ISSUE 1
2014

GLOBAL TECHNOLOGY IN FOCUS

DIGITAL SCREEN AND PAD PRINTING

SPECIALIST printing worldwide

chromaline®
SCREEN PRINT PRODUCTS

ALPHA™ Micro-Line Emulsions: the world's *finest* product line–literally

REDEFINING *DEFINITION*

Last year's introduction of Alpha Micro-Line Emulsions was enthusiastically embraced by printers everywhere working in high-production, tight-tolerance environments where print quality is the greatest production concern. With an ability to cleanly and consistently resolve lines down to 20 micron, Alpha is allowing printers to accomplish what has been, until now, impractical.

Those working in the printed electronics industry value the ability to resolve lines down to 20 micron features and Alpha's micro-particle formulation, which results in the greatest-possible stencil edge definition and smoothest walls allowing optimal electrical conductivity.

Compare Alpha E-20 Micro-Line Emulsion, side by side, with any seemingly competitive product and redefine, for yourself, *definition*.

CHROMALINE.COM/ALPHA

SUBSCRIPTIONS: The only way to receive the next 4 issues (covering 12 months) is to have an annual subscription for €55, $80 or £45. Please contact subs@specialistprinting.com or subscribe online at www.specialistprinting.com

Specialist Printing Worldwide (ISSN No: 2044-2319) is published quarterly by Chameleon Business Media Ltd, GBR and is distributed in the USA by Asendia USA, 17B South Middlesex Avenue, Monroe NJ 08831 and additional mailing offices. Periodicals postage paid at New Brunswick NJ. POSTMASTER: send address changes to Specialist Printing Worldwide, 17B South Middlesex Avenue, Monroe NJ 08831.

MESSAGE FROM BRYAN COLLINGS

Specialist Printing Worldwide was pleased to publish articles last year that attempted to define the term 'industrial print'. From talking to members of ESMA, one of our sponsors, I know it's still a hot topic, and there will be no better place to find out about the latest print technology for use in industrial manufacturing than at InPrint 2014.

Specialist Printing Worldwide is the official international journal and media partner of InPrint, as well as exclusive publisher of the official InPrint 2014 Show Guide that is located between pages 26 and 27 in this issue. We wish the inaugural InPrint show running from 8 - 10 April in Germany the best of success and look forward to meeting our readers and advertisers there.

The glass market is certainly deemed to be an important sector in industrial printing, and on page 48 you can find a review of the highly successful GlassPrint 2013 conference that we staged with ESMA last year.

Complementing our coverage of the latest innovations in industrial printing, all users of screen and wide format digital printing systems can also benefit from our usual blend of editorial content in the following pages that cover the graphic and textile sectors as well.

With FESPA Digital 2014 to follow in May (see page 46) as well as label, sign, textile and graphic events due to take place in the first half of 2014, there are high hopes in general of fertile environments for new and expanded business opportunities.

Coupled with the educational know-how available at these events, you can keep up-to-date with the latest technical information by subscribing to this magazine for the next year for a total of only €55 / $80 / £45. Credit card bookings are accepted at www.specialistprinting.com or by contacting subs@specialistprinting.com

If you're a manufacturer of machinery, equipment, software or consumables that could benefit from reaching your regional and international customers through this magazine, you can also request 2014 media information at our website. Current advertisers consistently tell us about high levels of response, so why not give us a try?

Bryan Collings,
Publishing Director,
Specialist Printing Worldwide

ON THE SUBJECT OF INDUSTRIAL PRINT ...

Whether it's the mood in general, the follow-through from last year's IMI conference in Lisbon or the fact that the inaugural InPrint show is closer than just being an event on the horizon, the topic of industrial print has become ever more popular. One aspect that's put me into a particularly good mood is the fact that the screen-printing industry seems almost to be having a resurgence in popularity as functional processes and applications increasingly come to the fore.

Screen-printing in the industrial sector never went away, of course. The process has always been there, beavering away in the background without making a fuss, and being something of an assumed function in the generation of a whole range of goods and products rarely trumpeted in public. No-one has really needed to bring this methodology to the attention of the masses because, in true industrial circles, the print element is just one part of a manufacturing line. Additionally, most end-users just want their final products to do what they're supposed to do, regardless of process, so the question of analogue or digital probably doesn't occur as one to be asked.

In general, we've tended to concentrate on graphic and textile areas for screen and digital comparisons which, in the overall scheme of things, are probably easier to comprehend and more attractive to look at. However, the wide-spread use of the screen process in industrial print can also help to sever the unfortunate misuse of this description which certain among those in the digital world seem to ally with high-speed and fast throughput in graphic arts' circles. But, as I know I've said before, the functional nature of this type of production has nothing to do with typical commercial environments and everything to do with the marking of products.

NOT AN INCHOATE PROCESS

Some might follow the maxim that sophisticated and functional product marking is something of an inchoate process in the industrial sector, but nothing could be further from the truth. The growing awareness of this segment has been elevated because of developments in digital technology but the real fact is that it has been screen-printing's domain for generations, thanks to its flexibility and, often, forgiving nature of the process.

I was particularly interested to read Robin McMillan's blog on the InPrint website recently where he comments that never before has screen-printing been used in so many industrial applications. McMillan is the Marketing Manager for Industrial Inks at Sun Chemical so, if anyone knows about this side of the market, it is him. He champions the screen process but not to the detriment of digital alternatives and his view on hybrid processes is music to my ears.

WORKING TOGETHER

I am aware that I have rambled at length that we shouldn't be trying to dichotomise screen and digital processes. In practical terms, both should be able to work together to produce the most suitable results across a range of applications, so it is gratifying to find others that concur publicly with this principle. As such, there should be no singling out of technique when considering production options as there can be opportunities for both.

In a world where now there is such heavy emphasis on digital technology, we shouldn't blame people for tending to forget the importance of screen-printing across a whole range of applications and throughout many different industry sectors. The fact is that, pretty much on a universal basis, no-one has been very good at promoting the process recently. Thus it is through no fault of its own that it is failing to hit the head-lines in latter-day innovative applications. Unlike a methodology which is associated with computerisation that most people recognise as being part and parcel of daily life, outlining analogue capabilities isn't always perceived as being very sexy. This is a shame.

The forthcoming InPrint Show should provide a strong opportunity to sit analogue next to digital so that attendees can see for themselves the relevance of the screen process in functional and industrial applications. These people, and others, can then observe that our world is always going to involve an amalgam of methodology in order to provide printed products across the board, including offset, flexo, screen, pad, digital and, even, gravure and letterpress.

Product marking must be effective, regardless of printing process

Sophie Matthews-Paul is an independent analyst and editorial consultant to Specialist Printing Worldwide

The PERFECT SCREEN offers a number of advantages:
Enhanced printing quality, more output and lower costs!

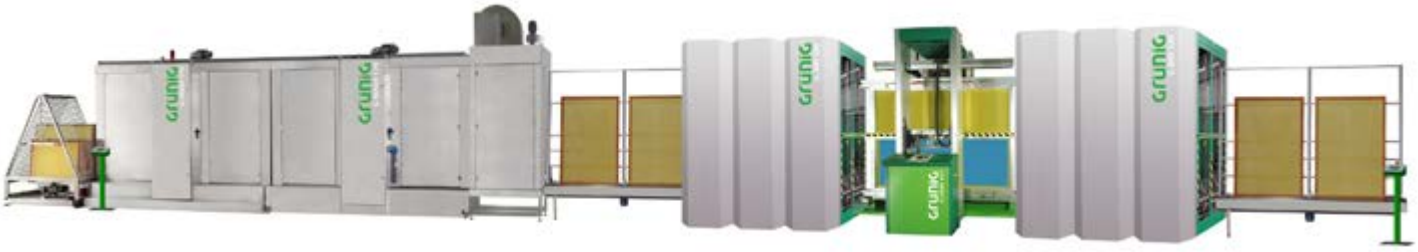
InPrint 2014, 8-10 April, Booth A26

GRÜNIG

Grünig-Interscreen AG
Ringgenmatt 14
CH-3150 Schwarzenburg
Switzerland

Phone +41 31 734 2600
Fax +41 31 734 2601
www.grunig.ch
mail@grunig.ch

IN-LINE



SignTronic® AG

InPrint 2014, 8-10 April, Booth A26

®

DIGITAL SCREEN MAKING

New technology for perfect screens:

- Better printing results
- Higher printing output
- Lower operating costs

SignTronic AG - Böschachstrasse 117 - CH-9443 Widnau - http://www.signtronic.com - Tel.: + 41 71 727 19 00
SignTronic Inc. - 8260 Arthur ST NE, Ste B - Spring Lake Park - MN 55432 - USA - Phone: +1 678 938 6517

Chameleon
Business Media Ltd
Changing to meet your industry's needs

Specialist Printing Worldwide (ISSN 2044-2319)
is published by: Chameleon Business Media Ltd,
1 Cantelupe Mews, Cantelupe Road
East Grinstead, West Sussex RH19 3BG, UK
Fax: +44 (0)1342 322664 www.specialistprinting.com

PUBLISHING DIRECTOR:
Bryan Collings
bryancollings@specialistprinting.com

EDITORIAL CONSULTANT:
Sophie Matthews-Paul
Tel +44 (0)1544 340057
sophie@specialistprinting.com

DESIGNER:
Alison Smith for
Blue Daze Design Ltd
copy@specialistprinting.com

SALES MANAGER:
Carol Gibbons
Tel: +44 (0)1425 617429
carolgibbons@specialistprinting.com

PUBLISHER:
Frazer Campbell
Tel: +44 (0)1342 322278
frazercampbell@specialistprinting.com

PUBLISHER:
Debbie Drewery
Tel: +44 (0)1342 322392
debbiedrewery@specialistprinting.com

PUBLISHER:
Dave Fordham
Tel: +44 (0)1342 315032
davefordham@specialistprinting.com

**ADMINISTRATION/
SUBSCRIPTIONS MANAGER:**
Sam Dunmore
Tel: +44 (0)1342 322133
samdunmore@specialistprinting.com

GERMAN AGENT:
August-Wilhelm Rust
Internationale Medienvertretungen
Tel: +49 6127 660325
Fax: +49 6127 965 9734
a-wrust@specialistprinting.com

CONTENT PARTNERSHIP:
OUTPUT
www.outputmagazine.com

Royal Mail
Periodicals Code for
Presstream Y4778

Roz McGuinnes with Neil Felton (centre) and Sean Holt

Expanded leadership team for Fespa

Fespa is expanding its leadership team, with the addition of two experienced senior executives. Neil Felton now assumes the role of CEO, making him responsible for the overall direction of all the organisation's activities, including the global exhibitions and events portfolio, interaction with Fespa's 37 national associations, and direction of Fespa's Profit for Purpose mission.

Felton retains specific accountability for the strategic direction of Fespa's developing markets and its online and new media portfolio. The developing market events include the established exhibitions in Mexico, Brazil and Eurasia, as well as Fespa Africa which launches in Johannesburg, South Africa, in July 2014.

Roz McGuinness joins Fespa as Divisional Director, taking full responsibility for Fespa's European exhibitions. Her portfolio will also include Fespa's Asian events. She will oversee all aspects of these events, including sales, marketing and operations, working with an eight-strong team.

McGuinness is an exhibitions' management professional with more than 17 years' experience, including four years as Group Exhibitions Manager for printing industry research and consultancy body Pira International. More recently, she worked for nine years at i2i Events, where she steered the sustained growth of the Autumn Fair and Spring Fair.

Fespa has also appointed Sean Holt to the position of General Secretary, to co-ordinate Fespa's support for its national associations, including the organisation of educational, knowledge-sharing and networking initiatives funded through the Profit for Purpose programme. He will foster deeper relationships with Fespa's community of member associations, supporting them to expand and develop their services to members, and devising new initiatives with Fespa's financial and practical support. ■

Beltron introduces new drying technologies

Last November, more than 38,000 people visited the 20th Productronica, the international exhibition for the production of electro equipment. For Beltron this event was successful for its UV and thermic drying devices, with the company being available for world-wide customers, together with business partners AHK Service & Solutions GmbH and Elget Ingenieurbüro.

As well as its well-established UV and thermic systems, Beltron presented its new BE15 model, which features a 15cm width and an integrated transport line. It incorporates semi-conductor LED curing lamps which the manufacturer says offers high performance and reliability.

Also introduced was a new series control, which is now fitted to all of Beltron's UV dryers. Users can call up actual process values by using a mobile phone or table app, which also allows digital signals to be switched as well as changing analogue values. ■

The new BE15 UV LED dryer from Beltron

DOUTHITT

CONVENTIONAL OR CTS - DOUTHITT HAS THE OPTIMAL SOLUTION!

Douthitt now sells CST, Germany Equipment

The World's Best Metal Halide Lamps

Model CTS Digital Screen Imager

No film required - just print the image directly on the screen and expose. Print head technology with solid ink enables better image detail, density, and consistency in a fast robust system. Call us to see if CTS is right for you.

Model Sahara Screen Dryer

- Uniform Air and Heat to Insure Fast and Complete Drying of Screens
- Digital Temperature Control
- Any Size Available

Model DMAX

Model DMZ

Douthitt's self contained screen exposure systems provide the best vacuum contact and the best registration. Combined with our focused reflector metal halide printing lamps, our units offer the sharpest resolution, best unifomity, shorter exposures and completely hardened emulsion.

Olec Olite & Theimer Violux Lamps & Parts in Stock!

Contact us for more information on Douthitt's complete line of Exposure Units, Vacuum Frames, CTS Imagers, Dryers, Inspection Tables, High Wattage UV Printing Lamps, Integrators and Blankets for any vacuum frame. Visit us at www.douthittcorp.com

SGIA

Once you've seen it you'll never be satisfied until you own it

THE DOUTHITT CORPORATION

Call Toll Free 1-800-DOUTHIT(T) • www.douthittcorp.com
Phone 313-259-1565 Fax 313-259-6806 E-Mail em@douthittcorp.com

Ultraflex now distributes G-Floor

Ultraflex appointed master distributor of G-Floor Graphic Products

Ultraflex Systems has been appointed the exclusive master distributor for G-Floor Graphic Products in North America. "As G-Floor Graphic Products gained momentum in the wide and grand-format print marketplace, we felt that Ultraflex was a natural fit to better serve that market," explains Bill Rothe, VP of Sales at Better Life Technology. "With their reputable brand, strategic marketing initiatives, knowledgeable sales force and second-to-none warehousing facilities across the country, I am confident that Ultraflex will improve upon servicing the G-Floor Graphic Product client with more regional stocking locations, better delivery times and superior service."

According to Ultraflex's Vice President of Sales, Neil Baker: "We believe that the G-Floor product line represents another great opportunity for digital printers to expand their product offerings and increase their profitability. By utilising Ultraflex's extensive distribution network, focusing on our commitment to stocking inventory, and furthering the development of our sales and marketing tools, we believe that our partners will be able to successfully participate in the $10billion dollar flooring market."

Available in a range of textures and thicknesses, G-Floor is a commercial grade vinyl flooring product that is customisable with solvent-based and UV-curable digital and screen-printing. It allows users to print directly on the product via second surface printing (preferred for most G-Floor products) or first surface printing. Second surface printing to G-Floor allows for much greater durability and versatility than traditional first surface printed floor graphics. Applications include retail and point-of-purchase, sports' arenas, theatres, trade shows, bars and restaurants, temporary floor graphics or mats plus bar and countertop mats and graphics, bank countertops, chair mats and mouse pads. ■

Sunwest makes it Natgraph dryer number six

Working with some of the largest and most successful OEMs in the world for the past 35 years, Canadian company Sunwest, has once again renewed its close association with Natgraph by placing an order for its sixth Natgraph Freestanding UV dryer since 2009.

Sunwest produces high performance, pressure-sensitive decals, with a speciality in the motorcycle world. The company was among the pioneers in UV screen-printing technology, and has continued on its path of innovation by constantly developing new products and processes.

The latest addition to Sunwest's Natgraph collection was bought through Natgraph's North American distributor, Sakurai USA, at SGIA Expo in Orlando Florida.

Commenting on the relationship with Natgraph, Sunwest's Subhas Chandar says: "Since 2009 when we bought our first Natgraph dryer we have benefited from consistent performance and lower operating costs, as well as enjoying 100% reliability with outstanding process control. You don't buy six units unless you are totally satisfied, which we are." ■

Subhas Chandar of Sunwest with Natgraph's Alan Shaw

GIS system upgrades now support new Kyocera high speed print-heads.

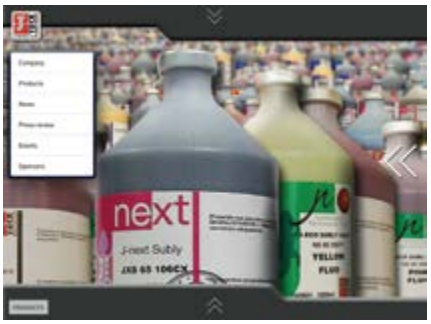
Developer of software drivers, print quality software and electronics for industrial ink-jet print-heads, Global Inkjet Systems (GIS) has announced new Head Interface Boards (HIBs) for the Kyocera 600dpi KJ4A/B print-head range. These new products replace the previous HIB, which only supported Kyocera's first generation of 600dpi print-heads. There are two versions of the new HIB, the first for Kyocera KJ4A 600dpi UV-curable ink print-heads and the second for Kyocera KJ4B 600dpi aqueous-based ink print-heads. The HIBs provide access to all standard print-head settings including temperature control, greyscale drop size mapping, voltage trimming and waveform upload and read back. Almost any print resolution is possible, including native 600 x 600dpi, asymmetric such as 1200 x 600dpi, non-standard asymmetric such as 480 x 600dpi and interlaced such as 1400 x 1200dpi – using multiple print-heads. The HIBs also drive full rate binary and greyscale data and require a single 24V power supply to support the full operating voltage range of the print-heads.

"The new higher frequency print-heads from Kyocera are very data hungry," comments Nick Geddes, CEO of GIS. "This is an increasing trend in the market and these HIBs will be offered to customers in conjunction with our recently launched USB 3.0 Print Manager Board which increases data throughput up to 2,700 Mb/s."

The new Kyocera HIBs are now shipping in volume. GIS is also developing a HIB for the two-colour Kyocera KJ403T 300dpi aqueous-based ink print-head. ■

J-Teck3 introduces iPad app

J-Teck3 has announced its new app for iPad, with a light version for iPhone due to be introduced shortly. This iPad app can be downloaded, free of charge, from Apple's App Store. The new tool is designed to access J-Teck3's portfolio of digital inks dedicated to textile printing. The app allows user to obtain details of technical data sheets and product information as well as to news and events. ■



J-Teck3's iPhone app is free of charge

Screen printing research focus

Dr Wolfgang Seffrin has been named Research and Development Director by KISSEL + WOLF, succeeding Dr Roland Studenroth, who retired last year after more than three decades with the company. A chemist with more than 20 years' industrial experience, Dr Seffrin has previously been head of R&D at the Pirmasens site of HB Fuller, with responsibility for various groups of adhesives, applications and industries. ■


Dr Wolfgang Seffrin.


Dr Roland Studenroth.

New data-driven support proactively monitors Inca printers

Inca Digital has launched Inca Vision, a customer support service unique to Inca Digital flat-bed UV-curable ink-jet printers. It lets Inca remotely and regularly monitor and diagnose a machine and, in many cases, catch issues before customers decide to call for engineer service.

By gathering data from machines globally on a daily basis, Inca engineers can conduct remote diagnostics to determine how well the printers are performing and whether there is need for intervention with engineering support. Dashboards used by the Inca Digital Support Team offer a view of high-level data across all machines throughout the world. A RAG (Red Amber Green) screen allows the Inca Support Team to prioritise printers most urgently in need of attention and the team can also assist distributors and provide back-up data for any serious machine issues in their regions.

Data can be interrogated at a detailed level/machine to help determine causes for any failures. For example, a faulty UV shutter message or high temperature alarm compared with area printed or ink consumption – generally, machine usage – can help detect if a component is failing. Customer scans on iNozzle mapping allow Inca to monitor the condition of print-heads to help the customer maintain quality and to offer suggestions for maintenance procedures. Additionally, the gathering of data on the use of vacuum zones can help to determine most commonly used sheet sizes.

While most printer activity is downloaded on a daily basis, the data - such as machine alarms and machine status changes - can be interrogated in minute intervals. In addition, the First Line support team can work with the customer to log-in to the live data for more detailed analysis. Recent Inca Onsets are built with greater access to machine data, but even older models such as Inca Spyders offer access to sufficient data.

For customers, this means that their Inca printers can be monitored on a daily basis for any signs of future problems. Their support team can offer suggestions to help them maintain their machines in good running condition, based upon their own patterns of use, preventing downtime. If a printer needs on-site attention, data collected by Inca Vision can assist with a quick diagnosis and repair as well as parts' requirements. ■

Agfa Graphics supplies ink-jet inks for digitally printed passports in Belgium

In the first quarter of 2014, Zetes Industries is installing two Bookmaster One Systems at its Brussels personalisation plant to print the variable data needed on Belgian passports. Both systems will use Agfa Graphics's Altamira Pack SUV inks, offering high image quality output and industrial printing reliability.

Agfa Graphics is developing a wide range of UV-curable inks for a variety of applications. The Altamira Pack SUV ink set is specifically designed for printing on paper-based substrates (and cartons) with the highest image quality and crisp text reproduction.

The Bookmaster One is a development by the Dutch company IAI industrial systems BV, a provider of industrial production solutions and a subsidiary of the stock listed company Docdata NV. The Bookmaster One performs the entire personalisation process in one pass using ink-jet, effectively turning blank books into fully personalised value documents. IAI industrial systems certified Agfa Graphics' Altamira Pack SUV ink for use in the Bookmaster One. ■

Agfa Altamira inks are now used for digitally printed Belgian passports

SPS and ATMA teams in front of the first SPS Vitessa SL Stop cylinder

SPS TechnoScreen and ATMA conclude OEM co-operation

After cross-border team-work between SPS TechnoScreen, German, and ATMA Champ, Taiwan the partners have now expanded their co-operation. In addition to the ongoing Spot.Jet project for ink-jet graphic varnishing equipment, an OEM contract has been signed between both companies, covering the manufacture of sheet-fed screen-printing cylinder machinery, known as The Original SPS Stop Cylinder Principle.

The SPS range of Stop cylinders is known for its accuracy, speed and long trouble-free life. With more than 1,000 installations world-wide, SPS cylinder screen-printing machines have been among the leading products in the field for nearly six decades. From the outset, SPS has focused on one-stop solutions for demanding graphic and high-tech industrial screen-printing applications.

The SPS core product will maintain its original German identity with a number of defined, protected core components from Germany, and a team of SPS engineers closely interacting with the design and assembly teams in Taipei. ■

Vastex introduces LED retrofit kit for screen exposure units

Vastex International has introduced LED Light Kits to convert fluorescent screen exposing units to high performance LED exposing units. These kits are easy to install in exposing units of most makes, models and sizes, saving approximately half the cost of new LED options, according to Mark Vasilantone, president.

"Exposing units converted to LED lighting expose screens approximately ten times faster than fluorescent units and hold significantly finer detail with less undercutting regardless of emulsion type, providing performance on par with metal halide exposing units but at far less cost," he explains.

The LED Light Kit also provides bulb life of 50,000 to 100,000 hours, virtually eliminating the need for bulb replacements, while offering low heat emissions and low power consumption. It comes in a wide range of sizes to fit virtually any fluorescent exposing unit housing. For existing table-top exposing units, Vastex also manufactures utility carts and drying cabinets with optional castors that can be used as mobile stands for the exposing units. In addition to light kits, the company offers complete LED exposing units with fully automatic controls in both table-top and floor-standing models. ■

Vastex's LED Light Kit is easy to install

Trotec's Speedy 100 flexx is equipped with CO_2 and fibre laser sources

Trotec introduces the Speedy 100 flexx

The Trotec Speedy 100 flexx laser system with two laser sources is now available as an entry-level model. Designed as a laser platform for entry-level laser users it has a working area of 61 x 30.5cm (24 x 12 inches). The new laser engraver is optimally suited for all standard material sheet sizes.

"The Speedy 100 flexx means maximum flexibility for our customers. Being able to offer more capabilities to our entry-level users will help broaden their product offering, making their company more profitable," explains President, Warren Knipple.

The Speedy flexx series is equipped with both CO_2 and fibre laser sources which allow customers to perform endless applications. The CO_2 laser source is ideally suited for engraving and cutting plastics, wood, rubber, leather and many other materials while the fibre laser is the right tool for marking metals and plastics. Depending on the material, the two laser sources are activated alternately – in a single job, without needing to manually change the laser source, lens, or focus.

The Speedy flexx series includes the Speedy 100 flexx, Speedy 300 flexx, and Speedy 400 flexx. With the flexx function, which is Trotec's patented technology, both laser sources can be activated in one easy step. The laser software JobControl generates time savings and flexibility throughout the day. The laser system is 'ready for flexx', which means that a CO_2 or a fibre laser machine can be upgraded at any time to a Speedy 100 flexx. ■

MURAKAMI

Manufacturer of Innovative Technologies
for Screen Printing Processes and Materials.

JAPAN - USA - CHINA - SINGAPORE - KOREA - TAIWAN - EUROPE

Photo: NASA

MURAKAMI
www.murakami.co.jp
www.murakamiscreen.com

One Company

Serving the Global Screen Printing Market

Photovoltaic • Printed Circuits • Textiles/Garments • Large Format Graphics
Ceramics • Nameplates • POP Displays • Signage • Textiles/Roll to Roll
Bottle Decorating • Posters • Glassware • Automotive Industry
Touch Screen Panels • Membrane Switches • High Density Prints
CTS Emulsions • Screen Making Equipment and Devices

EMULSION CAPILLARY FILM PRECISION STENCILS SCREEN MESH EQUIPMENT

A cut-out application produced on the Kongsberg XP44

Esko supports Allkopi in establishing Norway's largest print production site

When Allkopi decided to establish Norway's largest print production site, it opted for Esko solutions to drive and streamline the entire production line up. Officially opened last November, Allkopi's new 5,500 square m site underlines the company's goal to be Norway's 'first choice' full service print provider for a broad array of applications. Next to printing equipment from industry leading manufacturers, Esko's Automation Engine, WebCenter and an Esko Kongsberg XP44 with i-cut Suite software take a prominent place at the new site which is located near Oslo.

"For our new facilities, we were looking for one versatile solution to drive all equipment and streamline production," comments Lars Dæhli, Product Director at Allkopi. "The Esko products were installed upon opening of the site. We are convinced we'll see the benefits of this investment over time and reach our aim of automating 80% of our daily production. Esko's workflow integration and ability to easily drive other systems creates a solution that covers almost everything – and we are very happy with that. Esko delivers as promised, no one else managed that.

"Esko's solutions are highly dynamic with a lot of options and opportunities. We particularly liked the fact they support different production processes with regards to the use of different hot folder structures in existing RIP solutions," Dæhli continues. "We required a solution that is scalable, integrates with Navision, is JDF/JMF compatible and supports different cutting units and barcoding – with Esko we got all of that."

Regarding the Kongsberg XP44 with i-Cut suite, Dæhli comments: "There was a real need to streamline the cutting of all types of soft materials such as flags and banners. We had the same challenge for hard materials, especially when producing several images on the same sheet and cutting it after printing. So clearly, a new digital cutting table was on top of our wish list. Several competitive options were considered, taking into account we only wanted a Nordic supplier. The speed, robustness, power and integrated software of the Kongsberg made our choice easy. Positive references of other happy users were an important deciding factor." ■

Ikonics and CADLink announce FilmMaker 4-Chromaline Edition

Duluth-based Ikonics Corporation has announced the joint launch, between its Chromaline Screen Print Products division and Ottawa-based CADLink Technology Corporation, of FilmMaker 4-Chromaline Edition. The two companies have introduced the RIP software engineered to optimise the production of film positives for use in a variety of screen-printing applications.

FilmMaker 4-Chromaline Edition allows screen-printers to maximise the quality and versatility of ink-jet printing technology, cost-effectively improving their production, which translates to better profit margins and improved end product.

Ken Hegman, Vice President of North American Sales at Chromaline, has characterised the joint launch as a natural fit. "We have excellent distribution throughout the screen-printing industry," he states. "And the Chromaline brand represents the premium in terms of product quality and consultative service. Adding a Chromaline version of FilmMaker, leveraging CADlink's premium brand, is an excellent opportunity for both companies."

Mike Chramtchenko, Director of Marketing at CADlink, adds: "The artwork step of the screen-printing process is often the most problematic in many production operations. Printers utilising FilmMaker 4-Chromaline Edition will realise a competitive advantage, both in terms of print-run quality and time savings. We're delighted to be partnered with Chromaline in this enterprise." ■

Barbara Schulz is the new CEO of Durst Phototechnik Digital Technology

Barbara Schulz becomes CEO of Durst Digital Technology

Barbara Schulz has been appointed onto the Executive Board of Durst as the successor to Klaus Schneider, who died in a fatal accident in the spring of 2013. Schulz moves to the Durst Group from thermal process technology leader, Ipsen, where her most recent post was as CEO of South East Asia and India subsidiaries. Her professional background had previously taken her to Germany, where Schulz held various management roles at ESK Ceramics. As Vice President she was responsible, amongst other roles, for sales and marketing, as well as business and product development.

"I am absolutely delighted to have the opportunity to take on probably the most demanding management position in my home state, that of Chief Executive Officer of Durst Digital Technology. The opportunity to lead one of the most innovative, global companies in Austria and to implement its strategy of continuous profitable growth is one which rarely comes along," says Schulz. "Durst's plans regarding its long term strategy are as exciting as they are challenging. At the same time, I am inspired by the great commitment which the company has to this region."

"We are very much looking forward to working with Mrs Schulz. Her many years of experience in international management in all the markets which are important to the Durst Group, combined with the fact that East Tirol is her home region, mean that Schulz is an exceptionally good fit with us, internationally successful yet based on strong Tyrolean roots," said the Chairman of the Administrative Board and founder of Durst Lienz, Dr Richard Piock.

Durst Phototechnik Digital Technology is a 100% subsidiary of Durst Phototechnik, Brixen, which has been producing ink-jet printers for graphic and industrial applications since 1999. With approximately 150 employees, it achieves sales figures of around €35million, of which 98% are for export markets. A new 5,000 square m production workshop is currently being completed, in which a subsidiary company will produce industrial décor and surface systems. ■

The Dutch approach of Hollanders Printing Systems

get a good grip on performance

Hollanders Printing Systems is widely known for its high quality textile print equipment. Skillfully built for seamless production, to accomplish the best results in print and profit. Investing in a Hollanders solution means getting relayed full value of experience, dedicated research, top-notch engineering and latest technology required for excellent performance.

lower your impact on the environment
produce textile print without compromise
yield higher margins and grow profitable business

sales@hollanders-ps.nl | +31(0)407110711 | www.hollanders-ps.nl

Hollanders masters on textile

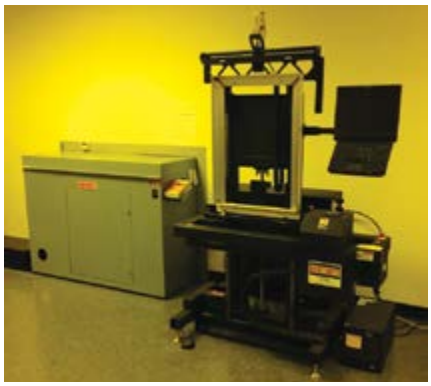
THE CHOICE BETWEEN INK AND WAX

Mark Diehl discusses the differences in computer-to-screen systems

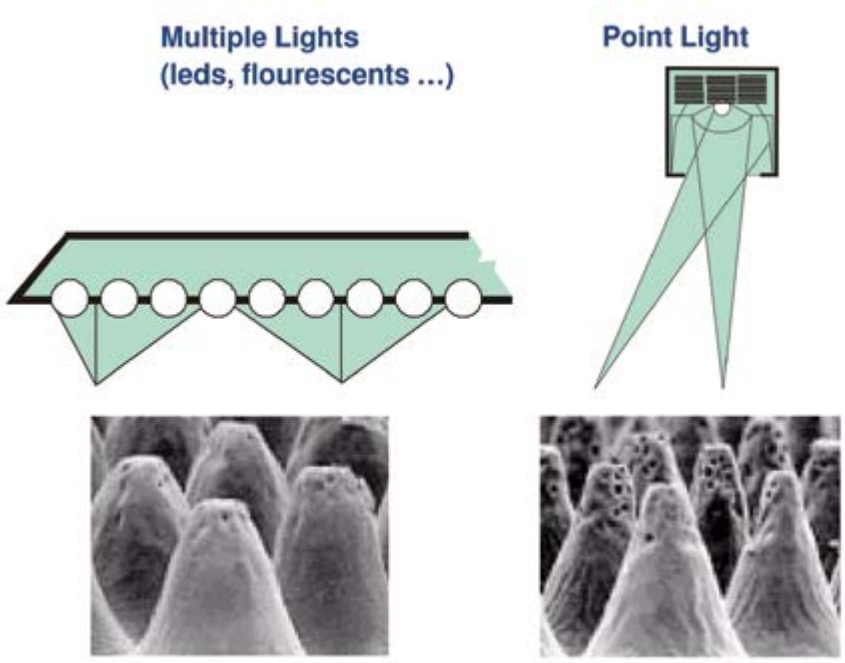
More and more screen-printers are asking what is the best way to image screens for their specific production needs. For textile printers there are two basic options that must be considered. Should they use film positives or should they use computer-to-screen (CtS)? And, if they use CtS, should they use ink-jet or wax jet CtS? Graphic and industrial printers are looking at a third option as well – CtS with direct UV lighting. The scope of this article will be for the textile printer; we will leave the graphic/ industrial printer discussion for another day.

When CTS first came out for textile printers, a lot of printers (and manufacturers) thought the main cost justification for switching from film positives to CtS was the savings of the film. Though this is a nice bonus, there is a host of other advantages that make even small and mid-sized shops realise that the switch is much more about quality improvements and work-flow (labour) savings than film savings. We have customers with just two automatics that tell us that purchasing their Douthitt CtS Wax Jet Imager was the single best investment they have ever made.

CtS systems offer a number of advantages over film. The artwork is going directly to the screen output device rather than a film output device. This allows for first generation imaging of the screen and eliminates a number of potential quality pitfalls. Jobs are saved and stored electronically rather than in a physical file cabinet (or not at all) so that, if a job or a screen needs to be re-imaged, finding the artwork is very easy and quick. Further, a single screen can be re-imaged with confidence that the image will be the same as the first. If a film needs to be remade and a screen re-imaged, frequently all the screens need to be re-imaged for good registration to take place.



Novac installation with its pass-through design for two or more CtS units



Comparison between multiple bank lights (fluorescents or LEDs) and point light

REDUCING PRESS SET-UP TIMES

A good CtS system will match the registration system on the press so press set-up time drops dramatically. Since many screen-printers are doing shorter run lengths, this advantage is huge. One wax jet user quit using registration marks since, even on eight plus colour jobs, they only do micron adjustments. Saving press set-up time is a huge advantage.

With CTS you also eliminate the need for vacuum contact and the frame glass. This saves 100% of the vacuum draw-down time and approximately 40% of the exposure time. This also eliminates the potential for out-of-contact areas on your screen. When you have an out-of-contact area the image will not print clearly but will appear blurry on your print. The elimination of the vacuum frame will also eliminate most of the reasons for pinholes in your emulsion after developing. Pin hole touch up time will become nearly zero.

One important note, a good light source is still essential to avoid under-cutting of the image due to the emulsion thickness on the screen. Multiple bank systems will not produce the same quality as a good quality point light source with a focused reflector. One common installation at the time of a CtS installation is a no-vacuum exposure system. The unit pictured here is installed through the wall dividing the imaging area and the developing area. This means handling the screen once after imaging and then the wash-out area has the screen – simple but efficient.

INK OR WAX

Once a printer decides to go CtS there is another major decision to make. CtS imaging devices are either ink based or wax based. Wax offers a number of quality advantages to the printer.

The wax does not splatter like the ink; therefore, it gives a sharper image for either line work or half-tones. Also, the wax does not spread after imaging so exposure can be done

The Douthitt heavy duty wax jet CTS-52 unit

The AL53 is shown with its focused reflector for higher collimation over flood reflectors and multiple bank of light systems

right after or the next day. Printers producing small type, fine line or high LPI (lines/inch) will clearly see the benefit of the higher resolution imaging. No matter what kind of printing they are doing it is important to remember a simple truism that 'quality lost in pre-press is lost forever and no press can ever bring it back'.

Another huge difference between the ink systems and the wax systems is the density of the image on the screen. The wax will print a much higher density than the ink. Both systems will offer a DMin of zero but, as with film, a better DMax allows for more complete exposing of the emulsion. Fully exposing the emulsion creates a sharper image, a longer lasting screen and easier reclaiming of the emulsion after the screen is used.

Ink systems are less expensive to manufacture and can sometimes be slightly faster to image. However, long term durability should also be considered. How many ink-jets are working for three years on multiple shifts? For many customers the lower initial price does not offset all the down-sides of ink which include only certain emulsions that can be used, poorer dot quality and lower registration. Once quality is lost in pre-press no press in the world can get it back.

The best part of screen-printing is the latitude; but the latitude is also the worst part of screen-printing.

A USER'S EXPERIENCE

Tom Davenport,owner of Motion Textile and also an SGIA board member, explains why he chose CtS: "Years ago, when we decided to go CtS we were a relatively small operation – two automatic presses and a dryer. At that time, CtS technology was somewhat new and the equipment prices were quite high. Most of my colleagues thought that I was 'high' for purchasing a single piece of pre-press equipment for the equivalent price of a new press! But, in my mind, maximising the efficiency of our small operation was more important than simply adding on printing capacity with another press. Additionally, the cost savings in consumables (mainly film) and pre-press labour (mainly handling and managing film) justified the lease payments on the CtS machine.

"The decision of which technology and which specific machine to invest in wasn't quite as easy," continues Davenport. "After a year of research, which included talking to various manufacturers, on-site visits to shops which were already employing CtS technology, hours of inspection of test prints (including paper, screen and finished garments), and the usual cost/benefit analysis, we decided on a wax-based system over ink-jet for its superior results and reliability. In the end, switching to CTS proved to be the best equipment investment we have ever made – it revolutionised our operation."

When buying any capital equipment, it is important to look at the short term and long term value and durability of the equipment and its track record. Talk to other printers about the after-sales service and support and costs and quality. Invest for the short and long term advantages of any piece of equipment. ■

Mark Diehl is Managing Director of Douthitt Corporation

Further information:
Douthitt Corporation, Detroit, Michigan, USA
tel: +1 313 259 1565 x 13
email: mark@douthittcorp.com
web: www.douthittcorp.com

STENCIL CLEANING IN THE AGE OF COMPUTER-TO-SCREEN

Manuel Schöllig outlines why optimally co-ordinated process chemicals help to eliminate process errors

For several years, in the field of screen-printing, digital direct exposure of printing stencils by means of CtS (computer-to-screen) has increasingly become standard practice. This is quite understandable; this exposure process is highly standardised and many earlier time-consuming steps, such as film mounting and setting up the vacuum exposure unit, utilised in the production of printing plates have been eliminated. The end result is that work-flow and quality for screen production can thus be optimised.

In this context, screen-printing businesses continue to optimise their process steps further. From automatic stencil development through to a complete in-line production process – stencil cleaning, coating, drying, CtS exposure and in-line development, even with drying module – much can be standardised. This can result in significant savings of both costs and resources.

HIGHER DEMANDS

However, in contrast to conventional exposure using UV-exposure lamps to achieve the optimum stencil, CtS technology places much higher demands on the quality of the screen and the process chemicals used.

Stencil coating usually requires very reactive and light-sensitive emulsion systems (mostly SBQ-based), which have a fast exposure time. For the stencil production and cleaning process this requires co-ordinated process chemicals, otherwise process errors will occur.

The stencil imaged with an (automatic) development process should not lose any details (half-tones) or suffer emulsion break-out; therefore, good emulsion adhesion on the screen mesh is a prerequisite. Emulsion residue or ink ghost images in the screen mesh, caused by inadequate stencil cleaning, will have extremely disadvantageous consequences.

The Stencil Master computer-to-screen exposure system

On CTS emulsions, certain chemicals used for ink removal can form a film, especially if the emulsion is under-exposed (keyword 'maximum details'). A similar chemical cross-linking reaction takes place during the hardening process, which means that, in the decoating phase, the emulsion can no longer be sufficiently well dissolved and removed.

Non-optimally tuned screen cleaning chemicals, particularly in automatic cleaning and filter systems, can lead to extremely high sludge formation during the cleaning process.

The CST DLE Compact direct screen imaging system

OPTIMAL STENCIL CLEANING

For optimum stencil cleaning in the CtS stencil process, KIWO has for years been supplying proven cleaning solutions for use in automated continuous in-line units:

- Optimally co-ordinated process chemicals for ink and emulsion removal to achieve the required high quality cleaning for subsequent screen coating and CtS imaging
- Sludge formation in the cleaning system is significantly reduced, resulting in reduced maintenance costs and risk of clogging of nozzles and pipes
- Long bath life of the cleaning media
- The KIWO effluent concept ensures safe maintenance of the limits laid down in, for example, the German Effluent Regulations ■

Manuel Schöllig is Product Manager of CLEANLINE at KIWO

High sludge formation in an inline sloping filter system

Further information:
KIWO, Kissel + Wolf GmbH, Wiesloch, Germany
tel: +49 6222 578 164
email: manuel.schoellig@kiwo.de
web: www.kiwo.de

Gallus Rotascreen: give your products that sensual touch

The recipe for greater, faster success: Gallus Rotascreen. With rotary screen printing, your labels become truly eye catching, point of sale decision tools. Add to this the option of combining screen with flexo, letterpress and offset and you really do open up whole new dimensions for your customers' products in the simplest way possible, because Gallus rotary screen can easily be integrated into all new or existing machine systems. From film to finished stencil you are ready to print in under 30 minutes!

gallus

Success and security for the labelprinter

Gallus Ferd. Rüesch AG
Harzbüchelstrasse 34
CH-9016 St.Gallen
Phone +41 71 242 86 86
Fax +41 71 242 89 89
www.gallus.ch

A partner of Heidelberg

Fimor
LE MANS

serilor® SQUEEGEES - SQUEEGEE SHARPENERS - ACCESSORIES

Ink it !

FIMOR SAS : TEL +33 (0)2 43 40 66 00 FAX +33 (0)2 43 40 00 95 EMAIL: serilor@fimor.fr - www.fimor.fr
FIMOR NORTH AMERICA : TEL + (1) 941 921 5138 ; + (1) 800 922 5138 FAX + (1) 941 921 5434 EMAIL: sales@encoreenginc.com

NEW SOLUTIONS IN DIGITAL SUBLIMATION INKS

Marco Girola outlines two specialist products

Marco Girola

The digital textile world is evolving really fast and, day by day, new solutions are arising to answer thoroughly the requests of customers – "increasing productivity and reducing costs". These developments certainly include the printing machines but cannot leave out the inks used in them.

The technological evolution includes all types of printing machines, among which small and medium format models which represent the most significant share of the Italian market. Normally these kinds of printers have piezo-electric print-heads, conventionally called DX. In recent times there has been an evolution of these print-heads, called DX7. This change has many benefits, such as higher printing definition and an increase of productivity.

Kiian Digital has two new solutions supporting its digital sublimation range, paying attention to the needs of increasingly demanding, critical and professional consumers. These products are Digistar E-Gold and Digistar Hi-Pro.

DIRECT AND TRANSFER PRINTING

Formulated specifically for DX7 print-heads, the name Digistar E-Gold refers to the features which distinguish this from the previous DX – a gold plating. This ink, as well as being compatible with the above mentioned heads, can be used also with the foregoing versions, allowing a stock reduction. The product versatility does not focus only on technology; the ink also allows both direct and transfer printing, reducing further the stock management costs.

The Digistar E-Gold range includes four process colours (CMYK) plus light cyan and light magenta, giving users a wider colour gamut.

The sublimation ink technology is based on the property of certain dyes to sublimate at a high temperature and permanently colour textile fibres or synthetic materials with which they are in contact at the time of sublimation. The inks' application is made by ink-jet printing with piezo technology on sublimation paper, followed by drying and coupling with the substrate on which you want to get the colour effect and heat transfer of the colour.

THE ROLE OF PAPER

After this quick introduction about sublimation printing, it is easy to understand that paper plays a very important role in the indirect printing process. The evolution of technology, therefore, cannot forget this. In different parts of the world, but recently in Italy too, papers differing from the traditional ones are arising which have a special coating for sublimation printing.

The technological evolution of the paper, in this case, does not consist of a new coating but in a total, or almost total, absence of coating, together with a drastic reduction of the paper weight (gsm). This solution allows users to choose a much cheaper paper than the traditional ones which often originate from very different uses, such as from the food industry. There is however a strong limit in the

An overview of Kiian's Fespa stand in London

use of these papers; not all inks can be used, so Kiian has a specific ink for this application – Digistar Hi-Pro.

The particular formulation of the ink allows users to print on these papers with a reduction of about 30 to 40% in production costs, when defined as the sum of ink and paper costs.

Digistar Hi-Pro has a higher colour strength than the standard, granting a bright colour effect, and counteracting the absorption of the paper, caused by the absence of coating. At the same time, the ink dries quickly on the paper while remaining stable during printing, thus allowing high productivity.

Digital focus on Kiian's stand at Fespa London 2013

This is the origination of the ink's name which refers, in fact, to the high productivity achieved thanks to its use. This new family of inks proposed by Kiian includes the four-colour process and the possibility of using printers with DX piezo print-heads (including the latest generation DX7).

The package made of Digistar Hi-Pro and cheap paper has as its primary target the fashion world, because it allows users to get those shades so beloved by designers without forgetting, however, the reference markets of sublimation printing – the sports world and soft signage.

The world of digital textile printing, as mentioned at the beginning, is evolving very quickly. Kiian follows and anticipates the trend with products of high technical content and, to meet the needs of its customers, has established a concrete answer with its Digistar E-Gold and Digistar Hi-Pro, the two new specialists" of Kiian. ■

Marco Girola is Marketing Specialist Digital at Kiian

Further information:
Kiian Spa, Luisago, Italy
Tel: +39 031 9090212
email: marco.girola@kiian.it
web: www.kiian.com

DIGITAL PRINTING ONTO 3D PACKAGING

Jean-Louis Dubuit talks exclusively to Specialist Printing Worldwide about new opportunities for digital and screen applications

Jean-Louis Dubuit

Founded in 1932, Machines Dubuit's core business has always been in the marking and printing of objects and, up until 1950, the company was concerned primarily with the dry offset process. But, with the extension of the use of screen-printing after World War II, the decision was made to concentrate on this particular methodology and, thus, all energies and efforts were dedicated in this direction. Other processes were channelled through Teca Print, acquired from Switzerland in 2002 for pad printing, and offset activities still continue through UK subsidiary, PBE Marking Systems.

With both businesses having roots in the screen-printing industry, originally Encres Dubuit was a division of Machines Dubuit, with the intention of providing inks for internal use. Thus, it wasn't until the 1970s that Encres Dubuit was formed as a separate entity, and this was because ink couldn't be produced at the company's location in Paris.

Since the company's beginnings it has been involved in screen-printing's industrial segment that concentrates on working with a variety of differently shaped objects; it is this long-term experience which has influenced Machines Dubuit's move into digital technology. Back in 2000 the company was heavily involved in CD production and wanted a way of printing photographic elements for 'picture discs'. Realising that the offset process wouldn't really be suitable, the decision was made to take the digital route, with a machine being patented that incorporated both the screen process and ink-jet. However, as company owner and chairman Jean-Louis Dubuit explains, at that time the market was not ready and it was too slow.

"The ink-jet part of it was minimalising the overall productivity of the machine, and that was not what the market was waiting for," outlines Dubuit. "That was our first experience in digital. We also only had very limited success in 2006 with a special machine for round objects – again the problem was that we just added digital to a screen-printing machine and in hindsight, it cannot work like this."

DIGITAL TRANSITION

The past three years have been instrumental in the transition to the digital technology for Machines Dubuit. It has now developed its Dubuit 9150 digital cylinder system which is a combination of all of its expertise in the industry, and has culminated in a solution which it believes the market needs and is ready for. Having been involved in the screen-printing sector for more than 80 years, the core experiences gained and established during this period of time have been extremely advantageous in the development of this new machine and further innovations are certain to follow.

Dubuit says it was a decision of the management to involve digital technology, certain that it will play a part in all sectors of the screen-printing industry as a complementary process. This has evolved from the knowledge that the overall market is changing in its dynamic as expectations for volume, just-in-time production and customisation have become more prevalent.

"The market is changing for sure, because run lengths are becoming smaller and smaller," continues Dubuit. "Nobody wants stock. Therefore to be able to customise a product with no pre-press element means that the 9150 is a great plus. It's not only competing against screen-printing but I think digital in this sector will also compete against other processes. We have found that for special applications on rigid cylinder tubes, a digital machine will be preferable as far as cost is concerned for any volume below 200,000."

Dubuit is certain that digital will never take over 100% from screen-printing. "There are things that digital will not do and there should always be a combination of both processes," he asserts. "With the 9150 and our existing range, we are now offering an increased range of solutions."

PRODUCTION COST COMPARISONS

Comparing production costs between analogue and digital production when using the Dubuit 9150 machine is dependent on the object and the run length. "The 9150 is competing against all the screen-printing that is done by semi-automatics, as of today," explains Dubuit. "If you equate the two, it depends on what you are actually comparing. One drawback with digital printing is that the print-heads that are available today suitable for cylindrical printing are only 70mm wide. Because of this limitation, when you want to print over the height of 70mm, it is obvious that you have to have two heads."

This complicates the system because it either slows down the entire process or makes it expensive. The Dubuit 9150 was designed and manufactured for certain markets and, to go beyond the 70mm heights of print, there are compromises in terms of cost plus a decrease in speed. So Dubuit believes it's difficult to make direct comparisons, but uses an example that, by taking a print of 70mm which fits with the 9150, the overall advantage of digital versus screen lies in volumes of around 15,000. This means that customers wanting flexibility in shorter run lengths can generate immediate price advantages, making

Fine quality text produced on the Dubuit 9150

the Dubuit 9150 a sound long-term investment.

In terms of applications, the Dubuit 9150 is designed to work with plastics and glass commonly used in packaging, in the same way that screen-printing has done in the past. With the main question being the adhesion of the inks, Machines Dubuit has foreseen a variety of pre- and post-treatments, including a UV varnish for printed glass. Unlike the screen process where the ink contains a promoter or hardener which can affect the efficacy after a period of time, ink-jet formulations need to work efficiently without blocking the nozzles of the print-head so, for glass, post-treatment varnish is essential.

DIGITAL CHALLENGES WITH CYLINDERS

However, the main challenge with the Dubuit 9150 has been the speed which can be achieved per unit. On a flat surface with CMYK inks, full nozzle shooting can take place in sequence, jetting one colour after another. Dubuit continues: "Therefore you've got a piece of material that goes under it as a sort of screen; currently the speed is about 24m/minute and you've got some new heads coming out on the market that go up to 70m/minute.

"When you work with cylinders, the problem is completely different because first you've got to print the cyan, then the yellow, then the magenta and then the black; each time you've got to make a 360 degree revolution under the head and each time when you go to the next head, you've got to make another revolution," he continues. "Therefore, you've come up with some speed that until today has been slow for medium diameter and very slow for big diameter. The speed for example with the 9150 for a full-colour print onto an object of 50mm is about 700/hour. So when you want to go beyond this, you've got two solutions. Either you multiply the number of heads but again, after that, it's the same thing regarding the length of the print. Or you come up with higher pricing for the equipment and greater complexity."

Machines Dubuit's main consideration to its customers is price versus the number of prints required. Where there is repeated change-over with offset, it can take four to six hours on a six-colour press, a period of time which leads to loss of production even when

Continued over

The Dubuit 9150 has attracted interest at trade shows

This digital cylinder solution eliminates traditional time-consuming pre-press and labour intensive set-up

the machine is running at speeds of 100 units/minute. "So there are the cost of the print and the production rate as factors, and there is a curve where it matches and where digital will be less costly," says Dubuit. "This is the key because you've got no pre-press factors whether its screen, pad or digital or whatever. For glass today, because of the problem of varnishing, it will be easy to personalise an object with digital. That will be the key driver for the industry at the beginning – until we find an ink that will perform the same way onto glass as UV ink does today. For plastic packaging, there are roughly the same challenges but today we do have inks for PE, PP and PET. So for almost all plastic now, we've got an ink which will adhere well."

INDUSTRIAL APPLICATIONS

An important point is that Encres Dubuit will be the supplier of the Evojet UV-curable CMYK and white inks, plus varnish, for the Dubuit 9150 which incorporates low-energy LED curing lamps. Designed specifically for industrial applications, and suitable for rigid and flexible substrates, its extended colour gamut and high colour intensity makes the machine ideal for printing onto dark surfaces. It has excellent adhesion on plastic materials, with sharp resolution and no satellites, and its UV-curable formulation generates fast curing and a low residual odour.

The compact Dubuit 9150 digital cylinder solution eliminates traditional time-consuming pre-press and labour intensive set-up, with fast change of art-work also reducing overall production times. It is designed and constructed for lean and efficient operation, with easy access to ink tanks and circuits, and simple cleaning of the print-heads. With a low cost/unit and the ability to produce applications with full customisation and variable data, the unit is designed for short- and medium-length runs and is controlled via a user-friendly interface. Its greyscale single-pass print-heads have a native resolution of 360 x 360dpi, and an apparent resolution of 900dpi.

Dubuit states that, at last year's trade exhibitions, there were many enquiries for different types of print application and, in the future, the company will be developing new machines to tackle other existing problems. Many have been addressed with the Dubuit 9150 machine which overcomes speed issues with cylinders, and this has enlarged its scope considerably, resulting in a good response from the market. This fits in with the growth of digital technology within the industrial segment and it's expected that the Dubuit 9150 machine will appeal worldwide, with two units already being sold in France.

CONTINUED PROGRESS

However, Dubuit doesn't believe that the graphics' arena has reach its peak. "This is because the print-head manufacturers are making progress every day and in the next few years, they will continue to gain in resolution and speed, which could be multiplied by three times. We know that in the future there will be more developments for higher resolution.

"There are progressions every day so I don't see why the machines available to the graphics' sector will not further benefit from such new heads," he continues. "And, by increasing the speed, it will assist in catching up with the other processes like offset."

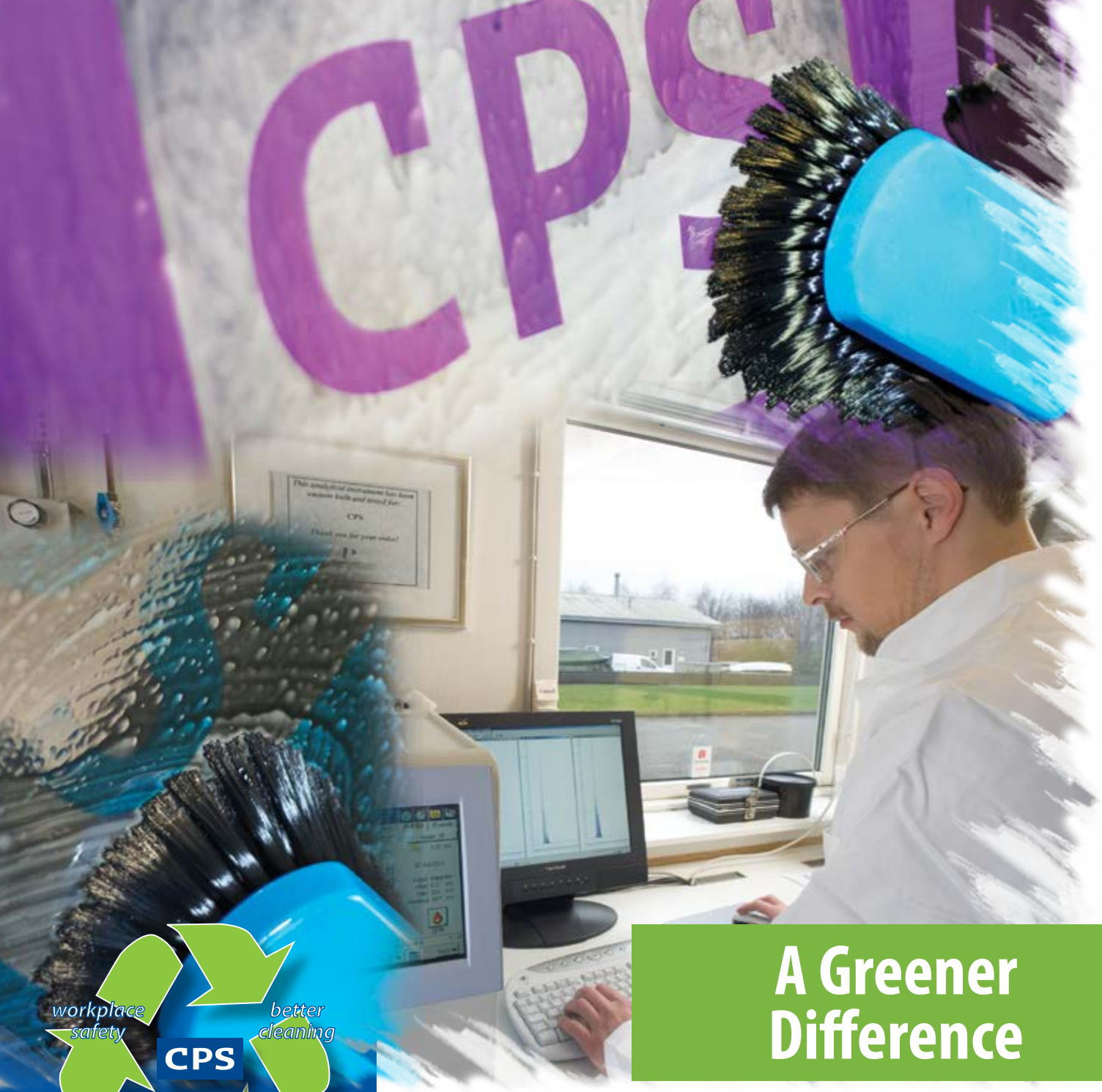
Dubuit also believes that the electronics' segment is ripe for transformation using ink-jet technologies. "We are not directly involved in the electronics sector but we are involved in the machinery for solar cells," he says. "It's a possible growth area for digital that we are looking at, depending on other developments."

Machines Dubuit, with its second generation owner of Jean-Louis Dubuit, is fortunate in that it is able to combine its intensive experience of screen-printing onto three dimensional and shaped objects with today's digital technologies. The result is a practical solution which addresses the needs of today's changing market requirements, and is certain to be followed up with additional new and innovative developments in the future. ■

The Machines Dubuit 9150 digital cylinder press

Further information:
Machines Dubuit, Noisy Le Grand Cedex, France
tel: +33 1 48 15 81 00
email: france@dubuit.com
web: www.dubuit.com

Encres Dubuit, Mitry-Mory, France
Tel: +33 1 64 67 41 60
email: info@encresdubuit.com
web: www.edubuit.fr



A Greener Difference

with our latest innovative screen wash technology

Greener efficiency with CPS Minimize M3 and M8

Safer screen wash technology specifically formulated for graphics and textile screen printers; CPS Minimize M3 and M8 can deliver you improved efficiency, productivity and additional cost saving benefits.

What you need to know:

- COD is 80% lower than traditional products – reducing waste water charges
- VOC levels over 90% lower than hydrocarbon solvents
- Non flammable – lower insurance costs
- Premium performance at lower costs

CPS, your partner for greener chemistry

Chemical Products
and Services
Grove Road, Wantage, UK
OX12 7BZ
Tel: (0) +44 01235 773240
cps@cps.eu
www.cps.eu

CPS - Chemical Products and Services

THE BENEFITS OF AUTOMATED GARMENT CUTTING

Bernard Schreiber explains to Bill Rodriguez how scan-to-cut has improved overall efficiency

Headquartered in Queensland, Australia, Scody was founded in 1997 as a made-to-order and small-run production company. Through the use of specialised technical fabrics, it has elevated uniform performance and comfort through meticulous attention to detail and quality. Today, the brand is known for superior athletic uniforms – particularly among athletes in the world of cycling, triathlon and Australia's professional netball league. In an effort to automate the company's production processes, Scody turned to Gerber Technology for an advanced cutting solution. The resulting partnership helped transform Scody's entire business and led to increased productivity.

BUSINESS CHALLENGE

In 2009, Scody's managing director, Bernard Schreiber, was searching for ways to automate his company's dye-sub production process to reduce costs and shorten lead times. An in-depth look at the entire production operation revealed a labour-intensive manufacturing process and costly setup. The company was cutting garments by hand and then applying custom graphics to the cut pieces. At the time, Scody was producing an impressive number of garments – nearly 50,000 per year – but lead times ranged anywhere from six to 12 weeks, with employees often working overtime. In all, six employees touched each garment; one or two individuals operated the heat press, two cut the fabric and two moved material from process to process. Labour costs were high and, due to the manual nature of the process, errors were common. "For companies that manufacture custom-printed garments, there is significant planned waste, specifically fabric, paper and ink," says Schreiber. "In fact, it's not uncommon to see 20 or 30% ink waste. This figure alone is reason enough to introduce automation to minimise paper and ink usage."

After an extensive search for an automated cutting system, including various target-based systems, Schreiber opted for Gerber Technology's scan-to-cut solution, ContourVision, a highly-accurate scanning system, coupled with the company's conveyorised single-ply cutting system.

Together, the two systems work in unison. As the conveyorised cutter feeds the printed fabric onto the cutting bed, the vision system scans the graphics printed on the fabric. The completed scan is then sent to the cutter's control station, where the outline (or contour) of the image is converted to a tool path and subsequently cut. The entire scan-to-cut process takes only minutes and completely eliminates the need for cut files.

Custom-made uniforms are printed using digital textile printers

As a result, ContourVision enabled Scody to print pattern pieces first on fabric and then quickly and accurately cut them. Since the system cuts up to 80m of fabric every hour, Schreiber quickly realised a significant labour savings and was able to reassign workers to other tasks. He reduced the team of six

The Gerbercutter and ContourVision scanning system in action

(photo courtesy of Cycling Australia)

Daniel Ellis of Team Toshiba

Scody's headquarters in Queensland, Australia

to two per shift – one person running the printing and one running the cutter. Schreiber comments: "We reduced our original lead times of six to 12 weeks down to two to four weeks and increased our capacity 20 to 40%. Our highest output reached 70,000 garments." Now that the system had automated the process and was consistently delivering accurately cut parts, the company saw a reduction in errors and material waste and as a result, significantly reduced its material costs.

RETURN ON INVESTMENT

"In nine months, we reduced our paper costs by 50% and ink costs by 30%," he adds. "Implementing this technology forced us to take a hard look at our entire manufacturing process and find opportunities to improve the efficiency of our end-to-end process.
As a result, we've improved the efficiency of our entire operation."

During the 2012 London Paralympics, Australian cyclists proudly sported Scody-made uniforms. The company recently signed a three-year deal with Triathlon Australia to be TA's official partner for uniforms and clothing to the Australian Triathlon Team.

"When calculating the cost of automation technology, businesses should focus on the average number of garments produced per hour or per day, not necessarily the maximum speed of the cutter," concludes Schreiber. "For us, it didn't matter how fast the cutter was, what was more important was making sure we had the right automation processes in place around the cutter to keep it running at maximum capacity." ■

Bill Rodriguez is Marketing Manager at Gerber Technology

Further information:
Gerber Technology, West Tolland, CT, USA
tel: +1 860 871 8082
email: Bill.rodriguez@gerbertechnology.com
web: www.gerbertechnology.com

A STICKY STORY

Simon P Clifford outlines the pitfalls and benefits of adhesives

There is today, an infectious fungus spreading throughout most textile screen-printing shops. At first look it is only visible in the immediate area around the press. It takes on the form of a soft furry coating, infiltrating every nook and cranny of your press. Before long, it has spread to the dryer and then very quickly makes its way onto the walls and floors, infecting the light fixtures and ceiling on the way. What is this strange 'Star Trekian' creature that is over-taking your ship – I mean shop? Is it fall-out from some secret government weapons test, or is it something closer to home!

You interview everyone in your shop. Maybe it's coming from the art department, or the dark room, or even from the screen reclaiming area. In desperation you talk to your top man, the 'Big Kahuna', the 'Squeegee Puller', your press operator! You ask him: "Well, what do you think?" In true technical printing jargon, he replies: "Dunno boss." As you walk away totally befuddled, you notice that inauspicious can of adhesive that he has grasped between his knees.

You watch and, in one supersonic movement, he grabs the can, sprays the pallet and returns it to his trusty knee holster. But wait, what is that fine mist that you see floating past his face, could this be the unlikely source of this 'bubonic' type plague that has infected everything that you hold dear in your shop? You bet it is!

If this colourful yet dramatic narrative sounds just a little bit too familiar, then you may be suffering from what is commonly known as 'Glue Build Up @#$$'. Why does this happen? Aerosols typically use flammable gasses as propellant; these by nature are lighter than air. When the can is sprayed, you are relying on the force of the spray to transfer the adhesive to the pallet. In tests, only approximately 30% of the adhesive gets on the pallet. The rest simply floats away to settle where it will. When you add this sobering statistic to the inaccuracy of the person spraying, the cost of aerosols, the cost of cleaning up the over-spray, and then factor in the environmental and health implications, the long term cost of using aerosols is much higher than the simple cost/can.

OVER-SPRAY CALCULATIONS

What can you do? Well, obviously the amount of over-spray and associated problems are related directly to the amount of aerosol you are using. If you are only using a few cans per year then your over-spray problem will be minimal. If you are going through six or more cans every month then you need to make some changes in how you apply glue to the pallet.

Accurate handling of the aerosol can eliminate some over-spray as will careful masking of the floor and machine around the loading station. The simplest way to eliminate the problems associated with aerosol adhesives is to eliminate the aerosols themselves. Alternative products do exist that will perform as well as, or even better than, aerosols.

There are available three basic alternatives

1 Double-sided pallet masking tape
2 Direct apply liquid adhesives.
3 Bulk sprayable adhesives.

Double-sided tapes are similar to the pallet mask tapes that are used in most shops. Prior to production the pallet is lined with the tape which is similar to double-sided masking tape. Multiple layers can be applied and, as each layer starts to lose its tack, it can be peeled off to reveal a fresh piece. Although this seems like a good concept, it has limited application. It does not work well on fleece and it often lets go under repeated flashing.

Direct apply adhesives are a mixed bag. Some are applied with a brush or roller while others are spread with a card or spreader. Experience has shown that the brush and roller applicators tend to gum up very quickly and have to be replaced frequently, sometimes daily. If possible opt for the spreader style of applicators. This category has a wide range of product options. In this environmentally conscious time we should only be looking at the safer water-based technologies. If a solvent-based adhesive is used, you re-visit a lot of the environmental/ health problems associated with aerosols.

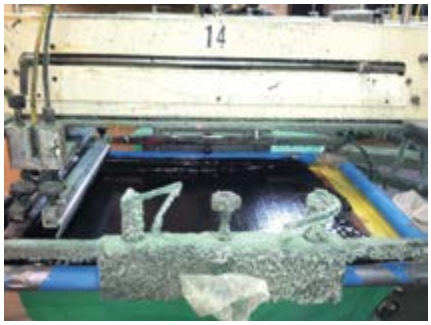
ADHESIVE DRYING CONSIDERATIONS

Some liquids are quite thin (runny) and tend to have a much lower solid content (amount of actual glue polymer in the liquid). The lower solid content products will tend to contain a higher percentage of water and other fillers; this slows down the drying time which can adversely effect production. When spread thinly on the pallet, a good quality, high solid adhesive will dry in seconds. Another thing to look for is the type of polymer being used. If you can roll your finger over the adhesive and cause it to peel off the pallet, then it is likely that you will get transfer to the garment, which is a quality control nightmare. When shopping look for an acrylic product with at least 50% plus solid content.

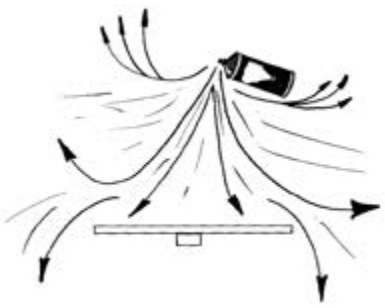
Clean up varies from product to product. Products that boast water (and soap) clean up, tend to be on the inferior side of things, with poorer adhesion and higher transfer rates. The products that are recommended to be removed with a specific cleaner will normally outperform the cheaper products. Consideration will have to be given to the additional cost for a cleaning agent. Experience, however, has shown that the cost is easily justified by the increase in overall savings. All cleaning steps can be eliminated by the use of pallet mask (favoured by me).

The third alternatives are by far the most desirable replacements for aerosol. There are systems available that can apply both water and solvent-based bulk adhesives directly to the pallet. Some of these are air driven and

Continued over



A soft furry coating can infiltrate every nook and cranny of the press



A typical aerosol spray pattern

Spreading table adhesive

UV LED Curing: The Time is Now.

Expand your Capabilities.

Phoseon™ TECHNOLOGY

The Leader in UV LED Curing

Superior Performance. Integrated Control

Contact us today: ***www.phoseon.com/Specialist-Printing/***

An example of a large bulk adhesive applicator

A smaller bulk adhesive applicator


A central line spray gun installation

others are airless electric. The airless units apply a very controllable spray of adhesive; however, as a result of not using air, they often have the disadvantage of applying it wet rather than dry. This delays the printing process and can cause transfer of adhesive to the shirt. This problem is far more prevalent when spraying the more desirable, water-based adhesives. Solvent-based adhesives often are high in VOCs (volatile organic compounds) and, due to the nature of the lighter than air solvent, are normally flammable and once again add to the 'floating adhesive' problem.

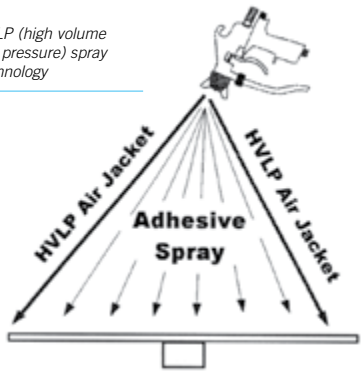
AIR DRIVEN SYSTEMS

Today there is a handful of companies that have pioneered the use of air driven systems to apply adhesive to the pallets. Some equipment actually atomises the adhesive so finely that it can achieve instant tacking from a water-based adhesive onto the pallet with virtually no over-spray. One company is Santa Barbara, California USA based Tekmar.
A spokesman for the company reports that one gallon of its bulk water-based adhesive, Tekbond TB10, will replace a minimum of 72 x 16oz cans of spray tack. They also make applicators that can supply up to three presses from one unit, as well as central line systems to equip a large shop with a hanging spray gun at each press.

The better systems out there now utilise HVLP technology (high volume low pressure). This spray technology was pioneered in the automotive and furniture finishing industries to facilitate a cleaner and healthier environment. The guns jacket the atomised spray with a high flow, low pressure curtain of air. This ensures that the adhesive is sufficiently dry for continuous loading of shirts, without the blast of air that would normally force adhesive all over the printing press and the shop.

Again, clean up on the press can be eliminated by the use of pallet tape. When using the better systems with HVLP technology and non-solvent water-based adhesives, the presses stay much cleaner as the adhesive only settles where it is sprayed and doesn't float all over the shop. Maintenance on spray systems can vary. Some require daily cleaning, where others are far more forgiving for poorer maintenance. The Target units from Tekmar require minimal daily cleaning of the spray gun tip only. A flushing is only required once every month and this only takes five minutes, according to the manufacturer.

If you select a well built system and a good quality water-based adhesive, you can't go wrong. You can expect a tremendous saving in adhesive costs, and have a cleaner and safer shop. The presses will require less maintenance due to adhesive build-up on cylinders and bearings and most importantly you will cure you shop fungus problem. Now go get 'stuck' in to cleaning up your shop. ■



HVLP (high volume low pressure) spray technology

Simon P Clifford is President of Technical Marketing (Tekmar)

Further information:
Technical Marketing Ltd, Santa Barbara, California, USA
tel: +1 805 452 5052
email: simon@tekmarltd.com
web: www.tekmarltd.com

The InPrint 2014 Official Show Guide follows in the next pages. This issue's technical content, company focuses, case studies, events round-up and association coverage resumes on page 27.

INPRINT
INDUSTRIAL PRINT SHOW INC PRINT FACTORY 3D
HANNOVER // 8-10 APRIL 2014

INPRINT 2014 OFFICIAL SHOW GUIDE

THE EXHIBITION FOR INDUSTRIAL PRINT TECHNOLOGY

Functional and decorative printing on
metal, plastics, textile, glass, ceramics, wood...

SPECIALITY • SCREEN • DIGITAL • INKJET • 3D

Sponsors include

Canon · Stratasys · Mimaki · RICOH
AGFA · KIIAN Group · THIEME · Hymmen
IMI EUROPE · LUMEJET · XENNIA · CALDERA
IT · XAAR · ESMA · NESCHEN

HANNOVER // 8 – 10 APRIL 2014
CO-LOCATED WITH HANNOVER MESSE
EXHIBITION GROUNDS, HALL 21, ENTRANCE WEST 3

For more information and full exhibitor list
WWW.INPRINTSHOW.COM

SPECIALIST printing worldwide
EXCLUSIVE PUBLISHER
OF INPRINT SHOW GUIDE

“INNOVATION IS MORE THAN HAVING NEW IDEAS

IT INCLUDES THE PROCESS OF SUCCESSFULLY INTRODUCING THEM OR MAKING THINGS HAPPEN IN A NEW WAY

IT TURNS IDEAS INTO USEFUL PRACTICABLE AND COMMERCIAL PRODUCTS OR SERVICES.”

John Adair
TAKING GOOD IDEAS TO MARKET
EFFECTIVE INNOVATION

A VERY WARM WELCOME TO INPRINT

It's official, industrial print finally has its own show.

Launched in May 2012, InPrint has consistently gathered considerable interest and momentum. And for us, the organisers, it has been great to be along for the ride!

The statistics for industrial print of course are very exciting. Valued by I.T. Strategies at $100 Billion, and with the potential to grow to $120 Billion in less than 10 years, industrial print, unlike traditional print, has a future of growth that is unthreatened by new media.

In fact, we believe that InPrint is the most important launch event that the print industry has seen in recent years as it represents access to a market that is widely regarded as the next significant area of growth and opportunity for print technology and print production companies.

And the interest in the InPrint Show has been inspiring. Born out of a need for connection that doesn't exist at any other event, the idea itself came by simply connecting with key industry professionals and hosting discussions at development group meetings. It became clear that there was no show for industrial print.

By taking the seed of an idea, by collaborating and connecting, together with our excellent team, we were then able to bring InPrint to life, whilst following the true path to innovation!

With this fact in mind, it should come as no surprise that InPrint itself is all about innovation. InPrint is designed to provide visitors with access to new and future technology, the chance to make new contacts, whilst gaining new ideas and delivering new value.

As well as comprising more than 100 exhibitors, InPrint also features a Functional & Decorative Print Conference in partnership with ESMA and IMI. This important conference covers speciality, 3D and inkjet technology within industrial manufacturing and boasts some excellent content and it is FREE for all visitors. Additionally, we are also excited to feature the first 3D Print Factory in partnership with Stratasys, who are the world leaders in 3D Print technology.

So what else will happen at InPrint? Well, we, with our exhibitors, ambassadors, speakers and founder sponsors have set the scene for this important new event for this sizeable growth market.

The rest is up to you. We hope you enjoy, connect and gain some genuine value from your time at InPrint 2014. We are absolutely convinced that you will.

Frazer Chesterman & Marcus Timson
Co-Directors, InPrint 2014

AMBASSADORS: Featuring the leading lights from the field of industrial print technology, InPrint has a team of ambassadors that represent the leaders from the speciality, inkjet and 3D print technology sectors and cover the range of differing industrial applications that these technologies represent:


Mark Alexander, Xaar


Oliver Beck, Thieme


Miles Bentley, Lumejet


Alessandra Borghi, Kiian


Eric Bredin, Stratasys


Jon Bultemeyer, Marabu


Tom Cloots, Agfa


Rob Haak, Spikix


Mark Hanley, I.T. Strategies


Sébastien Hanssens, Caldera


Mike Horsten, Mimaki


Sophie Matthews-Paul, Rockstro


Graham Moore, Ricoh


Dr René Pankoke, Hymmen


Tim Phillips, Xennia


Frank Seemann, Neschen


Lorenzo Villa, 2bePartners

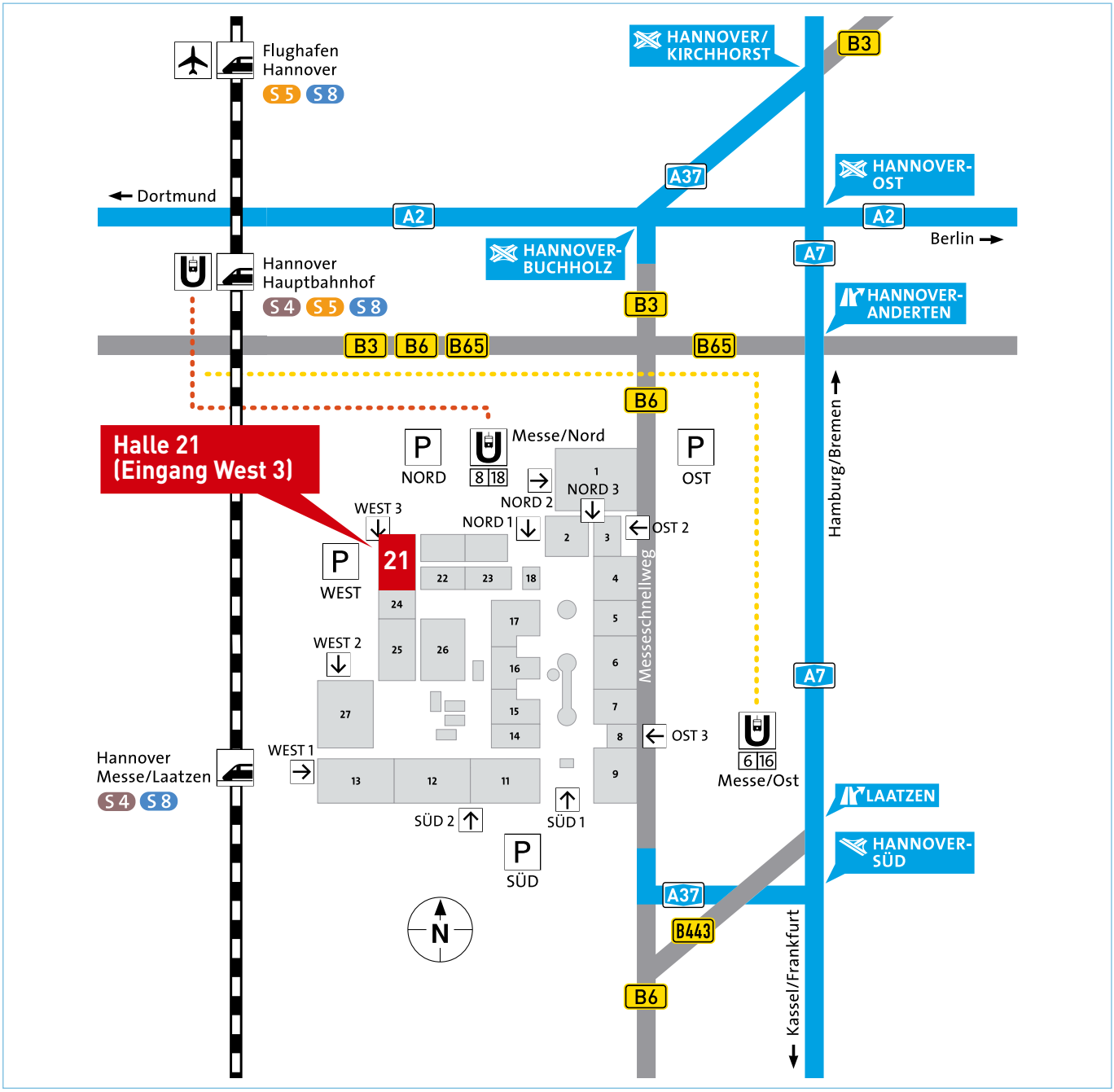

Mike Willis, IMI


Roberto Zinser, Canon

Turn the page for further information on InPrint 2014

InPrint 2014:	**Hall 21 (West Entrance 3), Deutsche Messe, Messegelände, 30521 Hannover, Germany**
Opening Hours:	**Tuesday 8 April to Thursday 10 April daily from 9am- 6pm**

To book your ticket now and save, go to www.inprintshow.com/en/buy-ticket



TRAVEL & ACCOMMODATION

VENUE
InPrint, Hall 21 (West Entrance 3)
Deutsche Messe, Messegelände
30521 Hannover, Germany.

ACCOMMODATION SERVICE
Hotel and private rooms of all standards can be booked via:
Hannover Marketing & Tourismus GmbH
Tel: +49 (0)511 12345 555
Fax: +49 (0)511 12345 556
E-Mail: hotels@hannover-tourismus.de
www.hannover.de/hotels/inprint

HOW TO GET THERE

By Air
Regular shuttle buses operate from Hannover International Airport (Terminal C) to entrance West 1 (approx. 30 minutes). Continue with shuttle bus service towards entrance West 3.

By Car
From the motorway follow the link roads to the designated parking areas. If you are using a navigation system, please enter the following destination: Hermesallee, 30521 Hannover.

By Train and Public Transport
From Main Railway Station Hannover: Take tram lines 8 or 18 to the stop 'Messe/Nord', from which entrance West 3 is easily reachable. Via Hannover Messe/Laatzen Station: German Railway offers a special train service to station "Hannover Messe/Laatzen". Continue with shuttle bus service to entrance West 3.

Further information and travel maps are available at www.inprintshow.com

Functional & Decorative Industrial Print Conference

InPrint visitors gain complementary access to the Functional & Decorative Industrial Print Conference which runs from 8-9 April 2014 within the InPrint Show. The conference is co-hosted by ESMA (The European Speciality Print Manufacturers Association) and IMI Europe, the leading conference producer for inkjet innovation and development. There is a dual focus on speciality screen printing for industrial production and industrial inkjet print production within industrial manufacturing.

TUESDAY, APRIL 8TH

TIME	TITLE	SPEAKER	COMPANY	
10:00	Introduction to InPrint	Frazer Chesterman and Marcus Timson	Mack Brooks	
10:15	Inkjet: The Key to High Volume Additive Manufacturing/3D Print	Neil Hopkinson	University of Sheffield	
10:45	3D Print Factory - Session	Stratasys	Stratasys	
11:15	Introduction to Industrial Printing, the 360° View!	Peter Buttiens and Robin McMillan	ESMA	ESMA
12:00	The Deployment of High Volume Screen Printing in the Automotive and Industrial Market	Steve Mathers	John McGavigan Limited	ESMA
13:00	Industrial Decoration Printing Seminar	Friedrich Goldner	Marabu	ESMA
14:00	Industrial Print Revolution? Change, Challenges and Opportunities for Industrial Printers	Mark Hanley	I.T. Strategies	IMI
15:00	The Future of Digital Manufacture is Here	Tim Phillips	Xennia	IMI
16:00	Create Value with Digital Decoration in Rapid Changing Mass Market	Volker Till	Till GmbH	IMI
16:30	Innovative Inkjet Analysis Systems for R&D and Production	Yair Kipman	ImageXpert Inc.	IMI

WEDNESDAY, APRIL 9TH

TIME	TITLE	SPEAKER	COMPANY	
10:30	3D Print Factory	Stratasys	Stratasys	
11:00	Inkjet Printing on 3D Panels for Appliances- Challenges and Possibilities	Ralf Ehrlich	PAS	IMI
12:00	Industrial Single-Pass Printing for Decorative Surfaces	Michael Hesse	Hymmen	IMI
13:00	The Technology of Industrial Inkjet Printing	Mike Willis	IMI	IMI
14:00	Introduction to Industrial Printing, the 360° View!	Peter Buttiens / Robin McMillan	ESMA	ESMA
15:00	Industrial Printing - Opportunity for Screen Printing	Denis Kastner	Sefar	ESMA
16:00	Digital Printing on 3D Objects: The Expertise of Dubuit Group	Frederich Blancher	Encres Dubuit	ESMA

3D Print Factory

InPrint features a 3D Print Factory, which is located within the InPrint Show. This feature is designed to provide visitors with an inspiring and practical feature showcasing different 3D Printing technologies and industrial applications. Hosted by 3D Print technology leaders, Stratasys, this feature, which is supplemented by 3 seminar sessions within the main Functional & Decorative Conference Programme, aims to provide visitors with insight into the possibilities of the different technological approaches to 3D Printing and the potential it holds for manufacturing and business.

Showcase Presentations

On Thursday, visitors are invited to attend exhibitor presentations on the various products and services on display.
At the Great Innovations Award, visitors can vote for the most innovative product presented on stage.

SHOWCASE THEATRE THURSDAY, APRIL 10TH

TIME	TITLE	SPEAKER	COMPANY
10:00	Inkjet as an Advanced Manufacturing Process	David Chapman	Xaar
10:30	Komplementärtechnologien Siebdruck und Digitaldruck im industriellen Umfeld / Das Beste aus zwei Welten	Harry Götz, Leiter Innovations Management bei THIEME	Thieme
11:00	The new way to produce textiles digitally	Mike Horsten	Mimaki
11:30	Sublifashion	Marco Girola	Kiian
12:00	Agfa Industrial Inkjet Inks for Industrial Applications - direct printing on objects and packaging, including using Low Migration inkjet inks	Dr. Marc Graindourze, Marketing Manager Industrial Inks / Agfa Graphics	Agfa
12:30	Inkless printing - New Applications for Photonic Imaging Technology	Trevor Elworthy	Lumejet
13:00	**Great Innovations - Ten five minute showcase presentations**	**Judging Panel**	
14:00	3D Print Factory - 3D Technology Showcase	Stratasys	Stratasys
14:30	Wozu Print-Innovationen in einer Multi Channel-Kommunikation?	Horst Huber	Werk II
15:00	Funktionaler & dekorativer InkJetdruck in der Industrie – die Zukunft? Aus der Sicht von Canon	Roberto Zinser	Canon Deutschland GmbH
15:30	The Future for Industrial Print Survey	Sean Smyth	Smithers PIRA
16:00	Printed Interior Decoration and Industrial Applications - Solutions of Neschen AG	Dr. Gerhard Dransmann and Frank Seemann	Neschen AG

INDUSTRIAL PRINT BECOMES A REALITY

Specialist Printing Worldwide speaks with Frazer Chesterman and Marcus Timson about the importance of their new exhibition

After many years of successful involvement in big print events around the world, Frazer Chesterman and Marcus Timson have both earned reputations as innovative and forward thinking show organisers in the print industry. Specialist Printing Worldwide spoke to them about InPrint, the exhibition designed to highlight industrial print technology.

Frazer Chesterman

Marcus Timson

Specialist Printing Worldwide: What does InPrint offer the screen and digital printer?
Frazer Chesterman: Well, firstly our research suggests there has been and will continue to be a dramatic shift towards three key areas in the printing industry towards industrial print, towards packaging and towards label printing opportunities.

The traditional print markets, such as commercial print and even, to a certain extent, sign and graphics have felt the massive influence of on-line and digital technology, particularly where business is related to fluctuating advertising revenues. Where this has occurred then obviously print revenues are down for printers, as advertisers head towards on-line media.

Most digital wide-format manufacturers agree that the huge growth of digital graphics and LFP digital print technology for signage, which probably began around 2002 and has continued to grow, is now maturing, some would even say stagnating! The great migration from analogue to digital in sign and graphics has taken place and will probably level out by 2014/2015. The manufacturers have watched their sales plateau and need to find their next opportunity. So for both commercial print and wide-format digital in sign and graphics the markets are now maturing and will certainly plateau. Yet the technology of wide-format and particularly ink-jet continues to improve. And the scope for printing on different materials allows an expansion of a screen and digital wide-format printer's offerings into more industrial applications.

SPW: There is already an enormous number of print related shows. Why do you think there is room for yet another?
Frazer Chesterman: There are indeed many shows out there, but currently no event that focuses solely on the opportunities offered by the industrial print sector. InPrint is designed to remedy this, by providing a platform for over 100 companies from the functional and decorative print sectors to present their latest technologies to printers who are looking for a new way to add value to their offerings. Thus, InPrint will show innovative print technology can be used to help enhance a wide range of different items made from ceramics, wood, textiles, plastic and glass, which are targeted at a wide variety of different markets and end-users.

An industrial digital printing line from Hymmen

The M-800 laser cutter from Eurolaser

The SPGPrints DSI UV inkjet modular label printer


Dr. Hönle produces a broad range of UV LED curing units

Marcus Timson: I'd like to add that, in the 15 years that Frazer and I have been working together, we always like to challenge the markets we work in by creating new value. And with InPrint we again wanted to provide a unique focus on a market that we felt was growing significantly, but one that had no event of its own. Industrial print is valued at $100billion and growing by $20billion in less than ten years so it needs an event of its own! It is a bigger market than the wide-format market which is only valued at around $35billion! Exhibitions that exist in markets that are transforming are really important.

InPrint, we believe, is in such a market. Industrial print is at a similar stage of development to that of the graphic print or the wide-format sector back in 2004 to 2005. So we expect a strong level of interest and there is a great opportunity for any print business interested in developing new revenue streams.

Our own experience and the extensive research with I.T. Strategies, that we have commissioned, has revealed that the demand for digital printing technology within the traditional print-related markets, such as the wide-format market, has started to level off. In fact any tipping points were realised some time ago and it is only innovating incrementally. Many InPrint exhibitors support this opinion which is why so many of the leading manufacturers are taking part, including Agfa, Canon, Durst, Fujifilm, Mimaki, Ricoh, Xaar and Xennia – because they are looking for their next area of opportunity.

In addition, the development of inkjet technology continues and the range of different applications, with the result that it is now increasingly possible to extend its scope into directions that were previously untenable.

There is no other exhibition designed for the broad and wide ranging industrial print market. We believe it is a new market opportunity and InPrint will reflect the range of possibilities that exist in this exciting tipping point technology and business sector.

SPW: Why did you choose to co-locate with the Hannover Messe event in April 2014?


Durst's Rho IP high-speed ink-jet engine is well suited to the industrial sector

Marcus Timson: Hannover Messe is the world's largest event for companies engaged in industrial production and manufacturing, which means that visitors will have direct access to a number of shows, such as Industrial Automation and Digital Factory and conversely, the visitors to all of these other shows – around 200,000 in total – will also have access to InPrint, thus providing exhibitors and suppliers of printing equipment and consumables with a potential additional audience of visitors crossing over from the Hannover Messe.

Frazer Chesterman: Nowadays, manufacturers are developing amazing technologies that facilitate fast, customised print onto all sorts of items, while also opening up myriad new creative possibilities. What's more, digital printing means that both risk and costs are minimised, when compared with the more traditional printing methods previously employed.

We think that many of the most entrepreneurial screen and digital print companies are very interested in learning how they can use their skills and resources to maximum advantage, with the effect that they are actively looking for new ideas and inspiration, which they will find in at InPrint!

Marcus Timson: We are expecting around 4,000 to 5,000 visitors from many different business sectors and our aim is to create a new community and marketplace made up from people and companies involved with both functional and decorative print. We already have a database of around 20,000 names that we have spent the last 12 months building that will form the nucleus of this new and unique community, which is interested in industrial print in all its manifestations.

Frazer Chesterman and Marcus Timson are directors of FM Brooks

Further information:

FM Brooks, Leatherhead, Surrey, UK
tel: +44 1372 370854
email: frazer.chesterman@mackbrooks.com
marcus.timson@mackbrooks.com
web: www.inprintshow.com

MARKET POTENTIALS IN INDUSTRIAL PRINTING

On behalf of InPrint, Albrecht Fischer speaks to Mark Hanley about technological opportunities

InPrint: Which market potential do you see in analogue industrial printing?
Mark Hanley: The analogue technologies are already very important and you've got to remember one thing – print is a component. In industrial print, what you really look at, is manufacturing processes. If you take electronics or anything else, even packaging, you are manufacturing a physical product, which has to be printed, but the manufacturing takes precedence. The analogue print technologies grow in direct proportion to the growth of the underlying manufacturing and the sale of the products. Those are driven by the consumer economy. For example, Brazil is a growing consumer economy. They are consuming more and more healthcare products and beauty products. Those beauty products in turn drive the packaging market, so everything is growing and it is very healthy; for most of that market – I would say between 80 and 90 percent – analogue technologies are utterly suitable, because they are very low-cost. In that sense they are indirectly absolutely going to grow. If you ask: "Are they growing of their own right, because they are going to renew their technologies of print and improve on technologies of print?"
Yes, but only to a limited extent.

InPrint: And how about manufacturing processes, where steps that are now based on non-print technology are done by printing in the future?
Mark Hanley: A very good example, that everybody quotes in our industry, is the iPhone. Before the iPhone, you didn't really print anything on a phone besides the logo on the outside and maybe some legends on the circuit boards. As the iPhone and the smartphones came forward, in fact the black screen you look at on the iPhone has a backprint, which is highly sophisticated and the print is not just of ink. It is of all kinds of protective and functional chemistries as well, related for example to the capacitative screen or to its durability. That is done by screen-printing. So, when you look at the underlying product development, that actually enabled screen-print to develop its own technology and it is highly sophisticated technology.


Mark Hanley , I.T. Strategies

Industrial print markets and the areas which can be represented with screen and digital print technology (image courtesy of InPrint)

Another example is the instrument panel in a BMW, that is a back printed resin substrate. That too is highly sophisticated. Sometimes it takes 15 passes in the screen-printing process, because of all the different types of colour and shades and variability you now need and, indeed, it is gone beyond that. They are now inputting electronically active parts into it. And all of that involves screen-print.

Analogue print in industrial markets has constantly had to adapt and has constantly had the opportunity to satisfy new needs, because the underlying product and its manufacture are constantly in development. Analogue has developed incredibly, and that will continue to be the case. But if you take the instrument panel that has the 15 screen passes – how nice would it be, if you could take a single inkjet head and do it in two passes. They don't generally do that today, but that is what inkjet would like to do.

There is a very fascinating, complex interplay between digital and analogue, although not as much is happening today as will happen in future. The digital print industry was, until recently, 95% about documents. Much of that is mature. So when you look at an HP or a Canon or a Ricoh, more than 88% of each of those companies' revenues are now mature and are in decline. They are being forced to look at new markets. There is a huge pressure on the digital side to start turning towards these markets and investing money in them, so it will happen.

Another aspect is that, if you are printing documents, the problem is there are a lot of reasons why you may never print a document again, because of all the virtual threats from the Internet and the other forms of communication. But in industrial print there is now a replacement. As long as you eat cornflakes, you have to have a box for them. When you look at print in the industrial area, there is nothing that is going to make it go away.

InPrint: How do you see the communication process in the industry in general. Are there established communication patterns between investors, print vendors and the manufacturing industry? How do you see the InPrint show?

Mark Hanley: The InPrint show is necessary in my opinion. In principle it is important, because the digital print technology comes from behemoth massive multinational multi-billion corporations who are used to dealing with the office world and the channel distribution of standardised products. Those companies, who really lead the industry, have great difficulty adapting to the industrial print market, because the industrial print market requires customised solutions of very different performance envelopes. There also is a huge problem, as most of these digital print companies are unknown in these industrial markets. Their brands mean nothing.

If I am right in saying, on the other hand, the technology is good and the demand is there for it and there is a market; who can make this market real? What is needed is a much stronger body of system integrators. There are probably 800 system integrators worldwide, most of them much too small. So the requirement is to build such a base of system integrators.

There is no other show I know of that actually addresses industrial print per se and that is the focus of these system integrators. So, if the show can encourage the communication and can encourage this new body of the industry, that is absolutely required. If we don't have something new like that then, despite the technology being good and the demand being good, not much is happening in the meanwhile. From that perspective I think InPrint has a good vision.

Mark Hanley is Director and Researcher at I.T. Strategies

Further information:
I.T. Strategies, Inc, Hanover, Massachusetts, USA
tel: +1 781 826 0200
web: www.it-strategies.com / www.inprintshow.com

INPRINT 2014 EXHIBITORS

Exhibitors at InPrint are leading technology companies from speciality, screen, digital, inkjet and 3D Printing:

3T SUPPLIES AG
Stand H28
- Develops and produces high-quality inks and cartridges for all major printer models.
- Entwickelt und produziert qualitativ hochwertige Tinten und Patronen für alle gängigen Druckermodelle.

www.peach.info

AGFA GRAPHICS NV
Stand D10
- Offers integrated solutions to the traditional printing industry and for the industrial inkjet industry.
- Anbieter integrierter Lösungen sowohl für die klassische Druckindustrie, wie auch im Bereich des Industriellen Inkjetdrucks.

www.agfagraphics.com

ALTANA TECHNOLOGY PLATFORM PRINTED ELECTRONICS
Stand F01
- Printed Electronics defines electronic devices which are produced by conventional printing and converting techniques.
- Printed Electronics ist die Herstellung elektronischer Bauteile und Geräte mit Hilfe normaler Druckverfahren.

www.altana.de/innovation / altana-technologie-plattform-printed-electronics.html

ANTALIS MACRON GMBH
Stand G27
- Trading company with over 25 years of market and product expertise relating to large format digital printing and media.
- System-Handelshaus mit über 25 Jahren Kompetenz und Know-How in allen Fragen rund um digitalen Großformatdruck, Medien und Technik.

www.macron-gmbh.de

ARRANGED BVBA
Stand F21
- Specializsd in filtration products and systems for digital printing.
- Spezialisiert auf Filtrationsprodukte und Anlagen für den digitalen Druck

www.arranged.be

BERGSTEIN DIGITAL BV
Stand E04
- A leading specialist in print solutions for the industrial market with more than 40 years of experience.
- Ein führender Spezialist für Drucklösungen für den industriellen Markt mit mehr als 40 Jahren Erfahrung.

www.bergstein.nl

BLASE GMBH & CO. KG
Stand E06
- From design, to the finishing of screen print products, customers receive a one-stop service 'Made in Germany'.
- Von der Designentwicklung, bis hin zur Weiterveredelung des Siebdruckproduktes, erhalten Sie alles aus einer Hand "Made in Germany".

www.blase.de

BÜRKERT FLUID CONTROL SYSTEMS
Stand H05
RESEARCH SPONSOR
- Bürkert Fluid Control Systems is a world-leading manufacturer of measuring, control and regulating systems for fluids and gases.
- Bürkert Fluid Control Systems ist ein weltweit führender Hersteller von Mess-, Steuer- und Regelungssystemen für Flüssigkeiten und Gase.

www.burkert.com

BYK-CHEMIE GMBH
Stand F01
- One of the world's leading suppliers in the field of additives and measuring instruments.
- Einer der weltweit führenden Anbieter auf dem Gebiet der Additive und Messinstrumente.

www.byk.com

CALDERA
Stand C36
- Experienced in developing, marketing and supporting high-quality technological software for wide-format imaging and industrial printing.
- Erfahren in der Entwicklung, Vermarktung und dem Support hochwertiger Software für großformatige Bildverarbeitung.

www.caldera.com

CANON DEUTSCHLAND GMBH
Stand F10
- A world leader in imaging products and solutions for the digital home and office market.
- Ein weltweit führender Anbieter von digitalen Imaging-Lösungen für den Consumer-und Business-Bereich.

www.canon.de

COLOR ALLIANCE GMBH
Stand D38
- Offers web-to-print software especially for individual large format printing.
- Bietet web-to-print Software speziell für den individuellen Großformatdruck an.

www.ca-web-to-print.com

COLOR-DEC ITALY SRL
Stand E39
- Specialist for technology related to the production of emblems, badge and brands.
- Spezialist für Technologien, rund um die Produktion von Abzeichen, Ausweisen und Marken.

www.color-dec.com

COLORGATE GMBH
Stand B26
- Develops software- and colour management solutions for industrial inkjet printing.
- Entwickelt Software- und Farbmanagementlösungen für den industriellen Inkjet-Druck.

www.colorgate.com

CRUSE GMBH
Stand A07
- Developer/producer of equipment to record large sized originals in premium quality.
- Entwickler/Hersteller von Scannern, die großformatige Originale in Premium-Qualität einscannen.

www.crusescanner.com

CYAN TEC
Stand D13
- Supplier of direct to product industrial inkjet printers for production environments.
- Anbieter von direktem Inkjet-Druck für das Produktionsumfeld.

www.cyan-tec.com

CYCONJET - INDUSTRIAL INKJET TECHNOLOGY
Stand D16
- A Mankiewicz inkjet system specifically developed for the coating of large size print products.
- Ein von Mankiewicz entwickeltes Tintenprogramm für den vielfältigen Einsatz im industriellen Anwendungsbereich.

www.mankiewicz.com

PaperlinX Visual Technology Solutions

DEUTSCHE ADP GMBH
Stand D30
- A leading distribution company in the signage, screen and large format digital printing, as well as LED Systems sector.
- Ein führendes Vertriebsunternehmen im Bereich Werbetechnik, Siebdruck, Großformat-Digitaldruck und LED-Systeme.

www.deutsche-adp.de

digidirect® all you can print

DIGIDIRECT GMBH
Stand A15
- Their goal comprises making digital additions to technical screen printing techniques.
- Marktstrategisches Ziel des Unternehmens ist die digitale Ergänzung des technischen Siebdrucks.

www.digidirect.net

DPS INNOVATIONS
Stand C36
- Develops and supplies control electronics to printer manufacturers and inkjet integrators, including prominent producers in Germany, Korea, Brazil and India.
- Entwickler und Lieferant von Steuerelektronik für Druckerhersteller und Inkjet-Integratoren, einschließlich prominenter Produzenten in Deutschland, Korea, Brasilien und Indien.

www.dps-innovations.com

DP SOLUTIONS GMBH & CO. KG
Stand C04
- Specialist for digital and digital direct printing, offering tailored systems to print on almost every kind of material.
- Systemhaus für Digitaldruck und digitalen Direktdruck, das maßgeschneiderte Systeme zur Bedruckung nahezu aller Materialien bietet.

www.dp-solutions.de

DRUCKPROZESS GMBH & CO. KG
Stand F23
- An expert and turnkey supplier for industrial inkjet applications. We advise, develop and trade independent of manufacturer.
- Herstellerübergreifende Lösungen für industrielle Digitaldruckanwendungen. Als Komplettanbieter beraten, entwickeln und handeln wir mit allen Komponenten für den Prozess.

www.druckprozess.com

DURAFOS INC.
Stand D45
- Premier manufacturer and distributor committed to providing premium digital printing inks.
- Führender Hersteller und Lieferant für hochwertige Tinten für den digitalen Druck.

www.durafos.com

DURST INDUSTRIAL INKJET APPLICATION GMBH
Stand B04
- Manufacturer of digital inkjet printers as well as industrial production lines for intelligent surface printing.
- Hersteller von Digitaldruckern so wie industriellen Fertigungsstraßen zur intelligenten Oberflächenherstellung.

www.durst-online.com

ECKART GMBH
Stand F01
- Manufacturer of metallic effect and pearlescent pigments and metallic inks for digital, offset, flexo, gravure and screen printing.
- Hersteller von Metalleffekt- und Perlglanzpigmenten sowie Metallic-Druckfarben für den Digital-, Offset-, Tief-, Flexo- und Siebdruck.

www.eckart.net

ELTOSCH TORSTEN SCHMIDT GMBH
Stand E15
- Develops and manufactures infrared, hot air and ultraviolet dryer systems for customers worldwide.
- Entwickler und Hersteller von Infrarot-, Thermoluft- und Ultraviolett-Trocknersysteme, die weltweit zum Einsatz kommen.

www.eltosch.de

EPSON DEUTSCHLAND GMBH
Stand D30
- Epson's SureColor SC-S Series delivers outstanding results for wide-format indoor and outdoor signage printing.
- Epsons SureColor SC-S-Serie liefert herausragende Ergebnisse für den Indoor- und Outdoor-Bereich auf einer Vielzahl von Medien.

www.epson.de/signbyepson

ERGOSOFT AG
Stand E24
- A leading developer of software solutions in the high-end digital printing community.
- Führender Entwickler von Softwarelösungen, für den High-End Digitaldruckmarkt.

www.ergosoft.net

ERPA SYSTEME GMBH
Stand F10
- Specialist in the development of 2D/3D-CAD/CAM-software.
- Spezialist für die Entwicklung von 2D/3D-CAD/CAM-Software.

www.erpa.de

ESC EUROPA-SIEBDRUCK-CENTRUM
Stand B16
- Supplier of machines for industrial screen printing, digital printing and pad printing.
- Lieferant von Maschinen für den industriellen Siebdruck, Digitaldruck und Tampondruck.

www.esc-online.de

ESMA (EUROPEAN SPECIALITY PRINT AND MANUFACTURERS ASSOCIATION)
Stand G08
- ESMA is a leading, non-profit, association in Europe for specialist printing manufacturers of screen, digital and flexo technology. The members are manufacturers of machinery, equipment, software or consumables.
- ESMA ist ein führender, non-profit, Interessenverband für die Spezialdruckhersteller von Sieb-, Digital- und Flexo-Technologien. Mitglieder sind Hersteller von Maschinen, Zubehör, Software und Kleinteilen.

www.esma.com

EUROLASER GMBH
Hall 21, Stand F10
- Manufacturer of CO2 laser cutting systems for cutting, engraving and marking in industry and craftwork
- Hersteller von CO2 – Laserschneidmaschinen zum Schneiden, Gravieren und Markieren für Industrie und Handwerk

www.eurolaser.com

EXTRIS SRL
Stand E02
- A manufacturer of screen-printing, as well as precision micro-filtration fabrics.
- Hersteller von Textilien für den Siebdruck, sowie für präzise Mirkrofiltration.

www.extris.com

FOLEX COATING GMBH
Stand E18
- Specializes in the finishing and coating of films and specialities.
- Bietet als Spezialist für die Veredlung und Beschichtung von Folien hochwertige Produkte und individuelle Dienstleistungen für die unterschiedlichsten Märkte.

www.folex.de

FUJIFILM SPECIALTY INK SYSTEMS LIMITED
Stand C26
- A company that focuses on the development and commercialisation of innovative technology.
- Ein Unternehmen, das sich auf die Entwicklung und Vermarktung von innovativen Technologien konzentriert.

www.fujifilmsis.com

GENIZE BY KUEI
Stand E36
- Offers products for industrial UV inkjet printing, such as inks, functional layers, single-pass printers and print modules.
- Bietet Produkte für industriellen UV Inkjet-Druck, z.B. Tinten, Funktionsschichten, Single-Pass Drucker und Druckmodule.

www.kuei.it

GRÜNIG-INTERSCREEN AG
Stand A26
- The Swiss specialist for stencil making with a focus on screen automation.
- Der Schweizer Spezialist für die Schablonenherstellung mit Fokus Automation.

www.grunig.ch

HANS FRINTRUP GMBH
Stand E23
- Manufacturer of high-end stencils for a variety of industries such as: automotive, glass, packaging, electronic and solar.
- Hersteller von hochwertigen Schablonen für verschiedenen Industriezweigen wie Automotive, Glasindustrie, Verpackungsindustrie, Elektronik und Solar.

www.frintrup.com

DR. HÖNLE AG UV
Stand E15
- Leading UV specialist offering a range of prodcuts for inkjet printing.
- Führender UV-Spezialist mit einem breiten Spektrum an Produkten für den Inkjetdruck.

www.hoenle.de

HUNTSMAN TEXTILE EFFECTS
Stand E29
- Creates, markets and manufactures a broad range of chemical and dye products.
- Entwirft, vermarktet und produziert ein breites Spektrum an Chemikalien und Färbungen.

www.huntsman.com

HYMMEN INDUSTRIEANLAGEN GMBH
Stand A04
- A medium-sized mechanical and plant engineering company with over 120 years of tradition.
- Ein mittelständisches Unternehmen des Maschinen- und Anlagenbaus mit über 120-jähriger Tradition.

www.hymmen.com

IMAGEXPERT
Stand C14
- A machine vision company providing tools for measuring print quality and tools for inkjet ink development and printing optimization.
- Ein Unternehmen für industrielle Bildverarbeitung, das Geräte für die Messung von Druckqualität, die Entwicklung von Inkjet-Tinten und die Druckoptimierung anbietet.

www.jetxpert.com

IMI EUROPE (INFORMATION MANAGEMENT INSTITUTE)
Stand E45
- Europe's leading inkjet conference and course organiser since the 1980's.
- Europas führender Konferenz-und Kursveranstalter für die Inkjet Branche, mit über 30 Jahren Erfahrung.

www.imieurope.com

IMPULS APPARATEBAU JAEGER & SOHN GMBH
Stand E32
- Providing a range of products, services for cloth inspection, sewing, tabling, eyelets, steamers, as well as specialist machines.
- Anbieter von Produkten, Dienstleistungen und Maschinen für Zuschnitt, Nähen, Ablänggeräte, Ösen, Abdämpfer.

www.impulsa.de

IACS
Stand B15
- The authorized European Toshiba TEC Inkjet Support and Technology Centre.
- Das autorisierte Europäische Toshiba TEC Inkjet Support und Technik Zentrum.

www.iacs.be

Industrial Inkjet Ltd

INDUSTRIAL INKJET LTD.
Stand C16
- The leading experts in industrial inkjet design and technology.
- Der führende Experte für Design und Technologien rund um den industriellen Inkjet-Druck.

www.industrialij.com

INTEGRATION TECHNOLOGY EUROPE
Stand D26
- A world pioneering designer and developer of UV-curing solutions for inkjet printing.
- Ein weltweit führender Designer und Entwickler von bahnbrechenden Lösungen für UV-Härtung für Inkjet-Druck.

www.uvintegration.com

INX DIGITAL ITALY SRL
Stand D04
- Assisting its customers with the right digital inks, consultation and service for a variety of applications.
- Anbieter von Digitaldruckern und Substraten, und ein optimaler Berater rund um den digitalen Druck.

www.inxdigital.com

IST METZ GMBH
Stand D26
- Develops, manufactures and sells UV systems for the environmentally friendly curing of inks, varnishes, silicones and adhesives.
- Entwickelt, produziert und vertreibt UV-Anlagen zur umweltfreundlichen Aushärtung von Farben, Lacken, Silikonen und Klebern.

www.ist-uv.com

I.T. STRATEGIES
Stand C46
- A virtual partner for companies wanting to succeed in the digital economy.
- Ein virtueller Partner für Firmen, die in der digitalen Ökonomie erfolgreich sein wollen.

www.it-strategies.com

J-TECK3 SRL
Stand J24
- Producer of water-based digital inks for graphic and textile applications.
- Hersteller von wassermischbaren digitalen Druckfarben für Grafik- und Textilanwendungen.

www.j-teck3.com

KALA SAS
Stand F04
- A manufacturer of wide format laminators, skilled in applying an adhesive film onto flat surface.
- Ein Hersteller von Laminiersystemen im Großformat-Sektor, spezialisiert auf die Folierung ebener Flächen.

www.kala.fr

KIIAN GROUP
Stand A10
- Supplier of high quality products, providing unique printing solutions for the textile and industrial markets.
- Lieferant von hochwertigen Spezialprodukten und Anbieter von einzigartigen Drucklösungen für den Textil- und Industriedruckmarkt.

www.kiian.com

KOENEN GMBH
Stand J16
- Specialist for high-quality precision screens in technical screen printing.
- Ein Spezialist für hochqualitative Präzisionssiebe im technischen Siebdruck.

www.koenen.de

LARGE FORMAT + DECORATIVE & FUNCTIONAL INKJET
Stand H01
- Leading trade publication for innovative inkjet solutions for the DACH region.
- Seit 1998 „das" Inkjet-Magazin für den deutschsprachigen Markt.

www.largeformat.de

LUMEJET
Stand C10
- Leader in photonic print heads, developing breakthrough technology for inkless printing.
- Führend im Bereich photonischer Druckköpfe und der Entwicklung bahnbrechender Technologien für tintenfreies Drucken.

www.lumejet.com

MACHINES DUBUIT
Stand A11
- A leader in introducing new printing technologies to industrial printers and delivering products to diverse industrial market segments.
- Wegweisend in der Einführung von neuen Technologien und Produkten für den industriellen Druckmarkt.

www.machinesdubuit.com

MARABU GMBH & CO. KG
Stand C22
- A leading global manufacturer of screen, digital, and pad printing inks.
- Ein weltweit führender Hersteller von Sieb-, Digital- und Tampondruckfarben.

www.marabu-inks.com

Specialist Printing Worldwide is the Official International Journal of InPrint and exclusive publisher of the Official Show Guide
www.specialistprinting.com

MASCHINENBAU BOCHONOW GMBH
Stand A18
- One of Germany's first and foremost manufacturers of screenprinting equipment.
- Einer der ersten deutschen Hersteller von Siebdruckmaschinen und Lieferant von UV-Brennern für den Sieb-, Offset-, Flexo- und Tampondruck.

www.bochonow.de

MEHRING GMBH
Stand F13
- Sales - counselling - support - supplies for print-finishing, since 1981.
- Seit 1981 Verkauf – Beratung – Service - Verbrauchsmaterialien für Maschinen der Druckweiterverarbeitung.

www.druckweiterverarbeitung.de

Precision mesh & solutions for industrial applications

MICRON-SCREENS / PVF-VERTRIEBS GMBH
Stand B36
- A high-end MP+L product range, offering the best in precision screens for your selection.
- Eine anpsruchsvolle Produkpalette bester Präzisionssiebe aus dem Hause MP+L.

www.micron-sieb.de

MIMAKI EUROPE B.V.
Stand H16
- Equipment designed to improve productivity in the textile and clothing sectors and in fabric printing.
- Anbieter von Produkten zur Steigerung der Produktivität im Textil-und Bekleidungssektor und im Bereich Stoffdruck.

www.mimakieurope.com

NAZDAR INK TECHNOLOGIES
Stand B23
- Manufacturer of a variety of UV, solvent- and water-based wide-format digital inkjet, screen printing, and flexographic inks.
- Hersteller von UV-Farben, Lösemittel- und wasserbasierte Farben für den großformatigen digitalen Inkjet-Druck, Siebdruckfarben und Flexodruckfarben.

www.Nazdar.com

NESCHEN AG
Stand A05
- Develops, produces and markets coated self-adhesive and digital print media, together with processing machines and presentation systems.
- Entwickelt, produziert und vertreibt beschichtete Selbstklebe- und Digitaldruckmedien, sowie deren Verarbeitungsmaschinen und Präsentationssysteme.

www.neschen.de

NOR-COTE INTERNATIONAL LTD
Stand B31
- A world-class manufacturer of UV curable screen printing inks.
- Ein führender Hersteller von UV-härtenden Tinten für den Siebdruck.

www.norcote.com

NOTION SYSTEMS GMBH
Stand B24
- Manufacturer of innovative inkjet, laser and automation equipment for technical applications.
- Hersteller von innovativen Inkjet-, Laser- und Automationsmaschinen.

www.notion-systems.com

PALL GMBH
Stand D11
- A leader in the critical fluid management needs of customers across the broad spectrum of life sciences and industry.
- Anbieter von Lösungen für Filtration, Separation und Aufreinigung für jegliche Fluid Management-Anforderungen.

www.pall.com

PHOSEON TECHNOLOGY
Stand E37
- A world leader in providing UV LED solutions for commercial and industrial applications.
- Ein führender Anbieter von UV-LED-Strahlern für kommerzielle und industrielle Anwendungen.

www.phoseon.com

PRINTDATA GMBH
Stand H32
- Xerox Graphic Arts Partner and system supplier of Xerox High-End Production machines.
- Xerox Graphic Arts Partner und Systemlieferant für die High-end-Produktionssysteme von Xerox.

www.printdata.org

RICOH EUROPE
Stand B30
- A global company specialising in production print solutions, document management systems, office imaging equipment and IT services.
- Ein globales Technologieunternehmen, das sich auf Drucklösungen, Managed Document Services, Bildverarbeitungsgeräte und IT spezialisiert hat.

www.ricoh-europe.com

RIEBL-SIEBDRUCK
Stand H26
- Systems supplier around machinery and equipment, labels for industry, specialist for decorative and tactile surfaces.
- Ein Systemlieferant rund ums Gerät, Industriekennzeichnung mit System und Spezialist für dekorative und haptische Oberflächen.

www.riebl-siebdruck.de

RK SIEBDRUCKTECHNIK GMBH
Stand A16
- Manufacturer of RKS screen printing blades, as well as equipment and innovations.
- Hersteller der RKS Siebdruckrakel und Innovationsschmiede für die Druckindustrie.

www.rk-siebdruck.de

ROKUPRINT GMBH
Stand A24
- Producer of industrial screen- and coating machines, research, development, quality inspection and customer application support.
- Hersteller von industriellen Siebdruck- und Beschichtungsmachinen, Forschung, Entwicklung, Qualitätssicherung und kundenspezifische Anwendungstechnik.

www.rokuprint.com

SAWGRASS TECHNOLOGIES
Stand E01
- Providing digital printing technology to enable mass customisation, decoration and personalisation of hard surfaces and textiles.
- Ermöglicht die individuelle Massenproduktion, Dekoration und Personalisierung von harten Oberflächen und Textilien mithilfe von digitaler Drucktechnologie.

www.sawgrasseurope.com

SEFAR AG
Stand H03
- A worldwide leading provider of woven precision fabrics for the screen printing business.
- Ein weltweit führender Anbieter von Präzisionsgeweben für den Siebdruck Sektor.

www.sefar.com

SENSIENT IMAGING TECHNOLOGIES S.A.
Stand F36
- A pioneer in the development of sublimation inks for textile printing.
- Ein Vorreiter in der Entwicklung von Sublimationsdruckfarben für den industriellen Textildruck.

www.elvajet.com

SIGNTRONIC AG
Stand A26
- Presenting solutions for the automation of stencil production.
- Anbieter von Lösungen für die Automation der Schablonenfertigung.

www.signtronic.com

SIHL AG
Stand F25
- A market leader in the field of coating and refining of papers, films and textiles.
- Führend in der Beschichtung und Veredelung von Papieren, Folien, Geweben sowie bahnförmigen Medien aller Art.

www.sihl.com

SPECIALIST PRINTING WORLDWIDE - Official international journal of InPrint and exclusive publisher of the official show guide
Stand H36
- Covering the graphic, industrial and textile sectors, Specialist Printing Worldwide is the industry's leading international reference source.
- Das Magazin deckt die ganze Bandbreite des Grafik-, Industrie- und Textilsektors ab und ist damit eine führende Referenzquelle.

www.cbm-ltd.com

SPGPRINTS
Stand B29
- Supplying various industrial printing markets, from touch panels, to blood-glucose sensors, with both rotary screen and flat-bed printing solutions.
- Beliefert verschiedenste industrielle Druckmärkte - von Touch Screens, bis hin zu Blutglukosesensoren - mit Rotationsschablonendruck- und Flachbettdrucklösungen.

www.spgprints.com

STRATASYS GMBH
Stand F16
- Manufacturer of 3D printing equipment and materials that create physical objects directly from digital data.
- Produziert 3D-Drucker und Materialien zur Herstellung von physischen Modellen direkt aus digitalen Daten.

www.stratasys.com

SUN CHEMICAL / SUNJET
Stand E28
- A leading global supplier of premium, high-quality inkjet inks for industrial and commercial print applications.
- Ein weltweit führender Anbieter von hochwertigen Tinten für den industriellen und kommerziellen Digitaldruck.

www.sunchemical.com/sunjet

TECKWIN TECHNOLOGY
Stand A36
- Provider of digital inkjet ceramic printer, grand format UV flatbed and roll-to-roll inkjet printing systems for graphics and industrial applications.
- Anbieter von digitalen Inkjet-Keramikdruckern, großformatigen UV Flachbett und Rolle-zu-Rolle Inkjet-Drucksystemen für Grafiksektor und Industrie.

www.teckwin.com

THIEME GMBH & CO. KG
Stand D36
- An international leader in high-quality screen printing and digital printing systems.
- Ein international führendes Unternehmen für hochwertige Siebdruck- und Digitaldrucksysteme.

www.thieme.eu

TOSHIBA TEC
Stand B15
- Manufacturer of inkjet heads designed for a range of industrial applications, including high-volume, single-pass production printing onto various surfaces.
- Hersteller von Tintenstrahlköpfen für die industrielle Bedruckung einer Vielzahl von Oberflächen.

www.toshibatec.co.jp/en/products/industrial/inkjet

TRITRON GMBH
Stand F11
- Develops and manufactures high-quality digital inks for industrial printing or product decoration.
- Entwickelt und produziert hochwertige Druckfarben für den Industriedruck.

www.tritron.eu

TTP METEOR
Stand D40
- Developer of world-class industrial printhead driving technology since 1987.
- Seit 1987 Entwickler von hochwertiger Gerätetechnik für Industriedruckköpfe.

www.ttpMeteor.com

UNICO INKS
Stand H07
- Develops and manufactures digital, screen and flexo inks, primers, coatings and inks designed to be used throughout industrial printing processes.
- Entwickler und Hersteller von Digital-, Siebdruck- und Flexotinten, Primern, und Lacken und Tinten speziell für industrielle Druckprozesse.

www.unico.be

VFP INK TECHNOLOGIES
Stand F08
- Specialist for the design and manufacture of high-tech industrial inks and varnishes.
- Spezialist für das Design und die Produktion von hochwertigen Tinten und Lacken für die Industrie.

www.vfp-ink-technologies.com

VPH GMBH & CO. KG - EIN UNTERNEHMEN DER IGEPAGROUP
Stand F24
- Supplier of paper, printing media, printing hardware and software with the associated consumables and auxiliary products.
- Anbieter von Materialien, Medien und Maschinen, die zur Herstellung von Druck- und Werbeerzeugnissen benötigt werden.

www.igepagroup.com

WELTE GMBH
Stand F10
- A highly competent partner for innovative solutions around picture finishing / upgrading and large format workflow.
- Kompetenter Partner für innovative Lösungen zur Bildveredelung und Large Format Workflow.

www.weltenet.de

Taking print to the next level, ...
... 'cause print is changing!.
priint:suite

WERK II GMBH
Stand E26
- WERK II develops standard components for a publishing infrastructure and for corporate communications.
- WERK II entwickelt Standardkomponenten für die Publishing Infrastruktur und die Veröffentlichung von Produktinformationen für die Marktkommunikation.

www.priint.com

Innovative Inkjet Technology

XAAR PLC
Stand E16
- A world leader in the development of inkjet technology and manufacture of piezoelectric drop-on-demand industrial inkjet printheads.
- Marktführer bei der Entwicklung der Tintenstrahl-Technologie und der Herstellung von industriellen piezoelektrischen Drop-on-Demand Tintenstrahl-Druckköpfen.

www.xaar.com

XENNIA TECHNOLOGY LTD
Stand K16
- Provider of state of the art industrial digital printing solutions to customers worldwide.
- Anbieter von modernsten Lösungen für den industriellen Digitaldruck für Kunden auf der ganzen Welt.

www.xennia.com

XEROX GMBH
Stand H32
- The global leader in technology and services for document management.
- Ein weltweit führender Anbieter von Technologie und Serviceleistungen im Bereich des Dokumentenmanagements.

www.xerox.de

swiss cutting systems

ZÜND SYSTEMTECHNIK GMBH
Stand F26
- A specialist for digital cutting systems and synonymous with precision, performance and reliability.
- Ein Spezialist für digitale Schneidsysteme und Synonym für Präzision, Leistung und Zuverlässigkeit.

www.zund.com

From information provided by the organisers, the official InPrint show guide was produced by Chameleon Business Media, publisher of Specialist Printing Worldwide. All information correct at time of going to press. Visit www.inprintshow.com for latest information.

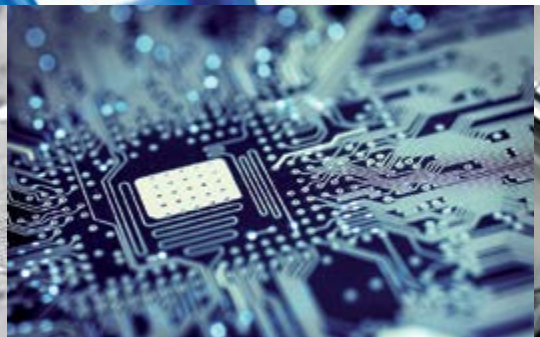
XENNIA

THE FUTURE OF DIGITAL MANUFACTURING IS HERE

Xennia can work with you to define, design and implement a digital manufacturing solution specifically for your requirements.

FIND OUT ABOUT XENNIA'S DIGITAL MANUFACTURING SOLUTIONS AT

STAND K16


UNDERSTANDING THE TRUE COST OF SCREENS

John Schluter provides some realistic advice on reducing reclaiming expenditure

All successful manufacturing companies have an in-depth understanding of their costs. This understanding is one of the primary constituents of their success. Medical device manufacturers, automotive manufacturers, electronic device manufacturers and all others need a precise understanding and control mechanism in place on manufacturing costs. Without this understanding and control, chaos will undermine efficient production and, ultimately, the product concept and manufacturing will fail. Screen-printing companies are manufacturing companies and are governed by the same rules.

Successful screen-printing operations have a good understanding of the costs involved in printing – printing equipment, artwork generation, ink, emulsion, screens and labour. Good managers know what it costs to generate film (or computer-to-screen), what printing machine operation costs and capacities are (prints per hour, cost of maintenance), what dryer operational costs are (gas or electric), what emulsion or film costs in screen-making are, and the time and cost to set up and print a job. Screen cleaning and reclaiming costs appear to be treated differently and yet, surprisingly, contribute a significant cost to most screen-printing operations.

It makes sense for many larger shops to make use of automated screen cleaning equipment

SMALL SCREEN-PRINTING SHOPS

I don't know how many thousands of small printers I have spoken to over the years that cannot reclaim more than four or five screens in one hour, using what they think are cheap/low-cost products and methods (mineral spirits, reclaiming powder, soy or citrus cleaners, haze removers and simple degreasers).

A small manual shop (one or two manual presses) producing 100 dirty screens a month (1,200 annually) accumulates an annual screen chemical cost of $1,080.00. Using a labour rate of $10.00/hour, and a chemical cost of $0.90/ screen, the total annual small manual shop's reclaiming cost is $3,480.00.

This may not appear to be a large number but, remember, this is a small operation that

Continued over

Dip tanks and associated cleaning chemicals are an effective means of screen cleaning and reclaiming

Small Shop Reclaiming Chemical Cost Analysis

Product	Function	Usage/Screen	Cost/Screen
Mineral Spirits ($12.00/gallon)	Remove Ink	3 ounces	$0.30
Reclaiming Powder ($40.00/pound) (mixed 2 ounces per gallon=$5.00 per mixed gallon)	Remove Emulsion	3 ounces	$0.12
Haze Remover ($30.00/gallon)	Remove Print Image Stain	2 ounces	$0.47
Degreaser ($20.00/gallon) (mixed 1:20 with water=.95¢ per mixed gallon)	Final step, eliminates any remaining debris)	2 ounces	$0.01
Total Chemical Cost/Screen			$0.90

Small Shop Annual Cost Analysis

Chemical Cost/Screen	$0.90
Labor (5 screens/hour) ($10.00/hour wage)	$2.00
Total Chemical Cost/Screen	$2.90
Annual Reclaiming Cost (reclaiming 1,200 screens/year)	$3,480.00

would spend about $3,000.00 to $4,000.00 a year on ink and possibly $1,500.00 on direct emulsion. So, relatively speaking, this is a huge cost.

MEDIUM SCREEN-PRINTING SHOPS

Medium screen-printing shops (at least two automatic presses) generally use screen reclaiming products that are a step up in technology when compared to a small shop. It is common for these medium shops to use products manufactured by one or more of the recognised screen chemical companies in our industry. These products being used are advertised as 'safer', they are typically more expensive and generally have higher performance. The products are designed specifically to clean and remove textile inks and emulsions.

Labour at $10.00 per hour in a larger printing operation is more efficient than a small shop. Typically, a dedicated screen reclaimer will be capable of reclaiming 20 screens/hour. This difference is due to a more efficient work environment. Generally, the workstation has an actual washout booth, typically a more powerful pressure washer and usually quality scrub pads. All of these components make the job of reclaiming the screens quicker and more thorough.

Although the chemical cost/screen is the same in a medium shop as in a small shop, the medium shop prints with a larger screen. The difference in size between the small shop's screens (these manual screens measure 20 x 22 inches or 440 square inches) and the medium shop's screens (these automatic screens measure 23 x 31 inches or 713 square inches) is 273 square inches or 38%. A medium shop is reclaiming 38% more mesh/screen than a small shop.

An average, medium shop, with two automatic presses will produce 30 screens to be reclaimed each day. This calculates out to be 600+ screens a month or roughly 7,500/year.

Medium Shop Reclaiming Chemical Cost Analysis

Product	Function	Usage/Screen	Cost/Screen
Screen Wash/Ink Degradent ($20.00/gallon)	Remove Ink, allowing for water rinse	2 ounces	$0.32
Emulsion Remover (concentrated liquid with additives) ($90.00/gallon) (mixed 1:20 with water=$4.28 per mixed gallon)	Remove Emulsion	3 ounces	$0.10
Haze Remover ($30.00/gallon)	Remove Print Image Stain	2 ounces	$0.47
Degreaser ($20.00/gallon) (mixed 1:20 with water=$4.28 per mixed gallon)	Final step, eliminates any remaining debris	2 ounces	$0.01
Total Chemical Cost/Screen			$0.90

Medium Shop Annual Cost Analysis

Chemical Cost/Screen	$0.90
Labor (20 screens/day) ($10.00/hour wage)	$0.50
Total Chemical Cost/Screen	$1.40
Annual Reclaiming Cost (reclaiming 7,500 screens/year)	$10,500.00

Again, this is a large amount of cost when compared to other costs in a two automatic press operation. The $10,500.00 expense is second to ink and costs more than all other supply items.

It is interesting to note that the cost/screen is the same as the small shop but, due to the increased mesh area (38%), and an upgrade to higher quality chemicals, the cost is actually reduced in the medium shop!

LARGE SCREEN-PRINTING SHOPS

Large screen-printing shops reclaim screens in a variety of methods. Many have experimented with automation over the years, to varying degrees of success. Large printers can justify the expense of automation much more simply than a small or medium size operation.

For a large shop cost example, we will describe the costs related to cleaning ink from the screens with a single stage machine, automatic screen washing machine. There are many makes and models of these machines, but the majority of them operate on a simple principle. Screens are placed in an enclosed cabinet, where a pump sprays a liquid ink cleaning solvent at the screen through a series of spray nozzles.

The solution, gravity feeds back into the reservoir, where it is continuously used over and over. Every installation is different, but most shops using these machines see a consumption of one to two ounces of chemical solution/screen wasted due to drag out. Basically, the solution that is on the mesh and frame is carried away with the screen when it is removed from the machine. The other chemical consumption with this process is the ink load, or contamination of the cleaning solution. If the screens are well

Automatic Reclaiming Chemical Cost Analysis

Product	Function	Usage/Screen	Cost/Screen
Screen Wash/Ink Degradent ($18.00/gallon)	Remove Ink, allowing for water rinse	2.5 ounces	$0.35
Emulsion Remover (concentrated liquid with additives) ($90.00/gallon) (mixed 1:20 with water=$4.28 per mixed gallon)	Remove Emulsion	3 ounces	$0.10
Haze Remover ($30.00/gallon)	Remove Print Image Stain	2 ounces	$0.47
Degreaser ($20.00/gallon) (mixed 1:20 with water=$4.28 per mixed gallon)	Final step, eliminates any remaining debris	2 ounces	$0.01
Total Chemical Cost/Screen			$0.93

Automated Shop Annual Cost Analysis

Chemical Cost/Screen	$0.93
Labor (200 screens/day) ($12.00/hour wage)	$0.48
Total Chemical Cost/Screen	$1.41
Annual Reclaiming Cost (reclaiming 50,000 screens/year)	$70,500.00

Many screen-printing businesses overlook the cost of screen cleaning and reclaiming, a significant cost in the scheme of the process

scraped, or pre-cleaned before they enter the machine, the chemical will enjoy a longer life. If a large quantity of ink is left on the screen (which is the reality with many shops) when it is placed in the machine, the functional life of the solution will be short. The filtration/purification ability of these machines is generally crude and inadequate.

A large production printing facility with five or more automatics will easily produce 200 screens/day that need to be reclaimed. Reclaiming these is essentially a full-time job and the likelihood is low that an employee in this position, in many parts of the United States, will work for $10.00/hour. For the following example we will use the fictional compensation of $12.00/hour.

Again, $70,500 in relation to other supply items is large. The point of these three different screen-printing shop scenarios is that, in each case, the cost spent on screen reclamation is significant. In an era where health, safety, air emissions (VOCs) and waste discharge rules and regulations are becoming more detailed and restrictive, this area of screen-printing demands a professional approach. Attributes such as price/gallon, or a casual reference to soy, citrus or biodegradable may not be the best decision making criteria.

The new generation of products that are water-based or water diluteable may deserve consideration. Products that perform dual roles (for example, an emulsion remover which also degreases) should also be considered wherever available. Dipping systems are another way to dramatically reduce reclaiming costs. Many large and small screen-printers have switched to a dipping system to save as much as half on chemicals and labour when compared to conventional methods. All these products can make a major difference in reducing costs. Any process change or product innovation that reduces the amount of chemical used, or the overall cost, is best measured in cos/screen measurements. This allows the comparison and your best option to be clear.

If every owner or screen area manager knew their exact cost of chemicals and labour per screen, decision-making and evaluation of new products and processes would be dramatically simpler. This type of knowledge makes all manufacturers better and screen-printing is not an exception. ■

John Schluter is President of Easiway Systems

Further information:
Easiway Systems Inc, Delano, Minnesota, USA
tel: +1 763 972 6306
email: jschluter@easiway.com
web: www.easiway.com

DIGITAL PRINTING BRINGS NEW POSSIBILITIES

Thomas Poetz insists that design must not cry – design must be made

Thomas Poetz

Our whole life is designed from head to toe; good design we do not really take in. Instead really good design 'is'. Not without reason has design transformed into different areas in the last 100 years. Now we have industrial design, communication design, design photo, design and art, design and architecture or interior design, and textile design for fashion and home textiles.

Everything is designed, and yet there are differences in the quality of that design. This explains not only the many design competitions, which anyone can check in their wardrobe. The material alone is not decisive; the design gives the product the 'whistle'; both belong together. Therefore, the material used must both match the product as well as the design. The structure of the woven or knitted fabric influences the surface, and the haptic behaviour of the goods.

The 'good feeling' of the material is very subjective, of course, not everyone feels the same way; but that is what makes the product. A lot of expertise is required for such a precise product and material aligned design. Various universities in Germany today are equipping their students with the different technologies for high-quality industrial, communication and textile design.

NEW DEMANDS FOR DESIGN

New technologies, such as digital printing, have made new demands on design and will do even more so in the future. The rapport, the repeating motif, was not invented because the designer loved it; it stemmed from the prevailing textile printing technology, which was rotary screen-printing. With the possibility of digitally printing large amounts of textiles for apparel and home textile products, using high-performance machines from Durst, Zimmer, Reggiani, MS, Konica-Minolta and Robustelli, this is no longer necessary because endlessly large motifs can now be printed. This gives the textile industry as well as home textile and fashion design completely new, unimagined possibilities. This of course must be individually configured so that it can be adapted as needed.

This is not a trivial task because sometimes we may not even imagine what the new design could look like. Digital printing also involves the possibility of revolutionising the entire work-flow of textile products from design to distribution. Current Collections can be individualised, with patterns to match the colour, cut and digitally scaled and already printed as cut-outs. The customer orders over the Internet and pays in advance, but only if they like what is offered to them as a template. Very few people who are interested in fashion, are born fashion designers and hardly anyone who likes to decorate at home can be a specialist trained interior decorator or painter.

DESIGN FOR THE DIGITAL AGE

Therefore, design for the new digital age has to have the right degree of freedom so that customer can customise the product according to his wishes; but take him by the hand, so that he becomes the most creative layman and can be proud of his personal product for a long time thereafter. This is not an easy task, but it is the challenge that designers have to face today.

The manufacturer of individualised goods needs to recognise the high value of professional designs and to honour them.

Also for design professionals, digital printing offers unprecedented opportunities because today almost all surfaces can be printed. The advertising industry has quickly used the advantages of digital printing, and now has the fastest opportunity to conquer a new market.

Printed interior decoration (PID) is the buzzword for the coming years. Architects, interior designers and designers who are already dealing with the topic of digital ink-jet printing, are securing a decisive head start when it comes to presenting newly designed products to sell to the customer. It is advisable to create here a platform of communication, to the print service, participating manufacturers of ink-jet printers, inks and media, but especially architects, interior architects, designers, investors, banks and clients of public projects.

This platform will be presented at the PID conference in November 2014 in Düsseldorf (see page 51 and www.printedinteriordecoration.org for more details). ■

Thomas Poetz is a consultant in the digital textile printing industry

Further information:
3T Inkjet Textile Consulting, Rohrdorf, Germany
tel: +49 8032 1416
email: thomaspoetz@gmail.com

J-TECK 3

true digital

Visit J-Teck3 Hall 021-J24

introducing

J-CUBE Kf & J-CUBE Rf

J-CUBE

Kf

Rf

J-Teck 3 s.r.l. Via per Montorfano, 68/70 -22023- Albese con Cassano (Co) - Italy
Tel. +39 031 428102 - Fax +39 031 4290102 www.j-teck3.com e-mail: info@j-teck3.com

EFFICIENCY IN TEXTILE PRINTING

Simon Jones reasons why buying low-cost screen-printing consumables is a false economy

The latest screen chemistry and process techniques are reducing production time at the pre-press and post print stages, helping printers ensure that when jobs go on-press they have everything they need to ensure a successful and profitable production run.

While in many countries the economic outlook remains challenging, focusing on sustainability and adopting cleaner, safer and more efficient technologies will help screen-printing to thrive. To this end, there are now new screen cleaning products available that not only maximise operational efficiency and costs, but are also considerably safer to use compared to traditional cleaning products.

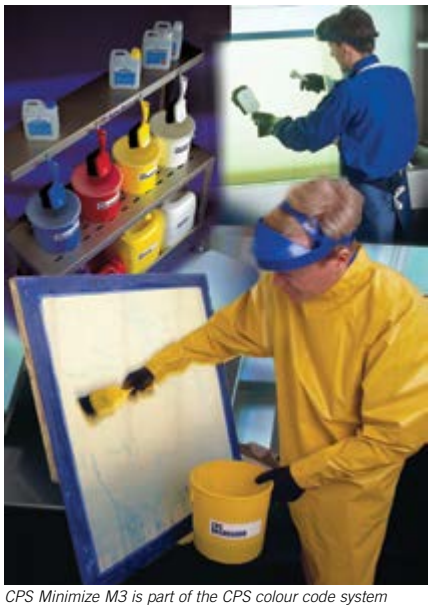
To maximise efficiency, printers need to consider the bigger picture when specifying and selecting products, looking at the printing process as a whole and planning for long-term efficiency rather than short-term savings. Buying the 'value' range of products can lead to more product being bought and/or a combination of products to achieve what one premium/better quality product can deliver, meaning that those short-term 'savings' are not really savings at all.

EMULSION SELECTION

This consideration should therefore be made when selecting an emulsion. A quality emulsion will provide the necessary durability to last the print run but will decoat easily from the mesh after printing. A quality emulsion will also resist 'fusing' after contact with solvents, whereas some emulsions can become extremely difficult to remove and require additional processing and haze removal chemicals, which adds to their true cost in use.

In the current economic climate it is not enough to provide consumables at the lowest price. Textile printers are demanding ever greater reliability to minimise downtime and the costs of waste, and consumable manufacturers are working hard to supply it. For example, if there is a problem with just one screen for a six-colour job, the whole print run is stopped or delayed.

In addition to providing printers with a fast acting, high performance cleaning capability suitable for cost conscious printers, the best of today's screen cleaning consumables are now also low odour, making for a less smelly, more pleasant working environment. Using a quality cleaner also means peace of mind. Screen-printers are not experts in the formulation of process chemicals and have to take the information provided by suppliers on the labels of printing and cleaning solutions at face value. Trusted suppliers such as CPS are ethical and professional, offering less harmful and clearly labelled products with accurate information and advice.



CPS Minimize M3 is part of the CPS colour code system

Minimize M3 is designed for textile printers

CPS has recently launched a new cleaner that offers a more efficient and cost-effective option for textile screen-printers. CPS Minimize M3 has been specifically formulated to enable printers to leave behind low cost, low performance and potentially hazardous screen cleaning chemistry and maintain consistently high levels of quality and productivity using a much safer product.

REDUCING NEGATIVE IMPACT

As the name suggests, CPS Minimize M3 significantly reduces the negative impact of solvents and consumables used for ink cleaning. Instead of using solvent-soaked tissues or cloths to clean screens at the end of a print run, the CPS concept of using water miscible screen washes is less expensive, more efficient and produces less waste. The specially developed blend of green solvents used in CPS Minimize M3 dissolves the ink with the same level of performance and efficiency as traditional screen washes.

Textile printers who use low cost products, will find they contain relatively high levels of VOCs (volatile organic compounds) and COD (chemical oxygen demand in waste water), and may not be able to comply with the demands of current legislation. However, CPS Minimize M3 incorporates a specialised formulation to reduce COD by 80%, together with low levels of VOCs. Indeed, VOC levels are more than 90% lower than hydrocarbon solvents, presenting less danger to the environment. The use of CPS Minimize M3 can reduce waste water charges due to the lower COD content and, because it is a non-flammable product, insurance fees can be kept low.

The short-term satisfaction of saving money by buying low-cost screen cleaners is soon superseded by the anguish caused by poor printing, rejected deliveries and the dreaded downtime; but the new products from the market leaders will save you money as well as headaches. In short, buying low-cost screen-printing consumables is a false economy. This might not be a new argument, but, nevertheless, many textile printers have bought cheap and lived to regret it. ■

Simon Jones is CPS Commercial Manager at CPS Chemical Products & Services

Further information:
CPS Chemical Products & Services
(a trading division of MacDermid Autotype Ltd), Wantage, Oxon, UK
tel: +44 1235 771111
email: pressrelations@autotype.com
web: www.cps.eu

Applying Minimize M3 with a brush is more efficient and eliminates the problem of waste disposal of solvent soaked cleaning rags

A NEW ERA OF STABILITY AND OPPORTUNITY

Specialist Printing Worldwide spoke exclusively to Matthias Graf and Dr Christian Maas about the implications of the recent acquisition of 85% of Kammann Maschinenbau by KBA.

Since 1955, the Kammann name has been synonymous with the supply of high quality equipment for the decoration of hollow containers made from glass, plastic and metal. In 2010, the company re-emerged from financial restructuring following the purchase of tangible assets by a combination of the company management and a Munich-based private equity firm.

"As part of our long term strategy after restarting the company, it was always our desire to seek a new consolidation with a shareholder that was a strong machine builder" explained Matthias Graf, joint managing director with Dr Christian Maas. "First, we had to instigate financial competence within the company and then we could look to further the business. After achieving our goals sooner than originally planned, the next logical step was to enter into a long term partnership with a new strategic partner. From a shareholder's point of view, this was what we had always wanted after restarting the business".

In July 2013, Koenig & Bauer (KBA) acquired 85% of Kammann Maschinenbau, with Matthias Graf and Christian Maas retaining the remaining 15% stake. Founded in 1817, the Koenig & Bauer Group is the second-largest press manufacturer worldwide and offers a broad product range to the global media industry. However, following difficult conditions in its traditional markets, KBA announced last year its intention to look for targeted acquisitions in 'promising print segments' to expand its position in the growing and widespread packaging market.

Matthias Graf and Dr Christian Maas, joint Managing Directors of KBA-Kammann.

"There were two key factors that came together" enthused Christian Maas. "The strong growth of Kammann over the last three years since the restart, and on the KBA side, their wish to diversify their business away from the newspaper and roll-to-roll offset sectors into other markets, especially the packaging sector. It is a real fit and we are really happy to enter into this set up. KBA is a renowned company and is actually the oldest machine manufacturer in Germany".

KBA-Kammann manufacture decoration machines for cosmetic packaging, large glass bottles, drinking glasses and laboratory glassware.

CUSTOMER BENEFITS

Long term stability, increased investment in development research and accelerated innovation are cited as some of the main benefits that the new set-up will offer Kammann's customers, as well as possible opportunities to tap into KBA's extensive aftersales services network throughout the world.

"Our customers don't have to worry about recent or forthcoming negative financial results from KBA. We all know their main businesses are decreasing, so to help turn around results they are looking to invest in companies in the packaging market that have activities in printing, like Kammann. They have a long term strategy; although KBA is on the stock exchange, 40% is still owned by the eighth generation of one of the two founding families. So they maintain many values and philosophies of a family owned company" commented Matthias Graf. "By culture, it is a very good fit" agreed Christian Maas. "We were a match, sharing a very good German machine-making philosophy".

The company's headquarters will remain in Bad Oeynhausen, Germany.

NAME CHANGE

Subtle changes will be made to Kammann's public appearance, including the name change from Kammann Maschinenbau to KBA-Kammann. "Keeping 'Kammann' in the name was part of the deal" Matthias Graf confirms. "It was important for KBA because they know it is so well established in the market". With 180 employees in Germany and approximately 20 more in strategic international locations, the headquarters will remain in Bad Oeynhausen, Germany. "That will definitely not change" states Christian Maas. "We will stay self-sufficient and autonomous. That's always been the plan from the KBA group perspective, because there aren't any relevant synergies that would work better if Kammann were absorbed into their organisation". Synergies that Kammann could take advantage of within the KBA organisation may include purchasing, procurement, construction and engineering, logistics and sales networks. "But KBA know it is important to save the culture and strength of a small company such as Kammann if it is to deliver full value to their group. They want to keep a little distance to see how we work and how we could integrate their support so that we'll benefit best from it" added Matthias Graf.

LEADING MACHINE PRODUCER

With annual sales of over €35 million in 2012, Kammann is a leading producer of equipment for special printing applications covering various niche markets. Dedicated to glass and plastic hollowware decoration, as well as roll-to-roll web printing, the company has built up a broad and loyal customer base around the world. Combining complex material transport with a variety of surface conditioning techniques has become the company's core competency and innovation focus. Today, fully automatic, CNC-controlled container decoration machines with up to twelve colours are the cornerstone within Kammann's product portfolio. Applications include bottles, glasses, flacons, tubes, cartridges, jars, cups, candles.

GLOBAL NETWORK

Kammann currently operates sales and after service subsidiary facilities in key regions such as China, Russia and USA. Although all manufacturing and coordination will continue to be managed from the headquarters in Bad Oeynhausen, future opportunities could arise to cooperate with KBA's global service networks. For example, KBA has approximately 120 expert technicians in China that could assist the dedicated Kammann sales team. "We will definitely strengthen the way we are seen by our customers in various countries. The name KBA means a lot to many people in the world, so being part of the group will at least in terms of after sales service help us to sell our product" said Christian Maas.

After exceeding predicted sales levels since opening in 2012, Kammann's Chinese branch office will move to new expanded premises in Shanghai in April to accommodate an increased workforce and a training and demonstration facility. "We have decided to integrate machines into our training centre so we can show customers the whole UV screen decoration process with the help of our ink and mesh partners. Our sales and service network is much more intensive in the Asia Pacific area than ever before" enthused Matthias Graf. "One of our long term strategies could be to add manufacturing capabilities to our Chinese office, as well as develop our facilities in other important markets such as Latin and South America. KBA has presence in those regions that would be an advantage to our market position" added Christian Maas.

DIGITAL OPPORTUNITIES

Although traditionally an innovator in the field of screenprinting, last year Kammann introduced an inkjet module onto an existing machine to work in combination with screen technology. "That was to demonstrate digital possibilities and abilities we have to complement the established ways we work with screen" comments Christian Maas. "However, we see many machine makers promoting solutions where more or less everything is digital. We believe that would be too much for many of our customers that are not ready to commit themselves fully to digital technology. There have been large advances in screen technology too, so there is a lot to consider. I think digital and screen will complement each other where they give a real benefit – there is a real reason to invest in digital, but not at all costs. KBA has put a lot of effort into developing their own digital competence in machinery, so this is another area where we will benefit from each other's knowledge. Access to expertise from their engineering competence could positively influence our work in many areas".

Matthias Graf concludes: "We are really working on the long term benefit of introducing machines into the market that show our customers we have the flexibility to integrate every kind of decoration they need". ■

KBA-Kammann are experts in plastic hollowware decoration.

Further information:
KBA-Kammann GmbH
Bad Oeynhausen, Germany

tel: +49 5734 5140-0
email: mail@kba-kammann.com
web: www.kba-kammann.com

THE ADVANCES IN DIRECT-TO-GARMENT PRODUCTION

Peter Holland outlines how technology has changed the garment printing industry.

With a long, illustrious 113 year old history, Brother International Corporation was started as Yasui Sewing Machine Company by Kanekichi Yasui in Japan in 1908, inherited by his brother in 1925, and named Yasui Brothers Sewing Machine Company. In 1954, Brother International Corporation was established as an exporting company to overseas. Since then, the Brother Group has expanded to manufacture and distribute home and industrial sewing and embroidery equipment, industrial garment printers, laser and ink-jet printers and Multi-Function Center (MFC) machines for office, home and home office, plus P-Touch Labelers, as well as gear motors, throughout the world. As of April 2013, the Brother Group now has 17 manufacturing facilities and 52 sales facilities, in 44 countries and regions.

As a long-time leader in the field of award-winning laser and ink-jet printers for office and home, as well as sewing and embroidery technology, it was only natural that Brother fused these technologies together to bring direct-to-garment printing to the decorating industry. After several years in development, Brother introduced its first garment printer to the industry in 2005. While many players come and go in this industry, Brother, a name synonymous with quality and value, is dedicated to providing durable, reliable garment printers to the speciality printing and apparel decorating industry.

Brother, a leader in the direct-to-garment industry, was among the first into this market and we are in for the long haul. We have a long-term business plan for this market. Being a printing technology leader, we have the background, the expertise, and the vision to continue to develop leading technology for this evolving marketplace.

Brother sees many start-up businesses that need a high level of support and education

Product training at the Brother Academy showroom

CONTINUED IMPROVEMENTS

While traditional screen-printing is still widely considered the best way to print a garment, this position is slowly changing as direct-to-garment continues to make improvements. New advancements are leading to better consumer confidence in this technology. As digital printing becomes more accepted and grows in popularity, direct-to-garment printing will see a tremendous rise in sales volume because of consumer demand for personalisation. Digital printing allows a business to give its customers a highly customised multi-colour design and we believe apparel businesses are seeing the need to supply their customers with a personalised option marketing their services as direct-to-garment printed apparel.

In the past nine years since it entered the market, we have seen a move towards 'better, faster, cheaper' – that is, better chemistry, faster print-heads, and a lower cost of consumables. We believe that future growth in this market is predicated on the 'better, faster, cheaper' concept meaning that we believe technology will become even more user-friendly and cost efficient, and print speeds will become even faster. Growth is insatiable for this technology.

The Brother GT-3 Series direct-to-garment printer

Some of the biggest changes in the industry reflect the improvement in technology. For example the quality of dark garment printing has risen tremendously due to print quality and the print process. The Internet has sparked significant growth because it allows customers to place orders for their personalised apparel.

Over the years, direct-to-garment printers have been pigeon-holed into being seen as having limited capabilities, printing only on shirts, and being limited to printing only short runs or photographs – the traditional weaknesses of screen-printing. Direct-to-garment printers have evolved since their inception roughly nine years ago, expanded capabilities and, with the advent of many available after-market accessories, have made this technology ideal for printing on a variety of different mediums. Our garment printers are equipped with the deepest platen height adjustment, making it capable of printing on denim, zippered hoodies, yoga pants, towels, canvas bags, and more.

PRODUCTION VERSATILITY

Available platens enable us to print non-traditional design placement, print on caps, socks and even shoes. Poly pre-treat liquids allow for printing on poly/cotton blends and also on other soft goods such as coasters, can

Examples of T-shirts printed on the Brother GT-3 Series

coolers; some customers even print on leather. This exponentially expands the market for direct-to-garment printing to other industries, including the promotional industry, secondary and vocational schools – verticals from which we have seen a lot of growth.

Brother continually strives to introduce accessories that help businesses expand their offerings and help make it easier for entrepreneurs to enter the garment decorating industry. For example, Brother just launched several offerings at the recent Screenprinting Guild of America (SGIA) Industry show, held in Orlando, Florida, USA last October. This includes innovative DTG Pre-Treat Paper, made by Neenah Paper, Inc, exclusively for Brother GT Printers with white ink. The first of its kind, these no mess sheets give start-ups the opportunity to get into the business of printing on dark garments without having additional initial investment in pre-treatment equipment.

Additionally, we anticipate an expansion in the marketplace, with the advent of recent financing programmes and continued development to offer similar technology with ever decreasing footprints, bringing the technology and price point down to where it is a good opportunity for a home-based or small business. We believe this will create a more

Continued over

Printing CMYK and white direct with the Brother GT-3 Series

THE STATE OF THE INDUSTRY

Heiner Rupperath comments on the importance of the garment printing business

Brother has been selling the GT digital garment printers in Europe, the Middle East as well as in Africa (EMEA) since 2007. The head-quarters for this area is located in Emmerich am Rhein, Germany. With its sales and service support team Brother is covering around 100 countries with more than 30 different languages, allowing us to gain a lot of positive experience about so many different applications for our GT.

The importance of the garment printing business has been growing rapidly. If we consider (for the total direct-to-garment market) a market size in the EMEA area of about 400 machines in 2007 only, nowadays 1,000 machines and very soon probably more than 1,500 machines will be sold per year (based on Brother's own internal estimation). Our growth rate in 2012 (with new GT-3 Series) was 130% and, for this year, we are expecting to meet our expectations with a further growth of another 30%.

The industry for this product is still young and many customers are searching for the best solution before deciding to invest. Our strategy during exhibitions and for customer support is to explain the whole procedure for successful garment printing and to identify the best suitable process for each customer individually. To obtain good printing results, it is essential to explain clearly to each customer the important steps required before and after printing a garment, like graphic preparation in a short time or the correct pre-treatment, the difference between using low or high quality garments and, last but not least, the drying process. This is why we have recently introduced the Brother Academy concept.

Looking at the trends in the EMEA area we have recognised that fashion design, unique garment decoration, and screen-printers (lots from one to 300 garments with a variety of colours) are the most growing customer segments along with several others, such as Internet shops and start-up companies. With our well known original Brother print-heads we are providing a fully integrated and reliable production system coming from a well known trademark which has been established in the market for more than 100 years. ■

Heiner Rupperath is Product Manager/Marketing Manager of Brother, Germany

diversified marketplace.

Brother is one of the first direct-to-garment printers to have garment printing inks that are certified safe for use on children's garments by both Oeko-Tex and are CPSIA compliant.* The Brother philosophy is to act continuously to help decrease the environmental impact of all aspects of its business operations so as to positively affect society in the achievement of sustainable development. Brother is committed to enhancing efforts to reduce environmental impacts at all stages of the life cycles of its products.

SUPPORT AND EDUCATION

In addition to its environmentally friendly mantra, Brother is dedicated to service and support of its customers. Providing quality products with solid value, followed with thorough and dedicated on-site customer service is key. With direct-to-garment printing, Brother sees many start-up businesses that require a high level of support and education. These customers need Brother's dedicated on-site service and support to build a successful business. Our team feels it is their opportunity to build a long term relationship with Brother customers by providing solutions that lead to success.

What continues to differentiate Brother from its competitors is our ability to deliver a world-class quality product designed, developed, and manufactured by Brother. From the print driver, firmware, and print-heads, to our exclusive ink formulation, virtually the entire product has been developed internally from our home-grown expertise.

In conclusion, today's Brother direct-to-garment printers match perfectly with society's need for instant gratification and personalisation. Over the next five years, Brother hopes to be developing even better, faster machines, along with more advanced solutions, making the print more cost effective. We feel that this is the key to our future success. ■

*Ink manufactured in compliance with the following 2008 CPSI Act requirement.
– 16 CFR, part 1303, Lead in Paint (<90 ppm lead)
– CPSIA 2008, Section 108, Phthalates (<1000 ppm DBP, BBP, DEHP. DnOP, DINP, DIDP)

Pete Holland is Senior Director of Sales for the Industrial Products Division at Brother International Corporation

Further information:

Brother International Corporation,
Bridgewater, New Jersey, USA
tel: +1 800 432 3532
email: garmentprinters@brother.com
web: www.brother-usa.com

Brother Internationale Industriemaschinen Gmbh,
Emmerich am Rhein, Germany
tel: +49 2822 609 81
email: info@brother-ism.com
web: www.brother-ism.com


DIVE
FESPA 14
DIGITAL
2014
Munich
20-23 May 2014
DEEPER
PRINT
INTO DIGITAL
IMMERSE YOURSELF IN THE LATEST INNOVATIONS FOR DIGITAL PRINT!
Visit Europe's largest focused event for digital wide format print to delve into applications and technological developments. During your 'dive' submerse yourself in rich content, networking and business opportunities.
Attend FESPA Digital 2014, 20-23 May 2014 in Munich, to reach new depths of innovation and success.
REGISTER FOR FREE ENTRANCE AT
WWW.FESPADIGITAL.COM
#FESPADIGITAL
Corporate Partner
Platinum Partner
Platinum Partner
Platinum Partner
Digital Textile Partner
Global Technology Partner
hp
efi
KIP
Mimaki
d·gen
XAAR
FESPA
profit for purpose

CONVERTING SPECIALIST TAKES THE DIGITAL LABEL ROUTE

Short runs and high quality help grow Scandinavian business

A family owned and managed label-converting company based in Skytta, Norway, Ellco Etikett Trykk has an enviable reputation for high quality work. The company specialises in the production of short-run labels, many of which are used outdoors, and are therefore subject to the effects of all kinds of weather.

Established in 1985, when three friends with experience from the label industry decided to join forces to set up one business, the company began by producing its work on a range of reliable but elderly rotary letterpress machines. When the demand for more colours began to combine with requests for shorter run lengths, Ellco knew it was time to look at new technology.

THE EARLY DIGITAL ROUTE

With demand for roll-to-roll work running at typically 500 to 1,000 labels, Ellco began to investigate what digital technology could offer, and in 2005 opted to install a toner-based line. With none of the conventional pre-press costs involved, such as plates and dies, the company immediately noticed an improvement in profitability, although at this stage it retained its conventional technology for longer run work and jobs that involved more difficult substrates.

By now convinced that digital printing provided the answer to its current production problems, Ellco was nevertheless aware of the limitations of its toner-based technology. With demand levels rising, and the need to expand its business, the company began to look at what other digital technology had to offer that would provide a route for future growth.

Christian Egedius, General Manager at Ellco, with the EFI Jetrion 4900

DIGITAL INK-JET MOVES THE GAME ON

To be certain of seeing all the latest technology, a management team from Ellco visited Labelexpo 2011 in Brussels. The visit coincided with the launch of the new EFI Jetrion 4900 series, and Christian Egedius, General Manager at Ellco, and son of one of the founding partners, explained his team's experience at the show.

"We just fell in love with the whole concept of the line and, with the large number of short runs we produce, it simply looked to be the perfect fit for us. The

UV-curable ink-jet process offers a lightfastness and durability approaching that of screen-printing, which makes the machine ideally suited for labels that will be used outdoors," Egedius said following a live production demonstration on the EFI stand.

For Ellco, the Jetrion 4900's capability to digitally print and finish in one pass opened a new world of production possibilities. "With a smooth flow from print file to finished roll, we believe it is the most flexible tool for cost-effective production of UV-curable ink-jet labels. There is no lead-time involved, no over-production and, with its in-line format, no unnecessary transportation of work in progress," adds Egedius. "It is truly a digital line from start to finish."

RAPID RESPONSE

So efficient is the company's new Jetrion 4900 line that Ellco claims it has created a short-term bottleneck in administration and production. Admitting that it's a nice problem to have, Egedius says that the next tranche of investment will address the situation with new workflow software. In the meantime he is busy dealing with delighted customers. "What used to take us a whole week to process is now run-off in two days on the Jetrion 4900 press. This allows us to offer shorter delivery times because we can turn work around overnight, or even in a few hours if it's an emergency. And, best of all, the quality doesn't suffer when we do this, so the customer isn't compromised."

IMPRESSIVE LINE-UP

Aside from its production capabilities, one of the main attractions to Ellco of the Jetrion 4900, when compared with its obvious competitors at Labelexpo, was the design and compact footprint of the line. From start to finish it measures just seven metres, and this includes the unwind and corona treater that allows greater substrate capability. The print station controls, which are located at each end of the line, are based around a touch-screen, and are located at eye-line height for easy ergonomic operation. The print zone itself has CMYK plus opaque white ink, and has change-on-the-fly capability for non-stop running.

The Jetrion 4900 has a compact foot-print of just seven metres, including unwind and corona treater

The web then passes into the laser die-cutting station fitted with dual-head lasers, and is finally fed into a festoon to minimise waste under continuous operation. A semi automatic turret rewinder, with quick changeover, delivers rolls of finished labels for shipping. Full feature finishing such as die-cutting, slitting and back-scoring are all handled in-line, but the press can be operated in off-line mode so that jobs which are not ideally printed and die-cut in-line, can be processed separately.

As a result, the EFI Jetrion 4900 has combined high quality with short runs on labels that had to endure all types of weather conditions enabling Ellco Etikett Trykk to grow its business by offering new products. The company's early experience with toner-based technology showed the way and offered the short run, cost-effective capacity required. But the installation of UV-curable ink-jet technology has changed the whole production capability and opened opportunities for growth in new markets. ■

Further information:
EFI, Zaventem, Belgium
tel: +32 2 749 9423
email: marc.verbiest@efi.com
web: www.efi.com

SCREEN-PRINTING ADDITION PREDOMINATES AT CUSTOM EMBROIDERY SHOP

The benefits of a complete entry-level package and hands-on training

When Bobby Smith opened Elite Embroidery in 2002, he specialised in limited quantities of custom embroidered apparel. If his customers asked for larger amounts of printed items like shirts and jackets, he sub-contracted jobs to screen-printers, which required his clients to wait two to three weeks for delivery.

To provide the one- to two-day deliveries his customers typically wanted, he explored bringing screen-printing in-house, attending trade shows and visiting websites for information on the process and available equipment. "Since I was new to screen-printing, I wanted a company that would stand behind me and give me the help I needed to get started," Smith recalls. "The main reason I decided on Vastex was that it offered not only a complete entry-level package of equipment and supplies, but also hands-on training that would allow me to get started immediately."

ACQUIRING THE NECESSARY TRAINING

"One of the things I liked about the classes was that they are taught by leading industry experts in screen-printing technology, not by company personnel who might view attendees as captive sales prospects," says Smith. "The Screen Printing A-to-Z class I attended, for example, was taught by Doug Grigar, a technical expert and independent consultant to the screen-printing trade. He took the time to explain things and I came away with a much better understanding of what I needed to do.

"It was also reassuring to know that he would be available to help with any problems that might occur once I was on my own," Smith continues.

Tom O'Brien applies the first colour to a shirt

PUTTING TOGETHER THE ENTRY LEVEL PACKAGE

"I booked a one-way flight to the Vastex plant in Pennsylvania, took the three-day training course, rented a U-Haul truck and drove the equipment back to my shop in Massachusetts," Smith recalls. "The entry-level package included everything I needed to get started."

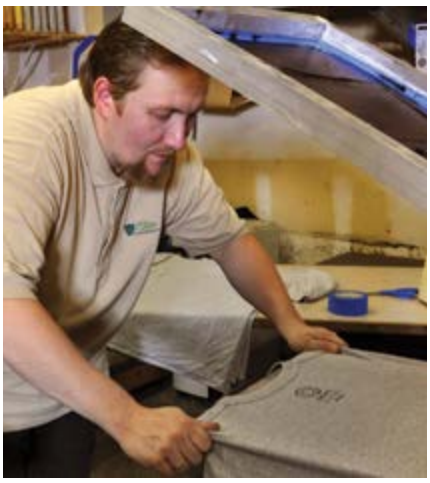
This package included a six-station, four-colour V-1000 Entry-Level Manual Garment Printer with a unique floating print-head for accurate registration. Also included was an entry level Flash Cure Unit with a 1,750W high-density infra-red heater to partially cure (flash) an individual colour in several seconds before printing the next colour. Completing the package was an Econo-Red I Compact Infrared Dryer with 3,500W of digitally controlled heat capable drying up to 150 garments/hour. The components of the system are designed to work together for maximum productivity while allowing expandability when volume increases.

EXPANDING INTO NEW MARKETS

"Before I acquired screen-printing capability, most of my orders came from local landscapers and boat owners who wanted maybe a dozen shirts and hats for their crews," says Smith. "My business was about 75% embroidery and 25% screen-printing. In 2009, when the economy hit the skids, the embroidery business went with it.

"Today, my business is about 70% screen-printing and my markets include small businesses and school systems with orders for several hundred pieces ranging from £310 to £1,550 or more," Smith concludes. "If it weren't for the screen-printing business, in fact, the last few years would have been really rough and I might not even be here today." ■

(From left) Tom O'Brien, Alex Bossi, Randy Pollard, owner Robert Smith, and Amanda Pollard of Elite Embroidery with the Vastex V-1000 four-station, six-colour manual press



Tom O'Brien aligns shirt on a platen

The print head allows tool-free micro-registration, head levelling and off-contact

Further information:

Elite Embroidery, Winthrop, Massachusetts, USA
tel: +1 617 539 3300
email: info@elite-embroidery.com
web: www.elite-embroidery.com

Vastex International Inc,
Allentown, Pennsylvania, USA
tel: +1 610 434 6004
email: info@vastex.com
web: www.vastex.com

UV LED'S IMPACT IN THE SPECIALITY PRINTING MARKET

Stacy Hoge looks at examples of this curing technology in practical applications

Ultraviolet LEDs (UV LED) are taking their place as a mainstream curing technology in many different printing applications. Rapid technological advancements by UV LED manufacturers, ink formulators, and machine builders are being made in all areas, from digital ink-jet to flexography, screen, and even offset, demonstrating the far-reaching potential and growing acceptance of UV LED curing. This article provides real world experience from a printer using UV LED curing and looks at inks and machines now available for UV LED curing in specialty printing applications.

Advances in UV LED lamp technology and UV screen-printing ink formulations have proven LED curing as a viable alternative to medium-pressure mercury lamps. UV LED light sources are ideal for high-speed curing in screen-printing applications such as roll-to-roll, container decorating, sheet-fed, and many more. Let us take a closer look at one printer who was an early adopter of the technology for their operations.

THE EMPIRE EXPERIENCE

Empire Screen Printing located in Onalaska, Wisconsin innovated screen-print methods with the introduction of the first UV LED curing screen-printing press of its kind in the United States. Empire is an industry leader in screen-printing, flexography, digital printing, and doming, employing more than 200 in its 14,000 square m (150,000 square ft) manufacturing facility. It collaborated with Nazdar and Phoseon for three years beginning in 2008 to develop a UV LED screen-printing solution. The result was the Kammann K-61 Eco-Press, a 368mm (14in) wide roll-to-roll press equipped with five cylinder print stations combined with flat screen technology and UV LED curing, which offers enhanced flexibility, precision, and quality. Installed in 2011, the Eco-Press holds a colour registration tolerance of 0.1016mm (0.004in), unheard of in the screen-printing industry. In addition, less operating heat prevents material distortion, making rewinding and re-registering colours easy.

The complete in-line printing process offers many advantages over traditional sheet-fed printing, including the completion of parts from start to finish in a one-piece flow, reduced material waste, and fewer handling errors. This results in shorter production time. Compared to sheet stock, roll stock is less sensitive to dust and contamination, resulting in fewer rejects and has a thinner liner, reducing material waste that is thrown in the garbage or landfills, and it is less expensive.[1]

UV LED curing technology uses significantly less energy, requires no outside venting, and has no ozone emissions. John Freismuth, president at Empire says: "The cost to run a traditional UV press, based on 5,000 hours, is $34,351/year. The cost to run a UV LED press is $658/year. The annual energy savings alone paid for the additional cost of the UV LED lamps." Freismuth says they were replacing the mercury bulbs every 1,000 hours, about every one to three months, but he fully expects to get ten to 14 years out of the LED lamps, especially since they only operate for 1 second out of every 7 second printing cycle. And the low heat from the UV LEDs means they can print on a variety of heat sensitive substrates and no longer need to use a fiberglass conveyor belt. A less expensive rubber belt works just fine with no static charge issues.

Building on this success, Empire has since installed two additional screen presses with UV LED including a three-colour carousel press. Empire built up this press themselves, using air-cooled, 8W/square cm UV LED lamps. The air-cooling eliminates the need for a water chiller using only plant floor air to cool the lamps.

WHERE LED MAKES SENSE

Freismuth says that for them it absolutely makes sense to retrofit UV LED onto small-format screen presses, 368mm (14in) wide and less. For new machines up to about 635mm (25in) wide it also makes sense to use LED instead of mercury because the cost difference is easily offset by the energy savings. But, on these wider machines, it is currently cost prohibitive to retrofit them to LED given the sunk costs in the existing lamps and the cost to retrofit. Empire's operation is currently about 40% LED with the plan to convert all machines over to UV LED eventually. The UV LED lamps play a key role in Empire's commitment to sustainability and the environment. In June 2013, Empire was endorsed by the State of Wisconsin as a Green Tier 1 company for their superior environmental performance. It also received an SGIA Sustainability Recognition Award.

When asked about any issues getting screen inks that will work with the UV LED lamps, Freismuth noted that for the first year heat was needed on the roll-to-roll press to get adequate surface cure. But now heat is no longer needed because the ink formulators developed UV LED curable inks with adequate surface cure, even in roll-to-roll applications running at 50.3m (165ft)/sec where rewinding uncured inks would be a serious issue. The company currently has five UV LED screen ink suppliers and has no issues getting inks to meet its production needs.

"The result of the collaboration between Nazdar, Empire, Phoseon, and Kammann is a milestone in the future of screen-printing," says Phil McGugan, Nazdar's global vice president of sales and marketing. "Empire has proven that adopting LED technology is a key to increasing productivity, reducing cost, and decreasing its impact on the environment all in one stroke. Contributing to this cutting edge solution by developing multiple screen-printing inks was imperative for Nazdar in support of the industry."

CONTAINER DECORATION

Curing screen-printed inks on plastic and glass containers is an ideal screen-printing application for UV LED because of the small

Continued over

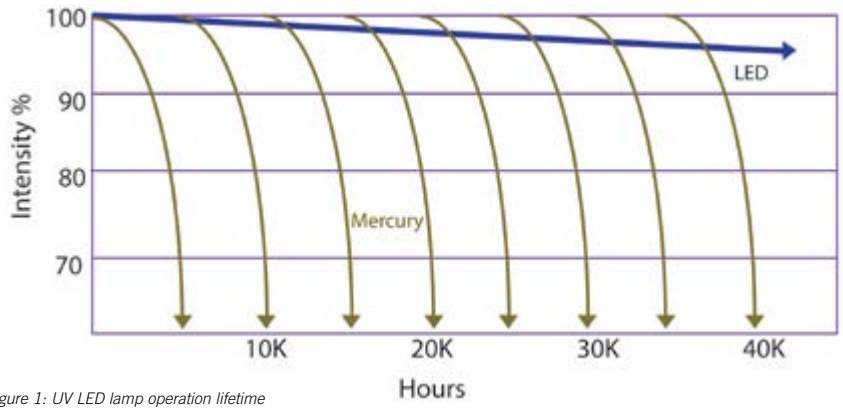


Figure 1: UV LED lamp operation lifetime

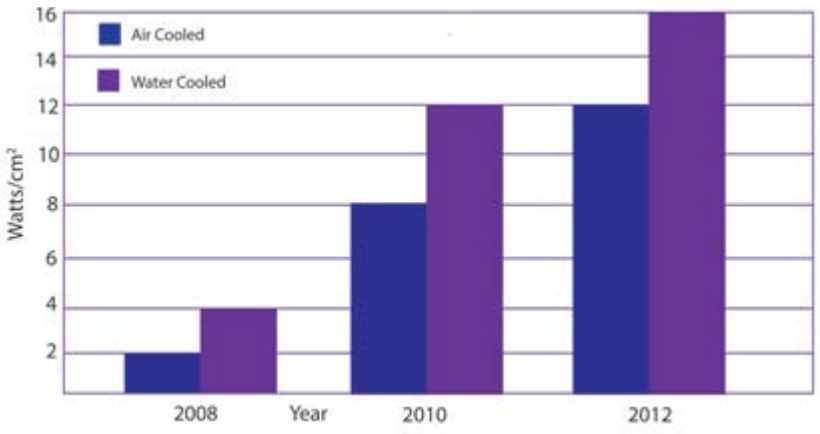


Figure 2: UV LED system over time

print area and need for a compact curing unit that can easily fit into the printing machine. For example, in October 2012, OMSO SpA debuted a container decorating machine which can print up to eight colours on multi-shape plastic and glass containers using UV LED curing. The decorating machine is capable of production speeds up to 90 pieces/minute while delivering accurate colour registration and energy savings of 50% compared to previous versions. Most of this energy saving is due to the high efficiency and instant on/off capability of the UV LED lamps.[2]

Serigraphie Richford Inc, based in Quebec, Canada specialises in printing and decorating glass containers to create distinctive packaging for its spirits, health and beauty, wine, cider, beer, bottled water, soft drinks, and food customers. Serigraphie utilises UV LED light sources for curing inks on glass containers to improve the quality of print.[3] The UV LED lamps also contribute to the company's sustainability efforts since LED lamps contain no mercury and save significant energy.

LED LAMP LIFE-TIME

UV LEDs have a lifetime of more than 20,000 hours of 'operational on' time and beyond if they maintain proper operating temperatures. UV LEDs have a very long life-time so the traditional issue of replacing a bulb every 2,000 to 4,000 hours is removed (see figure 1).

Phoseon Technology has life tests with more than 40,000 hours of 'operational on' time with minimal decrease in intensity. For example, at 20,000 hours of 'operational on' if the curing unit is on eight hours/day x five days/week x 50 weeks/year (2,000 hours/year) it would last for at least ten straight years.

UV LED PERFORMANCE

Prices for UV LED lamps continue to come down even as their output increases, making additional applications feasible both technically and economically (see figure 2).

UV LED system output is four to six times what it was just six years ago. This opens up new opportunities for business owners with fixed-head UV LED arrays.

LABEL AND NARROW WEB

Comparing Labelexpo Europe 2013 (held in late September) to Labelexpo Europe 2011 proves just how rapidly the industry has adopted UV LED technology. More than 80 UV LED curing lamps were installed on equipment at the 2013 show, up from ten instances during the 2011 show. Curing uses ranged from pinning to full cure and many of the machines were 100% UV LED based.[5]

The EFI Jetrion 4950lx LED printer represents a new level of digital label production systems, with improved four-colour, 720 x 720 resolution in addition to speeds of up to 48 m/minute and advanced LED curing. The Jetrion 4950lx printer's higher image quality, finer text, and wider colour gamut expand capabilities to take on more primary label applications as well as pharmaceutical and nutraceutical labels. Its LED technology provides a competitive edge by enabling printing on heat-sensitive and speciality substrates. EFI predicts substantial cost savings of €100/job just from labour and reduced substrate waste, compared to analogue flexo equipment even on short-run jobs.

BRAILLE PRINTING

AB Graphic international recently introduced a digital printing machine for Braille which incorporates UV LED curing. The machine is primarily aimed at the production of pharmaceutical labels, leaflets and booklets and can also be used for any packaging markets where Braille marking is required. Printing Braille allows for better personalisation and flexibility for labels and packaging. To change the message frequently, such as date, name, or language, the press operator simply updates the computer running the line. A traditional stamping method requires installing a new pair of wheels for each change. In addition to personalisation and flexibility, the new printing line allows for higher quality printed Braille on the packaging. This makes the labels easier to read with more language differentiators. The system utilises UV LED curing with a high-viscosity ink 200 microns high that cures at up to 40m/minute, which makes it ideally suited for use within a pharmaceutical environment.[5]

During Labelexpo Europe 2013 Gallus and Siegwerk gave live demonstrations of a new UV LED screen-printing ink (Sicura Flex LEDTec and Sicura Screen LEDTec) for relief varnish suitable for screen-printing raised warning labels for the blind and visually impaired on packaging with hazardous contents as required throughout Europe (EN Standard 272 or ISO 11683).[6] The Gallus EM 280 press was equipped with five flexographic units and one screen unit all cured by UV LED lamps.[7]

3D TEXTURED PRINTS

Direct Color Systems (DCS) offers the Direct Jet 1024UVHS UV LED flat-bed printer, a high-speed, small-format ink-jet printer that utilises in-line printing and produces breakthrough 3D textured prints. These UV LED printers are extremely versatile, offering a printable area of 254 x 610mm (10 x 24in) and prints on substrates up to 152mm (6in) thick. They produce incredibly crisp text and vibrant, full-colour images with outstanding solvent and abrasion durability on a variety of substrates, from wood and metals to ceramic tiles, plastics and glass. Typical applications include cellphone covers, industrial part marking, dial and gauge faces, promotional items, and plaques.[8]

VARIABLE DATA PRINTING

The Domino K600i is a high-speed digital black plate UV LED ink-jet system that prints 600dpi variable data up to 75m (246ft)/minute onto a wide range of uncoated and coated sheet or web materials. Applications include printing seamless alphanumerics, logos, graphics and 100% scannable Grade A verifiable bar codes onto labels, tags, tickets, forms, security products, and direct mail. Automated print-head maintenance functions eliminate the need for human intervention, which has the potential for damaging print-heads and maximises uptime. Users of this printer benefit from fast make-ready, less material waste, and excellent print quality. The air-cooled UV LED lamps increase production speeds and reduce energy use contributing to the lower cost of ownership.[9]

Paul McGovern, sales manager USA at Mimaki comments: "Lower power consumption saves money on power bills, and low-temperature curing with LED works well for heat sensitive substrates, especially in graphic overlays. LED lamps can last more than five years. Print-head assemblies are lighter. Advancements in ink, fast start-up times, and printing on a variety of substrates (leather, synthetics, soft films, medical device logos, markings) have all opened up new markets."[10]

AWARD WINNING FLEXOGRAPHIC UV LED TECHNOLOGIES

Another recent development is UV LED flexographic printing. During Labelexpo Europe, Mark Andy and Flint Group were honoured for their nearly two years of joint development to make UV LED narrow web flexographic printing an available mainstream technology for converters and printers world-wide. Mark Andy was honoured with the prestigious 'Award for Innovation' for delivering a UV LED curing system called ProLED while Flint Group won an 'Award for Innovation' for their development of EkoCure UV LED printing inks. This printing system can print pressure-sensitive labels and unsupported films, 254 to 444.5mm (10 to 17in) wide, at speeds up to 230m (750ft)/min while delivering in excess of 50% in energy savings compared to traditional mercury lamps.[11]

FIXED-HEAD APPLICATIONS EXPANDING UV LED CURING

As discussed here ink formulators, press manufacturers, and machine builders continue to innovate and collaborate to move UV LED technology into new applications. While UV LED originally made inroads in wide-format ink-jet applications where its small form factor lent itself naturally to the moving head platform, we are now seeing fixed-head LED arrays for small-format applications. As UV LED costs decline and output increases, there is no reason to doubt that UV LED will expand into medium-format printing and other applications due to the energy savings, production quality, environmental benefits, and overall cost savings. ■

Stacy Hoge is Marcom Specialist at Phoseon Technology

References

1. Kammann K-61 Screen Print Eco Press, http://www.empirescreen.com/_pdf/kammann.pdf
2. OMSO press release, http://www.omso.it/index.php/en/news-and-events/servobottle/
3. Application: Decorative Bottle Printing, Phoseon Technology SLM Illuminations, Q3 Newsletter, 2013, http://www.phoseon.com/Newsletter-Q313/page1.pdf
4. Phoseon Technology press release, http://www.phoseon.com/Press%20Releases/Phoseon-Technology-Sees-Rapid-UV-LED-Growth-at-Labelexpo-Europe-2013.pdf
5. Application: Braille Printing, Phoseon Technology SLM Illuminations, Q2 Newsletter, 2013, http://www.phoseon.com/Newsletter-Q213/page1.pdf
6. Siegwerk press release, http://www.siegwerk.com/en/news-media/news-press-releases/single-view/article/labelexpo-2013-siegwerk-stages-live-demo-with-new-ink-series-for-led-uv-technology.html
7. Ink makers push low migration and LED by Danielle Jerschefske, Labels & Labeling, Volume 35, Issue 5, 2013, page 145-146, http://www.labelsandlabeling.com/sites/labelsandlabeling/files/magazine/labels-vol35-issue5-2013/WebSearch/page0145.html
8. Direct Color Systems press release, October 10, 2012, http://www.directcolorsystems.com/news/1210-UVHS.php
9. Application: Variable Data Printing, Phoseon Technology SLM Illuminations, Q4 Newsletter, 2013, http://www.phoseon.com/Newsletter-Q413/page1.pdf
10. Perspectives on UV LED Curing, by Gail Flower, Screen Printing, April/May 2012, p.16-19, http://www.nxtbook.com/nxtbooks/STMG/sp_20130405/index.php?startid=16#/18
11. Mark Andy press release, October 3, 2013, http://www.markandy.com/en/news/466-mark-andy-shines-bright-at-labelexpo-europe/

Further information:
Phoseon Technology, Hillsboro, Oregon
tel: +1 503 439 6446
email: info@phoseon.com
web: www.phoseon.com

LED OVERVIEW

Issue 2 / 2013 of this magazine included a 'Focus on LED' feature and issue 3 / 2013 offered contrasting information. For an overview of this topic, these articles can be downloaded at www.specialistprinting.com

ANNIVERSARY EXHIBITION SETS RECORDS ACROSS THE BOARD

Labelexpo Asia reaches new visitor heights

Labelexpo Asia 2013 reached new visitor heights as it celebrated its tenth anniversary edition. Held at the Shanghai New International Expo Centre (SNIEC) during 3 to 6 December, the four day exhibition was attended by a huge number of high quality visitors to see the largest ever floor plan of exhibitors.

Welcoming 21,416 visitors, Labelexpo Asia 2013 achieved an increase of 18.8% over 2011's show which attracted 18,019 attendees. Visitors came from 87 countries, up 11% from 74 countries in 2011. Covering 8,500 square m of net space, with just under 300 exhibitors, the show was larger by 10% versus the last event and also experienced its highest ever onsite level of space rebooking for 2015.

Many leading international and Asian companies exhibited including Avery Dennison, Epson, Gallus, Lintec (Suzhou) Tech Corporation, Omet, Nuova GIDUE, UPM Raflatac, Xeikon, Zhe Jiang Wei Gang Machinery Co and Zhongtian Machinery Works Co. There were more than 70 running machines being demonstrated. New products unveiled for the Asia Pacific region included Screen's Truepress Jet L350UV digital label press, Avery Dennison's TurnLock Laminating System and Brotech's new turret rewinder with automatic core take-off. Nuova Gidue's innovative M3 digital flexo press was a major attraction with packed demonstrations.

WELL-ATTENDED CONFERENCE PROGRAMME

A two-day conference programme ran alongside the exhibition and featured six well attended sessions. Topics included digital printing, beverage labeling and the importance of innovation. The opening keynote was delivered by Jukka-Pekka Haapanen, vice president Asia Pacific at UPM Raflatac, who gave an overview of the latest global trends and market forecast.

John Davy, show director of Labelexpo Asia comments: "This has been the perfect way to mark the show's tenth anniversary with Labelexpo Asia 2013 being the biggest, busiest and best edition to date. We've had fantastic footfall with exhibitors reporting plentiful and strong sales leads while the exhibition floor and conference sessions have been packed for the duration of the event. We've also managed our highest ever rebook with 50% of space already confirmed for 2015 which is highly unusual for Asian exhibitions.

"This year's success is a key indication that China's economy is showing clear signs of recovery and is picking up pace. With so many market leading suppliers and manufacturers on board, there can be no doubt in the minds of the Chinese converting industry that this is the must-attend show for the label and package printing industry." ■

Further information:
web: www.labelexpo.com

LEADING INTERNATIONAL BRANDS CONFIRM THEIR COMMITMENT

Seven sponsors confirm their support of Fespa Digital 2014

HP (Corporate Partner), Xaar (Global Technology Partner), EFI (Platinum Partner), Kornit Digital (Fespa Fabric Corporate Partner) and d.gen (Digital Textile Partner), have all confirmed their commitment to Fespa by continuing their partnership for Fespa Digital 2014. This illustrates their confidence in Fespa's ability to attract the right calibre of audience. Also confirmed are KIP and Mimaki as new Platinum Partners for the Munich event.

Ronen Zioni, Marketing Director, Graphic Solutions Business, EMEA, HP, comments: "On the back of a very successful Fespa in London last year for HP, we are looking forward to Fespa Digital 2014 and the opportunity to further engage the market and present our products and solutions to new and existing customers. Fespa trade shows remain a key platform for reaching decision makers in the sign and display market and, as such, they are a crucial element of HP's go to market strategy. Reflecting this importance, we are proud to be a Fespa Corporate Sponsor and we anticipate another successful show in Munich."

Commenting on the addition of new sponsors to the line-up Fespa, CEO Neil Felton says: "This is the first time KIP and Mimaki have sponsored a Fespa event and we're delighted to have them on board as partners for Fespa Digital 2014. Our sixth Fespa Digital show is the perfect environment for them to gain traction with an extensive international community of wide-format printers."

GREENER PORTFOLIO

Mike Horsten, General Manager Marketing EMEA, Mimaki Europe, states: "Fespa is one of the most important events for the industry, which is why we've chosen to sponsor Fespa Digital 2014 on all levels. In addition to being a Platinum Partner for Fespa Digital 2014, we're also a Silver Sponsor for the Fespa 2014 Global Summit, where we hope to further support and disseminate the message that education is a prerequisite in this industry. We strive to develop a greener portfolio for our customers, hence we're also sponsoring the Sustainable Business of the Year Award at the Fespa 2014 Awards."

KIP adds: "Fespa is to be congratulated on choosing Munich as the venue for Fespa Digital 2014. This event is the ideal location and platform for KIP to exhibit our latest colour printing technology to an educated audience in a most attractive major European city."

Commenting on EFI's partnership with Fespa Digital 2014, Paul Cripps, Vice President of Sales, EFI says: "Having experienced the resounding success of Fespa in London, signing up for Fespa Digital when it returns to Munich is a no-brainer for EFI. Fespa remains the most exciting event in the large-format arena. We look forward to showing our cool-cure LED printers and the breadth of our integrated portfolio in Bavaria."

Fespa Digital returns to the Messe München in Germany

THE IMPORTANCE OF TEXTILE

Yuval Neria, Corporate Marketing Director, Kornit Digital comments: "We are delighted to continue our support for the textile printing community with our decision to sponsor Fespa Digital 2014. The association's exhibitions offer the most comprehensive platform for enabling Kornit Digital to consolidate and extend its reach into the direct-to-garment and textile printing markets. We are at the forefront of new technologies for digital production in this sector and Fespa provides the best environment for our technologies and products."

Andrea Negretti, WW Business Manager, d.gen, says: "It's clear for d.gen that Fespa is doing a great job. We believe that the organisation is able to understand the market's necessity and bring the right interest to visitors. Regarding Fespa Digital 2014 in Munich, we believe that the EU market is going to recover from the crisis of the last four years. We are very positive and sure it will be a great and fruitful show. Being a Textile Sponsor is confirmation of something that we have built up in the last ten years. d.gen was the first company to believe that fabric was the future of the signage market and now everybody is going in that direction. Fespa approached us as sponsor as confirmation of our knowledge and authority in the field."

Mark Alexander, Director of Marketing, Xaar, states: "Fespa is an important event for Xaar because it attracts visitors from all over the world who use or are planning to invest in the latest digital inkjet print technologies. Xaar ink-jet technology continues to disrupt traditional processes and is transforming a number of industry sectors. Anyone who is interested in understanding the transformative benefits of digital ink-jet should visit our stand where we will be demonstrating some of the very latest Xaar technology developments."

Neil Felton concludes: "We're thrilled to be working with industry leading manufacturers to develop Fespa Digital 2014. It's great that these brands view Fespa as a pillar of their brand development and marketing activity. Our successful partnerships with these brands provide invaluable input for our shows and helps us to develop knowledge and industry leading events to the best of our abilities for both exhibitors and visitors. We look forward to working with each partner on another prosperous show." ■

Further information:
web: www.fespadigital.com

DefiNITELY.

EFI VUTEk GS3250LX Pro
LED UV-CURING PRINTER

The first production-level LED printer goes Pro. Our EFI™ VUTEk® GS3250LX Pro—with grayscale and "cool cure" technology—lets you produce higher-image-quality jobs faster and more efficiently. All at reduced cost while printing on recycled, thinner, and less expensive substrates. No VOCs. Less consumables and waste. Reduced energy consumption. No warping or head strikes. Give your customers a greener printing solution as you make more green of your own.

efi

Scan or visit vutek.efi.com/DefinitelyLED61 to learn how. Or call 0808-101-3484.

GLASSPRINT 2013

The largest ever GlassPrint conference and exhibition was successfully staged last November and presented the latest decoration trends and developments to the international audience that gathered in Düsseldorf, Germany.

Staged for the fifth time and powered by glasstec, the record attendance of approximately 200 glassmakers, glass decorators, end users and suppliers was 20% higher than at GlassPrint 2011 and 50% higher than at GlassPrint 2009. Attendees travelled from 27 different countries, not only from throughout mainland Europe and the UK but also from long distance destinations such as China, India, Peru, Singapore, South Africa, Sri Lanka and the USA.

EXPANDED CONFERENCE PROGRAMME

The two day conference programme was also larger than ever before, offering delegates 16 technical presentations that covered the latest technologies for printing onto architectural, automotive and hollow glass with digital and screen applications.

Four additional keynote addresses were made, covering the flat and hollow sectors. Stefan Jaenecke, President of FEVE and CEO of Verallia Deutschland, looked at current and future challenges and opportunities for the glass container industry, while Bertrand Cazes, Secretary General of Glass for Europe, presented 'Sustainable buildings: The new big thing. What does it mean for building glass products?' Later, Dr Johann Overath, Director General of Bundesverband Glasindustrie eV, examined the current situation and trends in the German glass industry and an update of glasstec 2014 was provided by Birgit Horn, Project Director at Messe Düsseldorf.

Technical experts working for various companies in the glass decoration sector delivered a series of presentations that demonstrated processes and ideas to add extra value to the end product:

- UV-LED: A new opportunity for organic inks in the glass decoration industry (Dubuit).
- Digital glass decoration for indoor and outdoor applications (Durst).
- How to generate future market trends in hollow glass printing (Fermac).
- Organic inks for the direct and indirect decoration of glass holloware (FERRO).
- Curved surface direct product decoration using inkjet – challenges and solutions (Global Inkjet Systems).
- UV curing on glass: UV-LED versus conventional UV technology (Dr Hönle).
- Starting-up glass decoration with UV inks (ISIMAT).
- Functional and visual glass decorating, including glass bonding (KIWO, Kissel + Wolf).
- Stencil options for hollow glass (MacDermid Autotype).
- Self-adhesives as an innovative solution for glass decoration (MACtac).
- New trends in touch screen ink developments (Marabu).
- New innovations and technology for drying and curing flat glass (Natgraph).
- The surface of glass and ways of its modification (Ormo Print).
- Dedicated screen printing mesh for the flat glass industry (Sefar).
- Digital screen making – the future in stencil making (SignTronic/Grünig).
- Digital decoration of containers from glass with variable decors at industrial high speed capacities (TILL).

The expanded programme included 16 technical presentations and four keynote speeches.

Exhibitors displayed the latest developments in inks, pre-press technology, printing equipment and supplies.

Anyone who missed GlassPrint 2013 and would benefit from viewing the presentations should contact sales@glassworldwide.co.uk to learn how to purchase the download code.

SOLD-OUT EXHIBITION

The conference programme was supported by intervals dedicated to the accompanying sold-out tabletop exhibition area and at the end of the first day, delegates benefited from networking with their peers and suppliers during an evening dinner. Exhibitors who displayed the latest developments in inks, pre-press technology, printing equipment and supplies included: Cerinnov, Dr Hönle, Durst, Eastech Digital Technology, Encres Dubuit, ESMA, Fermac, FERRO, Glass Global, *Glass Worldwide,* glasstec/Messe Düsseldorf, Global Inkjet Systems, Grünig-Interscreen, InPrint, ISIMAT, ISRA Vision, KIWO (Kissel + Wolf), Landgraf, MacDermid Autotype, Machines Dubuit, MACtac, Marabu, Natgraph, OMSO, Ormo Print/University of Munich, PPG, RUCO, Saati, Sefar, SIAK Transfers, SignTronic, *Specialist Printing Worldwide,* Sun Chemical, Tecno 5, TILL, Tiflex and WIFAC.

SPONSORS AND ORGANISERS

GlassPrint was organised jointly by Chameleon Business Media, publisher of *Glass Worldwide* and *Specialist Printing Worldwide* magazines and ESMA, a European association for specialist printing manufacturers of screen, digital and flexo technology. As well as being powered by glasstec, in recognition of its importance in the global glass event calendar GlassPrint 2013 was also sponsored by Deutsche Glastechnische Gesellschaft (DGG), glassglobal.com, GPD, SGCDpro and the SGIA. ■

Further information:
tel: +44 1342 315032
email: sales@glassworldwide.co.uk
web: www.glassprint.org

TRADE FAIR NOW COVERS ALL ASPECTS OF HOLISTIC MARKETING AND VISUAL COMMUNICATION

Viscom claims another round of significant gains

The organisers of Viscom Germany have stated that representatives from the major food industry, consumer electronics and telecommunications brands, the 'white giants' from the appliance sector and major distributors and retailers were all visitors to its November exhibition. The Düsseldorf event also attracted creative talent and design professionals from agencies, advertising technology companies and print service providers, resulting in exhibitors calling the show the best Viscom of all time, an event that once again broke records.

After last year's successful Viscom Frankfurt event, which had provided a huge boost in a difficult economic environment, the industry was anxious to find out whether such a good result could be repeated. With a total of 13,277 visitors, Viscom grew yet again, surpassing even the prior-year result of 12,100 by 9.7%. With 350 participating companies, this year's show also set a new exhibitor record, gaining 7% in comparison with Viscom Frankfurt 2012.

"Viscom has definitely reached the goal we've steadily worked toward in the past seven years, developing it into a 360-degree trade fair covering all aspects of holistic marketing and visual communication," says Viscom Director Petra Lassahn. "The Viscom World of Inspiration serves as an example illustrating this all-inclusive perspective. On 700 square m, this special show presented the latest best practice examples from store design, Point-of-sale marketing, digital signage as well as printing technology, packaging and object design."

Viscom Germany says its November event broke all records

Viscom now takes on the role of being a trend and innovation trade fair, and is the preferred venue for the introduction of new products and novel marketing approaches, the organisers claim. Michael Wartmann, Marketing Manager of Mutoh Deutschland comments: "Lots of customers are now saying, 'Let's go to Viscom first before making our final decision'." Manuela Ernst, who made her first appearance at Viscom as the owner of Instore Solutions presenting an interactive shop window that generated great interest, underscores that statement: "Leading German consumer electronics and telecommunications companies visited our stand."

"Viscom unleashes creative powers of imagination, especially because it brings together technology innovations from a wide range of sectors, all sharing one goal – to promote cross-media product marketing. This opens up new horizons, and it's why Viscom is so inspirational," says Lassahn.

"Inspiring your business" will be the tagline of the Viscom Frankfurt 2014 event, which will take place with an improved concept. In future, Viscom will be structured into six core segments, these being wide-format printing, sign-making, digital signage, point-of-sale display, point-of-sale packaging and object design. With point-of-sale packaging and object design, two new trade fair segments will also be repositioned. The new profile will be reflected in the hall configuration as Viscom will occupy both levels of Hall 3, with the six theme worlds being clearly distinguishable as a result of the layout. This clear structure will ensure that exhibitors and visitors can easily find their way around and that each sector has the space to express its own identity. ■

The event now takes on the role of a trend and innovation trade fair

Further information:
web: www.viscom-messe.com

INAUGURAL FESPA CHINA 2013 ATTRACTS INTERNATIONAL HIGH QUALITY VISITORS

Attendees confirm interest in digital printing in addition to traditional screen focus

Fespa China 2013, which took place from 18 to 20 November at the Shanghai World Expo Exhibition and Convention Center, has been hailed a success by exhibitors and visitors, attracting high quality visitors from China, Asia and further afield. The inaugural event, delivered by its national association the CSGIA, attracted 9,507 visitors from 77 countries. One-fifth of the visitors attended the show for more than one day, bringing the total attendance to 11,384.

The event drew a significant amount of visitor interest from neighbouring Asian countries. After mainland China, the largest visitor groups were from India, Japan, Korea and Malaysia, with delegates also coming from Hong Kong and Taiwan. A noteworthy number of visitors also attended from long-haul destinations such as Australasia, Europe, USA, Africa and South America.

Within China, after Shanghai, the visitor audience was dominated by printers from Eastern China, especially Zhejiang, Jiangsu and Guangdong.

Fespa's mission to place greater emphasis on digital technologies in an event historically focused on screen-printing reflected the interests of visitors. 34% confirmed their interest in digital, coming close to the figure of 42% who were interested in screen-printing.

PURCHASING DECISIONS

Managers and decision makers dominated the audience, with 51% of visitors saying they have decision-making power and an additional 30% having input to the purchasing decision. 46% of the visitor audience confirmed their intention to purchase equipment at the show.

Fespa's aim to incorporate educational and inspirational content synonymous with its other events also proved well judged.

The Future For Print conference was one of the well-attended seminars

Seminars were well attended and 12% of visitors gave these as a key reason for attending, underlining the appetite for education and guidance on best practice.

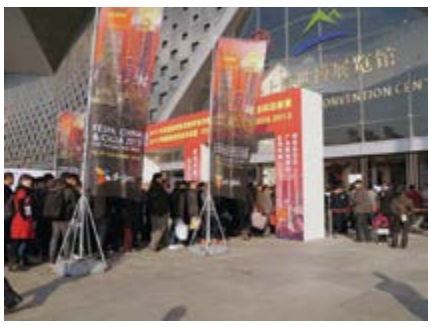
Nigel Steffens, Fespa Ambassador, comments: "We're extremely pleased with the success of Fespa China 2013. We wanted to build on the CSGIA's event's 30 year heritage and make it international, appealing to visitors from neighbouring countries, so it's rewarding to see the breadth of attendance from Asia and further afield. 70% of the visitor audience were also first time visitors, confirming the ability of the Fespa brand to refresh the established exhibition's audience."

He continues: "Visitors commented positively on the range of international exhibitors at the show. With suppliers such as d.gen, Epson, Fujifilm, JHF, Kornit Digital, Mimaki and Mutoh exhibiting, visitors were able to see a plethora of technologies from both native and worldwide suppliers. The scope of visitors who attended Fespa China 2013 from all over Asia, and their positive feedback, supports our strategic commitment to return to China in 2014, and to continue to look for the right location for a pan-Asian event."

Rosaria Pozzoni, Business Operation Manager, J-Teck3 Srl, states: "The Asian market, in particular China, is very important for J-Teck3, which is why we took the decision to exhibit at Fespa China 2013. We received positive feedback on our entire digital range, particularly on our new J-Cube RF/KF. Our stand was constantly busy throughout the three-day show, with great interest from local visitors as well as visitors from regions specialising in textile applications such as India, Thailand, Bangladesh and Pakistan."

"Azon attends most of the sign and digital printing exhibitions in the region, but Fespa China 2013 is by far the best exhibition we've experienced," claims Arron Siu, CMYK Industrial (HK) Co Ltd. "We met with a lot of interested clients and received high quality enquiries for our products and solutions. We will definitely be attending the second Fespa China event in 2014 in Guangzhou."

Fespa China 2014 will take place from 19 to 21 November in Guangzhou. ■



Visitors queue at the entrance of Fespa China 2013

Vehicle wrapping proved a strong attraction

Further information:
web: www.fespa.com

NEW DIRECTIONS AND FRONTIERS IN 2014

2013 was an excellent year for ESMA with two successful conferences – AFIP (Advanced Functional and Industrial Printing) and GlassPrint 2013, co-organised with the publishers of this magazine

AFIP presented solutions for ink-jet printing and potential industrial solutions.

GlassPrint 2013 broke all previous records (see page 48 for more details) and exhibitors and AFIP opened an important road to industrial and functional printing. The printing market is approaching new niche segments within industrial and functional printing more and more each year.

2014 will be a year which will continue this path and two new conferences will open not only fresh possibilities, but will also take a closer look at new applications. The first new conference will be 'The Inkjet Conference, Bigger Than Inkjet' which takes place from 30 September to 2 October 2014 in Düsseldorf. This conference will look closer into all the technology for digital printing that develops bespoke machinery for specialist applications. The main topics are fluids (inks and their technologies), hardware (print-heads, control systems and software) and public funded research projects (FP7, Horizon 2020). This unique approach will be an excellent platform for cultivating new developments for new applications.

The second new conference will be 'Printed Interior Decoration (PID)' on 26 and 27 November in Düsseldorf. This conference will have a 360 degree view to all printed solutions for decoration for hotels, bars, offices, public buildings and even home decorations. All different materials such as textile, wood, glass, leather, and ceramics are getting their attention on the latest trends of using printing for decoration. Also important is the closer look at regulations for the use of printed solutions indoor and the long term solutions. More information can be found on www.printedinteriordecoration.org

Last, but not least, is the 'Commercial Workshop: Conductive Inks' based on CLIP results on 12 March 2014 in Düsseldorf. The FP7 funded project has developed some lower cost inks based on Cu (copper) and Ag (silver) as well as a new sintering solution with less temperature and energy for these new conductive inks. All secrets will be revealed to a limited audience. Information will be provided about ink formulation, particles, sintering, print results for ink-jet, screen, AJP (aerosol jet printing) and flexo. Three consortium partners will offer solutions towards further development of conductive inks. Please contact pb@esma.com for more information.

ESMA is expanding the boundaries of the printing industry and hopes to challenge many suppliers and printers to follow this new direction and make our industry even more exciting! ■

Peter Buttiens is CEO of ESMA

ESMA
Driving Print Excellence

Further information:
ESMA, Sint-Joris-Winge, Belgium
tel: +32 16 894 353
email: info@esma.com
web: www.esma.com

A FRESH APPROACH TO BUSINESS PLANNING AND PRICING MODELS

Michael Roberston describes how to stand out from the competition

Michael Robertson

The large-format graphics business is certainly competitive. Graphics' producers are always looking for an advantage in the market-place to help them secure the next big project. But in today's world of digital imaging, standing out from the competition isn't easy. While the consistent capability of digital imaging has helped raise quality and customisation standards, it also has made it more difficult for graphics' producers to differentiate themselves in the market-place.

Based on conversations with several leading graphics' producers in the SGIA community, I anticipate substantial changes in the market-place as business plans and market strategies are not just evaluated, but creatively redesigned to maximise targeted value propositions. Based on these discussions, it certainly appears that traditional business models are limiting opportunity and constraining value propositions.

With the adoption of digital imaging, we've already seen several examples of beneficial changes to business models. Some graphics' producers have developed a closer relationship with key customers, taking on additional responsibilities that were once held by the customer. Others have changed their core focus to create a different value proposition such as product fulfilment or turn-key new store implementation. Web-to-print (W2P) is providing additional opportunity for redesigned business models as networks of printers minimise geographical limitations and time restraints.

While these changes have been positive and beneficial, I believe that we've just seen the tip of the iceberg when it comes to redesigned business plans and value propositions to make the most of the latest imaging technologies.

Successful businesses are helping customers by:

- Creating a product or completing a task
- Relieving a pain point

and/or

- Creating new opportunity

Creating a product (or completing a task) has been the core value of the graphics' community. Customers have always needed graphics and signage. And, with digital imaging, the ability to relieve a series of pain points has added value to the end product. Graphics' producers are reducing the customers' graphics inventory, reducing shipping costs and providing customisation on an as-needed basis. Perhaps the next wave of value that the graphics' producers bring to the market-place will focus on creating new opportunities for their customers.

We know from recent experience that disruptive technology can quickly change a market-place. Disruptive business management practices can change the market-place too. Will the next developments in business planning come from current leaders in the community, or new players entering the market-place with a fresh perspective?

One thing is for sure – these are exciting times filled with opportunity and new discoveries. Instead of just responding to customer needs, successful graphics' producers will help customers redefine their needs. We can expect to see a fresh approach to business planning that pushes advancing technology to new limits. ■

Michael E. Robertson is President & CEO, Specialty Graphic Imaging Association, SGIA

Specialty Graphic Imaging Association

Further information:
SGIA, Fairfax, VA, USA
tel: +1 703 385 1335
email: sgia@sgia.org
web: www.sgia.org

DUAL-CURE CAPILLARY FILM - CDF® VISION™

CDF® VISION™

DIAZO DUAL-CURE CAPILLARY FILM ENHANCES CROSS-LINKING

CDF Vision is a diazo dual-cure capillary film system. Its special formulation controls mesh penetration and enhances photo-polymerization, resulting in sharp printing shoulders and mechanical durability. Particulate-size control reduces granularity effects for optimal resolution and definition. Texturing agents impart a micro-structural pattern to the bottom of the stencil, minimizing hydrostatic attraction to the printing stock under conditions of high humidity, and electrostatic attraction under low humidity conditions. **CDF Vision** is compatible with UVs, vinyls, and virtually all solvent-based inks. Depending on the thickness selected, it is suited to such printing applications as: electronics circuit traces and membrane switches, halftones, CDs and DVDs, ceramic decals, posters, and containers and bottles. Availability: **CDF Vision-15, -18, -20, -25, -30, -35.**

- **Excellent imaging properties**
  - Superb acutance (printed edge definition) and resolution
- **Solvent resistant**
  - Compatible with aggressive inks and solvents
  - Reclaims easily without staining screen fabric
- **High-contrast color**
  - Easy stencil inspection and see-through registration
- **Easy to Use**
  - Minimal training required
  - "Pre-coated" stencils = perfect stencils—every time
  - Consistent exposure time
  - Consistent stencil thickness = control of ink deposits—and ink costs
  - Wet processing reduces drying time and pinholes; speeds production
- **Fast exposure and processing**
  - Fast stencil turnaround
  - Significantly less labor and production time
  - Wide exposure latitude

Formats: Available in rolls or custom-cut sheets (no mess, no waste!)

ULANO CORPORATION is recognized as a world-class leader in the screen printing and graphics arts industry.

Ulano Corporation, 110 Third Avenue, Brooklyn, NY 11217, U.S.A. Tel: +718 237-4700
Ulano Int'l Representative Office, Rütistrasse 17, CH-8952 Shlieren-Zurich, Switzerland. Tel: +41 44 755 44 77
Singapore Correspondence Address, 16 New Industrial Rd.#05-07, Singapore 536204. Tel: +65 6451 7505
www.ulano.com

Unbeatable efficiency

Great stencil cleaning power combined with low VOC value – **KIWOCLEAN LM 789 E**

- Innovative multi-purpose stencil cleaner
- Excellent dissolving power
- Bio-degradable
- Long working life
- Flashpoint >100 °C
  meets EN1010 explosion protection requirements for use in automatic screen washing units

Find out more about the KIWOCLEAN product range and its advantages to improve your in-house screen cleaning operations.

We are looking forward to your inquiry.

Please contact us:
Manuel Schöllig
Product Manager CLEANLINE
Phone +49 6222 578-164
manuel.schoellig@kiwo.de

KIWO®
products · concepts · solutions

KIWO · KISSEL + WOLF GmbH · In den Ziegelwiesen 6 · 69168 Wiesloch · Germany
Phone +49 6222 578-0 · Fax +49 6222 578-100 · info@kiwo.de

www.kiwo.de