signPro europe

Year 17 • issue 1

Elitron at the forefront in Europe

Get on the MultiPress bus at FESPA 2019

Riccobono Group early adopter of HP Latex rigid

Overview of EFI Nozomi C18000 developments

Koopmans expands production capacity for finishing

Automation important for every Sign and WFP company

TEST

HP Latex R1000 - Mission accomplished

MAGAZINE FOR THE EUROPEAN SIGN AND WIDE FORMAT PRINT INDUSTRY

Amsterdam City Centre puts an end to moving advertising images

Do digital mupis have an adverse effect on a City of Signs?

By **Ton Rombout**

I was aware that some cities in Europe, and beyond, are trying to avoid having too much 'street furniture' such as bill boards and digital signage in their city centres. Grenoble was a typical example of this a few years ago, when it banned even non-moving billboards. No doubt many more cities will follow.

Similar to Paris, Munich, Rome, Berlin and many other European cities, Amsterdam welcomes many tourists and business visitors and offers a host of old and new sightseeing opportunities, shops, festivals, markets and many other attractions. With approximately 800,000 inhabitants Amsterdam, which is not a particularly large city, is not the only city that is starting to feel crowded because of the many tourists and day trippers it attracts.

At the end of January 2019, just before the start of Integrated Systems Europe, the Amsterdam Centre district banned the placement of moving advertising images (mupis) in the city centre and withdrew the temporary permits of 28 digital moving advertising images. According to the district council these 'mupis' contravened the urban framework rules for outdoor advertising and, in the absence of an actual policy, these rules were applied.

The operator (JC Deceaux in this case) had to stop using moving advertising images and had to apply for new permits for mupis with stationary advertising, or remove the mupis altogether.
By mid July of this year the urban district expects the inner city streets of the capital to be completely free of advertising columns with moving advertising images. The temporary permits of 7 other mupis will also expire at that time and new license applications for mupis with moving advertising images will be denied.

Representative organizations of residents mainly in the capital, including the Friends of the Amsterdam City Centre Association, the Nieuwmarkt / Groot Waterloo residents council, the Western Canal Belt Committee, the Tenants' Association Centre and the d'Oude Stadt district objected to the permits. The district council reconsidered the issue but still refused the permits.

Since the inauguration of the new city administration, various ways of commercializing public spaces have been stopped. The College of Mayor & Aldermen wants to keep moving advertisements out of the city. "Reducing the number of mupis with moving advertising images fits in with this ambition. This type of advertising contributes to the commercialization of public spaces and has an adverse effect on quality of life and road safety."

This could represent an opportunity for producers of non-moving signage, by taking over some parts of the business. But where exactly will the line be drawn: will non-moving digital screens also be banned? We will have to wait and see.
There will be many examples of alternatives to mupis on show at FESPA …and also curious what Munich will bring us in the streets.

Ton Rombout, Editor-in-Chief
SignPro Europe
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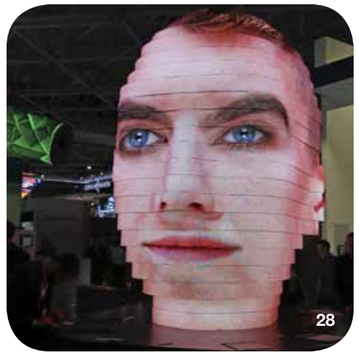

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Content

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HP-stand 2018 FESPA Berlin (picture Ton Rombout)

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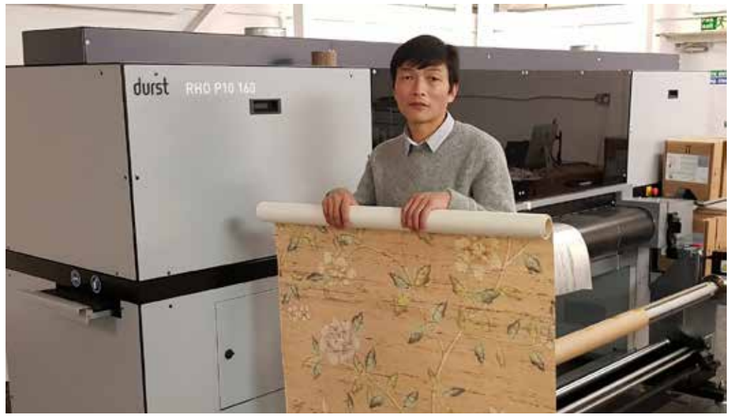
Print Make Wear Fast Fashion Factory at FESPA

The Print Make Wear fast fashion factory at FESPA Global Expo 2019 in Munich will double in size compared with its launch in 2018 in response to positive visitor feedback. Print Make Wear addresses every step in the garment production process: planning, design and prepress, progressing to printing, drying, cutting, sewing, welding and embellishment and finishing with packing and retail display. Technologies will include direct-to garment digital and screen printing presses with both automatic and manual presses printing on water-based inks, the roll-to-roll digital technologies will include dye-sublimation as well as other textile print technologies. Print Make Wear is free to attend for registered visitors to FESPA Global Print Expo 2019 .
More info: www.fespaglobalprintexpo.com/features/print-make-wear



Durst to support unique wallpaper design business

A new system from Durst P10 160 is the centrepiece of a £1million investment by an entrepreneur who is relocating his unique wallcovering design printing business from Hong Kong into the UK to grow markets across Europe and the United States. David Qian's high-end, exclusive, wallpaper designs retail on average at £150 sq/m and are customized to meet the demands of major brands that include numerous five-star hotels across the globe. A desire to be closer to US customers led to Mr Qian moving to Nottingham and setting up a production hub to grow business also in the UK and expand into Europe. The £3 million-turnover business combines bespoke, made-to-order hand-paintings and embroidered wall coverings combine ancient eastern artistic traditions with western and contemporary aesthetics. More info: www.durst-group.com

Icon Graphics acquires Durst Rho 512R LED

Icon Graphics has invested in Durst technology for the second time in 12 months, now adding a Rho 512R LED printer to its headquarters in Milton Keynes, Buckinghamshire, in another UK first for the company. The company now has five-metre wide and dedicated roll-to-roll printing capabilities. Icon Graphics is a large-format digital print, sign and direct-to-media specialist that works with the UK's largest design agencies and many high profile blue chip companies. Previously, five-metre wide work had to be either sub-contracted out. Now the work can be produced in-house in as little as two hours. More info: www.durst-group.com

Label Image chooses Durst Tau 330 E inkjet press

Label Image has invested in a Durst Tau 330 E UV inkjet press to support its ongoing commitment to operational growth and high quality customer service. Formed in 1986, the Australian company was acquired by Nick and Emma Godwin in 2015. Since then they have made a number of improvements and investments focused on driving growth and maintaining a high level of service and support, challenging the market with new ideas and solutions. It executes environmentally astute print-on-demand solutions that reduce inventory and deliver shorter turnaround times.
More info: www.durst-group.com

New EFI Fiery FS350 Pro Software

EFI recently revealed its latest digital front end (DFE) technology for advanced, high-end digital print production. The EFI Fiery FS350 Pro software will give graphic arts professionals more power, productivity and versatility in digital printing, delivering unrivalled productivity from prepress to finishing across a wide range of digital printing engines. It will drive digital printers and presses from several leading manufacturers, across sheetfed, high-speed continuous feed, B1 folding carton, and corrugated digital production systems, including both toner and inkjet technologies. Canon will be the first to launch a new DFE featuring Fiery FS350 Pro in the near future. More info: www.efi.com

FESPA announced Trend Theatre

The Trend Theatre takes place from 14 to 17 May 2019 at Messe München. Located in hall B5, stand F95, the seminars, which can be attended free-of-charge with a valid FESPA and European Sign Expo 2019 entry ticket, will begin at 11.30am on the first day of show (Tuesday 14 May) and will take place throughout the duration of the event until 3pm on Friday 17 May. The Trend Theatre programme comprises 38 individual sessions and will deliver key insights on a host of topics including automation, sustainability, digital printing, signage and textile. In addition, there will also be daily panel discussions, chaired by Sonja Angerer, owner of RRRabbitproductions.
More info: www.fespaglobalprintexpo.com/trend-theatre

Durst and Koenig & Bauer enter joint venture

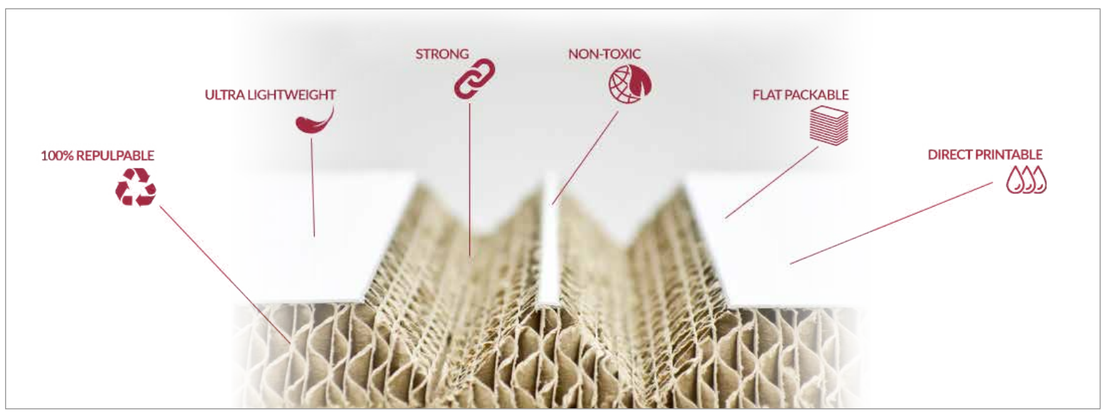
Durst, a manufacturer of advanced digital printing and production technologies, has recently entered into a 50/50 joint venture with printing press manufacturer Koenig & Bauer for the joint development and marketing of single-pass digital printing systems for folding carton and carton board corrugated industry. Durst bundles this expertise with the market presence and mechanical engineering of the Koenig & Bauer Group, which, with more than 5,700 employees, is one of the world's major suppliers of packaging and banknote printing. In future, fully automated production lines will be developed in the joint venture and distributed worldwide. The new partner company will be based in Germany and will also manage the service and ink business in close cooperation.
More info: www.durst-group.com

Piet Hoevenaars Sign Industries purchases new Durst Rho 512 LED

This is the first Rho 512 LED machine in the Benelux. Piet Hoevenaars Sign Industries in Veldhoven (near Eindhoven) has been working exclusively for resellers for years, together with about 45 other professionals. Also his daughter and son, both trained in business administration, are working in the management of the company. Hoevenaars: "The Rho 512 LED fits perfectly in the existing machine park of three times Durst 500 R, 5 meters wide, once Durst high speed 320, twice Durst Rhotex Textile 320 and once Durst 325 Textile and a few other printers. With its fast LED drying it is crucial for our company, which is used to deliver very quickly." More info: www.piethoevenaars.nl and www.durst-group.com

Sentec International partners with fibre-board manufacturer Xanita

Sentec International, supplier of specialist media for the digital printing industry made an agreement with Xanita for having the exclusive continental European distribution rights for their Sustainable Fibre-boards. Xanita Board is a sustainable engineered fibre-board, manufactured with the use of fibres recovered from recycled paper products such as cardboard boxes. It is VOC free, 100% re-pulpable, 75% lighter than MDF and significantly stronger than visually similar honeycomb boards. More info: www.sentecinternational.com



L'Agence - Riccobono Group early adopter of HP Latex rigid

Another move towards even better quality with HP

By **Catherine Mandigon - Ton Rombout**

"L'Agence, which specialises in large format printing, has recently acquired a new HP Latex R2000 printer, the very first in France ... and we are more than happy with it!"

- Jean-Damien Riccobono

Jean-Damien Riccobono in front of the HP Latex R2000

Located in the Var region, L'Agence is the large format subsidiary of Riccobono's global family run printing group (which employs 200 people across 5 printing sites and 8 publishing offices). The group has diversified over time and now also has extensive expertise in communication and digital consulting. The company currently has a regional advertising network, mainly located in the south of France with targeted and complementary support where necessary.

Nevertheless, printing remains at the heart of its DNA. The Riccobono Group-Agence provides printing services to many sectors, ranging from retail (POP/PLV) to custom made stands, exterior signage, window decorations and vehicle wrapping or decoration. L'Agence is the head office and signage specialist for regional, national and even international customers.

Latex printing on rigid media

Jean-Damien Riccobono, a fifth generation family member, commented as follows: "I visited the HP Demo Centre in Barcelona several times to see this machine at work and wanted to be the first to introduce it France. As a result L'Agence-Groupe Riccobono became the first printing company in France last summer to acquire this new HP Latex R2000 printer, thus gaining a significant advantage over the competition."

L'Agence can now offer an additional rigid media printing option, complementary to its already versatile production system with a fleet of HP Latex printers for flexible media. "The R2000 represents the revolution I've been waiting for for many years, enabling us to print on rigid media! In most cases lamination and specific laminating steps can be eliminated with direct printing, making the system simpler

Jean Damien Riccobono and Jérôme Richer in front of the HP Latex R2000

Read more -->>

The HP Latex R2000 in the L'Agence-Groupe Riccobono workshop

and more productive. Following an initial trial and testing phase on multiple media, we are confident that we have increased our range and hit upon a very bright colour space. White, opaque and brilliant are used specifically for added value prints on transparent and coloured supports."
Jérôme Richer, Director of L'Agence, added: "It is also a hybrid machine that will enable us to become more efficient and relevant in terms of our customers' requirements. Odourless and eco friendly Latex technology fits perfectly into our global vision. It enables us to develop our production whilst working in tune with the environment."

Very large formats

He continued: "The R2000 allows us to work on very large formats or, depending on the imposition, to limit the maximum falls with a minimum format of 297 x 420 mm and up to 2500 x 1200 mm (2500 x 3050 mm with two extension tables)."
"The software has also been optimized with HP over the weeks and now facilitates effective work in amalgam to limit falls and includes a barcode scan for automatic cutting," Jean-Damien continued. "The printer is working well, with regular updates particularly for the software, in collaboration with HP. They have made some minor modifications, which optimise production on a daily basis in terms of the stability of the OS, printing in multi-fit, with several panels in parallel, in printing modes to suit the different substrates, etc. This is the advantage of working with a company such as HP. It can put a team of engineers on a printer and we can proceed with an engineer who is familiar with our history, requirements, problem areas and who can provide follow-up."

Responding to the demand for customization

In addition to printing, l'Agence offers project management and the integration of services upstream of printing on client projects. The company also focuses on exhibitions, many in the south-east of France, and is consequently heavily involved in stand building, usually custom made. "This is a demanding sector, which requires speed and the ability to offer very specific, often last minute, benefits. The inevitable turf effect of UV or over-thickness sometimes forced us to reduce our production speed in order to ensure an optimum level of quality or print on vinyl and then back up to speed for a perfect final result. We don't have that problem anymore now."

On different media

Initially the Riccobono Group-Agence anticipated to print mainly Dibond or PVC. However, as the R2000 became more familiar and easy to work with over time, the company now increasingly prints transparent vinyl with white support, as well as mirror printing for window graphics for the retail and interior design sectors. "Something we could not have offered our customers before".
Jean-Damien Riccobono was also particularly enthusiastic about printing on plexi glass with white ink: "An incredible result. We recently completed an order for a customer in Monaco, who was amazed by the quality of the end result!"
In addition to retail (POP/PLV), outdoor signage, window stickers and vehicle wrapping applications, it is the demand for interior decoration, for example in shopping centres, that has increased more recently. "The flexibility and versatility of the R2000 and more specifically its Latex inks, which are odourless and suitable for use in environments that are high risk or accessed by the public, are perfectly in line with these new markets. We can now effectively position ourselves to meet the desire for customization, which is a global consumer trend in virtually any field, with companies wanting to enhance their image and offer a more favourable working environment to their employees."

Cristina Baron, the curator of the National Maritime Museum in Toulon, collaborated with the Agency for the Chanouga and White Aborigine exhibitions: "I wanted to immediately immerse visitors in the comic strip. And it worked! When I imagine and design an exhibition, I have specific visual ideas and I am happy to say that the L'Agence team is always able to adapt its operations to our project. Its bespoke service can easily be compared to that of a great 'couturier'."

A large 100% Latex equipment fleet

The Riccobono Group-Agence already works with an HP Latex 3000 (3.20 m wide, six colours), an HP Latex 570 (1.60 m wide) and an HP FB750 (2.50 m wide rigid), which has now been replaced with the R2000. The large format fleet has been using 100% Latex inks since last summer. Jean-Damien Riccobono is now looking at the new HP Latex R1000 printing systems to incorporate in the printer-park. We will see what has happened when this text is being published before FESPA Berlin.
"This technology has enabled us to give up solvent and UV and go greener. Similarly, we choose to work with suppliers who offer greener materials, including Dickson Coatings (Evergreen), Tectex and Capoverde and we systematically favour French or European suppliers".

Initial assessment: "When printing on wood, for example, we can play with the material and texture. The results are particularly rewarding. The capabilities of the R2000 give us new ideas and encourage us to adopt new themes, which in turn enables us to submit innovative proposals to our customers ... and they love it!" Jean-Damien added.
The Riccobono Group-Agency already has a large customer portfolio in a wide range of business sectors. The HP Latex R2000 now enables the company to offer it customers complementary products. To be effective from start to finish, the Agency has adapted a Zünd L3200 cutting table to provide a highly automated finish in large and very large format. "Every stage counts, from the briefing to the laying, when it comes to the success of a project and we always rely on the quality of the workforce," concluded Jean-Damien Riccobono. •

Decoration of the Marriot Hotel in Cannes for Mipdoc.

The Riccobono Group: an innovative operator

Located in the heart of the Provence Alpes Côte d'Azur region since 1900, and run by five generations of enthusiasts, the Riccobono family group has always been an innovator in terms of printing and technology:

1900: Purchase of a small printing company by Adrien Riccobono.
1930: Installation of the first Linotype in the region.
1945: Maurice Riccobono takes over the family business (3rd generation) and launches the publishing division.
1965: Installation of the 1st rotary printer in the region.
1976: Introduction of L'Aurore, the first national daily printed in the province thanks to facsimile.
1995: Integration of digital small format.
1999: Installation of the Cromoman, the first press Man mixed press-packaging (magazines, flyers, pads ...) in France.

ISO 9001 certification of the site.
2000: Installation of a new machine fleet for sheet and large format digital printing.
2008: Implementation of the ISO 14001 environmental standard.
2011: PEFC certification to ROP and IAPCA.

Installation of the first HP Latex machine at the Agency.
2016: Printing and installation of a 990 m^2 visual for KIA in Nice at Euro 2016.
2018: Installation of the first HP Latex R20000 in France.

Pick up the pieces and link them together

How far will integral automation go at FESPA?

By **Ton Rombout**

The old situation: numerous mistakes.

It is quite clear that Digital Wide Format Printing scores in many respects nowadays, as a result of advances in various software features used in the workflow and the wide range of available media to print on, bringing flexibility and versatility to all industry segments in which the digital revolution has opened doors to low volumes, one-offs, versioning and variable data.

When digital wide format printing was introduced some 25 years ago, it was in an experimental stage, not a serious contender for production in commercial environments in which all those involved had to make a living. 'Making a living' has now entered a different stage, but the question remains as to whether everyone is aware of what they are earning, or whether we have 'grown-up' in terms of automation?

Who initiated this business?
Obviously there were newcomers, e.g. from the prepress side and DTP studios, with expertise on how to prepare files for print jobs and how to choose the right colours.
Or they originated from small format offset printing houses in the graphic arts industry that were looking for improved profitability. As the graphic arts business became more competitive wide format printing was clearly an easy way to expand operations.
Or they originated from 'abroad' or 'nowhere', starters in a new and interesting business field that offered many opportunities. Technicians, advertising agencies and others - all managing by trial and error.

Progress up and down
Shoestring print companies dealing with various problems incurred at different stages of wide format printing by trial and error. You do learn a lot along the way, but it still leaves a lot to be desired in terms of structural automation. Why? Because automation is a 'lean and smart' process that analyses the different consecutive stages of the workflow, to go from one stage to the next without having to go back all the time because of mistakes made along the way.
However, quite a few of these companies made it by spending a lot of time and money on learning, seeking support from printing system suppliers or specialist training companies or by attending courses on prepress, colour management, ink behaviour and output control. "What's the right colour space to choose in Photoshop? What's the correct output PDF to deliver to a print service provider with a certain type of printer? What are the characteristics of certain types of ink you can use in your printing system? How can I combine the different jobs to minimise waste? Etc.

What's the situation today?
Much better, but a lot more still needs to be done. Lack of instruction and/or information is still a day to day problem. Moreover, the number of different media to print on and different inks to print with, to mention but a few, are making the entire workflow even more confusing. It is clear that machine users are not only servicing more conventional market requirements, but are also moving into new niche and speciality areas where digital technology can deliver jobs that were previously not feasible.
From an economic point of view, however, wide format inkjet print production facilitates faster turnaround times, better operating environments, easier logistics and more efficient end-to-end workflows.
Automation also makes it easier to load and unload the printer, rather than doing it manually. Many larger printing systems now have a front loading unit that will accommodate a number of plates or a jumbo roll to unwind flexible materials and/or an unloading unit with a stacker or a roll to wind the media. Some printers already have a built-in cutting system with, or without, a number of sensors to pick up the media and return them to the correct location after printing.

Not just the printer
At that point in the workflow it isn't just about the printer. Yes, a lot has been achieved over the past 25 years in terms of the coordination between prepress and print production and to some extent between the customer delivering files and their acceptance in the prepress department. More could still be done with respect to the latter as one of the major problems with delivering files to printing houses is related to poor communication, sometimes doubling the workload due to errors in run lengths, colours, sizes, etc.

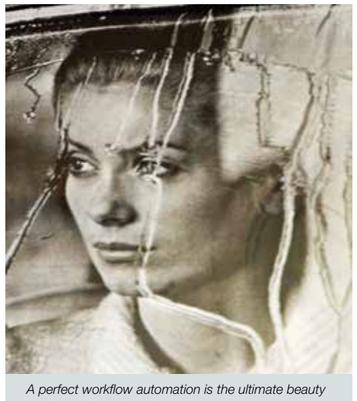
But what about cutting and finishing the jobs?
I'm happy to report that at least three finishing equipment providers are working on a loading and unloading system for finished jobs in terms of cutting, all to be present at FESPA. The handling system around the cutter uses sensors to pick up the media being printed and position them on the cutting device in exactly the right place. It will also unload and place them on a stacking system if needed.

When your (production) 'house' is a wreck…

Combination of administration and production
One of the most important aspects of automation has not yet been mentioned, even though it is perhaps one of the most difficult facets for wide format print production companies, particularly if certain areas of their business are not that well organized.
Matching a company's production management with its administration is an intensive, but very useful task. Managing the administration and costing of jobs is time consuming, but very profitable in the end. It will give you a 'grip' on your organisation and on any potential mistakes. Rather than just looking at your competitors and putting a price on your final product, you know precisely how much it cost to make your product. This will enable you to compete knowing exactly how far you can go. Our FESPA 2019 edition this year also provides relevant information on how to achieve this. Calculating the price per square meter when selling to your customers, i.e. the usual method, is tricky - in particular when you don't know exactly how much your product cost in terms of work, material, time, traffic, mounting, etc. An MIS gives order managers and other employees a detailed overview of the figures and delivery times for (parts of) the work – all that's required to streamline management information processes. This will generate increased revenue for each job, even if the final price per square meter is extremely competitive. •

Overviewing the whole workflow by analysing the different steps.

To see the light is to have made the analysis to get 100% automation.

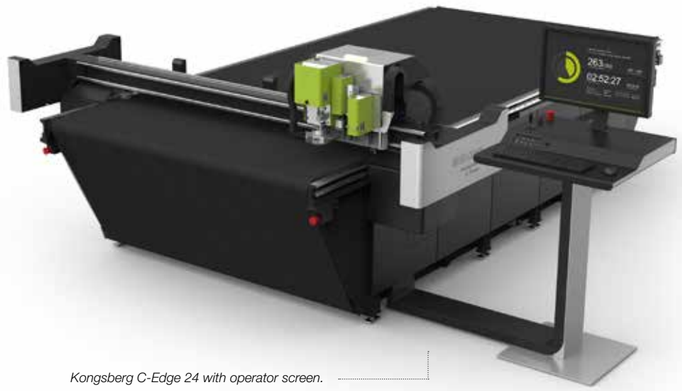


A perfect workflow automation is the ultimate beauty and favourite end result.

Kongsberg C Edge upgradable cutting table and motorized roll feeder

ESKO to showcase equipment for high end finishing at FESPA 2019

By **Ton Rombout**



Kongsberg C-Edge 24 with operator screen.

Kongsberg C-Edge in action.

ESKO has extended its Kongsberg digital cutting table range with the new Kongsberg C Edge; a completely upgradable table design that avoids costly reinvestment for customers as business grows.

On show at FESPA Global Print Expo 2019 (stand a5-g10), the breakthrough innovation in the Kongsberg C multifunction, digital finishing series is designed specifically for signage and corrugated packaging converters. Having a track record of delivering speed, precision and production power through superior engineering and build quality, ESKO brings next generation innovation with the C Edge table for converters, supporting them today and in to the future.

C Edge to grow with customers

Russell Weller, ESKO product manager, stated: "the new C Edge is designed to grow with our customers. Invest now and you invest for the future. Unlike other tables on the market, the C Edge is completely upgradable avoiding the impact of having to reinvest when a business expands. The C Edge evolves with a business to unlock production flexibility and profitability and delivers exceptional cutting quality and milling accuracy at a remarkably cost-effective price."

With high speed production capability up to 75m/min, at an acceleration of 1g, the Kongsberg C Edge enables converters to produce high quality results with fast turnaround to meet today's dynamic market needs.

Flexible tool adapter

Suitable for the wide range of substrates used in the signage sector, the C Edge can be fitted with the new Fast Tool Adapter to reduce manual tool changes and minimize downtime. When two fast tools are utilized together, converters can achieve higher throughput with clever tool combinations and improve output quality, especially on signage materials like vinyls. The C Edge is also available with or without a conveyor.

Heavy duty unit

For corrugated packaging manufacturers, the C Edge can also be fitted with a heavy-duty unit with a 50kg downforce to produce high quality crease lines with a 150mm crease wheel. Efficient and high-quality creasing, even at 100% speed, is supported by CorruSpeed; a unique tool developed for cutting corrugated board at high production speeds without oscillation. The CorruSpeed Tool delivers higher quality and generates significant time savings on a range of corrugated applications, even with recycled content.

Motorized Roll Feeder

In addition to the Kongsberg C Edge launch, ESKO will showcase its new Motorized Roll Feeder for soft signage and its comprehensive software platform for project management, artwork creation, structural design, prepress, 3d visualization, workflow automation, quality assurance, palletization and supply chain collaboration and approval.

Motorized Roll Feeder specifications

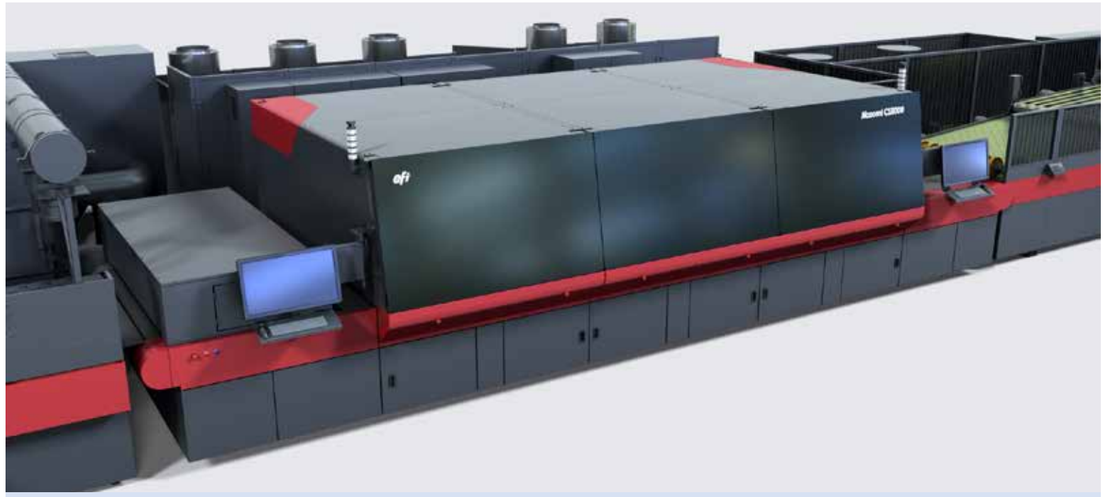
The Kongsberg Motorized Roll Feeder increases productivity and reduces operator time for production of wide-format, flexible materials with the Kongsberg C 60 and 64 cutting tables.

- The roll feeder ensures consistent feeding of material onto the table's conveyor belt, even if the roll is imperfectly rewound after printing. With capacity for large, heavy rolls (up to 300kg) and handling mechanisms for challenging substrates, the motorized roll feeder is vital to achieve uninterrupted production with high quality output.
- Dancer loop control: dancer loop control ensures constant material tension with adjustable force for different materials. Material feeding starts when the conveyor belt pulls the material and the dancer bar is lifted over a certain level.
- Consistent feeding: the feeder has an integral mechanism that will sense the position of the material edge and move the entire roll laterally, ensuring consistent, straight feeding of material onto the table's conveyor belt, even if the roll is imperfectly rewound after printing. •

Not just a special printer - also a high value production system

Overview of EFI Nozomi C18000 developments

By **Ton Rombout**



EFI Nozomi-side view.

EFI Nozomi-electronics.

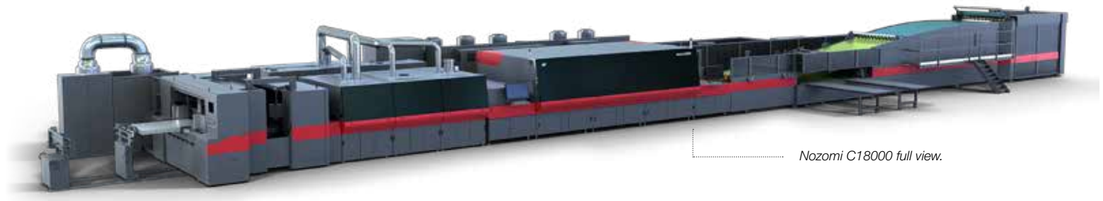
It's been a few years since the new EFI Nozomi C18000 single pass printer was released and quite a few production printing houses are now deploying this printer in full production.

Meanwhile EFI has further optimized this extremely high value production system to supercharge its corrugated, packaging and merchandise display printing capabilities with single pass LED digital inkjet technology.

Staying ahead of the game?
As run lengths and turnaround times change, you need a cost effective response to customer demands for even faster job turnarounds, versioning and variable data, just-in-time and on-demand printing, whilst keeping inventory costs and waste down.
This requires a very fast single pass printing system.
The Nozomi will let you achieve all this with high quality, high speed digital LED printing at up to 75 m per minute on substrates of up to 1.8 m wide. However, in order to implement continuous operational, environmental and competitive improvements in your business, even using the EFI Nozomi C18000, you need the production environment that EFI has built around this extremely fast printer.

What exactly do you need in terms of a production printer?
We need to deliver cost effective, on demand and just-in-time jobs, fast cycle proofs and prototypes and customized campaigns with direct-to-substrate, production level digital printing that reduces the number of process steps, time and costs.
We wish to produce high quality, full colour graphics without the complexities of other printing processes. We also want to increase profits by eliminating up-front make ready, plate costs, time and storage and eliminate ink mixing and storage and the associated labour cost. Moreover, we want to maintain colour consistency from proof to final print and from job to job, and accurately match brand colours. And yes, whilst the system is very fast, it also has to have the ability to accommodate customer requests for versioned or variable jobs, last minute edits, and changing buying decisions.

EFI Fiery Digital Front end
Of course, in order to do these jobs the Nozomi printer needs to work in tandem with the well known EFI Fiery digital front end for efficient job management, and full visibility of your production and integrating processes via the EFI ecosystem and prepress workflows.
The Fiery digital front end offers advanced colour management and an extensive toolset for late stage image editing, accurate reproduction of brand colours as well as colour matching for consistent print results. It gives you a comprehensive insight into your production process with accurate ink estimates and reporting of the actual ink used in print.
The system also offers greener LED printing with low VOCs, less waste and fewer consumables, with inks that meet OCC certification for recyclability and repulpability.



Nozomi C18000 full view.

EFI Nozomi bottom feeder.

What do we get more in terms of production?
The EFI Nozomi is a single pass, LED drying, digital drop-on-demand, piezo inkjet system with industrial, fixed array print heads and four level greyscale with a resolution up to 360 x 720 dpi. In terms of colours it offers CMYK, CMYK+W, CMYKOV, CMYKOV+W configurations, using Genuine EFI Inks.
A special feature is one and two lane printing; two lane printing supported when coupled with the top feeder to double the sheet throughput. In two lane printing multi-image board printing is supported. Moreover, the In-line primer facilitates dot gain and ink absorption control over a range of corrugated top sheets.
Two primer options are available: primer application station for corrugate and enhanced coater which enables priming on non-rigid substrates and has a drying station suitable for plastics.

What do we get in terms of automation?
In fact, there's end-to-end workflow automation with the EFI Enterprise Packaging Suite, including Radius MIS/ERP, PrintFlow dynamic scheduling, Auto-Count shop floor production intelligence and other leading MIS applications The EFI Corrugated Packaging Suite includes CorrPlan, CorrTrac and CorrTrim corrugated scheduling, trimming and roll stock management solutions, as well as a new Corrugated Business Management System.

One important aspect is that a single company offers all the components of the entire production system.
This includes cloud based remote diagnostics and support to maximize up time, and an optional wireless video broadcast system for continuous monitoring even when you're away from the printer.

EFI Nozomi stacker.

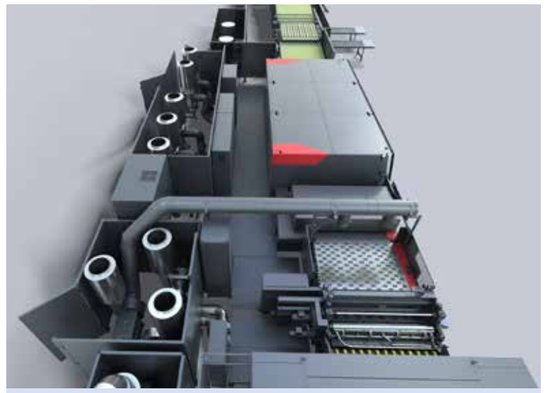
November 2018 – New print modes for EFI Nozomi C1800

Corrugated packaging workflow products that were on display at All4Pack included the EFI Corrugated Packaging Suite business and production software and EFI Escada, a product in the suite that helps packaging companies maximise the potential of their operations, from corrugator and process control to full traceability and reporting.

Powerful business and production workflow management
EFI's workflow for corrugated production, the Corrugated Packaging Suite, is an end-to-end, comprehensive software offering for box plants, sheet plants, sheet feeders and corrugated display businesses. The suite integrates with EFI Fiery DFEs, the Nozomi press and other digital production devices.
Version 6 of the Suite includes sound shipment planning technology, which optimises trailer load capacity enabling users to reduce their costs and carbon footprint. Plus, the suite's Corrugated Business System, offers robust new order-promising, back-to-front scheduling, search features and a powerful new data import tool that simplifies the process of upgrading to the suite from legacy systems. Other enhancements include a new feature to implement universal pricing changes per customer, ship to location, sales rep, product styles and/or board grades.

Read more -->>

Operator screen for printer operator.



EFI Nozomi from the side.

Tools
The Productivity Workbench and Business Intelligence tools for the suite simplify the process of reviewing, managing and analysing detailed production and sales data. A new integration with Esko CadX for the suite lets users create simple European Federation of Corrugated Board Manufacturers (FEFCO) styles for boxes and import existing Esko ArtiosCAD ARD files.
Plus, the suite's industry leading EFI Escada corrugator control technology, helps users increase profitability, achieve greater efficiency and productivity and reduce downtime and waste.

New white ink feature
Although the Nozomi press already printed in up to six colours (CMYK, orange and violet), it now includes a new white ink option that significantly increases users' capabilities. Using white ink, packaging converters can create impressive photographic images and vivid colours directly on brown Kraft board liner. The powerful high end EFI Fiery NZ 1000 digital front end (DFE) that drives the Nozomi press simplifies the process of creating spot or flood white layers for print jobs.

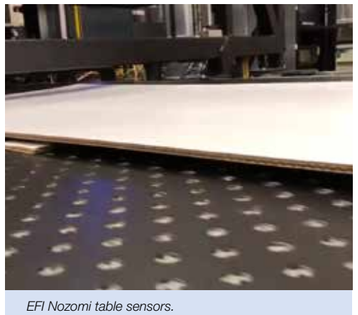
Optimising printing capabilities and ink consumption
- PHOTO mode enables matching of up to 97% of PANTONE® Colours in six colours with no ink consumption limit - an ideal feature when printing corrugated display materials whereby saturation and vivid colours are key.
- POP mode reduces the colour gamut slightly, without a significant difference in the final appearance, and is ideal for photographic printing where ink saving is an important criterion.
- ECO mode works with a restricted colour range and the lowest possible ink consumption. It is intended for packaging printing when lower cost is a critical factor. Even when using uncoated boards and simple graphics, it is possible to achieve significant ink savings with excellent print results.

The new print modes help to address a wider range of production needs. Users can leverage the high end quality for single pass inkjet devices from industry association SGIA, but they can also cost effectively take digital production beyond premium shelf-ready packaging and display applications by economically producing less sophisticated colour designs.

Versions increase packaging relevance
Full-scale digital corrugated packaging production on the Nozomi press gives packaging companies and brands a new opportunity to cost effectively create unlimited versions, small production batches and even jobs in which each package is different. Packaging is a key element in brand positioning in the growing online shopping market. In that segment the Nozomi press gives e-tailers the power to include images relevant to the recipient and/or the product(s) contained in the box, and even include targeted special offers on the box.
The press' Fiery DFE efficiently processes the large amounts of variable data needed to make these applications a reality. As digital production opportunities extend the number of shorter run, versioned and fully personalised jobs that packaging converters can produce, the EFI ecosystem of corrugated technologies helps these customers prosper with a complete workflow that streamlines job submission, planning, order promising, accounting and more. •

Inkdelivery system.

EFI Nozomi electronics.

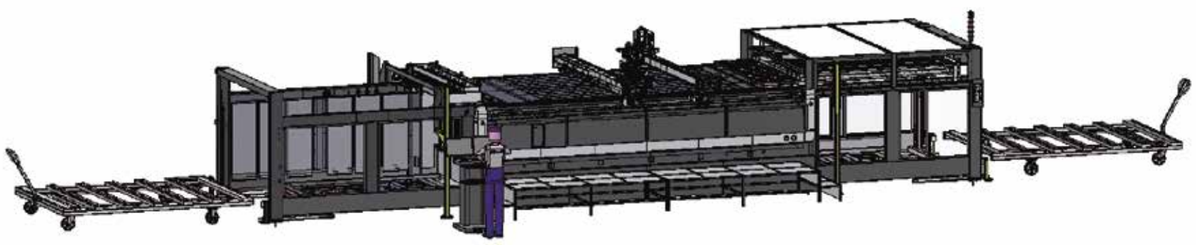


EFI Nozomi table sensors.

Breakthrough for long established cutting equipment developer

Elitron at the forefront in Europe

By **Ton Rombout**



The newest Kombo K1 TAV installation: loading, cutting & creasing, unloading.

Leendert van As (left) and his cousin Wouter van As.

Elitron has developed and enhanced its digital cutting systems in recent years to deliver high-end solutions for the challenges faced by digital printing providers in their industries.

Elitron's innovative Custom Cutting technology, implemented on the Kombo TH dual gantry system, essentially splits a single cutting system into two contiguous machines that share the same working area. This significantly boosts productivity on both complex and highly customized jobs and industrial workloads. Multiple and diverse materials or jobs can now be handled seamlessly and without interruption.

Flexibility

By displaying the integration between the Heleva smart feeding system and Kombo SDC+ 3.2 wide format digital cutting solution, Elitron demonstrated already last year at FESPA how a strategy that aims to increase production capacity in order to cope with the demand for just in time deliveries can be pursued with the help of its automation technologies. By increasing efficiency Elitron's smart automation doesn't simply eliminate bottlenecks; it makes things happen in a sustainable and cost-effective way.

Kombo TAV-R for corrugators and packaging

The Kombo TAV-R, which features all of Elitron's innovations, gained an award last year at the FEFCO seminar in Vienna and is increasingly being adopted by major players in the corrugated industry. This cutting solution delivers an unmatched performance and full industrial 24/7 productivity with no operator requirements.

Early adopter: Van As Print & Sign

Van As Print & Sign is located in Oud-Beijerland and Amsterdam-Lijnden. Company director, Wouter van As, explained why he primarily invested in an Elitron Kombo TAV-R system, equipped with a table that facilitates cutting on both sides.

He commented: "We have seen strong growth in our Point-of-Sale branch in recent years and are increasingly delivering complete POS packages, produced in both offset and large format, to our customers. We have also seen a sharp rise in the number of displays we make, produced directly onto plate on our large format printers. We are, therefore, increasingly working in conjunction with our print and sign office in Amsterdam, which is set to move to Lijnden on 22 June. "

The company has been working with Agfa Asanti in this location for some time now, saving time and delivering better quality. "The need to update our printer fleet and finish accordingly was obvious. We can now plainly handle more jobs in a shorter time".

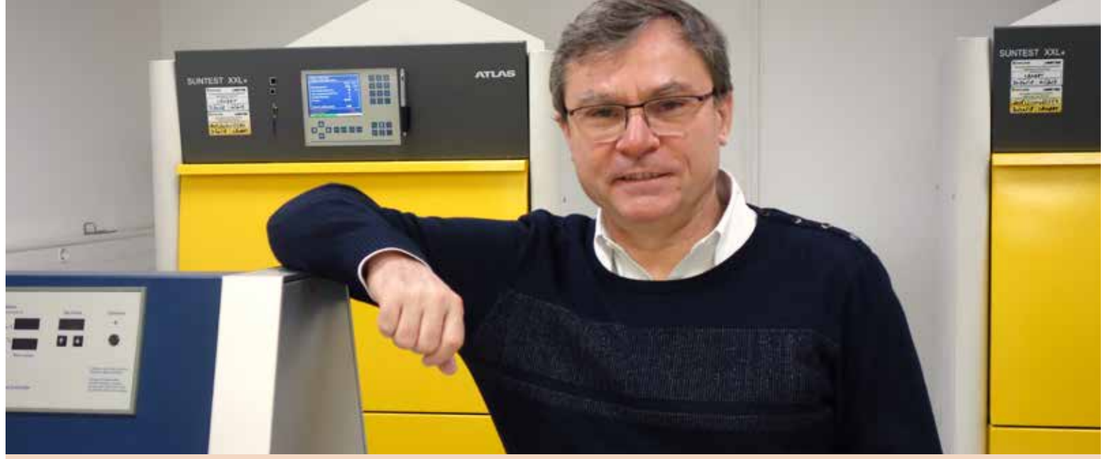
Wouter van As then referred me to his cousin Leendert, also a director at Van As, for further explanation concerning the technical aspects of the business. He told me that the Agfa Apogee workflow has been in use in Oud-Beijerland for some years and that Asanti seamlessly fits in with it for large format print and sign. He explained: "In fact, these systems could eventually run from one server and be fully integrated.

Fewer mistakes and better work organisation enable us to handle more assignments, and there's definitely a demand. We used to encounter bottlenecks in both printing and finishing."

"Purchasing an Elitron Kombo TAV system, with a table that facilitates cutting on both sides, has enabled us to expand finishing to a fully-fledged branch of activity, which more than complements the already present Zünd and Crest tables," he concluded.

Impressive numbers

With 12 patents and 2000 installations across 50 countries, these are impressive numbers for a company that has been a leading producer of cutting plotters and CAD design software in Italy and beyond for more than 25 years - a company based in the Marche region and proud of its 100% 'Made in Italy' label throughout its entire production process. Technical experience has been backed by investment in research and technological innovation, combined with original insights, since 1984. This has led to innovative products and technologies, which in many cases are linked to exclusive Elitron patents. Solutions that exceed the limits of traditional production systems, completely automating the operating stages and generating new business opportunities. Having in-depth knowledge of the leather industry, Elitron now produces specific solutions for different sectors, i.e. cardboard, visual communication, gaskets and composites, rubber and foam, footwear, leather goods, furniture and automotive. •



Christophe Baudrion, head of the Hexis laboratory.

Benefits of multilayered cast vinyl films

Cast vinyl technology developed at Hexis

By **Martin Kugler**

In an exclusive interview the head of the Hexis laboratory provided valuable insights into the benefits of multilayered cast vinyl films.

Following the introduction of the in-house manufacture of cast films, Hexis gained independence from outside suppliers and total control of the specification of its cast product range. Indeed, today Hexis boasts more than 1300 different casting formulations.

History of casting films at Hexis

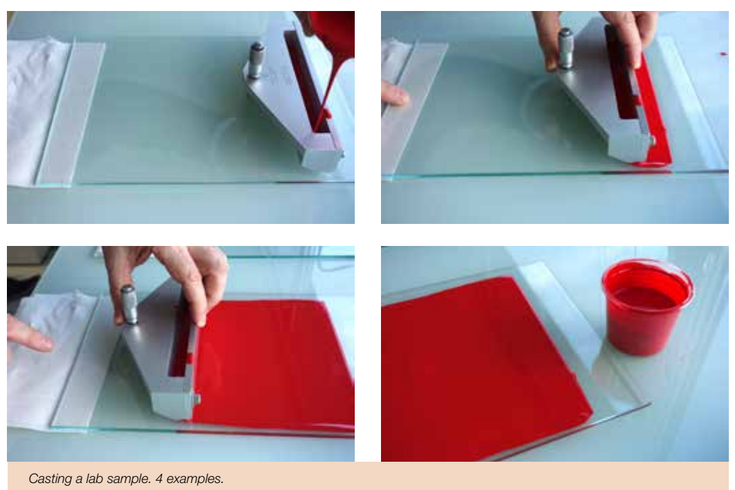
The year 2006 represents a landmark in the company's 30 year history, as it heralded the start of cast film production for this French vinyl manufacturer. In 2008 the brand new casting line was given its own dedicated factory building and in 2010 a second dual casting line was installed.

The casting process enables the production of very thin films in the range of 20 to 50µm. Whereas this is suitable for a limited number of applications such a lamination, it soon became obvious that for the principal application, namely vehicle wraps, more mass, i.e. a thicker film, was preferable.

Multilayered cast vinyl films

Christophe Baudrion, head of the Hexis laboratory, explained:"Cast films are primarily meant for installation on complex substrates, which entails shaping the film to the surface and thereby stretching it. Cast films are specifically intended for such applications. However, since the film undergoes deformation and elongation, sufficient vinyl mass per surface unit is required to prevent the film from becoming mechanically weaker and less opaque."

Cast films are the preferred choice when wrapping heavily curved target surfaces, as they are highly conformable, have considerably less tension compared to calendered films and consequently do not suffer from the memory effect. But stretching the film over odd shapes



Casting a lab sample. 4 examples.

Lab samples of liquefied pigmented PVC.

Casting a lab sample.

reduces the thickness, spreads the pigmentation over a larger surface and therefore reduces its opacity. A slightly thicker film would make the application easier as it gives the installer more grip and would maintain good opacity. For these applications Hexis found that a thickness of 80 to 100µm for coloured films and around 150µm for textured films would be ideal.

Need for thicker films

The solvents used to liquefy the PVC during the casting process must be extracted once the liquid is spread on the casting sheet. A thicker film means that the production speed would have to be reduced to allow the solvents to migrate to the surface and evaporate. However, the process cannot be reduced below a certain speed and thicker coats may result in surface imperfections such as tiny bubbles and craters.

Christophe Baudrion, who masterminded the multiple layer technology at Hexis, explained: "To overcome the inherent drawbacks of thicker films we developed a simple solution: we apply several layers and reduce the thickness of each layer. In practical terms we cast several layers in multiples of 50µ ±10µm so a 150µm film, for example, would need three layers. This allows us to dry the liquid cast at 150 to 200°C at economically viable speeds." And he emphasized that: "During the casting process we carefully adjust the temperature to achieve optimum interlayer cohesion and adapt the pigmentation, taking into account the thickness of each layer to achieve mechanical strength and opacity."

Different properties for each layer

A side effect of the multilayered cast technology is that each layer can be given different properties. Indeed the two (or more) layers are not necessarily identical: the side of the film facing the casting sheet will be the visible surface of the finished film. The finish of the surface structure of the casting sheet will consequently determine the final finish of the end product. This can range from high gloss to satin and matt or textured finishes. The second cast layer (top layer) will be the adhesive side of the finished product and is optimised accordingly for adhesive coating. Christophe Baudrion added: "The critical zones are the surfaces of each coat as they act as interface between layers."

Hexis gainfully exploits the possibilities of adapting the different layers by offering an extremely wide range of finishes, whilst maintaining the mechanical properties of the film: plain colour pigmentation, clear coats with metallic additives for glitter finishes or textured finishes for an embossed appearance simulating carbon, wood, brushed aluminium or the brand new waxed concrete finish. Textured films are normally cast in three layers and come in thicknesses of around 150µm to ±200µm.

Pigmentation important

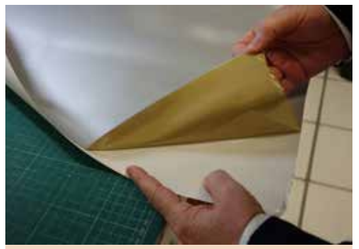
The quantity of pigments used varies widely and, depending on colour and the desired opacity, can reach between 0.5 and 40%. As pigmentation influences the mechanical properties and to some extent the durability of the film, the ability to cast in multiple layers ensures that the finished film maintains all the desirable qualities in terms of appearance, conformability, handling and durability.

General installation

For the installer, multilayered cast films feel no different from single layered films as far as handling, behaviour and performance are concerned. Indeed, multilayered films are formulated and produced to feel exactly as if they were made from one piece. Also, because better drying and solvent extraction are achieved during production, users can look forward to superior durability of the final application. The fact that the polymeric plasticisers used in cast vinyls tend not to migrate across interfaces (i.e. between layers) and are strongly interlinked to the molecular network of the PVC, also contributes to longer durability.

In addition to the wide range of colours and surface finishes, the Hexis line of cast vinyl films is also available with a number of different adhesives ranging from low tack structured, tinted or clear for vehicle wraps to reinforced versions for heavy duty specialist applications. •

www.hexis.com



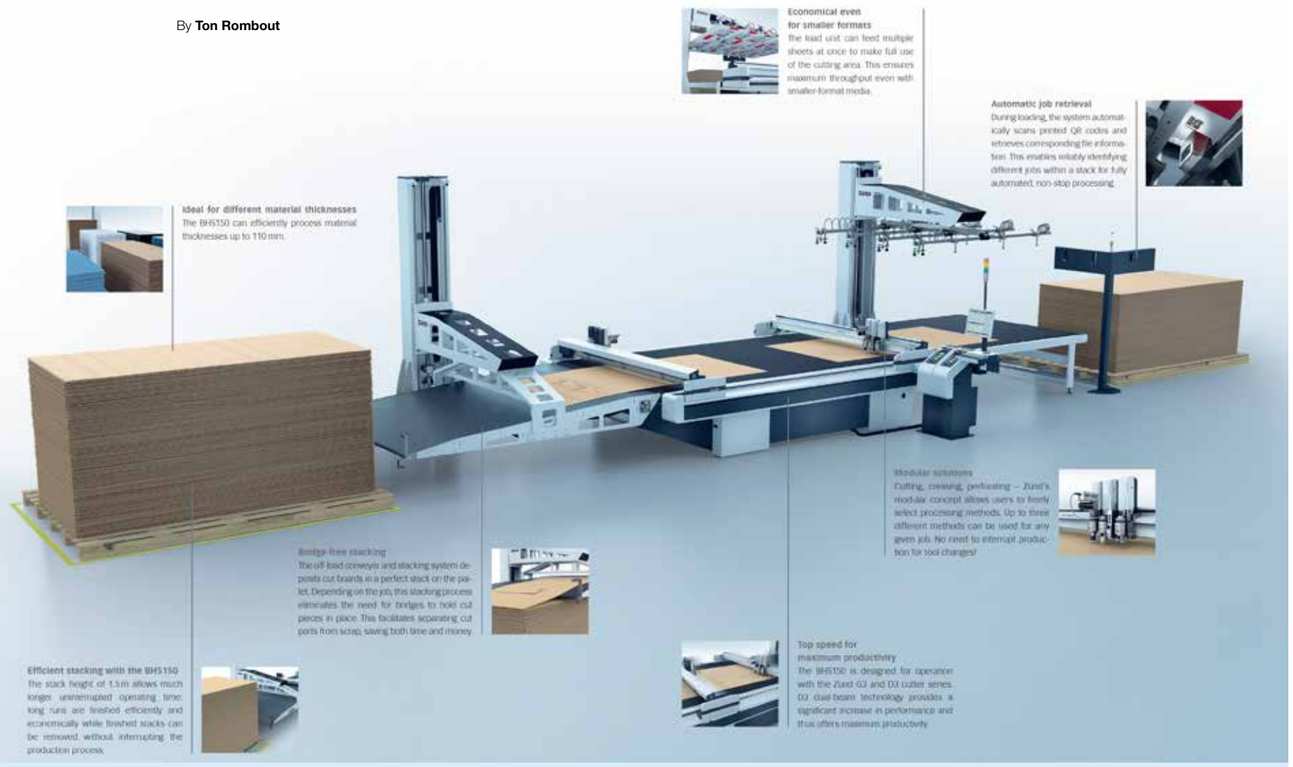
Peel off multilayered cast vinyl on casting sheet.

Checking the specific weight of a single cast layer.

Zünd BHS150 Board Handling System fits need for automatic job retrieval

Koopmans expands production capacity for finishing

By **Ton Rombout**



schema BHS150 Board Handling System.

Frank Koopmans, managing director of Koopmans.

Zünd developed the BHS150 Board Handling System specifically to increase automation in cutting jobs. It incorporates a feeder, a D3 or a G3 cutter, bridge-free stacking, with a 1.5 m stack height and automatic job retrieval, even for the unattended production of hundreds of plates, boards and displays.

Drukkerij Koopmans in Zwanenburg, a major printing house near Schiphol airport in Amsterdam, handles orders from well-known supermarkets and other retailers with numerous outlets across the Netherlands. In order to cut hundreds of boards and other displays in a single job, the company needed to introduce further automation in the finishing part of its organisation.

Zünd D3 XL-3200

The Zünd D3 XL-3200 was presented for the first time at drupa 2016. Frank Koopmans immediately recognized the benefits of this automated system for the types of jobs he receives from supermarkets. “And this absolutely sensational machine is now installed at our printing company, the first in Europe, together with the BHS150 Board Handling System,” he added with a smile.

Largest cutting machine

With a length of no less than 21.7 m and width of 4.82 m, this is without a doubt an extremely large 3-dimensional computer controlled cutting machine. Frank continued: “This machine enables us to cut products with a length of 320 cm and width of 220 cm. The maximum thickness of materials such as cardboard, polypropylene, acrylic, foamed plastic sheets or wood, is no less than 11 cm. We can finishing everything from 1 mm thickness like , POS displays, forex foam, etc. with this unique cutting machine, even unattended.”

Two beams for maximum productivity

Throughput can be doubled, depending on the type of job, by using two independently operating beams. The intelligent cutter controller optimises the allocation of work between the two beams, thus delivering the highest possible level of productivity. Both beams can be equipped with up to three different modules. Even though this is a modular cutter concept, upgrades and expansions are always possible.

Ergonomics and handling

The D3 can be further automated with cutter extensions and various material handling systems, significantly increasing the productivity of the cutter and minimising manual intervention. Even fully automated production is possible with the Zünd BHS150 Board Handling System, which facilitates 24/7 nonstop production with a minimum of personnel! Fully automated board loading and unloading reduces manual intervention to adding/removing pallets of stacked uncut/cut media. Frank Koopmans: “This was exactly where we were looking for. ‘Europewide’ we were one of the first to implement it.” •

Drukkerij Koopmans

Drukkerij Koopmans (Koopmans Printers) truly is a family business offering a personal touch. It delivers high quality printing jobs virtually at internet prices, combined with optimal services. The company operates in accordance with the most stringent environmental requirements and, among other things, prints on FSC labelled paper. Drukkerij Koopmans was established by Henk Koopmans, as a family business, in a shed in Amstelveen in 1965. As the company expanded it moved to Amsterdam and then to Zwanenburg, initially at Kruiswaal. Another relocation took place to Venenweg 15, where the company has been for several years and recently also acquired no. 17. Expansion is part of its day to day operations.

The business is growing steadily under the leadership of Frank Koopmans and his brother Ed and the workforce now includes 44 skilled employees. Their father Henk Koopmans, who founded the company, still visits the printing house almost every week.

Frank Koopmans an enthusiastic second generation entrepreneur, showed me around the overall production system, from original offset to very large format printing using an Inca Onset printer and several other brands. He commented: “We are not an online printer yet and our full time services may be slightly more expensive, but we have major customers who greatly appreciate our services. Our highly committed staff can manage very short term production work, in two shifts if necessary. The types of clients we have know our business well and appreciate the assistance, responsiveness and ideas we provide. We deliver high quality printed matter in an environmentally friendly way and offer a favourable price/quality ratio.”

He added: “Obviously we are constantly searching for tools to improve the operation of our production jobs, in printing and finishing. At Zünd we found, and acquired, a couple of finishing machines. The latest ‘big production beast’ is the Zünd D3 XL-3200, a true production cutter surrounded by a fully automated BHS150 Board Handling System, a combination of a feeder, a D3 cutter, and a stacker.”

The Zünd BHS Operating Screen.

The Zünd D3 cutter together with the BJS150 is able to cut high numbers of plates unattended.

The unloading part of the BHS150 Board Handling System.

Digital cutting on an industrial level

The new BHS150 Board Handling System, presented at Fachpack last year, offers a unique combination of fully automatic material handling and digital cutting with high performance - the key to industrial production. The BHS150 can extend your operating time and simultaneously reduce operating costs.
The system can effectively process materials up to 110 mm thick and the 1.5 m stacking height facilitates considerably longer operating times, making it possible to process large quantities economically and efficiently. Finished stacks can be collected whilst production is in process.

Structure free stacking

Cut sheets are accurately stacked on the pallet near the conveyor belt of the discharge unit. Depending on the task, this stacking process does not require uprights to block the cutting parts, which saves time and cuts costs when separating individual goods.
The loading unit can deliver multiple sheets to the cutting machine. Because the work surface is utilized fully, even smaller sheet sizes can be processed rationally. A scanner reads the order data from printed QR codes during loading, which enables the operator to recognize and process different orders within one stack automatically.

Modular solutions

Cutting, creasing or perforating: the modular concept gives the operator a free hand in choosing the machining method. Three different techniques can be used for each job without interrupting production in progress to change the tool.
The BHS150 Board Handling System is intended for use with Zünd G3 and D3 series cutting machines. The dual beam technology enables the D3 to deliver significantly higher performance and maximum productivity.

Specifications

Maximum plate size 1800 × 3200 mm / 2270 × 3200 mm (L line / XL line);
Maximum sheet thickness 110 mm (depending on the material throughput of the cutter);
Maximum plate weight 25 kg (per item);
Maximum stacking height 1500 mm (including pallet).

Stadium specialists automate with Durst, Caldera and Zünd

Dresden based Eastprint serves customers all over Europe

By **Sonja Angerer**

Managing Director Maik Vogel at the Durst 512R.

Signs on the Rudolf-Harbig-Stadion in Dresden.

Its most prestigious projects are close to many people´s hearts: the rebranding of sports stadiums. Eastprint relies entirely on Durst printers for large format production prints and Zünd equipment for its finishing operations.

When the Dresden football arena was rebranded 'Rudolf-Harbig-Stadion' on 1 September 2018, it represented a homecoming of sorts for a lot of people, because many fans of the local Dynamo Dresden football club fondly associate that name with this venue. It honours a local middle distance runner, who set several world records back in the 1930s, but unfortunately went missing following a parachute mission in 1944.

Completely redeveloped

The stadium's foundations date back to the 1920s. It was completely redeveloped following WW2 and again upgraded to modern standards between 2007 and 2009. Since then it has been named after several sponsors, including the (in)famous 'Glücksgas Stadion' (which roughly translates into 'Happy Gas Stadium') after a local gas supply brand. The company, which was founded by managing director Maik Vogel in 2005, has been supplying perimeter ads for the stadium for many years.

Eastprint is also a partner of the Hamburg Barclaycard Arena, so stadium rebranding is nothing out of the ordinary for this company. The 2018 summer project was consequently close to people's hearts. "Our team not only installed light advertising, but also replaced the entire branding in the both stadium and mixed purpose zone," Philipp Härtel, who is in charge of marketing at Eastprint, explained. He took numerous photos of the installation, "because even as service provider quite experienced in projects like this, it is not something we get to do every day" he added.

'A trip down memory lane'

Similar to the Rudolf-Harbig-Stadion, Eastprint has come a long way since its initial establishment in small premises at the heart of the historic city of Dresden. In 2012 when the company moved to a new site in Ostrapark, a redeveloped business area near Dresden's trade show grounds, one of the main reasons for the relocation was the fact that the Durst printer could not be accommodated at the old premises!

In August 2012 Germany's first Durst Rho 320R Quadro Array printer with 10 picolitre heads was installed at the new Ostrapark site, only a few weeks after being launched at the Drupa 2012 trade show. It joined a Durst Rho 600 Pictor UV curing ink hybrid printer for rigid and flexible media up to 1.60 m wide.

This Pictor printer, the first Durst machine Eastprint invested in, is associated with quite a memorable tale. "In 2008 we went to Fespa in Geneva to sign a contract for a printer with a competitor," Maik Vogel recalled. "However, an investment of this size is always associated with a sense of 'butterflies in the stomach'. As we passed a Durst booth on our way down the halls, our original choice suddenly didn't feel right anymore.

A demonstration was scheduled at very short notice, right there at the trade fair. It exceeded our expectations and made us sign up with Durst there and then." Maik Vogel indeed returned home from Switzerland showing off a signed contract for a high volume production printer – but not with the supplier he intended to sign up with when he set off!

It is anyone's guess whether the other party was offended, but for Eastprint the Durst connection turned out to be extremely successful. Over the years the company upgraded to a Durst Rho P10-200 combination printer for flatbed and roll-to-roll applications and a Rhotex 325, Durst's sublimation solution for textile materials up to 3.20 m wide. The latest investment is a Durst Rho 512R Plus for roll-to-roll prints of up to 5 m wide. The company premises now have a spacious footprint of 4,500 m^2 and the workforce has increased to about 45 employees, including 8 apprentices.

Evening at the Harbig stadium in Dresden.

Welcome to the Barclaycard Arena in Hamburg.

Modern workflow

The Durst Rho 512R Plus installed in the summer of 2018 features Greenguard gold certified UV-curing inks in six colours (CMYK, LC, LM). Thanks to its variable dot heads, the maximum resolution is 1,200 dpi. With a maximum output of up to 400 m^2/hr, in production mode up to 152 m^2/hr is no exception. "We are running a modern, fully digitalized workflow to ensure that we maintain productivity, because we decided on the Durst Rho 512R Plus mainly on the basis of its output quality and volume," Philipp Härtel explained.

Customer data is usually uploaded to the company's FTP server or is downloaded via services such as WeTransfer. "Open files are used less and less frequently nowadays and replaced by PDFs." Following a quick check-up by the pre-press department, the company wide Caldera Rip takes over, distributing the data to the various printers. Cutting lines, if required, are saved to be used when the item is sent for contour cutting to one of the two Zünd cutting tables acquired last summer. Up to 400 parcels are picked up by the company's logistics partners UPS and TNT – every day!

Signposting at the Barclaycard Arena in Hamburg.

The future is here

"Despite the fact that some print service providers in Germany are reporting a slowdown in business, Eastprint keeps growing and is currently recruiting new staff. We are doing well, serving prominent customers not only in and around Dresden, but also in the rest of Germany and Europe," Philipp Härtel added. He feels confident that the company's rapid and reliable production and delivery has contributed to this favourable development. "Our customers are used to Durst quality and keep coming back. Obviously we won't change that anytime soon, will we," a smiling marketing manager added. •

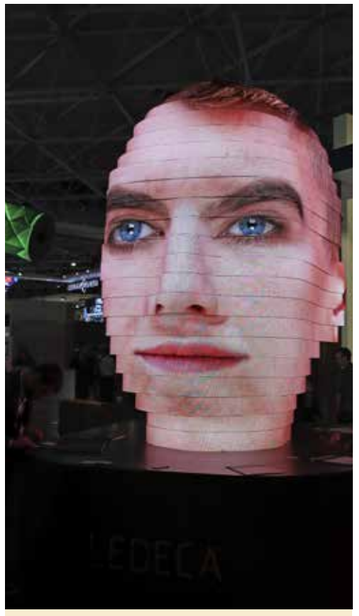
www.eastprint.de

LED or LCD, that's the question

Digital Signage is coming

By **Ton Rombout**

Samsung DirectView LED.



Projection on a 3D-head by Ledeca.

Digital signage is developing rapidly, both technically and in terms of application possibilities, something that was certainly obvious at the mega exhibition staged by Integrated Systems Europe in the RAI in Amsterdam at the beginning of this year. Indoor and outdoor digital signage, domotics for technology in and around the house and office and audio-visual with numerous new technical and promotional possibilities in the area of film.

Digital signage will be the main trigger in our field with respect to what we call Digital Out Of Home, the turnover of which is set to exceed spending on Out-Of-Home advertising in a few years time, and Digital Signage indoors, which are both intended for home decoration, information and/or way finding.

Future prospects or proven applications
New technology is obviously one of the main triggers as demonstrated by the many screens in all shapes, sizes and light intensities, which are meant to reflect that you can't really imagine whether it is real or not. Combinations of screens with spaces that split a large video image into four or five sections, transparent screens that enable you to see what's happening behind the screen and screens that are much too bright to watch at all. It seems that LED is becoming the favourite.

Even at exhibitions such as this one, screens were fighting for attention and making it clear that the future of our DOOH market lies in moving and luminous images. This will prove to be difficult in Amsterdam, and in other large cities that have taken similar action, having decided to ban moving advertising images in their city centres exactly one week before the fair.

LED or LCD
Meanwhile, the long-standing discussion goes on as to what to choose: screens and technology based on LED or LCD? Samsung wrote an entire white paper explaining that its LED solution, in particular Direct-view LED, will become the technology of the future.
According to Samsung, Direct-view LED technology lets integrators create large digital canvases with unique configurations and no visible seams or gridlines. The rising popularity, competitiveness and adoption of direct-view LED digital signage displays can be explained in two words: no bezels.
LED display technology boasts an impressive list of features, but what excites users most is how direct-view LED technology lets them create very large digital canvases with no visible seams or gridlines. It's true that LCD display manufacturers have made great strides in reducing the bezel — the physical frame that surrounds commercial LCD video wall panels — to as thin as 1.7 mm, not much more than the width of a dime. But even these super skinny bezels still create noticeable seams. By contrast, direct-view LED digital signage displays do away with bezels altogether, so that no seams are visible when they're combined into a single installation.
Furthermore, the building block nature of the individual LED units makes it possible to group the displays into a wide variety of configurations. LEDs are also rapidly being adopted because of their ability to overcome the glare of natural light in outdoor or brightly lit settings.

Key differences in technology
The decision as to whether direct-view LED is right for your project starts with an understanding of the key differences in technology compared with traditional LCD screens. Think of the giant video screens at sports stadiums and arenas, or behind performers during concerts – they are LED displays. As are the large digital billboards in Times Square, in city centres and perched on pylons along highways. These large LED digital signage displays are arrays of much smaller modules contained in 'cabinets' and tiled to create large images. When it comes to video walls and digital signage, the term direct-view is used to distinguish this technology from LCD displays. White LEDs are the hidden light source that illuminates today's LCDs. They are embedded in the enclosure, behind the LCD layer, or along the edges. In the case of direct-view LED displays, the LEDs both create the illumination and are the colour source for the entire image.

Red, green and blue
For full colour direct-view LED displays, each pixel of light is actually three LEDs — red, green and blue — dynamically lit and blended to generate millions of colours. For many years LED has been used primarily for outdoor displays or indoor situations where viewers would see the screens at considerable distances. For example, as stadium replay boards and side line ads alongside athletics fields because the distance between the LED pixels, called the 'pitch', was generally substantial. At a distance, the human eye cannot see the gaps between the diodes and the visuals look blended and uniform. As viewers start to get closer the individual lights become visible and the visuals degrade.
Over the past five years technology and manufacturing advances have created much smaller diodes and made it possible to pack a lot of them in a small area. The result has been fine pixel pitch, or narrow pitch, LED displays that look good even relatively close-up.
Retailers are more likely to use a display with a 2.5 mm pitch or even finer. The viewing experiences of the finest pitch direct-view LEDs now rival full HD LCD video walls and the technology's attributes make it the preferred choice for professional A/V integrators, architects and clients.

The Dutch company LedGO combines different sizes and forms for different purposes in showbiz etc.

From 16 to 0.9 mm
Manufacturers are now selling direct-view LED technology with pixel pitches as fine as 0.9mm, but among buyers the sweet spot has settled in at about 2mm. Generally, this kind of display will look good to viewers starting from approximately 15-20 feet. The LED light 'packages' account for a lot of the manufacturing cost of LED modules, and fine pixel pitches are increasingly adding more and more LED packages per module, thus raising the price. That is why the market has not simply moved to the finest possible pitch. These kinds of displays are currently aimed at speciality and luxury markets, where budget is secondary to image quality. However, as prices have dropped the buyer market has gradually shifted to tighter pitches.

Installed properly, an array of direct-view LEDs will have a uniform surface with no evident gaps or lines showing between the individual modules. By contrast, even premium "extreme narrow bezel" LCD video walls result in hairline-thin vertical and horizontal gridlines that show where the individual LCD units are placed against each other. To some observers these lines are innocuous and acceptable based on factors such as the type of content and viewing distance to the wall. The greater the distance between viewers and the LCD video wall, the less noticeable the seams will be.

Advertising, sports, hospitality and retail
The above 'market segments' have been the most eager early adopters of direct view LED technology. Over the past decade media companies have increasingly invested in big city square 'spectaculars' and busy highway billboards, replacing large format print assets in light boxes with fine pitch digital displays. There are several advantages to the switch, including the ability to have multiple messages in rotation, the addition of motion graphics, dynamically updated content and rapid scheduling changes. For example, changing advertising media in a poster light box in an airport arrivals hall can take weeks of planning

Read more -->>

and permissions, overtime and special equipment such as manlifts. Once digital, making a change to an advertising campaign involves a few keystrokes, or can be largely automated.

Sports and entertainment complexes are using fine pitch LED inside and outside major venues for a variety of different applications. Increasingly, large LED screens outside arenas bring live games in HD quality to designated fan zones, catering to crowds as they move around the stadium. Facility operators love LED because they get very large format visuals that can be changed to reflect new teams and sponsors in just minutes. This means that game nights for a professional basketball team can be blanketed with branding visuals for the sponsoring wireless carrier, but 24 hours later the entire complex can show imagery for an insurance company sponsoring the professional hockey team.

Direct-view LED is also gaining attention in resort properties and destination entertainment complexes. Casinos, for example, are transitioning their sports book betting rooms from projection systems or LCD video walls to giant, seamless LED walls that can show multiple games or races live, or fill the entire digital canvas with a feed from a major sporting event such as the Super Bowl or World Series. Retailers can outfit entire walls of their flagship stores with giant LEDs that set the store's overall tone, market the brand and create immersive experiences for shoppers.

LED floor with sensors emulating water drops and circles.

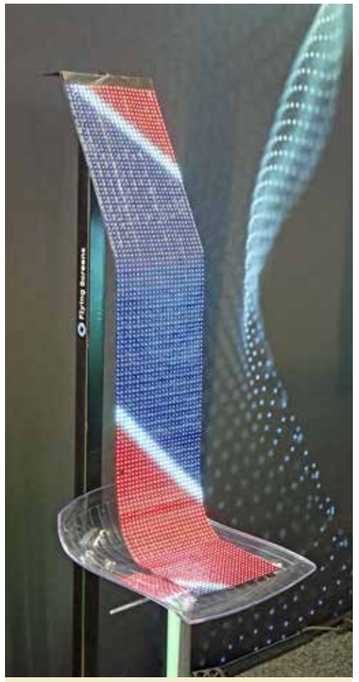
Disadvantages

LED modules contain hundreds or thousands of tiny lights mounted on a wafer, with the lights running to the very edge of each one. They're sensitive to bumps and manual contact, and are best kept out of reach of viewers. A direct-view LED wall within easy reach of viewers can get knocked by shopping or luggage trolleys, or be touched by inquisitive viewers. Due to heat dispersion concerns, LED technology is not well suited to having protective glass in front. This is changing, but LEDs are not really designed to serve as touch displays. There are ways to add interactivity through tools such as gesture sensors or apps paired to the display via tablets or smartphones. However, the individual light packages that are surface mounted on typical displays are fragile.

Five years ago indoor LED had very limited applications and fine pitch video walls were rarely seen outside trade show exhibits. But they're now increasingly commonplace and few industry observers think the rate of adoption will slow down. Most commercial display industry insiders fully expect that much of the business now seen in LCD-based video walls will transition to LED, as manufacturing volumes increase, competition and buyer awareness grows and prices continue to drop. The possibilities are endless.

Sensors

What's so significant about these digital 'mupis' is the possibility, for example, to record the behaviour of passers-by via sensors and trigger personal messages on site (desired item of clothing, personalized offer, invitation to play a game, etc.), enabling them to look at a product more closely and take more time to consider whether or not they would want it, including the ability to take immediate action. Digital Signage will be right at the heart of the in-store offering whether it's used for delivering information, storytelling or entertainment. Following the coming together of content, big data and programmatic we want to see a transformation in the Digital out of Home marketplace. The result will be increased personalization of Digital Signage in this sector." •



Flying Screens: total flexibility.

Expanded and improved: more impressive than ever!

Promic Pop-Up Impress range

By **Ton Rombout**

"It's hard to believe that this truly is a Pop-Up frame, it's just as strong and stable as any textile frame."

Promic, the international supplier of mobile display systems, offers a wide range of products including Roll-Banners, Pop-Up Walls, Flags and Counters that are just that little bit different from what's on offer elsewhere. The difference mainly lies in the quality, reliability, ease of use and appeal of the system. In addition to its standard options, the company also focuses on the optimization and expansion of its range.

Pop-Up Impress is a perfect example of this. Promic received a lot of positive feedback following the introduction of this backlit pop-up wall. Product Specialist Alexander Vercoelen commented as follows: "We at Promic consider it a challenge to see how we can continually improve, rather than just deliver a job well done."

Improved system

Alexander continued: "We always test, adjust and tweak our products until we have created a mobile display system that we truly believe in. How can we exceed our customers' expectations? By not just delivering a system that complies with our customers' requirements, but by actually exceeding their expectations. I travelled halfway across Europe to gather feedback from, and look for new product opportunities together with, our customers. This has resulted in the improvements we have now implemented. We already supplied an excellent backlit wall, but we now without a doubt offer the best system on the market."

The improvements specifically relate to the stability and ease of use of the Pop-Up Impress system. Reinforced crossbars make it extremely robust and it is also equipped with adjusted closing clips making it virtually impossible to damage the system during assembly, which appeared to be a recurrent problem for end users.

Promic Pop-Up frame at Promic-booth.

Improved Pop-Up frame

Alexander: "I received enthusiastic reactions when I introduced the improved Pop-Up Impress system to our customers. 'It's hard to believe that this truly is a Pop-Up frame, it's just as strong and stable as any textile frame' one customer told me. And this exceeding of customer expectations is exactly what Promic is all about."

Straight, Curved, Counter and Connector

Having introduced the optimised product, Promic now sees opportunities to further expand the Impress range. Alexander: "In addition to the straight wall, we are now also working on a curved variant and a backlit counter. Both products are in the final development stage and will be brought to market in due course. We also launched connectors to link the Impress systems together, as a vertical wall, at right angles or as an arch."

Loes Heintges, Marketing Manager: "This expansion of our Impress range makes it possible to use a more open-minded and creative approach when building with the Pop-Up (and Counter) Impress. For example, a complete and exceptionally stable exhibition stand can be constructed – high, wide, lit up, with arches and curves – without a need for tools. It widens the options for independent operators, making impressive exhibition stands available to everyone. Definitely something that offers our customers, the resellers, new opportunities and access to new markets."

Impress at FESPA 2019

Loes Heintges: "We ourselves are great fans of the Pop-Up Impress system and the possibilities it offers. That's why we also build our own stand using various Impress systems. Something that proved itself and made a huge impression time and again. It really stands out. Aesthetically the Pop-Up Impress system is also great to work with."

Promic will attend FESPA Munich from 14 to 17 May, obviously with a Pop-Up Impress stand. Loes Heintges: "We like to take advantage of these exhibitions to inspire our customers and show what our products can do. So, if you would like to see the improved and extended Pop-Up Impress range in all its glory, you'll have to call in at our Stand B5-E15!" •

Promic Counter Impress.

C!Print Lyon 2019 review

Focus on automation (everywhere)

By **Catherine Mandigon**

HP flatbed series R.

Attracting more than 15,000 visitors at its 7th edition (+ 19%), the Lyon show now has to be considered one of the leading events in the visual communication sector in Europe.

Many manufacturers, be it prepress, printing or finishing - including Esko, Caldera and Zünd - emphasized that automation is now key.

HP displaying many application examples
As usual HP showcased many application examples at its stand. Alongside the recent R series flatbed which opens up latex printing on rigid media, the manufacturer had chosen to focus on the DesignJet Z6 and Z9 + range (three models per series), significantly optimized and re-launched a couple of months ago. As its name suggests, the Z6 offers a series of 6 inks and the Z9 + 9 inks + a gloss optimizer. The new HP 746 print heads feature 2400 nozzles per inch. The 'double drop' technology produces a combination of large drops to fill solid areas at high speed, whilst the small drops reduce the grain, avoiding the use of clear colour inks. A clever integrated vertical trimmer reduces the time required for finishing. HP offers simple software solutions that simplify design and streamline the workflow. They were on show at its HP Applications Centre.

Hexis bobsleighs
In addition to its 'classic' stand, Hexis also occupied a space for media. However, instead of the traditional car, visitors to the show were presented with two bobsleighs personalized by the Hexis teams. A very convincing way to present the new THE190EVO film - a cast PVC printable, ultra flexible and easily repositionable film. Novelties included magnetic films, which are in high demand today, and transparent lamination solutions to create structured effects (wood, leather, metal, mineral, glitter).
Hexis always showcases numerous projects. "More than 80 jobs were created in 2018. The site is being restructured, which includes the development of a new building that will optimize logistics flows. Finally, Hex'Perience, which has been given a new logo, is evolving into a space totally dedicated to decoration and design in response to the popularity of this sector," Patrice Salvan, the company's Marketing and Communication Manager, added.

10th anniversary of the French subsidiary
Mimaki took advantage of this edition to celebrate the 10th anniversary of its French subsidiary, staging an entertaining evening with all its distributors. "The Paris subsidiary illustrates Mimaki's continued commitment to the French market and the company's desire to offer a local five star service. Mimaki is not only an expert in value added technology. We also excel in customer support," Danna Drion, Marketing Director at Mimaki Europe, commented. Visitors to the stand were presented with a wide range of printers, in particular the textile TS55-1800 - the (R) evolution of sublimation printing!

3M France introduced many new features in its range of DECOROC decorative coatings, as well as new printable films for vehicle wrapping. In terms of office space, the supplier focused on Fasara glazing films.

Of course we also identified TTS and Promic, which are both doing good business. •

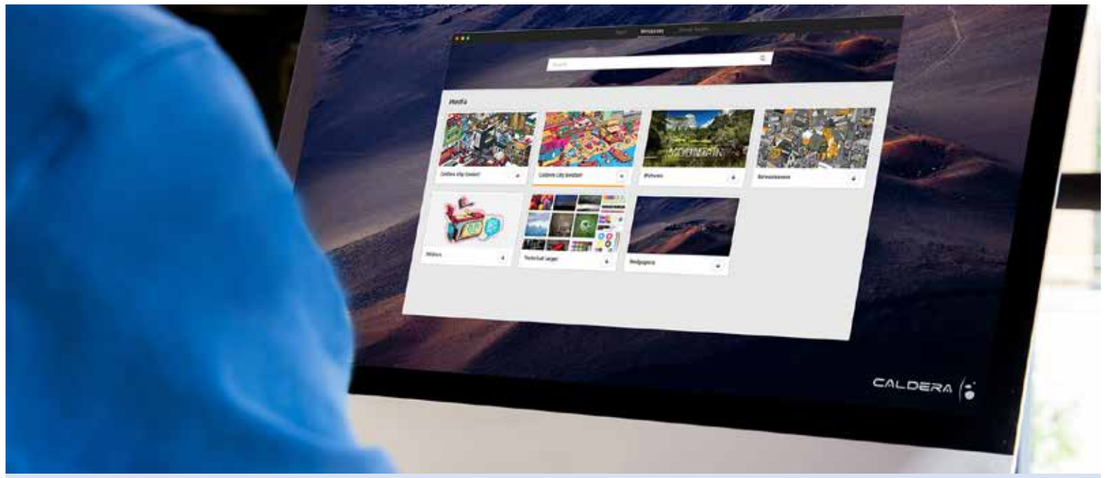
The Hexis Bobsleigh attracted a lot of attention.

Mimaki's 10th anniversary at C!Print Lyon.

Streamlining and simplifying maintenance functions

Caldera announces the launch of CalderaDock

By **Ton Rombout**



CalderaDock, developed by Caldera.

French RIP software specialist Caldera has launched CalderaDock version 1.2.0, a new toolbox management app for users of its popular workflow software.

The CalderaDock module, which is meant to streamline and simplify maintenance functions, will be accessible via the main V12 interface. It aims to bridge the gap between tools in the Caldera ecosystem and remote resources.

Simplifying day to day operations

According to Sebastien Hanssens, Vice President Marketing & Communication, the idea behind CalderaDock was to create a toolbox with maintenance functions that would simplify the day to day operations of print and cut operators.

A few months ago, version 1.2.0 saw the release of the toolbox in Windows, with the ability to manage licenses and bring more power to the virtualization of the Caldera RIP in a Windows environment. With Mac and Linux already enabled, CalderaDock with Sync&Deploy has now become the de facto standard to manage a fleet of Caldera RIPs across all platforms.

Any platform

Available on Mac, Linux and Windows, the new tool will simplify V11 to V12 migration and auto update the RIP with new resources and apps. Further capabilities include managing V12 licenses, cleaning the RIP station, managing RIP configuration with one-click save and restore and enabling direct access to documentation, videos and the Caldera web ecosystem.

Increased know-how

CalderaDock facilitates regular maintenance to streamline the workflow and gives access to documentation and videos to increase operator know-how. It also enables advanced users to backup and restore their RIP configuration for migrations.

The new tool has already been upgraded from its original version. Last November the module, which updates independently, added the ability to restrict data cleaning on the basis of date-of-use, reintroduced Caldera wallpapers and icons to the RIP Desktop station, enabled a black/white skin switch for Mac Mojave users and added a search bar for apps.

More to come

Additional developments for CalderaDock are on the agenda, including further integration with Caldera Workspace and a raft of new resources and apps to make managing the RIP more user-friendly than ever before.

"As with all our new product developments, we put user experience at the forefront when we created CalderaDock," Sebastien Hanssens explained. "This new module will appeal to operators who want to streamline and simplify their maintenance tasks whilst gaining easy access to all the local and remote apps they use on a daily basis. Auto updates, easy migration and the ability to back-up and reset are part of the package – making the Caldera RIP one of the most comprehensive suites available." •

http://www.caldera.com

Printing on rigid and roll materials

HP Latex R1000 - Mission accomplished

TEST

By **Herman Hartman**

Part of the extensive cleaning set used to keep the heads in good working order. At the top right hand side is the tissue, which collects any drips fired by the drop detector.
This means that operator intervention is only required when the roll of tissues is depleted.

It has taken HP some time and effort to realise its objective of printing on plate materials with latex inks.
In May 2018 the company introduced the 2.5 m wide HP Latex R2000 and in August 2018 the range was extended with the Latex R1000, with a maximum print width of 1.6 m.

This model was inspected and put through its paces by SignPro Europe in the showroom of preferred HP Supplier Nautasign. We can now for the first time print on plate materials, and print on roll materials, using latex inks.

Predecessors
The HP Latex R-series is not the first series of hybrid printers by HP, which already supplied the FB series equipped with UV inks. A number of elements of the FB printers can still be found in the new R series, as is the case with the use of a front loading system and the option providing individual inputs for several small plates.
Latex ink does require a different printer housing. The R1000 takes up more space than the HP FB550. Not least because of the dryer/ curing unit at the front, but also because the print carriage requires more space due to the number of print heads, resulting in a not inconsiderable width of 421 cm. The weight, i.e. 1,400 kg, should also be taken into account. The printer is supplied as standard with 1 input and output table and an input and output spindle to process rolls. The Latex R1000 can handle rolls of up to 60 kg and the table can process plates of up to 68 kg.
A special accessory is available to put the roll on the input table when processing roll material. This makes it possible to print shorter lengths without having to remove the tables and first having to insert/tension the roll. This is because the suction on the transport conveyor prevents slipping or billowing when the roll is fed through without being stretched taut.

Transport conveyor
On the R1000 the suction beneath the transport conveyor is split into 3 zones, in which the system adapts the suction to the substrate. HP has managed to eliminate the deviations that are quite common when using a transport conveyor. The forward speed is controlled by an Optical Belt Advance Sensor and sideways deviation is eliminated by guides. The accuracy with which the ink droplets are applied to the substrate is substantially better than on comparable hybrid systems using UV inks.

Characteristics of latex inks

Latex ink is a resin ink. With water based HP Latex inks heat is the trigger for phase change, i.e. the ink changing from a liquid into a solid. Once hardened the print can be processed immediately.

Prior to the phase change the water has to evaporate, a process that also uses heat. Since the introduction of the first generation of water based HP Latex inks, now more than 10 years ago, HP has improved the properties of the inks in two stages. The adhesion, scratch resistance and hardening temperature of the ink have been enhanced and the energy consumption has been reduced.

Optimizer and Overcoat
A typical characteristic of the current generation 3 inks is the use of Optimizer and Overcoat.
On roll2roll printers the curing temperature necessary for this generation of inks has been limited to approximately 110 degrees. Optimizer aims to retain the still liquid ink droplet on the substrate until drying and curing have taken effect. Overcoat improves the scratch resistance of the prints. Both are controlled by the printer software. The choice of substrate type also defines the degree to which Optimizer and Overcoat are used. If laminate is used Overcoat is not needed. Once dry a print with overcoat has excellent scratch resistance, which means that laminate is often not required. However, compared to many UV inks latex ink is more sensitive to the impact of cleaning agents, which is the reason why laminate is sometimes applied anyway. Latex ink can be processed immediately after curing and can be hot or cold laminated.
Latex ink is still flexible when it is dry, which means that bending or stretching isn't a problem and the ink layer doesn't fragment during cutting or milling.

New ink
The generation 3 ink has also been further developed to print plate materials on the new hybrid R series printer. The inks for the Latex R series only require approximately 80 degrees for a definitive phase change and contain more colour pigment (the print heads have also been modified). Higher pigmentation ensures that even with an ink yield reduced to 80 or 70 % colour saturation is adequate and makes it possible to produce prints in 3 pass mode on the R series with virtually no loss of quality.

6 colours plus white
The latex inks have been extended with white ink in addition to the commonly used 6 colour set with light magenta and light cyan. The inks and extra liquids for the R1000 are supplied in 3 litre pouches. An extra pouch is provided for the white ink so that it can be circulated. The printer has a storage compartment where the print heads for the white ink are stored when white is not required. Only a couple of operator interventions are required to install or store the heads in the maintenance compartment. The cassettes in which the heads are stored are moved regularly to prevent problems with white pigment in the heads. HP has managed to produce an opaque white ink. Unlike UV ink, no photoinitiators have been added, which means that the latex ink does not go yellow.

Both sides of the head carriage are equipped with a system that collects any ink mist. Again the filters occasionally need to be replaced.

Software support
HP has resolved the issue of where would be the best position for the operator to adjust the printer, by installing an identical large touch screen that gives access to all settings at both the front and rear. HP has adjusted many routine operations in the software in such a way that the user doesn't have to bother with them. For example, the printer actually gauges the position of the substrate on the table and executes a height measurement to adjust the height of the print carriage above the conveyor.

The cassettes in which the white ink heads are stored when not in use. The cassettes in which the white ink heads are stored when not in use.

Manual adjustment is possible and when several plates are printed in sequence the measurements can be skipped. The software already includes a standard printer adjustment configuration for many substrates. You can store your own settings by copying this. HP issues updates of the settings library when new materials are introduced.
Maintenance is also largely executed by the printer, so that the operator only has to replace any materials that are used. A drop detector checks that the nozzle
s are open.

Sensors
Similar to other latex printers of this brand, maintenance is almost totally automated, with any necessary consumables supplied in a maintenance kit. Manual intervention is mainly restricted to the replacement of components in the maintenance kit and cleaning of the two squeegees either side of the print pad.
HP has equipped the Latex R printers with a large number of sensors to monitor the condition of the printer and AI (Artificial Intelligence) facilitates rapid intervention. The R-series printers are remotely controlled via the remote service centre, making it possible to identify what's wrong immediately in the event of a fault. It works both ways. Because HP

Read more -->>

Plates are fed in from the rear. One of the two roll holders for the input of roll material positioned on the table.

The drying and curing unit.

stores data in a central location, preventative action can be taken if several users have reported the same fault. And the user can be notified if maintenance is urgently required.
In our region support for the HP Latex R series is included for the first three years. Replacement parts are also covered providing they are not included in the consumables list. This programme is delivered in conjunction with the dealers, whereby HP provides first line support but sends out the dealer if work is required on the printer on site. The AI functionalities in the software also facilitate more intensive use of HPPrint OS, an online platform where printers can be managed, consumption monitored, colour profiles downloaded, media libraries updated, etc.

Versatile

The list of substrates suitable for use with the HP R series is long. Even difficult materials such as mirror glass can be printed on. However, the material must not be porous so that the ink does not permeate and reach the transport conveyor. Also thanks to the use of the overcoat, the print feels a lot smoother than a comparable print produced using UV ink. Latex has high colour strength, the ink is glossy and odourless following curing (some substrates may temporarily release an odour after being exposed to heat). The ink is also more transparent compared to UV ink, which is great if you want to show the substrate when printing on wood or aluminium (white ink is available if you prefer not to). It also ensures that details stand out more, particularly in darker sections.

Capacity

The number of m^2 that can be processed per hour is directly related to the extent to which you manage to utilise the print width. You won't save time if the entire print width is not utilised. The forward speed remains the same. With a full bed or rolls that occupy the entire width it is possible to produce 57 m^2/hr in 'Outdoor' quality. 'Indoor Production' (100% ink coverage) delivers 29 m^2/hr, 'Indoor Production Plus' 25 m^2/hr. With heat sensitive substrates heating and curing are adjusted and the print speed reduced. With white ink the print speed is always lowered. (If, using the HP Latex R2000 which is equipped with the same technology and has a 90 cm wider print width, you utilise the entire width you will produce 30 to 50% more square metres per hour).
As mentioned before, it is important to utilise the entire print width. This can also be achieved by combining orders and then separating them after printing on the plotter or cutting table. Sound planning also contributes to optimum use of the available capacity, which obviously applies to any printer irrespective of the ink system. But in this case it is even more beneficial to combine smaller print orders. You can also opt to print on large plates or several smaller plates alongside one another. If you choose the latter, you need to take one peculiarity into account, which will undoubtedly be fine-tuned at some point in the future. On the Latex R1000 the printing time is extended with the time needed for drying and hardening. In the software the next order on plate material can only be started when the previous plate has left the drying and curing unit. If you enter several orders on the same plate material as a single order, you can continue printing in sequence though.

Finally

The catalogue price for the Latex R1000 is 175,000 euro, including support contract which can soon make a difference of between 8 and 10% per annum. For this price you will get an all round printer. During the day you can then mainly focus on plate production with the option to print a number of m^2 of roll material from the table input in the meantime. The printer can then finish an entire roll, after working hours, without needing further supervision. The white ink makes it possible to also print transparent foils, for example for use on windows.
The R1000 is not a pure production animal similar to comparable UV printers in this middle segment. Print Service Providers focused on maximising loads and volumes will make different choices. The printer tends to come into its own in companies that focus more on providing added value such as sign makers, exhibition builders and interior designers, who process a combination of roll and plate materials. Companies that often have to work to very tight deadlines. With a print width of 160 cm it is an excellent tool for day to day operations. For plate materials 160 x 320 is quite reasonable also and the handling cost soon rises if you go even larger. To make the printer profitable you need to have a significantly high production level. You could of course invest in this printer in conjunction with an associate. In addition to the option of finishing the print immediately, other benefits include odourless ink, a plus for indoor applications. The software support for operators is another significant advantage, which means that even a less skilled operator can be put in charge of part of the work. •

The drying unit can be moved forward to give access to the transport conveyor when the lid is open.

Automation of administration makes production more efficient

Get on the Dataline-MultiPress bus at FESPA 2019

By **Ton Rombout**

Multipress Montage App offers secure mounting of signs and displays on the spot.

“MultiPress provides the knowledge and experience needed to prepare sign and wide format print companies for the future and makes them more efficient, productive and efficient.”

- Dirk Deroo, CEO Dataline

Most sign and wide format print companies are still happy working with a price per square meter. However, they are not too happy about the fact that they still don’t know exactly how much they’ve spent on a certain job. What is really needed is the sum of the overall expenses and earnings for a job, or even for all jobs on a daily, weekly, monthly and/or annual basis.

Obviously the key is an integral cost price calculation based on the organisation’s process management. MultiPress ERP/MIS software is doing exactly that. It processes the total shopping cart order. On top of that the powerful API connector of MultiPress makes it possible to have a complete ‘hands-off’ workflow. Jobs coming in from any web-front will automatically create a job in MultiPress with calculation, planning, material reservation, job instruction and even impositioning, putting the jobs directly in the workflow of the printer. This means order manager won’t ‘touch’ these jobs unless something is wrong or missing. This all based on a dynamically built workflow, so no fixed sizes or standards.

Ultimate approach to increased revenue
Calculating the price per square meter when selling to your customers, i.e. the usual method, is tricky - in particular when you don’t know exactly how much your product cost in terms of work, material, time, traffic, mounting, etc. The MultiPress Enterprise Resource Planning/Management Information System gives the order manager and all other employees an in-depth overview of all the figures and delivery times for (parts of) the work - everything that’s required to streamline management information processes.
This generates increased revenue for each job, even if the final price per square meter is highly competitive.

Fit for sign and wide format printing
MultiPress ERP/MIS software has been automating the administration and production of graphics companies for more than 20 years.

Small mistakes may cause big errors; preparing and planning of each job make the difference.

In recent years the MultiPress functionality has been specifically developed to meet the demands of the sign and large format print market. More than 300 sign and wide format print companies have now successfully implemented the software.

The main advantages of MultiPress for sign and wide format print companies are:

- Simpler and more straightforward administration: CRM, quotations, calculations, production planning, invoicing and logistics from a single linked chain of information. This results in a drastic reduction in the number of errors and increases the order processing speed. The process is streamlined from (online) order to on site installation;
- Production automation: not only does MultiPress manage the production planning, it can also load files, perform check & repair in preflight, imposition tiling or perform production optimizations, etc. Thanks to JDF links with workflow and RIP software from Agfa, Caldera, OneVision or Switch, for example, MultiPress users can largely automate their production in this way and connect it to process management and integral cost price calculation.

Complete quality control: the automation of administration and production into one integrated workflow drastically reduces the number of errors and optimises production and service quality.

Market rapidly professionalising
“The European sign market is growing and professionalizing very quickly. Many of these often young and dynamic companies are looking for a scalable solution to simplify their administration and streamline production,” stated Dirk Deroo, CEO of Dataline. He continued: “MultiPress has the knowledge and experience to prepare these companies for the future. Once the system is implemented customers see their productivity and profitability increasing rapidly.”

Two new releases to come at FESPA
MultiPress intends to put two powerful new applications in the spotlight at FESPA 2019:

1-The MultiPress Montage App will enable mobile employees to manage the administration of sign & large format projects in real time at the customer’s premises, including the uploading of photographs. This app, which was launched recently at the Sign & Print exhibition in Gorinchem (the Netherlands), received the Innovation Award.

2-The MultiPress Calculation Wizard makes it possible to generate complex price calculations quickly and accurately. This application gives buyers immediate access to correct prices once they have entered a web store.

Where to find us?
The MultiPress stand will be located in Hall A5, stand no. F37, at FESPA. Application specialists will be ready to stage targeted demonstrations relating to special requirements. Visitors can book a demonstration in advance via: https://www.dataline.eu/nl/event/fespa-munchen-2019. MultiPress will also be represented by reseller partners Network Innovation Solutions, Midcomp, Symbol, Graphic.net and MPEX.

Dataline
Dataline is the Dirk Deroo umbrella company, where software for MultiPress and QuoJob is developed. MultiPress is a modular production package, which has proven itself at sign and large format printing and other graphics companies for many years. QuoJob has been developed for companies with a more project-oriented administration like advertising agencies or communication companies focused on handling advertising and communication assignments rather than direct production. •

MultiPress is market leader in ERP/MIS in Europe for sign companies, available in 11 languages and 19 countries.

Simplification of administration and automation of production are nowadays a must have in every sign and WFP company.

How about signage companies in France

Rookies rocking the scene at C!print

By **Martin Kugler**

Header Rookies rocking the scene at C!print.

This year's C!print show took place from 5 to 7 February at the Eurexpo exhibition centre near Lyon in France. Over the years C!print has become an important annual event in the diary of both manufacturers and distributors in the digital, screen printing, textile and marking and decorating business across the entire graphics and printing industry in France, eclipsing the renowned Viscom event in Paris.

In just three days the team of 656 Editions, the organisers of C!print, managed to attract a record number of more than 16,000 visitors, roughly 20% more than last year.

Two main trends

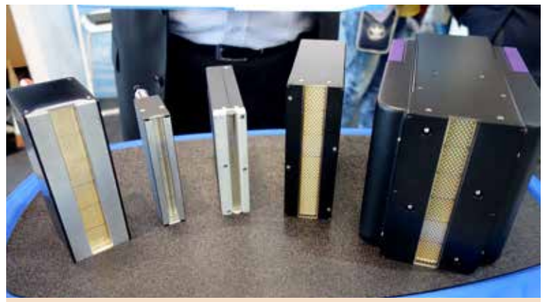
Two major trends stood out in 2019: environmentally friendly concerns and customised decoration. Most manufacturers are aware that green features sell products. The switch to PVC free media and UV inks with LED UV curing are generally accepted ways of getting rid of toxic solvents in both the manufacturing and final application stages. The trend is confirmed in wide format inkjet printing, sheetfed offset, flexo label printing and screen printing. The consensus is that UV inks and UV curing with LED lamps offer environmental benefits in addition to smaller UV system dimensions, instant on-and-off, no heat radiation onto the substrate and lower energy consumption. HP is one of the few companies approaching it in a different way by heavily promoting their mainly water based Latex inks.

More exhibitors

In its seventh year now, C!print attracted 46 first time participants amongst the 250 exhibitors from diverse industries such as large format printing, textile printing, finishing and sign making - with interesting newcomers from the commercial printing and label printing industries. Amongst the machine manufacturers well known names such as Durst, EFI, HP, Mimaki, Zünd and many others were present with stands. On the media side big names such as 3A Composites, 3M, Avery Dennison with Mactac and Chemica were amongst those to be seen.

Dickson banner and fabric colour fans.

Printing and decorating are also marketing tools and C!print showed some excellent synergies for retail and catering, exhibition stand design, and furniture and vehicle wraps. Digital printing has given us flexibility, infinite customisation and low per unit cost, enabling designers and printers to offer their customers a unique experience of visual creativity and made-to-measure communication tools. C!print proved to be the prime showcase for printing and graphics industry businesses in France.



Phoseon LED UV line-up.

Designer domings made by Sÿnia.

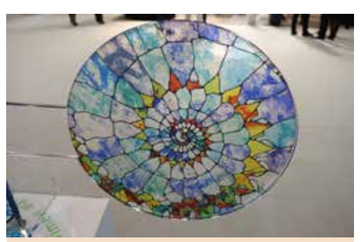
Exciting technological advances and synergies
If the 2019 C!print was short on revolutions there was no shortage of evolutions, technological advances and synergies from different domains. Exhibitors generally went to great efforts to showcase the versatility and adaptability of their products to a wide range of applications.

In what follows we take a closer look at a couple of noticeable, innovative companies, outside the mainstream, some of them for the first time at C!print, some of them well established exhibitors that came up with new ideas for the occasion.

Aslan

The German vinyl manufacturer attended C!print for the first time under its own banner. Being an expert in technical films, Aslan wants to offer specialist niche products that stand out from the crowd. At C!print the company showed its SE 75, a high gloss Polyester film available in silver and gold. The film has a double sided true mirror finish and high scratch resistance. To underline its green credentials Aslan offers a line of PVC free films, under the name of GreenCircle. These are mostly polypropylene based and thus avoid the need for solvents and plasticisers for their production. The range is set to increase in the future but for now Aslan already has black, white and etched glass plotter films plus a high performance laminate made from PP.

LED UV lamp head made by IST.



Translucent doming made by Synia.

Dickson

This specialist in banner material and technical textiles also emphasises its efforts in environmentally friendly product design by presenting its line of Evergreen inkjet printable fabrics and banner materials intended for use as drop banners, wall coverings and for point-of-sale applications.

Duo Display

Duo demonstrated its solutions for the design of commercial spaces based on large size panels made with stretched printed fabrics. The concept is spectacular and is suitable for interior decoration, exhibition build and corporate design. The Duo team were proud to announce the opening of their new subsidiary in Germany, in Hilden near Düsseldorf, which comprises a warehouse, workshop and a 20 strong workforce.

IST-Metz

The German UV system manufacturer IST, together with its integrator ITL Integration Technology which is based in England, came to C!print for the first time. They showed their range of LED UV systems targeting OEMs and also intended as retrofits in existing sheetfed offset printing machines, which allow a technology upgrade to LED UV without any major mechanical changes to the press.

Hexis

The French vinyl film manufacturer introduced the new THE190EVO, a self-adhesive cast vinyl printing substrate with its Take Heat Easy low tack adhesive technology, which the company claims offers ease of installation and substantial time savings. The film is intended for wrap applications on vehicles and architectural elements. Pascal Bazonnard, representing the Hexis training centre, was busy demonstrating the conformability and easy installation of a gloss laminated THE190EVO on a heavily curved bobsleigh of Olympic fame. However, vinyl wraps are not restricted to vehicles. They can be very effectively implemented on boats, trains and trams, furniture, laptops and even musical instruments. To go with its cast films, Hexis offers an extremely wide range of clear laminates that add further benefits such as UV barriers, a variety of textured surface finishes, anti-graffiti and anti-bacterial protection. These special laminates are equally suitable for standard plain coloured vinyl films to give them the same additional properties.

Phoseon

Following the trend of wider acceptance of LED UV, the American specialist manufacturer of UV curing equipment concentrated on LED systems and showed an impressive line of LED lamps with power supplies for screen printing applications. Phoseon mainly targets OEMs so we can expect to see its LEDs on more printing machines in the future.

Sÿnia

This specialist in domings, based near Montpellier in the south of France, demonstrated the potential of its technology for a large number of diverse applications beyond traditional promotional items to include decoration and arts. Doming involves depositing a clear polyurethane resin on a self-adhesive substrate and Sÿnia has refined the technology by adding its own patented olfactory version. CEO Sylvain Maillard goes to great lengths to illustrate the wide range of potential client applications from perfume manufacturers to interior design. After 14 years of existence Sÿnia claims to be the European leader in full service doming.

The next C!print show will take place from 4 to 6 February 2020 at the Lyon Eurexpo exhibition centre. •

McGowan management.

Three users of the Nozomi printer in Europe

McGowans first user of the EFI Nozomi C18000 in Ireland

By **Ton Rombout**

> **"The other wide format printers were good, but they didn't make us stand out."**
>
> **- Mal McGowan**

Boards production with EFI Nozomi.

McGowans Print in Ireland has always been an all-digital print house. According to founder and owner Mal McGowan, a mathematician by trade who describes himself as an entrepreneur rather than a printer, the business was developed because of digital print technology.

In addition to direct mail, financial and other commercial small format work and large format outdoor media, the company produced high quality retail display point-of-sale materials for a range of prominent clients and brands, including L'Oréal, Coca-Cola, Lidl and Tesco, using flatbed wide format printers from a variety of vendors. However, Mal McGowan explained: "They were good, but they didn't make us stand out."

Differentiation with Nozomi prints

The key to finding that differentiation was an EFI Nozomi C18000 single-pass corrugated digital press. Mal McGowan added: "Thanks to its quality, size and speed, the Nozomi press represents a new era in digital printing." The machine, which was installed in September 2017 and the second in the world after Spanish packaging specialist Hinojosa (April 2017), has been in production ever since.
Mal McGowan explained that the flatbed printers his company used are all much the same in terms of output quality. The finish delivered by the Nozomi press, however, sets it apart - the UV inks developed for the EFI Nozomi C18000 are intrinsically glossy.
"The print jumps off the board and has a real 'wow' factor. Another advantage of the EFI Nozomi C18000 press was the ability to print with white ink. This enables direct print to craft boards with stunning results," Mal McGowan commented, also noting that the option to add extra primary colours for an expanded colour gamut would allow more than 97% of Pantone colours to be matched.
The 1.8 x 3 m capacity of the Nozomi press also sets it apart from single pass competitors, who are limited to 1.2 m, making it suitable for the production of point-of-sale and floor display units as well as packaging."
Mal McGowan described the speed as "phenomenal", contrasting the 5,000 or more 1.78 x 1.78 m sheets per hour from the Nozomi press against 140 or so from existing flatbeds. "The EFI Nozomi system has allowed us to grow our export markets into Europe and the UK via our Belfast factory in Northern Ireland."

Entering new markets McGowans is also developing a new company, McGowans Packaging, to capitalise on the opportunity that the Nozomi press offers, adding dedicated finishing equipment to the process to provide an on demand packaging 'virtual warehouse' service, which is being offered as a trade service to other printers as well as to direct clients. "We're a display company that would like to venture into packaging, attacking the market from the bottom up," said Mal McGowan, comparing his position with that of large dedicated packaging print businesses.

Board recyclability

Mal McGowan explained that Ireland imports a lot of litho-laminated packaging from Turkey and China. "It's cheap but requires high volumes to be pre-ordered and delivery is slow," he added, also pointing out the environmental impact of long distance shipping. The recyclability of board printed on the Nozomi press is another sustainability advantage: "Everyone is aware of their carbon footprint, so anything we can give brands here is an added bonus," he concluded.

Nozomi at Hinojosa in Spain.

Two additional EFI Nozomi single-pass corrugated presses

Hinojosa accelerates rapidly in the Spanish market

By **Ton Rombout**

Hinojosa Packaging Solutions has incorporated two new EFI Nozomi C18000 presses into its production chain, giving the company the ability to accelerate its commitment to digital printing within the packaging sector.

The new presses will also give Hinojosa one of the highest digital print capacities in the market, strengthening its international offerings as part of Blue Box Partners, a pan-European alliance of leading corrugated packaging providers.

Fully equipped with EFI's new white ink feature for Nozomi, this next-generation digital printing equipment is joining the group's existing machine fleet. It will enable the company to increase efficiency when offering this technology to customers on the Iberian Peninsula and proposing packaging solutions, enabling it to compete in a market more and more subject to consumer trends.

Delivering flexibility and customisability

Digital printing is a strategic move for Hinojosa, one that is very much intertwined with the company's values as a brand partner. This new technology provides the flexibility and ability to adapt and customise packaging solutions to customer requirements, helping brands to successfully compete for end consumers. Hinojosa has professionals with expertise in sectors such as the food industry, convenience stores and retail, able to advise brands on the optimal packaging systems for their products. The company is aiming to become a unique partner for brands, bringing new creativity and innovation to client packaging and ensuring that products stand out on store shelves.

Outstanding output quality and efficiency

Similar to the first press, the new Nozomi will have six colours (CMYK plus orange and violet), plus white ink, to deliver superior quality imaging that rivals offset litho-lamination and HQ flexo processes. The white ink enhances Hinojosa's capabilities to create photographic images and vivid colours directly onto brown craft liner. Genuine EFI inks produce accurate high gloss, high fidelity colours with excellent reproduction on solid areas using variable-drop, grayscale piezo print heads.

Recyclability and repulpability

The Nozomi is the only digital press to have its output certified for OCC recyclability and repulpability by the Western Michigan University Recycling, Paper and Coating Pilot Plant – a leading certification organisation for corrugated recycling. These capabilities help Nozomi users and their customers ensure that high volume, single pass direct-to-board digital printing supports the corrugated market's well established sustainability credentials.

Game changer

"The EFI Nozomi C18000 has proven to be a game changer for corrugated packaging companies such as Hinojosa in terms of developing profitable new market applications," José Luis Ramón Moreno, Vice President and General Manager EFI Industrial Printing, explained. "The additional presses and the complete EFI ecosystem around this digital platform are enabling Hinojosa to further extend its market lead as one of Europe's most advanced and most progressive packaging companies."
Hinojosa, which has twelve production plants in Spain, generated a turnover of 353 million euro in 2017. Its international reach is strengthened by being part of Blue Box Partners, a European alliance established by four family run companies that are leaders in the packaging sector in their respective countries and between them employ more than 8,000 people.

Read more -->>

EFI Nozomi at LaPlana

Wherever and whenever the client needs it

Groupo La Plana to install a new EFI Nozomi C18000

By **Ton Rombout**

"Delivering any type of corrugated cardboard container and packaging - wherever and whenever the client needs it" is the objective of Grupo La Plana aimed at consolidating its leading position in the corrugated board market.

The family business group, which was founded in 1973, produces corrugated and solid cardboard containers and packaging using offspring and flexo printing, mainly for the national market. The company has invested more than 25 million euro in its installations and currently produces 2 million boxes per day. The business employs approximately 500 professionals across three production plants in Betxí and Onda (Castellón), and other plants in Cenicero (La Rioja) and Igualada (Barcelona).

Wherever and whenever the client needs it

Groupo La Plana's CEO and Managing Director, Juan Ignacio Piquer, has managed to achieve this objective by introducing the new EFI Nozomi C18000 digital printing technology at the company's factory in Onda (Castellón). Juan Ignacio Piquer explained that the newly installed technology is a natural consequence of Groupo La Plana's aim to offer clients "greater product customization and flexibility to suit consumer trends." Groupo La Plana not only manufactures its own board in line with customer requirements, it can also design, produce and deliver any type of board container and packaging just in time, reducing production costs and packaging stock for any type of industry.

EFI's technology will enable Groupo La Plana to conduct quick tests and create prototypes, as well as customised campaigns using digital technology and industrial printing directly onto corrugated board, thus simplifying the production process and reducing time and costs.

Groupo La Plana's new printing centre, which has been in operation since February, offers the versatility to deliver creative solutions more quickly to the packaging supply chain.

Ongoing investment

Juan Ignacio Piquer pointed out that the company's pioneering spirit and focus on technological innovation has been targeted at consolidating its presence in the Mediterranean Arc, over the past 12 months, and in central and northern Spain.

The business has invested a total of more than 25 million euro in the expansion of its production centres, which will make it possible to increase production by 50% and introduce the latest technology in the sector in its installations. The company generated a turnover of 109 million euro and manufactured an average of 2 million boxes per day in 2018.

Juan Ignacio Piquer: "We also try to provide solutions for new product and service needs. We are always ready to work in close collaboration with our customers. Our Groupo La Plana technicians are hard at work in our packing plants in order to adapt products and improve efficiencies, turning packaging into a marketing tool that offers solutions to the market with new selling points such as the customization."

EFI's Industrial Printing Vice President and General Manager, José Luis Ramón Moreno, stated that he is "keen to undertake this journey" with Grupo La Plana, noting that the latter is a perfect example of real commitment to quality, sustainability and corporate social responsibility. •

LaPlana management.

Note: Other members to join the Nozomi family in Europe include the Delta Group in the UK, and Smurfit Kappa in Spain, Portugal and Morocco, and UDS Sp.z.o.o. in Poland, all in 2018. More to come in 2019.

Printing on glass.

Regular fabrics for textile printing

Are they suitable for digital?

By **Ton Rombout**

We recently had an interesting and frank conversation with Jos Notermans, Sales and Marketing Manager at SPGPrints, analysing the reasons why textile printing companies that using screen printing equipment would invest in digital textile printing. We wanted to find out exactly why they would – perhaps initially only partially – switch from analogue to digital.

In his Notes on the SPGPrint website (www.spgprints.com), Jos Notermans is quite candid in his arguments as to why digital textile printing might perhaps be a turning point for (rotary) screen printers to add digital facilities to their printing equipment. SPGPrints supplies both rotary screen and digital textile printing tools.

Have we been here before?
Topics we talked about included faster speed to market, design flexibility, possible new business models and sustainability, increasingly a key issue for textile printers. Digital textile printing can effectively help printers reduce their carbon footprint and improve their green credentials. With low dye consumption and reduced (95% less) waste material printers can cut costs whilst simultaneously contributing to the environment. Digital textile printing also helps printers reduce water consumption by 60%, power consumption by 55% and cuts back on the use of chemicals.
Overall, choosing a new business model in high end digital textile printing is also much greener than conventional screen printing.

Are the fabrics suitable for digital?
Jos Notermans explained as follows: "Digital textile printing is an inkjet based printing method, which enables printers to print high quality designs on an extensive range of fabrics. Nevertheless, some fabrics are not suitable for this specific printing technique. I will explain which fabrics can or cannot be used in digital textile printing. To fully understand why certain fabrics cannot be used for digital printing, you need to have an insight into the technology behind it."
He continued: "In digital printing, the fabric needs to be pre-treated before passing through the inkjet printer at high speed. A digital textile printing machine uses a printable design from a digital data file, reads the correct colour information and prints the colours onto the fabric.
The fabric is coloured by minuscule ink droplets fired by numerous print heads. They are positioned a few mm above the substrate

More examples of digital textile printing.

(SPGPrints Archer technology works at a distance of 4 mm from the substrate).
In digital textile printing, the many print heads produce high quality designs and enable fast production rates. However, because the print heads are close to the fabric some materials cannot be used for digital printing. For example, fabrics with loose threads can come into contact with, and damage, the print heads."

The right fabrics
Jos Notermans: "The digital textile printing technique can be used for both woven and knitted fabrics. The list below details which materials are suitable for digital printing and which are not":

Cotton
Cotton is a natural fibre which is widely used, particularly in the fashion industry, for clothing because of its high moisture control, comfort and durability. Digital textile printing machines can print on cotton. To achieve optimum quality most digital printers use reactive inks as they deliver the highest wash fastness for prints on cotton.

Viscose
Viscose, another natural fibre widely used in the fashion industry, can also be printed using a digital printer. As is the case with cotton, the best results are achieved with reactive ink.

Wool
Printing on wool with a digital textile printer is possible, but it depends on the type of wool used. When printing on 'hairy' wool – i.e. a type of wool with a lot of loose threads - the print heads have to be positioned as far away from the substrate as possible. Because the diameter of wool yarn is five times that of the nozzle in the print head, it can cause substantial damage to the print head.
It is, therefore, important to choose a digital printer with the facility to position the print heads at a considerable distance from the substrate. SPGPrints Archer technology supports a print head distance of 4 mm, compared with the typical 1.5 mm nozzle-fabric distance offered by other print heads, which enables you to digitally print on any type of wool.

Silk
Silk, another natural fibre suitable for digital textile printing, can be printed with reactive (when high fastness is a priority) or acid (if colour gamut is a priority) inks.

Polyamide Lycra
Polyamide Lycra is mainly used for swimwear. Printing on Polyamide Lycra with a digital printer is possible, but preferably with acid inks as they achieve the highest level of colour brilliance, wash fastness and resistance to salt water and chlorine.

Polyester
Polyester has become an increasingly popular fabric in the fashion industry in recent years. However, the ink most commonly used for printing on polyester, i.e. disperse ink, does not work well when printing with high speed digital printers. A typical problem relates to printer contamination through ink mist.
Printers consequently switched to sublimation printing on paper and recently successfully switched to direct printing on polyester fabric using sublimation inks. The latter require a more expensive printer, with a belt system to retain the fabric, but it saves on paper cost and there's no need for steaming or washing.
Overall, sublimation printing on polyester results in somewhat lower fastness levels than printing with disperse inks, but in the fashion world this is an acceptable compromise in terms of sustainability.

Mixed fabrics
Mixed fabrics - fabrics consisting of two different types of materials - can present a challenge when working with digital printing machines. In digital textile printing only one type of ink can be used. Since each material requires a different type of ink, printers have to use ink that is suitable for the material that makes up most of the fabric. This means that the ink won't adhere to the other material in the fabric, which could result in paler colours.
On the whole, digital textile printers can handle mixed fabrics with a minimum ratio of 70-30%. For example, a mixed fabric consisting of 70% cotton and 30% polyester can be printed with a digital textile printing machine using reactive inks. However, digitally printing fabrics with a 60-40% ratio will limit the colour depth.

SPGPrints: Overview of success stories in digital textile printing

According to Jos Notermans, the latest generation of textile printing machines introduced in 2016 sold well. Unfortunately, 2018 was a volatile year in the textile printing business with a new president in Brazil, political instability in Turkey, trade conflicts between China and the US, a currency devaluation in India – resulting in overall financial volatility.
However, the idea put forward by some analysts that the printing market for high end digital textile printing machines is already saturated is not accurate. The expectations for 2019 are much better.

Jos Notermans: "We already shook hands on a couple of machines this year and are now waiting for the publication of the deals at ITMA Barcelona. Obviously, it also depends on the speed of the transition from analogue to digital working methods and we are not exactly talking about companies making small investments. But it's on the cards – that's for sure."

Producing high quality designs on a large range of fabrics
Digital textile printing will enable you to print on virtually any type of fabric, will improve print quality and accelerate your production rate. That is why more and more conventional printers are making the transition to digital textile printing. Would you like to find out how digital textile printing can help you optimize your printing process and meet increased customer demand for shorter runs, fast turnarounds and high quality designs? •

Examples of digital textile printing.

SPG ExperienceCenter in Boxmeer with the PIKE.

Mimaki's print capabilities across various segments, from sign graphics to textile and apparel.

New product launches aimed at driving profitability

Mimaki at FESPA with largest ever presence

By **Ton Rombout**

Mimaki Europe announced that it will host visitors to the FESPA Global Print Expo 2019 (Munich, Germany – 14-17 May 2019) at its largest ever FESPA booth. The much larger stand reflects not only Mimaki's broad portfolio offering, but also its international growth, market leading position and commitment to customer success.

The company also intends to use this platform to launch new feature rich products to drive customer differentiation and profitability, enabled by some of its key business strengths, i.e. flexibility and R&D expertise.

Four key business areas

The Mimaki booth (stand B6-A30) will encompass four key business areas – Sign Graphics, Industrial Products, Textiles and 3D. In Sign Graphics Mimaki will showcase its flagship UV LED and eco-solvent roll-to-roll printing systems that deliver versatile, reliable and high quality print and cut capabilities for sign graphics applications

The UCJV300 integrated printer-cutter will be present alongside Mimaki's solvent and UV printers.

Sign Graphics

Visitors will find the following printing systems at the booth:

- Mimaki UCJV300-75: A UV integrated printer/cutter, featuring white ink capability. Uniquely enabling four-layer printing, this system is ideal for creating transformative graphics for backlit applications. Also exclusive to Mimaki: five-layer printing that allows different designs to be printed on both sides of a substrate simultaneously, perfect for transparent film applications.
  Being the smallest model of Mimaki's versatile UCJV300 series, it also features Greenguard Gold certified LUS-170 inks.
- Mimaki CJV150-160: An entry level eco-solvent integrated printer/cutter, offering high performance, versatility and richness in colour. Equipped with vibrant ink types including silver, orange and light black, it delivers a cost effective solution for sign makers, display graphics professionals and print shops.
- Mimaki JV300-160: A new eco-solvent/sublimation printer, the JV300-160 sets a new benchmark for professional wide format printers. Offering the unrivalled versatility of multiple ink types (namely, orange and light black), it delivers photo-quality prints at outstanding speeds (up to 105.9m^2 per hour in super-draft mode). Altogether making the JV300-160 the ideal solution for sign and graphics professionals, sportswear and fashion manufacturers, as well as print shops.
- Mimaki UJV55-320: This 3.2m wide LED UV inkjet printer uniquely combines high quality, super wide output with high volume production (up to 110m^2 per hour). White ink, transparent media capability, as well as twin-roll simultaneous printing, are among the features that make the UJV55-320 ideal for producing banners, retail, exhibition and window graphics and similar applications.

Mimaki will also show the 3DUJ-553 full colour 3D printer and talk about future developments in 3D printing.

Automatic Filament Supply means fiddly filament threading is no longer required.

Industrial Products

For the industrial market, Mimaki will showcase three of its flatbed direct-to-shape UV LED digital printers from the UJF Series – the Mimaki UJF-7151plus, the Mimaki UJF-3042 MkII and the Mimaki UJF-6042 MkII.
Offering print sizes from 710mm x 510mm to A3 and A2, and substrates up to 153mm thick, Mimaki's UJF portfolio is specifically designed for the promotional products market. Visitors will be inspired by a wide range of creative promotional products in various materials, demonstrating how advanced digital printing enables value-adding and profit-driving personalisation and versioning capabilities.

Textiles

Central to Mimaki's textile showcase at FESPA is the company's latest dye sublimation printer – the Mimaki TS55-1800. Offering continuous operation and an unprecedented price/quality ratio, this printer addresses the entry and mid-level markets and is designed for users that demand high productivity and high quality print with vibrant colours and vivid imagery. Equipped with Mimaki's core technologies, such as MAPS, NCU and NRS, it prints with the new Sb610 inks that hold the coveted ECO PASSPORT by OEKO-TEX certification, meeting specific sustainability requirements.
The TS55-1800 is suitable for interior fabrics, sports and fashion apparel, flags and tapestries.
A Gold Sponsor of FESPA Global Print Expo, Mimaki will also be a key participant in FESPA's special textile feature 'Print Make Wear'.

3D

Mimaki will 'shape the future in colour' with its advanced colour additive manufacturing technology. The Mimaki 3DUJ-553 is recognised as the first ever polymer 3D printing system enabling more than 10 million different colours. Using CMYK with white and clear inks, it produces photo-realistic products, with rich colour expression including spot colour, shades and gradients, as well as special effects, such as full transparency and semi-transparent colour.
The 3DUJ-553 3D printer will be running live and delivering objects with super fine details and smooth surfaces. Mimaki's 3D printer is ideal for applications such as scaled models, mock-ups and prototyping through to 3D art, figurines, as well as medical and educational tools and equipment.
Mimaki is also launching a new desktop 3DFF-222 printer, a product co-branded with Sindoh, a manufacturer of 3D printers and multi-function printers based in South Korea. The Fused Filament Fabrication (FFF) solution has been developed as an in-house design and production tool, ideal for parts such as jigs used in direct-to-shape printing and tools for producing three-dimensional signage. Commercially available from the end of April 2019, the 3DFF-222 system prints in PLA material. Using easy to load filament cartridges, it prints parts up to 210mm x 200mm x 195mm (W x D x H) and offers remote monitoring of each print job through a Mimaki app.

The Mimaki 3DFF-222 3D printer has been designed as an in-house design and production tool.

Key features of the 3DFF-222 3D printer include:

- PLA (Poly-Lactic Acid) filament – a hard, robust material that is a plant derived eco-plastic made from corn and potato starch;
- Automatic Filament Supply – filament installation is simplified, comprising insertion of a reeled filament in the dedicated cartridge and setting it to the main unit, the filament is supplied to the nozzle automatically;
- Auto Filament Cutting – is also possible once the print job is completed;
- A flexible metal bed, with built-in thermostatic function, enables both stable formation and easy removal of the model once it is ready;
- Bed Levelling Assist – automatic measuring and correction of horizontal errors on the table also support stable formation;
- HEPA (High Efficiency Particulate Air) filter – prevents the discharge of foul air;
- Motor drivers were specifically designed to reduce noise levels during operation;
- A camera and LED light are provided for remote monitoring with a smartphone or tablet. •

www.mimakieurope.com

Think Global – Print Online

The year online printing took a nosedive?

Text **Sonja Angerer** / Pictures **www.online-print-symposium.de**

Listening…

When Bernd Zipper presented his annual industry analysis, you could have heard the proverbial pin drop at the Online Print Symposium seminar. This year's news was perhaps not as uplifting as the news in previous years: only 2.2% growth in turnover year on year for GSA online printing B2B operations seems rather low for this particular industry.

And Bernd Zipper didn't stop there: the acknowledged print lover, whose consulting company Zipcon is known for its regular mystery shopping operations, highlighted "serious quality and customer care problems across the board in the online printing industry."

That hit home

This obviously had an effect on quite a few of the almost 300 delegates. Co-hosted by Bundesverband Druck und Medien e.V. (bvdm), the umbrella organization of the German printing industry, and Zipcon Consulting, the high profile executive meeting of the global online printing industry had returned to the Infinity Hotel & Conference Resort in Munich for the 7th Online Print Symposium (OPS2019) on the 3rd and 4th April 2019. This year´s motto was „Think Global – Print Online".

Partner exhibition

Two years ago when the hotel, which is based in Unterschleißheim near Munich and is a well-known hideout for FC Bayern München before home matches, underwent a major refit, the Online Print Symposium temporarily moved to the Munich Airport Hilton. Back in Unterschleißheim, the conference coincided with a desktop partner exhibition featuring Sappi, RISSC, CTRL-S, Cloud Lab, Huber Group, Agfa, Koenig & Bauer, OneVision, Atécé, Durst and Kodak, giving delegates the opportunity for a visit during networking breaks. Individual partners were promoted in funny and quite elaborate 'elevator pitch' videos between presentations.

Bernd Zipper.

Robert Keane, the CEO of Cimpress.

Chaos Flo is an Austrian Youtuber with a business partner who prints his Merchandise with Epson T-Shirt printers. And of course, they sell it online.

Dr. Holger Schmidt, Schmid Druck + Medien GmbH

Double digit growth is history now

Bernd Zipper, who estimates the overall 2018 turnover of the GSA region´s 'Big 5' - Cewe, Flyeralarm, Wir machen Druck (Cimpress), DieDruckerei (Onlineprinters) and United Print – to be around 1.5 billion euro, also had some good news. GSA consumer based online printing operations increased by an average of 8.3% over the past year. However, it appears that the double-digit growth figures the industry came to rely on over the past few years are history for the time being. With margins continuing to fall and a fiercely competitive environment they are not very likely to return anytime soon.

Bernd Zipper was not alone on his analysis. "The entire web-to-print industry is seeing slower growth and we have entered a fiercely competitive phase that will eventually separate the long term winners from everyone else," Robert Keane, the CEO of Cimpress, commented. He opened day one of the conference with a keynote speech highlighting the need to embrace artificial intelligence (AI) and machine learning in order to make online printing operations more efficient and customer oriented. The costs associated with the programming needed to implement this major change in the printing industry will require some serious spending power, he also admitted.

Cimpress

Cimpress, a leading market player and corporate umbrella to a host of well known online printing operations such as Vistaprint, Pixartprinting, Wir machen Druck etc., recently took a serious hit in its market capitalisation following a disappointing holiday season. It was hard to ignore the shock waves this had sent through the entire community at this year's Online Print symposium. In his "Developments and Trends in D/A/CH Onlineprint2019" analysis Bernd Zipper urged smaller printing houses to focus more specifically on niche markets. The schedule of the OP2019 presentations clearly reflected these developments, as the business models that were presented were more diverse than ever, ranging from commercial printing to mailings and promotional gifts, with very different revenue streams.

Some niche markets are more niche than others: PIX

One of the niche businesses presented at OPS 2019 was - technically – not a niche at all, as PIX offers a very wide range of commercial printing and packaging products. The country in which it operates is quite small, but has a very high online penetration: approximately 90% of hotel and flight bookings in Israel are made online. However, apart from a few digital printers dabbling in online printing in the Tel Aviv area, there literally was no online printing category before PIX was established! To make things even more exotic, the eleven strong PIX founding team mainly consists of members of the Beeri Kibbuz. Today this 1950s utopian community quite successfully delivers print mailing and data management services to local finance, telecommunications and insurance companies. About half of the 300 employees are Kibbuz members, which means that they are also co-owners. Beeri print is Israel's largest data printer. However, with this kind of application clearly on the decline, the company decided to ask Zipcon to help them build a "one stop shop" for both business and private online printing customers. The Magento / CloudLab based solution took two and a half years of in-house development to materialize. With no real competitors in the country, PIX now finds itself in a very favourable situation, although the opportunity for growth outside the home country appears to be somewhat limited for political reasons.

Schmid Druck + Medien

Schmid Druck + Medien GmbH, which has been part of the Elanders Group since 2015, on the other hand, is not short of international business customers. Renowned for its innovative, elaborate packaging and mailing products, the company recently witnessed a serious decline in run-length, as resellers ditched their products because margins fell to an unsatisfying level. As most Schmid Druck + Medien products are labour intensive in terms of creativity, finishing time and effort, the company was looking for an opportunity to automate and digitalize its production and administration. This is where Sappi's start-up OctoBoost, a unique combination of web shop and print efficiency tools, provided a solution. Because the web shops incorporate 3D visualisation tools, they also make it much easier for customers to handle the complicated layouts associated with many of their products – something that generated quite a few problems and the occasional cancelled project in the past.

Geiger Notes

Yet another business model was presented by Jürgen Geiger, CEO of Geiger Notes. The curated promotional gifts platform Mypromo will be launched in 2019. The umbrella platform with white label shops for distributors, manufacturers and vendors, is designed to digitalize a market now worth almost 4.5 billion in GSA alone. Previously it had mainly been analogue. The cloud solution will be supported by modest revenue shares from shops.

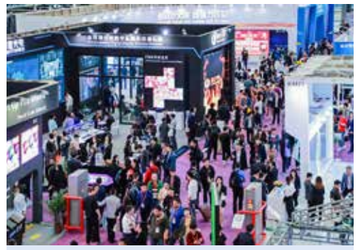
Online printing is no longer just one single market

OPS2019 clearly highlighted two important trends. Perhaps the party is indeed over for the online printing business, even though many industries would consider themselves lucky to achieve online printers' most recent growth rates. Secondly, more than ever a unique idea or customer approach will be a key success factor for both mainstream and niche operations. Remember, the best party venues are always found in some hidden basement rather than on a luxury rooftop … •

LED & SIGN CHINA 2019 hit a home run at the 1st edition in Shenzhen

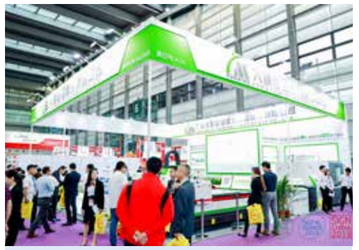
Next Shanghai show 18-20 September 2019 even bigger?

By **Ton Rombout**



Sign Exhibition in China.

All about printing and finishing.



All about signage, analogue and digital also.

With the best possible review on SIGN CHINA 2019 in Shenzhen and Digital Signage 2019, Shenzhen successfully concluded on the 23rd February at the Shenzhen Convention & Exhibition Center, presenting the entire industry chain of sign, LED and digital signage to visitors from home and abroad. 551 companies and brands (to name but a few: Liantronics, Leyard, Ledman, Rishang, Cosun, Yueming) exhibiting at the 3 day shows welcomed 24,039 professional buyers from 104 countries & regions.

And remember to stay tuned for the upcoming editions of SIGN CHINA, LED CHINA and DIGITAL SIGNAGE.
SIGN CHINA (www.SignChinaShow.com) is known as the 'Oscar' event series of the global advertising and sign industry.
LED CHINA (www.LEDChina.com), the global initiator of the international LED exhibition, is considered the world's preeminent LED exhibition series.
DIGITAL SIGNAGE (www.DSCexpo.com) is Asia's leading trade show series for the digital signage industry.

Important recognition from exhibitors
Exhibitors judged the recent Shenzhen shows as extremely useful and successful:
"The shows were truly impressive. It was the first time our company exhibited at the UBM Trust shows in Shenzhen, but it blew our minds and attracted a large number of visitors from across the world. Obviously we will participate again in future shows," stated Jonathan Liu, Vice President of the International Division, Shenzhen Leyard Opto-Electronic Co., Ltd.
A second review was also highly appreciative: "Our business with UBM Trust dates back more than 10 years. I think UBM Trust always attracts high calibre visitors to its exhibitions. I was very happy with the calibre and quantity of buyers at the exhibitions. Even though it was the first time it was held here in Shenzhen," Kelvin Zhuo, Managing Director, Gd Han's Yueming Laser Group Co., Ltd commented.

High calibre visitors from extended application fields
Many visitors from outside China attended the shows in Shenzhen, with 3,071 of them (almost 13% of the total visitor number) originating from countries and regions across the globe. Listed in the top 20 were Hong Kong, India, Japan, Taiwan, Korea, Thailand, Malaysia, Russia, Singapore, Indonesia, the United States, the Philippines, Australia, Brazil, Vietnam, Macao, Spain, the United Kingdom, Egypt and Israel.
The shows were attended by professional buyers not only from the LED & advertising sectors, but from other segmented application fields such as stage lighting, landscape illumination, transportation, systems integration, retail, security surveillance, hotel & property management.
Additional education opportunities
The success of the 2019 Future Sign Academy (FSA) Spring Summit was another highlight of the shows. It brought together nearly 2,500 professionals intent on sharing ideas on the following 7 themes:
- Futuresource LED Conference – Beyond Disruption
- Hangjia Point - 2019 Mini RGB LED Display Commercial Forum
- China LED Display segment market summit
- Digital Signage Industry Development Summit
- FSA Training Course: Management
- New Opportunities for the Signage Industry Forum and
- Innovation Theatre,

thus providing an ideal opportunity for face-to-face communication and the promotion of professional levels to the end users, advertising agencies, systems integrators, designers, professional buyers and media wanting to keep pace with the latest industry trends.

Informa PLC and UBM Trust
UBM Trust, a joint venture of UBM Asia (owned by the UK listed UBM PLC) and Trust Exhibition since 2010, is now affiliated with Informa PLC, a leading B2B information services group and the largest B2B event organizer in the world. It organises more than 500 leading exhibitions across the globe.

SIGN CHINA, LED CHINA and DIGITAL SIGNAGE Shanghai
Shanghai: 18-20 September 2019 | Shanghai New International Expo Centre
Next **Shenzhen exhibition:** 24-26 February 2020 | Shenzhen Convention & Exhibition Center. •

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