PrintPromotion

NEWSLETTER

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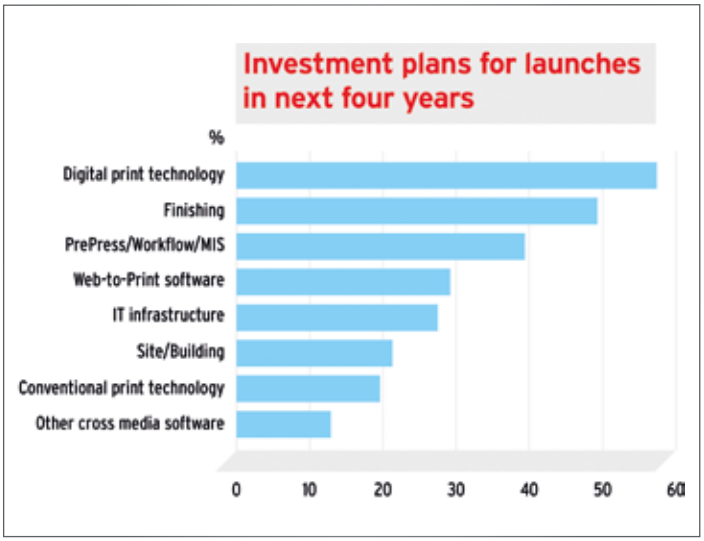
drupa 2020 postponed to April 2021

In view of the risk associated with a trade fair with significant international participation posed by the Corona pandemic, the drupa planned for **16-26 June 2020 has been postponed until 20-30 April 2021**. The decision to postpone was difficult, but the only right choice for everyone involved.

True to the motto 'embrace the future', drupa is characterized by personal, international contact and the live presentation of products. The risk of infection would have been simply too high in June this year. In support of this decision, drupa President Claus Bolza-Schünemann pointed out that the early announcement of the postponement in March has enabled all those affected to react, reschedule and prepare themselves for the event date in April 2021 adding that the joy at 'embrace the future' remains unbroken.
The exhibitors have confirmed their loyalty to the trade fair stressing the importance of direct interaction with existing and new customers. The industry hopes for a quick end of the pandemic and is counting on a strong drupa 2021.
Of course, the postponement goes hand in hand with adjustments, but it also offers opportunities: Some exhibitors plan to make the most of the additional time and complete and redevelop further innovations – and thus ask for a greater presence at the trade fair in 2021. In the meantime, drupa invites its community to take advantage of the website's various features to present themselves, publish company and product information free of charge and keep up to date via the newsroom and social media channels.
The online ticket shop for drupa 2021 is now open. For further information and regular updates, please visit → www.drupa.com.

Just published: **drupa Spotlight report**

This year's drupa Spotlight report, Strategic Choices in a Competitive and Converging Marketplace, has just been published. In a survey (conducted before the coronavirus outbreak) over 500 printers and almost 200 suppliers described the challenges and successes of launching new products and services. For many in the industry, planning their recovery from the coronavirus recession may well necessitate such launches, so lessons must be drawn on how best to do so.



In most market sectors and most regions there are challenging conditions. As for suppliers, they are only as healthy as their customers and they too must respond to the declining prospects for traditional products and services. For many the answer must be, at least in part, to launch new products and services.
Roughly 60% of printers launched major new products or services in the last four years into their existing markets. About half the launches were successful and very few went badly wrong. Diversifying the range of products/services and gaining new customers were chosen as the top benefits.

About 30% of printers had launched into new market sectors with ca. 40% of the launches going well (compared with 54% for existing markets).
Turning to suppliers, approximately 80% launched new products/services over the last four years. The results were clearly better the larger the company with a success rate of 40% for the smallest suppliers up to 80% for the largest. The top benefits were diversification and gaining new customers.

The report draws four key lessons on how best to succeed when launching new products or services:
- → Launching new services and products needs proper well-prepared processes
- → Careful selection and development is essential – no knee-jerk reactions
- → Plan conservatively – expect delays and complications
- → Manage your expectations – be realistic

The full report in English is available for sale on www.drupa.com. The Executive Summary is available for free in German, English, French, Portuguese, Spanish, Russian and Chinese.

Print Industry Summits: Print 4.0 and Packaging – Countdown to drupa 2020 /2021

In Bangkok, the organizers of the Print Industry Summit could welcome 134 attendants who followed attentively the presentations of the speakers.

Continued globalisation and digitalisation have a great influence on large parts of the printing industry. Highly sophisticated machines are required to meet customer demands: convenient online ordering processes, top quality, low costs and short production times. With Industry 4.0, machine manufacturers are developing solutions for highly automated, integrated process chains, digital workflows, sensor networks and modern changeover solutions to meet the challenges of globalization and digitization and to consistently develop future-proof technologies.
Packaging printing is the fastest growing segment. The demands of customers in the competition for the end consumer have also increased in this area. High-quality finishing for eye-catching effects, falling print runs and cost reductions require the mastery of complex processes with economical production.
Leading press manufacturers presented their Industry 4.0 and packaging printing solutions with a special focus on drupa 2020. For entrepreneurs, managers and specialists of the printing and paper converting industry, specialist teachers of training institutions, experts working in research institutions and associations they were a good possibility to update their knowledge about the latest developments and applications.

The first of these Print Industry Summits had been carried out in Mexico, Ecuador, Peru and Colombia in September last year (see PrintPromotion Newsletter No 109 of November 2019). The venues of the next Print Industry Summits were in Hanoi and Ho Chi Minh City in Vietnam with 190 and 180 participants, respectively, followed by Kuala Lumpur in Malaysia with 68 participants. Representatives of Koenig und Bauer, Leonhard Kurz, IST Metz, Polar Mohr, Heidelberg, Windmöller & Hölscher, Müller Martini as well as H.C. Moog gave an overview of the latest developments in the print media sector in the run-up to drupa 2020.
In February this year, representatives of Koenig und Bauer, Leonhard Kurz, BW papersystems, IST Metz, Polar Mohr, Kama, Heidelberg, Windmöller & Hölscher, Müller Martini and H.C. Moog were speakers of Print Industry Summits in Morocco with 107 attendants, in Algeria with 168 attendants and in Egypt with 164 attendants.
For the time being, no further Print Industry Summits have been planned, but due consideration is currently given to the possibility to offer the agenda of the summits online as webinars.

The Print Industry Summits also included panel discussions in the course of which the lecturers were available to answer questions from the audience. Shown here a panel in Morocco.

Specialist Teacher Course and seminars in 2020

Due to the present Corona pandemic which has led to travel restrictions for an undefined period, the specialist teacher seminar planned for April 2020 in Ho Chi Minh University of Technology and Education in Vietnam had to be cancelled.
For the Specialist Teacher Course in Chemnitz in Germany scheduled for September this year, PrintPromotion has already received many applications. Normally, fifteen specialist teachers from training institutions in different countries are given lessons covering subjects relating to prepress, printing and post-print processes as well as cost accounting in the printing industry. Furthermore, the participants are given insights into specific production processes during excursions to printing and mechanical engineering companies. Unfortunately, this course cannot be carried out either.
The applicants have been informed accordingly. As soon as the situation has relaxed, new dates will be fixed.

For the latest information please check our website at:
→ **www.printpromotion.de**

We wish all specialist teachers: Stay safe and healthy and, please, be patient!

Specialist teachers and participants of the PrintPromotion Specialist Teacher Course carried out at the azp training center for print and media in Chemnitz in Germany.

Company news

Broad partnership in the postpress segment

THE POSTPRESS ALLIANCE
we connect.

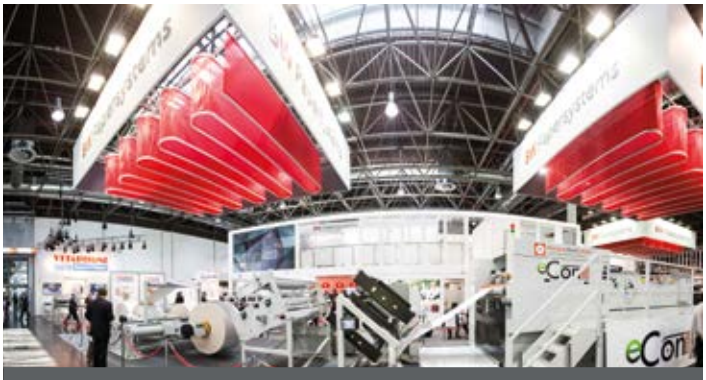
With regard to Industry 4.0 in the postpress segment of the printing industry, it is of extreme importance for SME sized machinery building companies to bundle their energy and resources with their individual specific technological core competences in the most efficient way and to offer future oriented and sustainable solutions in terms of data networking and MIS interfaces. This is exactly why The Postpress Alliance between the complimentarily acting companies Baumann Maschinenbau Solms, Bograma, Herzog+Heymann, Hohner, MBO, Perfecta and Wohlenberg has been formed. Under the motto "we connect", The Postpress Alliance comprises an extensive range of production processes of postpress, starting from the data transfer from the MIS, through to cutting, folding, die-cutting, perfect binding, saddle stitching and finally even to the converting of mailing and outsert systems. For drupa 2020, The Postpress Alliance had announced the presentation of its synergies, mutual targets and similar company philosophies for the first time in public. The Baumann Group intended to showcase new innovative solutions to the topics of networking and automation. Baumann Maschinenbau Solms, Perfecta and Wohlenberg planned to present the ultimate developments around jogging, cutting and perfect binding, containing some interesting surprises. Bograma intended to introduce their automated card production system combining four processes in one: inline die-cutting, collating, stacking and cellophane wrapping of playing cards, parlour game cards, trading cards and sports cards. This year, Hohner Maschinenbau announced the world premiere of a revolutionary, new added model to their saddle stitcher series.

In 2019, the MBO Group launched the stacking robot CoBo-Stack. Their focus is on robotics, automation and industry 4.0. while the MBO subsidiary Herzog+Heymann is strong in the field of mailings. In cooperation with Bograma the company can offer high-quality mailing systems with the additional collaborative contribution of hhs, Robatech, Kraus and Longford. Also, in the area of pharma folding machines, innovative developments are contributed from Herzog+Heymann. For the time being, the team of Baumann-Maschinenbau is offering consultations via video and online conferences. There is almost no impact right now on the company`s ability to supply machines and parts. Customers will be immediately informed in the case of changes or bottlenecks.

Baumann Maschinenbau Solms GmbH & Co. KG

Comprehensive solutions for sheeting, folding and wrapping

Like so many others in the industry, the BW Papersystems' sheeting and converting specialists that support the brand – BW Bielomatik, JAG Synchro, Kugler-Womako, MarquipWardUnited, Questec, WillPemcoBielomatik, Wrapmatic and Zerand – were looking forward to welcoming customers, partners and other visitors at drupa in June 2020. Now that the show is postponed to April 2021, BWP is working on other ways to introduce and showcase their strong brands, latest technologies for cutting and wrapping folio-size sheets, proven solutions for the stationery industry, and an expanded portfolio in variable rotary crosscutting technology and web-fed die-cutting systems and solutions for the paperboard converting industry.



drupa 2016 was the first time that this combination of strong brands presented themselves under the umbrella of BW Papersystems.

The EAGLE In-line Sheeter, for example, combines the benefits of web-fed and sheet-fed offset and has proven to be the perfect combination with any sheet-fed press. It allows customers all benefits in purchasing rolls instead of sheets, which greatly increases their flexibility for production, and allows them to maximize the benefits of the quick-change features of this sheeter.

Or BWP's new GRSX folio-size ream wrapper designed for companies starting their business with a future growth plan or for those converters and mills that currently are hand-wrapping their products and need to reduce labour overhead expenses. It handles all palletized paper and plastic sheets as well as other flat materials, ranging from 20 up to 600 gsm. It can also be equipped with innovative robot technology for automatic wrapping.

In addition, BWP offers a unique solution for the folding carton industry with the Zerand brand acquired in 2017. The web-fed platen die cutter combines multiple steps of the folding carton process into one machine. And with Questec, part of BW Papersystems since 2018, they now also offer advanced solutions for sheeting specialized material like pharmaceutical inserts inline. Addressing the printing industry as well as the plastic-film industry, the variable rotary crosscutting technology for lightweight paper and film applications is ideally suited to be integrated with a web-fed press, matching its speed and producing printed sheets in a single pass.

BW Papersystems Hamburg GmbH

H. C. Moog celebrates its **70th anniversary in 2020**

Back in 1950, Henry Cornelius Moog founded the Moog family business and also designed the MOOG Logo which illustrates a printing unit. The "M" shows the drying section, the two "Os" show the printing and pressure cylinder and the "G" shows the ink pan with the doctor blade.
Since its foundation, H.C.Moog has developed special sheetfed and webfed machines for gravure, flexo and screen printing including handling machines, such as fully automatic cylinder storages and their components for a constantly changing market. Accordingly, MOOG continues to develop, design and produce innovations.
For years, the focus has been on sheetfed gravure printing machines for high-quality printing with small order lots in the folding carton industry, label and security business. Refinements are particularly popular in the packaging sector. MOOG serves sectors such as the cosmetics, perfume, tobacco, confectionery industry as well as general finishing for the printing industry with conventional gravure inks, UV and water-based inks and varnishes. Highly efficient hybrid dryers after each printing unit enable immediate further processing of the production. In terms of cost, finishing with blind embossing is also unbeatable and very efficient which increases customer attention. With the Moog rotary debossing technology, up to twice as much pressure of the punch is achieved. This means that it is possible to produce designs that were previously difficult or impossible to realize.
With its latest TBR series of sheet-fed rotogravure presses, H.C. Moog is offering excellent solutions for consistent colour reproduction which is vital for global branding and for the stability that packaging converters demand when also very fine characters need to be printed across the full sheet with no loss of quality and legibility. Gravure can print up to four times the ink quantity of flexo and offset and deliver a sheet that is ready for further processing. In addition, the waste levels are very low.

The TBR production line is equipped with a central multi-functional console for the control of all machine settings, remote adjustments, job analysis and fault diagnosis.

For Asia, three-colour machines and multi passes are typical (because of low labour costs), Europe and the Americas prefer six-colour lines. The majority (around 70%) of Moog's customers produce cigarette cartons, which like many other branded products are now demanded in shorter runs.
Customers around the world appreciate the close consultation work and pro-active approach of the Moog team of specialists by way of demonstrating new techniques and effects. Two of the major benefits of sheetfed gravure are low downtime and the fact that high quality work can be carried out without highly trained specialists. And, thanks to its intelligent exhaust system, it is also a very clean and odourless process although solvent inks are used.
As carton printers look for profitable niches, the latest generation of Moog sheetfed gravure presses may well be a promising option.

H.C. Moog GmbH

KAMA to launch **AutoBraille for pharma packaging**

Setting the benchmark: KAMA`s AutoBraille increases the efficiency in the production of pharma packaging.

Machine manufacturer KAMA is launching an innovative Braille embossing unit for the fully automated FlexFold 52i folder gluer. The newly developed KAMA AutoBraille features a high level of automation: The position of the pair of embossing wheels for the defined embossing area on the carton blank is calculated automatically and the wheels are placed automatically – making it an efficient solution in the production of pharmaceutical packaging, which is required by EU law to also be labelled in Braille format.

KAMA AutoBraille moves the Braille kit automatically to the calculated position. After checking for double sheets, the Braille dots are precisely embossed on the blank. This is then followed by prefolding, folding and gluing and the inspection in the required level. The Braille wheel is re-registered by a servo motor from blank to blank in milliseconds.
The KAMA pair of embossing wheels can be used across the full width of the machine. As a result, AutoBraille can achieve all possible embossing positions on the blanks (no need for a second module). The unit embosses up to 5 lines of standardised Braille. For rare cases in which a carton is to receive two Braille embossings, the KAMA unit provides a second pair of embossing wheels. KAMA AutoBraille works with steel strips, which are common Braille tools.
Compared to Braille embossing on the die-cutting machine, inline Braille on the folder gluer means large savings of set-up time and tooling costs. In addition, Braille application at the end of the value chain inline on the folder gluer provides more security.
With the new AutoBraille embossing unit, KAMA is further expanding the competitive advantage "fastest changeover" for their fully automated FF 52i folder gluer. Changeover from straight-line to straight-line box for example takes less than five minutes.
And there is another advantage: New operators quickly become familiar with the machine thanks to the high level of automation of both the KAMA FF 52i folder gluer and the new AutoBraille.
KAMA will present their FF 52i folder gluer with AutoBraille in a webcast in summer 2020.

Kama GmbH

Customer support has top priority

For Rainer Hundsdörfer, Chief Executive Officer of Heidelberg, providing support to the customers during the coronavirus pandemic has top priority.

Heidelberg has responded as quickly as possible to the difficult conditions caused by the global coronavirus crisis, and provides its customers in the area of commercial, packaging and label printing with support at all levels. Customers in all major printing markets are served directly or via partners relying even more heavily on Heidelberg`s tried-and-tested and long-established Remote Service and the Heidelberg Assistant via digital telephony or video conferencing, and providing information via Heidelberg`s customer databases.
Only recently, for example, the first Speedmaster press was thus sold in Germany via a video conference. A reliable supply of spare parts and consumables will also be ensured during the coronavirus pandemic. In addition, all installations or necessary on-site technical services are provided with due regard to health precautions, as far as the current situation allows, and always in mutual agreement with the customer and the prevailing local conditions. The World Logistics Center at the Wiesloch-Walldorf site has around 100,000 parts in stock, which means that more than 96 percent of the parts ordered are available when the order is received. Customers benefit from digital business models, such as subscription. With the Prinect Production Manager, for example, only the actual TIFF consumption per square meter is billed, which means that fewer jobs also cost less. In individual cases, Heidelberg grants extended payment terms for maintenance agreements.
In China, currently the largest single market for Heidelberg, the company runs its own production site in Shanghai. Production is now back to pre-crisis level, and all employees are back at work providing support to customers, if possible in person, or otherwise by telephone.

Heidelberger Druckmaschinen AG

Postpress Packaging – die-cutting portfolio rounded off upwards and downwards

The partnership between Heidelberg and MK Masterwork dates back to 2015. A number of new machines were developed for the packaging market and since then more than 450 MK machines have been sold through Heidelberg. Further new machines cover an even wider portfolio, offer high speeds, and present larger formats as well as a die-cutter for the digital area and for shorter runs.
The Powermatrix 106 CSB (cutting, stripping, blanking) works at a speed of 8,000 sheets per hour. Equipped with pallet logistics and an auto non-stop feeder, this machine offers attractive throughput and optimum prerequisites for customers with higher material throughput. The MasterSet optical register system for the feeder was originally developed by Heidelberg and enhanced by MK. MasterSet aligns every sheet using print marks. Positioning can also be performed using the print image or the edges of the sheet, if there are no print marks available. The MasterSet cameras can also be positioned on the underside of the feeder, for example in order to die-cut corrugated cardboard with the printed side downwards. A separate sample sheet delivery enables the operator to pull a sample sheet for checking without stopping production. Like all die-cutters offered by Heidelberg, the Powermatrix also bears a GS mark.
New is the Promatrix 145 CSB, with a speed of 7,000 sheets per hour. It enables efficient converting of large format sheets. The Promatrix 145 CSB also features pallet logistics, the automatic non-stop feeder, MasterSet, and a sample sheet delivery. The Promatrix 145 CSB is available for immediate delivery.
Also new is the Multimatrix 60 FC for short runs for digital and commercial printing. It has an outstanding price/performance ratio and is thus also suitable for smaller printing companies that may use Heidelberg jobbing and cylinder presses. The Multimatrix 60 FC is ideal for a digital folding carton production workflow, for example with a Versafire and the Diana Go folder gluer, and can optionally be equipped with a hot-foil unit, which enables a wide range of value-add finishes and flexible use of the die-cutter.
Gains in productivity and user-friendliness have also been made in the folder gluers. For example, the Diana Smart is now available with a high-speed package, allowing it to run up to 33 percent faster at up to 600 m/min. The new Diana Inspector offers an extended range of materials and can also inspect difficult materials such as metallized board, holograms, or hot foils. Another new feature is that printing defects and color consistency can be checked using a PDF comparison, which increases user-friendliness and significantly reduces the setup time. The second generation of the Diana Braille unit now also contains an option for the sheet register, which reduces the setup times for Braille even further.
In addition, there are two innovations: firstly, the use of a robot to load the Diana Smart and secondly the new and improved Diana Packer 4.0 for automated packing in outer cartons. For the first time, communication between the folder gluer and the Diana Packer 4.0 ensures that carton geometries only have to be entered once – the second entry on the packer previously required is no longer necessary.

For short runs from digital and commercial printing there will be the new Multimatrix 60 FC. It has an outstanding price/performance ratio and is thus also suitable for smaller printing companies.

Heidelberger Druckmaschinen AG

Print industry in times of COVID-19 – Heidelberg presents Print Media Industry Climate Report

Recently, Heidelberg presented its Print Media Industry Climate Report to the public for the first time. The company provides weekly updates on the development of print volumes in the packaging and label printing and commercial printing market segments. The representative basis of the anonymized data is formed by around 5,000 selected offset presses of all format classes at customers worldwide who are connected to the Heidelberg Cloud. The current data for around 50 countries per segment is determined from this and displayed on a world map. The colors shown on the country map are indicators of how the estimated current production in print shops is compared to the previous year. The scale ranges from 1 (serious impact of COVID-19 on production) to 8 (production above last year's level), with 7 representing production at last year's level.

Heidelberg developed the weekly climate in the print industry to support print shops during the Corona pandemic in particular to help the participants in the printing industry to understand which market segments and countries are currently most affected. The basis for this added value is the extensive data pool of the Heidelberg cloud, to which almost all newly delivered presses are connected. Heidelberg's estimates provide a timely representative picture of the current state of the print media industry and indicate where priorities and efforts are needed to support those involved in the industry.

With the PMI Climate Report, the Heidelberg Digital Unit, which was founded in 2018, is making its data science capabilities available. Heidelberg customers can monitor the productivity of their presses in the Heidelberg Assistant. The new Heidelberg Performance Benchmark provides Heidelberg customers with detailed insights into the position of their presses.

By applying the connectivity solution in a single cloud for all product lines and increasing the connection rate of all newly delivered products, the Heidelberg cloud continues to grow. In financial year 2019/2020, over 13,000 presses and 25,000 Prinect modules will be connected to Heidelberg via IIoT.

Weekly update under www.heidelberg.com/PMI-climate.

Heidelberger Druckmaschinen AG

New contract options boost overall efficiency of print shops

The additional contract options from Heidelberg aim to ensure the potential of the company's equipment solutions is utilized to the full in practice.

The subscription model of Heidelberger Druckmaschinen – under which customers no longer pay for the equipment they use, but simply for the number of sheets produced – has now become successfully established in the graphic arts industry. The company is therefore further expanding its data-based contract business and adding to its existing Heidelberg Subscription portfolio, placing greater emphasis on its partnership-based approach. All the new options support the Smart Print Shop concept developed by Heidelberg. The now available Print Site Contracts provide a variable combination of consumables, services, software, performance consulting, training, and equipment solutions in a single package with the aim of further improving print shops' machine availability and overall performance.

Print Site Contracts are available in the form of lifecycle agreements or subscription. Customers have a choice of four packages with different scopes of services and methods of payment. They range from a "Lifecycle Smart" contract that includes services and consumables to a "Subscription Plus" package that covers consulting, training, service, consumables, Prinect software and equipment solutions. All four packages aim to maximize customers' overall equipment efficiency (OEE), which represents the actual added value when compared to purchasing individual components.

Along with reducing makeready and throughput times, the overall focus is on increasing net output while also generating less waste. In addition to state-of-the-art equipment solutions and on-site consulting, customers also benefit from the many years of experience and expertise on which Heidelberg application specialists base recommendations, such as the appropriate consumables for a particular solution.

The monthly fees for the standard "Lifecycle Smart" and "Lifecycle Plus" packages are determined by the services used. In the case of the "Subscription Smart" and "Subscription Plus" options, on the other hand, they depend on the actual output. The packages can be combined with the purchase of a new press or based on the customer's existing equipment.

Customers opting for one of these contracts can rest assured that only coordinated consumables and services of the usual high Heidelberg quality are used. They also avoid the considerable expense of obtaining each of the offerings included in the contract individually. The Heidelberg Assistant digital portal plays a key role, too, providing contract customers with a digital link to a whole host of additional services such as a vendor-managed inventory, important real-time information relating to their company's performance and easy access to the Heidelberg eShop.

Heidelberger Druckmaschinen AG

Virtual exhibition booth with Mosca solutions for automation and digitalisation

Mosca is using a virtual exhibition stand to offer visitors an up-to-date overview of automation options and digitalisation concepts at the end of the packaging line.

Automation and digital applications are pointing the way to the future of packaging processes. No wonder: smart systems lower costs, ease workloads and save energy. To show what this looks like at the end of a packaging line, Mosca presented a digital exhibition stand on 11 May at exhibition.mosca.com. Viewers were invited on a virtual tour of a fully automated end-of-line system featuring several different machines and digitalisation concepts designed to maximise machine availability.

The programme also included news and information related to strapping materials and services. Mosca experts were available to answer questions and offer advice via live chat.

The strapping specialists presented a fully automated application highlighting the newest end-of-line technology for securing bundled products for transport. Featuring three high-performance machines from the Mosca range and two machines from other manufacturers, the display included the Mosca EVOLUTION SoniXs MS-6, EVOLUTION SoniXs MS-6-H and EVOLUTION SoniXs MS-6 KR-ZV along with a Fuji Yusoki palletising robot and a Movitec stretch wrapper. Website visitors could click on the info points to learn more about the different models and download brochures.

The virtual exhibition stand also offered a glimpse into the future and presented digitalisation scenarios that could increase the availability of strapping applications. Video clips explained concepts like "Pay per Use" – a model in which customers only pay for the actual machine output usage.

Furthermore, Mosca is using the digital exhibition platform for a change of perspective. Virtual visitors are invited to take part in a survey and share their views on digitalisation in the packaging process. The company already has a number of concepts that can bring the digital future to life. The next step is to work with the customers to determine what the digitalisation of their processing lines and business processes with Mosca means for them – and what Mosca can do to support them.

The online platform with all information, downloads and videos is available at www.mosca.com.

Mosca GmbH

"Us against viruses": IST Metz supports systems for air disinfection

IST Metz now distributes Steritube systems for air disinfection because: Clean air makes the difference!

For drupa 2020, UV pioneer IST Metz had originally planned to be on hand with a sheet-fed printing press, i.e., the CX102-5+LX2 from Heidelberg, at its stand and to demonstrate the latest UV and LED curing technology in live printing demonstrations. In addition, IST Metz, together with its subsidiary Integration Technology Ltd., had announced that they would present their entire range of high performance UV and LED curing systems and Excimer lamps under the motto UV technology – LED by us. Now, since drupa 2020 has been postponed, UV equipment manufacturer IST Metz distributes Steritube systems for air and surface disinfection as an official partner together with Virobuster. Already in 2002, Virobuster started to develop the UVPE technology (Ultraviolet Pathogenic Elimination) in close cooperation with international institutes. The Steritube systems are used for the deactivation of micro-organisms harmful to humans, environment and food. Air conditioning and ventilation systems can spread harmful germs and bacteria in the air. The UV light from low-pressure or medium-pressure mercury vapor lamps inactivates the DNA of the harmful germs and thus reduces the number of germs to the legally prescribed maximum quantity. Further information is available at https://www.ist-uv.com/en/applications/air-sterilization

IST METZ GmbH

Mosca's successful EVOLUTION SoniXs MS-6 with 15 millimeter strap path for Asian Market

Many strapping machine users in Asia require a 15 millimeter strap path to reliably secure packages for transport. Mosca is responding to this need by adding a new version to the successful EVOLUTION SoniXs MS-6 series. Designed for 15 millimeter strapping materials, the new machine is already in use by customers.

Mosca uses a hub system to serve international customers. The Southern Europe region is supported by Mosca Direct Spain; Northern Europe by Mosca Direct UK and Eastern Europe by Mosca Direct Poland. North, Central and South America are served by EAM-Mosca and the Asia Pacific region, including China and Australia, are supported by Mosca Asia in Singapore. This arrangement enables local subsidiaries to develop individualized solutions and independently respond to the needs of regional markets. Mosca also has a dedicated on-site staff to support customers with comprehensive market and machine expertise. In 1997, Mosca established a team in Singapore to coordinate all sales and service operations for the Mosca Asia Group.

Mosca GmbH

Tailor-made boxes from the get-go

The Autobox, as a super all-rounder, enables to produce purpose-made packaging in any quantity at any time.

The German company Gramann Digitaldruck, located in Vechta, Lower Saxony, produces a wide range of large-format advertising and POS materials, including posters, banners, tarpaulins, signs, display stands, roll-ups, displays and much more, with production fully digitized right from the first run. At Gramann, they work with a variety of different materials, for example, twin-wall sheet, cardboard, paperboard, films and foils.
On the factory floor, Gramann is perfectly equipped for lean and efficient production on-demand, shipping, however, has always been fairly traditional. The company often needs special packaging for small runs and even for individual products. Standard boxes tend to be far too large or the wrong format. Furthermore, they do not adequately protect multi-part products such as displays and roll-ups, which Gramann also assembles in-house, from damage and slipping. Another difficulty is that major manufacturers of packaging boxes tend to set high minimum purchase quantities and have long delivery times. All this has meant that the only way Gramann could live up to its promise of responding fast and flexibly to its own customers was by stockpiling the required boxes, although storage is unproductive and space-consuming.
Faced with increasing demand for small batch sizes on the one hand and the need for more and more different shipping boxes on the other, Gramann decided to invest in a Kolbus Autobox system which is capable of processing simple corrugated cardboard sheet into a range of boxes with different formats. The Kolbus Autobox is an innovative, modular machine concept for the production of blanks for corrugated cardboard boxes. This lets Gramann produce specifically designed packaging for any of its products at short notice, in any quantity and at any time.
With the Autobox up and running, Gramann can deliver everything at short notice – from individual products optimally packaged to larger production runs. In response to booming online demand, the company also plans to offer box packaging itself as a product. In the near future, customers will be able to go to the Gramann website and freely configure and order printed shipping boxes for their own products. This webshop feature is currently being implemented.

Kolbus GmbH & Co. KG

Sustainable finishing with the **DISTORUN® cold transfer module**

Cold transfer has established itself as a key finishing process in the narrow web sector and is used extensively for decorating roll-fed labels. To optimize the usage of cold transfer products, they are often processed on multi-web equipment using transfer units suitable for this application. The DISTORUN® cold transfer module from KURZ represents a breakthrough in material saving. It enables metallized areas that are not transferred and consumed in the first finishing pass to be used in subsequent passes, which brings substantial benefits both environmentally and economically. Thanks to its ability to transfer holographic single images, the DISTORUN® module also makes a lasting impression visually. The DISTORUN® module allows printing businesses to economically and at the same time sustainably finish roll-fed labels using cold transfer. They can also expand their portfolio with holographic single image applications to set themselves apart from the competition and generate orders.
The DISTORUN® cold transfer module uses a sensor to detect areas of metallization on the carrier foil webs that were not transferred during previous passes.
The used rolls can simply be mounted, dispensed and stamped several times until an optimum usage of the metallization layer has been achieved. To process single images, the DISTORUN® module scans print marks and controls the transfer of the image onto the substrate with high registration accuracy. This technology makes striking holographic designs available for cold transfer. KURZ has developed two product lines with a special 3D effect that can be used for cold transfer thanks to DISTORUN®: TRUSTSEAL® Lens and TRUSTSEAL® SFX. While TRUSTSEAL® Lens invokes a fascinating spatial depth, TRUSTSEAL® SFX designs appear to protrude out of the surface. These stunning 3D effects turn labels into real eye-catchers and add value to the brand. The elements are also very difficult to copy. KURZ's customers are not only using the DISTORUN® module for cold transfer decoration but also for security applications, for example on labels.
The well-engineered controller of the DISTORUN® module has not required any improvements since it was launched four years ago. The engineers at KURZ have used customer feedback to fine tune the handling. The roll winding shafts have been optimized to enable the rolls to be tensioned on the winding axes more simply and reproducibly. A marking of the exact roll position on the winding axis by means of an LED beam has been installed to make roll changeovers easier. Furthermore, there is now a built-in diameter sensor to signal the need for a roll changeover. A rewinding function has also been integrated into the module, which allows, if required, adjustment of the image direction for further processing. Kurz offers comprehensive advice in the layout phase for optimal finishing results and the most efficient material usage.

The DISTORUN® module from KURZ allows holographic single images to be processed by cold transfer.

Application of a TRUSTSEAL® SFX single image using the DISTORUN® modules

LEONHARD KURZ Stiftung & Co. KG

Fully operational despite exceptional situation

Claus Bolza-Schünemann, Koenig & Bauer CEO, praised all employees who are handling this unusual situation professionally and with their customary enthusiasm and have thus avoided an interruption of the supply chain.

Koenig & Bauer has adopted extensive measures to guarantee the health and safety of the company`s employees, customers and suppliers in the exceptional situation the world is in. Koenig & Bauer Flexotecnica has been classified as system-relevant in Italy and has therefore remained fully operational. Furthermore, the German Federal Ministry of Food and Agriculture has explicitly listed "Enterprises producing packaging and packaging materials for products" as critical – and thus system-relevant – suppliers to the food industry throughout Europe. The value of packaging is thus acknowledged. Board packaging, folding cartons, plastic films, bottles, cans and the necessary labelling ensure that food and pharmaceutical products reach the end user efficiently and in hygienic condition. Koenig & Bauer takes this responsibility very seriously and is fully aware that no interruption of these supply chains can be allowed. The Koening & Bauer production, which is located exclusively in Europe, is running. The service staff are ready to provide assistance where needed, the spare parts warehouses in Europe, Asia and the USA are operating, and parts are being dispatched to customers all over the world every day.

Koenig & Bauer AG

Large-format Rapidas from Koenig & Bauer in demand the world over

Thanks to its extensive automation, the Rapida 145 is an ideal means of production for short runs.

Large-format sheetfed offset presses manufactured in Radebeul have been quite literally a model for success on the global market for more than 50 years. Rapidas for sheet formats up to 106 x 145 cm (Rapida 145) and 120.5 x 164 cm (Rapida 164) print at speeds up to 18,000 sheets per hour and hold their own in all comparisons with their widely popular B1 counterparts when it comes to automation. Packaging and commercial printers, in particular, appreciate the large-format Rapida models for their performance, production availability and long service life. At the same time, countless online providers, book and poster printers, and many other highly specialised companies swear by their modern and economical large-format technology from Koenig & Bauer.

Thanks to a broad diversity of configuration options, accessories and automation solutions, the large-format Rapidas are an efficient means of production for both established and niche markets. They can be equipped with a reel-to-sheet feeder, a double-pile delivery, intermediate drying units, additional printing units after coating and perfecting facilities, as required for the individual application. For packaging printing, they can also be placed on raised foundations and integrated into a fully automatic pile logistics system. Presses with up to 16 printing and finishing units are already in daily use.

Rapida sheetfed offset presses are especially robust and are manufactured to provide many years or even decades of reliable service. A few of them have already passed the magic figure of 1 billion printed sheets.

Koenig & Bauer AG

KBA-NotaSys becomes Koenig & Bauer Banknote Solutions

There is no evidence of coronavirus transmission via banknotes but people should wash their hands after handling money, especially if handling or eating food.

KBA-NotaSys has announced the change of its corporate name to Koenig & Bauer Banknote Solutions. Due to the COVID-19 pandemic, this has been delayed to autumn 2020. The name change will harmonize brands within the Koenig & Bauer Group and has no influence on the organization and structure of KBA-NotaSys. KBA-NotaSys was founded in 1952 as Organisation Giori, and became De La Rue Giori in 1964. Since 2001, the company has been part of the Koenig & Bauer group, and initially adopted the company name KBA-GIORI. It was rebranded as KBA-NotaSys in 2011.

According to Eric Boissonnas, CEO of KBA-NotaSys, the renaming of KBA-NotaSys to Koenig & Bauer Banknote Solutions reflects the operational and structural situation that has existed for many years, and ensures consistency across the entire group. The "Banknote Solutions" addition reflects the company's core competence: providing banknote printing technology solutions.

In relation to the actual COVID-19 pandemic, worldwide media has raised the question of potential virus transmission through different surfaces, including currency. Worldwide health experts recommend the same hand hygiene measures for handling banknotes and coins as for any other everyday item, such as door handles, shopping trolleys or payment terminals. The European Central Bank also stated that there is no evidence of coronavirus transmission via banknotes. What is paramount is to follow hygiene instructions, regardless the items one touches.

Koenig & Bauer AG

Koenig & Bauer and Actega to continue cooperation

Continuation of the annual calendar production is another objective of the further cooperation.

Koenig & Bauer and ACTEGA have been working together in the field of press consumables since November 2016. During this time, new Rapida presses accompanied by ACTEGA starter kits with coating products for inline finishing have been delivered to customers in 58 countries around the world. The users benefit from products which have been tailored to achieve the highest possible quality and performance on Rapida sheetfed offset presses. These products are used, tested and optimised on a regular basis at the Koenig & Bauer demo centre.

The two companies have now agreed to extend their successful cooperation for a further five years. ACTEGA will remain a development partner for Koenig & Bauer in the future – for example in work to optimise finishing processes in connection with LED-UV production. Coatings and further consumables from ACTEGA are in constant use in the press demo centre and are presented there within the framework of customer events. The cooperation also includes presentations at trade fairs, for example, at the next drupa.

For ten years already, the two manufacturers have been demonstrating the diversity of high-quality finishing techniques which can be realised in a modern inline process through the production of ACTEGA's annual calendar. The interesting visual, haptic and olfactory effects are created using Rapida sheetfed offset technology with corresponding coating facilities.

Koenig & Bauer AG

DKSH partners with **Koenig & Bauer Coding** in Asia Pacific

DKSH Business Unit Technology, the leading Market Expansion Services provider for technology companies seeking to grow their business in Asia, has been appointed by Koenig & Bauer Coding to bring their leading coding and marking devices to Asia Pacific. The two companies will partner in five markets, including Indonesia, Malaysia, Philippines, Singapore, and Vietnam.

Koenig & Bauer Coding stands for innovative, forward-thinking products and technologies, which are developed and manufactured according to the highest quality standards. Its coding solutions can be found in all application fields and are adopted by many global leaders in the food and beverage, consumer products, packaging, cables and pipes, automotive and electronics, pharmaceutical and cosmetics industries.

The company has been certified to DIN EN ISO 9001:2000.

Under the agreement, DKSH will provide sales, marketing and after-sales services for Koenig & Bauer Coding leading coding systems including continuous inkjet, DOD-inkjet, thermal transfer, hot foil, offline feeding systems and software.

Koenig & Bauer AG

Artificial intelligence will help improve quality and productivity

Michael Wombacher, the new Managing Director of Polar Mohr and an automation specialist: "High-volume standard production is all about high automation, and possibly also about robotics."

Since March 2020, Polar Mohr has been run by Managing Director Michael Wombacher. Wombacher, an automation specialist, is convinced that "simply putting a robot everywhere" will not be the ultimate solution, but he sees a considerable automation potential, especially in the postpress sector since, after all, automation means that the paper is processed without manual interference. On the other hand, there are still many fields for which a solution has to be found that does not yet exist today, e.g. in non-standardized production, individualized products, finishing, etc. Polar Mohr see themselves well positioned with sufficient capacity since shipments are still received from China despite the coronavirus pandemic. Of course, the postponement of drupa 2020 to April 2021 has had some serious effects on the company as on the whole industry, but Wombacher is convinced that drupa 2021 will come at just the right time after the restart of the industry.

At next year`s drupa, Polar Mohr will show a series of innovations. Wombacher promised, however, that some features will be presented in advance because they represent a clear improvement in safety and quality and thus a significant value for the customer.

POLAR MOHR Maschinenvertriebsgesellschaft GmbH & Co. KG

Configuration of **POLAR cutting systems** on-line

Polar Mohr Configurator

A new online tool enables the configuration of high-speed cutters and cutting systems in all imaginable variations. The POLAR configurator provides useful features that assist in the search for the best-suited cutting system. Another part of the configurator is the online product advisor. This tool enables to find the perfect cutting system by means of filter criteria. They are the individual components of the process steps that can optionally be used ranging from loading via jogging and cutting through to unloading. The dimensions shown on a layout drawing of the system proposed by the product assistant gives a first overview of the required floor space. A shopping cart function enables to request a quote for the configured system. The configurator is available at: www.polarmohr.com/shop/en/configurator

POLAR MOHR Maschinenvertriebsgesellschaft GmbH & Co. KG

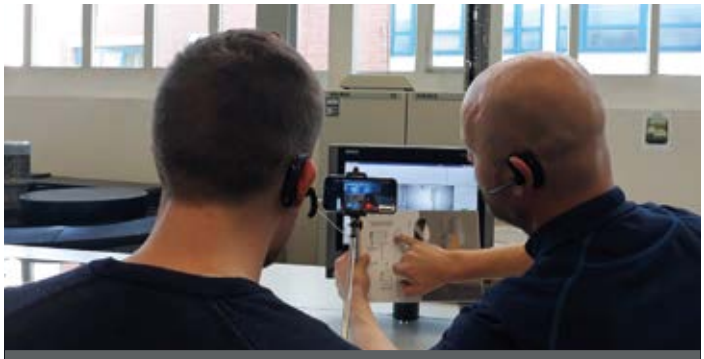
Holding together and going on – in a reliable partnership and with a crucial retrofit

A functioning partnership shows itself especially in difficult times. Under the motto "Holding together", the Planatol team are offering continued assistance in the best possible way in the difficult situation due to the coronavirus pandemic.
As one of the leading manufacturers of glues and application systems for fold-gluing, Planatol System convinces with highest quality, user-friendliness and reliability, among others with its Combijet systems. When one of the suppliers was no longer able to supply important electronic components or assemblies, Planatol immediately started looking for an adequate replacement. The systems affected were the Combijet 5 DT/ 7 COM/ 8 DT and 8 MOD order systems built between 1993 and 2008.

This resulted in Planatol Combijet Retrofit: In the event of a failure of control components or system expansions, the use of Retrofit enables the customers to continue using the existing system to its full extent. With the Planatol Combijet Retrofit, it is possible to bring defective control technology up to the latest state of the art by replacing it, and to guarantee the availability of (replacement) parts in the future. The Planatol service team is available to help with any questions on the subject of "Planatol Combijet Retrofit" and will prepare an individual offer tailored to the needs of the Combijet users.

Planatol System GmbH

Creative solution during the Coronavirus pandemic: Live demonstration via video



Lukas Budde, Product Manager Hardcover/Softcover at Muller Martini Bookbinding Systems in Rahden, and Tobias Lintelmann, instructor at the Blue Salon in Rahden and Kolbus brand ambassador, presented the benefits of the KM 610.A perfect binding line copilot to the customer.

Using Skype for Business, Muller Martini presented the benefits of its KM 610.A perfect binding line via live video to a Taiwanese customer who was unable to travel to Rahden for a machine demonstration due to the current travel restrictions. The focus was on the benefits of a complete softcover line with a KM 610.A 8,000-cycle perfect binder, a ZU 805 gathering machine, a VA 424.A endsheet feeder, an FA 650 face trim machine, an HD-HD 143 three-knife trimmer, and a CB 18 compensating stacker. During the nearly three-hour live demonstration shown in the customer's offices more than 9,000 kilometers away, four different products were produced and – using title memory storage and a measuring table – a total of three changeover processes were presented. Products 1 and 2 were perfect-bound brochures in A4 and A5 format, product 3 a perfect-bound brochure with a cover flap (front trimmed using an FA 650), product 4 a milled hardcover book block with endsheets and liner stripes.
There was no interruption in the live demonstration to avoid giving the customer the impression that something was hidden. Everything went smoothly and the customer`s response was enthusiastic.

Müller Martini AG

Muller Martini provides **service for customers in Wuhan**

The members of the management team at Hubei Xinhua Printing, one of the companies visited, were very grateful for the service provided by the Muller Martini staff (from left): Ken Dong and Li Zhihua (Muller Martini) with Yunliang Yang (General Manager of Hubei Xinhua Printing) and Jie Li (Head of the Machine Department at Hubei Xinhua Printing).

Shortly after the measures to combat the Covid pandemic were eased in Hubei, the hardest hit of China's provinces, Muller Martini began a free service program to support its customers in the region offering Chinese customers who have been most affected by the novel coronavirus a free service package for the month of April.
Immediately after the launch of the program, Muller Martini received responses from several customers in the city of Wuhan who needed help in restarting their machines following a two-month shutdown. A three-member service team from Shanghai was able to provide them with quick and seamless assistance.
Barely a week after the last restrictions were lifted, experienced staff from the sales and service management department Li Zhihua, Tony Liao and Ken Dong set out from Shanghai by car and reached customers in Wuhan following a two-day drive. When they arrived, they carried out inspections, adjusted production settings, conducted maintenance and provided training for the machine operators.

Müller Martini AG

Connect to a **Smart Factory**

With Finishing 4.0 and the Connex workflow system, Muller Martini is making smart factories a reality for customers around the world. The numerous customer projects that have been implemented demonstrate the enormous potential of a networked printer. The biggest drivers here are the new business models. The desire for personalization, the photobook boom, applications such as web-to-print and print-on-demand require networked production processes.
With the smart factory, production processes, the flow of materials and the exchange of data are optimally integrated. Unnecessary steps are eliminated, sources of errors are avoided and everything that can reasonably be automated is. There is no longer a focus on individual production islands, but rather on the optimization of entire business processes. As a result, even ultra-short runs can be produced cost-effectively. This sort of switch requires learning and new ways of thinking because it changes processes in nearly every area of the company. The most important thing is for the company to know its strengths and know how it wants to develop further.
Muller Martini supports customers with a high level of advisory expertise and sophisticated comprehensive solutions. High-precision machine design ensures seamless collaboration as does the Connex workflow system with its numerous features. In order to support customers with the complex requirements of a smart factory project, Muller Martini provides a comprehensive workflow solution with Connex ranging from digital page assembly to controlling the printing press, production tracking, automatic pre-adjustments on the basis of digital job sheets through to production control.

Müller Martini AG

Machine demonstrations go digital – Successful pilot test

At the moment, live machine demonstrations and trials at the W&H technology center in Lengerich can not take place. To ensure that W&H customers can still get an impression of a full line, W&H broadcast the first live machine demonstration. Using an interactive platform, the technical center team was able to answer questions and demonstrate machine features and handling in real time.
Under normal circumstances, machine demonstrations at the W&H technology center for flexible packaging production are run regularly so that W&H customers can see first hand the performance and quality of a machine under real production conditions. Technical center appointments are very popular and often fill up months in advance. Since the COVID-19 pandemic is preventing customers from visiting Lengerich, W&H had to find another way to give live demos.
Recently, the pilot test for real-time transmission of machine demonstrations for a customer from the U.S. was carried out. Prior to the presentation, the American package printer had, as usual, provided one of its most challenging print designs to the technical center team. The job was then tested on the MIRAFLEX II and NOVOFLEX II flexo printing presses. The machine presentation was accompanied by a small W&H camera team: A tripod camera provided full, high-resolution viewing of the presses, while video of the presenter, machine interface, features, and machine handling were filmed on tablets. Using an interactive collaboration platform allowed the technical team to react to customer requests in real time and, just as during on-site trials, demonstrate sleeve and roll changes as well as printing speeds. The pilot test was live and in colour – digitally. In the future, additional customer-specific machine demonstrations for printing, extrusion and converting will be offered digitally.

The machine presentation was accompanied by a small W&H camera team.

WINDMÖLLER & HÖLSCHER KG

Small, compact, fast – **the new MIRAFLEX II Single-Port**

The new member of the Miraflex II family: The Miraflex II Singe Port

The MIRAFLEX II product family has grown with the new compact MIRAFLEX II Single-Port. The face-to-face winder configuration of the Single-Port version measures 14 meters in length and is roughly 4 meters shorter than the Dual-Port design; in contrast to the Dual-Port, the Single-Port now features central loading and unloading for two winders. This significantly reduces the overall roll processing time and saves time because both winders can be operated simultaneously by just one operator. In addition to the operator paths, the web path of the press has also been shortened. The results are faster job changes and less waste. The MIRAFLEX II Single-Port also offers the option of quickly and conveniently integrating an inline flexo or gravure application into the press design at a later date. All in all, the MIRAFLEX II Single-Port is ideally suited for short job lengths. With its compact design it fits into almost any production environment and can be quickly and easily expanded with extra printing modules.

WINDMÖLLER & HÖLSCHER KG

Technical consulting: Temporarily using water-based inks on printing presses

W&H printing experts offer technical advice on how package printers can temporarily switch their machines designed for solvent-based inks to water-based inks. W&H printing presses can be set up for both solvent-based inks and water-based inks. For a temporary changeover between the two types of ink, mechanical parts, for example, have to be adapted. W&H printing experts now offer a free technical consultation for customers to discuss which adjustments are necessary for their specific machine.
In addition, they give general tips on the use of water-based inks and on the efficient cleaning process between the change. Switching to water-based inks could be an interesting option for many package printers given the current dwindling availability of solvents and resulting higher prices of solvent-based inks.

WINDMÖLLER & HÖLSCHER KG

PrintPromotion Partners

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Standards in offset printing – an overview and updates II

Some of the changes and new requirements in the ISO 12647-2:2013 for sheet-fed offset printing have already been explained in the previous issue of the Printers` Guide. Important aspects were the new measurement conditions M0, M1, M2 and M3 defined in ISO 13655:2017 as well as, e.g., the new characterization data FOGRA 51 and 52, including the associated profiles PSOcoated_v3.icc and PSOuncoated_v3.icc, respectively. Furthermore, the degree of brightening of the papers is of great importance especially for the standardized printing conditions.

Paper classes

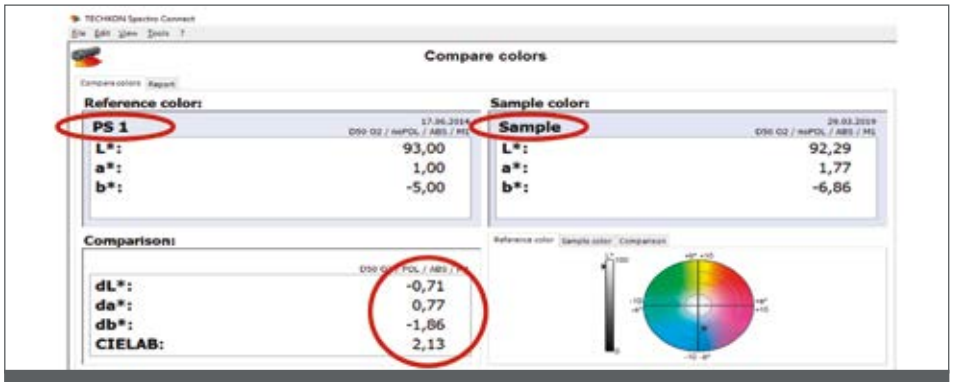
The ISO standard/PSO describes standard conditions in industrial mass production. Therefore, it is not possible to integrate all types and sorts of paper and/or to describe the corresponding printing conditions in a predictable manner. In the latest version of the ISO 12647-2, a re-classification of the paper types has been made. Now, two typical printing substrates for sheet-fed offset printing are defined. They are premium coated paper in Type 1 and uncoated yellowish paper in Type 5. In Types 2 to 4 and 6 to 8, paper commonly used in web offset printing is described. All substrates are defined together with the corresponding informative CIE-Lab* aim values. (See table)

	PS 1	PS 2	PS 3	PS 4
Surface	premium coated	improved coated	standard coated glossy	standard coated matte
Tecnology	sheet fed, web offset (heatset)	web offset (heatset)	web offset (heatset)	web offset (heatset)
Papers	wood-free coated (WFC), high weight coated (HWC), medium weight coated (MWC), glossy/semi-matte/matte	medium weight coated (MWC), light weight coated (LWC improved)	light weight coated (LWC), glossy/semi-matte	machine finished coated (MFC), light weight coated (LWC), semi-matte
Solid tint L*/a*/b* (BB) Tolerance	93 / 1 / -5 ±3 / ±2 / ±4	90 / 0 / -2 ±3 / ±2 / ±2	87 / 0 / 0 ±3 / ±2 / ±2	88 / 0 / -1 ±3 / ±2 / ±2

	PS 5	PS 6	PS 7	PS 8
Surface	wood-free uncoated	super calendered, uncoated	improved uncoated	standard uncoated
Tecnology	sheet fed, web offset heatset)	web offset (heatset)	web offset (heatset)	web offset (heatset)
Papers	wood-free uncoated (WFU)	super-calender (SC)	uncoated mechanical improved (UMI), improved newsprint (INP)	Standard newsprint (SNP)
Solid tint L*/a*/b* (BB) Tolerance	92 / 1 / -5 ±3 / ±2 / ±2	87 / 0 / 2 ±3 / ±2 / ±2	86 / -1 / 2 ±3 / ±2 / ±2	82 / 0 / 3 ±3 / ±2 / ±2

The spectral color measurement conditions are in conformance with the revised ISO 13655:2017.

For use in practice this means that the first step to standardized production is the selection of a type of paper that complies with the standard. There are several software solutions for an "Iso Check" to determine conformity with standards; alternatively it is possible to determine the CIE Lab* values by means of a commonly used spectrophotometer and to calculate the color distance according to Delta Eab.



Paperwhite check with the "SpectroConnect" software from Techkon

Printing conditions

In line with the new paper types, 18 printing conditions have been defined which now form the basis of standardized printing. A total of 16 new printing conditions are included for sheet-fed offset printing, heatset and narrow-web offset printing. In addition, two printing conditions were added for coldset web offset printing from the ISO 12647-3; one of them is, however, only informative and thus described as not conformant to the standard. The printing conditions 1 and 5 are considered to be most important for offset printing. For these printing conditions, new characterization data with the corresponding profiles were already defined in the ISO 12647-2 using measurement mode M1. Another focus of the printing conditions is on the screening settings and the technical print parameters as, e.g., the tone value increase (TVI). For printing companies that seek certification according to ISO standards or just use the values as targets, it is mandatory to adjust all their parameters to the standard printing conditions. Otherwise there is no guarantee that the defined aim values and/ or the desired quality is achieved with the profiles, the print characteristic curve or the proof target used.

Standard printing condition 1

- for all offset printing methods, excl. coldset web offset printing
- printing inks according to ISO 2846-1 (K-C-M-Y)
- paper Type 1 (premium coated, 80–250 g/m²)
- 60–80 l/cm screen (no conventional plate copying)
- characterization data: FOGRA 51 (M1)
- print characteristic curve / TVI according to ISO 12647-2:2013-A (16% mid-tone)

Standard condition 5

- for all offset printing methods, excl. coldset web offset printing
- printing inks according to ISO 2846-1 (K-C-M-Y)
- paper Type 5 (uncoated, wood-free, white, 70–250 g/m²)
- 52–70 l/cm screen (no conventional plate copying)
- characterization data: FOGRA 52 (M1)
- print characteristic curve / TVI according to ISO 12647-2:2013-C (22% mid-tone)

Digital proof

The effect that the light source used for measurement and/or the paper type has on the quality of the print product had already been described comprehensively. However, in order to adjust proof print production to the new printing parameters as well, further new criteria for standardized proof print production were defined in the ISO 12647-7:2016.

- In order to adjust the proof print substrate to the print production substrate, the chromaticity coordinates of the proof print substrate in the paper white simulation in measurement mode M1 must not be more than ΔE*00=3,0. To ensure that, the degree of brightening of the proof print substrate must comply with that of the production paper. The gloss properties were redefined as well; they must also be adjusted now.

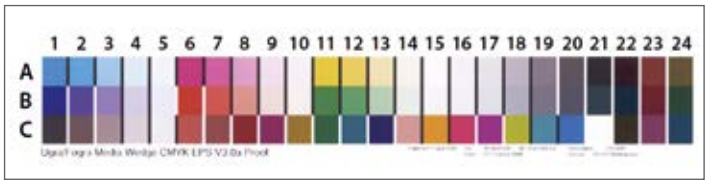
- The assessment of the color distance between the aim value and the actual value of the color in proof printing is no longer based on the Euclidian formula ΔE*76, but on the non-Euclidian formula ΔE*00. This formula is much more complex, but better adjusted to the human color perception. In the previous formula, the color distances were purely formally shown as equidistant, whereas the distances were visually not perceived as equidistant. Therefore, the new standard ISO 12647-7:2016 requires the color proof to be calculated using the formula ΔE*00 which compensates this fault. The formula name must also be precisely indicated in the measurement report and/or the test label.

- It is recommended to use measurement condition M1 in the metrological check of the proof print. In any case, the measurement condition should be suitable for the corresponding characterization data. So, if proof printing is carried out, e.g., in accordance with FOGRA 51 with the profile PSOcoated_v3, measurement mode M1 must be used. If, however, an old print sample and/or old print data or standard printing condition 8 for which there are no new characterization data available is used, then measurement mode M0 must be chosen.

- For the evaluation of the Fogra MediaWedge 3.0 CMYK, new tolerances have been defined which are approximately the same as the quality of the old tolerances.

Paper white	patch C21	ΔE*00 <= 3,0
Overall coloring, mean value	all patches	ΔE*00 <= 2,5
Overall coloring, max. value	all patches	ΔE*00 <= 5,0
Primary color solids	A1, A6, A11, A21	ΔE*00 <= 3,0
Chromaticity grey, mean value	B16 – B21	ΔCh <= 2,0
Chromaticity grey, max. value	B16 – B21	ΔCh <= 3,5

- Definitions have been included for new, more precise and partly extended mandatory details to be given on a standardized contract color proof. They are, e.g.: Information regarding the proof standard used, including year specification, file name, name of the proof printing system, name of the proof printing substrate, the concrete reference printing condition, the measurement mode used as well as the date and time of proof print production. In addition, recommendations for further details as, e.g., regarding name of the printing inks or the RIP software used have been included.



Besides the changes, which are all based on the changes of the lighting conditions, all other processes based on the now no longer prevailing film-based printing plate production were removed. This means that all printing parameters, as, e.g., the print characteristic curve, are exclusively based on digital and linearized CTP printing plates.

In addition, the ISO standards 15397 and 14861 which are also of importance in offset printing were re-edited in recent years. In ISO 15397, all properties of paper substrates which need to be communicated by the paper manufacturers for the creation of a well-functioning color management workflow between proof printing and the print run are specified now. The new requirements for color soft proofing systems are defined in ISO 14861.

Now that many new developments in prepress and job preparation have been described, new developments and their effects on the printing sector will be explained in the next Printers` Guide.

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