic.

'Recently, we've been particularly successful at helping tube converters to reduce their material waste and increase throughput with our butt splicing and rewinding technology. The international launch of our new STS splicer and STR rewind gave us the perfect solution for automating Ko-Pack's casing press,' he added.

Recently, the two manufacturers exhibited jointly at the Interpack 2005 expo in Düsseldorf, where Martin's STS automatic splicing unwind and STR automatic turret rewind allowed Ko-Pack's Euroflex to deliver non stop production of multi colour printing on artificial food casings.

New products

Anderson & Vreeland
Ultraflex plate processing
Specialty solvent-washout solutions designed for improved processing of sheet photopolymers used in flexographic printing, have been introduced by Anderson & Vreeland, Inc.

Ultraflex LS is a reduced-odor high-performance formula for solvent wash photopolymer plates. LS has a high flash point, low toxicity, chemical and thermal stability and is compatible with all conventional photopolymer printing plates.

Ultraflex PLUS has a more aggressive formula designed for applications requiring a stronger solvent base. Ultraflex FD is a fast-drying formula delivering the same benefits as Ultraflex with less absorption that speeds plate production. All formulas are available in 5, 30 and 55-gallon drums.

Ultraflex is easily recycled by vacuum distillation and is a non-RCRA hazardous waste. Anderson & Vreeland, in partnership with SOS Recycling, coordinates recycling to simplify the process and minimize cost.

Soma Bulldog
Good design award
SOMA Engineering has been presented with the Award for Good Design from the Design Centrum of the Czech Republic for its Bulldog die cutting press. Assessed by an international team of judges, the Award recognises companies designing products considered to improve production and enhance living and working environments. The Award was presented at a ceremony under the auspices of the Prime Minister and Ministry of Industry and Trade, Czech Republic.

The Bulldog die cutting press is a roll to stack, off-line machine optimised for producing aluminium and plastic foils and laminate lids for in-mould labels, beverage labels, yoghurt cartons and similar applications. Lids of various configurations and sizes can be produced. Print to die registration ensures high precision cuts with optimum edge quality. The flatbed die cutting system consists of multiple long-life dies that also permit punching of different configurations at the same time. Depending on the shape of the lid and the number of die tools in use, typically up to 75,000 lids per hour can be produced and delivered to the stacker.

The Bulldog handles unwind diameters up to 450mm (17.7") with a maximum width of up to 320mm (12.6") or 510mm (20"). An embossing unit prior to die cutting permits various patterns to be achieved. The machine is equipped with splicing table for continuous operation.

BST Pro Mark
PROScan 3000
BST Pro Mark has introduced the PROScan 3000 video web inspection system.

'Virtual Repeat Technology' allows the operator to see the entire print repeat in thumbnail images, and to easily and quickly move around the repeat. The new PROScan 3000 is the first BST visual inspection system to incorporate the technology, which has previously only been availabe on more expensive print process management systems.

The PROScan 3000 has a high-resolution

3-Chip CCD Camera with 3 X 440,000 pixel resolution. It has a 4" X 5" or (optional) 7" X 9" field of view and has many innovative "Smart System" functions specifically engineered to save time and make on-press quality control easier and more efficient than ever before. These include Quick Zoom, Color-To-Color Comparison, Positional Memory with Position Gallery and Combi-Scan. Split Screen and Auto Constant Scan (ACS) are also standard.

Combi Scan is another new and unique feature of the PROScan 3000, designed to automate the print inspection process. Combi Scan combines all the desired inspection parameters – programmed positions, Auto Constant Scan routine and Split Screen positions – into one comprehensive continuous inspection loop. This new feature allows building a custom inspection routine for every job, that insures all print is inspected in the most efficient and productive manner.

With the optional second camera or back strobe the PROScan 3000 becomes a very effective tool for inspecting front, back and front-to-back print in a variety of ways. The system can be used to view the currently active camera or images of camera 1 and camera 2 side-by-side in Split Screen mode or in an adjustable Picture-in-Picture mode.

Tidlands

Easy Glider knifeholder upgrade

This new mount will help converters to reduce the time needed for repositioning Tidland's Performance Series knifeholders and is available immediately on all new systems or as an easy retrofit to increase the efficiency of an existing slitter.

The Easy Glider moves smoothly on linear bearings, the holders glide to their new position with a light touch and use regulated air pressure to quickly and precisely engage their blades against the lower slitter. Until now, knifeholders repositioning on a traditional guide bar would be subject to binding and drag unless constantly adjusted. This would create knifeholder repositioning problems and a bottleneck in the converting process. The new Easy Glider is a cost effective solution for Converters looking to reduce setup time and increase their ability to compete on shorter runs.

SATO

GT Series direct thermal/thermal transfer printer

SATO's new GT 4-inch printers employ a 32-bit high-speed RISC for maximum throughput and they can print large quantities of labels containing barcode, text and detailed graphics. With a 609dpi printhead installed, smaller size 2-D codes such as Micro PDF417, Micro QR,for example, are produced with good machine legibility.

The GT features SATO Embedded Basic Language (SEMBL), which gives users the option of loading customized programs into the printer, allowing users to generate complicated label formats without any connection to an external PC. In addition, the GT also features an "automatic detection system" that detects any printhead change. This helps users to change print resolution selection easily: 203 dpi, 305 dpi or 609 dpi.

HumanEyes 3D

HumanEyes MiniStudio 3D

HumanEyes 3D has expanded its special effects/lenticular software product portfolio to provide new HumanEyes MiniStudio 3D for lenticular applications, at a lower cost. HumanEyes 3D software generates special effects such as high quality flip and morph, as well as natural, realistic photographic 3D.

Max Daetwyler Corporation

Magnets for press inking systems

Max Daetwyler Corporation has added specialty magnets to their pressroom product line. These magnets give protection against cylinder streaks, anilox scoring and damage from small metallic particles that accumulate in the inking system. Using magnets that are specially designed for removing metal particles, results in less waste and longer life for gravure cylinders and anilox rolls. The rare earth magnet is in a smooth stainless steel casing, with 10 times the pulling power of a standard magnet. The unique domed end is designed to make it easy to release metal particles from the magnet when cleaning. An adjustable mounting holder is also available.

Beta Industries

Betaflex 334 flexo image analyzer

The Betaflex 334 has automatic, image based analysis in a Windows platform to help eliminate the risk of releasing bad halftones and plates into production. The 334 measures dot area, screen ruling, diameter, mottle from film, laser mask, processed plate and the color print for true dot area. The system includes

Fingerprint Data Collection for the plotting of better cutback curves.

Association events

NELMA Label Manufacturers Expo IV

The North East Label Manufacturers Association (NELMA) recently held an extremely successful Label Manufacturers Expo IV in Bridgewater, NJ. The most prominent converters from the North East corner of the US fought for standing room in two hands-on sessions about optimizing business practices.

Bill Farquharson, President, Print Tec Network, delivered a presentation titled, 'Get Sales Now', in which he outlined the five key strategies to effective prospecting. The session challenged sales managers and professionals to improve the quality and quantity of prospecting calls, creating the motivation and momentum to drive sales activity.

Ron Irwin, founder of REI, LLC, was the second speaker. "Managing, coaching, and measuring in a lean manufacturing pressroom" included a discussion of the performance tools employed in lean environments and a video of time-lapse images of typical press set-ups, runs and clean-ups. Participants gained an understanding of how measurement and a change in management style can breakthrough pressroom productivity inertia.

"The most prominent converters from the North East corner of the US fought for standing room in two hands-on sessions about optimizing business practices"

The converter guests also had the opportunity to speak with vendors at a tabletop exhibition.

LPIA Spring Technical Seminar 2005

The Label Printing Industries of America had a rockin' Spring Technical Seminar at the Memphis Peabody Hotel in Tennessee. Those who skipped Graceland to attend the seminars were given an informative introduction to lean manufacturing and supply chain management.

Chris Chapman from the Center for Excellence in Lean Enterprise outlined premises behind the Toyota production system and discussed how converters could apply the model to their own working practices. He urged attendees to work out what customers are willing to pay for and create value-stream mapping to reduce wasted time and materials.

Skip Tucker from Karass USA Ltd spoke about the procurement side of the business negotiation process and explained that profit is often left behind on the table as a result of negotiation.

'Negotiating has traditionally been about money, goods and services, but it is actually about satisfaction too,' he said. 'There are always pressures on both sides, but we are just concerned with our own.' Tucker delivered a definitive list of ways to break a deadlock, making sure that both parties walk away happy with a resolution.

"Negotiating has traditionally been about money, goods and services, but it is actually about satisfaction too"

Members of the National Association of Purchasing management also spoke at the conference about the benefits of becoming certified.

Supply management professionals have the ability to impact the financial results of an organization and certification is an objective measure of knowledge and experience. The conference also involved a panel discussion on the methods and strategies being used by converters and vendors in the industry.

If you are interested in joining the LPIA, please contact Laurie Reynolds at PIA/GATF by phone at lreynolds@piagatf.org.

Installations

Colpack
GiDue X-Combat

South African machinery importer, IPEX Holdings, has supplied an eight colour, in-line UV flexo press from Italian press manufacturer GiDue to Colpack (Pty) Ltd., Cape Town. Equipped with servo driven motors the 20inch (530mm) wide X-Combat press features automatic reel-to-reel production through non-stop, unwind and rewind system.

The X-Combat compliments a range of existing wide web, central impression, printing presses at Colpack and has already demonstrated its ability to produce high quality work for the launch of Sensations of Fruit a new fresh juice from Parmalat. The packaging quality got the thumbs up from the FTASA Print Excellence Awards 2004 judging panel when Parmalat won top honours in the Shrinkable Label category. The first prize was awarded to Parmalat 1,5 litre Tropical juice. The judging panel took note of the 'superb half-tone print quality, dot clarity and colour balance' - all important factors that affect the overall excellent visual appearance of the pack.

As Sensations of Fruit is the first fruit juice range carrying the Parmalat brand name, the packaging design had to work hard to inform consumers that it is a 100 per cent fruit juice, not a dairy product. 'Combining functionality and aesthetics in the package design created unique personality for the range,' says David Green, marketing manager, Parmalat. 'Rather than showing off the content in a see-through bottle, the innovatively shaped 500 ml and 1.5 litre PET plastic bottles are fully covered with funky, fruity and eye-catching shrink sleeves.'

Comments Colpack CEO, Bob Jones, 'We run high quality, eight colour halftone work on the GiDue press and our operators like the simplicity of operation and very quick changeovers. We chose the GiDue because we liked the design of the 'Flower' print head, the print quality demonstrated and servo driven motors. The quick changeovers and reduced make ready time means the press is ideal for our short run jobs. In addition the high print quality achieved on this press will eventually enable us to compete in markets that are traditionally gravure.'

A division of Columbus (Pty) Ltd., Colpack has been supplying the food and beverage market with casings and a wide range of flexible packaging products including laminates and pouches since 1968 and has become one of the leading manufacturers of decorative sleeves in South Africa. Key customers include Cadbury and Woolworths. Colpack currently exports a range of products to the United Kingdom, Ireland,

France, Italy, Spain, Australia and New Zealand and holds EU certification 90/128/eec for food contact with plastics.

GiDue Managing Director, Federico d'Annuzio comments. 'We are delighted that Parmalat won top honours in the Shrinkable Label category with a label printed on a GiDue UV flexo press, the first we have installed in South Africa. UV flexo printing reduces waste during job set-up as the inks do not evaporate or dry on the press and are virtually ready to run on impression. The ink formulation uses 100% solids so there are no Ph or solvent issues. The properties of UV flexo inks include good solid lay-down and sharp dot reproduction providing print quality comparable to gravure or offset at speeds up to 1000 ft/min (300m/min). In-line printing eliminates the variables normally associated with flexographic printing and permits many decorative options and features to be incorporated in one pass through the press. Servo driven motors give the same level of registration as CI presses on both front and reverse printing of flexible packaging

Lexit
Mark Andy 4150

Convertec, Mark Andy's Scandinavian distributor has installed the first of two 4150 lines at Lexit Label AB, the vertically integrated Swedish label supplier based in Gothenburg. Fitted with eight flexo print heads and turner bars, the 4150 has a 16" web width. The new press went straight onto two-shift production, and when the second machine arrives in the Summer, the two will supply more than 95 per cent of total company requirements and optimise production of the standard formats that suit Lexit's customers.

Lexit Label AB was born out of a company founded in 1993 by Kai Gunnar Herseth in Norway. Strekkodesystemer AS, and more latterly Lexit Label AS supply both labels and labelling systems principally to the food market, and with the growth of Euro based business, the Swedish company was established in 2004.

Today, the Group of companies enjoys an annual turnover of 13m, and employs 35 staff across its sites in Klofta (Norway) and Gothenburg, and has a growing demand for high quality labels for its barcode and business systems that are developed and sold to software integrators by Lexit Distributors AS.

Speaking for Lexit Label AB, Managing Director Claes Rahn commented:

'Our aim is to become a high automation production unit in which the two Mark Andy lines work with Vectra Turret Rewinders to produce large volumes of quality labels. If we need special features, we'll buy them in. The Mark Andy 4150s are ideal for our type of work.'

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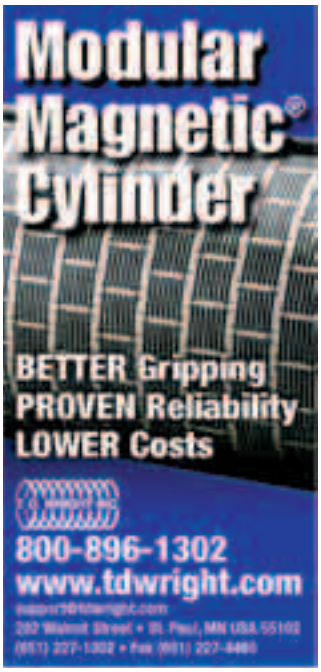

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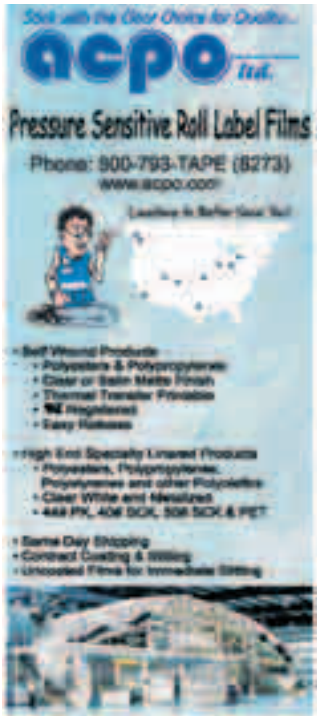

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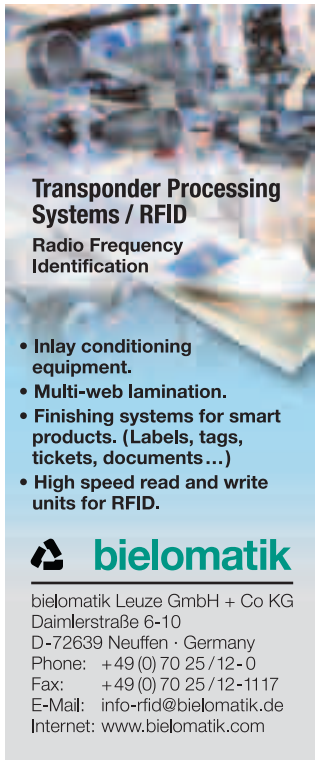

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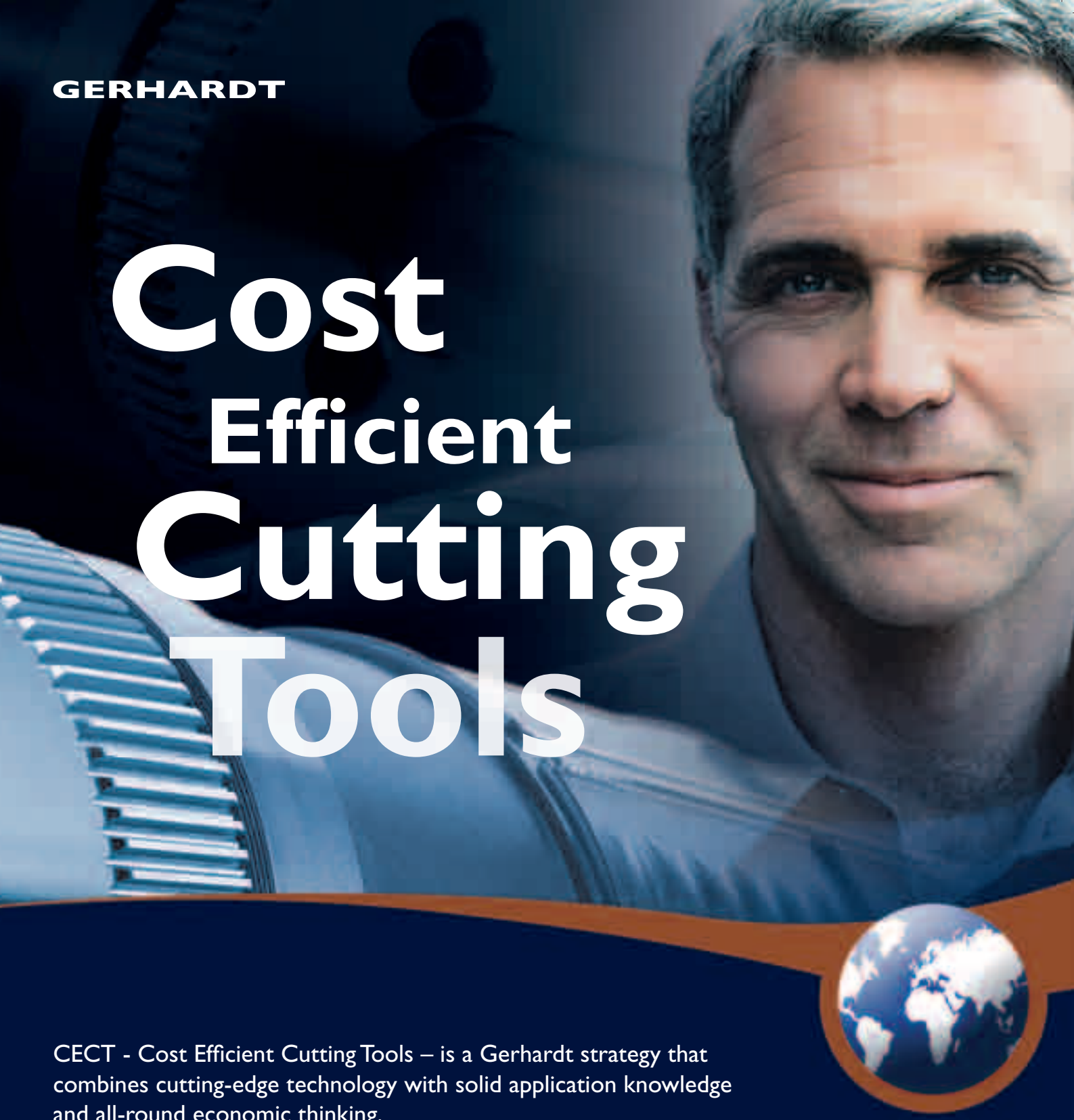

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